



# Lecture 21



The role of Expectations in Monetary Policy

# Lucas critique of policy evaluation

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- ▶ Against the use of the macro-econometric models to forecast economic activity and to evaluate the potential effect of policy option.
- ▶ Rational expectation: when policies change, public expectations will shift as well. Ex) Fed raise policy rate → change the way public form expectation about where interest rates will be in the future → real effect on economic behavior and outcome.
- ▶ If the econometric model do not incorporate rational expectation, it ignores any effect of changing expectations and are unreliable for evaluating policy option.



# Policy conduct: Rules or Discretion?

...long run debate for economist...

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- ▶ Discretion: Monetary policy makers should have flexibility to adapt to their policy to a changing situation.
  - ▶ Rule: Monetary policy makers should adopt binding plans that specify how policy will respond (or not respond) to particular data such as unemployment and inflation.
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# Time inconsistency problem

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- ▶ Time inconsistency problem is the tendency to deviate from good long run plans when making short-run decisions.
- ▶ Policy makers are always tempted to pursue policy that is more expansionary than people expect because such a policy would boost economic output (lower unemployment) in short run.



# Discretion and the time inconsistency problem

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- ▶ Policy maker operates with discretion when they make no commitment to future actions, but instead make what they believe in that moment to be the right policy decision for the situation.
- ▶ When monetary policy maker operates with discretion, they will be tempted to pursue overly expansionary monetary policy to boost employment in short run but generate higher inflation (and no higher employment) in long run. → time inconsistency problem.



# Adopting rules to govern policy making

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▶ Example of rules are:

- 1) Taylor rule: set the policy rate by formula that considers both the output gap and inflation gap.
- 2) Constant-money-growth-rate rule: money supply is kept growing at a constant rate regardless of the state of the economy.



# The case for rule:

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- ▶ Commitment to a policy rule solves the time inconsistency problem because policy makers have to follow a set of plan that does not allow them to exercise discretion and try to exploit the short run trade off between inflation and employment.
- ▶ Binding their hands with a policy rule, policy maker can achieve desirable long run outcome.
- ▶ Policy makers and politicians can not be trusted.  
ex) political business cycle.



# The case for discretion

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- ▶ Rules can be too rigid because they cannot foresee every contingency. ex) the Fed action after the GFC could have not been written into a policy rule ahead of time. Being able to act flexibly using discretion can prevent deflation.
- ▶ Policy do not easily incorporate the use of judgment (essential element of good MP).
- ▶ No one really knows the true mode of the economy.
- ▶ Structural changes in the economy would lead to a change in coefficients of the model.



# Constrained discretion

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- ▶ Discretion can be operated within a more clearly articulated framework, in which the general objectives and tactics of the policy makers are committed to in advance.
- ▶ It imposes the conceptual structure and inherent discipline on policy makers, but without eliminating all flexibility.
- ▶ It combines the advantages describe to the rules with those descrites to the discretion.



