

## II. Non-Financial Sector

The progressive improvement in the household leverage ratio (ratio of household liabilities to assets) continues. The surge in assets has had a positive contribution to this improvement, while the increase in liabilities has been rather limited. The strong growth in FX savings deposits, driven by exchange rate developments, was instrumental in the surge in financial assets. In addition, the household debt service ratio remains flat. The share of housing loans in the financial debt composition of households has increased and the average maturity of these loans has extended in the period analyzed. These two factors have prevented the debt service ratio from taking an upturn despite the rise in interest rates. In such a period of growing uncertainties, regulations that ban households from borrowing in foreign currencies and over variable interest rates are believed to contribute to financial stability.

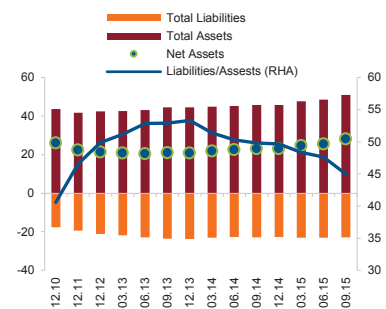
The ratio of corporate sector firms' total financial liabilities to the GDP has been in an uptrend in the recent period due to exchange rate developments. However, in exchange rate-adjusted terms, their indebtedness levels are more reasonable. This development can be attributed to the almost flat course of external financing and the recent deceleration in domestic loans. Corporate sector firms' domestic and external FX borrowings are in long term maturities and a significant portion of FX loans are obtained by a limited number of mostly large-scale firms, which stand as the factors reducing exchange rate-based risks. The net FX short position of the corporate sector did not change significantly in this period and, albeit at a moderate level, its short-term net FX position is in surplus, considered as favorable developments.

### II.1. Household Developments

**The ratio of household financial liabilities to household assets declined to 45 percent as of September 2015, due to the comparatively more rapid growth of assets.** Savings deposits, which make approximately three fourths of household financial assets, have been the most significant factor in the growth of household assets. In addition, there have not been any exchange rate-associated increases on the liabilities side since

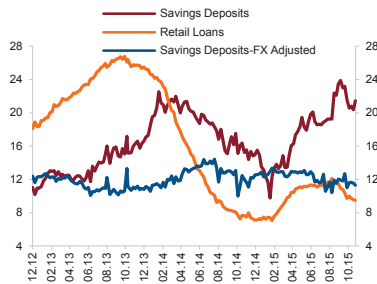
Chart II.1.1

Household Assets and Liabilities  
(Percent of GDP)



Source: CBRT, CMB, MKK, FMC, TOKI

**Chart II.1.2**  
Growth in Household Loans<sup>1</sup> and Deposits  
(Annual Percentage Change)



(1) Loans extended by domestic banks. Credit cards included.  
Source: CBRT, BRSA (Latest Data: 30.10.15)

households do not have FX liabilities. The retail loan growth has remained considerably below the growth in savings deposits. In exchange rate-adjusted terms, the growth in savings deposits has been close to retail loan growth in the recent period and households are not excessively inclined to borrow (Chart II.1.1 and II.1.2).

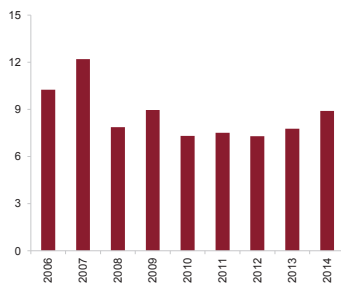
**Table II.1.1**  
Household Financial Assets

	03.15		09.15	
	Billion TL	Share	Billion TL	Share
<b>Total Assets</b>	<b>849.5</b>	<b>100</b>	<b>956.7</b>	<b>100</b>
<b>TL Savings Deposits</b>	402.2	47.3	425.3	44.5
<b>FX Savings Deposits</b>	217.6	25.6	275.0	28.7
- (Billion USD)	83.3		91.5	
<b>Precious Metal Deposits</b>	10.8	1.3	10.2	1.1
- (Billion USD)	4.1		3.4	
<b>Bonds and Bills</b>	19.7	2.3	19.7	2.1
- Public Sector	5.9	0.7	6.2	0.7
- Private Sector	13.8	1.6	13.5	1.4
<b>Mutual Funds</b>	72.3	8.5	78.1	8.2
Pension Mutual Funds	39.8	4.7	44.2	4.6
Other Mutual Funds	32.5	3.8	33.9	3.5
<b>Equity Securities</b>	43.5	5.1	41.5	4.3
<b>Repo</b>	0.6	0.1	0.5	0.1
<b>Currency in Circulation</b>	82.9	9.8	106.2	11.1

Source: CBRT, PMC, MKK, CMB

FX savings deposits have increased in exchange rate-adjusted terms as well, whereas TL savings deposits, whose share in household financial assets dropped slightly, has remained as the main investment instrument of real persons. The share of savings deposits in household financial assets continued to grow due to the rise in FX savings deposits in the face of the weak trend of TL savings deposits. On the other hand, the share of precious metal deposit accounts in household assets decreased as real person depositors showed less interest in these accounts than they used to do in the past. In fact, resident real persons' precious metal deposit accounts declined from 85 tons to 74 tons in the last six-month period. Moreover, the depreciation in the value of bond and equity securities of households, triggered by the decline in prices of these assets, supported the increase in the share of deposits in asset composition (Table II.1.1).

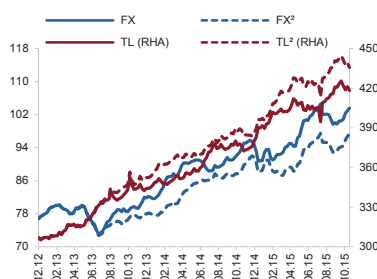
**Chart II.1.3**  
Household Savings Rates<sup>1</sup>  
(Percent)



(1) Household savings to disposable income ratio. Savings are calculated by subtracting consumption from disposable income data taken from Turkstat Household Budget Survey.  
Source: TURKSTAT

**The improvement in the ratio of household financial liabilities to household financial assets was also reflected in the savings rate.** The household savings rate calculated based on the Household Budget Survey of the Turkish Statistical Institute (TURKSTAT) declined slightly in 2012 but then assumed an uptrend due to the boost in assets triggered by the favorable contribution of the private pension system and the rise in deposits, as well as the moderate course of liabilities (Chart II.1.3).

**Chart II.1.4**  
Deposits of Resident Real Persons<sup>1</sup>  
(Billion USD, Billion TL)



(1) FX savings deposits have been adjusted for the EUR/USD parity effect.  
(2) Excluding currency swap transactions.  
Source: CBRT, BRSA (Latest Data: 23.10.15)

**The growth in savings deposits, which was mostly FX-based in the first half of 2015, was TL-based in the third quarter.** Exchange rate developments in the first half of 2015 inclined resident real persons to FX deposits. However, real persons shifted from FX deposits to TL deposits in the third quarter of the year, which has been instrumental in rebalancing the foreign currency demand from firms. Currency swap transactions, which have been effective in the shift between TL and FX deposits observed from time to time since the second half of

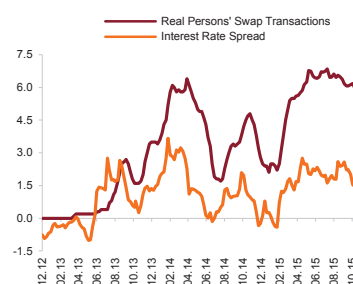
2013, maintain their importance in terms of volume but their impact on the course of TL-FX savings deposits is relatively limited (Chart II.1.4).

