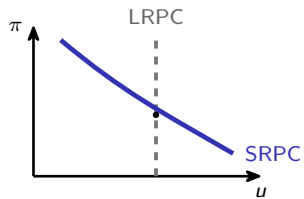
Long-Run Consequences of Stabilization Policies

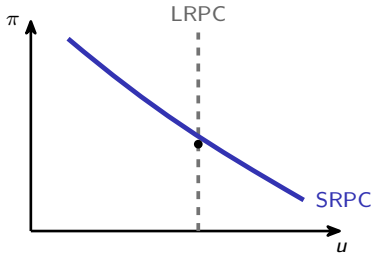
AP Macroeconomics ▪ Unit 5

AP Macroeconomics



What we will cover

1. Combining fiscal and monetary policy
2. The Phillips curve
3. Money growth and inflation
4. Deficits and the national debt
5. Crowding out
6. Economic growth
7. Public policy for growth



Fiscal and monetary policy together

Both tools move **aggregate demand** 总需求.
The monetary chain runs:

Transmission

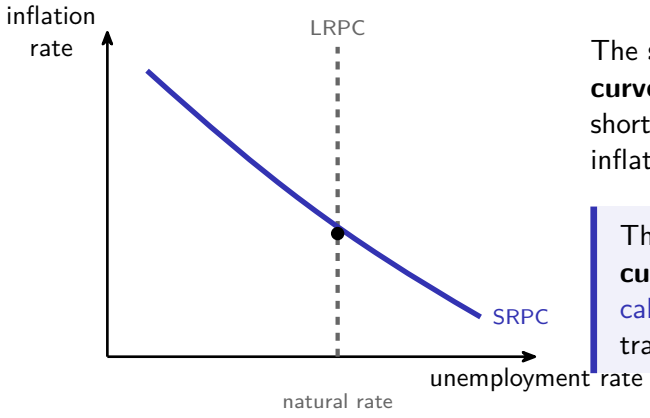
$$MS \uparrow \Rightarrow i \downarrow \Rightarrow I \uparrow \Rightarrow AD \rightarrow$$

Two goals of **stabilization policy** 稳定政策:
full employment 充分就业 and price stability.

To fight a deep recession, cut taxes *and* lower interest rates – both push AD right, so the effects add up.

Combined policy closes a gap faster than either tool alone.

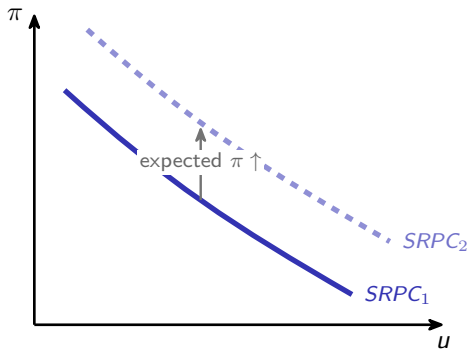
The Phillips curve



The **short-run Phillips curve** 短期菲利普斯曲线 slopes down: a short-run **trade-off** 权衡取舍 between inflation and unemployment.

The **long-run Phillips curve** 长期菲利普斯曲线 is vertical at the natural rate – no lasting trade-off. It mirrors LRAS.

What shifts the Phillips curve



The SRPC shifts when either changes:

- higher **inflationary expectations** 通货膨胀预期 ⇒ SRPC shifts up
- a negative **supply shock** 供给冲击 ⇒ SRPC shifts right (stagflation)

Push u below natural: inflation rises, then expectations catch up and u returns – only inflation is left higher.

Money growth and inflation

The **quantity theory of money** 货币数量论 starts from an identity:

The equation of exchange

$$M \cdot V = P \cdot Q$$

$V =$ **velocity** 货币流通速度. In the long run V and Q are steady.

$$\text{inflation} \approx \%\Delta M - \%\Delta Q$$

Worked example

M grows 10%, output Q grows 3%:

$$\text{inflation} \approx 10\% - 3\% = 7\%$$

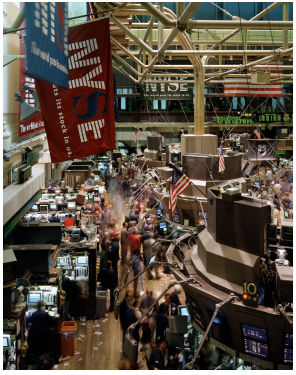
Neutrality of money 货币中性: in the long run more money raises only prices, not real output.

Deficits vs the national debt

- **Budget deficit** 预算赤字: a yearly shortfall (a *flow*)
- **National debt** 国家债务: total of past borrowing (a *stock*)

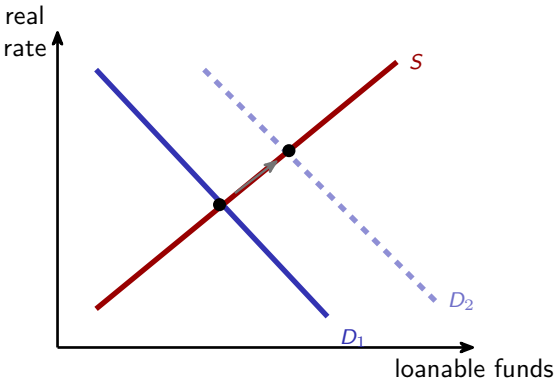
new debt = old debt + this year's deficit

Persistent deficits pile up the debt: interest costs, future taxpayers, crowding out.



