



## Financial Accounts Report 2017-II

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## I. Financial Accounts of the Turkish Economy

In 2017Q2, total financial assets of the Turkish economy were TRY 10,080 billion while its liabilities were TRY 11,638 billion. The largest contribution to the financing of the domestic economy came from the rest of the world and households sectors.

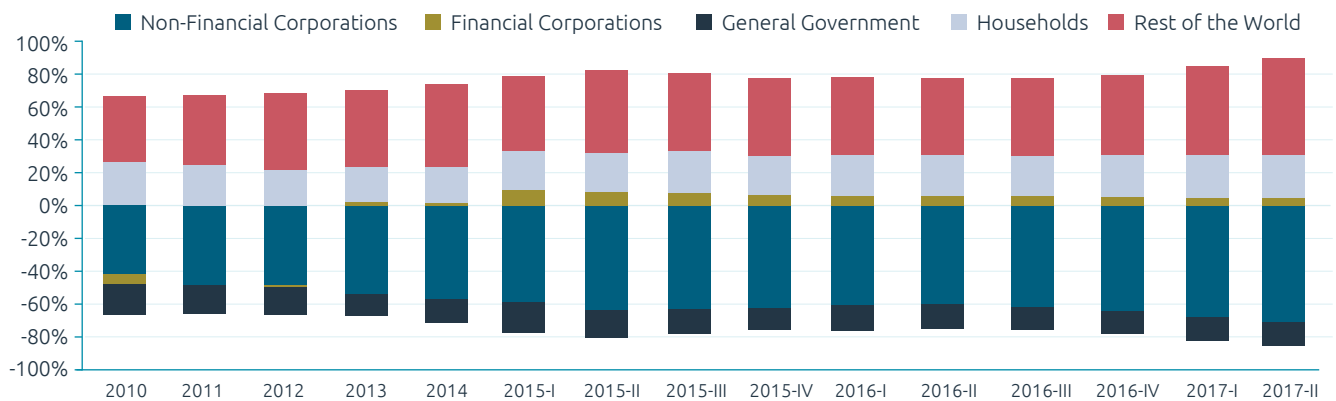
Non-financial corporations and the general government ran a financial deficit and borrowed from other sectors. Financial corporations maintained their balanced position and followed a flat trend due to their financial intermediation activities (Table 1, Chart 1).

**Table 1. Net Financial Worth by Sectors** (2017Q2, TRY billion)<sup>1,2</sup>

	Total Economy	Non-Financial Corporations	CBRT	Other Monetary Financial Institutions(*)	Insurance Corporations and Pension Funds	Financial Intermediaries and Auxiliaries	General Government	Households	Rest of the World
Financial Assets	10,080	4,284	582	2,926	157	231	665	1,235	661
Liabilities	11,638	6,266	566	2,854	165	210	1,037	539	2,284
Financial Net Worth	-1,558	-1,982	16	71	-8	21	-373	696	1,623

Source: CBRT

**Chart 1. Ratio of Net Financial Worth to GDP by Sectors (\*) (percent)<sup>2</sup>**



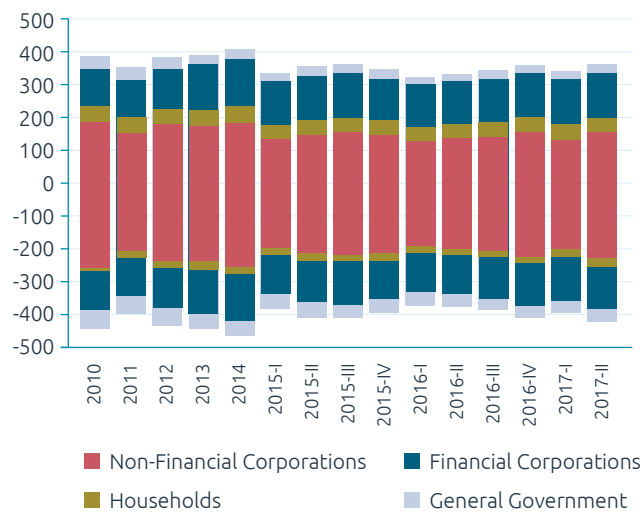
Source: CBRT, TURKSTAT

1 Pursuant to the methodology, there is a difference between the net financial worth of total domestic economy and rest of the world since there is no counterpart sector for monetary gold. The rest of the world has been reported based on residency, so as to be compatible with the International Investment Position Statistics.

2 Other Monetary Financial Institutions are composed of deposit-taking corporations (banks) and money market funds, while the households sector also covers non-profit institutions serving households.

An analysis of financial assets and liabilities by sectors as of the recent period reveals that the non-financial corporations sector was the biggest sector on the liabilities side as well as on the assets side (Chart 2).

**Chart 2: Ratio of Financial Assets and Liabilities to GDP by Sectors (percent) <sup>2</sup>**



Source: CBRT, TURKSAT

An analysis of flow data suggests that in the second quarter of 2017, net borrowing by non-financial corporations and the general government increased whereas net borrowing by other sectors decreased.

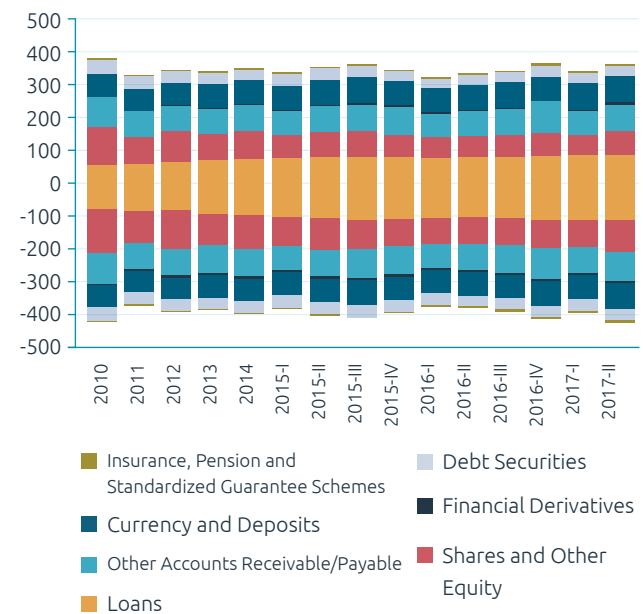
**Table 2. Net Flow by Sectors (2017Q2, TRY billion)<sup>2</sup>**

	Transaction (Assets)	Transaction (Liabilities)	Valuation and Other Changes (Fin. Assets)	Valuation and Other Changes (Liabilities)	Net Flow
Non-Financial Corporations	214	371	523	536	-169
Financial Corporations	108	88	29	82	-33
General Government	30	49	22	-2	6
Households	43	17	-10	0	15
Rest of the World	93	-38	8	-51	190

Source: CBRT

As for the financial instrument distribution, the currency and deposits item and the loans item had the largest weight in both assets and liabilities (Chart 3).

