Discussion of:

Monetary Policy and Unhedged Interest-Rate Exposures

by

Pedro Salgado

Juan Castellanos

Bank of England

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Disclaimer: The views expressed in this presentation are my own and do not necessarily reflect those of the Bank of England nor its comittees.

The paper in a nutshell

- **Research question**: *How does household's cash flows affect the transmission of monetary policy into consumption?*
- **Methodology**:
  * First, uses administrative Danish data covering the period 2009-2019 to estimate household's exposure to changes in the real interest rate. He uses Auclert's (2019) metric: the *unhedged interest-rate exposure*

$$\text{URE}_{i,t} = Y_{i,t} - \hat{C}_{i,t} + A_{i,t} - L_{i,t} \tag{1}$$

  * Then, uses *Local Projections* and a measure of monetary policy shocks for the Eurozone to estimate how consumption responds to interest rate surprises across the URE's distribution, i.e. for each vigintile g, he estimates

$$\ln(c_{i,t+h}) - \ln(c_{i,t-1}) = \alpha_i + \beta_g^h \varepsilon_t^{MP} + \sum_{k=1}^{h+1} \gamma_{g,k}^h X_{i,t-k} + u_{i,t+h} \tag{2}$$

- **Main finding**: the medium-term response of consumption to a monetary policy shock is monotonically increasing in URE. And in particular, $URE > 0 \implies \Delta c > 0$, while $URE < 0 \implies \Delta c < 0$.

Comment 1: Imputation of consumption

- It relies on the accounting identity:

$$\hat{C}_t = Y_t - S_t = Y_t - \Delta NW_t \tag{3}$$

  where ΔNW_t is the change in net worth between year t-1 and t. However, **housing wealth is excluded from net worth**.

- Why can this potentially be a problem? $\Longrightarrow$ Bracke et al. (2024, BoE WP)
  * They use admin loan-level data (PSD) and transaction-level data on households savings accounts (ClearScore) to study how mortgagors react to increasing mortgage payments.
  * They compare households who had to remortgage during the tightening period (June 2022 - December 2023) with those who remortgaged before the hiking period and their fixed term won't expire anytime before the end of their sample.
  * They show that **equity extraction and adjustments in mortgage terms** is an important channel through which household insure against increases in mortgage payments: a *smoothing consumption mechanism*.

Comment 2: Refinancing & URE

- Pedro's paper looks at contractionary shocks in a **loosening cycle** as policy rates decreased from 2009 to 2019 (Figure 16).
- Berger et al. (2021, AER) & Eichenbaum et al. (2022, AER) show how monetary policy depends on the distribution of savings from **refinancing** which is state-dependent
  * An optimizing mortgagor will refinance when the prevailing mortgage rate (flow) is sufficiently smaller than its outstanding coupon (stock)
  * In Denmark there are no pre-payment penalties $\implies$ very easy to refinance
- No straightforward way of dealing with it for URE calculations, but it is a problem as difference in exposure depend on the maturity of your debt (ARM vs. FRM).
  * An fully rational, optimizing mortgagor will refinance if there are potential savings to be made. Then, as rates continue to fall and household refinance the differences between FRM & ARM will shrink.
  * In the data: *(a)* What is the share of borrowers that refinance in your sample? *(b)* What's the share of borrowers with positive interest rate gaps/can save by refinancing?

▷ Policy Rates

Comment 3: Theoretical framework

- Proposition 1 states that the consumption response to an interest rate shock is:

$$\frac{dc_0}{dR} = \underbrace{MPC\,(y_0 + b_{-1,0} - c_0)\,\frac{dR}{R}}_{\text{wealth effect}} - \underbrace{\sigma c_0 (1 - MPC)\frac{dR}{R}}_{\text{substitution effect}}$$

- However, the theoretical framework misses two important aspects:
  * Distinction between **durable** and non-durable **goods**
    - Durable expenditures tend to account for a substantial share of the overall consumption response to monetary policy shocks.
    - Current consumption imputation does not allow for this distinction.
    - Alternatives: UK data (PSD + Money Dashboard + ClearScore)
  * **The collateral channel of housing demand**
    - Household's typically can borrow up to a fraction of the value of the house (used as collateral)
    - As changes in the interest rates also indirectly affect house prices
    - Financial accelerator for households. How would this show up in your decomposition?

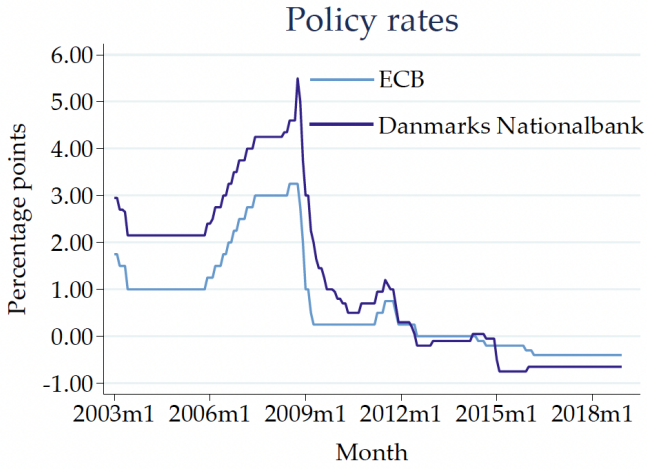
Well Done !!

- Super interesting empirics!

- Good theoretical motivation.

- And well written paper.

Appendix: Co-movement between ECB and DN policy rates



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