Banks' currency swap transactions with resident real persons decreased modestly compared to the second quarter of 2015. The interest rate advantage provided by these transactions that real persons prefer as a substitute for TL deposits has followed a mostly fluctuating but a flat course for the last six months. Currency swap transactions have lost their power due to interest rate developments, and their effect on TL-FX savings deposits has also weakened (Chart II.1.5).

The shift to TL continues in small-medium sized deposits that are relatively less volatile. A significant portion of the increase in FX savings deposits seen in the last six-month period has stemmed from large-sized deposits that are relatively more volatile and more susceptible to interest rate differences. FX savings deposits between the 0-50 thousand TL range fell and had a downward effect on FX deposits. On the other hand, the surge in TL savings deposits has not originated from a certain amount bracket but from all brackets. Small-amount deposits, which are accepted as more stable, have contributed significantly to the growth in TL savings deposits (Chart II.1.6).

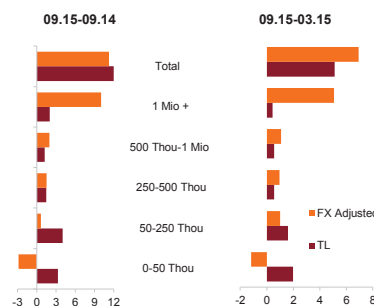
**The amount of private pension funds that have an important contribution to household savings rates continued to increase compared to the previous Report period but their share in household assets have not displayed a significant change.** The private pension system started following a more rapid growth path with the introduction of the state subsidy implementation in 2013 to promote long-term domestic savings, and the number of participants in the system has increased substantially. As of 30 October 2015, the number of participants registered in the system reached 5.8 million people. The amount of contribution per participant also continued to rise in the first ten months of 2015 (Chart II.1.7). Despite the rapid growth in recent years, the share of pension funds in the GDP has remained moderate. Considering that 27.3 million people are formally employed in Turkey, the private pension system has a significant growth potential.

**Chart II.1.5**  
Resident Real Persons' FX Borrowing Currency Swap Transactions and the Interest Spread<sup>1,2</sup>  
(Billion Basket, Percentage Point)



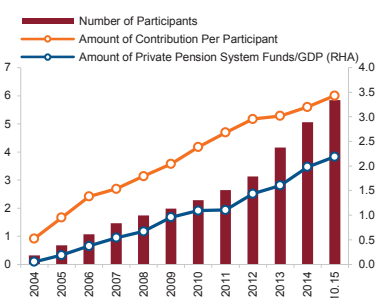
(1) Interest Rate Spread = FX Deposit Rate for 3-month - TL Deposit Rate for 3-month + Currency Swap Rate for 3-month (2) (0.65+0.46) currency basket has been used. Source: CBRT, BRSA, Bloomberg (Latest Data: 30.10.15)

**Chart II.1.6**  
Contribution of Resident Real Persons' Deposit Amounts to Growth by Periods (Percentage Point)



(1) FX savings deposit has been adjusted for exchange rate effect with the (0.65+0.46) currency basket. (2) Precious metal deposit accounts have been included in FX deposits. Source: CBRT

**Chart II.1.7**  
Amount of Private Pension System Funds<sup>1</sup>, Amount of Contribution Per Participant and the Number of Participants in the System (Percent, Thousand TL, Million People)



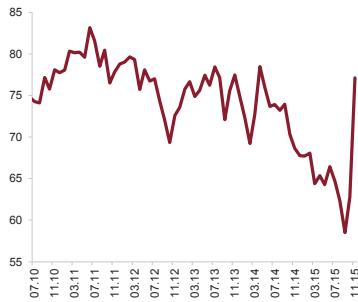
(1) GDP projection is used for the latest data. Source: PMC (Latest Data: 30.10.2015)

**Table II.1.2**  
Household Financial Liabilities<sup>1</sup>

	03.15		09.15	
	Billion TL	Share	Billion TL	Share
<b>Total</b> (Based on Type)	<b>410.8</b>	<b>100</b>	<b>430.2</b>	<b>100</b>
Housing	145.1	35.3	154.8	36.0
Vehicle	15.0	3.6	15.1	3.5
General-Purpose	160.6	39.1	164.6	38.3
Individual Credit Cards	78.9	19.2	83.9	19.5
Asset Management Comp <sup>1</sup> Receivables (Based on Counterparty)	11.2	2.7	11.8	2.7
<b>Total</b>	<b>410.8</b>	<b>100</b>	<b>430.2</b>	<b>100</b>
Banks	378.3	92.1	396.9	92.3
Financing Companies	9.2	2.2	9.5	2.2
TOKI	12.1	2.9	12.0	2.8
Asset Management Companies	11.2	2.7	11.8	2.7

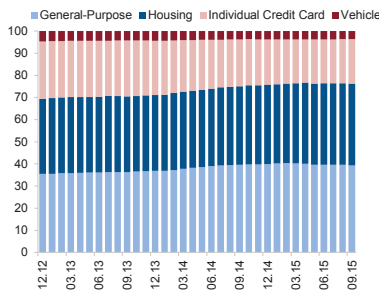
<sup>1</sup> Housing loans include TOKI's receivables against house sales with installments. TOKI data is as of April 2015. Source: CBRT, TOKI

**Chart II.1.8**  
Consumer Confidence Index<sup>1)</sup>



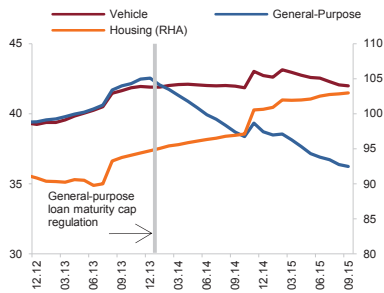
(1) Consumer confidence index takes values between 0 and 200. Values above 100 show optimistic case and values below 100 show pessimistic case. Source: CBRT, TURKSTAT

**Chart II.1.9**  
Household Liabilities  
(Percentage Share)



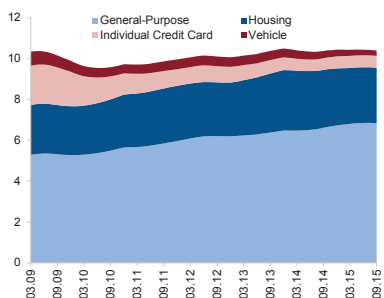
Source: CBRT

**Chart II.1.10**  
Average Retail Loan Maturity  
(Month)



Source: CBRT

**Chart II.1.11**  
Share of Retail Loan Annuity in Disposable Income  
(Percent)



Source: CBRT, TURKSTAT

The shares of housing loans and individual credit cards in household liabilities escalated, whereas, despite the increases in balance, the shares of general-purpose loans and vehicle loans decreased. Meanwhile, the share of asset management companies' receivables remained unchanged (Table II.1.2). The growth in individual credit cards and general-purpose loans decelerated to more reasonable levels, which led to a comparably more moderate rise in household indebtedness. Bank loans tendency surveys reveal that the decline in general-purpose loans was triggered by the fall in demand and the measured tightening in loan standards. In addition, the maturity cap regulation in consumer loans is also believed to have restrained the growth in these loans. As a matter of fact, the average maturity of general-purpose loans has declined from 39 months to 36 months in the last one-year period.