**Chart 3. Distribution of Financial Instruments-Total Economy, Ratio to GDP (\*) (percent)**



Meanwhile, there was a rise in the net valuation of the general government and the rest of the world whereas the net valuation in other sectors declined. Consequently, there were negative net flows in financial and non-financial corporations (Table 2).

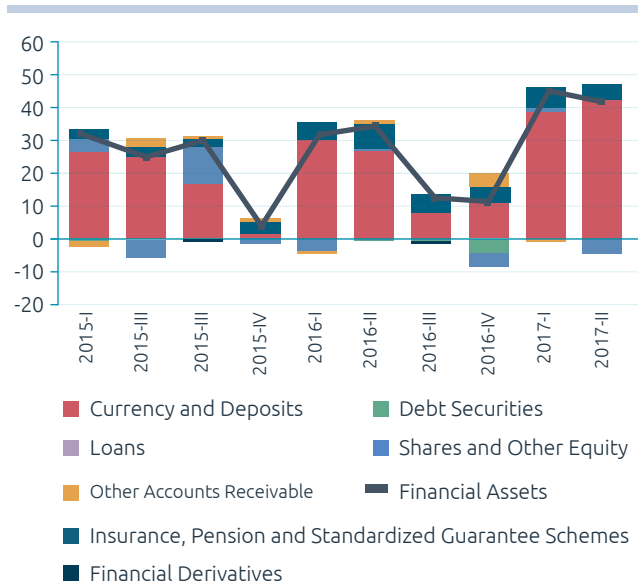


## II. Households

In the second quarter of 2017, both financial assets and liabilities of households increased quarter-on-quarter. These increases originated from deposit transactions in

assets and largely from loan transactions in liabilities (Charts 4 and 5).

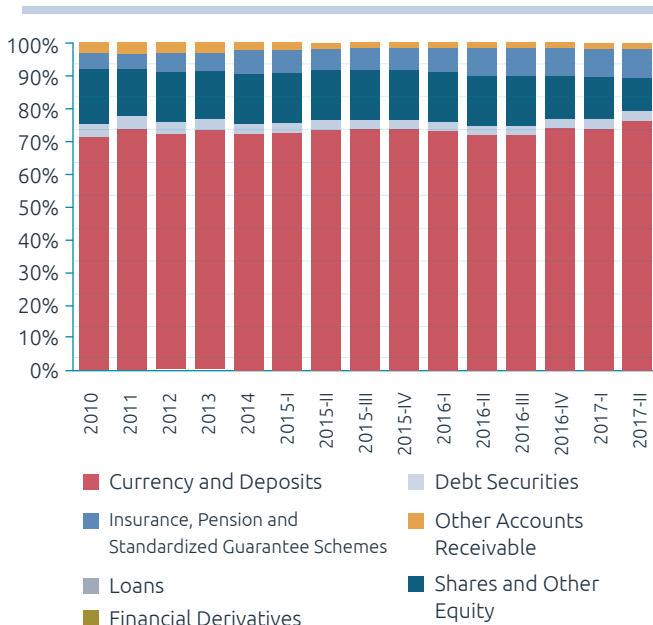
**Chart 4. Financial Assets** (transaction, TRY billion)



Source: CBRT

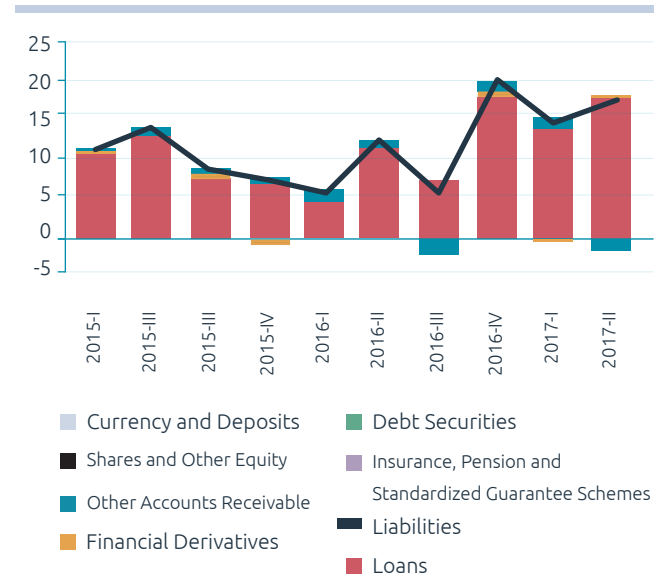
The primary instrument in household financial assets was deposits with a share of approximately 77 percent, followed by shares and other equity. During the data period, the share of the shares and other equity item in

**Chart 6. Breakdown of Financial Assets by Instruments** (percent)



Source: CBRT

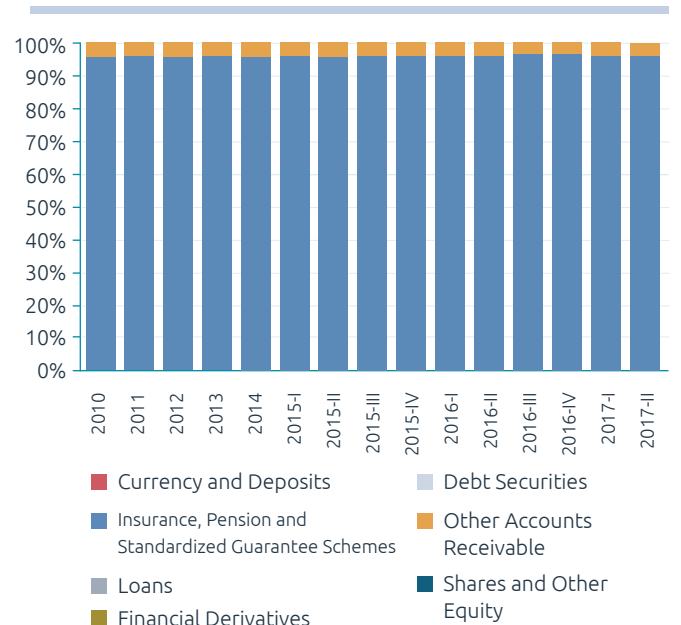
**Chart 5. Liabilities** (transaction, TRY billion)



