Soochow University International Programs

2021 SCUIP Winter Session I
ECON202

Lecture 16: Monetary and Fiscal Policy: Part 2

ECON202: Macroeconomics
Soochow University

How Fiscal Policy Influences Aggregate Demand

- Fiscal policy refers to the government's choices regarding
  - ▻ government purchases (*G*) and
  - ▻ taxes (*T*)
- Fiscal policy influences saving, investment, and growth in the long run.
  - ▻ See Lecture 6
- In the short run, fiscal policy primarily affects the aggregate demand.

Fiscal Policy: expansionary and contractionary

- Expansionary fiscal policy: $G\uparrow$ or $T\downarrow$
  - ▻ Decreases government saving $T - G$
- Contractionary fiscal policy: $G\downarrow$ or $T\uparrow$
  - ▻ Also called “fiscal austerity” or “belt tightening”
  - ▻ Increase government saving T - G

Changes in Government Purchases

- When policymakers change the money supply or taxes, the effect on aggregate demand is indirect – through the spending decisions of firms or households.

- When the government alters its own purchases of goods or services (*G*), it shifts the aggregate-demand curve directly.

Changes in Government Purchases (Cont'd)

- There are two important macroeconomic consequences of a change in government purchases:
  - The multiplier effect
  - The crowding-out effect

The Multiplier Effect

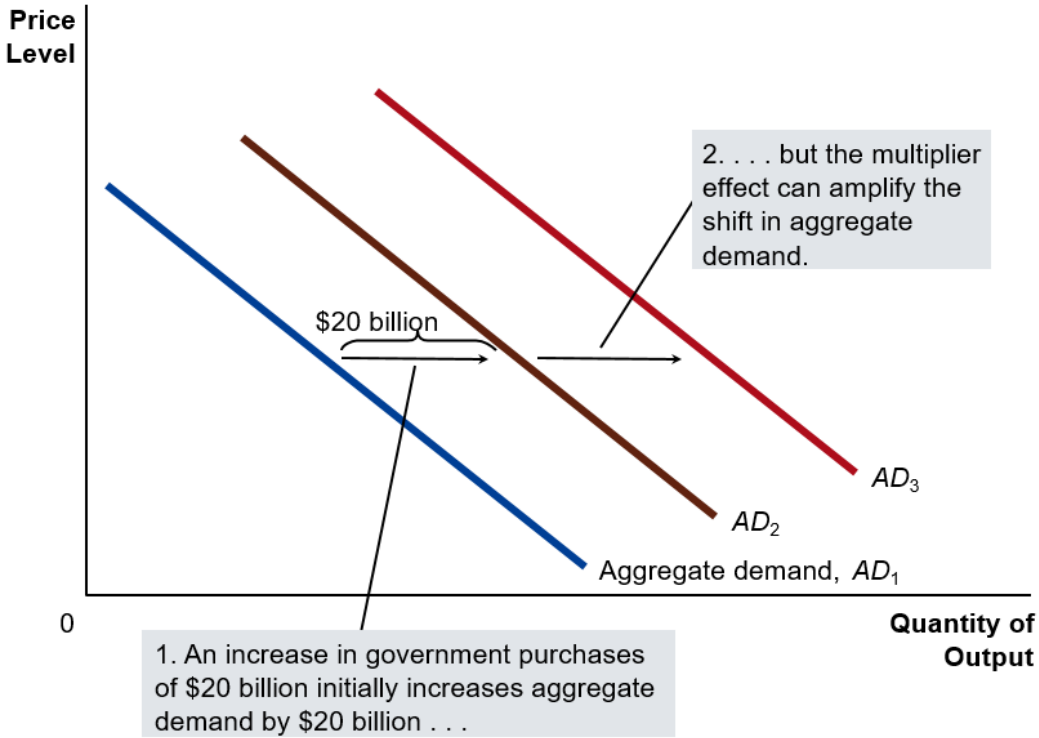
- Government purchases are said to have a multiplier effect on aggregate demand.

  ▻ Each dollar spent by the government may raise the aggregate demand for goods and services by more than a dollar.

  ▻ Government spending increases income and thereby increases consumer spending which leads to further increases in income.

