

MACROECONOMICS AND FINANCIAL MARKETS

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Discussion by

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INTRODUCTION

1 Macroeconomics and Financial Markets

- Business Cycles
- Financial Crises
- Financial markets provide information

2 Huge interest in their interactions

3 This paper focuses on booms and busts in housing and credit markets

- Motivated by U.S. financial crisis

OVERVIEW OF THE CHAPTER

- Survey approaches in the literature that analyze housing-credit booms and busts separately. **Goal:** try to connect them
- It does so by developing several simple models and numerical examples
 - A stark model to study the interactions
 - A model of the credit boom-bust
 - A model of the house price boom-bust
- No aggregate repercussions (huge literature, surveyed in other chapters)

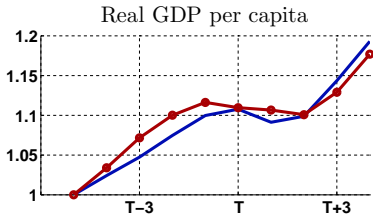
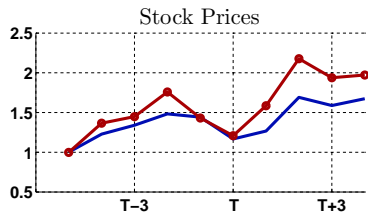
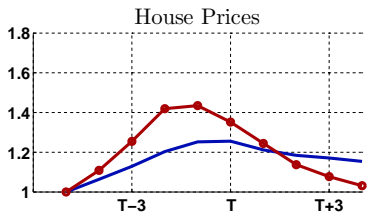
OUTLINE OF DISCUSSION

- 1 Some motivating evidence for housing-credit interactions
- 2 Suggest alternative stark model, borrowing from Model 2
- 3 Some remarks and suggestions

WHY HOUSING-CREDIT BOOMS AND BUSTS?

- Efforts in collecting long time series for advanced economies (survey by Bordo and Meissner, this volume)
- Can we detect common patterns across financial crises?
- Use Schularick and Taylor (2012) data-set augmented with house prices
 - 14 advanced economies, data on output, credit, stock prices and house prices (post 1975)
 - Focus on 19 “crisis events” (1975-2013)
- Two experiments
 - What does the typical crisis look like?
 - What do the “top 5” crises by house prices drop look like?

EVENT STUDY



Top 5 crises by house-price drops: credit busts and more pronounced effects

THE CHAPTER

- Booms-busts in housing and credit markets associated to severe crises
- The stark model intended to explore the connections
 - 1 Credit boom-bust \Rightarrow House price boom-bust
 - 2 House price boom-bust \Rightarrow Credit boom-bust
- Subsequent sections explores mechanisms in isolation
- Nice structure. It would be nice to blend together the different models

Next: alternative version of stark model, borrowing elements from Model 2

HOUSEHOLDS

- Households live 2 periods. $U(c_{t+1}, h_t) = c_{t+1} + \gamma h_t$
- Receive y_{t+1} in period 2. They borrow at R_t^l from “bankers” to buy a house in period 1. House price is p_t

$$c_{t+1} + R_t^l l_t \leq y_{t+1} + p_{t+1} h_t$$

- (Non-strategic) default:

$$\delta_{t+1} = \max \left\{ 0, \frac{l_t - p_{t+1} - y_{t+1}}{l_t} \right\}$$

- House prices satisfy

$$p_t = \frac{\gamma + \mathbb{E}_t[p_{t+1}]}{R_t^l}$$

BANKERS

- Borrow b_t at rate R . They have net worth n_t . Give loans to households

$$l_t = n_t + b_t$$

- Net worth tomorrow satisfies

$$n_{t+1} = R_t^l(1 - \delta_{t+1})l_t - Rb_t = [R_t^l(1 - \delta_{t+1}) - R]l_t + Rn_t$$

- They are subject to constraint on leverage

$$l_t \leq \kappa_t n_t \quad \text{with multiplier } \mu_t$$

- They maximize expected value of net worth
- Euler equation

$$R_t^l = \frac{R + \mu_t}{1 - \mathbb{E}_t[\delta_{t+1}]}$$

EXPERIMENTS

1 Credit bust \Rightarrow Housing bust: γ_t fixed, lower κ_t .

- Constraints more likely to bind ($\mu_t \uparrow$)
- Interest rate on mortgages increases ($R_t^l \uparrow$)
- House prices drop ($p_t \downarrow$)

2 Housing bust \Rightarrow Credit bust: κ_t fixed, γ_t declines.

- Default rate increases ($\delta_t \uparrow$)
- Net worth drops ($n_t \downarrow$)
- Less credit to households ($l_t \downarrow$)

SOME REMARKS

Some pros:

- Very simple set up to study interactions
- Can study effects of news (E.g. news about γ_t)
- Multiple equilibria?

Some cons:

- Mechanism asymmetric. It may be difficult to get booms
- Stark predictions on comovement of housing and other asset prices
- No role for risk premia (Campbell et al. 2009; Favilukis, Ludvigson and Van Nieuwerburgh, 2013)

REST OF THE CHAPTER

- Think deeper about determinants of κ_t and γ_t
- Credit booms-busts \Rightarrow Adverse selection and multiple equilibria
- House prices booms-busts \Rightarrow House price bubbles
- Difficulties of getting these trajectories in single equilibrium rational expectation models \Rightarrow Precautionary behavior
- Other routes?
 - Pecuniary externalities (Lorenzoni, 2008; Bianchi and Mendoza, 2012).
 - Time-varying risk and risk aversion (Gourio, 2012; Bocola, 2014)
 - ...

CONCLUSION

- Very important chapter
- Exposing these complicated ideas using simple stripped down models is of great service to the profession, and it will guide future research
- Suggestions:
 - Establish an empirical benchmark, maybe via event studies
 - Good to connect the three models if possible
 - Ideally, one would like to see these models “in action”