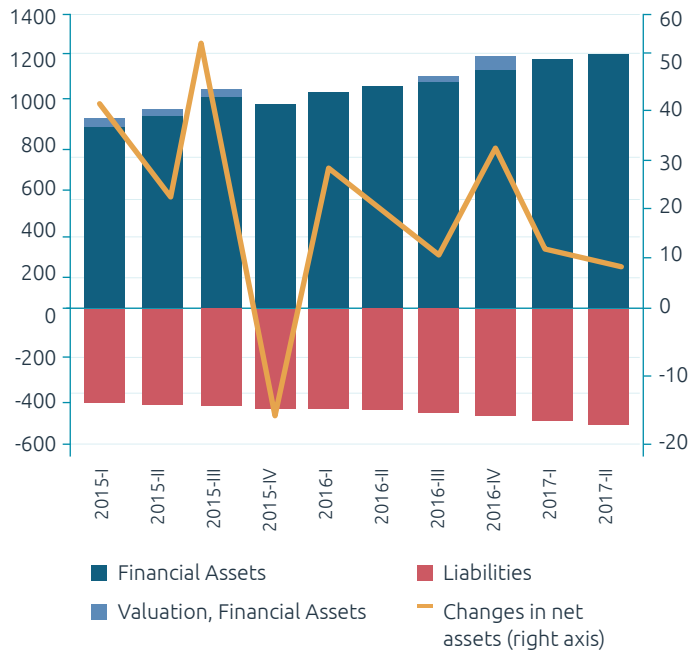
Source: CBRT

total financial investments decreased while that of deposits was flat (Chart 6). Meanwhile, almost all of the liabilities were composed of loans (Chart 7).

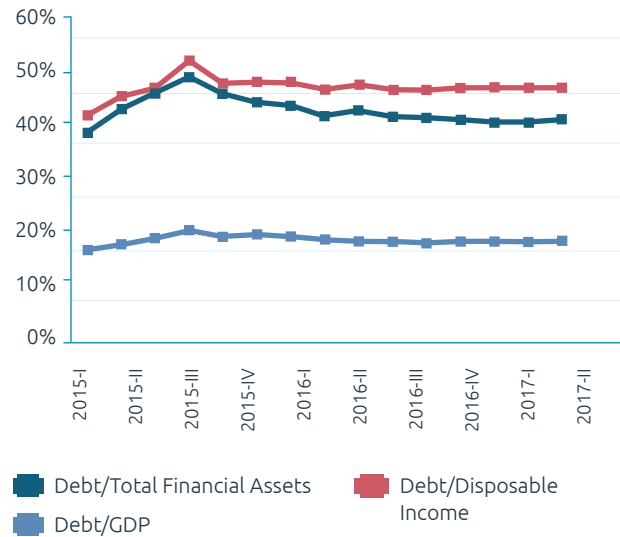
**Chart 7. Breakdown of Financial Liabilities by Instruments** (percent)



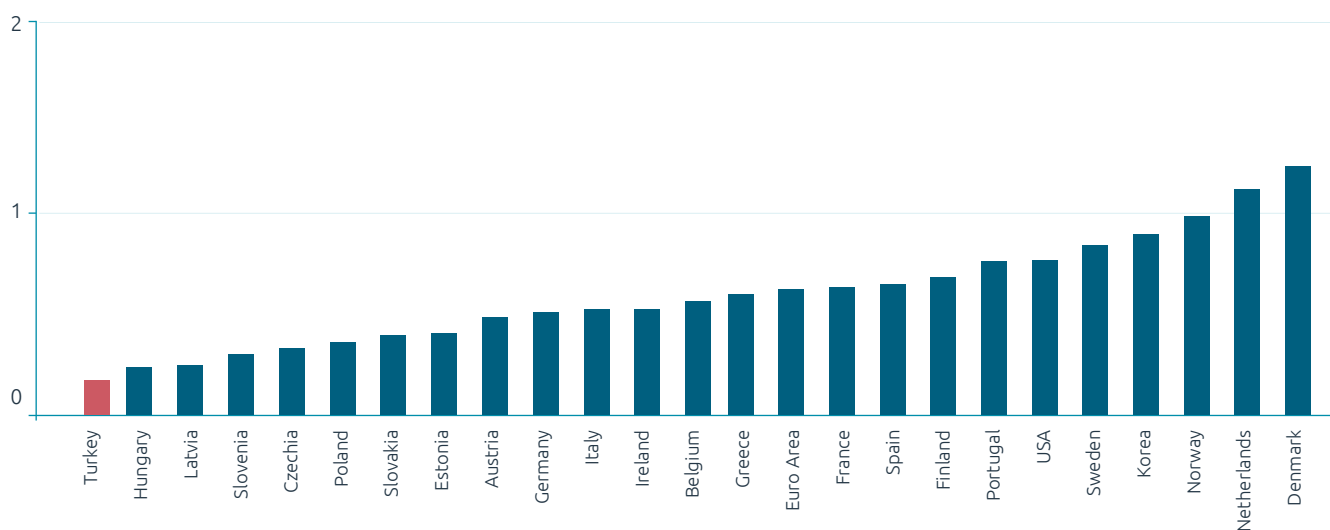
Source: CBRT

**Chart 8. Change in Net Assets of Households**  
(TRY billion)

In the second quarter of 2017, the household net financial worth increased by TRY 14 billion quarter-on-quarter (Chart 8). Household indebtedness indicators suggest that the ratio

**Chart 9. Household Debt (\*)**  
(percent)

of household debt to GDP preserved its course at around 18 percent, and the ratios of debt to disposable income and to total financial assets remained flat in 2017Q2 (Chart 9).

**Chart 10. Household Liabilities/GDP, Comparison (\*)**

The ratio of household liabilities to GDP indicates that among countries compared, Turkey stood out as the country with the lowest level of indebtedness in 2017Q2 (Chart 10).

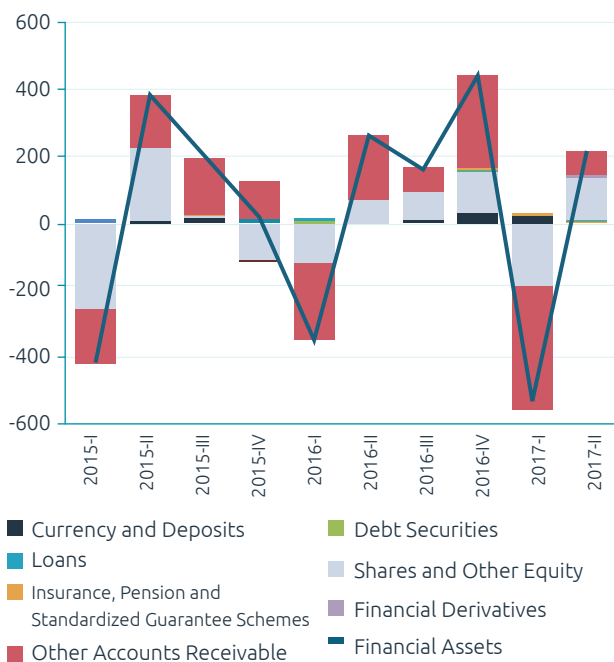


### III. Non-Financial Corporations

In the second quarter of 2017, financial assets and liabilities of non-financial corporations increased compared to the previous quarter,

which was mainly driven by the rise in shares and other equity item (Charts 11 and 12).