  ▻ $G\uparrow \Rightarrow$ aggregate demand$\uparrow \Rightarrow \boldsymbol{Y}\uparrow \Rightarrow C\uparrow \Rightarrow$ aggregate demand $\uparrow \Rightarrow \boldsymbol{Y}\uparrow \Rightarrow C\uparrow \Rightarrow \boldsymbol{Y}\uparrow \Rightarrow C\uparrow \Rightarrow \boldsymbol{Y}\uparrow \Rightarrow C\uparrow \Rightarrow \boldsymbol{Y}\uparrow \Rightarrow C\uparrow \ldots$

The Multiplier Effect (Cont'd)



A Formula for the Spending Multiplier

- The formula for the spending multiplier is:

$$\text{Multiplier} = 1/(1 - \text{MPC})$$

  - ▻ An important number in this formula is the marginal propensity to consume (MPC)
  - ▻ The MPC is the fraction of every additional dollar of income that a household spends on domestic goods and services.
  - ▻ The bigger the MPC, the bigger the spending multiplier.
  - ▻ That is, the more people love to spend, the more effective government spending is in increasing production and employment.

A Formula for the Spending Multiplier (Cont'd)

- If the MPC is 3/4, then the multiplier will be:

$$\text{Multiplier} = 1/(1 - 3/4) = 4$$

- In this case, a $20 billion increase in government spending generates $80 billion of increased demand for goods and services.
- If the MPC is 9/10, then the multiplier will be:

$$\text{Multiplier} = 1/(1 - 9/10) = 10$$

- In this case, a $20 billion increase in government spending generates $200 billion of increased demand for goods and services.

The Size of the Spending Multiplier

- The continuous chain effect described by the multiplier effect works only if there is enough unemployed labor available.
- The multiplier effect will end up creating jobs in other countries if people end up spending their incomes on imported goods.

The Crowding-Out Effect

- On the negative side, government spending may not affect the economy as strongly as predicted by the multiplier.

- An increase in government purchases causes GDP to increase (as indicated by the multiplier effect)

- This increases the demand for money.

  ▻ The liquidity preference theory argues that people wish to carry more money when income increase because of increased shopping.

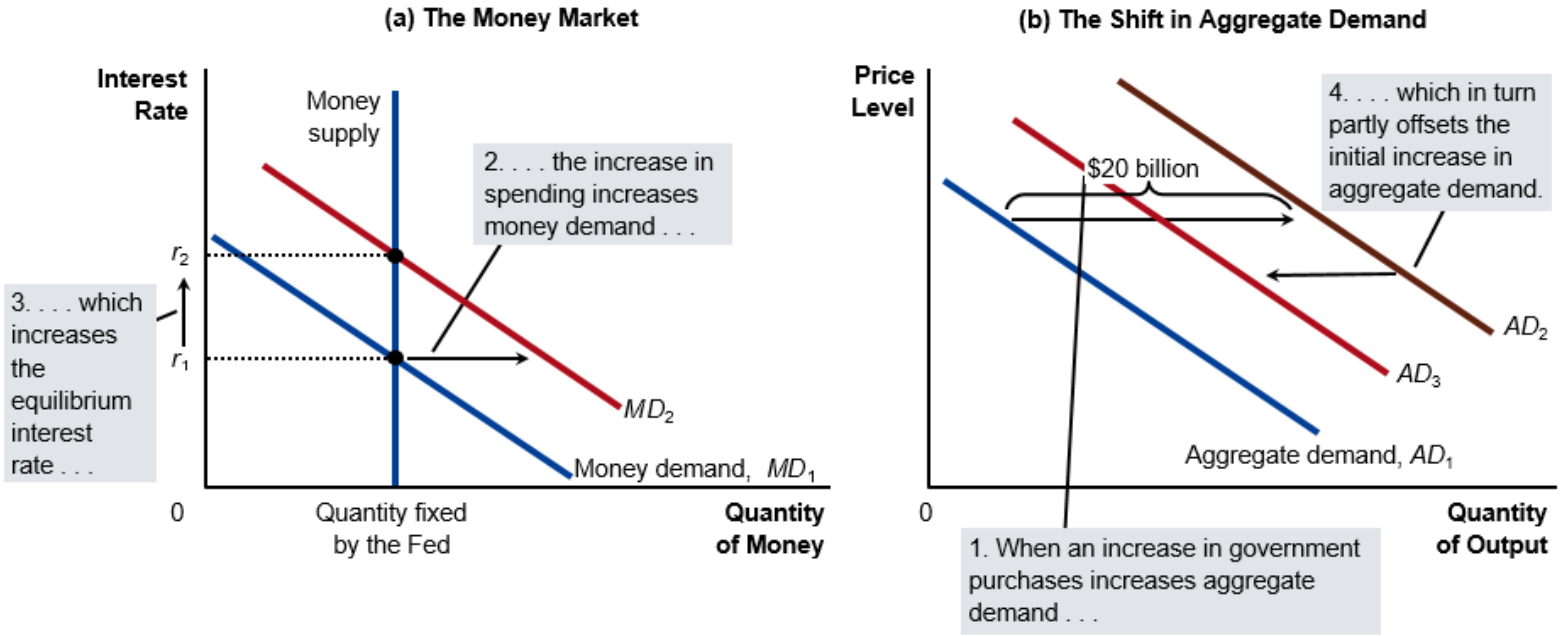
- This causes lending to fall and the interest rate to rise.

