Finance-Real Transmission Mechanisms
Financial Amplification and Externalities

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Towards an Alternative Macroeconomic Analysis of Microfoundations, Finance-Real Economy Dynamics and Crises

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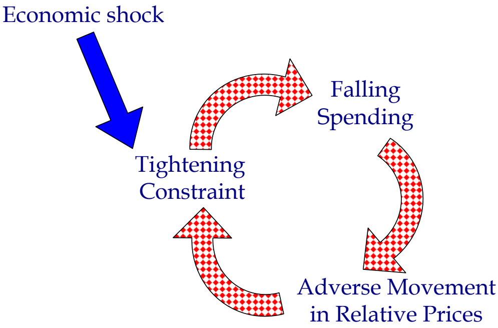
Models of Financial Amplification

Collateralized borrowing: creates potential for deleveraging spirals:

- falling price of collateral assets: $p = \beta E\{u'(c')/u'(c)[y' + p']\}$
- falling borrowing capacity: $d \leq \phi p$
- falling spending/investment: $c = y - d + d'/(1 + r)$



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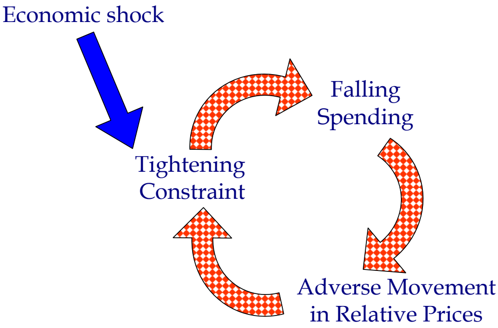

Dynamic implications of collateralized borrowing:

- When financial constraints are binding:
  - shocks are amplified
    $\rightarrow$ greater macroeconomic "uncertainty"
  - shocks have persistent effects

- As leverage is increased:
  - equilibrium at first stable and unique
  - then oscillatory steady state
  - finally multiple equilibria

Financial Amplification and Investment

Additional dynamic feedback effects:

- When financial constraints are binding:
  - falling investment
  - falling future collateral
  - falling borrowing capacity

$\rightarrow$ Further amplification

$\rightarrow$ Persistent effects on capital stock

- Effects on future volatility:
  - future shocks amplified
  - greater volatility of future collateral prices
    $\rightarrow$ lower quality of collateral
  - reduction in leverage

$\rightarrow$ "Margin spiral"

Financial Amplification and Externalities

Price movements that amplify shocks = externalities

→ borrowers do not internalize actions that lead to amplification

Externalities lead to distortions in:

- allocation of risk
- amount of borrowing
- maturity structure
- riskiness of investment decisions
- ...

→ role for (macro-prudential) financial regulation

For papers and further details see: `http://www.korinek.com/`