Consumer confidence, which is one of the most important factors shaping consumer behavior, has a determining impact on household borrowing tendency as well. Retail loans decline in periods in which the consumer confidence index weakens and they rebound when the consumer confidence increases. The decrease in the consumer confidence index seen until September 2015 is one of the main reasons for weakened retail loans. However, the index started moving in a positive direction in November due to reduced uncertainties in domestic markets, which is expected to have a favorable impact on the demand for retail loans (Chart II.1.8).

A breakdown of household liabilities by types shows that the share of housing loans has increased while that of credit cards has dropped following the introduction of macroprudential measures. Meanwhile, the share of general-purpose loans surged after the regulation put into effect at the end of 2013, but assumed a downtrend as of the second quarter of 2015 in which uncertainties started increasing. The household financial debt composition has remained the same in recent months (Chart II.1.9).

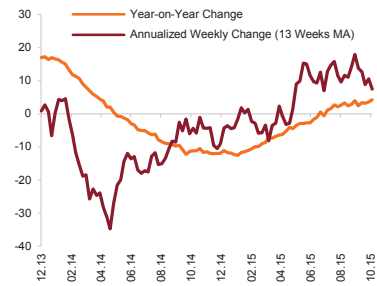
In addition to the fact that the share of housing loans has increased in household total liabilities, the average maturity of housing loans has surged as well. On the other hand, following the maturity cap regulation, the maturity of general-purpose loans has declined to 36 months which is the maximum maturity limit brought by the regulation (Chart II.1.10).

**Retail loan solvency, which is important in terms of identifying household financial risks, has not changed significantly since 2014.** An analysis of the ratios of retail loan payments with installments to disposable income by loan types highlights that there has been an increase in the share of general-purpose loan payments with installments. This development was driven by shortened maturities and the increased share of general-purpose loans in retail loans during the period up to the second quarter of 2015. On the other hand, the ratio of housing loan and credit card annual payments to disposable income has dropped since the start of 2014 (Chart II.1.11). The extension in the maturities of housing loans has helped to restrain the debt burden on individuals despite the rise in housing loans.

Balances on individual credit cards, which have become an important component of household indebtedness in addition to being a widely used payment instrument, have decreased to a new balance level after the regulation limiting the installments on credit cards. The credit card growth rates decelerated rapidly with the introduction of this regulation in February 2014 but gradually recovered in the following periods. Accordingly, growth in credit card balances and spending assumed an uptrend (Chart II.1.12 and II.1.13). With the Regulation Amending the Regulation on Debit Cards and Credit Cards published by the BRSA on 25 November 2015, the number of installments for credit card spending on white goods, furniture and education expenses has been raised to twelve months. This amendment is also expected to lead to a further acceleration in credit card growth rates in the upcoming period.

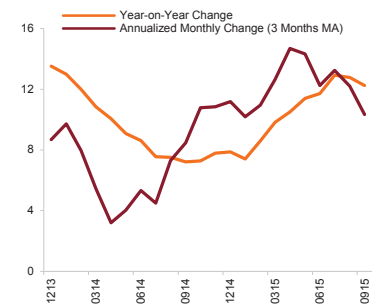
The rise in credit card cash withdrawals observed since early 2014 continues, albeit at a slower pace in the recent period. The share of interest-bearing debts in credit card debts has been on a flat track for the last 1-year period (Chart II.1.14).

**Chart II.1.12**  
Individual Credit Card Balance  
(Percent)



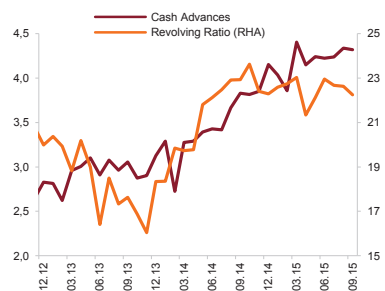
Source: CBRT (Latest Data: 30.10.15)

**Chart II.1.13**  
Individual Credit Card Expenditures  
(12 Months Accumulated, Percent)



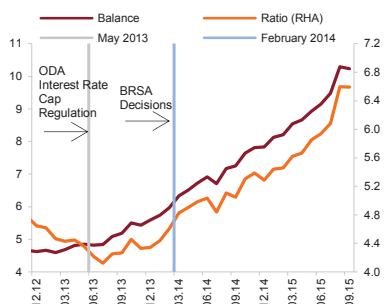
Source: BKM

**Chart II.1.14**  
Credit Card Cash Advances and Revolving Ratio  
(Flow Data, Billion TL, Percent)



Source: CBRT, BKM

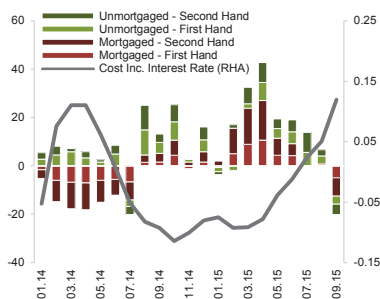
**Chart II.1.15**  
Real Persons Overdraft Account Balance and its Share in General Purpose Loans<sup>1)</sup> (Billion TL, Percent)



[1] Before 2015, other consumer loans are also included.  
Source: CBRT

The growth in real persons' overdraft account balances gained momentum in the first eight-month period in 2015 but remained flat in September. General-purpose loan growth has lost pace, whereas the uptrend in real persons' overdraft account balances continues. The recent increase in the share of overdraft account balances in general-purpose loans is particularly noteworthy. Overdraft accounts have become prominent following the regulation on installments in spending with credit cards (Chart II.1.15). However, the share of overdraft account balances in household indebtedness is still low.

**Chart II.1.16**  
Contribution to Housing Sales Growth and Housing Loan Monthly Interest Rate (Percent, 1 percentage point +)

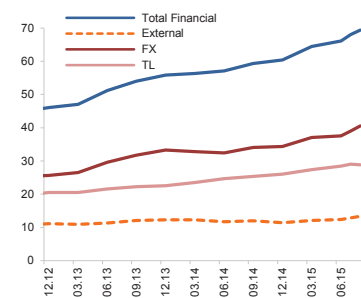


Source: CBRT, TURKSTAT

Housing loans, which have the second largest share in household indebtedness after general-purpose loans, have recorded a relatively stronger growth throughout 2015. House sales increased significantly in the first half of the year and the share of mortgaged sales in overall house sales also swelled. The gradual hike in other costs included housing loan interest rates seen since the second quarter of the year has weakened the contribution of mortgaged house sales to the growth in house sales (Chart II.1.16). As the other costs included monthly interest rate for housing loans exceeded the market players' "psychological threshold" of 1 percent as of July, the contribution of mortgaged house sales to growth dropped rapidly and turned negative as of September. Although there has not been a fall in interest rates in the recent period, house sales are expected to be on a more stable path due to the easing of uncertainties.