# The role of credibility and nominal anchor

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- ▶ Constrain discretion: commit to a nominal anchor (such as inflation rate, money supply, exchange rate) that ties down the inflation to achieve price stability.
  - ▶ If the commitment to nominal anchor has credibility, helps make MP more efficient i.e.
    1. Overcome the time inconsistency problem by providing expected constraint on discretionary policy.
    2. Help anchor inflation expectation → smaller fluctuation in inflation and stabilize output.
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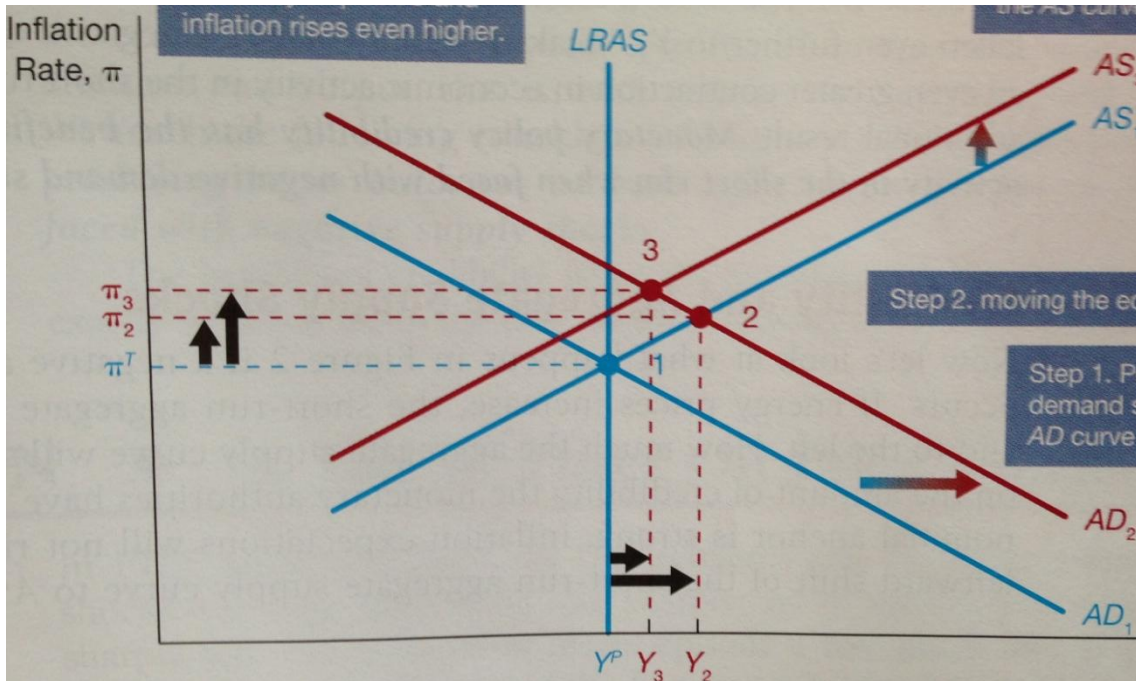
# Credibility and positive AD shock

Positive AD shock

$AD_1 \rightarrow AD_2$      $Y \uparrow, \pi \uparrow (\pi > \pi^T)$   
 $1 \rightarrow 2$

Appropriate MP response is to tighten MP and shift AD back down to  $AD_1$

But it takes time for AD to shift back and return to point 1, 2 cases happen in SR



Case 1:  
 commitment to nominal anchor is credible

$\pi^e$  is unchanged  
 $AS_1$  doesn't shift

Case 2:  
 commitment is incredible

$\pi^e \uparrow, AS_1 \rightarrow AS_3$   
 $2 \rightarrow 3$   
 $\pi \uparrow$

**Monetary policy credibility has the benefit of stabilizing inflation in the short run when faced with positive demand shock**

