Discussion of “Cyclical Inflation Inequality and Monetary Policy”

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What the paper is about

- **Question**:
  - How does heterogeneity in inflation cyclicality affect monetary policy transmission?
- **This paper**:
  - Empirically documents heterogeneity in inflation cyclicality across households
  - Links household-specific inflation responses to their marginal propensity to consume (MPC)
- **Novel results**:
  - High-MPC households experience greater inflation cyclicality
  - Cyclical inflation inequality offsets one-third of the amplification from cyclical income inequality

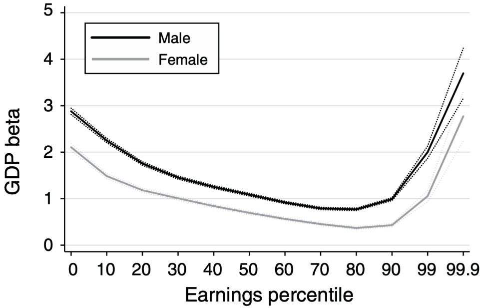
My discussion

- Excellent paper with rich empirical contribution
- Very much needed empirical evidence to discipline models
- **My discussion:**
  - Place the paper in its broader context
  - Highlight key findings and empirical strategy
  - Alternative methods for MPC estimation

Broad Motivation and Context

$$\boxed{MPC = \mathbb{E}\left(\frac{dE/P}{dY}\frac{Y}{E/P}\right)\mathbb{E}(MPC) + cov\left(MPC_i, \frac{dE_i/P}{dY}\frac{Y}{E_i/P}\right)}$$

- Guvenen et al. (2017): estimate labor earnings elasticity to aggregate GDP $\frac{dE_i/P}{dY}\frac{Y}{E_i/P}$



- Earnings cyclicality decreasing in earnings percentile (except at the top)

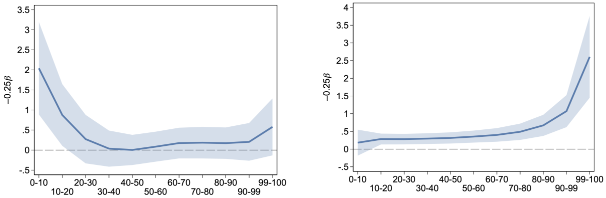
Broad Motivation and Context

- What about earnings cyclicality in response to monetary policy shocks?

Broad Motivation and Context

- What about earnings cyclicality in response to monetary policy shocks?

Amberg et al. (2022): Effects of a -25bp MP shock on income

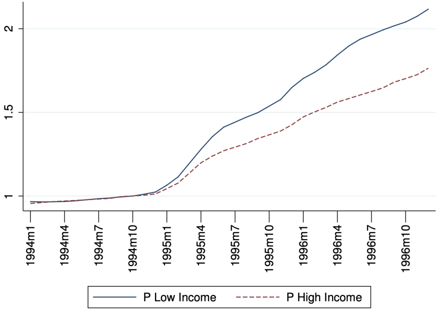


(a) Labor Income (b) Capital Income

- **Response to monetary policy shocks:**
  - Labor income: large at the bottom of the distribution
  - Capital income: large at the top of the distribution
- **Conventional wisdom:** strong response of labor income of high MPC households
  $\Longrightarrow$ large amplification of monetary policy shocks

Broad Motivation and Context

- Previous analysis provides an incomplete picture of heterogeneous responses
- Real variables in $\frac{dE_i/P}{dY}\frac{Y}{E_i/P}$ deflated by common GDP deflator
- Previous evidence: different households face different inflation rates
  - 1994 Mexican devaluation: cost of living for low-income HHs rose 1.5× more than high-income HHs [Cravino and Levchenko, 2017]



- What about inflation cyclicality in response to monetary policy shocks? $\Longrightarrow$ **This paper!**

Summary of Empirical Strategy

$$\boxed{\begin{aligned} MPC = {} & \mathbb{E}\left(\frac{dE}{dY}\frac{Y}{E}\right)\mathbb{E}\left(MPC\right) + cov\left(MPC_i, \frac{dE_i}{dY}\frac{Y}{E_i}\right) \\ & - \mathbb{E}\left(\frac{dP}{dY}\frac{Y}{P}\right)\mathbb{E}\left(MPC\right) - cov\left(MPC_i, \frac{dP_i}{dY}\frac{Y}{P_i}\right) \end{aligned}}$$

Summary of Empirical Strategy

Step 1: Group-Specific CPIs

[CEX + BLS CPI data]

Household consumption shares linked to item-level price data $\longrightarrow$ P_i

Step 2: Household MPCs

[PSID data]

Consumption response to unemployment shocks $\longrightarrow$ MPC_i

$$MPC = \mathbb{E}\left(\frac{dE}{dY}\frac{Y}{E}\right)\mathbb{E}\left(MPC\right) + cov\left(MPC_i, \frac{dE_i}{dY}\frac{Y}{E_i}\right)$$

$$- \mathbb{E}\left(\frac{dP}{dY}\frac{Y}{P}\right)\mathbb{E}\left(MPC\right) - cov\left(MPC_i, \frac{dP_i}{dY}\frac{Y}{P_i}\right)$$

Step 3: Inflation Cyclicality

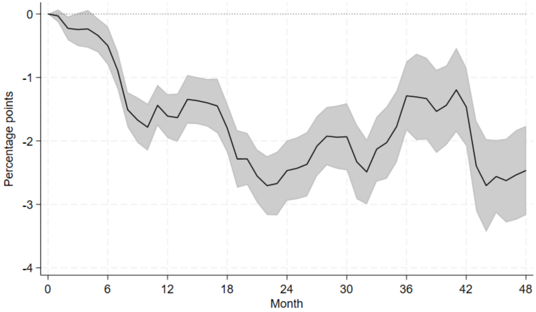
Response of group-specific CPIs to monetary policy shocks $\longrightarrow$ $\frac{dP_i}{dY}$

Step 4: Main contribution

Covariance between MPCs and inflation responses across households

Summary of Main Result

$$p_{i,t+s} - p_{i,t} = \alpha_s + \boldsymbol{\lambda_s} MPC_i \times Shock_t + \ldots + \epsilon_{i,t+s}$$



- Contractionary monetary policy shock $\Rightarrow$ reduction in inflation
- **Households with higher MPCs experience greater CPI deflation compared to those with lower MPCs**

Discussion: MPC Estimation

- **Current Estimation Approach:** Estimate consumption response to changes in labor earnings

$$\Delta C_{i,t} = \sum_x (\beta_x \Delta E_{i,t} \times x_{i,t-1} + \alpha_x x_{i,t-1}) + \eta_{i,t} + \epsilon_{i,t}$$

  - Concern: earnings might be endogenous
  - Solution: Instrument change in earnings ($\Delta E_{i,t}$) with indicator variable for unemployment in year t

- **Identification Challenge:**
  - Exogeneity: Some transitions to unemployment may reflect voluntary quits
  - Heterogeneous Effects on Permanent Income: earnings loss from job displacement greater for high school graduates than for college graduates [von Wacther and Weber Handwerker, 2009]
  - Impact on permanent income varies even for true unexpected transitions into unemployment

- **Complementary Approach:** Recent work by Orchard, Ramey and Wieland (2024)
  - Estimated MPCs from 2008 tax rebate < 0.5

Conclusion

- Great paper
- Provides essential empirical evidence that will discipline future theoretical work
- Eager to see how predictions from heterogeneous agents NK model change with these facts
- Are there alternatives to estimating MPCs out of transitory income shocks?
- Read the paper!