Expectations and Policy

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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

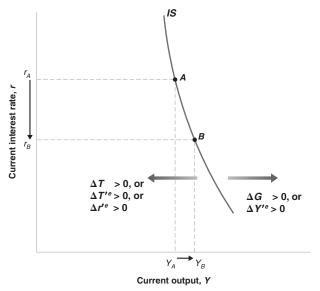
$$M/P = YL(i) \tag{1}$$

► IS:

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

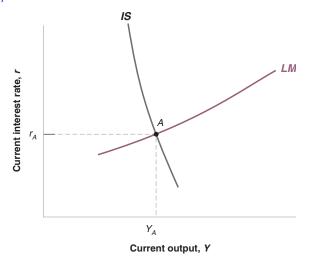
- We now know that C+I depends on
 - current Y(+), T(-), r(-)
 - future Y'(+), T'(-), r'(-)
- These are now shifters of IS

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:

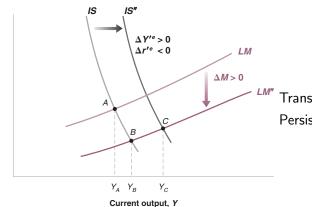
- 1. direct: $i \downarrow \implies r \downarrow \implies LM$ shifts right
- 2. expectations change

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



Transitory $M \uparrow: A \rightarrow B$

Persistent $M \uparrow: A \rightarrow C$

Monetary Policy

Key point

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

Example

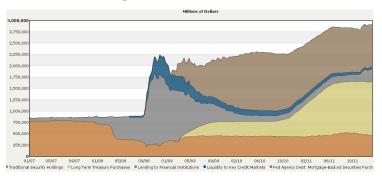
Fed policy changes that were anticipated have little effect on the stock market.

Example: Quantitative Easing

During the Financial Crisis: massive Fed purchases of

- mortgage backed securities
 - with different motivation
 - ▶ QE 1, 2008
- long-term government bonds
 - ▶ QE 2, 2010
 - QE 3, 2012-?

Quantitative Easing



Source: Jones, Macroeconomics

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

- mortgage backed securities
- ▶ 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!) $\implies \pi^e \uparrow \implies r \downarrow$ inflation may be a good thing when the zero lower bound is hit
- 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

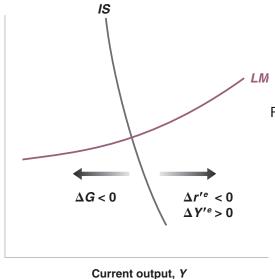
Rational Expectations

- ▶ 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 $r \uparrow$
 - \triangleright a cut in G increases Y' and decreases r'
 - IS shifts right



Fiscal expansion:

- ▶ direct effect: G↓
- 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?

Reading

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