

# Elements of Macroeconomics

Week 13

## 15 Fiscal Policy

### 15.1 The Limits of Using Fiscal Policy to Stabilize the Economy

**Future tax increases (Ricardian Equivalence)** Debt needs to be re-paid at some point. If households fear that an increase in fiscal stimulus will result in higher taxes in the future, they will save accordingly. As a result, they spend less of the money than we would like.

→  $G$  increases, but  $C$  decreases

Note, that this depends heavily on liquidity constraints. If someone needs the money for consumption today, they will spend it, even though taxes might increase in the future. Therefore, stimulus checks have been targeted to the poorer households who have the highest MPCs.

**Crowding Out** Fiscal policy can lead to a crowding out effect: public loans replace private ones. One way to think about it is through the lense of the extended loanable funds model.

- The government increases spending through debt

→ Demand for government bonds increases (shift of  $D^B$  the right)

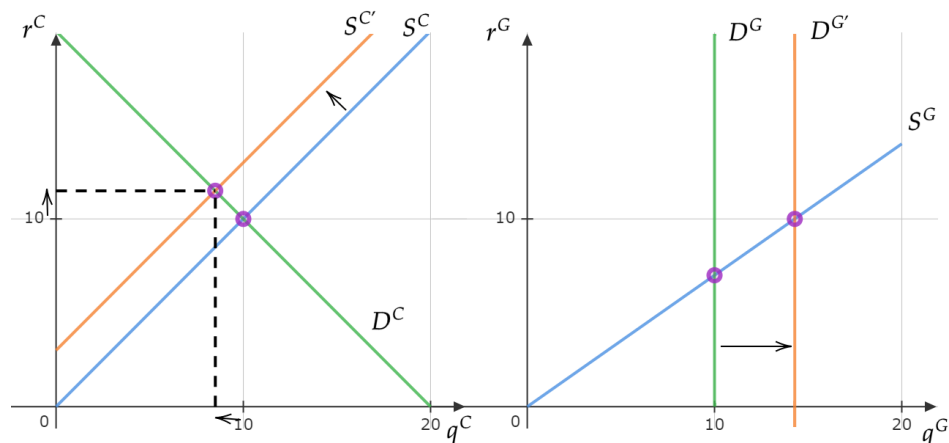
→ Investors in the government bond market receiving a higher interest rate (movement)

→ Risk-free/risky spread gets reduced

→ Investors in the corporate bond market demand higher interest rates (shift of  $S^C$  up)

→ Corporations reduce demand of bonds (movement)

→ While government spending increases, corporations invest less



## 15.2 Debt and Deficit

### Debt vs Deficit

- Deficit: Each year the government (might) spend more than they collect from taxes. This is a flow
- Debt: The cumulative amount of deficits over the years is what the government owns to its investors. This is a stock

### Is debt good or bad?

#### 1. Running a government as a company

- *Investments*: A country should use debt for investments if the revenue is higher than the costs

#### 2. Special role of a government

- *Fiscal policy intervention*: Fiscal policy can decrease volatility of the business cycle
- *Providing Public Goods*: The government can pay for goods which are available to everyone such as police and military.

→ Rate of return for a public good might not be the most important metric to look at.

→ Calculating the rate of return is also not straight forward. What would be the consequences if there was no military?

#### 3. Problems with debt

- Increase revenue/ reduce spending to reduce debt
- Higher interest rates
- Breathing room for fiscal policy
- Fear of default

### How much debt is too much?

- Countries can default! This would mean investors do not get their money back.
- If the debt burden is too large it might be even beneficial to default (see Argentina, ...)
- How much debt is too much is less clear
- The absolute amount does not tell us much (if the daily grind has less debt than apple does not make daily grind less likely to default)
- We usually look at debt over GDP: If the economy grows by 5% (and with it tax income), but debt increases only by 3%, we are in a better position than before
- Comparing other advanced economies in 2021: US (148%), Japan (256%), Germany (77%)

→ US debt is large (we needed a lot of fiscal policy), but there should be no fear of default

### 15.3 Recall AD-AS Model

I want to focus on the AD-AS Model and review the basic cases:

