Discussion of:

**Inflation, Expectations and Monetary Policy:
What Have We Learned and To What End?**

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Summary

- Estimate Phillips curves using survey data on expectations:

$$\pi_t = -\alpha(u_t - u_t^*) + \beta\pi_{t+h}^e + \varepsilon_t$$

$\pi_{t+h}^e \equiv$ Survey measure at t of expected inflation over horizon h

Main Results:

1. Short-term expectations matter more than long-term

2. Household expectations $>$ firm expectations $>$ professional forecasts

3. Household and firm expectations are **unanchored**

4. Watch out! Households are signaling inflation!

1

Short vs Long Run Expectations and Anchoring

$\overline{\pi}_t \equiv E_t\pi_{t+\infty}$: Trend inflation
$\widehat{x}_t \equiv u_t - E_t u_{t+\infty}$: Cyclical unemployment

- Phillips curve with $\overline{\pi}_t$ (HHNS, 2022)

$$\pi_t = -\alpha\,\widehat{x}_t + \beta\,E_t\pi_{t+1} + (1-\beta)\,\overline{\pi}_t + \varepsilon_t$$
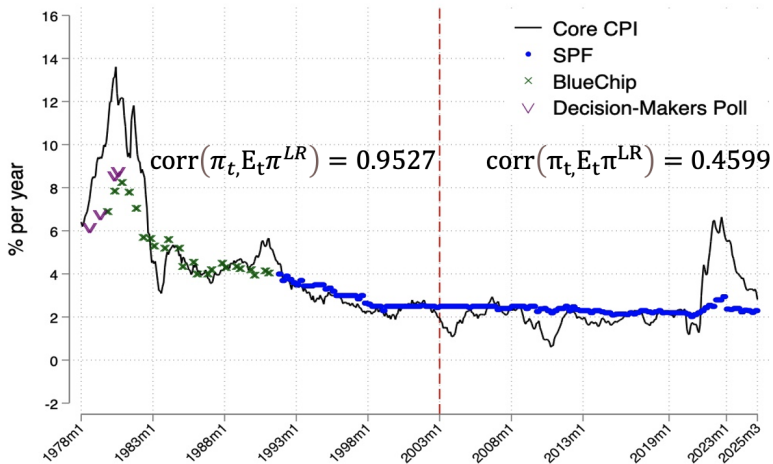
$\widehat{x}_t = \rho\,\widehat{x}_{t-1} + \epsilon_t \implies$

$$\pi_t = -\frac{\alpha}{1-\rho}\,\widehat{x}_t + \omega_t + \overline{\pi}_t$$

- Anchored expectations $\implies \overline{\pi}_t = \pi^o$
- Whether trend-inflation expectations are anchored affects both π_t and $E_t\pi_{t+1}$.

2

Unanchored vs. Anchored LR Inflation Expectations (Professionals)

Figure 1: 10-year Inflation Expectations vs. Inflation: SPF

$\text{corr}(\pi_t, E_t\pi^{LR}) = 0.9527$ $\text{corr}(\pi_t, E_t\pi^{LR}) = 0.4599$

Legend:
- Core CPI
- SPF
- BlueChip
- Decision-Makers Poll

3

Unanchored vs. Anchored (?) LR Inflation Expectations (Households)

Figure 2: 5 to 10-year Inflation Expectations vs. Inflation: Households

$$\text{corr}(\pi_t, E_t \pi^{LR}) = 0.8742 \qquad \text{corr}(\pi_t, E_t \pi^{LR}) = 0.3968$$

4
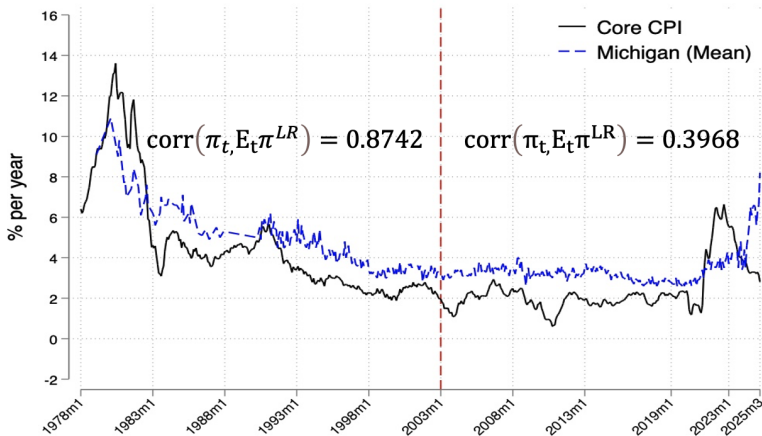
Pass-Thru of SR into LR Inflation Expectations: Pre vs. Post 2003

