Macroeconomics: Fiscal Policy

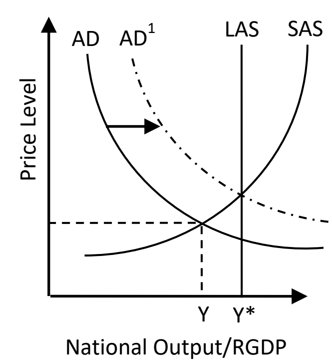
While the central bank can use monetary policy to influence the state of the economy, the government can influence the economy by using fiscal policy. **Fiscal policy** is the use of government expenditure and taxation to affect the level of aggregate demand and the economy's performance.

There are two types of fiscal policy: automatic fiscal policy and discretionary fiscal policy. **Automatic fiscal policy** (or automatic stabilizers) includes the progressive income tax and government transfer payments (e.g., EI, disability, pension payments). These stabilizing mechanisms are set up to automatically reduce inflationary and deflationary gaps that would occur from significant changes in income levels. As income increases or decreases, there is a parallel change in consumer spending and AD. Through the multiplier effect this would change GDP by an even larger amount.

Example: as your income increases, so does your disposable income and level of consumption expenditure. But the progressive income tax increases the amount of tax you pay at a higher income and somewhat reduces your disposable income. This is called reducing the MPC out of the national income. Conversely, when your income level falls, you pay less tax which increases the amount of disposable income available.

Discretionary fiscal policy requires legislative or administrative action by the government to change government expenditure levels or taxes. This is used to "fine tune" fluctuations in RGDP. The government may believe that the amount of time it would take the economy to adjust on its own (shifts in SAS) is too long to wait (from a political or economical perspective) and so will use fiscal policies to shift AD and minimize inflationary or recessionary gaps.

Example: If the economy is experiencing a recession, what fiscal policy actions would be appropriate?



Solution: The government can stimulate the economy by increasing government expenditure and/or decreasing tax rates. Decreased tax rates give people more disposable income and therefore increase levels of consumption expenditure. Both changes increase AD (curve shifts to the right) and real GDP increases, bringing the actual output closer to, or at, potential RGDP.

The government enacts fiscal policy that runs "counter" to business cycle of the economy- encouraging spending in a recession and discouraging spending in a boom. A government will incur a budget deficit in a recession (expenditures > revenue) to stimulate the economy and should incur a budget surplus in an economic boom to

Authored by Emily Simpson

dampen inflationary pressures (revenues > expenditures). The government saves during a surplus period as revenues from taxes will be high (and temporary tax cuts can be retired), there will be less transfer payments (EI), & government expenditure can be reduced. This is called **countercyclical fiscal policy**. In the long term (over a period of years), the government's budget should balance itself out.

When the government runs a deficit (revenues collected are less than expenditures), it has to borrow money to finance its deficit spending. It can borrow money from *the public sector (Bank of Canada), the private sector,* or *other countries*, but each of these choices will have implications for the economy.

(1) To borrow from the public sector, the government sells bonds to the Bank of Canada which pays for the bonds by increasing the deposits in the government's account at the Bank of Canada. The government can then spend this money – injecting it into the economy adds to the money supply. This is also called "printing money". This can lead to severe inflation if the money supply increases too quickly, and should only be used as a last resort.

(2) When borrowing from the private sector, the government sells bonds to the public (e.g. pension funds, investment funds, insurance companies who then resell to individuals). This leads to an increased interest rate, which "crowds out" individuals and firms from being able to borrow (**crowding out effect**). Consumption and investment expenditure decrease which dampens the positive effect of increased government spending on aggregate demand.

(3) The government can borrow from other countries, which is affected not only by interest rates but also by exchange rates. If between the time when the money is borrowed and when the loan is repaid, the Canadian dollar depreciates against the currency of the lenders, the Canadian government will owe more money than originally borrowed.

Example: Canada borrowed $15,000,000 (Cdn) from the U.S. in 1995 when the exchange rate was $1.12 Cdn/US ($1 US = $1.12 Cdn) and repaid the loan in 2000 when the exchange rate was $1.36 Cdn/US ($1 US = $1.36 Cdn). What was the additional burden of debt?

