6. Public Finance

The central government budget performed better in the first half of 2015 compared to the same period in 2014, particularly on the back of the upsurge in tax revenues, which is driven by consumption-based indirect taxes. Despite the better-than-targeted performance of tax revenues, primary expenditures are still on the rise and higher than the target set for 2015. The MTP covering the 2015-2017 period envisions that fiscal consolidation will be achieved by keeping primary expenditures under control, and policies that may permanently raise the level of expenditures in the medium and long term by exploiting temporary sources of revenues will be evaded. Efforts to achieve fiscal adjustment by slowing primary expenditures to be paid during the implementation of the MTP are expected to underpin the CBRT's primary objective to maintain price stability and support macroeconomic stability.

6.1. Budget Developments

The central government budget balance and the primary budget balance registered a surplus of 0.8 and 30.5 billion TL, respectively in the first half of 2015 (Table 6.1.1). The central government budget balance and primary balance exhibited a noticeable improvement in the first six months of 2015 compared to the same period of the previous year. The rate of increase in primary expenditures is far from the deceleration target set for 2015 in the first half. Still, tax revenues proved higher than the target, leading to a surplus in the central government budget balance.

Table 6.1.1.
Central Government Budget Aggregates
(Billion TL)

	2014 January-June	2015 January-June	Rate of Increase (Percent)	Realization/Target (Percent)	Target (Percent)
Central Government Budget Expenditures	213.9	236.7	10.7	50.0	5.5
Interest Expenditures	26.5	29.7	12.3	55.0	8.2
Primary Expenditures	187.4	206.9	10.4	49.4	5.1
Central Government Budget Revenues	210.5	237.5	12.8	52.5	6.2
I. Tax Revenues	168.1	194.7	15.8	50.0	10.5
II. Non-Tax Revenues	34.1	33.5	-1.7	65.1	-9.3
Budget Balance	**-3.4**	**0.8**	**-**	**-**	**-**
Primary Balance	**23.1**	**30.5**	**32.2**	**92.4**	**21.3**

Source: Ministry of Finance.

The central government budget deficit to the GDP ratio, which rose slightly to 1.3 percent in 2014, is estimated to decline to 1 percent in the first half of 2015 (Chart 6.1.1). Meanwhile, the primary budget surplus to the GDP ratio assumed an upward course and reached 2 percent at end-2013, after declining to 1.1 percent in the third quarter of 2012. This ratio dropped to 1.6 percent in 2014 and is estimated to rise to 1.9 percent in the second quarter of 2015.

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

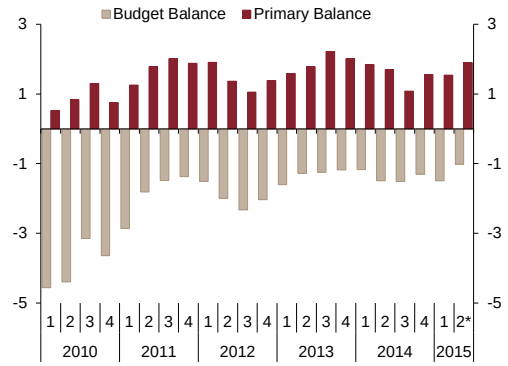
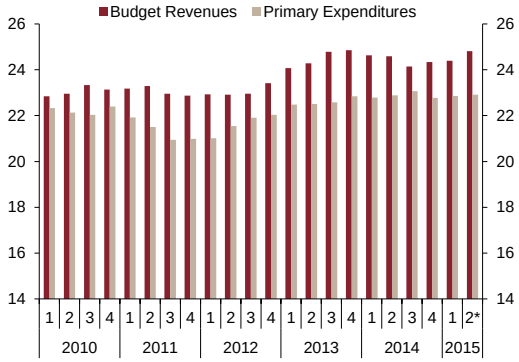


Chart 6.1.2.
Central Government Budget Revenues and Primary Expenditures
(Annualized, Percent of GDP)



* Estimate.
Source: Ministry of Finance.

