MINISTRY OF EDUCATION AND SCIENCE OF UKRAINE
NATIONAL TECHNICAL UNIVERSITY
“KHARKIV POLYTECHNIC INSTITUTE”

Department of general economic theory

CALCULATION TASK

Course: “International Business And Finance”

Topic: “**Budget deficit and its ways of compensation**”

Made by:
Group BEM - 507.8
ISMAIL TOSUN

Checked by:
ANASTASIA MITRAFANOVA

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Content

Introduction

This economic research is a detailed study of the budget deficit in the international area. it allows you to examine in detail how the countries balance their budget deficit for their own nations.

We may also agree that you can understand many definitions simply and how important the budget deficit is for the global economy.

You can learn how they are taking measures and how they solve this problem, especially when the budget deficit or budget surplus occurs in the economies of developed countries. This study is based on the articles of many researchers on how to balance the national budget.

It provides detailed research on how to balance these budgets by addressing the general budget deficits of many countries such as the United States, Kingdom of England, Greece and Brazil.

You will see that states are concentrating on definitions that are considered structural and cyclic to achieve a balance of budget deficit.

You will find that countries can manage their economic growth through fiscal policies, such as reducing their economic expenses and increasing taxes, by eliminating their expenditures and keeping them in balance.

1. What is a 'budget deficit'?

A budget deficit occurs when expenses exceed revenue, and its a indicator of financial health. The government generally uses this term in reference to its spending rather than business or individuals. Accrued government deficit form the national debt.

In cases where a budget deficit is identified, current expenses exceed the amount of income received through standart operations. To correct budget deficit, a nation may need to cut back certain expenditures, increase revenue-generating activities or employ a combination of the two.

The opposite of a budget deficit is a **budget surplus**. When a surplus occurs, revenue exceeds current expenses and results in excess funds that can be allocated as desired. In situations where the inflows equal the outflows, the budget deficit is balanced.

In the early 20th century, few industrialized countries had larges fiscal deficits. This changed during the First World War; a time a governments borrowed heavily depleted financial reserves to finance the war and their growth. Industrialized countries reduced these deficits until the 1960s and 1970s, which is when world economic growth rates dropped.

Shift to Budgets

Budget deficits, reflected as a percentage of Gross Domestic Product, may decrase in times of economic prosperity, as increased tax revenue, lowenr unemployment rates and increased economic growth reduce the need for government-funded programs such as unemployment insurance and Head Start.

Budget deficit may occur in response to certain unanticipated event and policies.

Government deficits

When the outlay of a government (i.e., the total of its purchases of goods and services, transfers in grants to individuals and corporations, and its net interest payments) exceeds its tax revenues, the government budget is said to be in deficit; government spending in excess of tax receipts is known as deficit spending.

Governments usually issue bonds to match their deficits. They can be bought by its Central Bank through open market operations. Otherwise the debt issuance can increase the level of public debt, private sector net worth, debt service (interest payments), and interest rates. Deficit spending may, however, be consistent with public debt remaining stable as a proportion of GDP, depending on the level of GDP growth.

The opposite of a budget deficit is a budget surplus; in this case, tax revenues exceed government purchases and transfer payments. For the public sector to be in deficit implies that the private sector (domestic and foreign) is in surplus. An increase in public indebtedness must necessarily therefore correspond to an equal decrease in private sector net indebtedness. In other words, deficit spending permits the private sector to accumulate net worth.

On average, through the economic cycle, most governments have tended to run budget deficits, as can be seen from the large debt balances accumulated by governments across the world.

(Deficit Spending)

Structural and cyclical deficit

Structural Deficit

A budget deficit that results from a fundamental imbalance in government receipts and expenditures, as opposed to one based on one-off or short-term factors.

A government budget deficit occurs when a government spends more than it receives in tax revenue, while a structural deficit is when a budget deficit persists for some time.

Structural deficits will eventually pose a problem for any government. Deficits are financed by borrowing, and continued borrowing leads to an accumulation of debt. The ability to pay off this debt is measured by a country's debt relative to its GDP, referred to as its debt-to-GDP ratio.

If a country's debt-to-GDP ratio gets too high, investors will worry that the government will either default on this debt, or will deflate its value away by monetising the debt and thereby engineer a high inflation rate.