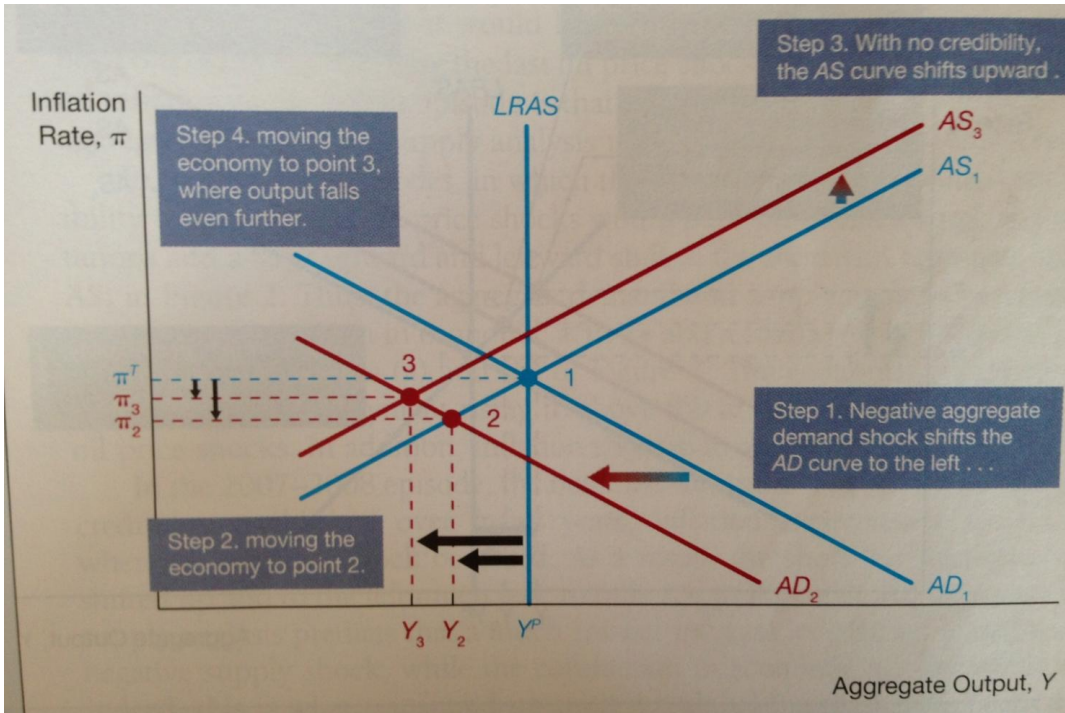
# Credibility and negative AD shock

Negative AD shock

$AD_1 \rightarrow AD_2$   $Y \downarrow, \pi \downarrow (\pi < \pi^T)$   
 $1 \rightarrow 2$

Appropriate MP response is to ease MP and shift AD back to  $AD_1$

But it takes time for AD to shift back and return to point 1, 2 cases happen in SR



Case 1:  
 commitment to nominal anchor is credible  
 $\pi^e$  is unchanged  
 $AS_1$  doesn't shift

Case 2:  
 commitment is incredible (believe that central bank will pursue inflationary MP)  
 $\pi^e \uparrow, AS_1 \rightarrow AS_3$   
 $2 \rightarrow 3$   
 $\uparrow$  Contraction to economic activity

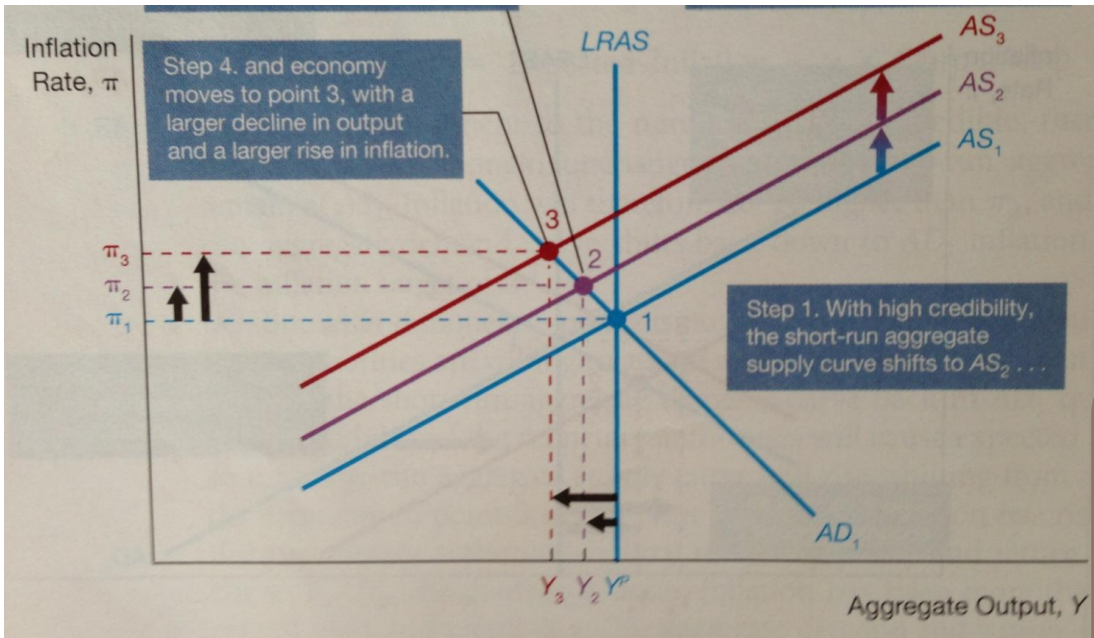
**Monetary policy credibility has the benefit of stabilizing economic activity in short run when faced with negative demand shock**

# Credibility and AS shock

Negative AS shock  
**AS shift to the left**

How much AS shift depends on amount of credibility of MP

2 cases happen in SR



Case 1:  
 commitment to nominal anchor is credible

$1 \rightarrow 2$   
 $\pi^e$  will not rise  
 The shift to  $AS_2$  is small. There're small  $\pi \uparrow$  and  $Y \downarrow$

Case 2:  
 commitment is incredible (believe that central bank will pursue inflationary MP)

$\pi^e \uparrow$ ,  $AS_1 \rightarrow AS_3$   
 $1 \rightarrow 3$   
 $\uparrow \pi$  and contraction to economy

**Monetary policy credibility has the benefit of producing better outcomes on both inflation and output in short run when faced with negative supply shock**