

Fiscal Policy



Fiscal Policy

- ✦ Fiscal policy refers to government purchases, transfer payments, taxes, and borrowing as they affect macroeconomic variables such as real GDP, employment, the price level, and economic growth



- ✦ Two categories
 - ✦ Automatic stabilizers
 - ✦ Discretionary fiscal policy

Automatic Stabilizers

Refer to revenue and spending items in the federal budget that automatically change with the ups and downs of the economy so as to stabilize disposable income and, hence, consumption and real GDP

❑ Federal income tax

- Reduces the drop in disposable income during recessions and reduces the jump in disposable income during expansions
- Once adopted, it requires no congressional action to operate year after year

Discretionary Fiscal Policy

- ✿ Requires ongoing congressional decisions involving the deliberate manipulation of government purchases, taxation, and transfers to promote macroeconomic goals such as full employment, price stability, and economic growth

Fiscal Policy

- ✿ Using the income-expenditure framework, we will initially focus on the demand side to consider the effect of changes in government purchases, transfer payments, and taxes on real GDP demanded
- ✿ The short story is that at any given price level, an increase in government purchases or in transfer payments increases real GDP, and an increase in net taxes decreases real GDP, other things constant

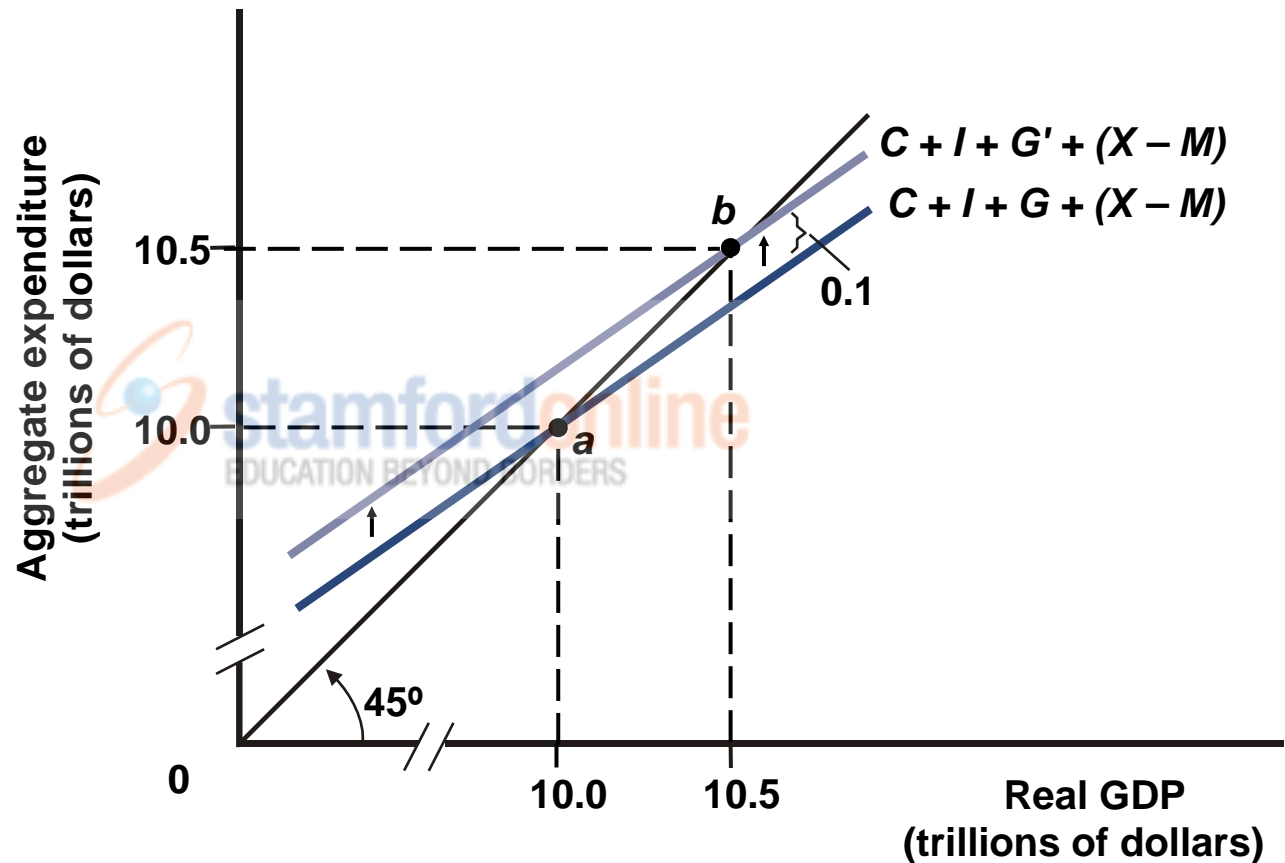


Exhibit A: Increase in Government Purchases

To see the impact of an increase in government purchases on real GDP, assume we begin at point *a* and that the price level remains constant.

Government purchases increase by \$0.1 trillion
→ planned spending now exceeds output → production will increase and, because of the multiplier effect, real GDP and planned spending will increase by \$0.5 trillion.

The new equilibrium level of real GDP and aggregate expenditures is at point *b*, where both equal \$10.5 trillion.



Government Purchases Multiplier

As long as consumption is the only spending component that varies with income, the multiplier for a change in government purchases, other things constant, equals



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$$\frac{1}{1 - MPC}$$

Thus, we can say that for a given price level, and assuming that consumption varies with income

$$\Delta realGDP = \Delta G \left(\frac{1}{1 - MPC} \right)$$

Change in Net Taxes

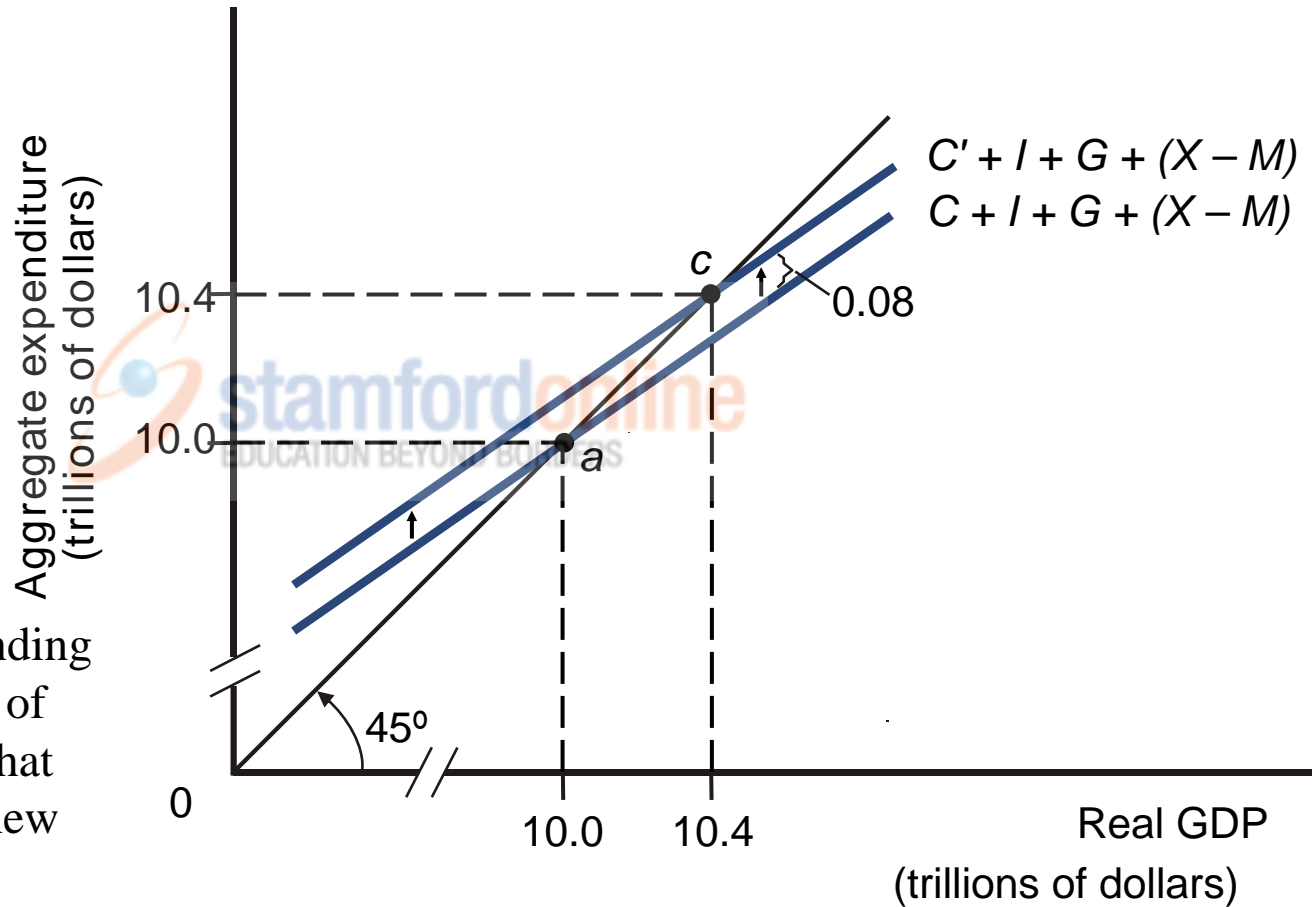
- ✿ A change in net taxes also affects real GDP demanded, but the effect is less direct
- ✿ Specifically
 - ✿ A decrease in net taxes, other things constant, increases disposable income at each level of real GDP → consumption increases
 - ✿ An increase in net taxes, other things constant, reduces disposable income at each level of real GDP → consumption decreases