Cyclical deficit

A cyclical (temporary) deficit is a deficit that is related to the business or economic cycle. The business cycle is the period of time it takes for an economy to move from expansion to contraction, until it begins to expand again. This cycle can last anywhere from several months to many years, and does not follow a predictable pattern.

The cyclical deficit is the deficit experienced at the low point of this cycle when there are lower levels of business activity and higher levels of unemployment. This leads to lower government revenues from taxation and higher government expenditure on things like social security, which may cause the economy to go into deficit. While the cyclical component is affected by government decisions, it is mainly influenced by national and international economic conditions which can be significantly beyond government control. (Deficit Spending)

EXAMPLES OF COUNTRIES

GREECE AND SPAIN

A number of European countries in 2011, such as Greece and Spain, are now facing structural deficits leading to a crisis of confidence regarding their ability to pay off this debt.

The point at which a structural deficit and rising debt-to-GDP ratio can lead to a crisis of confidence depends on the credibility of a country. A country with a long history of not defaulting on its debt will endure large deficits without a financial crisis.

UNITED STATES (USA)

The US, for instance, has large structural deficits but is still able to borrow at very low interest rates. While the UK's debt-to-GDP ratio has hovered around 40% from 1980 to 2007, since then it has doubled to 80% due to recent large deficits. (Definition of structural deficit)

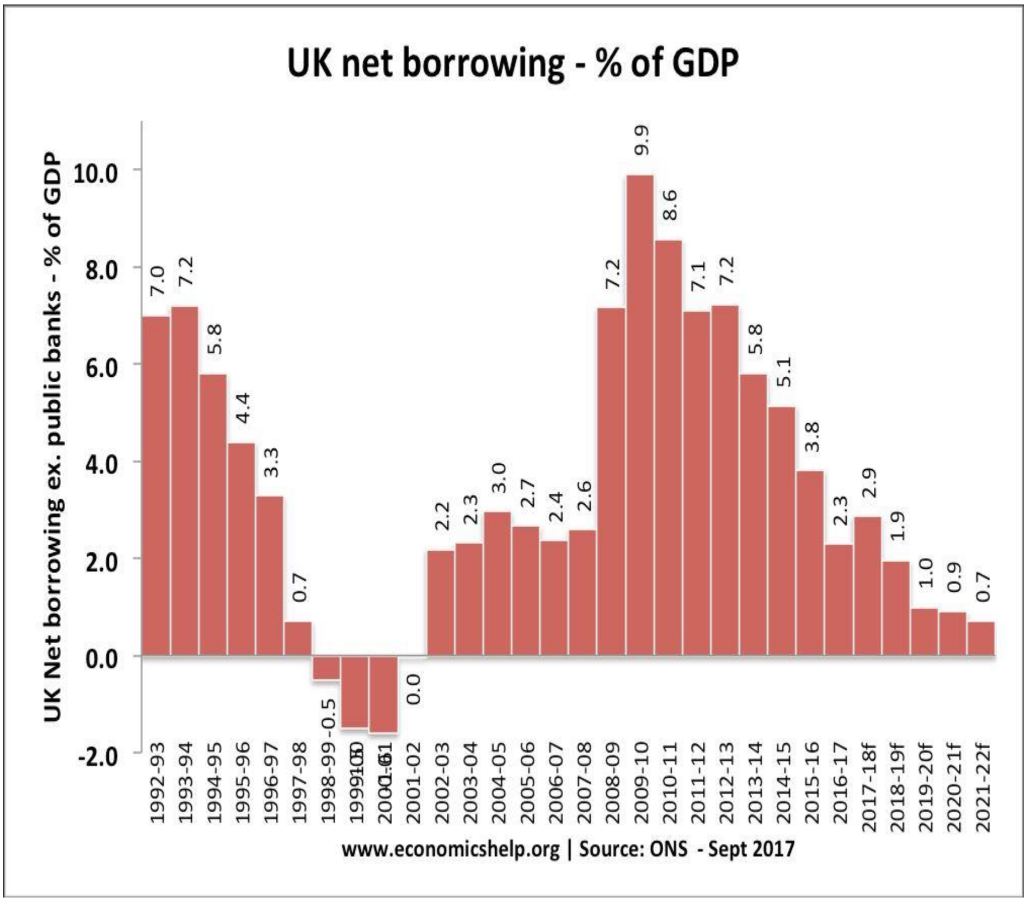
Increased defense spending after the September 11 terror attacks in the United States contributed to the budget deficit. While the initial war in Afghanistan cost an estimated $30 billion, subsequent spending in Irak cost $50 billion in the fiscal year 2003. At the and of the presidential term of George W. Bush, the total amount spent reached $864.82 billion. Combined with the cost accrued during the presidential term of Barack Obama the deficit increased to approximately $1.4 trillion.

