

Chapter 31: Fiscal Policy, Deficit, and Debt

Fiscal Policy:

Fiscal policy uses the government's powers of taxation and spending to influence the amount of employment and output across the economy. The legislative and executive branches of government control this type of economic policy. In the Palestine, for example, ministry of finance makes fiscal policy decisions.

السياسة الاقتصادية هي تلك السياسة التي تستخدمها الدولة من أجل إدارة وتطوير اقتصادها، وكذلك وضع الحلول المناسبة للمشكلات التي تواجه الدولة. وهي سياسة تقوم وزارة المالية بوضعها والإشراف علي تنفيذها بالنيابة عن الدولة.

Types of fiscal policy

Fiscal policy is one of the main ways in which government tries to influence overall economic performance. The two main types of fiscal policy are expansionary and contractionary policy. Both involve the use of the government's budget and its ability to levy taxes.

1. Expansionary Fiscal Policy السياسة الحكومية التوسعية

Expansionary fiscal policy uses increased government spending, reduced taxes or a combination of the two. The chief objective of a fiscal expansion is to increase aggregate demand for goods and services across the economy, as well as to reduce unemployment. Governments often enact expansionary measures during an economic recession, when unemployment rises and output decreases. By boosting its own purchases of goods and services, government tries to stimulate the economy.

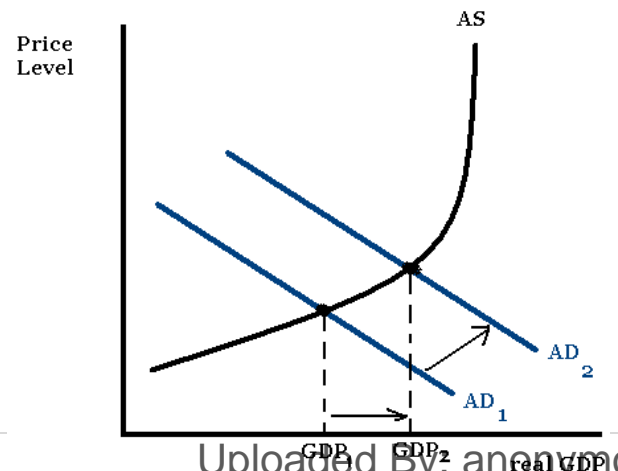
- *When recession occurs, an expansionary fiscal policy used to increase output.*
- *Expansionary fiscal policy uses increase in government spending ($G \uparrow$) or tax cuts ($T \downarrow$) to push the economy out of recession.*
- $G \uparrow$ or $T \downarrow \Rightarrow$ shift AD curve to the right \Rightarrow increase output (push the economy out of recession).

في حالة وجود مشكلة الركود فإن الدولة تنتهج سياسة مالية توسعية حيث تقوم بزيادة الإنفاق الحكومي أو خفض الضرائب مما يؤدي إلى زيادة الدخل ومن ثم الاستهلاك وبالتالي زيادة مستوى التشغيل.

Increase in Government Spending:

$G \uparrow \Rightarrow$ shift AD curve to the right \Rightarrow increase output (GDP) from GDP_1 to $GDP_2 \Rightarrow$ push the economy out of recession

$$\Delta GDP = m \times \Delta G$$



Tax Reductions

$T \downarrow \Rightarrow DI \uparrow \Rightarrow C \uparrow \Rightarrow$ shift AD curve to the right \Rightarrow increase output (GDP)

$$\Delta C = MPC \times \Delta T$$

$$\Delta GDP = m \times \Delta C$$

For Example

If an economy has an MPC of 0.75 and real output of 490 billion. Suppose the government cuts personal income taxes by \$6.67 billion, what is the effect of this policy on real output?

$$\Delta C = MPC \times \Delta T = 0.75 \times 6.67 = \$5 \text{ billion increase in consumption.}$$

$$\Delta GDP = m \times \Delta C = 4 \times 5 = 20 \text{ billion increase in GDP}$$

$$\text{New GDP} = 490 + 20 = 510 \text{ billion.}$$

Combination Government Spending Increase and Tax Reductions:

The government may combine spending increase and tax cuts to produce the desired increase in real GDP.

For example:

If the government might increase, it's spending by \$1.25 billion while reducing taxes by \$5 billion. What is the effect of this policy in output? If MPC of 0.75 and real output of 490 billion.

$$G \uparrow \text{ by } 1.25 \text{ billion} \Rightarrow GDP \uparrow \text{ by } (m \times \Delta G) = 4 \times 1.25 = 5 \text{ billion increase in GDP}$$

$$T \downarrow \text{ by } 5 \text{ billion} \Rightarrow C \uparrow \text{ by } (MPC \times \Delta T) = 0.75 \times 5 = \$3.75 \text{ billion}$$

$$GDP \uparrow \text{ by } (m \times \Delta C) = 4 \times 3.75 = 15 \text{ billion increase in GDP}$$

$$\text{Net effect} = 5 + 15 = 20 \text{ billion increase in GDP.}$$

Government Budget:

The two basic elements of any budget are the revenues and expenses. In the case of the government, revenues are derived primarily from taxes. Government expenses include spending on current goods and services, which economists call government consumption; government investment expenditures such as infrastructure investment or research expenditure; and transfer payments like unemployment or retirement benefits.

$$\text{The government budget} = T - G$$

Government Budgets are of three types:

- **Balanced budget:** when the government revenue as expenditure are equal ($T = G$).
- **Surplus Budget:** when anticipated revenues exceed expenditure ($T > G$).

- Deficit Budget: when anticipated expenditure is greater than revenues ($T < G$).

If the government budget is balanced, expansionary fiscal policy will create a government budget deficit.