- A higher interest rate reduces investment spending and, therefore, aggregate demand.

The Crowding-Out Effect (Cont'd)

- This reduction in demand that results when a fiscal expansion raises the interest rate is called the crowding-out effect.
- The crowding-out effect tends to dampen the effects of fiscal policy on aggregate demand.

The Crowding-Out Effect (Cont'd)



The Crowding-Out Effect (Cont'd)

- When the government increases its purchases by $20 billion, the aggregate demand for goods and services could rise by more or less than $20 billion, depending on whether the multiplier effect or the crowding-out effect is larger.

Changes in Taxes

- When the government cuts personal income taxes, it increases households' take-home pay.
  - ▻ Households save some of this additional income.
  - ▻ Households also spend some of the tax cut on consumer goods.
  - ▻ Increased consumption spending shifts the aggregate demand curve to the right.

Changes in Taxes (Cont'd)

- The size of a tax cut's impact on aggregate demand depends, once again, on the multiplier and crowding-out effects.
- The impact of a tax cut also depends on households' perceptions about the permanence of the tax change.

Tax cuts: temporary vs. permanent

- The effect of a tax cut on aggregate demand is also affected by households' perceptions about the permanence of the tax change.
- If the tax cut is perceived to be temporary, most of the tax cut will be saved rather than spent.
- Therefore, a temporary tax cut will not boost aggregate demand very much.

Using Policy to Stabilize the Economy

- The efforts of the government to increase aggregate demand during a recession are called stabilization policy.
- Economic stabilization has been an explicit goal of U.S. policy since the Employment Act of 1946.
- This act states that “it is the continuing policy and responsibility of the federal government to … promote full employment and production.”

The Case for Active Stabilization Policy

- The Employment Act has two implications:
  - ▷ The government should avoid being the cause of economic fluctuations.
  - ▷ The government should respond to changes in the private economy in order to stabilize aggregate demand.

    -> If private-sector activity pushes aggregate demand to the left (thereby causing a recession), the government should do what it can to push aggregate demand to the right (thereby ending the recession).

The Case for Active Stabilization Policy (Cont'd)

- What is the evidence that stabilization policy works?

- The large increases in public spending in the US after WWII are widely regarded as having played a crucial role in rescuing the economy from the Great Depression.

  ▻ Key point: if the private sector refuses to spend, the government becomes the spender of last resort.

- Similarly, the large tax cuts during the (short-lived) Kennedy administration are also widely regarded as having led to rapid growth.

The Case Against Active Stabilization Policy

- Some economists argue that monetary and fiscal policy destabilizes the economy.
- Why?
- Because monetary and fiscal policy affect the economy with a substantial lag.
- These lagged (or mistimed) effects destabilize the economy instead of stabilizing it.
- Therefore, opponents of stabilization policy say that the economy should be left to deal with the short-run fluctuations on its own.