Having surged since 2012 and reaching 22.8 percent at end-2013, the central government primary expenditures to the GDP ratio hit 23.1 percent in the third quarter of 2014, which is the highest level recorded since 2008. This ratio fell slightly to 22.8 percent in the last quarter of 2014 and is expected to creep up to 22.9 percent in the second quarter of 2015 (Chart 6.1.2). On the other hand, the central government budget revenues to the GDP ratio increased upon the relatively robust economic activity as well as tax adjustments in September 2012 and January 2013, reaching 24.8 percent at end-2013. This ratio dropped to 24.3 percent in 2014, mainly due to slowing tax revenues based on domestic demand, and is estimated to go up to 24.8 percent in the second quarter of 2015.

The central government primary budget expenditures, which have trended upwards since the second half of 2012, lost pace in the first quarter of 2015. However, the rate of increase in primary budget expenditures in the first quarter of 2015 is still higher than the target set for 2015. Accordingly, the central government primary budget expenditures registered a year-on-year increase of 10.4 percent in the first half of 2015 (Table 6.1.2).

Table 6.1.2.
Central Government Primary Expenditures (Billion TL)

	2014 January-June	2015 January-June	Rate of Increase (Percent)	Realization/Target (Percent)
Primary Expenditures	**187.4**	**206.9**	**10.4**	**49.4**
1. Personnel Expenditures	57.0	63.0	10.4	52.8
2. Government Premiums to SSI	9.6	10.3	7.9	50.9
3. Purchases of Goods and Services	15.2	18.3	20.0	44.4
4. Current Transfers	83.0	87.7	5.8	49.7
a) Duty Losses	1.5	1.6	7.4	36.8
b) Health, Pension and Social Benefits	39.9	36.6	-8.4	45.4
c) Agricultural Support	6.8	7.2	6.1	72.3
d) Reserved Share Revenues	22.8	27.4	19.9	50.3
5. Capital Expenditures	13.9	17.1	22.8	41.7
6. Capital Transfers	2.7	3.7	35.6	54.0
7. Lending	6.0	6.9	15.5	65.6

Source: Ministry of Finance.

In the first half of 2015, purchases of goods and services and personnel expenditures, which are major items in primary expenditures, registered an increase by 20 and 10.4 percent, respectively, while the rise in current transfers was merely 5.8 percent. The limited rise in current transfers was caused by the decline in health, pension and social benefit expenditures. The shares reserved for other public

institutions and enterprises from the central government revenues recorded an upsurge by 19.9 percent. This was due to not only the high central government tax revenue performance in the first half of 2015, but also the 6-month postponement of the deduction to apply to the debts of local administrations. On the other hand, the hikes in capital expenditures and capital transfers, which can be defined as public investment expenditures, are noticeable. Capital expenditures rose upon the rise in highway construction expenditures, while capital transfers increased due to capital transfers to special provincial administrations. The upsurge by 15.5 percent in lending resulted from the rise in loans extended to SEEs.

In the first quarter of 2015, the central government general budget revenues recorded a year-on-year increase of 12.8 percent (Table 6.1.3). In this period, tax revenues performed well and rose by 15.3 percent, while non-tax revenues remained unchanged from the previous year.

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

	2014 January-June	2015 January-June	Rate of Increase (Percent)	Realization/Target (Percent)
General Budget Revenues	**202.2**	**228.2**	**12.8**	**51.7**
I-Tax Revenues	**168.1**	**194.7**	**15.8**	**50.0**
Income Tax	34.9	40.2	15.3	48.8
Corporate Tax	15.4	16.9	9.8	46.8
Domestic VAT	19.7	22.3	12.7	50.4
SCT	40.7	48.5	19.2	51.6
VAT on Imports	31.5	36.1	14.9	48.1
II-Non-Tax Revenues	**34.1**	**33.5**	**-1.8**	**65.1**
Enterprises and Property Revenues	8.8	11.2	27.5	118.0
Interests, Shares and Fines	17.0	13.7	-19.8	47.4
Capital Revenues	6.4	6.9	8.6	66.3

Source: Ministry of Finance.