Example:

Assume that the full-employment GDP of an economy is \$1250 million, government expenditure on goods and services are \$300 millions, tax revenue is \$320 millions. And the economy is currently producing (GDP) \$850 million. Assume also that the MPS is 0.25.

- a. By how much should government spending be increased or decreased to reach full employment?

To reach full employment the government spending must increase

$$\text{GDP gap} = \text{full employment GDP} - \text{actual GDP} = 1250 - 850 = 400 \text{ million}$$

To reach full employment, the actual GDP must be increased by 400

$$\Delta \text{GDP} = m \times \Delta G \Rightarrow 400 = (1/0.25) \Delta G \Rightarrow \Delta G = 400 / 4 = 100 \text{ million increase in } G$$

- b. What is the effect of each of the following policies on GDP?

1. A decrease in taxes by \$60 million.

$$T \downarrow \Rightarrow C \uparrow \text{ by } (MPC \times \Delta T) = 0.75 \times 60 = 45 \text{ million increase in } C$$

$$C \uparrow \Rightarrow \text{GDP} \uparrow \text{ by } (m \times \Delta C) = 4 \times 45 = 180 \text{ million increase in GDP.}$$

2. An increase in government spending by 20 million and a decrease in taxes by 20 million.

$$G \uparrow \Rightarrow \text{GDP} \uparrow \text{ by } (m \times \Delta G) = 4 \times 20 = \underline{80 \text{ million increase in GDP}}$$

$$T \downarrow \Rightarrow C \uparrow \text{ by } (MPC \times \Delta T) = 0.75 \times 20 = 15 \text{ million increase in } C$$

$$C \uparrow \Rightarrow \text{GDP} \uparrow \text{ by } (m \times \Delta C) = 4 \times 15 = \underline{60 \text{ million increase in GDP.}}$$

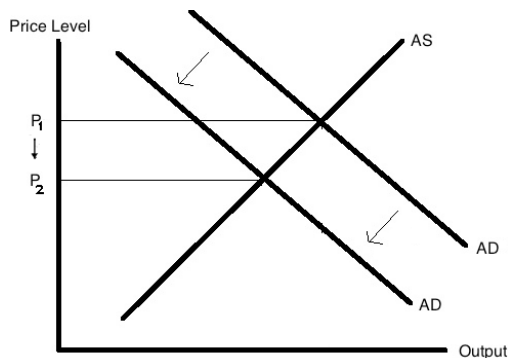
$$\text{Net effect} = 80 + 60 = 140 \text{ million increase in GDP.}$$

Contractionary Fiscal Policy السياسة الحكومية الإنكماشية

When government policy-makers cut spending or increase taxes, they engage in contractionary fiscal policy. Governments may enact contractionary measures to slow an economic expansion and prevent inflation. In addition, governments may enact contractionary policy for ideological reasons. These include reducing the overall size and scope of government activity or lowering budget deficits, in which the government spends more money than it collects. The contractionary policy reduces aggregate demand in the economy, lowering inflation. But it may also lead to higher unemployment.

- When demand-pull inflation occurs, a restrictive or contractionary fiscal policy may help control it.
- Contractionary fiscal policy uses decreases in government spending ($G \downarrow$) or increases in taxes ($T \uparrow$) to reduce demand-pull inflation.

$G \downarrow$ or $T \uparrow \Rightarrow$ shift AD curve to the left \Rightarrow decrease price level from P_1 to P_2 (reduce demand-pull inflation).



- When the economy faces demand pull inflation, fiscal policy should move toward a government budget surplus (tax revenues > government spending)

Decreased Government Spending:

$G \downarrow \Rightarrow$ shifts the AD curve leftward to control demand pull inflation (price decrease).

Increased Taxes:

$T \uparrow \Rightarrow DI \downarrow \Rightarrow C \downarrow \Rightarrow$ shift AD curve to the left \Rightarrow decrease output (GDP)

$$\Delta C = MPC \times \Delta T$$

$$\Delta GDP = m \times \Delta C$$

Example

If an economy has an MPC of 0.75 and real output of 520 billion. What is the effect of each of the following policies on GDP?

3. An increase in government spending by 10

$$G \uparrow \Rightarrow GDP \uparrow$$

$$\Delta GDP = m \times \Delta G$$

$$m = \frac{1}{1-0.75} = \frac{1}{0.25} = 4$$

$$\Delta \text{GDP} = 4 \times 10 = 40 \text{ billion increase in GDP}$$

$$\text{New GDP} = 520 + 40 = 560 \text{ billion.}$$

4. A decrease in taxes by \$60 million.

$$\Delta \text{GDP} = m_t \times \Delta T$$

$$m_t = \frac{-MPC}{1 - MPC} = \frac{-0.75}{1 - 0.75} = \frac{-0.75}{0.25} = -3$$

$$\Delta \text{GDP} = m_t \times \Delta T = -3 \times -60 = 180 \text{ billion}$$

$$\text{New GDP} = 520 + 180 = 700 \text{ billion.}$$

5. An increase in government spending by 20 million and a decrease in taxes by 20 million.

$$G \uparrow \Rightarrow \text{GDP} \uparrow \text{ by } (m \times \Delta G) = 4 \times 20 = \underline{80 \text{ million increase in GDP}}$$

$$T \downarrow \Rightarrow \text{GDP} \uparrow$$

$$\Delta \text{GDP} = m_t \times \Delta T = -3 \times -20 = 60 \text{ billion}$$

$$\text{Net effect} = 80 + 60 = 140 \text{ million increase in GDP.}$$

$$\text{New GDP} = 520 + 140 = 660 \text{ billion.}$$

6. The government raises taxes by \$40 billion.

$$\Delta \text{GDP} = m_t \times \Delta T = -3 \times 40 = -120 \text{ billion}$$

$$\text{New GDP} = 520 - 120 = 400 \text{ billion.}$$