## II.2. Corporate Sector

**Chart II.2.1**  
Financial Liabilities of the Corporate Sector<sup>1</sup>  
(Percent of GDP)



(1) Composed of loan liabilities and issues. External liabilities exclude data from foreign branches and affiliates of resident banks. External TL liabilities are included in total FX liabilities.  
Source: CBRT, TURKSTAT (Latest Data: 08.15)

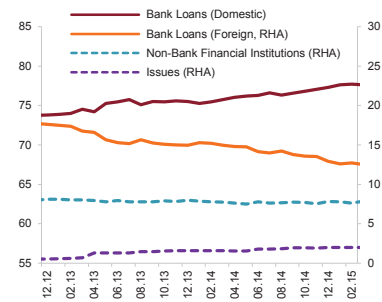
The surge in the ratio of corporate sector's total financial liabilities to GDP has accelerated in 2015 mainly as a result of exchange rate developments. The ratio of the corporate sector's FX liabilities, which are predominantly composed of liabilities to domestic banks, to GDP is in an uptrend. On the other hand, there has been a rather limited rise in the liabilities of the corporate sector in US dollar terms. The ratio of external FX liabilities to GDP has edged up moderately despite the increase in exchange rates, whereas the ratio of TL-denominated corporate loans has decelerated in the recent period although it has displayed an uptrend in general (Chart II.2.1).

**The determining role of domestic bank loans in the corporate sector's financing continues to prevail.** Corporate sector firms meet their financing need mainly from domestic banks; the share of borrowing through securities issues in their overall borrowings is at a very moderate level. Approximately one third of corporate sector's securities issues is domestic issues with an average maturity of longer than two years, while the average maturity of their securities issues abroad is longer than seven years. The small share of corporate firms' securities issues in the financing structure and their longer-maturity structure are believed to be favorable factors in terms of systemic risk. The share of commercial loans extended to the corporate sector by non-bank financial institutions (NBFI) which is predominantly domestic remains flat (Chart II.2.2).

**The net FX position of corporate sector firms that borrow mainly in FX, which is calculated based on macro data, also remains unchanged.** As of August 2015, the net FX short position of the corporate sector was USD 176 billion and its short-term FX long position stood at USD 6 billion. Compared to the first quarter of 2015, there has been an increase in firms' FX financial assets which is mainly driven by deposits at domestic banks and direct capital investments abroad. On the other hand, there has been a limited growth in the net FX short position due to the surge in FX financial liabilities mainly stemming from long-term domestic bank loans, external FX loans and import payables (Chart II.2.3). The high FX short position, when assessed in light of exchange rate developments, poses a risk for the corporate sector. However, the surplus in the short-term FX position stands as a risk-alleviating factor. Despite the negative effect of exchange rate hikes on the corporate sector's fiscal rates through the channel of the balance sheet effect, the fact that the sector does not have a short-term FX short position boosts resilience to liquidity shocks in terms of debt service.

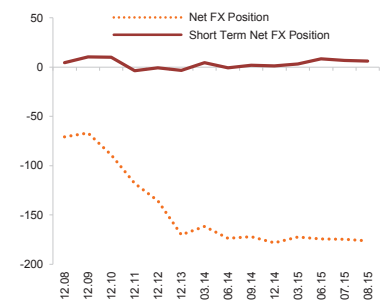
**As seen in the sample of corporate sector firms listed on Borsa Istanbul (BIST), it is believed that a high ratio of firms' equity to total assets is adequate to cover the exchange rate-associated balance sheet effects.** The FX liabilities to total assets ratio of BIST-listed firms that were included in the analysis stood at 29.7 percent as of September 2015. The fact that the ratio of

**Chart II.2.2**  
Structure of Corporate Sector Financing Sources<sup>1</sup>  
(Percentage Share)



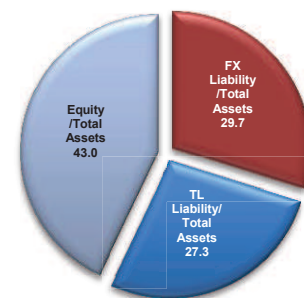
(1) Foreign branches of domestic banks have been included under foreign bank data. Source: CBRT, BRSA (Latest Data: 08.15)

**Chart II.2.3**  
Net Foreign Exchange Position of Corporate Sector  
(Billion USD)



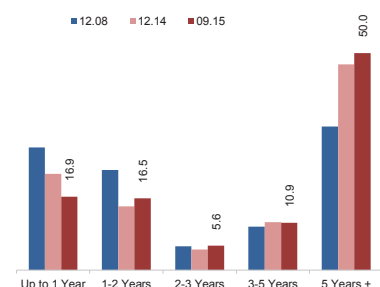
Source: CBRT

**Chart II.2.4**  
Indebtedness and Leverage Ratios of Companies listed on BIST<sup>1</sup>  
(Percentage Share)



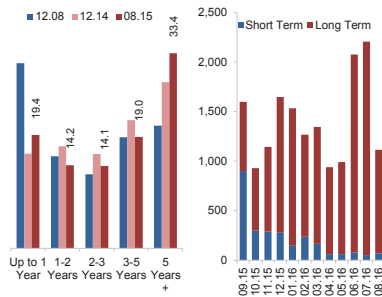
(1) As of September 2015, including data of 279 companies listed on BIST. Source: Public Disclosure Platform

**Chart II.2.5**  
Maturity Distribution of Domestic FX Corporate Loans<sup>1</sup>  
(According to Original Maturity, Percent)



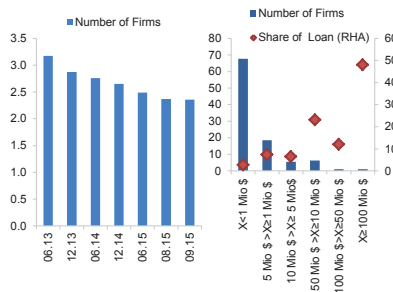
(1) Maturity distribution of loans which comprises 1 percent of FX loans and less than reporting limit is not available, thus those loans are excluded in this analysis. Source: CBRT

**Chart II.2.6**  
Breakdown of Corporate Sector's External Financial Liabilities by Maturities and External Loans Due Within One Year (Percentage Share, Million USD)



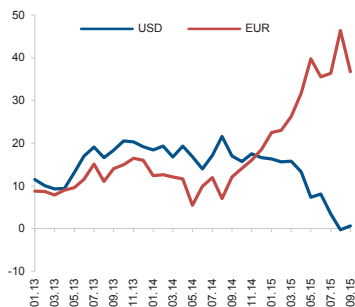
Source: CBRT

**Chart II.2.7**  
Corporates Which Use Domestic FX Loan<sup>1</sup> (Percentage Share)



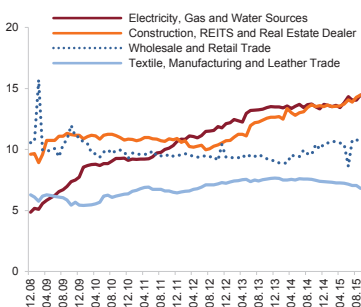
(1) While the chart on the left shows the share of corporate sector firms using FX loans in total of corporate loan usage that on the right shows according to segments of amount, the share of corporate sector firms using FX loans in terms of number of firms and amount of loan.  
Source: CBRT

**Chart II.2.8**  
US Dollar and Euro Denominated Corporate Loan Growths<sup>1</sup> (Annual Percentage Change)



(1) Excluding FX-indexed loans and participation banks  
Source: CBRT

**Chart II.2.9**  
Sectoral Breakdown of Domestic FX Corporate Loans (Percentage Share)



Source: CBRT (Latest data: 09.15)

BIST-listed corporate sector firms' equity to their total assets is 43 percent is a significant indicator of resilience to balance sheet effects (Chart II.2.4).

