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THE GOVERNMENT DEBT TO GDP RATIO AS A HEADLINE INDICATOR AND THE INFORMATION VALUE OF NET DEBT CONCEPT AS AN ALTERNATIVE: TURKISH EXPERIENCE

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THE GOVERNMENT DEBT TO GDP RATIO AS A HEADLINE INDICATOR AND THE INFORMATION VALUE OF NET DEBT CONCEPT AS AN ALTERNATIVE: TURKISH EXPERIENCE

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Abstract

Depending on its economic meaning and the context in which it's used; it is possible to talk about various concepts and definitions of "government debt" as a measure of a country's indebtedness. In terms of international comparisons and measurement of country risk, the concept of "government debt", which has been statistically generated and developed until today under the leadership of international institutions, has recently been a greater point of interest, especially in periods of sovereign debt crises. The general government debt to GDP ratio is used as the headline indicator for a country's indebtedness; whereas net debt concept allows a better evaluation of a country's creditworthiness. The main purpose of this document is to explain the debt statistics compiled by the Turkish Treasury and evolution of the net debt statistics in this context.

Background

As recently discussed among EU countries and also related international institutions; both the debt to GDP and net debt indicators provide different information on government liabilities. The purpose of use, availability and the comparability of these debt statistics may also differ among countries.

The debt to GDP ratio in this context simply refers to the share of gross general government debt stock in national income and is considered as the headline indicator for the magnitude of sovereign debt. (Set as the Maastricht debt for EU member states not exceeding 60%) In terms of institutional coverage, it includes the central government, extra-budgetary units, state/local government and social security institutions. And debt liabilities of these institutions are the liabilities for which future payments of interest and/or principal are due by the debtor to creditor. (The Public Sector Debt Statistics: Guide for Compilers and Users) And the debt instruments of these institutions comprises currency and deposits, debt securities, loans, insurance, pensions & standardized guarantee schemes and other accounts payable.

On the other hand, with the same institutional and instrument coverage; a net debt figure, rather than a gross debt can be and sometimes is used to analyze a country's indebtedness. It's argued that net debt can be used as a complementary source of information to give an idea about the ability of a government to pay its debt obligations. In this sense, it is simply calculated by subtracting financial assets held by the government from its liabilities. In the "Public Sector Debt statistics Guide for Compilers and Users" by the Task Force on Finance Statistics (TFFS), net debt is defined as "gross debt minus financial assets corresponding to debt instruments".

In this subtraction; although the value of government debt is easily calculated and compiled according to already defined standards in terms of coverage and valuation, there is no readily available international

standard or practice to use as the financial assets of a government to reach an internationally comparable net debt statistics. So it can be said that as a measure of government solvency, it is difficult to come up with a value of financial assets held by the government to redeem its outstanding liabilities. Depending on the purpose of the analysis, it may sometimes be useful to calculate debt net of highly liquid assets; namely, currency and deposits and debt securities as well.

Government Debt Statistics Compiled by the Turkish Treasury

According to the Official Statistics Program prepared by the Turkish Statistical Institute (Turkstat), Turkish Treasury is responsible for all Central Government (CG) and General Government (GG) debt data as well as the public net debt stock statistics. The main debt stock statistics compiled and disseminated by the Turkish Treasury are:

- Central Government Debt Stock (Monthly)
- EU Defined General Government Debt Stock – Maastricht Debt (Quarterly)
- External Debt Statistics of Turkey (Quarterly – Gross and Net)
- Public Net Debt Stock (Quarterly)

The institutional and instrument coverage of the total public debt on gross basis can be seen below. About 95% of total public debt on average belongs to the central government; while local administrations and state owned enterprises constitutes 3% and 2% of the total public debt respectively. On the instrument side, 85% of the total public debt consists of securities debt stock (AF.33) and the remaining 15% comes from loans (AF4). This instrument coverage is in line ESA95 financial instruments (AF.2, AF.33 and AF.4) and does not cover other categories of debt instruments.

