Expectations and Policy

Prof. Lutz Hendricks

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Motivation

A key lesson from the discussion of consumption:

Expectations of future income, taxes, interest rates affect current spending.

We explore policy implications.

The main point:

Current policies have additional effects through

- inflation expectations
- expectations about future income

IS/LM Model

- We add expectations to the IS/LM model
- LM: no change

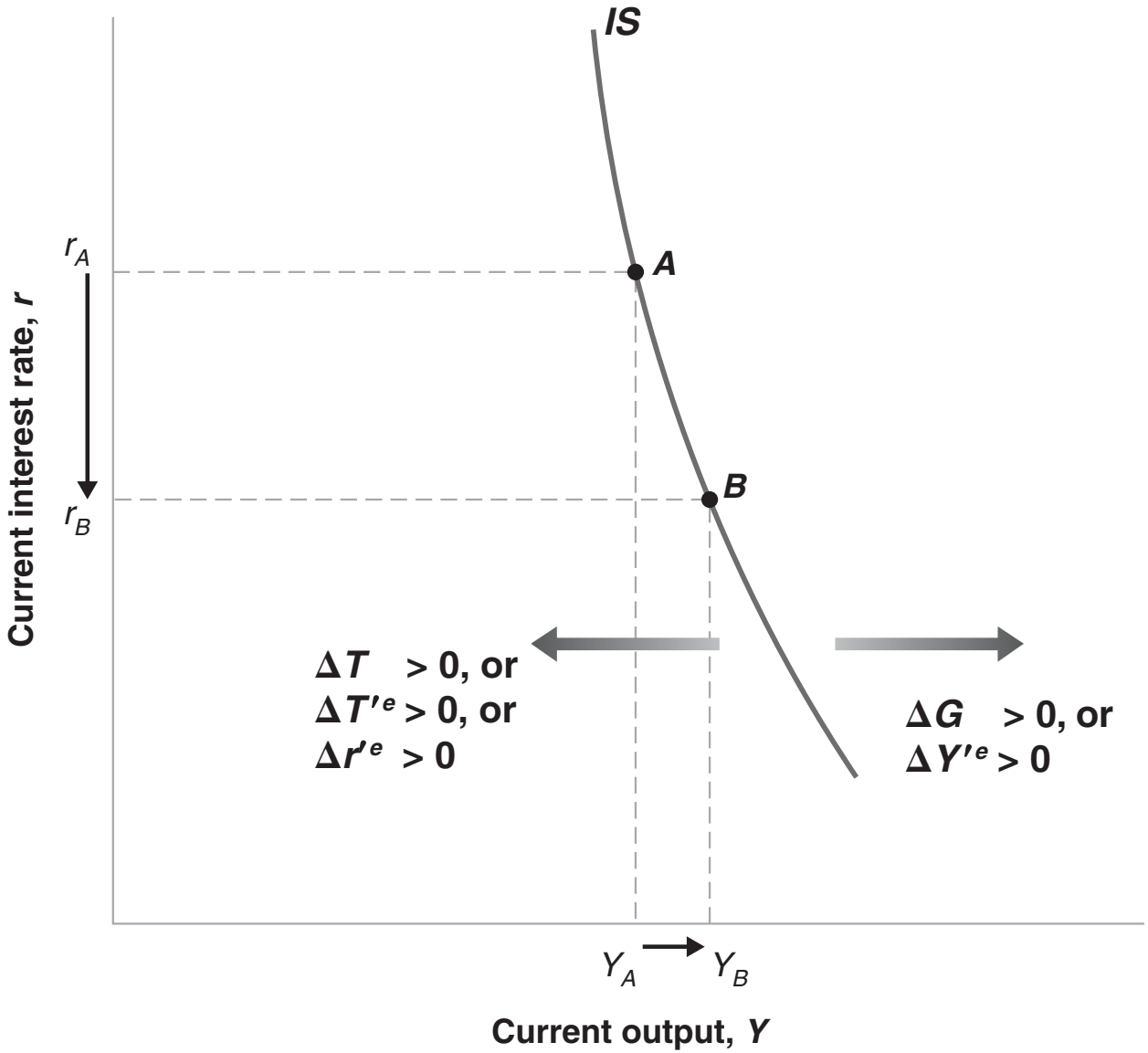
$$M/P = YL(i) \tag{1}$$

- IS:

$$Y = C + I + G \tag{2}$$

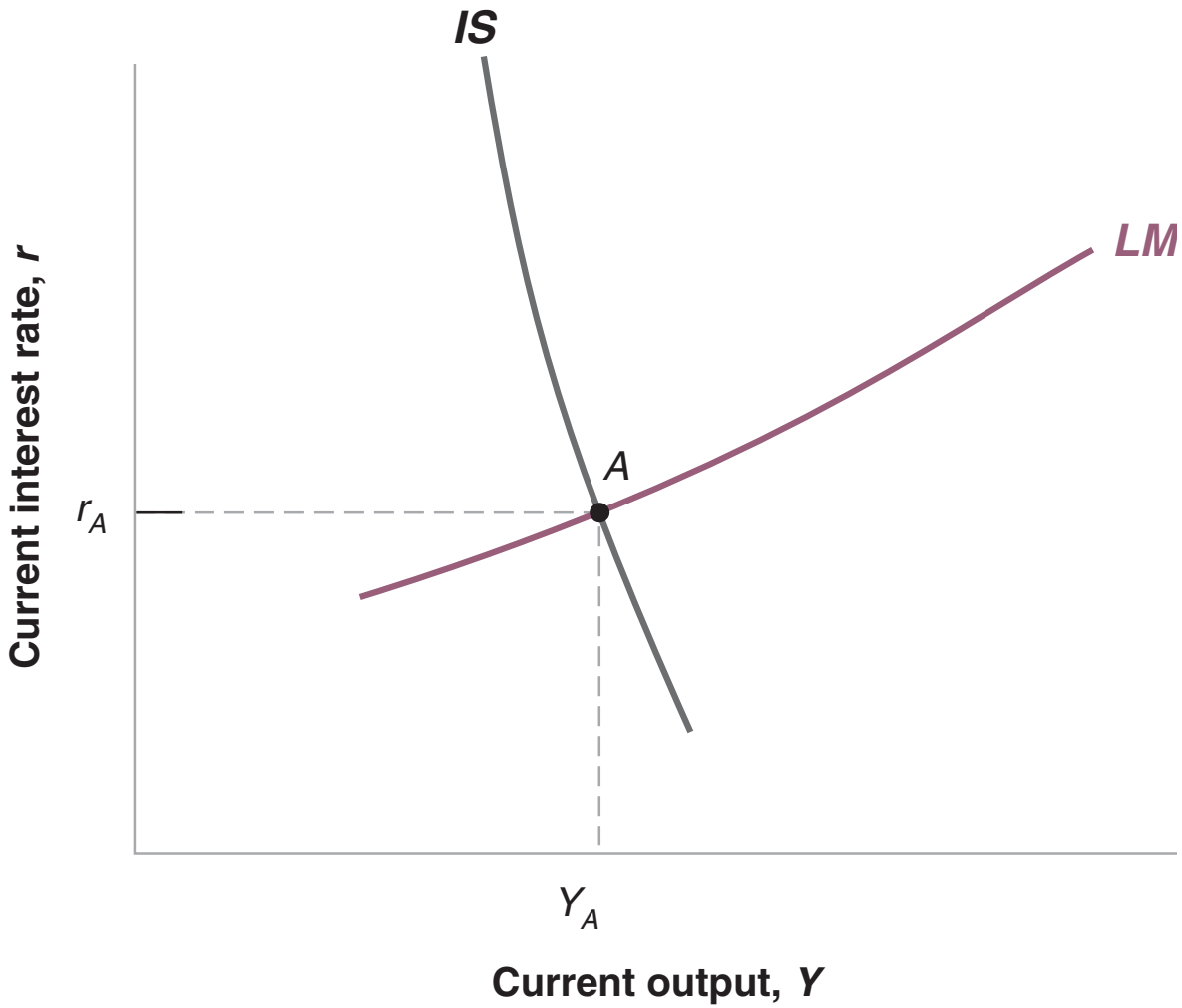
- We now know that $C + I$ depends on
  - current $Y(+)$, $T(-)$, $r(-)$
  - future $Y'(+)$, $T'(-)$, $r'(-)$
- These are now shifters of IS

IS Curve



Expectations of future taxes and government spending shift IS

IS/LM



Simplify by neglecting inflation expectations.

