Intermediate Macroeconomics

ECON 302

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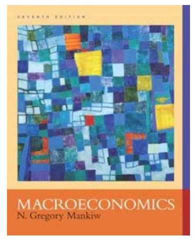
Lecture 9:

- Stabilization Policy
  - Active vs. Passive Policy
  - Rules vs. Discretion
- Time Inconsistency
- Barro – Gordon Model



Stabilization Policy: Active or Passive?

- Under the Neoclassical (and Real Business Cycle) view, fluctuations are the efficient response of the economy to shocks (subject to whatever information agents have); no role for active policy.
- With wage and/or price rigidities *theoretical* case for intervention is stronger.
  - ➢ With wage/price rigidities, economic policy can have short run effects (- multipliers are non zero in the short run)
- But is this enough? …

Problems of Activist Policy

- Lags in implementing (**inside lag**) and between policy and target variables (**outside lag**) may be long and variable.
  - ➢ Hence, forecasts are needed, but these are often inaccurate.
- "Lucas Critique" suggests that many of the relationships in econometric models will shift with policy (e.g. $\pi = \pi^e - \alpha(u-u^n)$ with $\pi^e = \pi_{-1}$).
- Encourages caution in the use of policy.

Stabilization Policy: Rules vs. Discretion

- Governments are not benevolent; use economic policy to influence their chances of reelection, not necessarily to the ultimate benefit of the economy (*political business cycle*).
- An announced policy may be "**incredible**" (or "***time inconsistent***") because the policy maker subsequently has an incentive to deviate (renege) from the policy even in the absence of new information.
- Examples…

Barro Gordon Model (1983)

- Robert Barro (left) and David Gordon (right) highlighted the time inconsistency issue within the monetary policy literature

- In their model, the government cares about inflation and unemployment
  - The government would like both inflation and unemployment to be as low as possible.
- However, are their policy announcements time consistent?

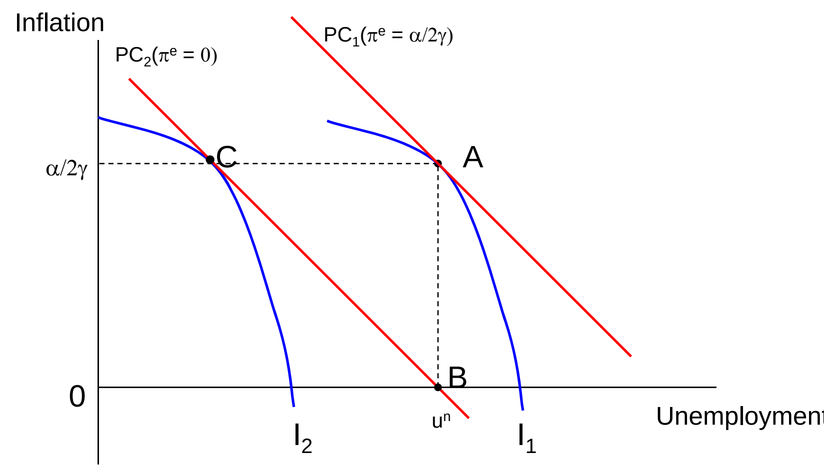
Barro-Gordon Model: Time Inconsistency

- **Phillips Curve**: $u - u^n = -\alpha(\pi - \pi^e)$ (1)
- Private Sector sets π^e, then government sets π.
- Government minimizes loss function:
  $L = u + \gamma\,\pi^2 = u^n - \alpha(\pi - \pi^e) + \gamma\,\pi^2$ (2)
  $dL/d\pi = -\alpha + 2\,\gamma\,\pi = 0 \Rightarrow \pi = \alpha/2\gamma > 0$
- Under Rational Expectations: $\pi^e = \alpha/2\gamma$
  - $\Rightarrow$ Substituting into (1) yields: $u = u^n$
  - $\Rightarrow$ Loss under discretion: $L^d = u^n + \alpha^2/4\gamma$

Is Zero Inflation Possible?

- Suppose that the government tries to set inflation to zero (and more importantly, people believe them!)
- Loss with zero inflation policy(L^r): $\pi = \pi^e = 0$ and $u = u^n$
  - Plugging into Phillips Curve (1) yields: $L^r = u^n < L^d$
- However, this optimal policy is not credible!
  - Why?...