Table 1: Institutional and Instrument Composition of the Gross Public Debt Stock

GROSS PUBLIC DEBT STOCK- Institutional and Instrument Composition (Billion TL)							
2012	CENTRAL GOVERNMENT	FUNDS	SOCIAL SECURITY INSTITUTIONS	LOCAL ADMINISTRATIONS	GENERAL GOVERNMENT	STATE ECONOMIC ENTERPRISES	TOTAL PUBLIC
Securities other than shares *	477,8	0,0	0,0	0,0	477,8	0,0	477,8
Loans**	54,4	0,0	0,0	17,0	71,3	13,5	84,8
Total	532,2	0,0	0,0	17,0	549,2	13,5	562,6

*Includes Domestic Government Bonds, Treasury Bills and international bonds.
 ** Refers to program and project credits for CG and local bank credits for local administrations.

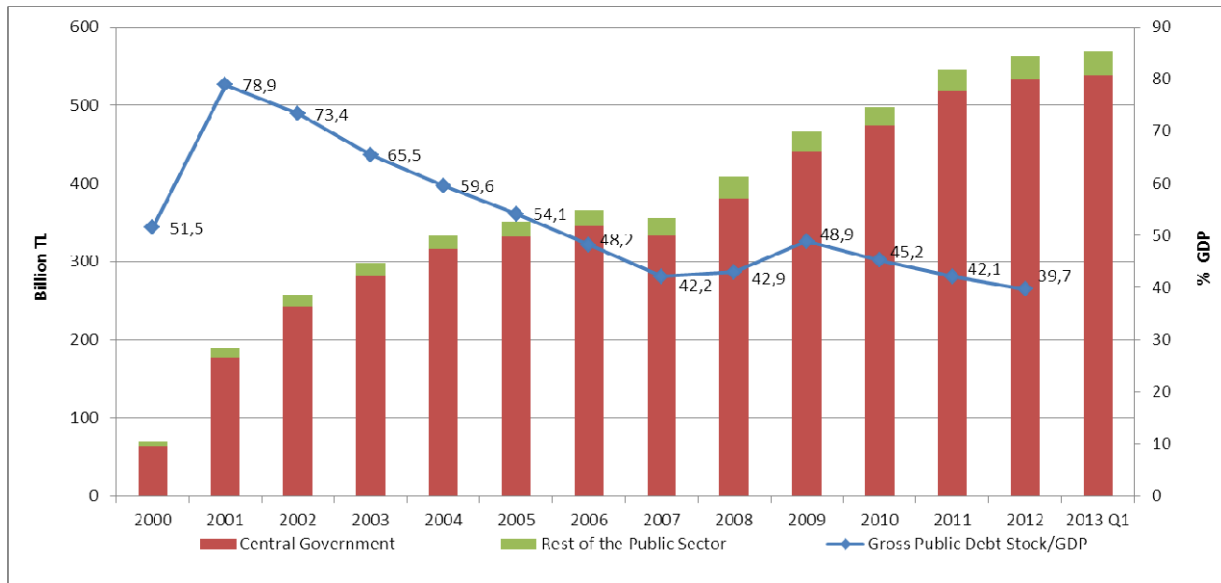
Source: Public Finance Statistics, The Undersecretariat of Turkish Treasury

The CG debt stock, which is the total of domestic and external debt stock, has been regularly disseminated for a long time; whereas EU defined debt stock (Maastricht debt) and public net debt started to be produced and announced on Treasury web site at a later stage. The compilation of the EU defined debt stock started within the framework of the alignment with the EU Acquis; while the public net debt stock was first initiated and started to be compiled during an economic reform program implemented after 2000-2001 financial crisis, accompanied by a Stand by program with the IMF.