Then $M/P = YL(r)$

Monetary Policy

A monetary expansion now has 2 effects:

1. direct: $i \downarrow \Longrightarrow r \downarrow \Longrightarrow LM$ shifts right
2. expectations change

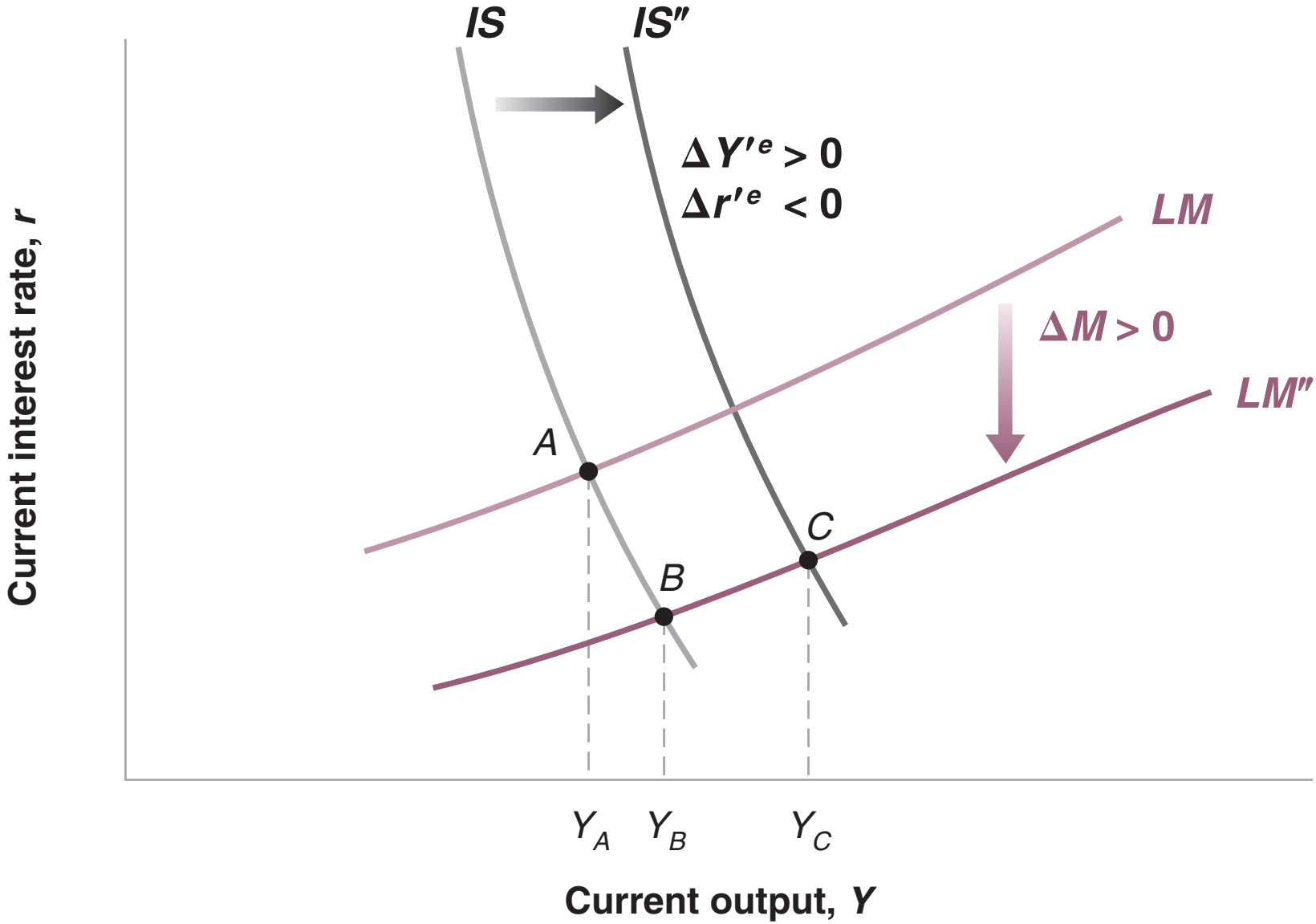
Transitory monetary expansion:

- no change in Y', r'
- small policy effect

Persistent monetary expansion:

- expect LM to stay shifted
- $Y' \uparrow$ and $r' \downarrow$
- IS shifts right as well

Monetary Policy



Transitory $M \uparrow$: $A \to B$. Persistent $M \uparrow$: $A \to C$

Monetary Policy

Key point

Monetary policy is only powerful, if it can change expectations.