$$E_t\pi^{LR} = \alpha + \beta E_t\pi^{SR} + \varepsilon_t$$

	Professionals		Households	
$E_t\pi^{SR}$	0.7550***	0.2298***	0.8057 ***	0.3753***
	(0.05)	(0.05)	(0.04)	(0.09)
Sample	1978–2002	2003–2025	1978–2002	2003–2025
N	67	89	72	89
R^2	0.921	0.307	0.804	0.372

Notes: $E_t\pi^{SR}$ is the one-year-ahead expectation from households (MSC, mean response) or professionals (SPF/BlueChip). $E_t\pi^{LR}$ is the longer-run expectation: 10-year-ahead for professionals (SPF; Livingston pre-1991) and 5–10-year-ahead for households. Robust standard errors are reported in parentheses. ***,**,* denote statistical significance at 1, 5, and 10 percent levels.

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## GC estimates of Pass-Thru post 2005

- GC estimate using panels of individual forecasters on post 2004 data.

$$E_{it}\pi^{LR} = b_t + \rho_t E_{it}\pi^{SR} + \epsilon_t, \qquad b_t \equiv \text{time fixed effect}$$

- GC consider 5-year SPF forecast instead of 10-year.

  - Find high pass-thru for 5-year i.e. $\rho_t \in (0.4, 0, 8)$

  - Problematic: No control for individual heterogeneity

  - However, I find similar estimates from time series regressions

    – High pass-thru for 5-year (despite low pass-thru for 10-year)

    – Pass-thru roughly 0.38 for households (also similar to GC)

- How do we interpret low pass thru into 10-year and high into 5-year?

  - Key: Fed targets a range $1.5 \sim 2.5$ not a single number.

Pass-Thru into 5-year vs. 10-year Expectations: SPF

Figure 3: Mean 1, 5, 10-year forecasts (SPF)
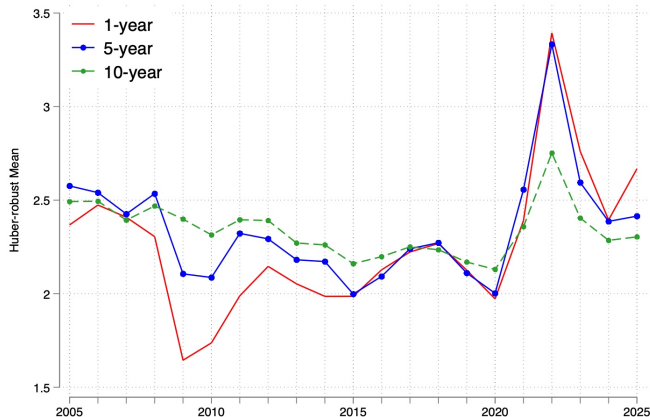
- Time-series Regression

$$\overline{E_{it}\pi_{t+h}} = b_0 + \rho\,\overline{E_{it}\pi_{t+1}} + \varepsilon_t$$

- Estimated ρ
   - SPF
        - 5-year = 0.7075
        - 10-year = 0.2401

Whose Expectations Matter?

$$\pi_t = -\alpha \left(u_t - u_t^* \right) + \beta \, \pi_{t+h}^e + \varepsilon_t$$

- Answer: Households!
  - **MSC (households)**: $\hat{\beta} = 1.50^{***}$, $R^2 = 0.72$
  - **SPF (professionals)**: $\hat{\beta} = 0.96^{***}$, $R^2 = 0.27$
  - MCS beats SPF in horserace