The Inflation Unemployment Tradeoff



Resolving the Time Inconsistency Issue

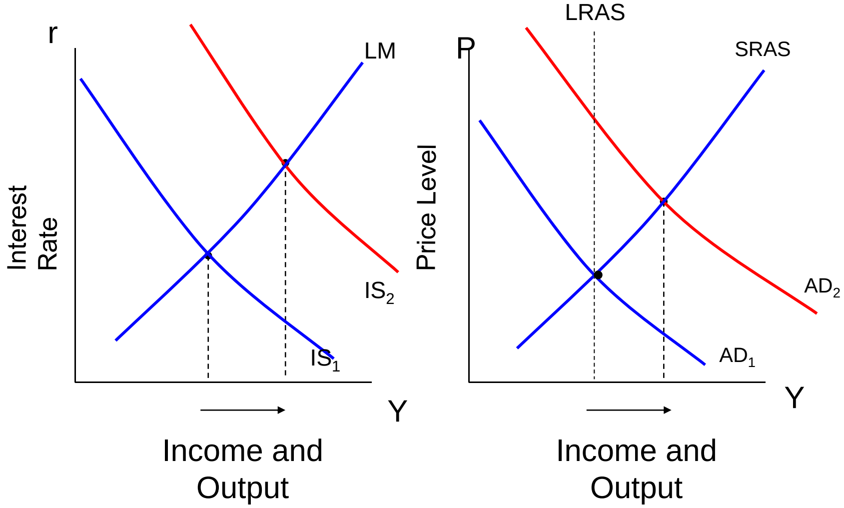
- **Constitutional rule**
  - ➢ But a fixed rule is very inflexible. Will limit the use of monetary policy to address shocks that hit the economy.
- **Reputation**
  - ➢ Government will have an incentive to carry through optimal monetary policy if it cares enough about its reputation.
- Delegation to an independent authority with different preferences/incentives
  - ➢ Example: An independent central bank who will focus only on inflation, like the ECB.

What Rule for Monetary Policy?

- Constant money growth (Friedman)
  - ➢ Problematic if velocity of money is unstable.
- Nominal GNP target (Meade, Tobin)
  - ➢ equivalent to a “velocity corrected” money target.
- Price level/inflation target (Bundesbank, UK govt., ECB)
  - ➢ Same as nominal GNP target for AD shocks, but too contractionary in face of adverse supply shocks (e.g. OPEC).
- Note: All of these are rules for a nominal variable.

