Inequality, Demand Composition, and the Transmission of Monetary Policy

Boehnert, de Ferra, Hochmuth, Mitman, Romei

Discussion by Katja Mann (CBS)

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Paper in a nutshell

- Research question: What is the role of income heterogeneity for the efficacy and transmission of monetary policy?

- Based on data for EMU countries, document that

  1. Richer households allocate a greater share of their consumption basket to non-tradable goods

  2. Greater income inequality is associated with a higher aggregate non-tradable consumption share

  3. In countries with high non-tradable consumption share, output responds less strongly to a contractionary monetary policy shock. **This is the opposite from what we would expect if nominal rigities are stronger in non-tradables.**

- Link these in a SOE model with heterogeneous agents to quantify the role of non-homothetic preferences for monetary policy

Model elements

- Two sectors: tradable (T), non-tradable (NT)

- Non-homothetic (PIGL) preferences, NT is luxury good

- Two types of households:
  - Ricardians: have access to incomplete financial markets, solve intra- and intertemporal optimization problem
  - hand-to-mouth: intratemporal optimization only, but indebted

- Central bank that effectively sets the real interest rate

When Ricardian households are richer:

- the share of NT goods in aggregate consumption is larger

- output should react stronger to monetary policy because the interest rate affects intertemporal allocation

Then how can the model replicate stylized fact 3?

Main mechanism

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Key role of debt of hand-to-mouth agents:

- low debt $\rightarrow$ not very responsive to the monetary policy shock
- high debt $\rightarrow$ higher interest payments, therefore reduce consumption

In the presence of non-homothetic preferences

- almost all the reduction in hand-to-mouth consumption falls on T (as they don't consume much NT)
- if the interest rate affects the T price more than the NT price, Ricardians do not change their consumption much (as they don't consume much T)

So a combination of debt, inequality and non-homothetic preferences is necessary to replicate the stylized fact 5

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Main mechanism

Only the yellow scenario in (b) is in line with empirics
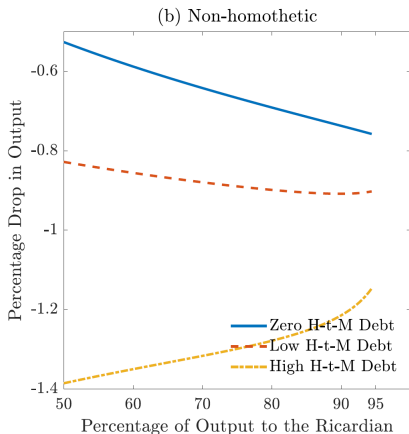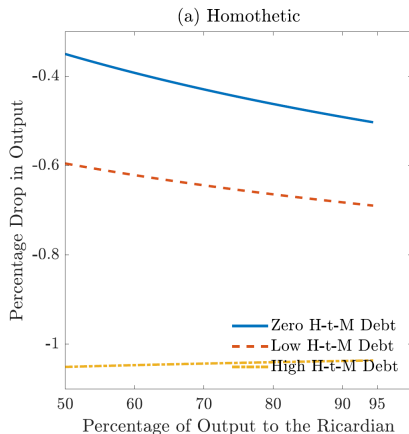
Assessment

- Very interesting paper!

- Novel mechanism to explain a surprising stylized fact

- Full-blown model will quantify the role of consumption heterogeneity

- Main comments
  - Empirical contribution and robustness
  - Additional dimensions of heterogeneity
  - The role of the open economy
  - The role of debt
  - Additional channels

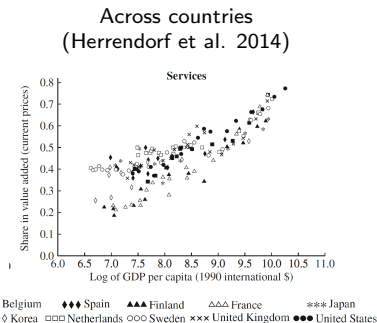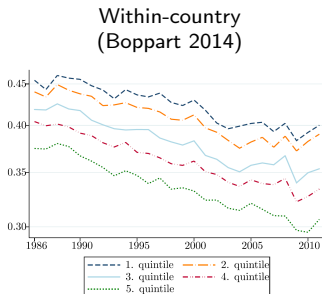- Minor comments

