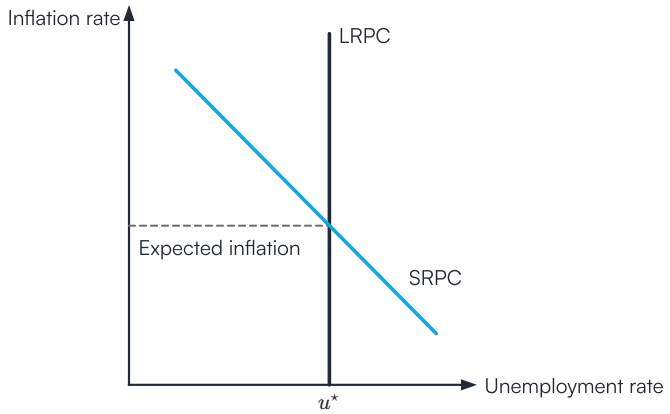
Achievable

AP MACROECONOMICS DUMP SHEET

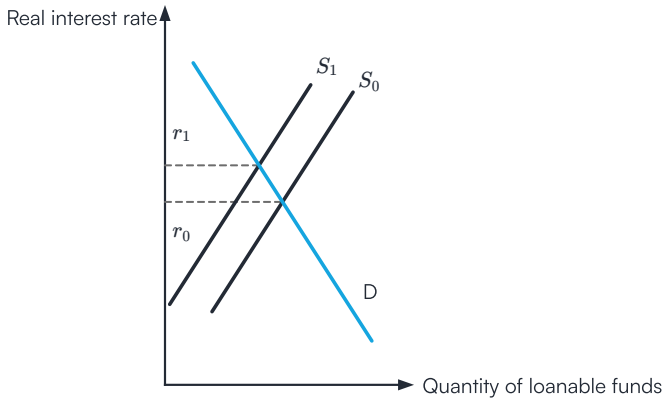
Unit 5: Long-run consequences of stabilization policies

Phillips curve



- **AD shifts move along the SRPC:** AD right → inflation ↑, unemployment ↓
- **SRPC right (up):** negative supply shock or higher expected inflation. **Left (down):** the reverse
- **LRPC** is vertical at the natural rate $u^\star$, and moves only if that rate changes. Left of it is an inflationary gap, right of it a recessionary gap
- **Long run:** expected inflation catches up with actual, the SRPC shifts, and unemployment returns to $u^\star$

Crowding out



- **Deficit** → loanable funds supply left → real rate ↑ → investment ↓
- AD rises by less than intended
- **Long run:** less physical capital, slower growth
- **Surplus:** supply right, real rate ↓, investment ↑

Money growth and inflation

$$M \times V = P \times Y$$

- M money supply, V velocity, P price level, Y real GDP; $P \times Y$ is nominal GDP
- **If velocity is constant:** inflation = money growth − real GDP growth
- Money +5%, real GDP flat: 5% inflation
- **Sustained inflation:** money grows too fast for a long time
- **Long run:** money changes the price level, not real output, and shifts neither LRAS nor LRPC

Deficits and debt

$$\text{Budget balance} = T - G - \text{transfers}$$

- Below zero is a **deficit**, above zero a **surplus**
- **National debt:** the sum of past deficits and surpluses, interest included
- **Funding spending:** raise taxes, borrow, or print money
- **Burden:** interest adds to the debt and uses funds that could go elsewhere

Stagflation and the policy mix

- **Negative supply shock:** SRAS left, SRPC right, so inflation and unemployment both rise
- **No policy:** the shock fades and SRAS shifts back
- **Expansionary policy:** output returns sooner, at a higher price level
- **Same direction:** with fiscal and monetary policy together, AD's shift is known and the interest rate is not. **Opposite:** the interest rate's move is known and AD's is not

Economic growth

$$\text{Growth rate} = \frac{\text{new} - \text{old}}{\text{old}} \times 100$$

- **Real GDP per capita** = real GDP ÷ population
- **Labor productivity** = real GDP ÷ employed workers, set by technology and capital per worker
- **Aggregate production function:** output per person rises with physical and human capital per person
- **Growth:** PPC or LRAS shifts out
- **Sources:** physical and human capital, technology, natural resources, institutions
- **Pro-growth policy:** education and training, R&D, infrastructure