

Discussion of

**From Micro to Macro Hysteresis:
Long-Run Effects of Monetary Policy**

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- Economy's long-run dynamics shaped by the cumulative effects of shocks occurred over time
- Growing evidence on hysteresis:
 - ▶ At the micro level, considerable evidence of lasting effects of recessions on earnings and participation, job displacements and—relevant to this paper—scarring effects among the more disadvantaged (Yagan, 2019)
 - ▶ At the macro level, much of the evidence about the transmission of monetary policy shocks (Blanchard et al., 2015, Jordà et al., 2015, Zimmermann, 2023). Furlanetto et al. (2021) on a more generic form of demand shock
- Alves and Violante bridge these two literatures in a HANK setting
- Other potential channels: financial frictions, R&D, endogenous entry-exit, ...

Model highlights

- A HANK model with a 3-state labor market featuring lasting effects of job losses on labor earnings, through abandonment of the labor force and skill decay
- Key modeling features: separation and job-finding rates related to skill level, participation decision
- Labor market frictions, skill dynamics and participation decisions disciplined by micro evidence
- Workers at the bottom of the skill distribution less likely to find a job when they seek for employment, and more likely to be separated and drop out of the labor force when unemployed
- Effects of a transitory monetary policy shock, from the labor market to the whole economy

Main experiment

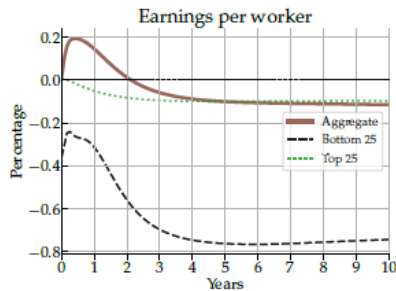
- Long-run impact of a monetary shock reducing labor income by 1% in the year after it takes place. In the short run:
 - ▶ Job separation $\uparrow$ and job-finding rates $\downarrow$
 - ▶ Skill depreciation $\Rightarrow$ participation and labor productivity still down after 10 years
- Effects at the bottom of the wage distribution stronger than average ones
- Only short-lived effects on inflation $\Rightarrow$ implications for the conduct of monetary policy

Comments on the analysis and model properties

Comment 1

Experiment on long-run labor income dynamics

- Earnings per worker drop for both the bottom & top 25%. Again, the effect is far stronger and more persistent for the bottom 25%
- Aggregate earnings per worker initially expand, though



Comment 1 (contd.)

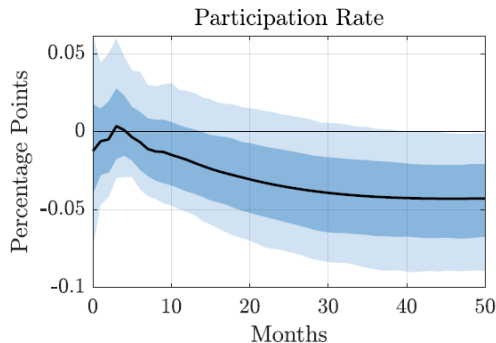
Experiment on long-run labor income dynamics

- This implies a large increase of middle-income workers' earnings
- ...and/or, a particularly right skewed response of employment (conditional on skills)
- According to Graves et al. (2023), median wage growth broadly contractionary
- Also, a very persistent decline obtains, implying protracted inequality (mostly due initial contraction of bottom 25%). Is this something you can validate?

Comment 2

Participation rate

- Large swing in the participation rate: it expands on impact, to then decline. Procyclical movements in *en* and *un* are key to this
- However, the participation rate in the data is broadly contractionary (see, e.g., Graves et al, 2023):



Comment 3

Uplifting hysteresis

- Scarring effects of negative temporary shocks, but also positive ones. Expansion drives more people into employment $\Rightarrow$ build up into productivity
- Also, potentially important role of on-the-job search, and ensuing wage dynamics in expansions
- Is there room for sizable asymmetries, both on impact and in hysteresis effects?
- Linearized setting vs. potential "endogenous disasters" (Petrosky-Nadeau et al., 2018): natural non-linearity built in standard search model of equilibrium unemployment

Comment 4

Complementary mechanism: firm financial exposure and high-skill(wage) workers

- To what extent may firms' financial needs play a role for hysteresis?
- Züllig (2022) (based on administrative bank-firm-worker data from Denmark): higher separation rates for high-wage(skill) workers in financially-exposed firms subject to negative financial shocks
- However, high-wage employees separated from jobs are re-employed quickly, albeit at lower wages $\Rightarrow$ sluggish wage growth (even in unconstrained firms)
- Compatible with your mechanism. A flattening of the Phillips curve emerges, even well after the recovery

Comments on monetary policy implications

Comment 5

Implications for monetary policy

- Absence of persistent effects on inflation $\Rightarrow$ avoid excessive weight on inflation, and maintain expansionary stance of monetary policy (once hysteresis effects have occurred)
- There seems to be a sizable trade-off between the cost of SR inflation fluctuations and LR deviations in real activity
- Trend inflation might play a role here $\Rightarrow$ in the presence of sticky wages, trend inflation erodes the purchasing power of wages between adjustments, leaving employees worse off (L'Huillier, 2023)

Comment 5

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- Incidentally, a protractedly expansionary monetary stance squares with the implications of HANK models with firm heterogeneity in productivity and net worth + collateralized borrowing (e.g., Gonzales, Nuño, Thaler, Albrizio, 2024):
 - ▶ Capital misallocation increases as real rates drop (partial-equilibrium result)
 - ▶ However, the investment of high-productivity firms increases relatively more than that of low-productivity ones, crowding out the latter and increasing TFP $\Rightarrow$ (persistent) general-equilibrium effects dominate

Comment 6

Hysteresis and monetary policy “mistakes”

- Central banks focusing on mitigating a crisis prevent output declines and structural changes in unemployment level
- Countries where monetary policy faltered in addressing inflationary pressures during recessions have endured lasting impacts on potential output and unemployment (see, e.g., Ball, 1997 and Ball et al., 1999 on the 1980's experience)
- Your analysis based on inflation-targeting rule. Alternative scenario: central bank concerned with eluding hysteresis effects of downturns. See Dávila-Ospina (2023) (R&D + credit channel)
- It would be important to quantify what happens if your monetary authority deviates from optimal path towards ensuring its long-run objective(s)
- In this hypothetical context, any particularly disruptive role for deficit financing, in a world of high sovereign debt?

Concluding remarks

- Very nice and intuitive piece of work that presents a model disciplined by the joint dynamics of stocks and flows in the labor market
- The paper conveys an accurate account of hysteresis as shaped by labor-market dynamics $\Rightarrow$ compatible with other potential firm-level sources of hysteresis
- Hysteresis effects call for devising a specific long-term approach to monetary policy