Long-Run Consequences of Stabilization Policies

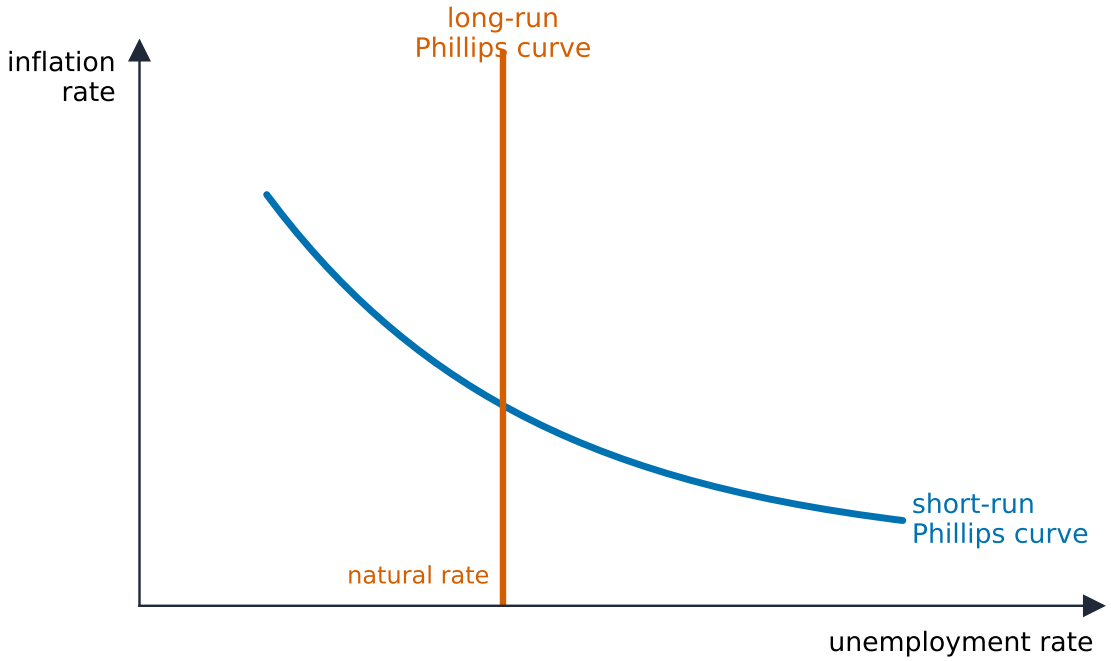
AP Macroeconomics

Fiscal and Monetary Policy in the Short Run

Both policies work by shifting **AD** in the short run. **Fiscal policy** 财政政策 changes government spending or taxes; **monetary policy** 货币政策 changes the money supply and thus the interest rate. They can work **together** (both expansionary to fight a deep recession) or be **mixed** (e.g. loose fiscal + tight monetary). In the short run, expansionary policy raises output and the price level and lowers unemployment; contractionary policy does the reverse.

The Phillips Curve

The **Phillips curve** 菲利普斯曲线 shows the short-run trade-off between **inflation** and **unemployment**:



The short-run and long-run Phillips curves

- The **short-run Phillips curve (SRPC)** 短期菲利普斯曲线 slopes **downward** – lower unemployment comes with higher inflation. It is the mirror image of AD-AS: a rightward AD shift moves the economy up-left along the SRPC (less unemployment, more inflation).
- The **long-run Phillips curve (LRPC)** 长期菲利普斯曲线 is **vertical** at the **natural rate of unemployment** 自然失业率–the counterpart of vertical LRAS. In the long run there is **no** trade-off: policy changes inflation, not unemployment.

- A **supply shock** shifts the SRPC (a negative shock moves it right –worse inflation *and* unemployment, i.e. stagflation). A change in **expected inflation** also shifts the SRPC.

Exam skill: link the AD-AS and Phillips graphs –a recessionary gap in AD-AS corresponds to a point on the SRPC to the **right** of the natural rate; know what shifts SRPC versus moves along it.