1. Transitory demand shock: 1) AD shifts 2) AD shifts back
2. Permanent demand shock: 1) AD shifts 2) SRAS shifts
3. Transitory supply shock: 1) SRAS shifts 2) SRAS shifts back
4. Permanent supply shock: 1) SRAS shifts 2) LRAS shifts

Note: investment in infrastructure, R & D, or education shifts the LRAS as well. **In the exam, make sure to be clear in your assumptions on how LRAS and SRAS are affected!**

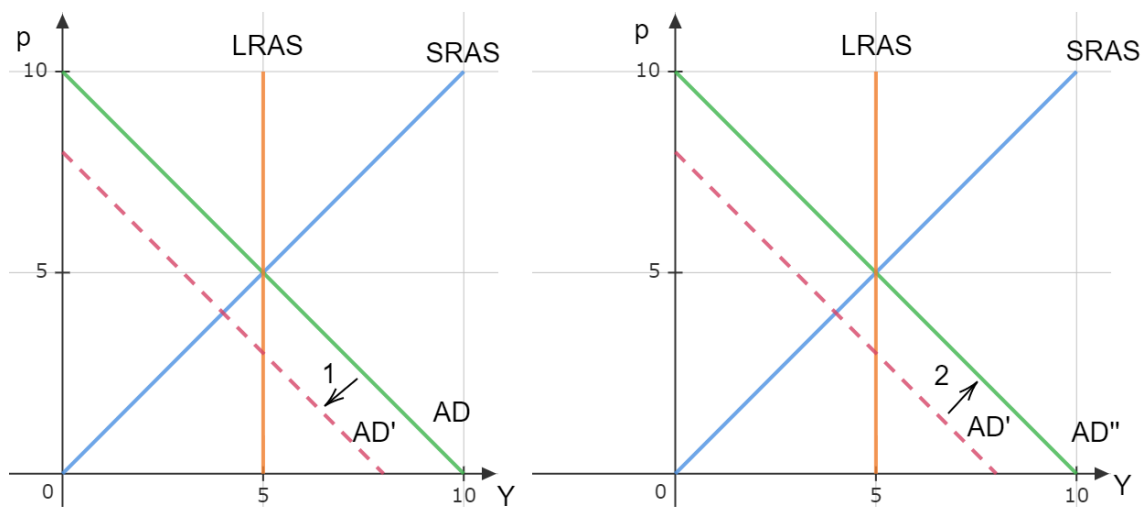


Figure 1: Transitory Demand Shock

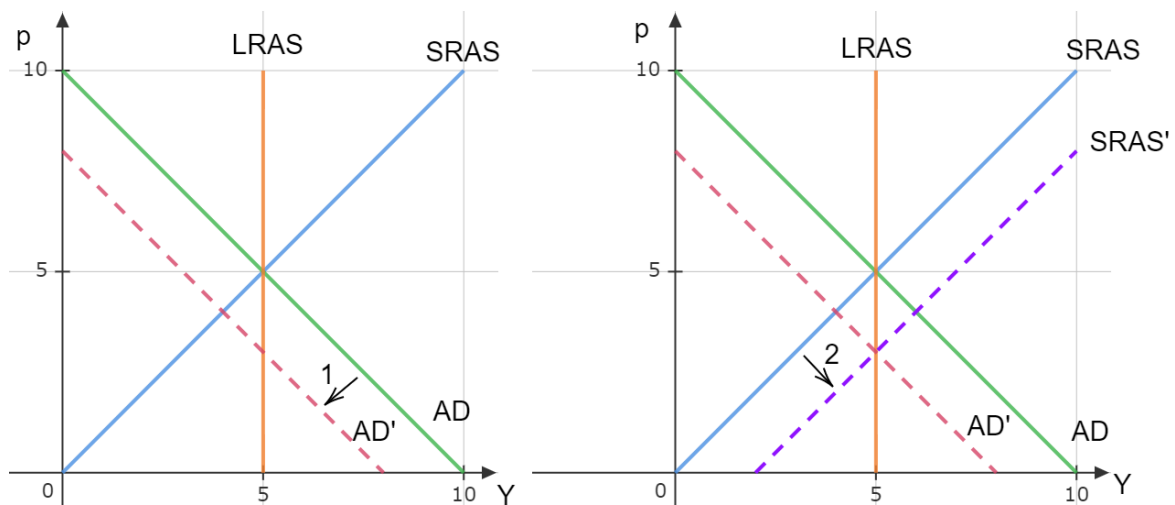


Figure 2: Permanent Demand Shock

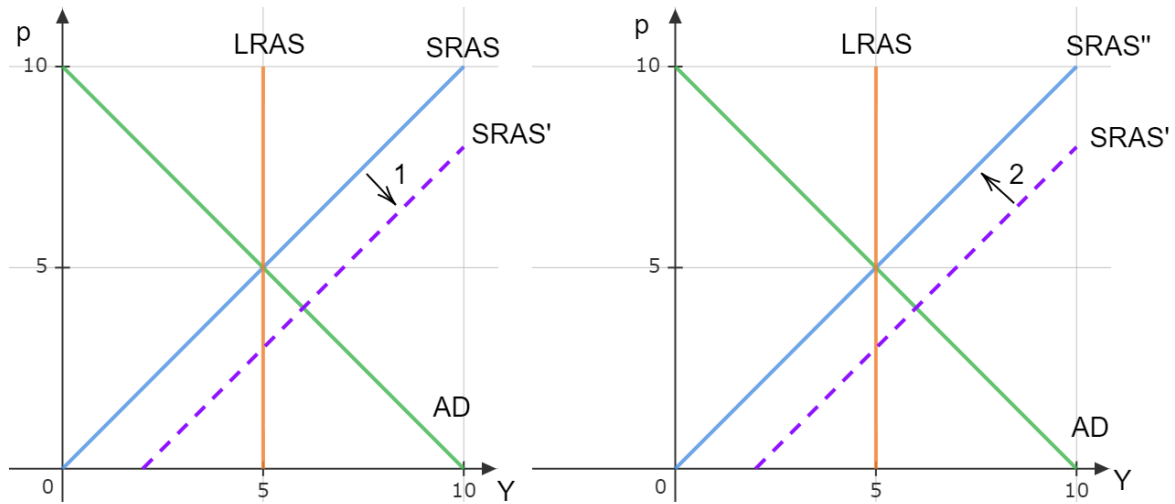


Figure 3: Transitory Supply Shock

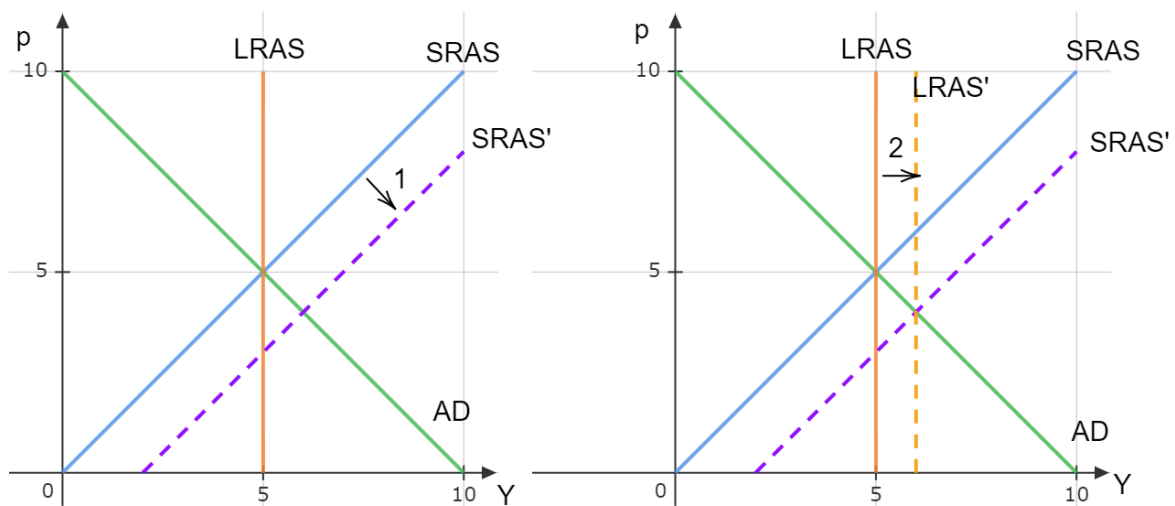


Figure 4: Permanent Supply Shock