**Both domestic and external FX liabilities of corporate sector firms are predominantly of a long-term nature.** The extension in the maturity of firms' domestic FX liabilities continued in 2015 and half of these liabilities have a maturity of longer than 5 years. In 2015, the share of the corporate sector's domestic FX bank loans with less than 1 year maturity fell, whereas especially the share of FX loans with a maturity of longer than 5 years increased (Chart II.2.5). External financial liabilities are also mostly of a long-term nature. The share of short-term sources has recorded a limited amount of increase compared to end-2014 due to the shift from liabilities with 1-to-2 year maturity to liabilities with up-to-1-year maturity in external financing (Chart II.2.6). However, the corporate sector financing maintains its mainly long-term structure, which strengthens the sector's hand in its debt repayments to be made within one year.

The share of the number of firms receiving FX loans from domestic banks in the total number of firms receiving loans is limited. The FX loan volume is intensely composed of high-amount loans. The amount of FX loans obtained by the majority (approximately 70 percent) of the aforementioned firms is USD 1 million or less (Chart II.2.7). There is a similar distribution of loans in the analysis made in Box II.2.2: Shift from FX to TL in Corporate Loans, which uses Banks Association of Turkey (BAT) Risk Center data and also includes firms' external loans. In this scope, it is important in terms of systemic risk that large firms perform an effective currency risk management.

**In the FX loan composition of the corporate sector firms, the recent interest in euro loans continues.** The euro-denominated loan growth remains robust, whereas the USD-denominated loan utilization has decelerated (Chart II.2.8). This development has been triggered by the improvement in euro financing costs due to the divergence between USD libor and euribor rates and the parity-related expectations. The change in firms' FX loan composition in favor of euro loans may have a positive impact on firms' financing costs.



The distribution of the sectors that build a significant portion of FX corporate loans extended by domestic banks has remained largely the same (Chart II.2.9). This fact indicates that banks have not differentiated their risk perceptions as a consequence of exchange rate movements for the sectors that work predominantly based on FX financing.

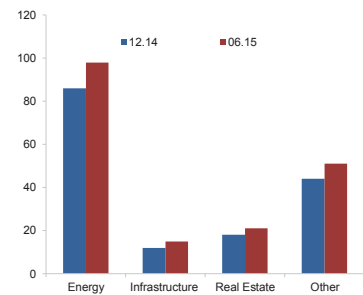
A considerable amount of domestic FX corporate loans is used to finance projects. In this respect, loans used by the energy sector to finance privatization and renewable energy projects have a leading share (Chart II.2.10).

A breakdown of the corporate sector's external funding by sectors reveals that there has been an important increase especially in the share of financing used by the "Construction" sector compared to end-2014. On the other hand, in the third quarter of 2015, there were significant declines in the shares of "Manufacturing" and "Wholesale and Retail Trade" sectors' external liabilities (Chart II.2.11). As of August 2015, more than half of the corporate sector's long-term external liabilities were in variable interest rates and the use of variable-rate liabilities are getting more common in sectors in which the average maturity of long-term external borrowing is higher.

**There is an uptrend in the share of large-scale firms in TL corporate loans (Chart II.2.1) whose ratio to GDP is generally increasing.** There is a significant deceleration in the share of TL loans used particularly by micro-scale enterprises which are believed to have limited access to financing sources (Chart II.2.12). This development is coherent with the argument in the Bank Loans Tendency Survey for the third quarter of 2015, which suggests that the tightening in bank loan standards have affected small and medium-sized enterprises more.

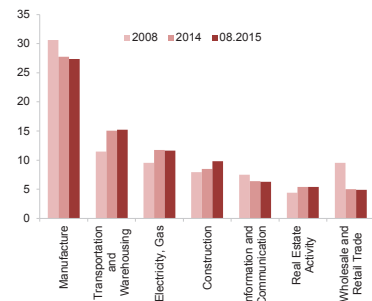
**There is a decrease in the share of TL loans with a maturity of less than 1 year in overall TL loans, nearly half of which is used by large-scale firms.** The share of TL loans with a maturity of 1-to-2 years has surged whereas that ratio of TL loans with a maturity of less than 1 year decreased (Chart II.2.13). The deceleration in the share of short-term loans was also reflected in the decline in the share of bank overdrafts used for short-term financing in TL corporate loans. On the other hand, the share of variable-rate

**Chart II.2.10**  
Project Finance Loans<sup>1</sup>  
(Billion TL)



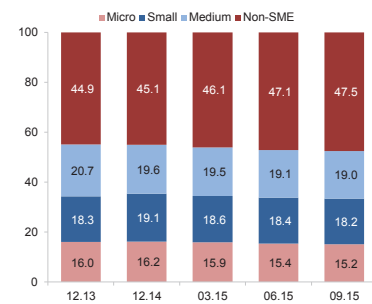
(1) Include data for 21 banks and both cash and non-cash loans  
Source: BAT

**Chart II.2.11**  
Sectoral Breakdown of External Liabilities of Corporates<sup>1</sup>  
(Percentage Share)



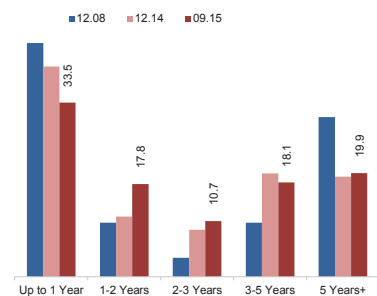
(1) Includes sectors which comprise 80 percent of corporate sector external liabilities as of August 2015  
Source: CBRT

**Chart II.2.12**  
TL Domestic Corporate Loan Composition by Size  
(Percentage Share)



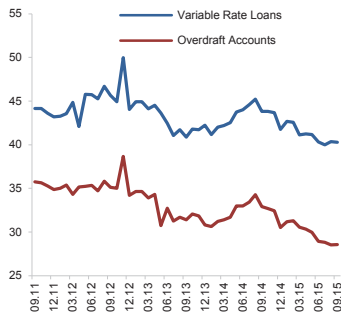
Source: CBRT, BRSA

**Chart II.2.13**  
Maturity Breakdown of Corporate Sector TL Loans Extended By Domestic Banks  
(According to Original Maturity, Percent)



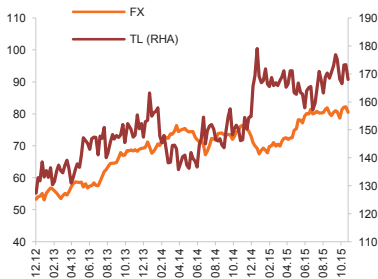
Source: CBRT

**Chart II.2.14**  
TL Corporate Loans Extended By Domestic Banks  
(Share in TL Loans)



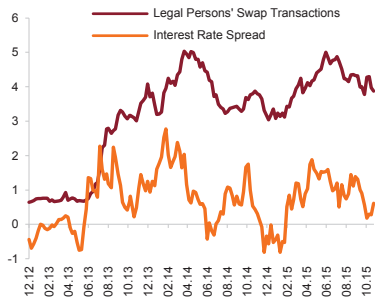
Source: CBRT

**Chart II.2.15**  
TL - FX Commercial Deposits  
(Billion TL, Billion USD)



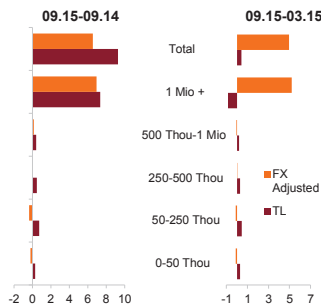
Source: BRSA (Latest Data: 30.10.15)