Money Growth and Inflation

In the long run, **inflation is a monetary phenomenon**. The **quantity theory of money** 货币数量论 states $M \times V = P \times Y$ (money supply × velocity = price level × real output). With velocity V and real output Y roughly stable in the long run, growth in the **money supply** translates almost one-for-one into **inflation**. Printing money faster than the economy grows raises the price level, not real output –the root of high inflation and, in the extreme, **hyperinflation** 恶性通货膨胀.

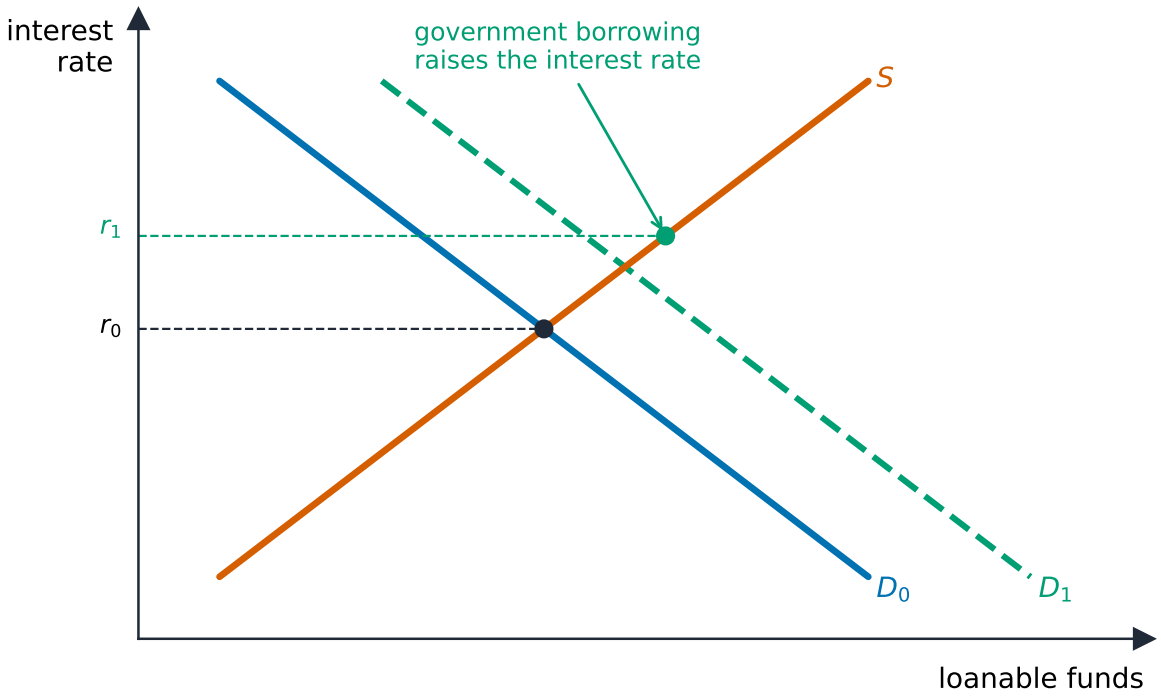
Worked example. Suppose the money supply grows 8% per year while real output Y grows 3% and velocity V is stable. Rearranging $M \times V = P \times Y$ into growth rates, inflation $\approx 8\% - 3\% = 5\%$. The 5% of money growth not matched by extra output simply becomes higher prices.

Government Deficits and the National Debt

A **budget deficit** 预算赤字 occurs when government spending exceeds tax revenue in a year (a **surplus** 盈余 is the reverse). The accumulated total of past deficits is the **national debt** 国债. Deficits are financed by **borrowing** –selling government bonds – which adds to the debt and to future interest payments. Persistent deficits raise concerns about crowding out and the burden of servicing the debt.

Crowding Out

Crowding out 挤出效应 is the main long-run cost of deficit-financed fiscal policy. When the government borrows heavily, it increases the **demand for loanable funds**, raising the **real interest rate**. Higher rates **reduce private investment** (and interest-sensitive consumption). So expansionary fiscal policy partly cancels itself: the AD boost is offset by weaker investment. Worse, less investment today means a smaller capital stock and **slower long-run growth**.