A closer scrutiny of tax revenues reveals that collection of the SCT, the income tax and the VAT on imports recorded a year-on-year surge in the first half of 2015. As income tax revenues are largely provided through withholding taxes on salaries and wages, the high increase in minimum wages during the first half improved the collection of income taxes. Among consumption-based tax revenues, the SCT and domestic VAT revenues recorded an uptick by 19.2 and 12.7 percent, respectively. The details of SCT revenues show a surge by 50.3 percent in tax revenues on motor vehicles. The increase in the collection of taxes on petroleum and natural gas products, which account for a large share of total SCT revenues, remained relatively low and stood at 12.5 percent.

The unchanged performance of non-tax revenues on an annual basis is mainly attributed to the base effect generated by the one-time inclusion of 3 billion TL in the budget in March 2014 from the special provincial administrations, which were annulled by Law No. 6360. On the other hand, privatization revenues, which had been 5.3 billion TL in the first half of 2014, amounted to 6.1 billion TL in the same period of 2015.

Having turned positive amid tax hikes in September 2012 as well as the base effect, the annual rate of change in real tax revenues started to slacken in the third quarter of 2013, and real tax revenues remained unchanged in the last quarter of 2014 compared to the same period of the previous year. Meanwhile, real tax revenues increased by 10 percent year-on-year in the second quarter of 2015 (Chart 6.1.3). The analysis of this increase suggests that among consumption-based tax revenues, the VAT on imports, the SCT and domestic VAT revenues surged by 22, 10.1 and 9.3 percent in real terms, respectively, in the first quarter of 2015 (Chart 6.1.4).

Chart 6.1.3.
Real Tax Revenues
(Annual Percent Change)

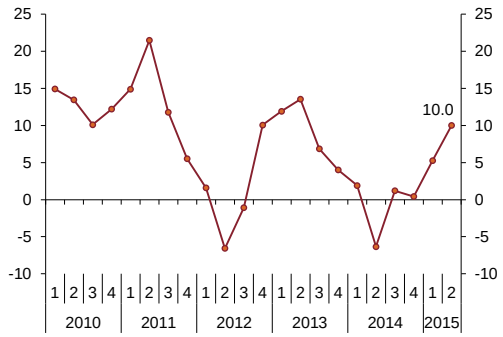
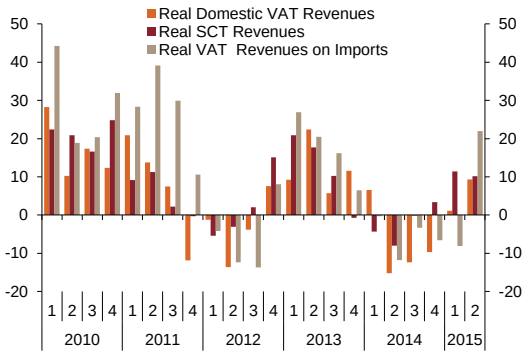


Chart 6.1.4.
Real VAT and SCT Revenues
(Annual Percent Change)

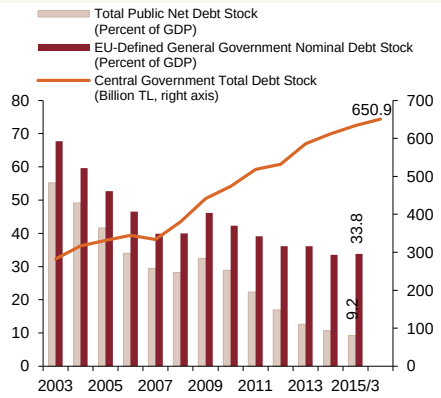


Source: Ministry of Finance.