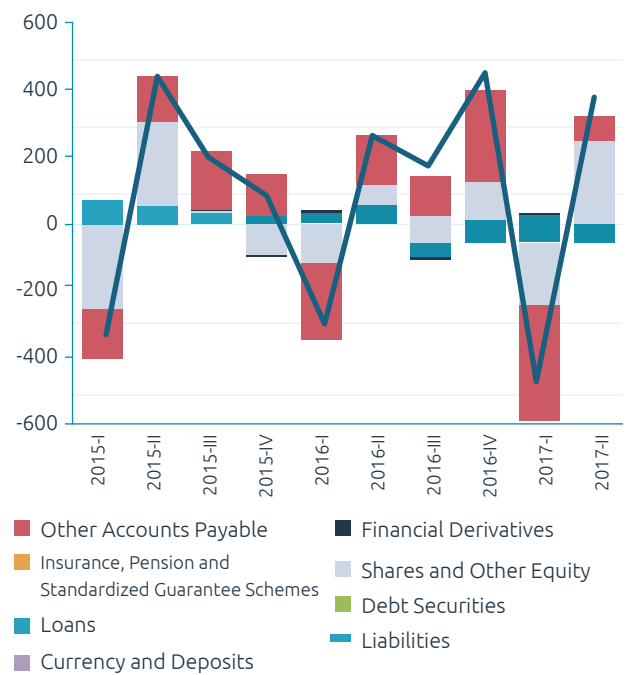
**Chart 11. Financial Assets** (transaction, TRY billion)



Source: CBRT

In the second quarter of 2017, the most significant item on the assets side of non-financial corporations was the other accounts receivable item (48 percent) composed of the sum of trade credits and advances, and other items. The share of the shares and other equity item was 38 percent, and that of currency and

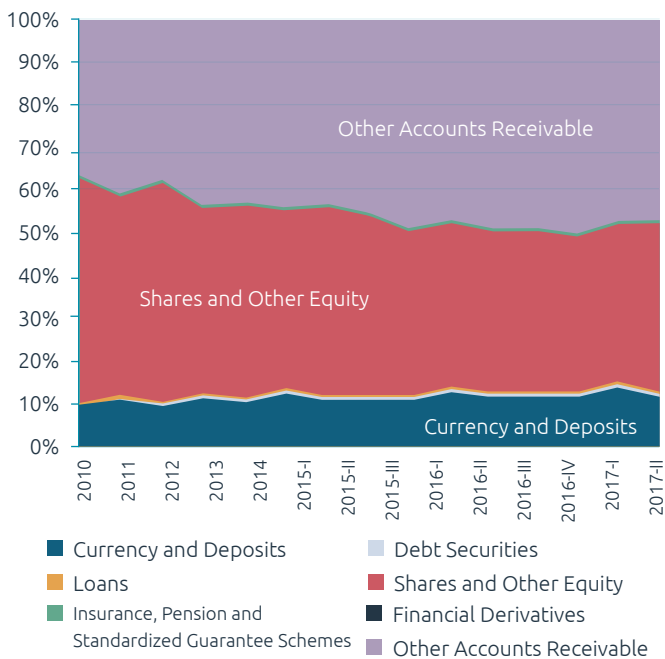
**Chart 12. Financial Liabilities** (transaction, TRY billion)



Source: CBRT

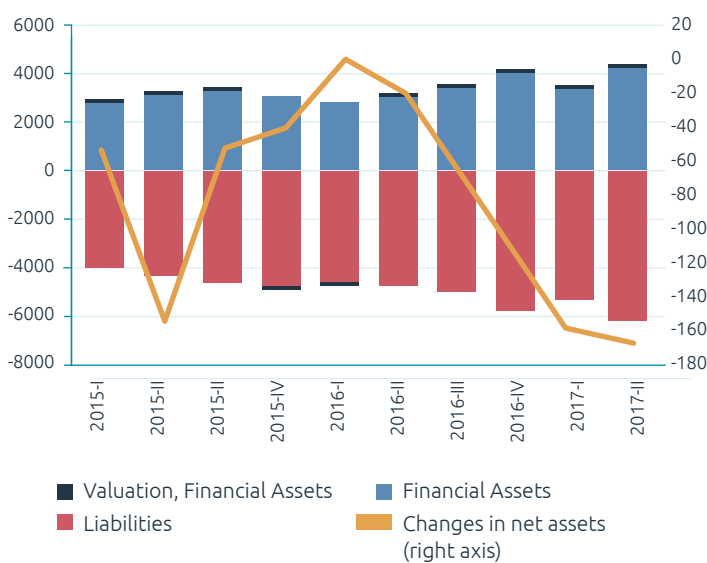
deposits was 12 percent<sup>3</sup> (Chart 13). On the liabilities side, the share of financing through issues of shares and other equity in total liabilities was 34 percent, while the shares of other accounts payable and loans used were 35 percent and 30 percent, respectively (Chart 14).

<sup>3</sup>To compile the financial accounts of non-financial corporations, the CBRT Company Accounts data were used until 2014 for currency, other accounts receivable, other accounts payable, and shares and other equity items, whereas TURKSTAT's consolidated non-financial company accounts data have been used since then.

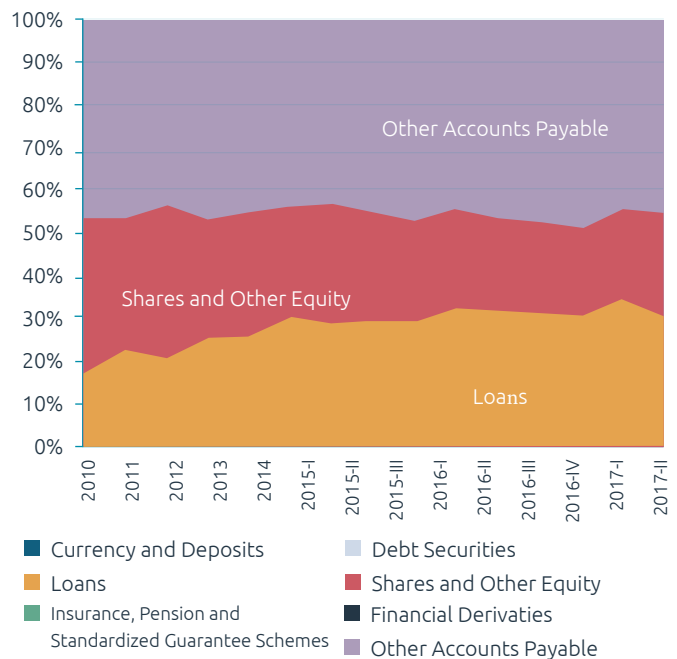
**Chart 13. Breakdown of Financial Assets by Instruments (percent)**

Source: CBRT

In the second quarter of 2017, net assets of non-financial corporations decreased by TRY 169 billion compared to the previous quarter (Chart 15).

