6. Public Finance

The fast economic recovery and falling interest expenditures continue to enhance Turkey's fiscal outlook. Increasing tax revenues amid robust domestic demand and the decline in interest expenditures were the major drivers of the improved budget balances in the first half of 2011. In addition, the relative slowdown in the growth of primary expenditures also contributed to the improvement in budget balance.

Increases in indirect taxes, mainly VAT on imports, driven by the vigorous private consumption demand were particularly effective in the favorable outlook of the budget performance, pointing to the cyclical nature of the improvement in fiscal balances.[1] In addition, within the scope of the law on restructuring of public claims (tax and insurance premium amnesty), applications of which were due on May 31, 2011, an additional budget revenue of about 1 percent of the GDP is envisaged for 2011. Using these additional revenue gains from cyclical influences or other arrangements to reduce public debt will contribute to the balancing of domestic and external demand. Additionally, strengthening the fiscal structure by implementing institutional and structural reforms envisaged in the MTP remains critical for maintaining fiscal discipline.

6.1. Budget Developments

The central government budget and the primary balance produced a surplus of TL 2.9 billion and TL 25.3 billion, respectively in the first half of 2011 (Table 6.1.1). Higher tax revenues fueled by economic recovery and falling interest expenditures were the main drivers of the year-on-year improvement in the budget balance. In addition, the relative slowdown in the growth of primary expenditures helped bring the budget deficit down.

[1] See Box 6.1.

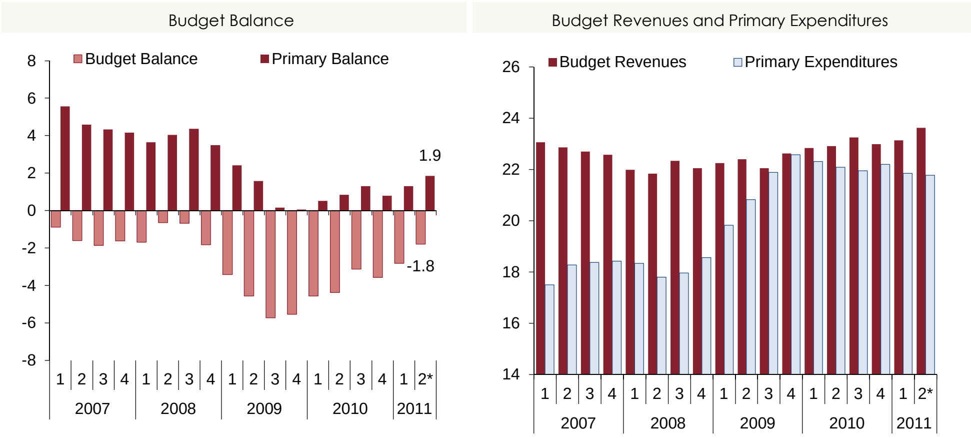
Table 6.1.1.
Central Government Budget Aggregates
(Billion TL)

	January-June 2010	January-June 2011	Rate of Increase (Percent)	Actual/Target (Percent)
Central Government Budget Expenditures	136.5	143.2	4.9	45.8
Interest Expenditures	27.6	22.4	-18.6	47.2
Primary Expenditures	108.9	120.8	10.9	45.6
Central Government Budget Revenues	121.1	146.1	20.7	52.4
I. Tax Revenues	98.6	122.7	24.4	52.9
II. Non-Tax Revenues	18.2	18.5	1.3	46.8
Budget Balance	**-15.4**	**2.9**	**-**	**-8.5**
Primary Balance	**12.1**	**25.3**	**108.5**	**181.2**

Source: Ministry of Finance.

Having slightly deteriorated due to sharp increases in primary expenditures in the last quarter of 2010, central government budget balance and primary budget balance to GDP ratios have started to improve amid the favorable budget outturn in the first half (Chart 6.1.1). The budget revenues to GDP ratio has picked up from end-2010 amid strong tax revenues during the first half of 2011, while the primary expenditures to GDP ratio displayed a modest decline in the first two quarters of 2011 compared to end-2010 figures (Chart 6.1.1).

