Basic Iacoviello Model

LTV Rate Policy

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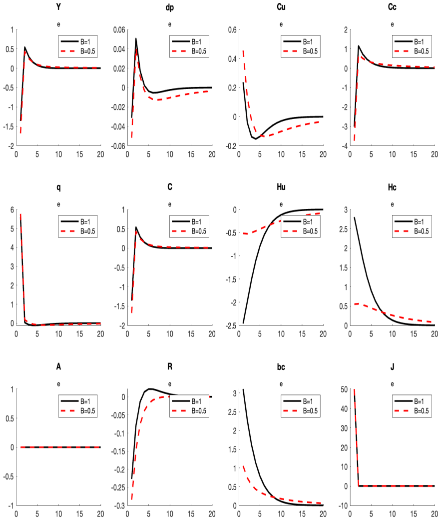
Framework

- Uses simple formulation of Iacoviello (2005) from Lecture 6
- Changes the Loan-to-Value rate
- Analyses 4 shocks
  - House prices
  - Monetary Policy
  - Cost-push inflation
  - Technology

Code

There is a high probability that there are issues in the code/model. Anyone is free to make changes / additions and make a pull request at: https://github.com/jackminchin/BasicIacoviello2005

House Price Shock IRFs

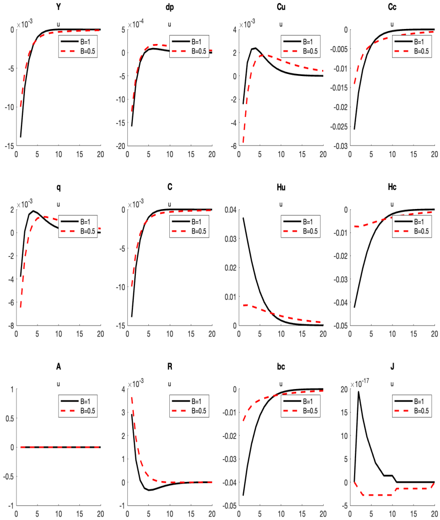


House Price Shock

Interpretation

- q shows shock to house prices
-

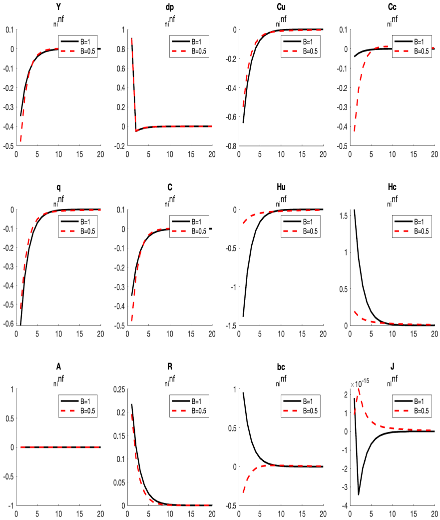
Monetary Policy Shock IRFs



Monetary Policy - Key Features

- Lower Loan-to-Value leads to a greater impact in house prices in response to a monetary policy shock.

Inflationary Shock IRFs



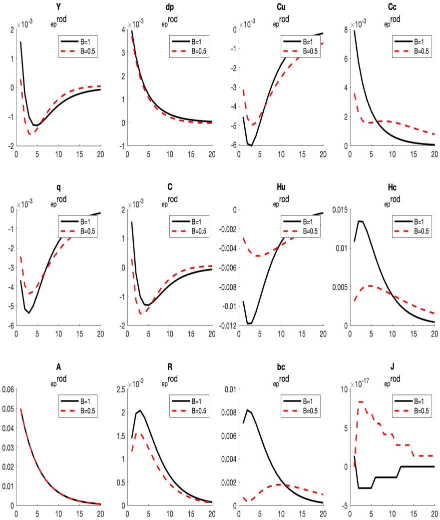
Inflation - Key Features

- Lower LTV ratio appears to cause a much greater decrease in output.
- Similar effect for consumption.
- Borrower consumption
  - Increases with a high LTV ratio
  - Decreases with a lower LTV ratio

Problems

There is a technology response in the $LTV = 0.9$ model, I'm not sure where this stems from.

Technology IRFs



Technology - Key Features

- Lower Loan-to-Value has a smoothing effect - reduces the financial multiplier.