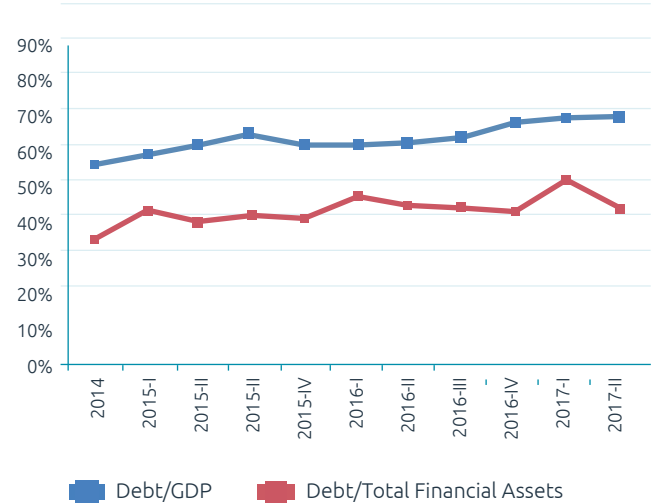
**Chart 15. Change in Net Assets of Non-Financial Corporations (TRY billion)**

Source: CBRT

**Chart 14. Breakdown of Financial Liabilities by Instruments (percent)**

Source: CBRT

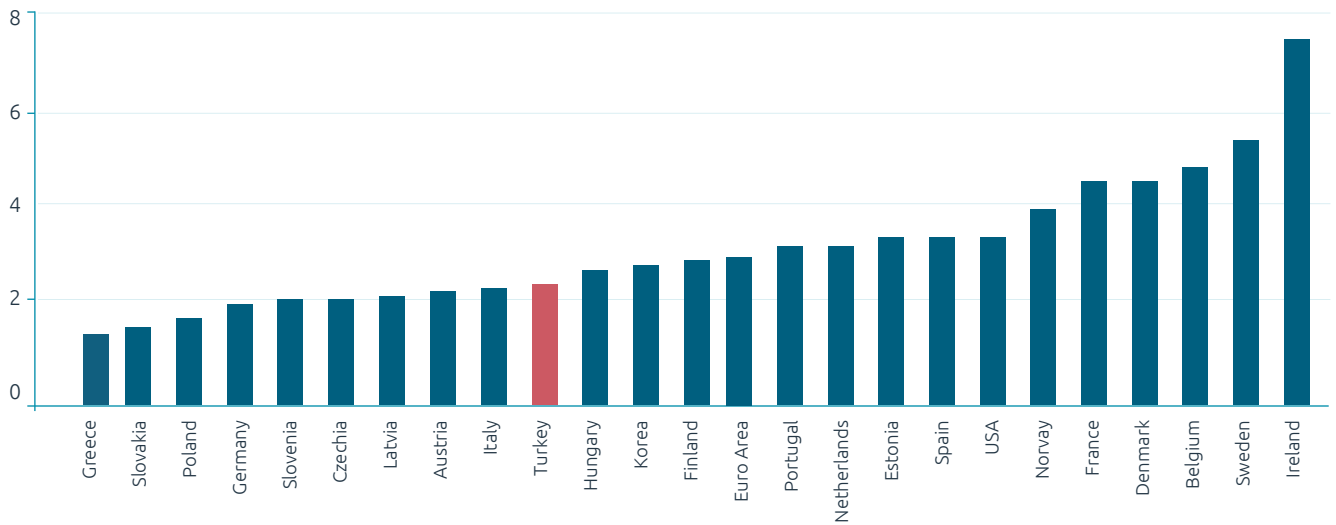
While the ratio of non-financial corporations' debts to GDP was 69 percent in 2017Q2, the ratio of debts to total financial assets decreased (Chart 16).

**Chart 16. Non-Financial Corporations' Debt (\*) (percent)**

Source: CBRT

(\*) Debts are composed of loans and government debt.




**Chart 17. Non-Financial Corporations' Liabilities / GDP (\*)**


Source: CBRT, TURKSTAT, OECD

(\*) Other country data is as of 2017Q1, data for Korea is as of 2016Q4.

A comparison of the ratios of non-financial corporations' liabilities to GDP with those of several countries shows that in the second

quarter of 2017, Turkey was among the countries with low indebtedness levels (Chart 17).

## BOX- A Reflection of Financial Accounts: From-Whom-To-Whom Matrices

International institutions and statistical authorities underline the importance of analyzing financial relations between various sectors of the economy and the relation between sectors and the rest of the economy. In this framework, the G-20 Data Gaps Initiative<sup>1</sup> has recommended countries to prepare from-whom-to-whom tables derived from the Financial Accounts Statistics (FAS) and data in

this format have begun to be compiled at the European level encouraged by the European Central Bank.

This box first explains what from-whom-to-whom tables are and how they are prepared. Then, the from-whom-to-whom tables for deposits and loans taken from the FAS compiled by the CBRT are presented.

**Table 1. From-Whom-to-Whom Sample Table**

		Liabilities				
		Non-Financial Corporations	Financial Corporations	General Government	Households	Rest of the World
Assets	Non-Financial Corporations					
	Financial Corporations					
	General Government					
	Households					
	Rest of the world					

The FAS presents data on financial transactions and stocks for various institutional sectors. The FAS data are arranged on the basis of a “from-whom-to-whom” distinction to allow calculation of the fund flows and show transactions between different sectors in Turkey and transactions carried out with a source abroad. According to the System of National Accounts 2008<sup>2</sup>: “The flow of funds is a three dimensional presentation of financial statistics where both parties to a transaction as well as the nature of the financial instrument

being transacted are elaborated”. Therefore, the from-whom-to-whom tables constitute the basis for the flow of funds. The from-whom-to-whom table is prepared to answer three key questions: i) who finances whom?, ii) with which instrument?, and iii) in what amount of funding? (Table 1). Table 1 above shows the from-whom-to-whom table prepared for a single financial instrument. When the matrix for each instrument is compiled, the integrated from-whom-to-whom data for an economy is attained.

### Compilation Methods

When the current data are supported by additional data sources and calculation methods, a complete picture is attained thanks to the building block approach for key financial instruments. As some financial instruments are only valid for some specific sectors, cells that are conceptually non-existent are eliminated.