Chart 6.1.1.
Central Government Budget
(Annualized, Percent of GDP)



* Estimate.
Source: Ministry of Finance.

Central government primary expenditures increased slightly by 10.9 percent year-on-year in the first half of 2011. The limited increase in primary expenditures was mainly due to the 6.1 percent increase in current transfers, the major component of primary expenditures. Personnel expenditures, another major component of primary expenditures, were up 16.1 percent. Meanwhile, capital expenditures increased by about 24.6 percent, implying that public investments made a positive contribution to GDP growth in the first half of 2011 (Table 6.1.2).

Table 6.1.2.
Central Government Primary Expenditures
(Billion TL)

	January-June 2010	January-June 2011	Rate of Increase (Percent)	Actual/Target (Percent)
Primary Expenditures	**108.9**	**120.8**	**10.9**	**45.6**
1. Personnel Expenditures	31.7	36,8	16,1	51.0
2. Government Premiums to SSI	5.4	6,3	18.4	49.8
3. Purchase of Goods and Services	10.5	12,4	17.8	41.2
a) Defense and Security	3.4	3.5	2.7	34.7
b) Health Expenditures	2.5	2.6	4.5	52.0
4. Current Transfers	51.8	55.0	6.1	47.5
a) Duty Losses	1.4	0.9	-38.0	17.0
b) Health, Pension and Social Benefits	28.4	27.2	-4.4	43.5
c) Agricultural Support	4.6	5.5	19.5	92.2
d) Shares Reserved From Revenues	12.8	14.6	13.8	51.0
5. Capital Expenditures	5.5	6.8	24.6	31.4
6. Capital Transfers	1.4	1.7	23.8	40.3

Source: Ministry of Finance.

General budget revenues increased by 20.8 percent year-on-year in the first half of 2011. Tax revenues were up 24.4 percent, while non-tax revenues increased by 1.3 percent on soaring capital revenues, notwithstanding the decline in enterprise and property revenues and interests, shares and fines (Table 6.1.3). In particular, the substantial increase in consumption-based tax revenues such as VAT on imports indicates that consumption demand remains strong. Additionally, the record high temporary corporate tax payments in February and May also contributed to the rapid increase in tax revenues. SCT revenues increased at a relatively slower pace owing to the limited increase in SCT on oil, natural gas and tobacco products.

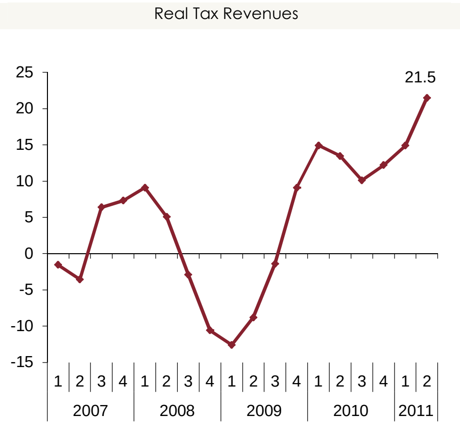
Table 6.1.3.
Central Government General Budget Revenues
(Billion TL)