6.2. Developments in the Public Debt Stock

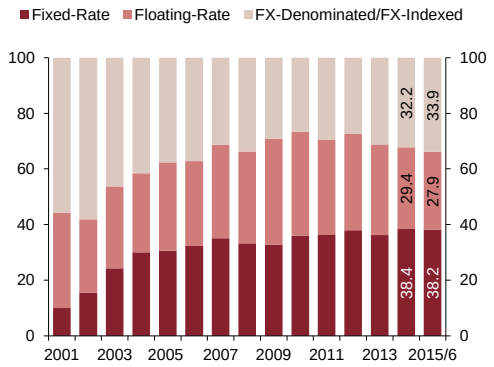
Public debt stock indicators displayed a favorable outlook in the first half of 2015. The total public net debt stock continued to decline, while the average maturity of the debt stock increased and the real cost of borrowing has remained relatively low in recent months.

Chart 6.2.1.
Public Debt Stock Indicators



Source: Treasury.

Chart 6.2.2.
Composition of the Central Government Debt Stock*
(Percent)



* FX-Denominated/FX-Indexed debt stock includes external debt stock and FX-denominated and FX-indexed domestic debt stock.
Source: Treasury.

The central government debt stock reached 650.9 billion TL in June 2015 (Chart 6.2.1). The ratio of the total public net debt stock to GDP decreased by 1.5 points, while the EU-defined general government nominal debt stock remained almost unchanged compared to end-2014 (Chart 6.2.1).

The share of fixed-rate securities in the total debt stock has remained unchanged since 2014 (Chart 6.2.2).

The share of fixed-rate borrowing increased annually as of May 2015, while the ratio of public deposits to average monthly debt service stands at 409.4 percent. The average term-to-maturity of the domestic debt stock climbed to 57.9 months (Chart 6.2.3). Meanwhile, external borrowing by bond issues amounted to 3 billion USD, with an average maturity of 19.7 years (Chart 6.2.4).

Chart 6.2.3.
Average Maturity of the Domestic Cash Borrowing and Term-to-Maturity of the Domestic Debt Stock
(Month)

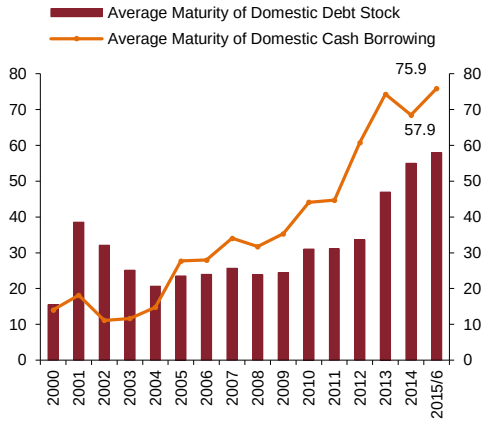
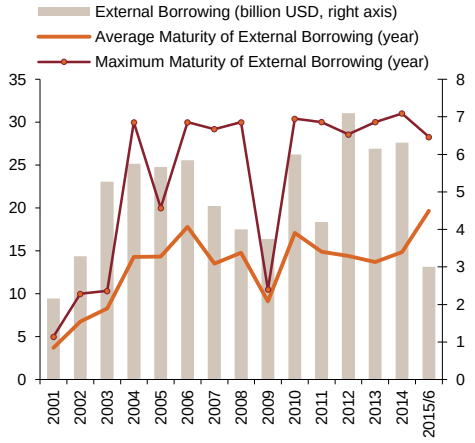


Chart 6.2.4.
Borrowing By Bond Issue



Source: Treasury.

The domestic debt rollover ratio stood at 86.5 percent in May 2015 (Chart 6.2.5). Having plummeted from early 2009 to early 2011, the average real interest rate[1], which increased in the second half of 2013 due to global financial fluctuations and the cautious monetary policy stance, has recently recorded low levels (Chart 6.2.6).