Exhibit B: Decrease in Autonomous Net Taxes

A change in net taxes affects real GDP in an indirect fashion because a decrease in taxes, other things constant, increases disposable income at each level of real GDP.

Assuming we start at point *a*, the government now reduces net taxes by \$0.1 trillion.

This initial increase in spending triggers subsequent rounds of spending; the net result is that real GDP increases to the new equilibrium level of \$10.4 trillion, again assuming the price level remains constant.



Simple Tax Multiplier

The effect of a change in net taxes on real GDP demanded equals the resulting shift in the consumption function times the simple spending multiplier →


$$\frac{-MPC}{1 - MPC}$$

Therefore, the change in real GDP can be determined as

$$\Delta realGDP = \Delta NT \left(\frac{-MPC}{1 - MPC} \right)$$

Differences

- ❖ Two differences between the government-purchase multiplier and the simple tax multiplier
 - ❖ The government-purchase multiplier is positive → an increase in government purchases leads to an increase in real GDP demanded. The net tax multiplier is negative → an increase in net taxes leads to a decrease in real GDP demanded
 - ❖ The multiplier for a given change in government purchases is larger by 1 than the absolute value of the multiplier for an identical change in net taxes

Differences

- ❖ This latter difference occurs because changes in government purchases affect aggregate spending directly while the simple tax multiplier increases consumption indirectly by way of a change in disposable income
- ❖ In short, an increase in government purchases has a greater impact than an identical tax cut because some of the tax cut is saved

Problems with Fiscal Policy

- ❖ Other concerns also caused economists and policy makers to question the effectiveness of discretionary fiscal policy
 - ❖ The difficulty of estimating the natural rate of unemployment
 - ❖ The time lags involved in implementing fiscal policy
 - ❖ The distinction between current and permanent income
 - ❖ Possible feedback effects of fiscal policy on aggregate supply

Natural Rate of Unemployment

✿ The unemployment rate that occurs when the economy is producing its potential GDP is called the natural rate of unemployment



✿ Before adopting discretionary policies, public officials must correctly estimate this natural rate