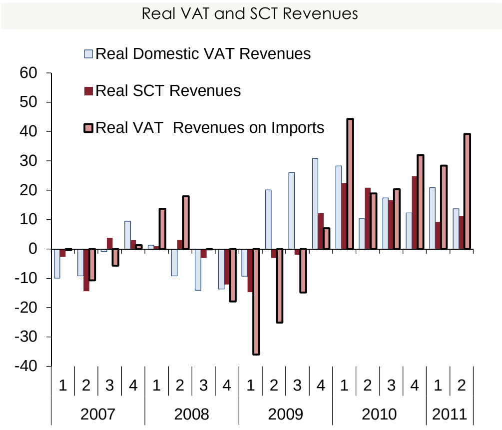
	January-June 2010	January-June 2011	Rate of Increase (Percent)	Actual/Target (Percent)
General Budget Revenues	**116.8**	**141.2**	**20.8**	**52.0**
I-Tax Revenues	**98.6**	**122.7**	**24.4**	**52.9**
Income Tax	19.3	23.2	20.0	48.9
Corporate Tax	10.1	13.9	37.6	59.9
Domestic VAT	12.3	15.1	23.2	56.4
SCT	25.6	29.8	16.0	48.7
VAT on Imports	16.5	23.3	41.2	56.7
II-Non-Tax Revenues	**18.2**	**18.5**	**1.3**	**46.8**
Enterprises and Property Revenues	6.3	6.0	-5.2	81.9
Interests, Shares and Fines	10.1	9.9	-1.9	47.7
Capital Revenues	0.6	1.8	191.8	18.5

Source: Ministry of Finance.

The annual rate of increase in real tax revenues, which has been on the rise since the fourth quarter of 2009 with the recovery of private consumption demand, lost some pace due to the waning base effect in the second and third quarters of 2010 before rising sharply again as of the last quarter of 2010 (Chart 6.1.2). Real tax revenues increased by 21.5 percent year-on-year in the second quarter of 2011. SCT revenues and VAT revenues on imports, major components of tax revenues, increased by 11.3 and 39.2 percent year-on-year, respectively, in real terms. Meanwhile, domestic VAT revenues rose by 13.7 percent year-on-year in real terms (Chart 6.1.2).

Chart 6.1.2.
Real Tax Revenues
(Annual Percent Change)





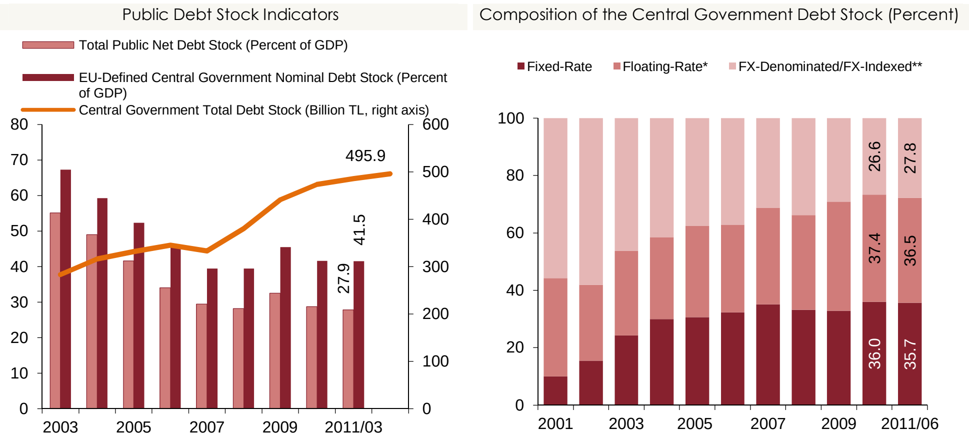
Source: Ministry of Finance.

6.2. Developments in the Debt Stock

The fiscal and debt management policies consistent with the prudent monetary policy stance in 2010 as well as the faster-than-expected economic recovery since the last quarter of 2009 helped improve fiscal balances, thus public debt stock indicators. 2010 was marked by a decline in public debt ratios, a significant fall in the real cost of borrowing, an extended average maturity of debt, a decreased share of interest rate and exchange rate sensitive debt in overall debt and a reduced domestic debt rollover ratio. This favorable outlook also continued throughout the first half of 2011.

The central government debt stock increased by 4.7 percent from end-2010 to TL 495.9 billion at end-June 2011 (Chart 6.2.1). Changes in net domestic debt and net external debt accounted for TL 9.6 billion and TL 2.3 billion, respectively, of the increase in central government debt. Meanwhile, due to depreciation of the USD against the euro and the appreciation of USD against the Turkish lira, parity and exchange rate changes brought central government debt up by TL 3.5 and 7.2 billion, respectively.

