Discussion on "Monetary Policy and the Redistribution Channel" by Adrien Auclert

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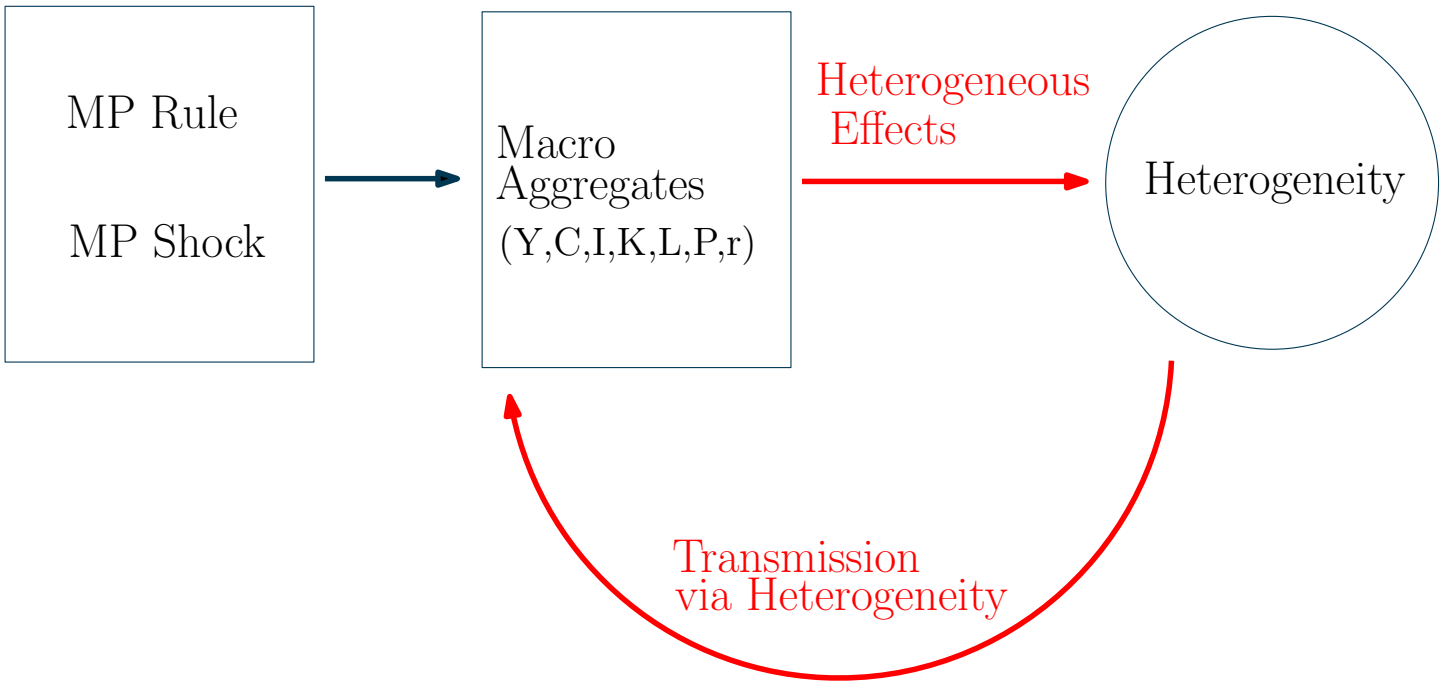
Monetary Policy and the Distribution of Income and Wealth
Federal Reserve Bank of St. Louis

Plan of this Discussion

1. Summary of the paper
2. Comparison with Gornemann et al. (2012)
3. Comments

Summary of the Paper (1)



Two Questions

- Heterogeneous effects of MP.
  Doepke and Schneider (2006), Doepke, Schneider, and Selezneva (2015), Gornemann et al. (2012)
- Transmission of MP through heterogeneity.
  Auclert (2015), Kaplan, Moll, and Violante (2015)

Summary of the Paper (2)

Key idea of the paper

- Heterogeneous MPC across HHs.
- Lower interest rate benefits borrowers, hurts savers.
- If borrowers have a higher MPC, aggregate consumption rises.