- Issues
  - Reverse causality? (Estimation is by OLS)
    - Could household forecasts be more sensitive to current inflation?
    - To be fair, in other work CG identify exogenous variation in expectations
  - Endogeneity + measurement error
    - Likely upward bias in $\hat{\beta}$ and downward bias in $\hat{\alpha}$ → Counterfactuals problematic
  - Large firms more likely to use professional forecasts?
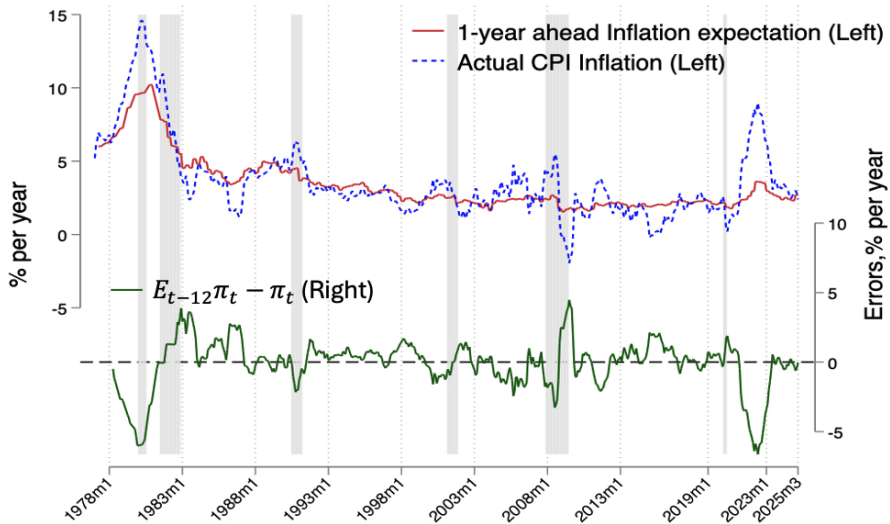   - 10 largest firms account for 41% of sales (Alvarez-Blaser *et al.*)
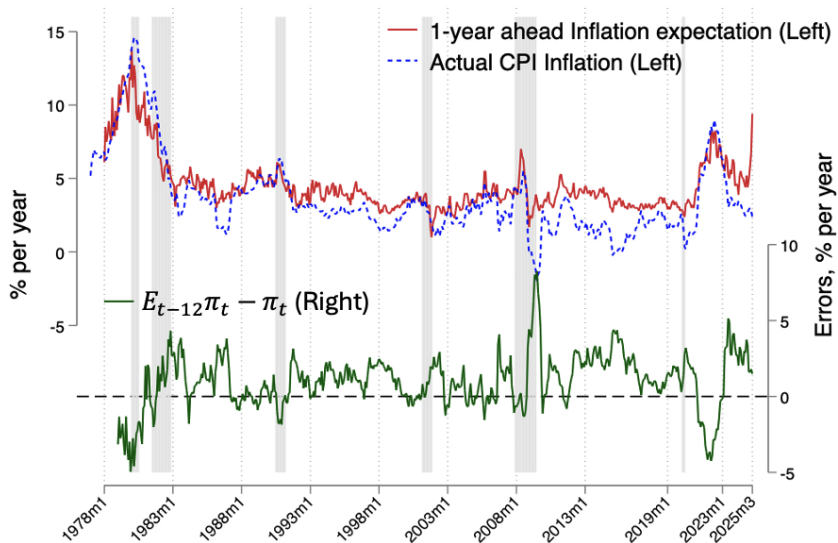
What could be driving MSC's forecast of high inflation

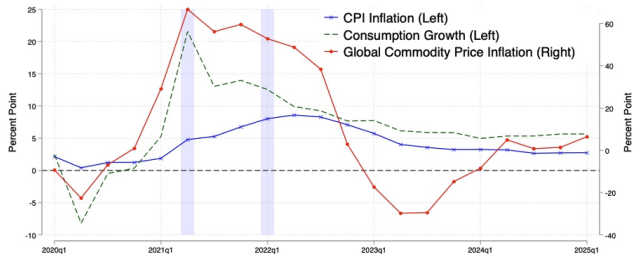**Figure 4:** Google Trends: Tariffs and Inflation, 2015m1 - 2025m4
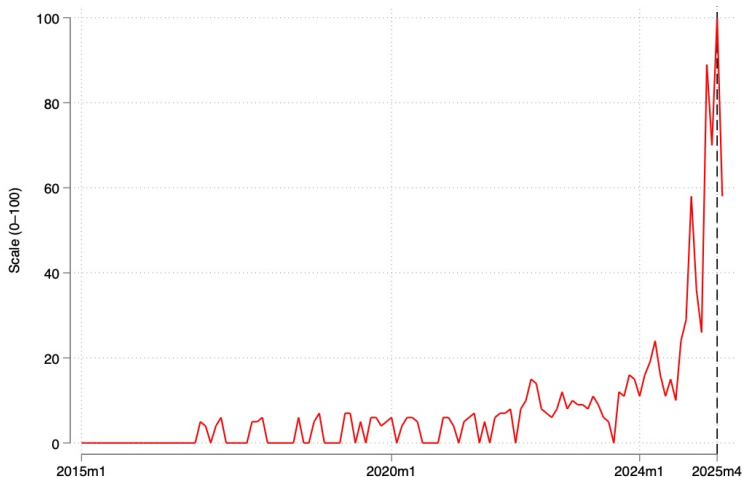
Commodity Prices, Consumption Growth, and CPI Inflation