Chart 6.2.5.
Total Domestic Debt Rollover Ratio
(Percent)

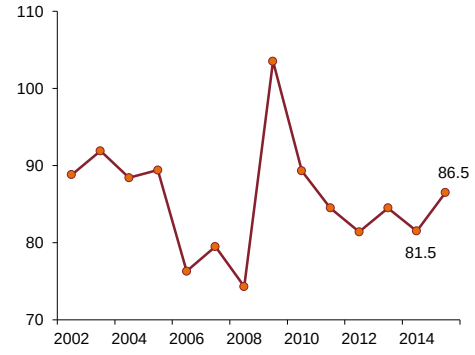
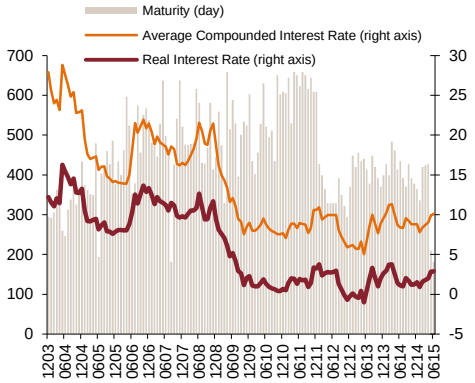


Chart 6.2.6.
Average Maturity and Interest Rates of Borrowing at Discount Auctions



Source: Treasury, CBRT.

[1] Real interest rates are calculated by subtracting the 12-month-ahead inflation expectation of the CBRT Survey of Expectations from nominal interest rates (average annual compounded interest rate at the Treasury's TL-denominated zero-coupon securities auction).

Box 6.1 Government Spending Multiplier

The government spending multiplier is defined as the effect on the national income of a one-unit exogenous change in government spending. The sign and the size of the government spending multiplier are important to the analysis of the effects of fiscal policy on economic activity. Following the domestic financial crisis in early 2001, the share of interest payments in the GDP plummeted in Turkey, while that of primary expenditures trended upwards. Moreover, rising primary budget expenditures were accompanied by increases in budget revenues, while the budget balance posted a primary surplus, and the shares of budget deficits and the debt stock within the GDP declined notably in this period (Table 1). The upward course of the primary expenditures to the GDP ratio raises certain issues as follows: What is the contribution of the increases in government spending to growth? Is the sign of government spending multiplier positive? Is the fiscal policy an effective instrument? Does the rising government spending have a crowding out effect? Does the government spending multiplier differ between consumption and investment?

Table 1. General Government Budget (Percent of GDP)

	2001	2003	2005	2007	2009	2011	2013
Taxes	19.0	18.7	18.6	18.6	18.5	20.1	21.4
Total Revenues	30.9	31.6	32.9	33.6	34.6	36.4	40.0
Current Expenditures	13.1	13.8	13.4	15.0	17.7	16.6	18.0
Investment Expenditures	3.5	2.9	2.9	3.2	3.3	3.3	4.2
Interest Payments	17.6	13.3	7.2	5.9	5.7	3.4	3.3
Primary Expenditures	25.1	26.2	25.8	28.0	34.4	33.4	37.4
Total Expenditures	42.7	39.5	33.0	33.8	40.1	36.8	40.7
Budget Balance	-11.8	-7.9	-0.1	-0.2	-5.5	-0.4	-0.7
Primary Budget Balance	5.8	5.4	7.1	5.7	0.3	3.0	2.6
EU-Defined Debt Stock	77.9	67.7	52.7	39.9	46.0	39.1	36.2

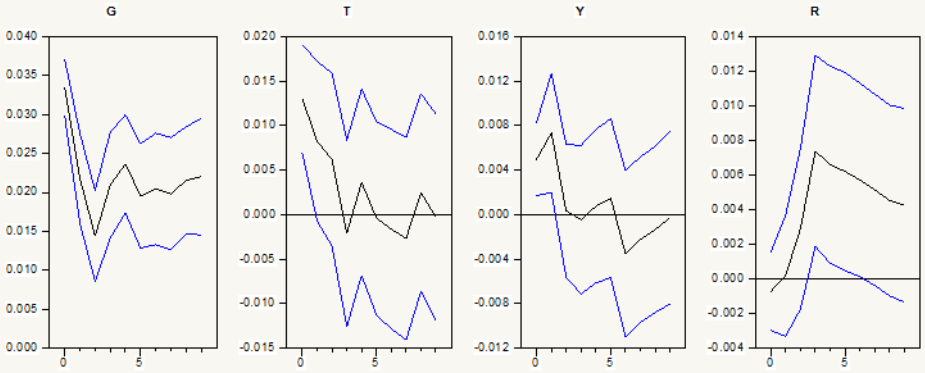
Source: Ministry of Development, Treasury.