**Chart II.2.16**  
Resident Legal Persons' FX Borrowing Currency Swap Transactions and the Interest Spread<sup>1,2</sup>  
(Billion Basket, Percentage Points)



(1) Interest Rate Spread = FX Deposit Rate for 3-month - TL Deposit Rate For 3-month + Currency Swap Rate for 3-month (2) (0.65+0.46) currency basket has been used.  
Source: BRSA, Bloomberg (Latest Data: 30.10.15)

**Chart II.2.17**  
Contribution of Resident Legal Persons' Deposit Amounts to Growth by Periods<sup>1,2</sup> (Percentage Points)



(1) FX commercial deposit has been adjusted for exchange rate effect with the (0.65+0.46) currency basket.  
(2) Precious metal deposit accounts have been included in FX deposits.  
Source: CBRT

loans has dropped in general throughout 2015, which shows that firms have had a motivation to reduce their funding costs in the recent period in which uncertainties and financing costs have increased (Chart II.2.14).

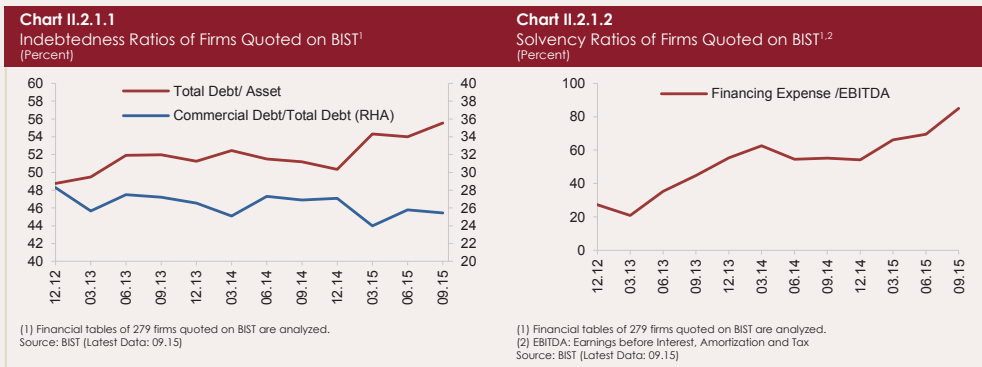
**As for the corporate sector's assets, there has not been a significant movement in the annual growth of commercial deposits in the last six-month period.** Commercial deposits, whose annual growth gradually climbed to 17 percent in 2015, have displayed a weak TL and FX-based trend in the recent months. Legal person depositors' FX preferences, which had strengthened due to increased exchange rate volatility, eased in the second half of the year. This easing has translated into a rise in TL commercial deposits. However, there has not been a marked improvement in TL commercial deposits despite this rise. In fact, the amount of TL commercial deposits remains close to its end-2014 levels. On the other hand, the FX commercial deposits have been on a flat track in recent months, leading to a deceleration in the annual growth of FX commercial loans. The currency swap transactions of banks with resident legal persons, which had played an important role in depositors' preferences for TL or FX deposits in the first half of the year, lost pace after June 2015 due to interest rate developments. Currency swap and TL-FX commercial deposit interest rates suggest that the interest rate advantage of these transactions is not currently at its previous levels. The decline in these transactions, which are recorded in the balance sheet as an increase in FX commercial deposits, is believed to be instrumental in the surge in TL commercial deposits seen in the second half of the year (Chart II.2.15 and II.2.16).

**Legal persons have preferred FX deposits compared to the first quarter of 2015.** However, FX preference has not applied to all amount brackets. Almost all the increase in FX commercial deposits has resulted from deposits of an amount of 1 million TL and more, whereas there has been a preference for TL deposits in other amount brackets. Legal persons' preferences for TL and FX deposits have been more balanced compared to the previous year (Chart II.2.17).

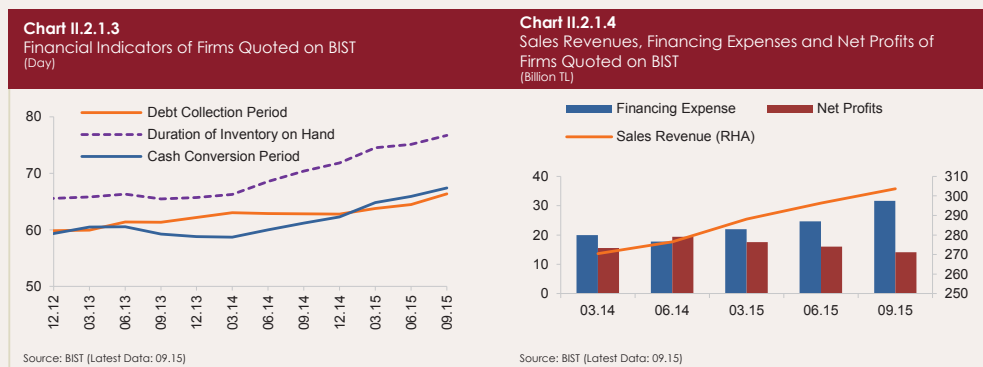
Box  
II.2.1

Financial Analysis of Corporate Sector Firms Listed on the BIST

This box presents an analysis of financial statements of corporate sector firms listed on the BIST that make up 21 percent of GDP in terms of asset size. In the third quarter of 2015, profitability indicators and liquidity ratios of firms listed on the BIST decreased, whereas their leverage ratios increased. In this period, firms' net working capital needs and the capacity of cash/cash equivalent assets to cover short-term liabilities weakened. In addition, the ratio of financing expenses to the operating profit rose due to the surge in financing costs driven by exchange rate developments. The indebtedness ratios of firms listed on the BIST that are subject to this analysis also escalated. The ratio of total liabilities to total assets has climbed in the recent period, whereas the share of commercial loans in total liabilities is lower compared to end-2014 (Chart II.2.1.1). This development suggests that financial liabilities have had an increased weight in the rise in the leverage ratio. On the other hand, there has been a significant surge in the ratio of firms' financing expenses to profitability in the third quarter of the year as a balance sheet effect of exchange rate hikes (Chart II.2.1.2).



The activity ratios of firms listed on the BIST show that the cash conversion cycles in the sector have extended as a result of economic developments. In the third quarter of the year, durations for debt collection in corporate firms have also extended. The significant upswings in the amount of time needed to collect receivables and the amount of time needed to sell inventory observed in the last two-quarter period have been effective in the extension in cash conversion cycles (Chart II.2.1.3). Consequently, working capital needs of these firms also increased in this period. Firms' return on assets and return on equity weakened due to the decline in their net profits. Despite the growth in sales revenues, financing expenses increased due to the rise in financing costs (Chart II.2.1.4).