UNITED KINGDOM (UK) NATIONAL BUDGET DEFICIT RESEARCH

Economic effects of a budget deficit

UK budget deficit significantly increased in 2009, due to the recession and expansionary fiscal policy.

Increase in public sector debt



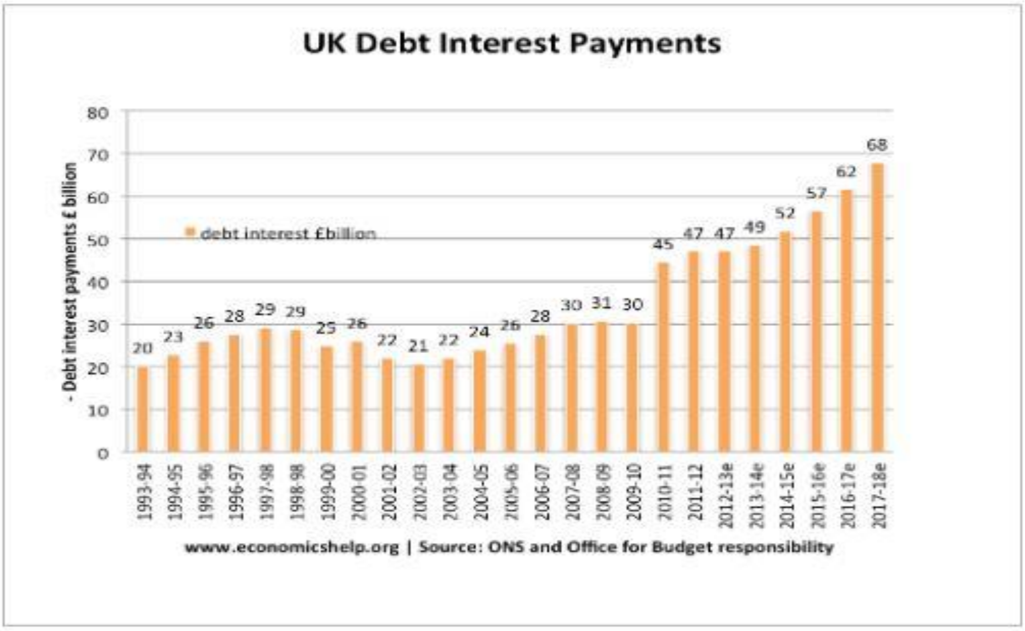
UK national debt increased since high deficit of 1999

The government will have to borrow from the private sector. In the UK, the Debt Management Office (DMO) sells bond an gilts to the private sector. The public sector debt is the total amount of debt owed by the government.

Higher debt interest payment.

When the government borrows, it offers to pay an interest payment to those who buy the bonds. The interest rate attracts investors to lend the government money.

In 2009/10, the cost of debt interest payments on UK government debt was £30bn. By 2010/11 this interest cost had increased to £45bn.



Increased aggregate demand (AD)

A budget deficit implies lower taxes and increased Government spending (G), this will increase AD and this may cause higher real GDP and inflation. For example, in 2009, the UK lowered VAT in an effort to boost consumer spending, hit by the great recession.

Fund public sector investment

A government may run a budget deficit to finance infrastructure investment. This could include building new roads, railways, more housing and improved telecommunications. This public sector investment can help increase long-run productive capacity and enable a higher rate of economic growth. If growth does improve, then the borrowing can pay for itself. For example, many public sector investment projects can have a rate of return higher than the cost of borrowing

Future – higher taxes and lower spending

In the future, the government may have to increase taxes or cut spending in order to reduce the deficit. After 2010, the coalition government implemented a period of austerity. This involved cutting public sector spending; in particular, areas such as local government, public sector pay saw cuts in government spending – affecting public services and public pay.

Increased interest rates/bond yields

If the government borrows more, this can cause interest rates to increase. This is because they will need to increase interest rates in order to attract investors to buy the extra debt. In 2012, countries in the Eurozone saw a rise in bond yields because there was a lack of confidence in Eurozone economies and the ability to finance the deficit.

