TAKING AWAY THE PUNCH BOWL: MONETARY POLICY AND FINANCIAL INSTABILITY
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**INTRODUCTION**

Credit and financial instability (Kindleberger-Minsky view)

- “Credit booms gone bust” (Schularick and Taylor 2012)
- Financial accelerator
- + predicts crises

Monetary policy and financial cycle (Borio, Stein, ...)

- affects asset prices, buildup of leverage
- promote ‘excessive’ risk taking by the financial intermediaries
- can potentially correct pecuniary externality

Sheedy: combines the two in a GE model
Overview of Discussion

- Key ingredients
- Results
- Comments
  - Financial intermediaries and regulation
  - Quantitative dimensions
  - Consistent empirical patterns
1. OLG model, nominal debt and aggregate risk

- Three period (y, m, o) OLG endowment economy
- Get stochastic real endowment only when $m$ - aggregate risk
- $m$ lend to $y$ to save for “retirement” (o)
- one period non-state contingent nominal bond
- CB chooses price level
  - c.p., more you borrow as young $\Rightarrow$ less net worth to lend from when $m$
  - Net worth of $m$ depends on interest payments on their previous debt
2. ADD HOUSING TO GET FINANCIAL ACCELERATOR

- Inelastic supply of housing
- $m$ get utility from living in a house. They sell the house to $y$
- $y$ borrow from $m$ to finance purchases of house and non-durable consumption
- House price depends on credit extended to young
- $\downarrow i \implies$ middle extend more credit to young to meet retirement saving goals
- More funds chase the fixed amount of housing $\implies$ house prices go up $\implies m$’s (nominal) net worth increases $\implies$ financial accelerator
- Both $m$ and $y$ demand more consumption, bid up goods’ prices.
- $o$ worse off - reduce consumption demand. Goods prices go up by less than house prices
Incomplete Markets × Nominal Debt Contracts

- CB sets $i$ on one period nominal bonds (mortgage debt) - predictable when borrowing
- Housing is a real asset - ex-post nominal return depends on house price realization
- House prices depend on the realization of aggregate shock
- HH do not have insurance against future risks that affect their ability to repay
- Expected return on housing relative to nominal bonds is the risk premium
- CB policy effectively targets expected house price inflation
- ↑ risk premium $\Rightarrow$ ↓ $i$
- Financial accelerator $\Rightarrow$ Expected real return on housing ↑
1. **Endogenous Natural Rate**

- High $i$ raises the “natural rate” by making house prices predictable
- Low $i$ increases the risk-premia because of unpredictability of house prices
- Financial accelerator kicks in at low interest rates
2. Democratic financial accelerator

If the Ramsey planner puts sufficient welfare weight on young and middle, there exists

- there exists an allocation which keeps house prices high with large prob
- small probability of collapse in house prices
- smaller the collapse probability, higher is the collective welfare
- And worse is the credit bust
- Popular to generate credit booms gone bust
3. **Housing risk-premia**

- $c^m$ positively correlated with house prices (housing wealth effect)
- $y$ bear house-price risk thru mortgage at fixed nominal return
- demand excess expected return on housing
- CB sets path of $i$ to target a house-price inflation distribution $\Rightarrow$ affect risk-premia
- Higher the risk-premia, lower is the “natural rate”

Comment: How big is the housing wealth effect in the model?
There are no borrowing constraints in the model, except for no default.

Financial accelerator can be understood as relaxation of regulatory constraints.

CB is a financial regulator in the model.


Different externality: operates here through net worth of the savers.
5. **Quantitative Dimension**

- Mortgage debt to GDP increased significantly in the run-up to 2007 (Mian Sufi 2011)

- Financial hockey stick (Schularick and Taylor 2012)

- Formalize the Fault Lines view (Rajan)

- In reality, how much regulation and how much monetary policy?

- Quantitative GE effects hard to get (Woodford 2016)

- Guren, Mckay, Nakamura Steinsson (2019) : housing wealth effects stable, if not declined, in early 2000s
6. **Role of Government Debt**

- Government debt likely to crowd out the young from borrowing
- Can dampen financial accelerator?
SUMMARY

- Important paper
- Get lot of results from nominal debt contracting \( \times \) incomplete markets
- Highly recommend reading the paper