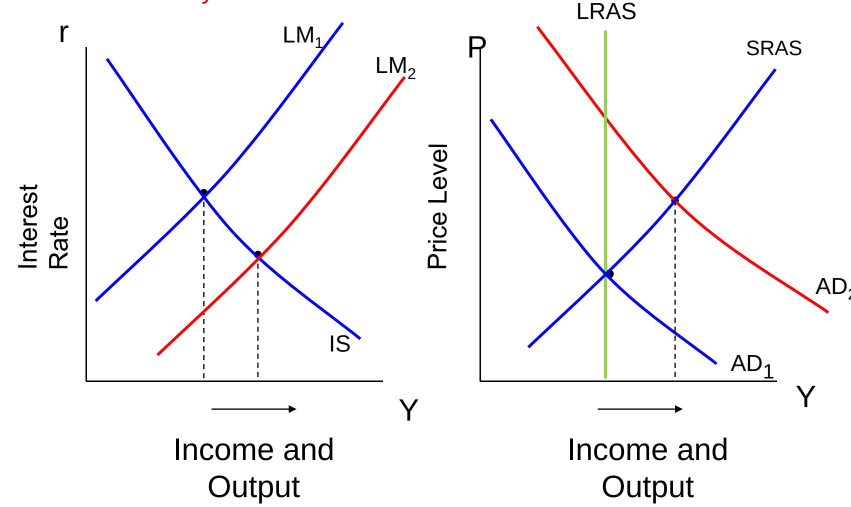
Demand Shock: Money Growth - Rule

Goods Market Shock

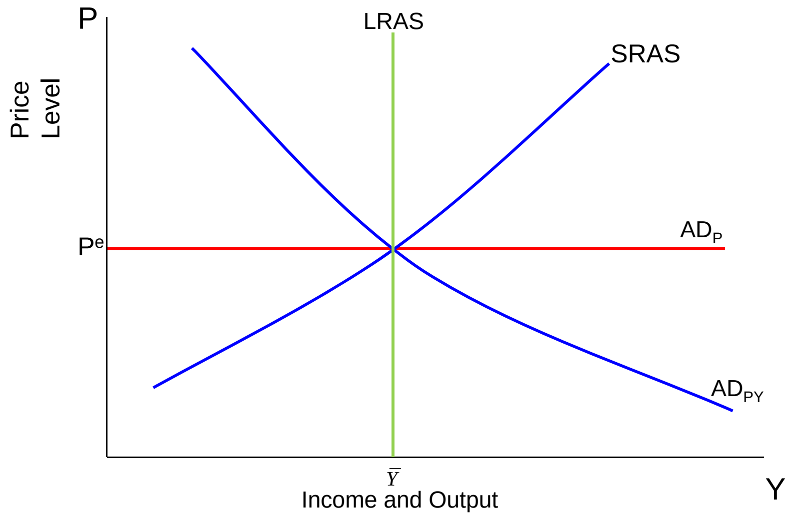


Demand Shock: Money Growth - Rule

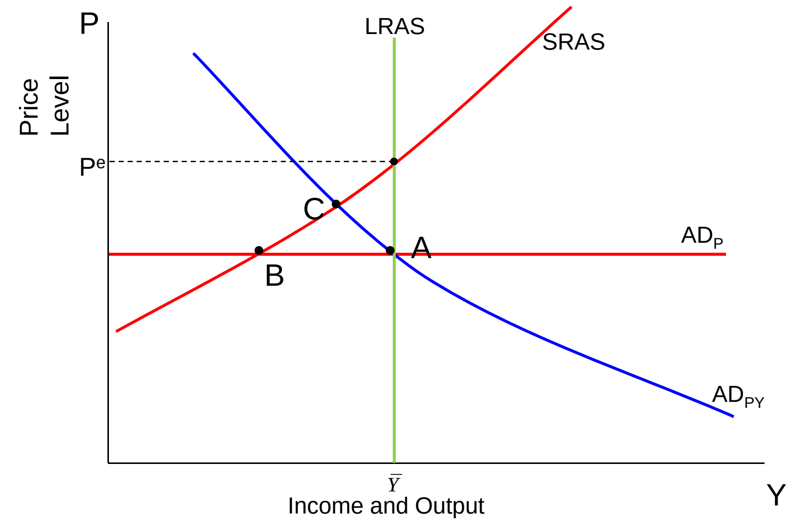
Money Market Shock



Demand Shock: PY and P - Rules



Supply (P^e) Shocks: PY – and P – Rules



Should There Be a Rule For Fiscal Policy?

- Intergenerational equity requires that the burden of temporary increases in government spending (e.g. wars) be spread over time.
- Time consistency problem exists here too:
  - Government may default on their debt to avoid raising taxes.
- Some people advocate a balanced-budget rule:
  - But budget deficit naturally varies countercyclically;
  - Balancing the budget continuously would exacerbate fluctuations.

Example of Fiscal Rules: Maastricht Treaty

- Budget deficit no more than 3% of GDP; Public debt no more than 60% of GDP.
- No basis in theory for these particular numbers (roughly current average across the EC); may generate a contractionary bias to fiscal policy.
- May be violated if deficit is “temporary”, however, and lengthy consultation procedure before sanctions invoked.

Summary

- Stabilization Policy – Two issues:
  - Should policy be active or passive
  - Rules versus discretion?
- Lags in policy making would mean that we should use caution in pursuing activist policy.
- Time Inconsistency issue in policy announcements
  - Will government follow through on announced policy, or will they renege?

Summary

- If policy is conducted by rules… what kind of rules should they be?
- Examples of monetary policy rules:
  - Money growth rules
  - Nominal GNP rules
  - Price/Inflation targets