Crowding Out

Increased government borrowing may cause a decrease in the size of the private sector. The government borrow by selling bonds to the private sector. Therefore, if the private sector (banks/private individuals) buy government bonds, they have less money to invest in private sector projects. If there is crowding out, government borrowing will not cause higher aggregate demand.

Inflation

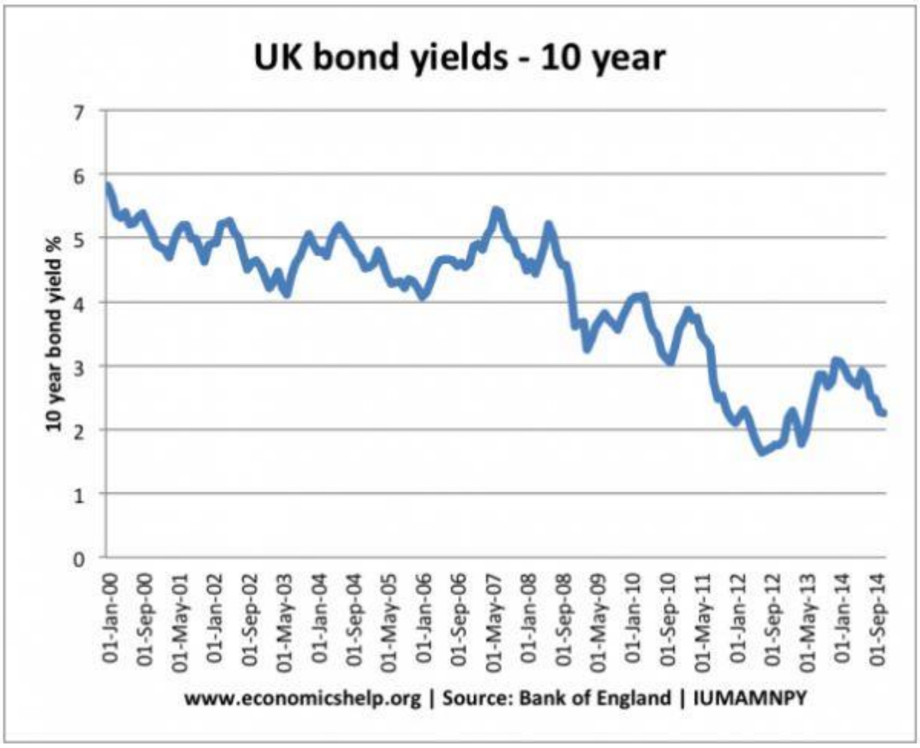
In extreme circumstances, the government may increase the money supply to pay the debt, and this will lead to inflation. This has occurred in countries such as Germany (1920s) and Zimbabwe (2000s). However, inflation from a budget deficit is rare in developed economies.

If the government sells short-term gilts to the banking sector then there will be an increase in the money supply, this is because banks see gilts as near money, therefore, they can maintain there lending to customers.

Evaluation of the effects of a budget deficit

1. Depends on the situation of the economy

If the government increases borrowing in a recession, then there is unlikely to be crowding out. In a recession, we get a fall in private sector spending and investment – and a rise in private sector saving. In other words, in a recession, there is more surplus saving and therefore higher demand for the 'relatively safe' government bonds.



10-year bond yield in the UK

From 2009 to 2015, UK bond yields fell – despite high levels of borrowing. This was because there was high demand for buying government bonds.

However, if the government increase borrowing during a period of rapid economic growth – it is more likely to cause crowding out and rising bond yields.

2. Depends on why the government borrow

If the government borrow to finance infrastructure investment, it can help boost the supply side of the economy and enable higher economic growth. If growth improves, then there will be higher tax revenues to pay back the debt.

However, if the government is borrowing to pay pensions or welfare benefits, then there is no supply-side improvement, and it will be harder to pay back the debt.