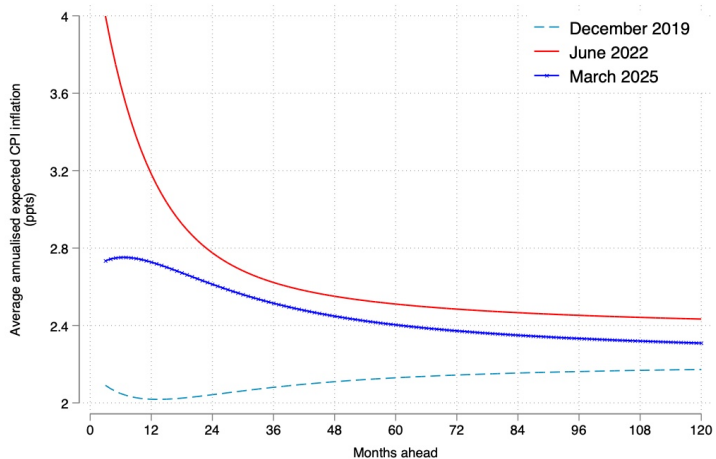Demand (Fiscal) and Supply Shocks
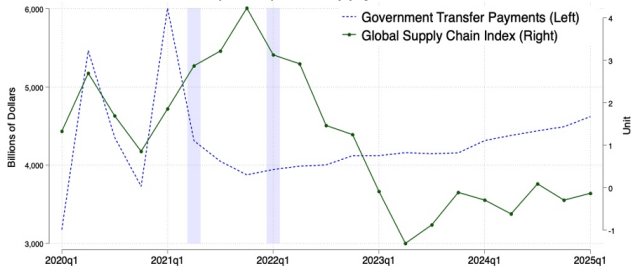
Concluding Remarks

- Interesting and significant research
- (My View) important to keep long term inflation expectations anchored
    - But agree we need more work on whose expectations matter for price setting
    - Will involve modeling how beliefs are formed to sort out causality
- Need to figure out what is going on with Michigan households!
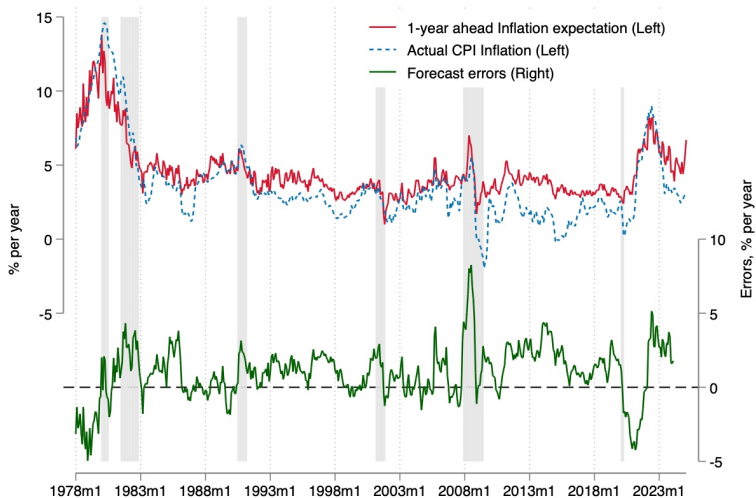
Figure 5: Expectation Term Structure, Professional Forecasters

Figure 6: $E_t\pi_{t+12} - \pi_{t+12}$, Households

Figure 7: $E_t \pi_{t+12} - \pi_{t+12}$, Professionals