Example

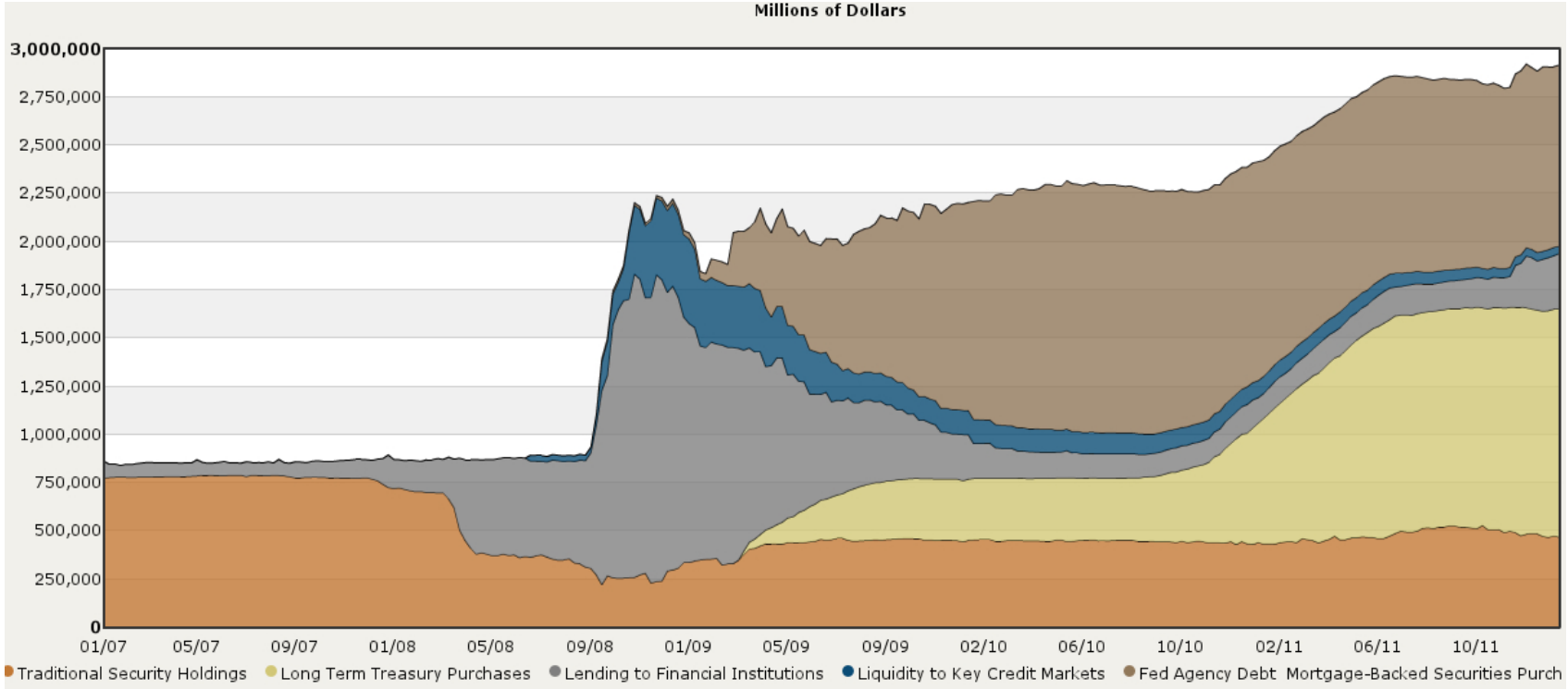
Fed policy changes that were anticipated have little effect on the stock market.

Example: Quantitative Easing

During the Financial Crisis: massive Fed purchases of

- mortgage backed securities
  - with different motivation
  - QE 1, 2008 ($2 trillion)
- long-term government bonds
  - QE 2, 2010 ($600b)
  - QE 3, 2012-14 ($2 trillion)

Quantitative Easing



Source: Jones, Macroeconomics

In response to the financial crisis the Fed bought large amounts of "non-traditional" assets:

(mortgage backed securities and long-term treasuries (QE))

Quantitative Easing

The motivation:

- Fed Funds rate hit zero lower bound
- an attempt at bringing down long-term rates

Why might this work?

1. increase M (3 fold!) $\Longrightarrow$ $\pi^e \uparrow \Longrightarrow$ $r \downarrow$
   inflation may be a good thing when the zero lower bound is hit
2. signal low future nominal interest rates
   supported by Fed announcements
3. direct effect: if long and short bonds are imperfect substitutes, buying long bonds raises their price