The 2001 financial crisis required a bold and comprehensive economic reform program aiming at the rehabilitation of the banking sector, strong fiscal adjustment, and achieving disinflation. At that time, the public indebtedness required high primary budget surpluses over the medium term, underpinned by fundamental reforms of the tax and spending policies. If we have a look at the historical trend in government debt in this context, it can be seen that central government debt stock to GDP ratio; which was

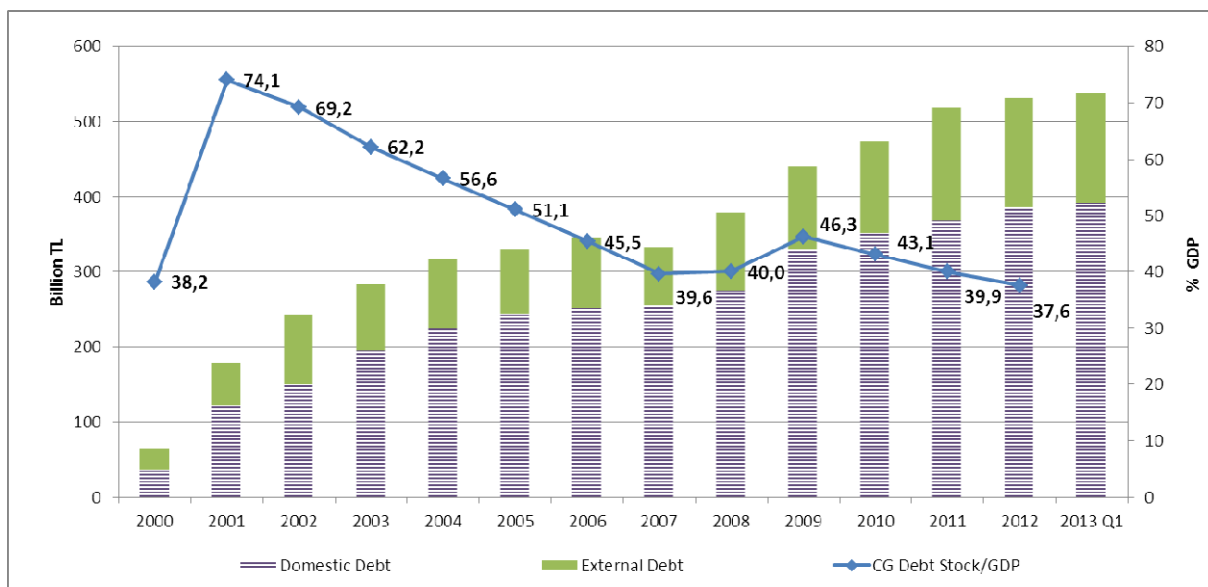
38,2% as of the year 2000 increased to 74,1% next year, due to a jump in domestic debt stock by 3,4 times. This sharp rise in domestic debt stock, which comprises 70% of the total, was mainly due to the non-cash bonds issued to public banks and Savings Deposit Insurance Fund, in the context of the banking sector operations after 2001 crisis. (Chart 1 and Chart 2)

Chart 1: Institutional Coverage of the Public Sector Debt Stock



Source: Public Finance Statistics, The Undersecretariat of Turkish Treasury

Chart 2: Domestic and External Debt Composition of the Central Government Debt Stock



Source: Public Finance Statistics, The Undersecretariat of Turkish Treasury

So one of the most important goals of the Economic Program, which was put into effect at the beginning of 2000, was to reduce the public sector borrowing requirement and to manage the financing of the public sector in a balanced manner. And one of the core elements to achieve this objective was a “transparent and accountable public debt management”.

The so called economic program also included a significant strengthening of the central government's underlying fiscal position by implementing an ambitious public sector reform program. This involved enhancing aggregate fiscal control, by strengthening the legal framework for fiscal policy, consolidating fiscal institutions, and deepening fiscal transparency reforms, within the framework of the IMF Stand-by program. Accordingly the performance criteria and indicative targets on the fiscal side was on the cumulative primary balance of the consolidated government sector, which corresponds to the central government, local administrations, funds, state owned enterprises, social security institutions and the unemployment insurance fund, which is a public fund managing the insurance services to people who have lost their jobs via implementation of active labour market policies.

So, the net debt concept, which was first developed with the IMF technical staff and the Turkish Treasury, using the most accurate data sources and methodology available at that time, was brought to the agenda under the above mentioned conditions. The net debt statistics, namely the “public net debt stock” and also the “net external debt of Turkey” have been published quarterly by the Turkish Treasury since 2003.