For instance, the authority to collect deposits or issue securities is not valid for households. The assets and liabilities of institutional sectors in the existing FAS data can be rearranged for a specific financial instrument. For instance, the counterpart sector data for deposits of the banking sector, which are the assets of

<sup>1</sup>The Financial Crisis and Information Gaps” IMF and FSB Secretariat, October 29, 2009.

<sup>2</sup>The System of National Accounts, 2008.

the banking sector, determine other sector's deposit liabilities to banks. Accordingly, many cells of the from-whom-to-whom table prepared for a specific instrument can be filled in by using the existing data. Money and banking statistics, fiscal statistics of the general government, and balance of payments statistics can be used for this purpose. When there are missing sectoral data in any direction of the matrix, the "from

top-to- bottom" approach is employed to calculate the missing values by departing from the sums and finding the remainders, or other assumptions can be made. When missing data cannot be calculated by using the existing data, the counterpart sector data and the remainder approach, additional data sources are sought (Table 2).

**Table 2. Compiling From-Whom-to-Whom Tables**

Instrument			Liability/Issuer						
			Total						
			Non-Financial Corporations (S11)	Financial Corporations (S12)	General Government (S13)	Households (S14)	Total Economy	Rest of the World (S2)	Total
Asset / Holder	Total Economy	Non-Financial Corporations							S11-A
		Financial Corporations							S12-A
		General Government							S13-A
		Households							S14-A
		Total Economy							S1-A
	Rest of the World								S2-A
	Total		S11-L	S12-L	S13-L		S14-L	S1-L	S2-L

Not applicable

Information available

Estimated/Residual

Additional data source

Source: OECD

## Strengths and Weaknesses

An analysis of strengths and weaknesses of from-whom-to-whom tables reveals that the strongest side of these tables is that they allow observation of the monetary transmission mechanism as they show relations between sectors. The from-whom-to-whom tables can also be used as an instrument to analyze the strengths and weaknesses of portfolios as they present the composition of assets and liabilities by sectors. They provide an analytical perspective for accounts and allow the monitoring of lender/ borrower relations

between the sectors. From a statistical point of view, it is an important instrument with respect to enhancing the quality and consistency of data. The tables ensure full consistency by allowing cross-check of data from both lender and borrower sides. Against these strengths, the from-whom-to-whom data put an additional burden on statisticians while compiling data and it is necessary to compile data in from-whom-to-whom format for the tables to be effectively used.



## International Practices

Although financial flow and position data are published in advanced economies in particular, in most countries, the from-whom-to-whom tables are not produced. Very few of the G20 countries publish this data. While the IMF and Eurostat require member countries to compile from-whom-to-whom data for financial instruments by main sectors, the ECB compiles this data set by deposits, loans, debt

securities and investment funds sub-sectors. The OECD compiles the from-whom-to-whom data in a way similar to the ECB. The OECD has conducted a survey of the availability of the from-whom-to-whom data and the results of the survey revealed that only 17 of the 41 countries can produce such data for all financial instruments.

## Turkey's Practice

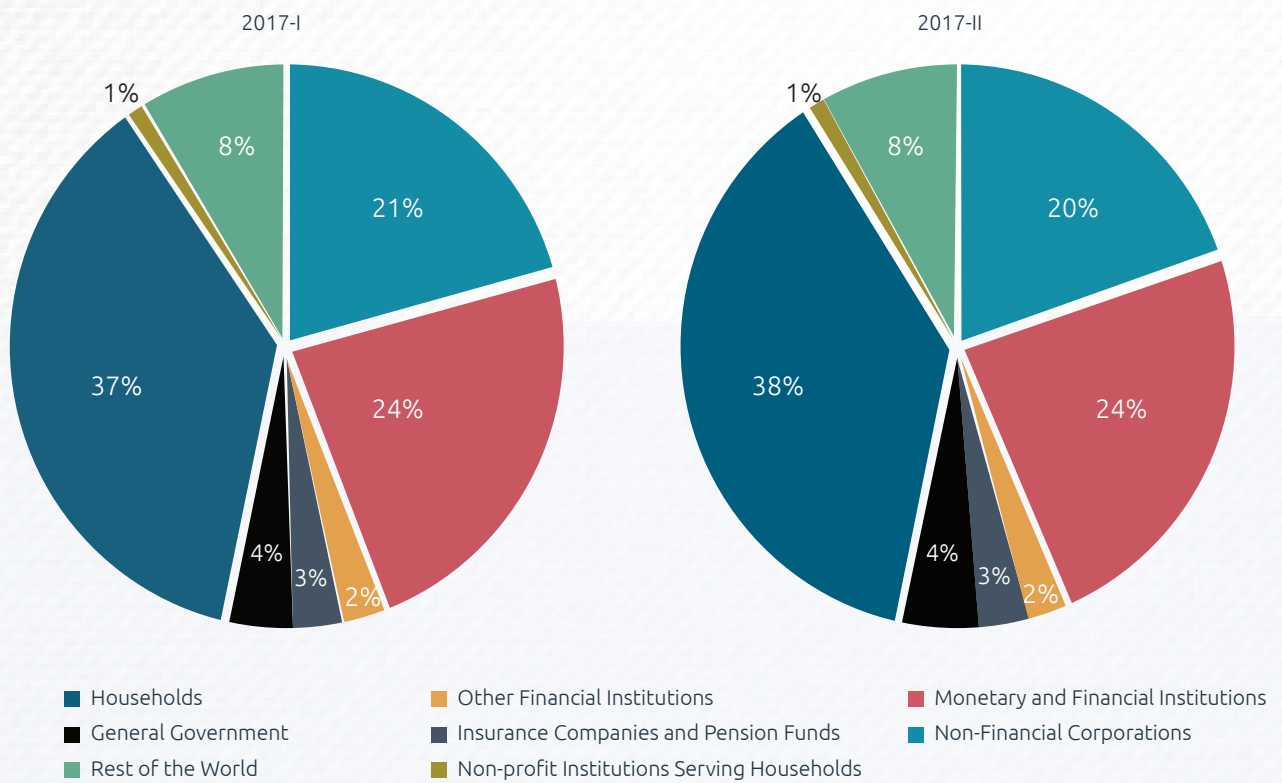
The CBRT started to compile from-whom-to-whom tables for deposits and loans starting from the Financial Accounts Report in 2017Q1. The Money and Banking Statistics (MBS) have priority in the Financial Accounts Statistics data hierarchy with respect to quality<sup>3</sup>, therefore, the deposit and loan data have been based on these statistics. The deposits of domestic sectors collected by banks abroad have been based on International Investment Position (IIP) statistics.