Chart 6.2.1.
Public Debt Stock Indicators



* Floating-rate debt stock includes discounted securities with a maturity less than 1 year and GDBS with floating rates.
** FX-denominated/indexed debt stock includes external debt stock and FX-denominated and FX-indexed domestic debt stock.
Source: Treasury, CBRT.

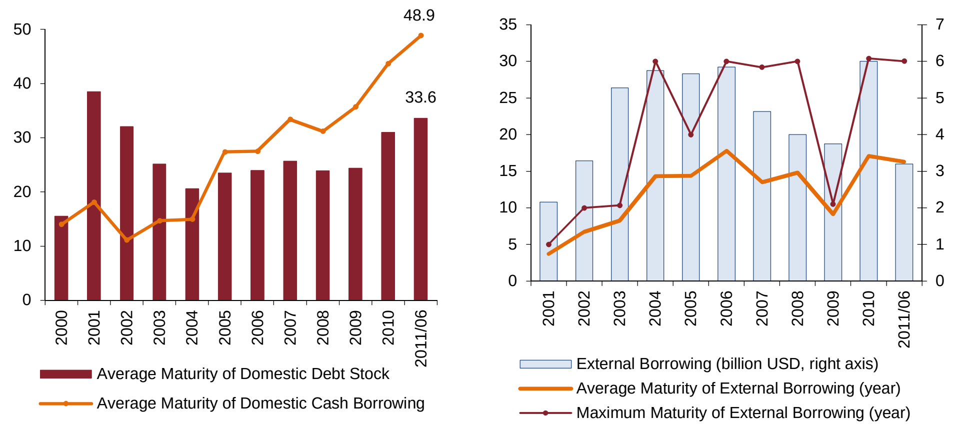
Public debt ratios posted a favorable outlook in the first quarter of 2011 amid ongoing economic recovery and the improving budget performance. The ratio of total net public debt stock to GDP declined by 0.9 percentage points from end-2010 to 27.9 percent. Meanwhile, the ratio of EU-defined general government nominal debt stock to GDP remained unchanged at end-2010 level (Chart 6.2.1).

The Treasury's financing program for 2011 has been formulated based on an approach to limit the liquidity, interest rate and foreign exchange sensitivity of the debt stock. In this regard, the share of fixed-rate instruments in total debt stock decreased slightly year-on-year as of June 2011 (Chart 6.2.1).

Chart 6.2.2.
Maturity of Borrowing from Domestic and External Markets

Average Maturity of Domestic Cash Borrowing and Term-to-Maturity of the Domestic Debt Stock
(Month)

Borrowing By Bond Issue



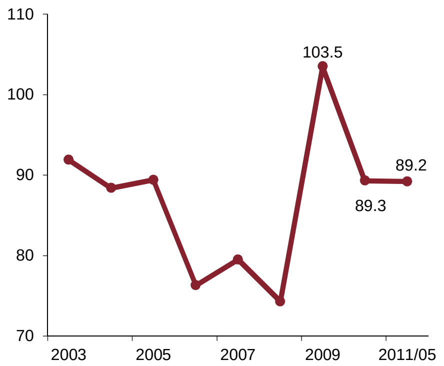
Source: Treasury, CBRT.

The financing strategy implemented to reduce liquidity risk also continues in 2011. The ratio of public deposits to average monthly debt service has been 205.5 percent as of the first half of 2011. With an average maturity of domestic cash borrowing above 2010 averages, term-to-maturity of total domestic debt stock increased to 33.6 months in June 2011 (Chart 6.2.2). Moreover, bond issues have yielded a long-term external debt of USD 3.2 billion in the first six months of 2011, with an average maturity slightly down to 16.3 years from 2010 (Chart 6.2.2).