Public Net Debt Stock – Turkish Practice

It is of great importance for the correct identification of the risks to which the public debt stock is susceptible, and for the proper monitoring of these risks by the markets, that the public debt stock should be evaluated in a way that takes the financial claims and deposits of the public sector into account as well as its liabilities. So the net debt stock provides a better understanding and analysis of public debt sustainability by focusing on not only public financial liabilities but also its assets.

The net debt data compilation process in Turkey is depicted in the table below. It shows the source institution and compilation method by data categories.

Table 2: Net Debt Data Compilation Process

	SOURCE OF DATA USED	OTHER RELATED INSTITUTIONS	DATA COLLECTING METHOD	EXPLANATION
CG DEBT STOCK	Turkish Treasury - GD of Public Finance	-	Administrative Register	Provided through Domestic and External Debt Information Systems and Debt Acc. Department Data
LOCAL GOVERNMENT DEBT				
- Domestic Debt	Central Bank of Turkey	Ministry of Finance	Administrative Register	Data reported to the CBT by financial institutions and disseminated as "Monetary and Banking Statistics"
- External Debt	Turkish Treasury - GD of Public Finance	Ministry of Finance	Administrative Register	Provided through Treasury External Debt Information system
FUNDS				
- Domestic Debt	-			No domestic debt
- External Debt	Turkish Treasury - GD of Public Finance	-	Administrative Register	Provided through Treasury External Debt Information system
SOCIAL SECURITY INSTITUTIONS	Central Bank of Turkey	Ministry of Finance	-	No domestic or external debt
STATE OWNED ENTERPRISES				
- Domestic Debt	Turkish Treasury - GD of SOEs	-	Administrative Register	SOE's debt to local banks and private corp. and persons
- External Debt	Turkish Treasury - GD of Public Finance	-	Administrative Register	Treasury External Debt Information system
PUBLIC SECTOR FINANCIAL ASSETS (Deposits and Securities)	Turkish Treasury - GD of Public Finance	-	Survey	Data collected via "public treasurership" The securities part consists of debt securities issued by the Treasury
CENTRAL BANK NET ASSETS	Central Bank of Turkey	-	Administrative Register	

The methodology used to calculate the net debt of the public sector, which is assessed in Turkish Lira, consists of four basic parts: the “total gross public sector debt stock” (PSGD); the “central bank net assets” (CBNA), the “public sector financial assets” (PSFA) and “unemployment insurance fund net assets” (UIFNA).

So the basic formula as shown in the table below reflects a deduction of public sector total financial assets from the gross debt of the public sector.

$$\text{PSND} = \text{PSGD} - (\text{CBNA} + \text{PSFA} + \text{UIFNA})$$

As explained previously, the selection of the “public sector” as the institutional coverage, which differs from the existing general practice, is the fact that the timing and the need for net debt statistic mainly stemmed from the idea of the sustainability of the whole public sector financial liabilities in a holistic approach, under a financial crisis conditions. As a matter of fact, net public debt addresses new data needs arising from the crisis, similar to other country experiences and it served this purpose along with already available debt statistics. It also emphasized the performance on the public sector asset side due to the fact that the 2001 financial crisis period necessitated a better measure to evaluate the capacity of the public sector to continue servicing its debt at that time when there was no standard or internationally defined net debt concept available.

So the first part, the non-consolidated public sector debt stock consists of domestic and external debt of the central government, local administrations, funds, state owned enterprises and social security institutions.