The deposits, which are banks' liabilities, have been analyzed in line with counterpart sector data to determine the "to whom" information and the matrix started to be filled in. For the asset side of deposit liabilities compiled from banking statistics, the sectoral reports in the FAS have been taken into account and they have been cross-checked for consistency. Similarly, the asset side of loans has been compiled from the MBS to find the answer to the question "to whom". Consistency controls of this data have been carried out by comparing with the liabilities in the data directly retrieved from institutional sectors. As there are no counterpart sector data for the General Government Sector, this sector has been regarded as a remainder sector and sectoral distribution has been carried out accordingly.

An analysis of the from-whom-to-whom table of deposits reveals that the most part (91 percent) of deposits are collected by monetary and financial institutions and the rest is collected by the rest of the world, and a similar distribution is observed in the counterpart sector distribution in the first two quarters of 2017. In 2017Q2, households was the sector opening the highest amount of deposit accounts followed by monetary and financial corporations' deposits and lastly non-financial corporations. The ratio of deposits that the monetary and financial corporations kept at each other was 24 percent (Chart 1).

<sup>3</sup>For data hierarchy, please click [here](#) for Financial Accounts Metadata page.



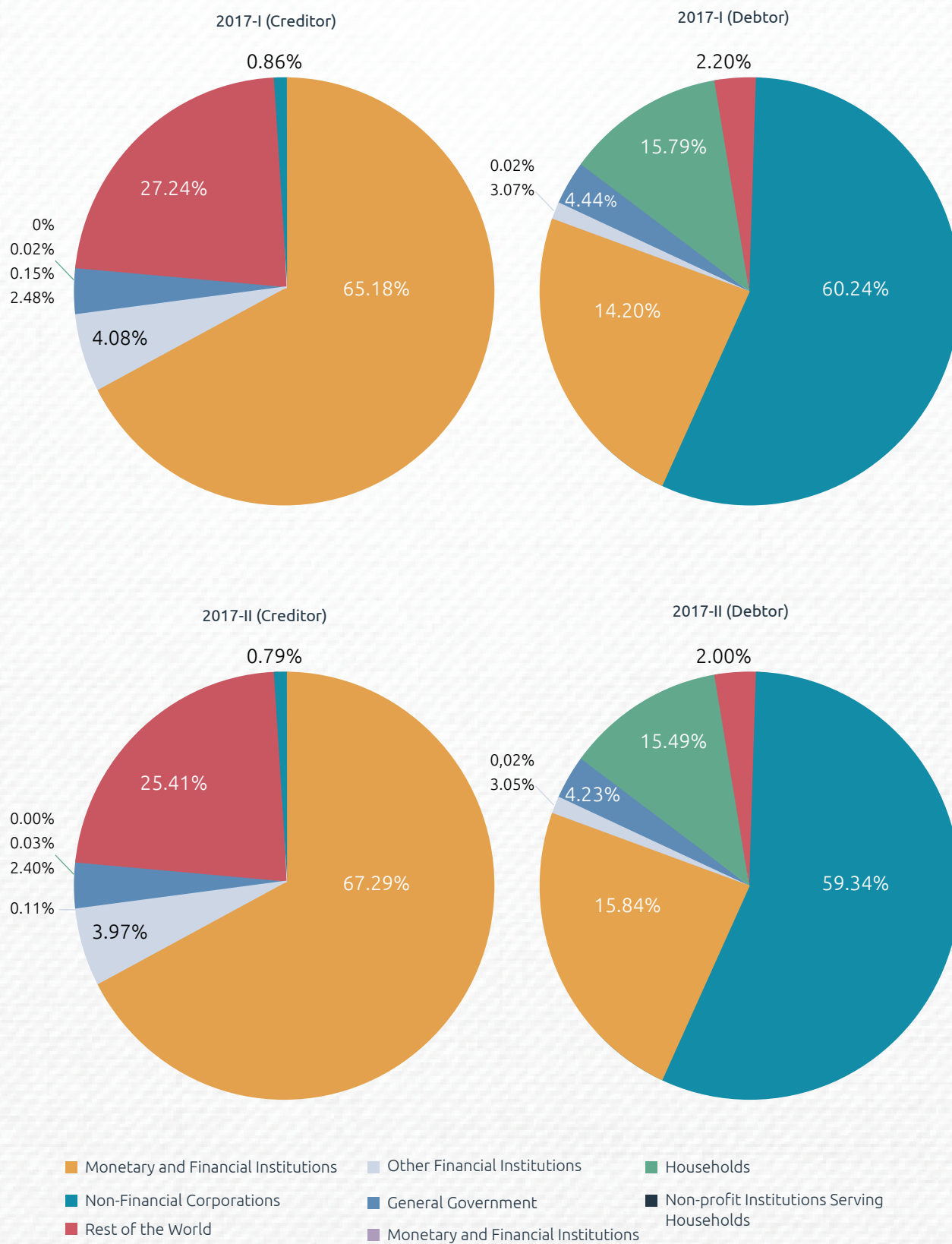

**Chart 1. Deposits, From-Whom-to-Whom, 2017-I and 2017-II, Comparison (percent)**


Source: CBRT

An analysis of the from-whom-to-whom tables of loans by lending and borrowing sectors shows that the sector which borrows the highest amount of loans is the monetary and financial corporations and the sector using the highest amount of loans is the non-financial corporations. The share of loans extended by the biggest creditor - the monetary and financial corporations - slightly increased in 2017Q2 and reached 67 percent; and loans extended by the rest of the world to the domestic economy decreased by the same amount.

With respect to borrowers, in 2017Q2, loans utilized by non-financial corporations slightly decreased to become 59 percent while the ratio of loans used by monetary and financial corporations in the total loan utilization increased by 1.5 percent to 16 percent. Households' credit utilization ratio remained at 15 percent in both quarters.

