

Discussion

“Monetary Policy with Heterogeneous Agents”
by Nils Gornemann, Keith Kuuster and Makoto Nakajima

Thijs van Rens

University of Warwick, LSE Centre for Macroeconomics, IZA and CEPR

Workshop on “Macroeconomic Dynamics with Heterogeneous Agents”

London Business School

10-11 June 2013

Monetary Policy with Heterogeneous Agents

- Distributional effects of monetary policy
- Motivation
 - Help policy makers communicate their decisions
 - Aggregate effects MP may be affected
- Model as laboratory
 - NKM + heterogeneity in wealth, earnings/prod and empl. status
 - Krusell-Smith + price stickiness
- The good and the bad
 - :-) Important question, well written paper
 - :-(Not sure model captures the most important channels

Figure 7: TFP Shock: Individual Labor Income, Income, Consumption

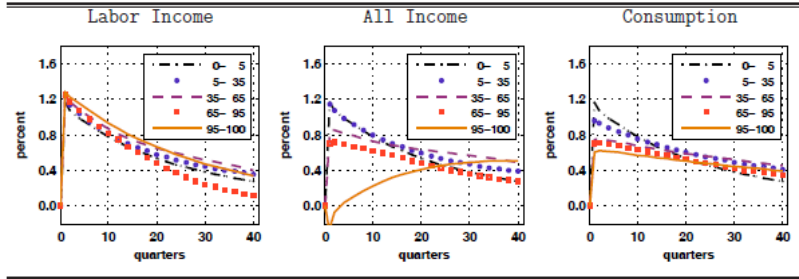
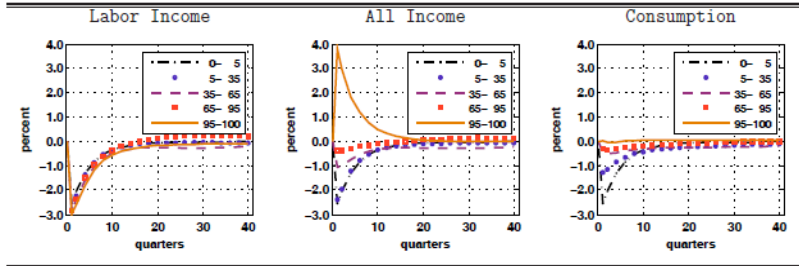


Figure 13: Monetary Policy Shock: Individual Labor Income, Income, Consumption



- Normalize size and sign of shocks for comparability
 - Why compare *contractionary* MP shocks to *expansionary* TFP shocks?
- How different are MP shocks and TFP shocks?
 - “An important result for our exercise is that monetary policy shocks have strikingly different implications for the welfare of different segments of the population.”
 - “This heterogeneity in sign and size of welfare losses from monetary policy shocks stands *in stark contrast to TFP shocks*, which affect the populations more uniformly.”
 - “with a TFP shock, a rising tide lifts all boats ... monetary policy, instead, lifts the boats of the wealthiest only.”
- What about heterogeneity in earnings and empl. status?

Figure 7: TFP Shock: Individual Labor Income, Income, Consumption

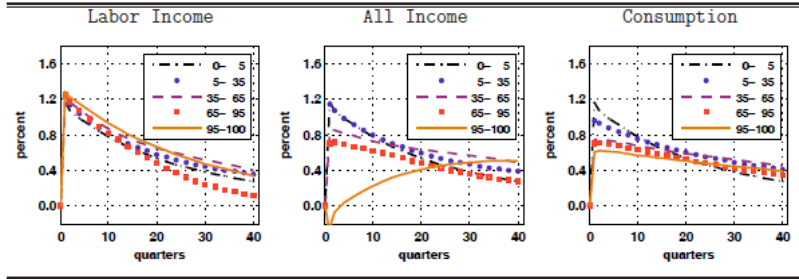
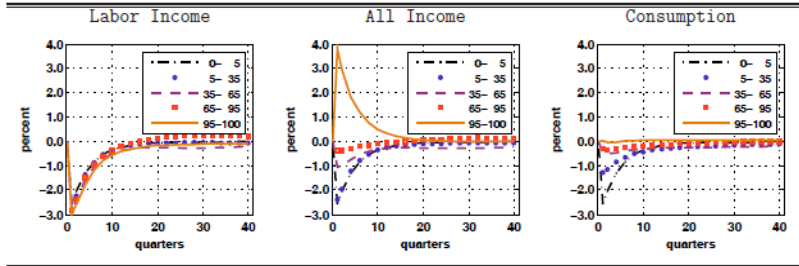


Figure 13: Monetary Policy Shock: Individual Labor Income, Income, Consumption



Distributional effects of monetary policy

- My intuition ($R^{\text{nomin}} \uparrow \Rightarrow R^{\text{real}} \uparrow \Rightarrow \pi \downarrow, y \downarrow$)
 - $R \uparrow$ hurts borrowers, helps savers
Type of asset should matter (nominal assets more affected)
 - $\pi \downarrow$ hurts borrowers, helps savers (lower inflation tax)
 - $y \downarrow$ may have distributional effects
Some industries rely more on external finance than others
- Gornemann, Kuester and Nakajima's model
 - Different sources of income are affected differently by MP
Wealthier HHs receive financial income, others only labor income or transfers
 - Labor earnings may be affected by MP differently
Unemployment risk in recessions rises disproportionately for lower skill groups
 - MP affects value of different assets and liabilities differently

Distributional effects of monetary policy: portfolio choice

- MP affects value of different assets and liabilities differently
 - “As a result, to the extent that financial positions differ across households, MP measures will redistribute wealth ...”
 - “There exist a variety of real assets, the return of which is affected by MP: physical capital, shares in intermediate goods firms and shares in labor firms.”
- Household budget constraint

$$c + \underbrace{p_a(X) a'}_{\text{financial and business income}} = \underbrace{(p_a(X) + d_a(X)) a + \begin{cases} w(X) s (1 - \tau(X)) & \text{if empl} \\ bs & \text{if unempl} \end{cases}}_{\text{labor income or transfers}}$$

- Problems
 - Abstract from portfolio choice (representative mutual fund)
 - Abstract from liabilities (zero borrowing limit)

Suggestions

- Open up the black box
 - Start simple, build up the complexity gradually
 - Compare to model without heterogeneity rather than without nominal rigidities
- Focus the modelling effort where the return is highest
 - Portfolio choice
 - Do we need employment status?
- Discuss the results
 - There may be other effects in the model that are more subtle/interesting
 - How are the aggregate effects of MP affected by heterogeneity?