Table 3: Public Net Debt Stock

(Million TL)	2002	2003	2004	2005	2006	2007	2008	2009	2010	2011	2012	2013 Q1
Total Public Sector Net Debt (I-II-III-IV)	215.631	250.970	274.606	270.287	258.202	248.441	267.992	309.886	317.783	289.997	240.377	227.737
I- Total Public Sector Debt Stock (Gross)	257.225	297.686	333.049	351.332	365.891	355.519	408.232	465.600	497.103	546.442	562.650	568.967
A-Domestic Debt	155.216	202.108	225.105	259.801	288.286	273.262	295.787	347.378	368.934	387.566	408.155	415.095
Central Government	149.870	194.387	224.483	244.782	251.470	255.310	274.827	330.035	352.841	368.778	386.542	392.814
Rest of the Public Sector	5.337	7.721	10.622	15.019	16.816	17.952	20.940	17.374	16.093	18.788	21.613	22.280
B- External Debt	102.008	95.578	97.945	91.531	97.605	82.257	112.445	118.311	128.169	158.876	154.495	153.872
Central Government	92.796	88.421	92.046	86.738	93.580	78.175	105.494	111.504	120.720	149.572	145.657	145.161
Rest of the Public Sector	9.223	7.157	5.899	4.793	4.024	4.082	6.951	6.807	7.450	9.304	8.838	8.711
II-Central Bank Net Assets	25.375	24.733	27.891	30.793	45.685	41.769	60.371	65.995	86.216	143.162	189.502	205.444
Net Foreign Assets	13.660	17.262	23.048	49.480	67.136	70.977	92.835	92.497	114.572	150.634	198.965	216.133
Other Asset and Obligations (Net)	11.715	7.471	4.843	-18.687	-21.451	-29.208	-32.464	-26.502	-28.356	-7.471	-9.464	-10.689
III-Public Sector Financial Assets (Deposits and Securities)	11.265	13.053	17.235	32.223	38.256	34.603	41.516	47.713	47.166	59.762	71.610	72.612
Central Government	4.975	4.800	7.918	18.701	24.745	20.712	19.621	27.974	25.537	31.036	33.535	35.678
Rest of the Public Sector	6.290	8.253	9.317	13.522	13.511	13.892	21.895	19.739	21.629	28.666	38.075	36.935
IV-Unemployment Insurance Fund Net Assets	4.954	8.929	13.317	18.029	23.748	30.705	38.332	42.005	45.939	53.521	61.162	63.173
Mem												
<i>Net External Debt Stock</i>	88.359	78.315	74.897	42.051	30.468	11.280	19.610	25.814	13.597	8.242	-44.470	-62.261
<i>Net Domestic Debt Stock</i>	127.272	172.655	199.709	228.236	227.734	237.161	248.382	284.072	304.186	281.755	284.846	289.999
<i>Public Net Debt Stock/GDP (%)</i>	61,5	55,2	49,1	41,7	34,0	29,5	28,2	32,5	28,9	22,3	17	
<i>GDP</i>	350.476	454.781	559.033	648.932	758.391	843.178	950.534	952.559	1.098.799	1.297.713	1.416.817	

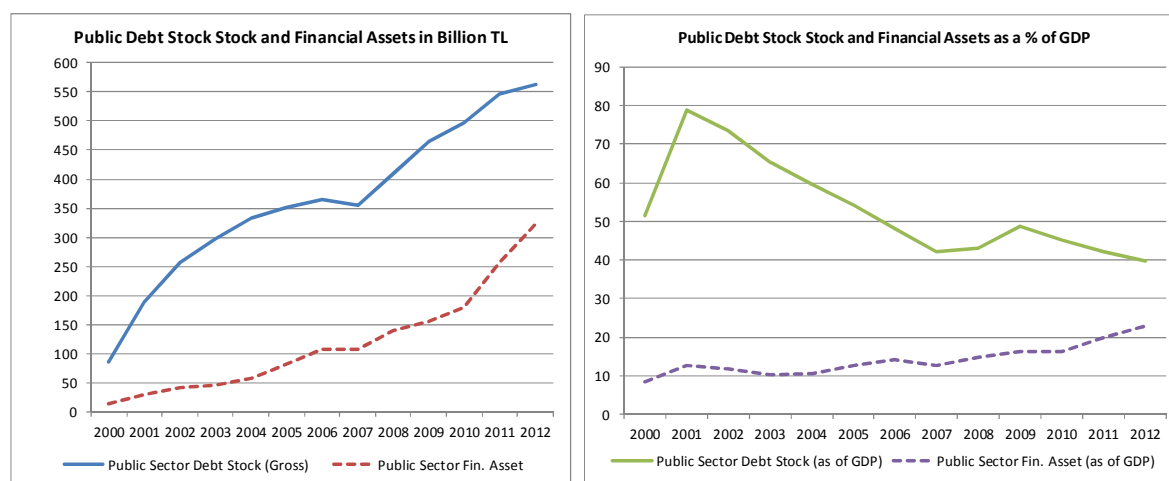
Source: Public Finance Statistics, The Undersecretariat of Turkish Treasury