Box  
II.2.2

## Transition from FX to TL in Corporate Loans

There has been a significant divergence between the growth rates of TL corporate loans and FX corporate loans since early 2015. TL loans have grown at a much faster rate than the nominal GDP growth rate by approximately 25 percent, whereas FX loans have lost pace significantly (by approximately 10 percent). This currency-based divergence in loans above-the-normal growth rates in TL loans remains a question. One of the hypotheses that can explain this question is that firms may have substituted their FX loans with TL loans due to increased volatility in exchange rates.<sup>1</sup>

The objective of this study is to check the validity of the above hypothesis by using Credit Bureau of Turkey data. In this framework, data for all loans that firms have obtained from Turkish banks or through the intermediation of Turkish banks have been included in the study and annual loan growth rates of firms that were active in 2014 and 2015 and received loans in both years have been analyzed. The study covers a total of approximately 1,500,000 firms; 1,250,000 of which are individual firms (Sole proprietorships).

Firms have been sorted according to the share of TL loan amounts in their total loan portfolios in November 2013 and November 2014.<sup>2</sup> To avoid changes within groups over time that may be triggered by potential factors such as entry or exit of firms (e.g. extensive margin) and enlargement or downsizing of firms due to their own internal dynamics (e.g. intensive margin), the same firms have been included in the study for both periods.<sup>3</sup> Accordingly, firms which cannot be observed in both periods or have moved from one group to another have been excluded. The first group in the analysis covers firms whose TL / (FX+TL) loan ratio is zero and the last group covers firms in which the same ratio is 1. Remaining groups in between have been established in four 25-percent brackets based on their TL / (FX+TL) loan ratios. Thus, a total of 6 groups have been analyzed.<sup>4</sup> For each group, year-on-year growth rates and in-group shares of FX and TL loan amounts have been analyzed for the first six months of 2015.

Table II.2.2.1 shows information about the groups. As of November 2013 and 2014, there were 4,348 firms in the first group which covers firms using only FX loans and loans of these firms accounted for 35 percent of total FX loans in all groups as of November 2014. There were 6,558 firms in the second group in which the TL/(FX+TL) loan ratio is lower than 0.25 and these firms' total TL and FX loans comprise 3.4 percent and 57.6 percent of the total of all groups, respectively. These two groups build 92 percent of FX loans in the analysis. The following three groups have a very small share of both TL and FX loans in the total. The last group is the largest group with slightly less than 1.5 million firms that use only TL loans. Loans of these firms compose 80.3 percent of total TL loans and 37.7 percent of all loans in the analysis. In total, 1,506,000 firms included in the entire analysis accounted for approximately 80 percent of the total volume of firm loans in Turkey as of November 2014. In this respect, the sample used in this analysis covers a very large proportion of the population.

<sup>1</sup> It is assumed that there were no changes in banks' loan supply behaviors on the currency basis in the period analyzed (first six months of 2014 and 2015).

<sup>2</sup> To avoid the endogeneity problem that may arise after the sorting, firms have been grouped according to different reference months outside the period used in the analysis. The reason for using the 11<sup>th</sup> month of the year instead of the 12<sup>th</sup> month is to avoid fluctuations in loan data that may stem from end-year balance sheet adjustments.

<sup>3</sup> Heterogeneity among firms has been controlled to a great extent with a comparison based on grouping of similar firms together. For instance, companies with a high level of FX debt are generally export companies having FX income.

<sup>4</sup> FX loan data in the study have been adjusted for the exchange rate fluctuations by using the average of end-month currency basket values (euro and dollar) in the period between January 2014 and June 2015. Weights of the dollar and the euro in the currency basket have been determined based on the shares of dollar and euro loan stocks of Turkish firms for each month.

**Table II.2.2.1**

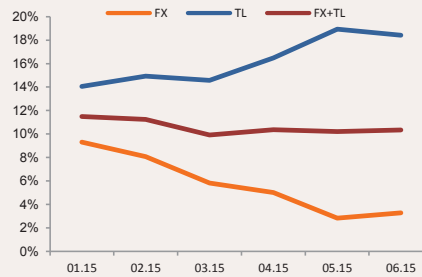
Distribution of the Groups (Percent, %)  
(As of 2014 November)

	TL / Total Loans	# of Firms	Share of firm #	TL	FX	Total
1	0	4.348	0.3	0.0	35.0	18.6
2	0-0.25	6.558	0.4	3.4	57.6	32.1
3	0.25-0.50	1.145	0.1	3.2	4.9	4.1
4	0.50-0.75	1.008	0.1	3.6	1.8	2.6
5	0.75-1	2.394	0.2	9.6	0.8	4.9
6	1	1.491.194	99.0	80.3	0.0	37.7
<b>All Groups</b>	<b>1.506.647</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>	<b>100</b>

Source: BAT Risk Center

**Chart II.2.2.1**

TL and FX Loan Y-o-Y Growths of All Groups



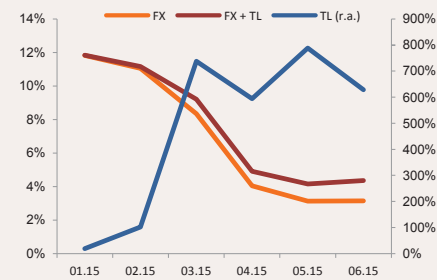
Source: BAT Risk Center

Chart II.2.2.1 depicts the year-on-year loan growth of all firms in the analysis (a total of 6 groups) in the first 6-month period of 2015. According to this chart, the growth in total loans (FX+TL) remains flat between 10 to 12 percent, while there is a persisting uptrend in TL loan growth and a downtrend in FX loans. The fact that the breakdowns in FX and TL loan growth display similar movements in the opposite directions suggests that there is a shift from FX loan utilization to TL loan utilization.<sup>5</sup> Whether this shift is also true for the above-mentioned different groups or not is an important question.

The following charts show each group's loan growth and in-group FX and TL loan ratios (shares in total loans in the same group). In the first chart, which depicts firms that used only FX loans as of November 2013 and November 2014, FX loan growth is downwards; and these firms started using TL loans in January 2015 for the first time (Chart II.2.2.2a). A close look at the shares of FX and TL loans in this group reveals that the share of FX loans is continuously decreasing, whereas the share of TL loans is increasing (Chart II.2.2.2b).

**Chart II.2.2.2a**

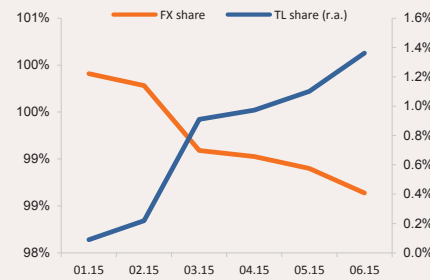
Y-o-y Loan Growth Rates of Firms Used Only FX Loans in November 2014



Source: BAT Risk Center

**Chart II.2.2.2b**

In-group Shares of FX and TL Loans of Firms Used Only FX Loans in November 2014

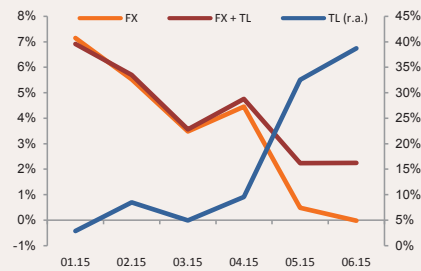


Source: BAT Risk Center

<sup>5</sup> Loan growth values may differ from the growth values in banks' balance sheet sums released by the BRSA. However, to ensure that the same firms have been analyzed in both years, firms have been matched according to their TL loan shares. This matching has been based on the 11th month of 2013 for 2014 and the 11th month of 2014 for 2015. In addition, FX-indexed loans have been analyzed under FX loans, external loans obtained through the intermediation of banks have also been included in the analysis and financial company loans have been excluded from the analysis. The opposite-direction movements of FX and TL shown in this chart are not observed in total balance sheet data which are free from all these criteria.