Chart 2. Loans, From-Whom-to-Whom, 2017-I and 2017-II, Comparison (percent)



Source: CBRT

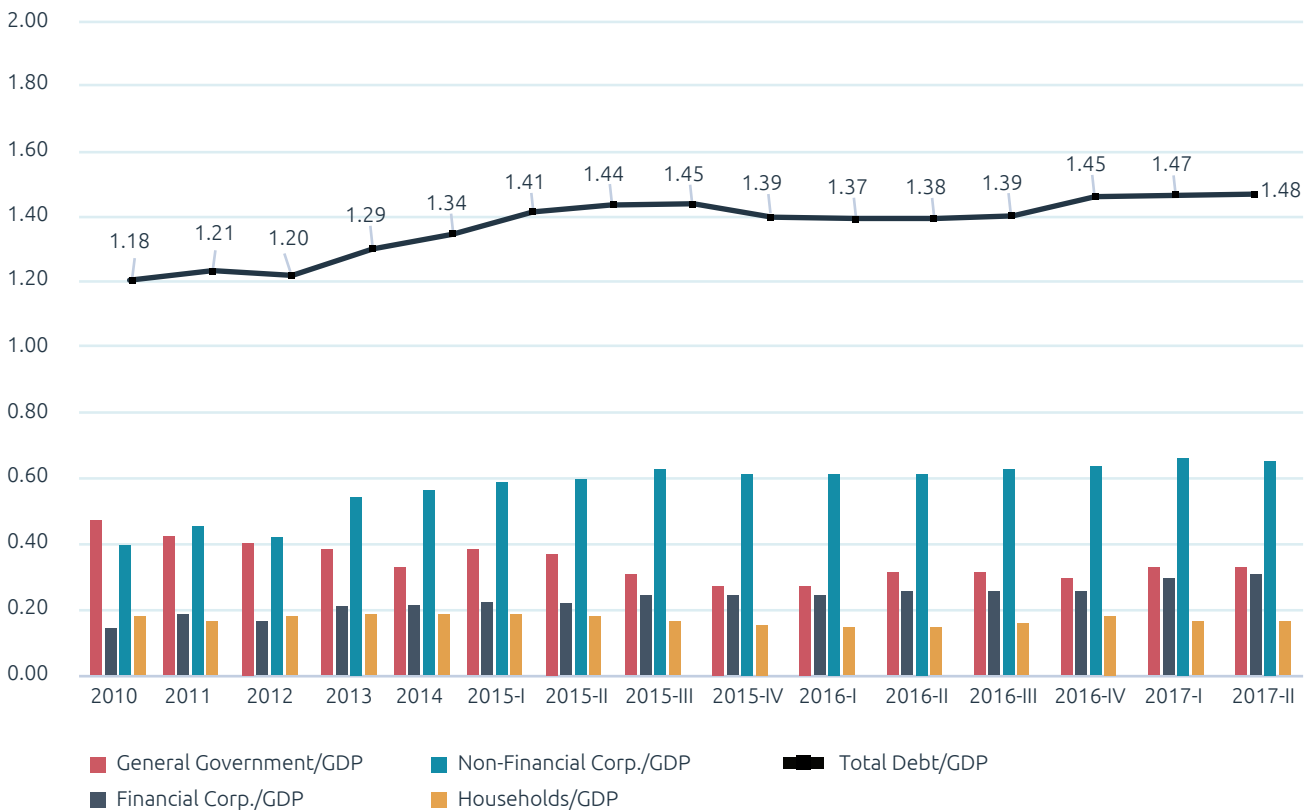


## IV. Total Debt of Resident Sectors

The ratio of resident sectors' financial accounts-defined total debt, which is the sum of the loans they use and the debt securities

they issue, to GDP was flat in the second quarter of 2017 compared to the previous quarter (Chart 18).

Chart 18. Total Debt of Sectors/GDP

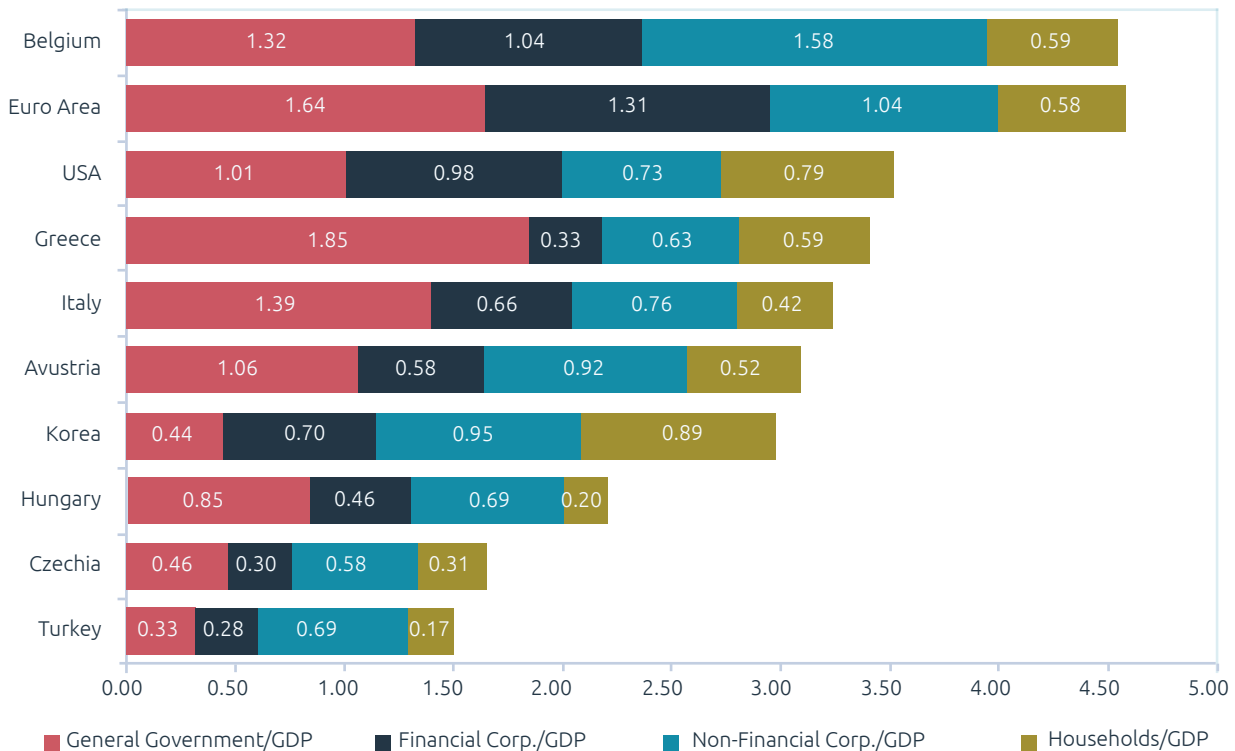


Source: CBRT, TURKSTAT

A cross-country comparison of this indebtedness ratio reveals that the total debt

of resident sectors in Turkey was low in 2017Q2 (Chart 19).

Chart 19. Cross-Country Comparison of Debt/GDP Ratio by Sectors (2017Q2) (\*)



Source: CBRT, TURKSTAT, OECD

(\*)Other country data is as of 2017Q1, data for Korea is as of 2016Q4.

## V. Conclusion

In the second quarter of 2017, the Turkish economy maintained its position as a net debtor, with households and the rest of the world being the two major financing sectors. The most indebted sector was the non-financial corporations sector, followed by the general government. In this period, the net financial

worth of households slightly improved on the back of transactions. On the other hand, net borrowing of non-financial corporations escalated and the ratio of debt to total financial assets dropped.