The second part, the central bank net assets is the net foreign assets of CBT plus net receivables of CBT from central government, banks and other public sector (or minus net liabilities of these sectors) minus free domestic and foreign deposits on CBT on a certain date. All these data, which is compiled through the analytical balance sheet of the CBT are regularly sent to the Treasury by the Central Bank.

$$CB \text{ Net Assets} = NFA + \text{Net claims on the CG} + \text{Net claims on banks} + \text{Free reserves in FX} \\ + \text{Free reserves in TL} + \text{Other liabilities}$$

In the above equation; most of the items enter into the equation with either a plus or a negative sign, giving the financial assets held by the CBT in net terms. For example net claims on the CG, reflects the net asset-liability position of the CBT with CG institutions including Treasury; which had a positive sign during 2001-2005; indicating CBT receivables from the Treasury due to Treasury debt securities held by CBT coming from IMF credit use and lower deposit levels held by the Treasury at the CBT. So the net position of the central bank against other sectors is reflected as foreign and domestic central bank assets in net terms.

Chart 3: Public Debt Stock and Financial Assets



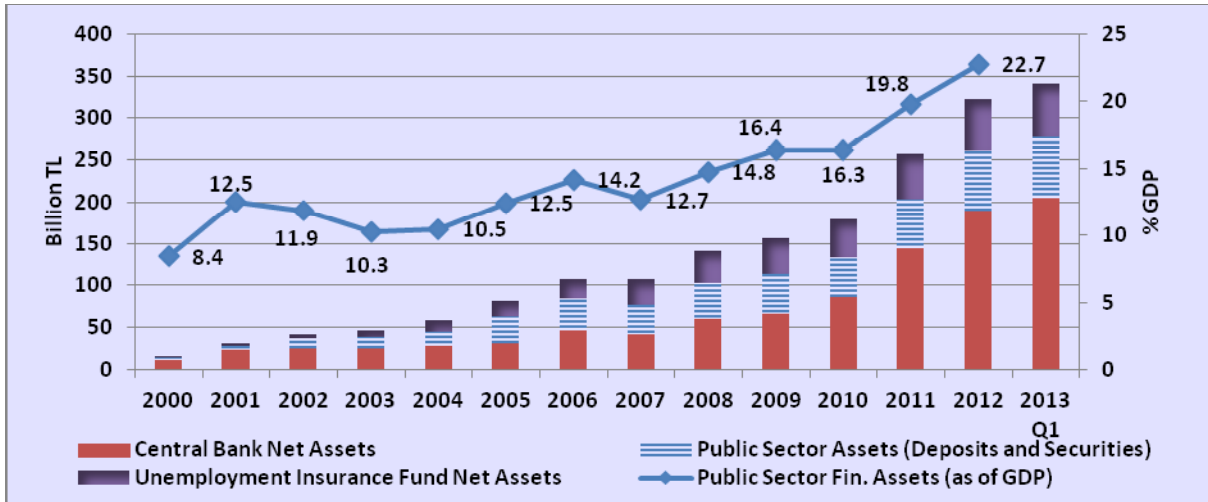
Source: Public Finance Statistics, The Undersecretariat of Turkish Treasury

As can be seen from the graphs above, both financial assets and liabilities of the public sector increased during 2000-2012 period. The reduction in public debt was 39,2 percentage points from its highest level of %78,9 in 2001 financial crisis period to %39,7 in 2012. However the accumulation of public sector financial assets depicted a %10,2 increase; which represents a %49,4 improvement in public net debt position in that period.