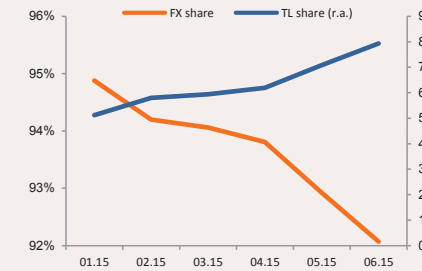
There is a similar movement in the second group firms which have the highest share in total FX loans with 57.6 percent (Chart II.2.2.3a and II.2.2.3b). FX loan growth and the share of FX loans are in a downtrend, whereas TL loan growth and the share of TL loans are in an uptrend.

**Chart II.2.2.3a**  
Y-o-y Loan Growth Rates of Firms Having TL Loan Share of 0-0.25 in the Loan Portfolio



Source: BAT Risk Center

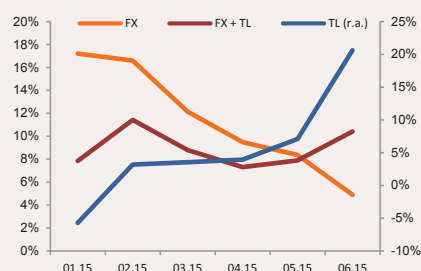
**Chart II.2.2.3b**  
In-group Shares of FX and TL Loans of Firms Having TL Loan Share of 0-0.25 in the Loan Portfolio



Source: BAT Risk Center

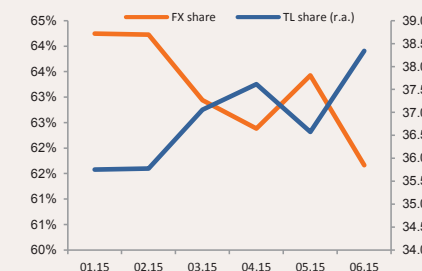
The third and fourth groups, which are composed of firms having TL loan ratios between 0.25-0.50 and 0.50-0.75, display a movement similar to that of above groups (Charts II.2.2.4a, II.2.2.4b and II.2.2.5). However, the shift in the fourth group is relatively weaker and the increase in this group's TL loan growth is not as strong as in the preceding three groups (Chart II.2.2.5).

**Chart II.2.2.4a**  
Y-o-y Loan Growth Rates of Firms Having TL Loan Share of 0.25-0.50 in the Loan Portfolio



Source: BAT Risk Center

**Chart II.2.2.4b**  
In-group Shares of FX and TL Loans of Firms Having TL Loan Share of 0.25-0.50 in the Loan Portfolio



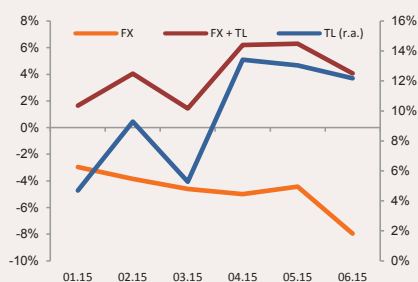
Source: BAT Risk Center

Chart II.2.2.6 and Chart II.2.2.7 present the loan growth values of the two groups having the highest share of TL loans. In these groups, FX and TL loan growth rates do not appear to move in opposite directions. However, considering that the total share of these groups in FX loans is 3.3 percent, these groups do not represent the overall sample.

In the last group, which covers firms that used only TL loans as of November 2014, there has been a deceleration in TL loan growth in time (Chart II.2.2.7). This suggests that actually there has not been an increase in loan growth in FX-lacking groups, contrary to the general macro trend. The loan growth in this group, which makes up 79.1 percent of total TL loans in all groups, is losing pace due to cyclical macro factors. This development shows that the surge in TL loan growth observed in bulk data does not originate from this group which, in fact, does not use FX loans.

**Chart II.2.2.5**

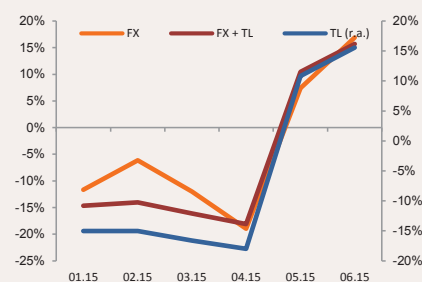
Y-o-y Loan Growth Rates of Firms Having TL Loan Share of 0.50 - 0.75 in the Loan Portfolio



Source: BAT Risk Center

**Chart II.2.2.6**

Y-o-y Loan Growth Rates of Firms Having TL Loan Share of 0.75 - 1.0 in the Loan Portfolio

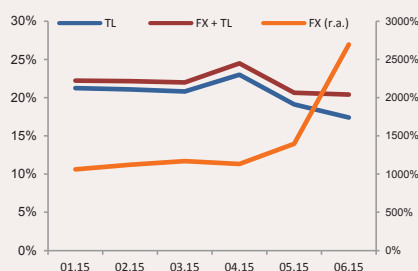


Source: BAT Risk Center

To sum up, in light of aggregate data with a simple sorting mechanism discussed above, TL loans grew at a faster rate than total (TL+FX) loans in the first six-month period of 2015 and FX loan growth decelerated accordingly. Another result of this analysis is that the aggregated data-based inference is not valid for all companies that have in fact different loan structure (in terms of FX – TL shares). Actually, there was a relatively high increase in TL loans of firms (groups) whose FX loan share (in total loans) is 25 percent and higher, whereas these firms' FX loans moved in an opposite direction as of the first six-month period of 2015.

**Chart II.2.2.7**

Y-o-y Loan Growth Rates of Firms Used Only TL Loans in November 2014



Source: BAT Risk Center

**Table II.2.2.2**

The Difference Between the First Six-month Loan Growth of 2014 and the First Six-month Loan Growth of 2015 (% Growth from January to June)

Groups	Difference in FX growths	Difference in TL growths	Difference in FX + TL growths
0	-8.2%	1,243.7%	-7.0%
0-0.25	-7.1%	40.9%	-4.7%
0.25-0.50	-11.8%	24.5%	2.4%
0.50-0.75	-5.6%	7.6%	2.6%
0.75-1	24.7%	29.1%	28.6%
1	188.5%	-3.6%	-1.7%
<b>All groups</b>	<b>-5.8%</b>	<b>4.1%</b>	<b>-1.1%</b>

Source: BAT Risk Center

Table II.2.2.2 presents a summary of the findings in the analysis. The Table shows the difference between the 6-month loan growth as of June 2015 and the 6-month loan growth as of June 2014. This difference is positive and high in the first four groups, whereas it is negative for FX loans in the same groups. On the other hand, the TL loan growth difference in the last group (when considered as the control group) that includes firms using TL loans only is negative, which supports the previous findings. In fact, there has been a shift towards TL loans in firms whose FX loan burden is relatively higher, whereas there has been a 3.6-percent decline in the TL loan growth in the control group that has TL debt only.