Summary of the Paper (3)

Also analyze:

- Fisher channel (inflation changes value of nominal assets)
- Income heterogeneity channel (MP affects income of HHs differently)

Summary of the Paper (4)

Main Findings (Sufficient Statistics)

- Show theoretical decomposition of the response of C to a shock:
  1. Aggregate income channel (Standard in RA model)
  2. Substitution channel (Standard in RA model)
  3. Income heterogeneity channel (Gornemann-Kuester-Nakajima)
  4. Fisher channel (Doepke-Schneider)
  5. Interest rate exposure channel (focus of the paper)

- Show that all channels can be expressed by small set of sufficient statistics.
  - Substitution channel: $\sigma\mathbb{E}(1 - MPC_i)c_i$.
  - Fisher channel: $cov(MPC_i, NNP_i)$.
  - Interest rate exposure channel: $cov(MPC_i, URE_i)$.

- Using Micro data sets (SHIW for Italy, CEX for the U.S.), show that interest rate exposure channel can be as strong as substitution channel with a reasonable value of EIS.
  - Better to show how strong the channel is in absolute level, instead of with σ^*? (Proportion of empirically computed (VAR) overall effect of r on C)

Summary of the Paper (5)

Main Findings (Structural Model)

- Construct heterogeneous-agent NK model with nominal assets and debt.
- According to the model calibrated to the U.S. economy (long-term nominal assets and debt), transmission of a MP shock through heterogeneity is weak.
  - Fisher channel is shut down, with fixed nominal prices.
  - Amplification from interest rate exposure channel.
  - Dampening from income heterogeneity channel (counterfactual?).
- With ARMs, stronger transmission of a MP shock through heterogeneity.
  - Stronger interest rate exposure channel.
  - Consistent with empirical evidence (Calza et al. (2013))
- (With ARMs) Effect of change in r on output is asymmetric.
  - Consumption response of borrowing-constrained HHs is asymmetric.
  - Consistent with empirical evidence.
  - Alternative hypothesis to downward wage rigidities.

Comparison with Gornemann et al.

- A benchmark: Gornemann, Kuester, and Nakajima (2012)
  - Based on Krusell-Smith (1998) model.
  - Standard NK nominal rigidity (Rotemberg or Calvo + Monopolistic competition).
  - Only real assets (cashless economy).
  - Relatively small number of borrowing-constrained HHs.

- Little transmission effect from HH heterogeneity. Why?
  - Small number of borrowing-constrained (high MPC) HHs.
    (Only HHs very close to borrowing limit exhibit high MPC)
  - No net borrowers (consistent with data).
    i.e., housing assets (collateral for mortgages) yields real interest rate.
  - Extreme concentration of wealth (consistent with data).
    $\rightarrow$ Consumption of high MPC HHs does not affect aggregate consumption much.
    (Related to Krusell-Smith's approximate aggregation)

Comparison with Gornemann et al.

The Middle Ground

- Since most debt are home mortgages, and HHs with mortgages have a higher MPC, an interesting model is the one with wealthy hand-to-mouth (Kaplan, Violante, and Weidner (2014)).
  - If housing assets are liquid, MPC of most mortgage holders is low.
  - Can analyze effects on housing assets in a unified framework.
  - Kaplan, Moll, and Violante (2015).

Comments (1): Renters?

- In the paper, renters are just those with (little) positive assets.
- But one can think of renters as highly-leveraged HHs with a short-term mortgage.
- Rents might be correlated with interest rate.
  $\rightarrow$ Renters gain from lower interest rate (accommodative MP).
- Assuming renters have a higher MPC, explicitly considering renters strengthen the result of the paper.

Comments (2): Calibration

(SCF 2007)	Mean
Interest-bearing assets and debt	
Gross interest-bearing assets	105,980
Gross interest-bearing debt	97,070
Net positive asset position	74,098
Net negative asset position	65,188
Composition of debt	
Residential debt	82,299
Credit card debt	3,376
Installment debt	9,932
Other debt	1,463
Other assets	
Housing wealth	255,789
Equity	118,126
Business	127,326

- Many HHs hold both assets and debt. Net asset position is about 2/3 of gross assets or debt.
- Majority of debt is home mortgage. Fixed borrowing limit is inappropriate.
- Housing, equity, and business are bigger than interest-bearing assets/debt.

Comments (3): Change in Environment

- Expansion of mortgage loan balances.
  $\rightarrow$ Relaxation of the borrowing limit.
  $\rightarrow$ Stronger amplification?

- Refinancing and new types of mortgage loans.
  $\rightarrow$ Closer to the economy with ARMs?

- Observe stronger amplification?

- Refinancing could strengthen asymmetry of response.
  (Refinancing is used only when R goes down)

Comments (4): Quantitative Exercise

- MP shock is small compared with the dynamics of R generated by MP rule.
  - More important to study the transmission mechanism associated with MP rule. item With aggregate uncertainty, can analyze the transmission through heterogeneity of various shocks.