3. Economic growth can influence future tax revenues

If the government borrow in a recession as part of expansionary fiscal policy then it can help accelerate an economic recovery and reduce unemployment. This will lead to improved public finances in the medium term and the budget deficit will prove more temporary. However, if the government borrow during a period of high growth, the crowding out will mean growth and cyclical tax revenues will be unchanged. (Economichelps - Economic effects of a budget deficit)

COMPENSATION

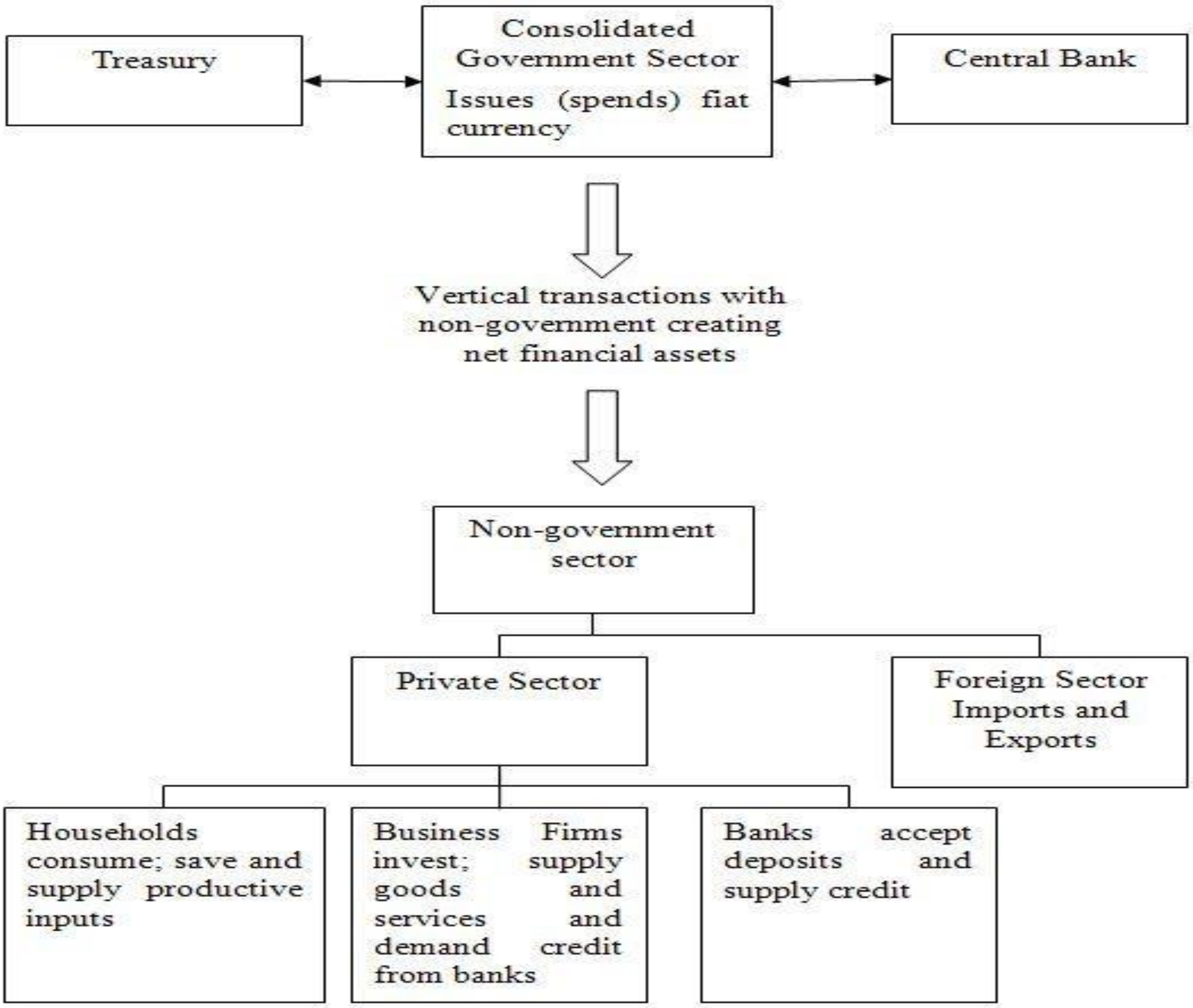
Strategies to Reduce Budget deficits

Countries can counter budget deficits by promoting economic growth through fiscal policies such as reducing government spending and increasing taxes. For example one strategy is to reduce regulations and lower corporate taxes to improve business confidence and increase treasury inflows from taxes. A nation can print additional currency to cover payment on debt issuing securities, such as treasury and bonds, owe. While this provides a mechanism to make payments, it does carry the risk devaluing the nation's currency which can lead to hyperinflation.

