Heterogeneous information, subjective model beliefs, and the time-varying transmission of shocks

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Headlines:

- Heterogeneity in the components of expectation formation affects shock transmission.

- This channel is present in UK household inflation expectations.

- Temporary high inflation gets entrenched in expectations of certain households.

**Figure:** Bundesbank-Online-Panel (households), November 2021, trimmed
The Narrative Heterogeneity Channel

Expectations are formed using information and subjective model.
- Evidence for heterogeneity in both (Beutel and Weber, 2021, Macaulay and Moberly, 2022).

Implies a novel channel of shock transmission:

- Shock amplified if information on the shock is concentrated among those who update other expectations the most in response to it.
Information and Subjective Models of Inflation in the Data


- **Information**: Did the household report using direct information about inflation when asked how they reached their expectations?

- **Subjective Models**: “If prices started to rise faster than they are now, do you think Britain’s economy would end up stronger, or weaker, or would it make little difference?”

2 facts:

1. Households who believe inflation makes no difference use less direct information.

2. High perceived inflation is associated with more negative models.
Effects of a Temporary Inflation Shock

If start with **negative** model:
- $\pi_t \uparrow \implies$ subjective model gets even more negative.
- Pay more attention, quickly adjust $E_t \pi_t$ down after shock.

If start with **positive** model:
- $\pi_t \uparrow \implies$ subjective model updates towards ‘inflation doesn’t matter’.
- Pay less attention, **do not** adjust $E_t \pi_t$ beliefs down after shock.
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$\implies$ **permanent** change in the **narrative heterogeneity channel**.