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Within-country
(Boppart 2014)

Across countries
(Herrendorf et al. 2014)

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- But stylized fact 3 is new to me, and I would like to see some robustness checks
  - Do you see the same pattern for expansionary monetary policy shocks? (asymmetries in wage rigidity)
  - What if you define the country groups differently, e.g. looking at bottom and top 20%?
  - What if you exclude Eastern European countries, which are outliers in terms of NT share? What if you include countries like Denmark whose currency is pegged to the Euro?
  - Has the pattern changed over time?

Additional heterogeneities

The COICOP classification of spending categories omits some dimensions of heterogeneity, which potentially affect the size of the effect, and will therefore matter in the calibration.

- Certain goods may be tradable for poor, but non-tradable for rich if they contain a high labor content (think locally-grown food, tailor-made textiles and furniture)

- Many services that are classified as non-tradable may actually be tradable when provided online (e.g. insurance, financial services, education), and richer households may have better access to these.

- Durable-nondurable distinction will matter for intertemporal decisions; there could be a difference between tradables and non-tradables.

The role of openness

- How does the open economy matter for the mechanism? So far, not clear.
  Could you get the same results in a closed economy with a goods-services dichotomy? And wouldn't that make the model much easier?

- Do you want to specifically model a currency union or can this be any SOE? (Title change!)
  If the latter, then what about the exchange rate regime? Flexible exchange rate induces an additional effect of contractionary monetary policy:
  - exchange rate appreciates
  - imports ↑, exports ↓, trade balance deteriorates
  - output contracts even more

  and this will depend on the non-tradable share of aggregate consumption.

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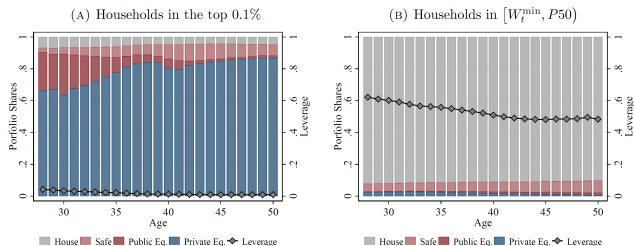
Here are a few suggestions:

- Redo the IRFs for high- vs. low-household debt countries
- Show empirically what type of debt households hold and how portfolios differ along the income/wealth distribution

(A) Households in the top 0.1% (B) Households in $\left[W_i^{\min}, P50\right]$

Data for Norway from Ozkan et al (2023)

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Here are a few suggestions:

- Redo the IRFs for high- vs. low-household debt countries

- Show empirically what type of debt this is and how portfolios differ along the income/wealth distribution

- You might need assets with different degrees of liquidity in your model

Additional channels

- Rigidity in wages is mentioned several times, but not modeled. Does it matter? How important would this channel be compared to your channel?

- Not only does inequality affect the effects of monetary policy, but monetary policy can also affect income inequality (e.g. Coibion et al. 2017, Gorneman et al, 2022). This should create an interesting feedback loop.

- Other dimensions of inequality may matter for monetary policy transmission as well (e.g. along the age distribution).

You probably don't want to incorporate all of this in your model, but should think about how robust your channel is.

Minor comments

In the model, a few things didn't get clear to me:

- Why do you need both nominal and real bonds?
- What is the role of involuntary unemployment? Can the central bank do anything about it (if employment is in their mandate)?

Other comments:

- Figure 3 is not very convincing to me. Perhaps look at sub-periods or use a different measure of inequality?
- Does inequality matter for the output response in ways other than through the NT share? Regression eq. (5) seems to suggest this - but then this should also be part of the model as well
- Is it reasonable to assume that the share of labor income and profits going to R households is the same? I would assume their share in profits is larger