Rational Expectations

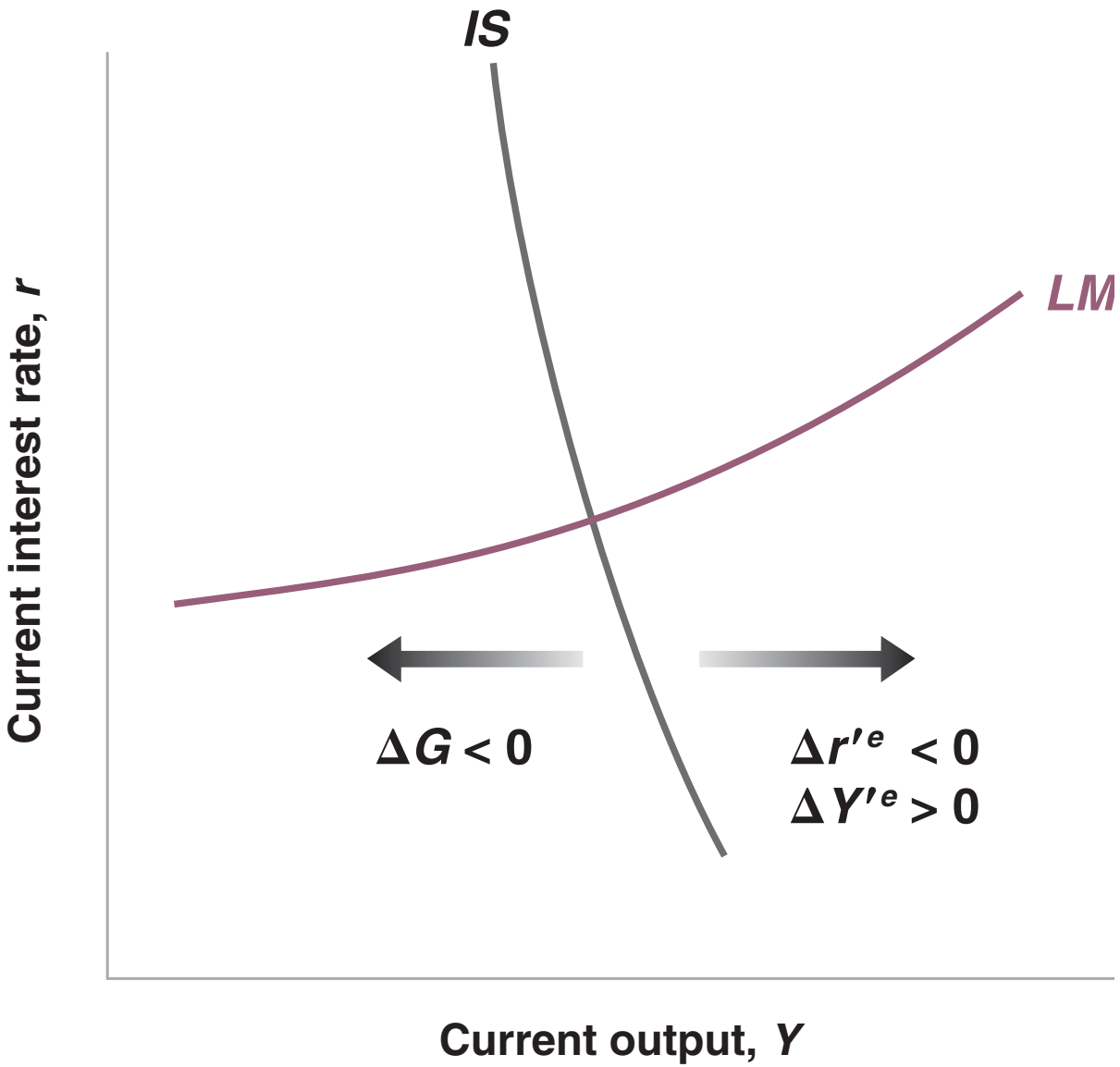
- If expectations are central for policy, they must be modeled
- The current approach
  - agents understand how the economy "works"
  - they can work out the equilibrium path to find Y' and r'

Fiscal Policy

Fiscal Policy

- Can a cut in G stimulate output?
- With fixed expectations: No
  - IS shifts left
- But we know: in the long run, budget deficits crowd out investment
  - they lower K and therefore $Y \downarrow$ and $r \uparrow$
  - a cut in G increases Y' and decreases r'
  - IS shifts right

Fiscal Policy



Fiscal expansion:

- direct effect: $G \downarrow$
- indirect effect: expectations improve

Fiscal Policy

- Credibility is key
  - Simply announcing lower future deficits is not enough
- Persistence is key
  - Only persistent policy changes have big income effects

Applications

- The U.S. faces a large budget shortfall.
  - How would you design a policy that cuts the deficit?
- Do the current Greek austerity measures look optimal?
  - Why might they be designed with large up-front cuts?
  - Hint: how credible are Greek reforms?

Reading

- Blanchard / Johnson, Macroeconomics, 6th ed., ch. 17