The Case Against Active Stabilization Policy (Cont'd)

- Most economists believe that it takes at least six months for monetary policy to affect output and employment.
- And these effects can then last for several years.
- Economic forecasting is very imprecise. It is difficult to implement monetary policy six months before a recession.
- When monetary policy reacts late, the AD curve may shift right after the economy has already recovered.
- This would destabilize the economy.

The Case Against Active Stabilization Policy (Cont'd)

- The lags that reduce the effectiveness of fiscal policy are largely due to the sluggishness of the political process.

Budget deficits and the national debt

- Recall that expansionary fiscal policy leads to an increase in government borrowing (budget deficit).
- If a government keeps borrowing year after year, its debt accumulates.
- As the government's debt accumulates, lenders may start to worry about the possibility of default …

Budget deficits and the national debt (Cont'd)

- As a result, the interest rate the government has to pay may rise.
- This rise in the interest rate may further increase the probability of default.
- As a result, the interest rate the government has to pay may rise again.
- This rise in interest rate may increase the probability of default yet again.
- And so on and on …

Budget deficits and the national debt (Cont'd)

- At some point, the first flicker of suspicion among lenders may turn into a self-fulfilling prophecy, and default may become inevitable.
- This is especially the case when the interest rate the government has to pay exceeds the rate of growth of the economy's income.
- A country with low government debt has a lot of room to use fiscal stimulus to fight a recession.

The Balanced Budget Multiplier

- In theory, it is possible to use expansionary fiscal policy without any additional borrowing by the government!
- Suppose both government spending and taxes rise by $800 billion.
- No additional borrowing would be necessary.
- And yet, aggregate demand would increase.
- Why?

The Balanced Budget Multiplier (Cont'd)

- If $800 billion fell from the sky, people would spend part of it (say, $700 billion) and save the rest ($100 billion).
- By reverse reasoning, if the government took away $800 billion in taxes, spending by taxpayers would fall by $700 billion.
- But the government spending would rise by $800 billion.
- Therefore, on balance, the country's total spending wold rise by $100 billion.

The Balanced Budget Multiplier (Cont'd)

- In this way, the balanced budget expansion of both government spending and taxes, increases the aggregate demand for domestic goods and services without any increase in government borrowing!

- Unfortunately, I know of no examples of this trick actually being implemented.

Automatic Stabilizers

- We have seen that expansionary fiscal policy has various lags that make it less effective in stabilization.
- A way to avoid the lags problem is to use automatic stabilizers.
- Automatic stabilizers are changes in fiscal policy that stimulate aggregate demand when the economy goes into a recession without policymakers having to do anything.
- Examples of automatic stabilizers include a progressive tax system and means-tested forms of government spending.

Automatic Stabilizers (Cont'd)

- When incomes decrease, so do the government's tax revenues. This automatic tax cut boosts aggregate demand just when such a boost is most needed.
- Government spending on unemployment insurance, welfare benefits, and other forms of income support also act as automatic stabilizers.
- Unfortunately, these automatic stabilizers are not always sufficiently strong and, therefore, policy makers may still need to enact stabilization policies.

Automatic Stabilizers: Balanced Budget Amendment

- Some politicians, upset by our huge budget deficits, support a balanced budget amendment to the US constitution.
- A balanced budget constitutional amendment would force the government to always keep tax revenue equal to government spending ($G = T$, always).
- Such an amendment would end the role of automatic stabilizers in our current system.

Balanced Budget Amendment (Cont'd)

- We have seen before that during a recession, incomes decrease and the government's tax revenues also decrease.
- Under a balanced budget amendment, the fall in tax revenues would force the government to cut government spending.
- A reduction in government spending during a recession would be highly inappropriate.
- For this reason, economists are opposed to a balanced budget amendment.
- However, keeping the budget balanced in the long run may be a good idea.

Final Exam

- Weight: 30% of the final grade
- Closed book and calculators are allowed.
- 2 hours + 10 minutes reading time
- 3 Sections
  - ▻ Section A: True/False (MUST provide the justification reasons) (4 questions, 20 marks in total)
  - ▻ Section B: Multiple Choice (20 questions, 60 marks in total)
  - ▻ Section C: Problem Solving (4 questions, 20 marks in total) (If necessary draw the diagram)

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