A budget deficit is the annual shortfall between government spending and tax revenue. The deficit is the annual amount the government need to borrow. The deficit is primarily funded by selling government bonds to the private sector.

Summary of effects of of a budget deficit.

- Rise of national debt
- Higher debt interest payments
- Increase in aggregate demand
- Possible increase public sector investment
- May cause crowding out and higher bond yields - if close to full capacity



Fiscal deficits or surpluses occur in a modern monetary economies. A modern monetary economy such as Australia and almost every major economy has four essential features:

A floating exchange rate, which frees monetary policy from the need to defend foreign exchange reserves;

Modern monetary economies use money as the unit of account to pay for goods and services. An important notion is that money is a fiat currency, that is, it is convertible only into itself and not legally convertible by government into gold, for instance, as it was under the gold standard.

The sovereign government has the exclusive legal right to issue the particular fiat currency which it also demands as payment of taxes – in this sense it has a monopoly over the provision its own, fiat currency.

The viability of the fiat currency is ensured by the fact that it is the only unit which is acceptable for payment of taxes and other financial demands of the government.

The diagram depicts the essential structural relations between the government and non-government sectors. First, despite claims that central banks are largely independent of government, there is no real significance in separating treasury and central bank operations. The consolidated government sector determines the extent of the net financial assets position (denominated in the unit of account) in the economy. For example, while the treasury operations may deliver surpluses (destruction of net financial assets) this could be countered by a deficit (of say equal magnitude) as a result of central bank operations. This particular combination would leave a neutral net financial position. While the above is true, most central bank operations merely shift non-government financial assets between reserves and securities, so for all practical purposes the central bank is not involved in altering net financial assets. The exceptions include the central bank purchasing and selling foreign exchange and paying its own operating expenses. While within-government transactions occur, they are of no importance to understanding the vertical relationship between the consolidated government sector (treasury and central bank) and the non-government sector.

Second, extending the model to distinguish the foreign sector makes no fundamental difference to the analysis and as such the private domestic and foreign sectors can be consolidated into the non-government sector without loss of analytical insight. Foreign transactions are largely distributional in nature.

As a matter of accounting between the sectors, a government budget deficit adds net financial assets (adding to non government savings) available to the private sector and a budget surplus has the opposite effect. The last point requires further explanation as it is crucial to understanding the basis of modern money macroeconomics.

While typically obfuscated in standard textbook treatments, at the heart of national income accounting is an identity – the government deficit (surplus) equals the non-government surplus (deficit). Given effective demand is always equal to actual national income, ex post (meaning that all leakages from the national income flow is matched by equivalent injections), the following sectoral flows accounting identity holds

$$(G\text{-}T) = (S\text{-}I) - NX$$

where the left-hand side depicts the public balance as the difference between government spending G and government taxation T. The right-hand side shows the non-government balance, which is the sum of the private and foreign balances where S is saving, I is investment and NX is net exports. With a consolidated private sector including the foreign sector, total private savings has to equal private investment plus the government budget deficit.

In aggregate, there can be no net savings of financial assets of the non-government sector without cumulative government deficit spending. In a closed economy, $NX = 0$ and government deficits translate dollar-for-dollar into private domestic surpluses (savings). In an open economy, if we disaggregate the non-government sector into the private and foreign sectors, then total private savings is equal to private investment, the government budget deficit, and net exports, as net exports represent the net financial asset savings of non-residents.

It remains true, however, that the only entity that can provide the non-government sector with net financial assets (net savings) and thereby simultaneously accommodate any net desire to save (financial assets) and thus eliminate unemployment is the currency monopolist – the government. It does this by net spending ($G > T$). Additionally, and contrary to mainstream rhetoric, yet ironically, necessarily consistent with national income accounting, the systematic pursuit of government budget surpluses ($G < T$) is dollar-for-dollar manifested as declines in non-government savings. If the aim was to boost the savings of the private domestic sector, when net exports are in deficit, then taxes in aggregate would have to be less than total government spending.

That is, a budget deficit ($G > T$) would be required.

So how do deficits arise? How does the Federal government spend?

The Federal government has cash operating accounts – to ensure that they can spend (G) on a daily basis and receive daily receipts (T). The Reserve Bank of Australia (RBA) “provides a facility to the Australian Government that is used to manage a group of bank accounts, known as the Official Public Account (OPA) Group, the aggregate balance of which represents the Government’s daily cash position.”