Public sector assets are the total of securities other than shares (AF 3) and deposits (AF 2) held by the central government institutions and the other public sector on relevant date. The majority of the securities held by public institutions are domestic debt securities (both short and long term) issued by the Treasury through non-competitive sales at the auction. Since net debt started to be calculated before the adoption of the Maastricht debt, these securities, which are the debt and also a financial asset for the subsectors of the GG, this netting implicitly corresponds to a consolidation process in itself.

The last financial asset item is the “net assets of Unemployment Insurance Fund” (UIF), which is the net balance of Fund’s income and expenditures. UIF holds 95% of its funds in the form of bonds issued by the Treasury and this is also the biggest GG consolidation item in the calculation of the Maastricht debt.

Chart 4: Institutional Breakdown of Public Financial Assets

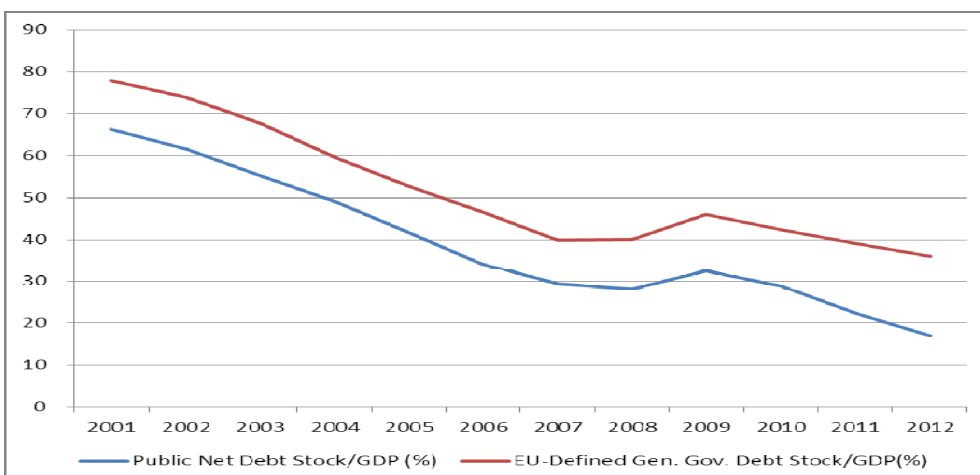


Source: Public Finance Statistics, The Undersecretariat of Turkish Treasury

As can be seen from the graph of the composition of public sector financial assets, the central bank net assets constitutes a considerable part in the total.

If we have a look at the historical trend in public net debt stock to GDP, compared to the EU defined general government debt (Maastricht debt); we can see that they move quite similarly between 2000-2012 period. It can be said that in general the decline is faster in net debt to GDP than the one in the Maastricht debt. Especially in 2009, both ratios increased by around 4-6%; but the recovery in net debt ratio is better especially in 2011 due to the performance on the assets side.

Chart 5: Debt to GDP vs. Net Debt to GDP Ratio %



Source: Public Finance Statistics, The Undersecretariat of Turkish Treasury

Conclusion

As outlined above, the net debt statistics has been compiled after identifying the accurate data sources, in close cooperation with related national agencies since 2003. The net debt concept, which was initially developed due to some new data needs arising from the financial crisis conditions have served the purpose of an integrated management of assets and liabilities of the public sector. This provided a valuable tool to Treasury's debt and receivables management, which is mainly based on the ALM (Asset Liability Management) approach.

It should also be added that parallel to the main debt statistics compiled and disseminated by the Treasury; the Financial Accounts (FA) production process in Turkey has been continued under the coordination of the Central Bank of Turkey, together with Turkstat, Ministry of Finance (MoF) and the Treasury, who is responsible for the General Government data jointly with the MoF. For the time being, only the stock data for some subsectors are compiled and reported to international organizations. However, the work on the compilation for the full sectoral coverage and flow data has been continued. The completion of the FA data will improve the compilation process of the net debt data and lead to a more systematic framework in terms of improvement in the quality of data; standardization in definitions, valuation methods, periodicity and timeliness.

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