

Banks and the macroeconomy II

Econ 4335 Lecture 8

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Weak spots in the standard story

Effect of a ("shock") increase in the Federal funds rate on output:

- ▶ negative after 4 months
- ▶ strongest between 12 and 24 months after shock
- ▶ remains negative for three to four years
- ▶ is fairly strong (?)

How can this be the case when:

- ▶ Most of the effect on fed funds rate over after 6-8 months
- ▶ Long term investments should depend on long-term interest rates
- ▶ Investment spending only weakly related to the cost of capital, share prices and other measures of q

The two credit channels

Bernanke and Gertler (1995)

- ▶ "The balance sheet channel": Lending to the public becomes more risky
- ▶ "The banking channel": Lending to banks become more risky, or other constraints on bank lending
- ▶ Enhancement mechanism for effect of fed funds rate
- ▶ More possibilities for shocks emanating in banking system

The external finance premium

- ▶ Moral hazard, adverse selection, monitoring costs (agency costs)
- ▶ Banks demand margins to compensate for risks
- ▶ Margins are sometimes large relative to money market interest rates
- ▶ External financing more expensive than internal
- ▶ Covenants and collateral requirements

The financial accelerator 1

Higher money market rates:

- ▶ Direct negative effect on firms' cash flow
- ▶ Negative effect on net worth (reduced asset prices)
- ▶ Negative effect on value of collateral
- ▶ Increased interest rate spreads
- ▶ More negative effects on cash flows, net worth and collateral values
- ▶ Even higher spreads

The financial accelerator 2

- ▶ Final demand reacts quickly to increase in interest rate
- ▶ Output reacts more slowly
- ▶ Labor input with even longer lags
- ▶ Inventories are built up quickly
- ▶ Cash-flow and liquidity deteriorates quickly
- ▶ Interest rate margin may continue to rise while money market rate is on the way down
- ▶ Investment plans canceled, and inventories reduced
- ▶ Multiplier effects through the economy

Additional comments

- ▶ Same mechanisms may enhance the effects of real demand shocks
- ▶ Shocks to banks' perception of risks?
- ▶ New instruments, deregulation, increased competition information
- ▶ Relation to Bernanke and Blinder (1988)

Households and the balance sheet channel

- ▶ Cash flow effect of interest rates
- ▶ Fixed or floating interest rates?
- ▶ Balance sheet effects; House prices

The banking channel

- ▶ Large uninsured deposits, interbank market
- ▶ Risk of bank defaulting (insolvent or illiquid)
- ▶ Agency problems

The banking channel

Some scepticism

- ▶ Interest rate effect on bank cash flow usually small, often positive
- ▶ Balance sheet effects can be big, *if* long term rates are affected
- ▶ Normally small premium over central bank rate on interbank rates
- ▶ In normal times premiums do not seem to vary much with interest rate
- ▶ Do margins banks pay depend strongly on level of the fed funds rate?

The banking channel

More important as enhancement mechanism for troubles in non-bank sector?

- ▶ Margins in interbank market increase in crisis
- ▶ New bank equity expensive in crisis
- ▶ Minimum capital or liquidity requirements become binding constraints on lending

Relation to Stiglitz-Weiss Credit Rationing

Rationing may occur when either

- ▶ Supply of credit from the banking system as a whole is less than infinitely elastic
- ▶ or Customers are stuck with banks whose supply of funds is less than infinitely elastic

In a crisis where solidity is in doubt and equity expensive one or both of these may apply. Increased supply of funds to banking system may then increase the amount of bank lending without reducing the rate charged to borrowers.

In Walsh, Ch 7 sections 7.3.2 - 7.3.4 can be skipped.