7.3: The Government's Budget and Budget Balance

A budget is the revenue and spending plan of an individual, a company, or a government. The government budget describes what goods and services the government will buy during the coming year, what transfer payments it will make, and how it will pay for them. Most spending is financed by taxes, but some revenue comes from charges for services. When revenues and spending are equal, the budget is balanced. When revenues exceed spending, there is a budget surplus. When revenues fall short of spending, there is a budget deficit, which is financed by borrowing through the sale of government bonds.

**Government budget**: planned government spending and revenue.

Continuing to use $G$ for government expenditure on goods and services, and $NT$ for net tax revenue or taxes minus transfer payments (ignoring other sources of revenue, for simplicity),

$$\text{Government budget balance} \ (BB) = NT - G$$

$$\text{BB} = tY = G$$

The government budget balance is the difference between revenues and expenditures. Figure 7.4 shows government purchases $G$ and net tax revenue $NT = tY$ in relation to real GDP and income.

As a numerical example assume $G$ is fixed at $G = 200$. Also assume a net tax rate of $t = 0.20$, net tax revenue is $NT = 0.2Y$. The tax function has a positive slope. Taxes are zero when income is zero, 100 when income is 500, and 200 when income is 1000. At incomes and outputs below 1000, $NT$ is less than $G$ and the budget balance is a deficit, $BB < 0$. At income and output of 1000, it is balanced, $BB = 0$. At any output and income above 1000, the budget balance shows a surplus, $BB > 0$. Thus, for any fiscal plan like the fiscal plan that sets $G = 200$ and $t = 0.20$, the budget balance depends on the level of output and income.
The budget balance, whether deficit, surplus or zero, is determined by three things:

1. the net tax rate \( t \) set by the government;
2. the level of expenditure \( G \) set by the government; and
3. the level of output \( Y \) determined by AE and AD.

We can summarize the relationship between national income and the government’s budget balance in a way we will find useful for discussing fiscal policy. Table 7.4 shows the numbers in more detail, and Figures 7.3 and 7.4 show the budget and the budget function that gives the budget balance for this fiscal program at different incomes.

![G & NT](image)

**Figure 7.3: A Government Budget**
The government’s budget plan sets \( G = 200 \) and \( t - 0.2Y \). The budget balance is determined by the level of GDP.

![BB](image)

**Figure 7.4: The Government Budget Function**
Budget function positioned by \( G = 200 \) with a slope \( NT = 0.2Y \). The budget balance is determined by the level of GDP.

The Minister of Finance sets the fiscal program by setting the net tax rate and level of planned government expenditure.
in a budget statement presented to parliament. A budget function shows us the different budget balances for one fiscal policy program at different levels of national income.

Once that fiscal program is set, the budget function is set, but the budget balance is not. The budget balance depends on the performance of the economy in terms of national income. In presenting the budget, the minister gives a forecast of the budget balance based on a forecast of national income. If the income forecast is wrong, the budget program will result in either a larger or smaller budget balance than initially predicted.

For many years before the financial crisis of 2008 and the recession that followed the Canadian federal government ran budget surpluses that frequently exceeded predictions, while many provincial government budget deficits were smaller than predicted. Economic growth during those years was stronger than forecast when the budgets were designed. Clearly the difficulties in making accurate income forecasts have important effects on the actual government budget balances.

The recession of 2009 led to a shift in the federal government budget to provide fiscal stimulus through increased government expenditure and tax incentives. This ‘Action Plan’ involved a current budget deficit along with a plan to eliminate that deficit over a period of years in the future. Forecasts for growth in real GDP were a key part of the deficit elimination plan. As of mid-2014, economic growth slightly stronger than predicted has helped to cut the deficit slightly faster than planned.

Finally, notice that because a budget function describes one fiscal plan, any change in the fiscal plan will change the BB line to show a new budget function.