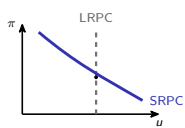


Long-Run Consequences of Stabilization Policies

AP Macroeconomics ■ Unit 5

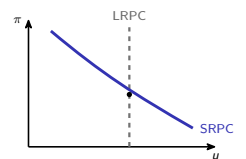
AP Macroeconomics



Long-Run Consequences of Stabilization Policies

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



1 Combining policy

Long-Run Consequences of Stabilization Policies

Combining policy

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.

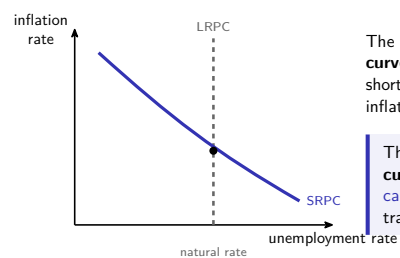
Combined policy closes a gap faster than either tool alone.

2 Phillips curve

Long-Run Consequences of Stabilization Policies

Phillips curve

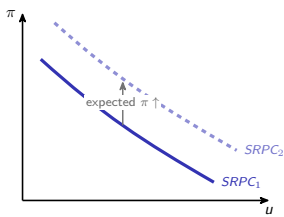
The Phillips curve



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.

3 Money & inflation

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.

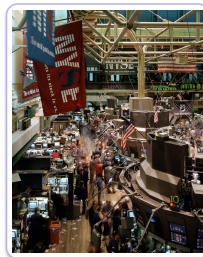
4 Deficits & debt

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.

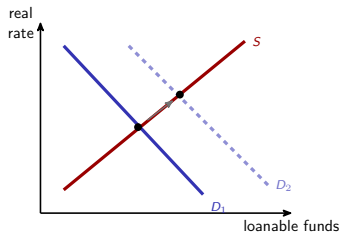


Deficits

add; the debt is the stock

5 Crowding out

Crowding out



Government borrowing shifts loanable-funds demand right:

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**.

6 Growth

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



More capital and productivity raise living standards

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

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**.

7 Recap

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

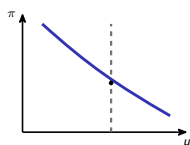
a deficit is a flow; the debt is the stock it builds

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