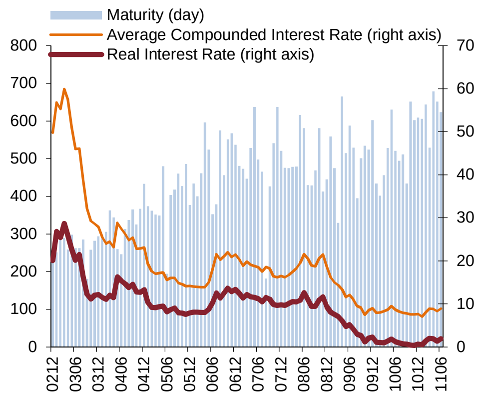
Having fallen rapidly from early 2009 until early 2011, the monthly average real interest rates at discount Treasury bill auctions remain low despite some increase in recent months (Chart 6.2.3). The substantially extended average maturity and the low cost of domestic borrowing support the favorable outlook for public debt sustainability.

Chart 6.2.3.
Domestic Borrowing

Total Domestic Debt Rollover Ratio (Percent)



Average Maturity of Borrowing and Interest Rates at Discount Auctions



Source: Treasury, CBRT.

Domestic debt rollover ratio was 89.2 percent for the first five months of 2011 (Chart 6.2.3). However, this ratio is expected to decline to 83.9 percent by the end of the first nine months of 2011 as envisaged by the Treasury's domestic borrowing strategy for July-September 2011.

Box 6.1 Structural Budget Balance and Fiscal Stance[2]

Fiscal policy can affect macro and micro balances in an economy and can also be affected by changes in the economy. The latter necessitates an approach that considers cyclical effects in formulating the fiscal stance and analyzing budget deficits, a significant indicator of the fiscal performance. In this context, calculation of the structural (cyclically-adjusted) budget balance is crucial in determining whether fiscal policy is used as a countercyclical tool.

Structural budget balance is derived by subtracting budget components sensitive to cyclical fluctuations from the actual budget balance. In other words, structural budget balance is the budget balance that occurs when the national income equals the potential output. This Box aims to formulate the fiscal stance of Turkey in the 2006-2010 period by calculating the structural primary budget balance (in terms of central government budget) and determine to what extent the budget balance is influenced by cyclical movements.

Methodology

Various methods are developed by international organizations like the OECD, IMF and ECB in order to calculate the structural budget balance.[3] As the OECD approach is the most commonly used method in the economic literature, the structural primary budget balance in this study is calculated by adopting the OECD method.

Although, the methods developed and used by the above-mentioned organizations are different, a 3-step estimation method is common:

1) Determining the budget expenditure and revenue items that are sensitive to cyclical movements, and estimating the national income elasticity of the tax revenues,
2) Developing potential output and output gap series in order to determine the cyclical movements,
3) Subtracting additional income and expenditure items driven by cyclical movements from the budget balance.

[2] This Box is based on Çebi and Özlale (2011).
[3] Van den Noord (2000), Girouard and André (2005); Hagemann (1999) and Bouthevillain *et al.* (2001) can be referred to for the OECD approach; for the IMF approach and for the ECB approach, respectively.

In the first step, tax elasticity coefficients that measure the sensitivity of tax revenues to output level (or output gap) are separately calculated in four different tax categories for Turkey. These items can be listed as indirect taxes, income tax on wages, income tax on non-wage earnings and corporate tax. Elasticity calculations are made by both considering the legal tax structure (tax tariff, tax rate etc.) and using econometric estimation methods. Calculations are mainly based on the OECD approach; however, for comparison purposes, the ECB approach was also used in calculating indirect tax elasticity.

In the second step, a potential output series is developed by using the Hodrick Prescott (HP) filter, and accordingly, an output gap series is constructed. In the last step, the structural primary budget balance is calculated by using the following OECD method:

$$b^* = \left[\left(\sum_{i=1}^{4} T_i^*\right) - G + X\right] / Y^*$$

$$T_i^* = T_i \left(Y^* / Y\right)^{\varepsilon_{t_i,y}}$$

where b^* is the share of structural budget balance within potential GDP, T_i^* is cyclically-adjusted tax revenues (i income type), Y^* is the potential output level, Y is the output level, $\varepsilon_{t,y}$ is the elasticity of tax revenues to output gap, and G and X are primary expenditures and non-tax revenue items, respectively.