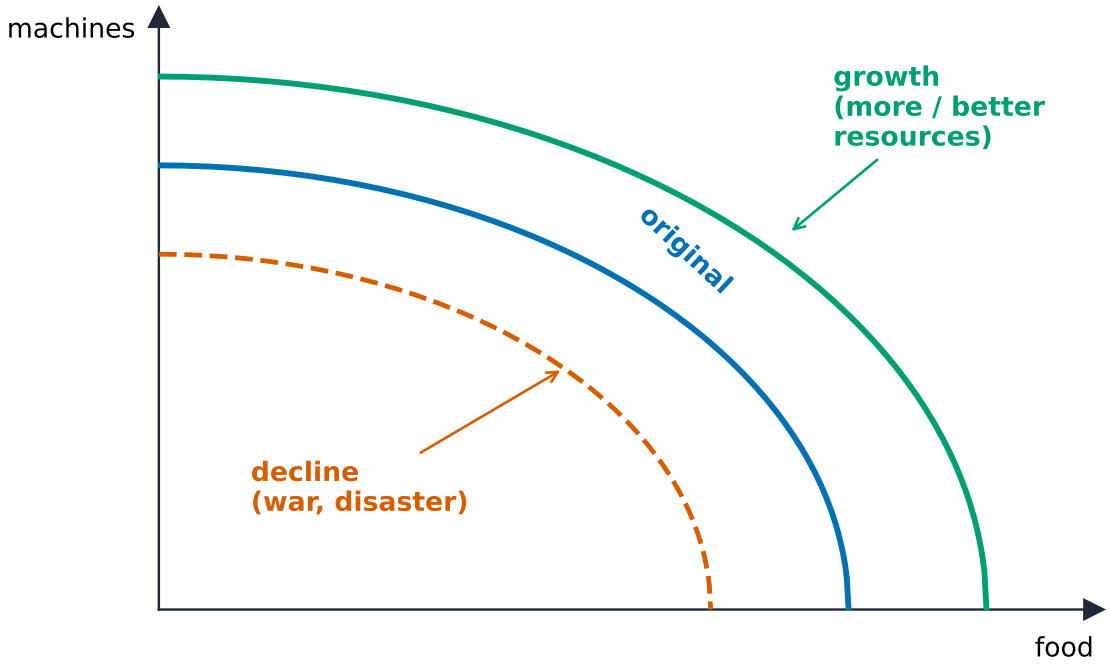
Government borrowing raises interest rates and crowds out private investment

Exam skill: show crowding out on the **loanable funds** graph –government borrowing shifts demand right, the real interest rate rises, and private investment falls.

Worked example. A government borrows $500 billion to finance a deficit. On the loanable funds market this shifts the demand for funds right, pushing the real interest rate up (say from 3% to 4%). At the higher rate firms scale back investment –perhaps by $150 billion –so the net boost to AD is smaller than the $500 billion, and the lost investment slows long-run growth.

Economic Growth

Economic growth 经济增长 is a sustained rise in **real GDP per capita** –the true source of higher living standards. It comes from more or better resources and is shown as a **rightward shift of LRAS** (and an outward shift of the PPC). Its main drivers:



Economic growth shifts the production possibilities curve outward

- **physical capital** 实物资本 (more tools and machines per worker),
- **human capital** 人力资本 (education, skills, health),
- **technology** 技术 and innovation,
- **productivity** 生产率 (output per worker) growth, the deepest driver.

Public Policy and Economic Growth

Governments can raise long-run growth by policies that build capital and productivity: **investment in infrastructure and education**, **research and development** incentives, protecting **property rights** 产权 and the rule of law, encouraging **saving and investment** (which finances capital), and keeping inflation low and stable. The recurring long-run theme: policies that **crowd out** or discourage investment slow growth, while those that **encourage** capital formation speed it up.

Exam tips

- The short-run **Phillips curve** shows the inflation–unemployment trade-off; the long-run curve is **vertical** at the natural rate.
- In the long run inflation is a **monetary** phenomenon (money growth beyond output growth → inflation).
- Show **crowding out** on the loanable-funds graph: government borrowing raises the real rate and cuts private investment.
- Growth comes from more/better resources —physical capital, human capital, technology —shifting LRAS right.

- A supply shock moves inflation and unemployment the same way (stagflation), unlike a demand shock.