Previous studies emphasize that there are plenty of factors influencing the effectiveness of the fiscal policy, and there is no consensus over the size of the fiscal multiplier either theoretically or empirically. Empirical studies regarding the calculation of the fiscal multiplier suggest that the fiscal multiplier can take varying values across countries and within time. Thus, implementation of fiscal policy instruments calls for an accurate assessment of the economic conditions in gauging the effects of these practices on the economic activity.

This box analyzes the dynamic effects of the government spending shocks on the GDP for the Turkish economy via the structural VAR method using quarterly data for the 2002Q1-2014Q4 period.[2] The variables are government spending, the GDP, tax revenues and real interest rates. The series are log-differenced in real terms. Government spending includes government consumption and government investment expenditures, which are the components of the real GDP. The effects of government consumption and government investments on the GDP are separately examined in the analysis.

[2] For further details, see Çebi (2015).

Chart 1. Impulse-Response Functions for Government Spending Shock*



* G, T, Y and R denote government spending, tax revenues, GDP and real interest rates, respectively.
Source: Çebi (2015).

The impulse-response functions of the structural VAR show that real GDP, real tax revenues and real interest rates increase after a positive shock to the government spending (Chart 1). Table 2 presents government spending multipliers calculated by using the impulse-response functions. Accordingly, the table defines three different fiscal multipliers, which are impact multiplier, peak multiplier and cumulative multiplier. The impact multiplier gauges the initial effect of a one-unit increase in government spending on the GDP, and the peak multiplier represents the maximum value that the fiscal multiplier takes within time. The cumulative multiplier is calculated by dividing the cumulative response of the GDP to the government spending shock by the cumulative change in government spending during the analyzed period.

Table 2. Government Spending Multiplier

Variable	Impact	Peak	One-year Cumulative
Government Spending	1.0	1.5	0.9
Government Consumption	1.4	1.9	1.7
Government Investment	2.1	3.6	1.7

The government spending multiplier takes a positive sign right after the shock, and hovers above 1. The impact multiplier (first-quarter) and the peak multiplier (second-quarter) are 1 and 1.5, respectively, and these values are statistically significant. Following the second quarter, fiscal multiplier declines and becomes statistically insignificant. The one-year cumulative government spending multiplier is close to 1 (Table 2). The government spending multiplier varies across consumption and investment spending initially with the government investment multiplier being more effective than the government consumption multiplier with respect to the impact multiplier (first quarter) and peak multiplier (second-quarter). Meanwhile, the one-year cumulative fiscal multiplier is similar across both sub-items.

In sum, national income, tax revenues and interest rates increase after a rise in government spending. Soaring government spending contributes significantly to growth with a positive sign. These findings suggest that fiscal policy is an effective economic policy instrument in the short term and the government spending multiplier is greater than 1. Accordingly, there is no crowding out in the short term, and an increase in the government spending also raises private consumption. In terms of components, government spending has different effects on the economic activity in the beginning and the results prove to be in favor of government investments. Moreover, the size of the change in the fiscal multiplier within time is mainly determined by the interaction of monetary and fiscal policies. Obviously, the short-term expansionary effect of a rise in government spending on growth is lower if government spending increases are coupled with policy rate hikes.

REFERENCES

Çebi, C., 2015, Government Spending Multiplier in Turkey, CBRT Working Paper No. 15/15.