Why do women have higher inflation expectations?

An empirical fact whose causes matter for (a) women’s investment for retirement and (b) effectiveness of monetary policy communication

1. Bayesian Framework

Proposition 1.1 If $\theta^m > \theta^f$ it will be that $E(\theta|x^m) > E(\theta|x^f)$ whenever $\mu^0 + \frac{1}{2} > \ln(x^f)$.  

Proposition 1.2 If $\theta^m < \theta^f$ it will be that $E(\theta|x^m) > E(\theta|x^f)$ whenever $\ln(x^m) + \frac{1}{2} > \frac{1}{2} > p_0$.  

Proposition 1.3 The effect of shocks to prior and signal precision, $\delta^m$ and $\delta^f$, on inflation expectations is complementary.

Role of Experience

Increasing signal volatility may increase the posterior mean...

...but whether it will do so depends on the tightness of the prior!

2. Empirics

Bundesbank Online Panel (BOP-HH)
Timing: April 2020-September 2022
Participants: 2,000 German households/month
1. “Inflation” qualitatively (5 point scale), quantitatively and probabilistically + short definition
2. Financial literacy test in January 2022
3. Grocery shopping since April 2021

Michigan Survey of Consumers (MSC)
Timing: June 1978-December 2022
Participants: 500 US households/month
1. “Prices in general” qualitatively (3 point scale) and quantitatively
2. Financial literacy test

FRBNY Survey of Consumer Expectations (SCE)
Timing: June 2013-November 2020
Participants: 1,200 US households/month
1. “Inflation” qualitatively (3 point scale), quantitatively and probabilistically
2. Financial literacy test

Mechanism: Gender Gaps in Financial Literacy

Observation 2.1: The gender gap in inflation expectations diminishes as financial literacy increases.

Observation 2.2: The gender gap in means is driven by the heavy tail in the female distribution. When the sample is restricted to the lowest 50% of inflation expectations, there is no positive gap.

Result: Grocery shopping increases inflation expectations only for individuals in the lowest quintile of the financial literacy distribution (bottom 18.4%) which is dominated by women (share 81.4%).

Observation 2.3: The gender gap is not significantly smaller for singles.

Observation 2.4: The magnitude of the gender gap is unresponsive to the size of food price inflation relative to total inflation.

Robustness

Assumptions verified: There are gender gaps in grocery shopping and financial literacy as predicted by previous literature (Bucher-Koenen et al. 2014; D’Acunto et al. 2021).

Theoretical mechanism verified: Low financial literacy is correlated with high uncertainty in probabilistic forecasts.

Behavioral consequences? Consequences for policy?