When the Federal government spends it debits these accounts and credits various bank accounts within the commercial banking system. Deposits thus show up in a number of commercial banks as a reflection of the spending. It may issue a cheque and post it to someone in the private sector whereupon that person will deposit the cheque at their bank. It is the same effect as if it had have all been done electronically.

All federal spending happens like this.

Governments do not spend by “printing money”. They spend by creating deposits in the private banking system. Clearly, some currency is in circulation which is “printed” but that is a separate process from the daily spending and taxing flows;

Suffice to say that the Federal government, as the monopoly issuer of its own currency is not revenue-constrained. This means it does not have to “finance” its spending unlike a household, which uses the fiat currency.

All the commercial banks maintain accounts with the RBA which permit reserves to be managed and also allow the clearing system to operate smoothly. These so-called Exchange Settlement Accounts or Reserves always have to have positive balances at the end of each day, although during the day a particular bank might be in surplus or deficit, depending on the pattern of the cash inflows and outflows. There is no reason to assume that these flows will exactly offset themselves for any particular bank at any particular time.

In addition to setting a lending rate (discount rate), the RBA also sets a support rate which is paid on these commercial bank reserves. Many countries (such as Australia, Canada and zones such as the European Monetary Union) maintain a default return on surplus reserve accounts (for example, the RBA pays a default return equal to 25 basis points less than the overnight rate on surplus Exchange Settlement accounts). Other countries do not offer a return on reserves which means persistent excess liquidity will drive the short-term interest rate to zero (as in Japan until mid 2006) unless the government sells bonds (or raises taxes). The support rate becomes the interest-rate floor for the economy.

So Federal spending by the Treasury, for example, amounts to nothing more than the Treasury debiting one of its cash accounts (say by $100m) which means its reserves at the RBA decline by that much and the recipient deposits the cheque for $100m in their private bank and its reserves at the RBA rise by that amount.

Taxation works exactly in reverse. Private bank accounts are debited (and private reserves fall) and the government accounts are credited and their reserves rise. All this is accomplished by accounting entries only. The taxation does not go anywhere! It is not stored anywhere and certainly does not "finance" the spending. The non-government sector cannot pay its taxes until the government has spent! It is a good practice to think of taxes as just draining liquidity from the non-government sector reflecting the Government's desire for that sector to have less spending capacity.

A simple example helps reinforce these points. Suppose the economy is populated by two people, one being government and the other deemed to be the private (non-government) sector. If the government runs a balanced budget (spends 100 dollars and taxes 100 dollars) then private accumulation of fiat currency (savings) is zero in that period and the private budget is also balanced.

Say the government spends 120 and taxes remain at 100, then private saving is 20 dollars which can accumulate as financial assets. The corresponding 20 dollar notes have been issued by the government to cover its additional expenses. The government may decide to issue an interest-bearing bond to encourage saving but operationally it does not have to do this to finance its deficit. The government deficit of 20 is exactly the private savings of 20.

Now if government continued in this vein, accumulated private savings would equal the cumulative budget deficits. However, should government decide to run a surplus (say spend 80 and tax 100) then the private sector would owe the government a net tax payment of 20 dollars and would need to sell something back to the government to get the needed funds. The result is the government generally buys back some bonds it had previously sold. The net funding needs of the non-government sector automatically elicit this correct response from government via interest rate signals.

Either way accumulated private saving is reduced dollar-for-dollar when there is a government surplus. The government surplus has two negative effects for the private sector:

the stock of financial assets (money or bonds) held by the private sector, which represents its wealth, falls; and

private disposable income also falls in line with the net taxation impost. Some may retort that government bond purchases provide the private wealth-holder with cash. That is true but the liquidation of wealth is driven by the shortage of cash in the private sector arising from tax demands exceeding income. The cash from the bond sales pays the Government’s net tax bill. The result is exactly the same when expanding this example by allowing for private income generation and a banking sector.

From the example above, and further recognising that currency plus reserves (the monetary base) plus outstanding government securities constitutes net financial assets of the non-government sector, the fact that the non-government sector is dependent on the government to provide funds for both its desired net savings and payment of taxes to the government becomes a matter of accounting.

(Deficit Spending Economy)

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