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

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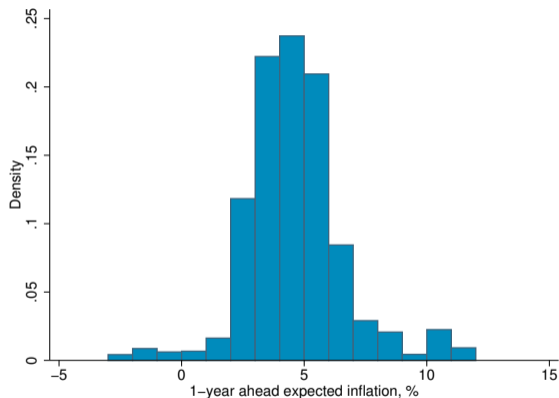# Heterogeneity in Expectations

Figure: Bundesbank-Online-Panel (households), November 2021, trimmed

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**.

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:

$$\text{Information} \xrightarrow{\text{Model}} \text{Expectations} \longrightarrow \text{Action}$$

- 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

Bank of England Inflation Attitudes Survey (2001-2019):

- **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.
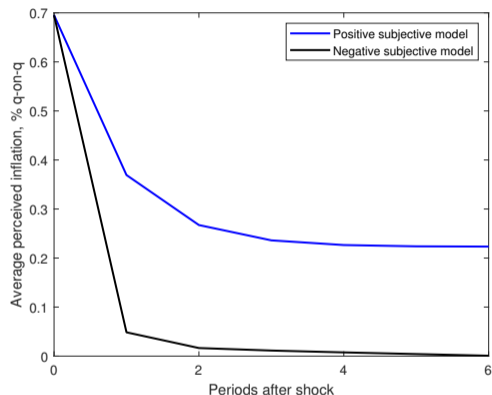
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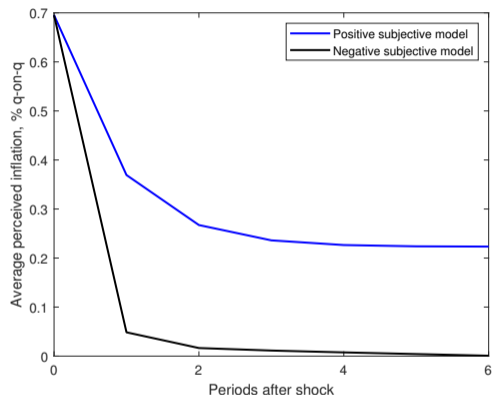
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- $\pi_t \uparrow \implies$ subjective model gets even more negative.

- Pay more attention, quickly adjust $\mathbb{E}_t \pi_t$ down after shock.

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$\implies$ **permanent** change in the <u>narrative heterogeneity channel</u>.