Find out how many US dollars Canada borrowed in 1995:

$$\$15{,}000{,}000 \text{ Cdn} \times \frac{\text{US}}{\$1.12 \text{ Cdn}} = \$13{,}392{,}857.14 \text{ US}$$

Find the value of the US loan at the new exchange rate in 2000:

$$\$13{,}392{,}857.15 \text{ US} \times \frac{\$1.36 \text{ Cdn}}{\text{US}} = \$18{,}214{,}285.71 \text{ Cdn}$$

The difference between what Canada borrowed and owes is the additional debt burden:

$18,214,285.71 – $15,000,000 = $3,214,285.71 Cdn

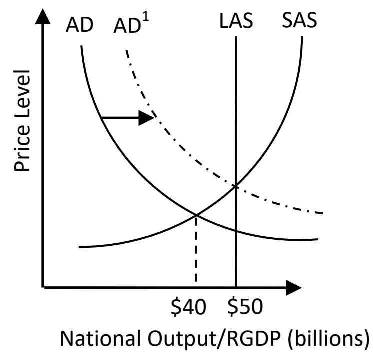
Practice Problems

1. Which of the following is an automatic stabilizer?
   a. government expenditure
   b. disposable income
   c. Canadian pension plan
   d. investment income
2. If the economy is operating with a real GDP greater than potential GDP, discretionary fiscal policy could be used to move the economy towards potential GDP by simultaneously ____ taxes and ____ government expenditure.
   a. Increasing, increasing
   b. Decreasing, decreasing
   c. Decreasing, increasing
   d. Not changing, increasing
   e. Increasing, decreasing
3. A decrease in RGDP, all other things being constant, ____ tax revenues and ______ the budget deficit.
   a. lowers; lowers
   b. lowers; raises
   c. raises; lowers
   d. raises, raises
4. If interest rates decrease in Canada, the value of the Canadian dollar will:
   a. decrease and net exports are likely to increase
   b. decrease and net exports are likely to decline
   c. increase and net exports are likely to increase
   d. increase and net exports are likely to decline
5. If Canada borrowed $10 billion (Cdn) from Germany in 2005 when the exchange rate was $1.15 Cdn = 1 € and had to repay the loan in 2010 when the exchange rate was $1.40 Cdn = 1€, what was the additional burden of debt?
6. The economy is operating at a RGDP of $40 billion. The potential GDP is $50 billion. (A) What measures using fiscal policy could be taken? Draw a graph to illustrate. (B) If the economy needed to be stabilized through monetary policy instead, what would be the possible ways of doing this? (C) If left alone, how would the economy re-attain equilibrium?

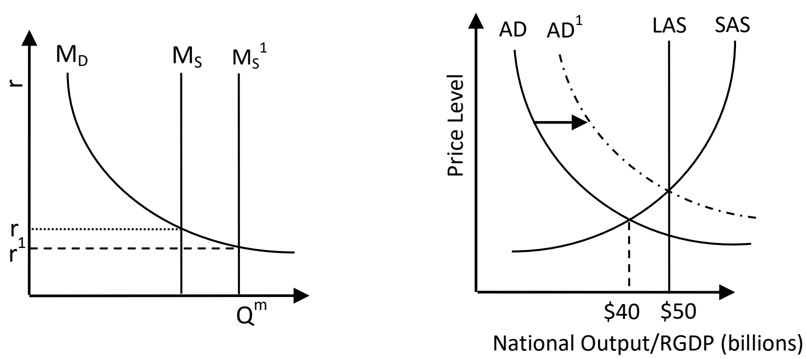
Solutions

1. c
2. e
3. b
4. a
5. Canada owed $12.2 billion Cdn in 2010, so the additional burden of debt was $2.2 billion.

6. Since the economy is operating at a RGDP less than Y^*, it is in a recession.
   (A) To stimulate the economy back to Y^*, the government can use discretionary fiscal policy measures: increasing government expenditure and/or reducing tax rates will increase aggregate demand and the gap will be closed but the price level will be higher than before.



   (B) If monetary policy measures need to be taken, this is the central bank's role. They could (i) increase the money supply through moving deposits from the Central Bank to private chartered banks, or buying government securities back, or pushing down the overnight rates. (ii) This will lead to a decrease in interest rate, and a subsequent increase in consumption expenditure, investment expenditure, and net exports. (iii) Aggregate demand will shift to the right, restoring long-term equilibrium but at an increased price level.



   (C) If a recessionary period is prolonged (without any fiscal or monetary policy intervention), wages and other factor prices will eventually fall, causing the SAS curve to slowly shift to the right. The economy will be operating at a lower price level than before but at the same potential output.