(Communicating) Inflation Uncertainty – Remarks

Transforming Monetary Policy – How should we think about uncertainty and risks?

Christoph Herler, June 2025

Why inflation uncertainty?

$$\Delta\mathbb{E}_{i,t}(\hat{C}_{i,t+1}) = \mathbb{E}_{i,t}(\pi_1) + \frac{1}{\zeta R}\mathbb{E}_{i,t}(\hat{R}_{t+1}) + \underbrace{\frac{1}{2}\frac{\mathbb{E}_{i,t}[\hat{C}^2_{t+1}]}{C^2}}_{\substack{\text{Consumption}\\ \text{Uncertainty}}} - \underbrace{\frac{1}{2}\frac{\mathbb{E}_{i,t}[\hat{P}^2_{t+1}]}{P^2}}_{\substack{\text{Inflation}\\ \text{Uncertainty}}} - \underbrace{\frac{1}{2}\frac{\mathbb{E}_{i,t}[\hat{R}^2_{t+1}]}{\zeta R^2}}_{\substack{\text{Interest}\\ \text{Uncertainty}}}$$

Why inflation uncertainty?

$$\Delta \mathbb{E}_{i,t}(\hat{C}_{i,t+1}) = \mathbb{E}_{i,t}(\pi_1) + \frac{1}{\zeta R}\mathbb{E}_{i,t}(\hat{R}_{t+1}) + \underbrace{\frac{1}{2}\frac{\mathbb{E}_{i,t}[\hat{C}^2_{t+1}]}{C^2}}_{\text{Consumption Uncertainty}} - \underbrace{\frac{1}{2}\frac{\mathbb{E}_{i,t}[\hat{P}^2_{t+1}]}{P^2}}_{\text{Inflation Uncertainty}} - \underbrace{\frac{1}{2}\frac{\mathbb{E}_{i,t}[\hat{R}^2_{t+1}]}{\zeta R^2}}_{\text{Interest Uncertainty}}$$

- Higher expected level of inflation → spend more
- Higher uncertainty about inflation → save more

- Identification challenge: high level of inflation ↔ high volatility of inflation

3 papers about impact of inflation uncertainty on consumers

	Kostyshyna and Petersen (2024)	**Georgarakos et al. (2024)**	**Fischer et al. (2025)**
Country	CA	EA	UK
Treatment	Apr-May 2020	Sep 2023	Mar 2024
Follow-up surveys	Nov-Dec 2020	Oct 2023, Jan 2024	Sep 2024, Mar 2025
Sample	5,000	19,000	6,000
Treatment	Mean, mean + min + max	Mean, range, mean + range	Mean, range, Mean + range
Outcome	Scanner data for (non-) durable consumption	Self-reported (non-) durables spending, labour market outcomes, portfolio allocation	Self-reported (expected) spending, savings, cash holdings

3 papers about impact of inflation uncertainty on consumers

	Kostyshyna and Petersen (2024)	Georgarakos et al. (2024)	Fischer et al. (2025)
Country	CA	EA	UK
Treatment	Apr-May 2020	Sep 2023	Mar 2024
Follow-up surveys	Nov-Dec 2020	Oct 2023, Jan 2024	Sep 2024, Mar 2025
Sample	5,000	19,000	6,000
Treatment	Mean, mean + min + max	Mean, range, mean + range	Mean, range, Mean + range
Outcome	Scanner data for (non-) durable consumption	Self-reported (non-) durables spending, labour market outcomes, portfolio allocation	Self-reported (expected) spending, savings, cash holdings

Fischer, Herler and Schnattinger (2025)

- Information treatments: qualitative and quantitative
  1. Professional forecasters “expect lower inflation” (2%)
  2. Professional forecasters “are less uncertain” (min – max = 2.1pp)
  3. Professional forecasters “expect lower inflation” and “are also less uncertain”
  4. Control group

- Treatments significantly lower expected level of inflation and uncertainty

- Lower uncertainty about inflation:
  - ↓ expected level of inflation, ↑ planned consumption
  - ↓ monthly savings, ↑ liquid assets with fixed returns

How do the results compare?

- Higher inflation uncertainty → less (durables) spending, higher saving
- Effect of uncertainty on household spending is more persistent than effect of expected inflation level (up to 12 vs. 3 months post-treatment)
- Precautionary motives: higher uncertainty about future income, lower expected incomes, more job search intensity
- Questions remain about portfolio allocation and the effect of level expectations on spending

What economic question do we want to answer?

- Can we disentangle uncertainty about the state of the economy from uncertainty about interest rates?
  - Friedman (1977): higher inflation → higher inflation uncertainty

    because of uncertainty about central bank's reaction
  - Fischer et al. (2025): "… uncertainty reflects uncertainty about adverse supply shocks, or uncertainty about the central bank's reaction to them"
  - Georgarakos et al. (2024): higher inflation uncertainty → more likely to choose fixed rate mortgage ("shift extra interest rate risk to the lender")

- We care about inflation expectations (level and uncertainty) because of implications for agents' behaviour and monetary policy transmission
  - What is identified? Change of beliefs about the state of the economy or about the 'model' (e.g., policy function)?

Implications for central bank communications

- Communicating inflation outlooks seems to be more effective at managing households' inflation expectations (level and uncertainty)

- Information about mean + dispersion/range tends to have biggest impact on expectations, but small incremental effects compared to info about mean

- Comms may target first and second moments directly.
  But beliefs about inflation uncertainty are stickier than expected level of inflation
  → more difficult to influence uncertainty

RCTs are not for real

Blinder et al. (2024):

"[…] the literature on central bank communication with the broad public uses randomized control trials (RCTs) in surveys or laboratory experiments to identify causal effects of central bank communication on agents' beliefs or actions […]. However, the set-up of these studies ensures that *all* "treated" participants are exposed to the communication, which is nowhere close to the situation in real life. **In fact, it may assume away the biggest part of the problem – getting the message received.**"