

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 \implies 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

3. INCOMPLETE MARKETS \times 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
- ▶ \uparrow risk premium $\implies \downarrow i$
- ▶ Financial accelerator \implies expected real return on housing \uparrow

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 ACCERELATOR

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-PREMIUM

- ▶ 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
 \implies affect risk-premia
- ▶ Higher the risk-premia, lower is the “natural rate”

Comment: How big is the housing wealth effect in the model?

4. MONETARY POLICY AS REGULATION CONSTRAINT

- ▶ 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
- ▶ Complementary to Stein (2012): banks issue too much short-term debt, making the economy vulnerable to crises
- ▶ 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