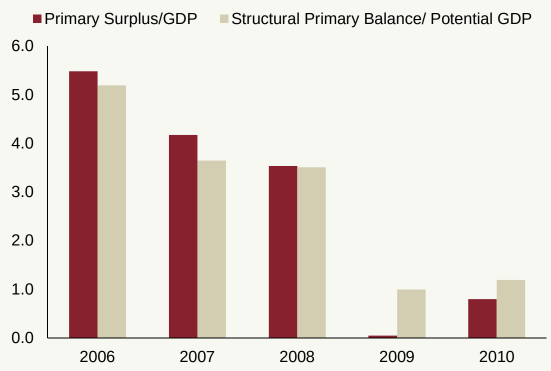
Findings and Evaluation: Structural Primary Budget Balance and Fiscal Stance

In structural budget balance calculations, indirect tax elasticity, elasticity of income tax on wages, and elasticity of corporate tax and income tax on non-wage earnings are assumed to be 0.94, 1.5 and 1.2, respectively. The tax elasticity coefficient weighted by the share of each tax item in tax revenues is found to be 1.07 for 2009. Table 1 and Chart 1 illustrate how structural and cyclical primary budget balances calculated by these elasticities have changed over the 2006-2010 period in Turkey.

Table 1. Structural and Cyclical Primary Budget Balance
(Percent of Potential GDP)

	Primary Budget	Structural Budget	Cyclical Budget
2006	5.5	5.2	0.3
2007	4.2	3.6	0.5
2008	3.5	3.5	0.0
2009	0.1	1.0	-0.9
2010	0.8	1.2	-0.4

Chart 1. Primary Budget Surplus and Structural Primary Budget Surplus



Formulation of the fiscal stance measured by the change in the structural budget balance can vary depending on the economic circumstances. Implementation of an expansionary (contractionary) fiscal policy in times of economic contraction (expansion) points to the presence of a countercyclical fiscal policy. On the contrary, implementation of a contractionary (expansionary) fiscal policy in times of economic contraction (expansion) indicates that the fiscal policy is pro-cyclical. Implementation of an expansionary fiscal policy during the economic contraction in 2009 shows that the fiscal policy implemented in 2009 was countercyclical. In other words, the fiscal authority prioritized economic stability in 2009 on account of the global crisis.

In sum, estimations regarding the structural budget balance indicate that the pre-crisis fiscal space was largely used in the post-crisis period (Table 1 and Chart 1). Meanwhile, there was a limited tightening in the fiscal policy for 2010. Budget data pertaining to the first quarter of 2011 suggest that the fiscal stance will get tighter and contribute to macroeconomic stability by supporting the policies implemented by the CBRT.

REFERENCES

Bouthevillain, C., P. Cour-Thimann, G. van den Dool, P. Hernández de Cos, G. Langenus, M. Mohr, S. Momigliano, S. and M. Tujula, 2001, Cyclically Adjusted Budget Balances: An Alternative Approach, ECB Working Paper Series No. 77.

Çebi, C. and Ü. Özlale, 2011, Structural Budget Balance and Fiscal Stance in Turkey. CBRT Working Paper No. 11/11.

Girouard, N. and C. André, 2005, Measuring Cyclically-Adjusted Budget Balances for OECD Countries, OECD Economics Department Working Paper No. 434.

Hageman, R., 1999, The Structural Budget Balance: The IMF's Methodology. IMF Working Paper No. 99/95.

Van den Noord, P.,2000, The Size and Role of Automatic Fiscal Stabilisers in the 1990s and Beyond, OECD Economics Department Working Paper No. 230.