✿ This problem is presented in Exhibit 5

Monetary Theory and Policy



Week 8

Topics of Discussion

- Demand for Money
- Supply of Money
- Money Market equilibrium
- Relationships among demand and supply of money and aggregate demand
 - In the short-run
 - In the long-run
- Interaction of monetary and fiscal policy

Demand for Money

- Demand for Money:
 - Demand for money is derived demand, not direct demand like demand for commodities. Money is demanded for
 - Transaction purpose
 - Investment purposeDemand of money for these purposes depends on the market rate of interest
 - The demand curve of transaction demand for money shows the relationship between how much money people want to hold and the interest rate
 - Investment demand curve for money shows the relationship between investment demand for money and interest rate

Transition Demand for Money

- The most obvious reason why people demand money is to carry out transactions
 - The greater the value of transactions to be financed in a given period, the greater the demand for money → the greater the volume of exchange of goods and services as reflected by the level of real output, the greater the demand for money
 - The demand for money also supports expenditures people expect to make in the course of normal economic affairs plus various unexpected expenditures
 - Focus here is on money as a medium of exchange

Investment Demand for Money

- people can store their purchasing power as money or in the form of other financial assets
 - stocks, bonds, etc
 - Lowering the interest rate reduces the opportunity cost of financing new plants and equipments, thereby making new business investment more profitable. Hence, decline in interest rate increases the quantity of investment demand.
 - When people purchase bonds and other financial assets, they are lending their money and are paid interest for doing so or are paid dividends or expect stock prices to yield gains

Money Demand and Interest Rates

- When the market rate of interest is low, other things constant, the cost of holding money (liquidity) is low → people hold a larger fraction of their wealth in the form of money
- Conversely, when the market rate of interest is high, the cost of holding money is high → people hold less of their wealth in money and more in other financial assets
- Thus, other things constant, the quantity of money demanded varies inversely with the market interest rate

Supply of Money and Interest Rate

- The supply of money – the stock of money available in the economy at a particular time – is determined primarily by the Fed through its control over currency and over excess reserves



Interest Rates and Planned Investment

- Money affects the economy through changes in the interest rate
- Suppose the Fed believes the economy is operating below its potential output and decides to increase the money supply in order to stimulate output and employment by either
 - Purchasing U.S. government securities
 - Lowering the discount rate
 - Lowering the reserve requirement

Summary

- The sequence of events in Exhibit 3 can be summarized as follows

$$M \uparrow \rightarrow i \downarrow \rightarrow I \uparrow \rightarrow AD \uparrow \rightarrow Y \uparrow$$

- An increase in the money supply, M , reduces the interest rate, i . The lower interest rate stimulates investment spending, I , which leads to an increase in aggregate demand from AD to AD' . At a given price level, real GDP demanded increases.

International Trade



International Trade

- All economies, regardless of their size, depend to some extent on other economies and are affected by events outside their borders.
- The “internationalization” or “globalization” of the U.S. economy has occurred in the private and public sectors, in input and output markets, and in business firms and households.

The Economic Basis for Trade: Comparative Advantage

- **Corn Laws** were the tariffs, subsidies, and restrictions enacted by the British Parliament in the early nineteenth century to discourage imports and encourage exports of grain.
- David Ricardo's **theory of comparative advantage**, which he used to argue against the corn laws, states that specialization and free trade will benefit all trading partners (real wages will rise), even those that may be absolutely less efficient producers.

Absolute Advantage Versus Comparative Advantage

- A country enjoys an **absolute advantage** over another country in the production of a product if it uses fewer resources to produce that product than the other country does.
- A country enjoys a **comparative advantage** in the production of a good if that good can be produced at a lower cost in terms of other goods.

Gains from free trade

- The case for free trade is based on the theory of comparative advantage. When countries specialize and trade based on comparative advantage, consumers pay less and consume more, and resources are used more efficiently.
- When tariffs and quotas are imposed, some of the gains from trade are lost.