4. Government budget balance

A government budget is a government document presenting the government's proposed revenues and spending for a financial year. The government budget balance, also alternatively referred to as general government balance, public budget balance, or public fiscal balance, is the overall difference between government revenues and spending. A positive balance is called a government budget surplus, and a negative balance is a government budget deficit. A budget is prepared for each level of government (from national to local) and takes into account public social security obligations.

The government budget balance is further differentiated by closely related terms such as primary balance and structural balance (also known as cyclically-adjusted balance) of the general government. The primary budget balance equals the government budget balance before interest payments. The structural budget balances attempts to adjust for the impacts of the real GDP changes in the national economy.

4.1 Primary deficit, total deficit, and debt

The meaning of "deficit" differs from that of "debt", which is an accumulation of yearly deficits. Deficits occur when a government's expenditures exceed the revenue that it generates. The deficit can be measured with or without including the interest payments on the debt as expenditures.

The primary deficit is defined as the difference between current government spending on goods and services and total current revenue from all types of taxes net of transfer payments. The total deficit (which is often called the fiscal deficit or just the 'deficit') is the primary deficit plus interest payments on the debt.

Therefore, if t is a timeframe, G_t is government spending and T_t is tax revenue for the respective timeframe, then the primary deficit is $G_t - T_t$, If D_{t-1} is last year's debt, and r is the interest rate, then the total deficit is $r D_{t-1} + G_t - T_t$,

Finally, this year's debt can be calculated from last year's debt and this year's total deficit, as follows:

$$D_t = (1+r)D_{t-1} + G_t - T_t$$

Economic trends can influence the growth or shrinkage of fiscal deficits in several ways. Increased levels of economic activity generally lead to higher tax revenues, while government expenditures often increase during economic downturns because of higher outlays for social insurance programs such as unemployment benefits.

Changes in tax rates, tax enforcement policies, levels of social benefits, and other government policy decisions can also have major effects on public debt. For some countries, such as Norway, Russia, and members of the Organization of Petroleum Exporting Countries (OPEC), oil and gas receipts play a major role in public finances.

Inflation reduces the real value of accumulated debt. If investors anticipate future inflation, however, they will demand higher interest rates on government debt, making public borrowing more expensive.

4.2 Structural deficits, cyclical deficits, and the fiscal gap

A government deficit can be thought of as consisting of two elements, structural and cyclical. At the lowest point in the business cycle, there is a high level of unemployment. This means that tax revenues are low and expenditure (e.g., on social security) high. Conversely, at the peak of the cycle, unemployment is low, increasing tax revenue and decreasing social security spending. The additional borrowing required at the low point of the cycle is the cyclical deficit. By definition, the cyclical deficit will be entirely repaid by a cyclical surplus at the peak of the cycle.

The structural deficit is the deficit that remains across the business cycle, because the general level of government spending exceeds prevailing tax levels. The observed total budget deficit is equal to the sum of the structural deficit with the cyclical deficit or surplus.

Some economists have criticized the distinction between cyclical and structural deficits, contending that the business cycle is too difficult to measure to make cyclical analysis worthwhile.

4.3 Early deficits

Before the invention of bonds, the deficit could only be financed with loans from private investors or other countries. A prominent example of this was the Rothschild dynasty in the late 18th and 19th century, though there were many earlier examples.

These loans became popular when private financiers had amassed enough capital to provide them, and when governments were no longer able to simply print money, with consequent inflation, to finance their spending.

However, large, long-term loans had a high element of risk for the lender and consequently gave high interest rates. Governments later began to issue bonds that were payable to the bearer, rather than the original purchaser. This meant that someone who lent the state money could sell on the debt to someone else, reducing the risks involved and reducing the overall interest rates. Examples of this are British Consols and American Treasury bill bonds.

4.4 Deficit spending

According to most economists, during recessions, the government can stimulate the economy by intentionally running a deficit.

4.4.1 Ricardian equivalence

The Ricardian equivalence hypothesis, named after the English political economist and Member of Parliament David Ricardo, states that because households anticipate that current public deficit will be paid through future taxes, those households will accumulate savings now to offset those future taxes. If households acted in this way, a government would not be able to use tax cuts to stimulate the economy. The Ricardian equivalence result requires several assumptions. These include households acting as if they were infinite-lived dynasties as well as assumptions of no uncertainty and no liquidity constraints.

Also, for Ricardian equivalence to apply, the deficit spending would have to be permanent. In contrast, a one-time stimulus through deficit spending would suggest a lesser tax burden annually than the one-time deficit expenditure. Thus temporary deficit spending is still expansionary. Empirical evidence on Ricardian equivalence effects has been mixed.

4.4.2 Crowding-out hypothesis

The crowding-out hypothesis is the assumption that when a government experiences a deficit, the choice to borrow to offset that deficit draws on the pool of resources available for investment and private investment gets crowded out. This crowding-out effect is induced by changes in the interest rate. When the government wishes to borrow, their demand for credit increases and the interest rate, or price of credit, increases. This increase in the interest rate makes private investment more expensive as well and less of it is used.

4.5 Potential policy solutions for unintended deficits

4.5.1 Increase taxes or reduce government spending

The government surplus/deficit of struggling European countries according to European sovereign debt crisis: Italy, Cyprus, Portugal, Spain, Greece, United Kingdom and Ireland against the Eurozone and the United States (2000–2013).

If a reduction in a structural deficit is desired, either revenue must increase, spending must decrease, or both. Taxes may be increased for everyone/every entity across the board or lawmakers may decide to assign that tax burden to specific groups of people (higher-income individuals, businesses, etc.) Lawmakers may also decide to cut government spending.

Like with taxes, they could decide to cut the budgets of every government agency/entity by the same percentage or they may decide to give a greater budget cut to specific agencies. Many, if not all, of these decisions made by lawmakers are based on political ideology, popularity with their electorate, or popularity with their donors.

4.5.2 Changes in tax code

Similar to increasing taxes, changes can be made to the tax code that increases tax revenue. Closing tax loopholes and allowing fewer deductions are different from the act of increasing taxes but essentially have the same effect.

4.5.3 Reduce debt service liability

Every year, the government must pay debt service payments on their overall public debt. These payments include principal and interest payments. Occasionally, the government has the opportunity to refinance some of their public debt to afford them lower debt service payments. Doing this would allow the government to cut expenditures without cutting government spending.

The fiscal gap, a measure proposed by economists Alan Auerbach and Laurence Kotlikoff, measures the difference between government spending and revenues over the very long term, typically as a percentage of Gross Domestic Product. The fiscal gap can be interpreted as the percentage increase in revenues or reduction of expenditures necessary to balance spending and revenues in the long run. For example, a fiscal gap of 5% could be eliminated by an immediate and permanent 5% increase in taxes or cut in spending or some combination of both.

It includes not only the structural deficit at a given point in time, but also the difference between promised future government commitments, such as health and retirement spending, and planned future tax revenues. Since the elderly population is growing much faster than the young population in many developed countries, many economists argue that these countries have important fiscal gaps, beyond what can be seen from their deficits alone.