Deficits add; the debt is the stock

Crowding out

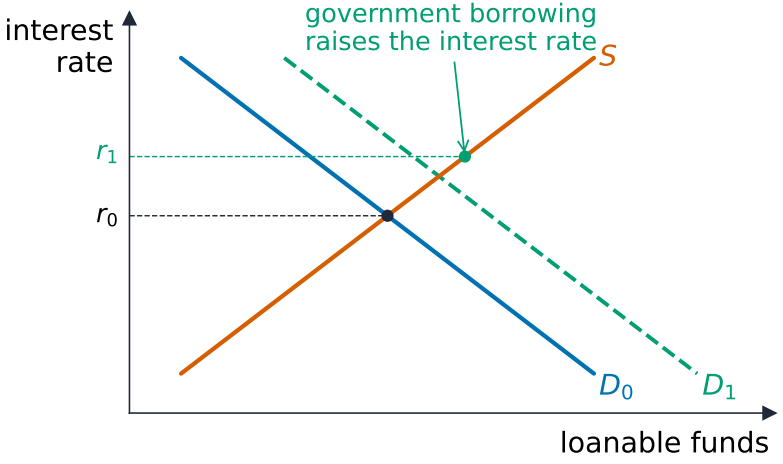


Government borrowing shifts loanable-funds demand right:

$$\text{deficit} \Rightarrow r \uparrow \Rightarrow I_{\text{private}} \downarrow$$

Crowding out 挤出效应: a higher real rate squeezes out private investment, so the **capital stock** 资本存量 grows slower and long-run growth is weaker.

Crowding out



Economic growth

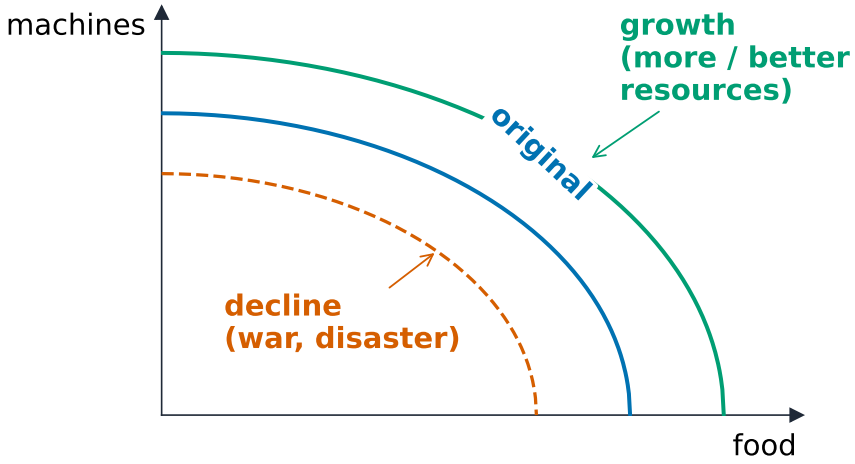
Economic growth 经济增长 = a rise in real GDP **per capita** 人均实际国内生产总值 over time. Two sources:

- more & better resources (labour, capital, human capital)
- higher **productivity** 生产率 – more output per input

> Growth = the PPC shifting outward and LRAS shifting right – the same event.

More capital and productivity raise living standards

Economic growth



Public policy for growth

Governments raise long-run growth by building resources or lifting productivity:

Capital
physical 实物资本 (roads, machines) & **human capital** 人力资本 (schools, health)

Technology
R&D 研究与开发, universities, **patents** 专利 – more output per input

Institutions
property rights 产权, honest courts, good incentives

Each shifts LRAS right and the PPC outward.

Unit 5 – key takeaways

1 Phillips curve

short-run trade-off; LRPC vertical at the natural rate

2 Money & inflation

$MV = PQ$; long-run money growth just raises prices

3 Deficits

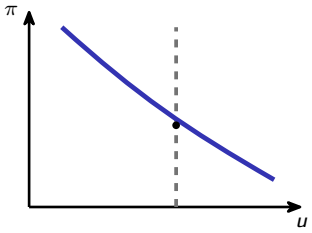
a deficit is a flow; the debt is the stock it builds

4 Growth

from resources and productivity; crowding out slows it

Check yourself

1. Is the long-run Phillips curve sloped or vertical?
2. M grows 8%, output 2%. Roughly what is inflation?
3. Deficit or debt: which is a yearly flow?
4. Crowding out reduces which kind of spending?



Answers **1.** vertical (at the natural rate) **2.** about 6% **3.** the deficit **4.** private investment