

## Discussion:

The expected, perceived, and realized inflation of  
U.S. households before and during the COVID-19 pandemic  
by Weber, Gorodnichenko, and Coibion (2022)

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The opinions in this presentation reflect those of the authors,  
and not necessarily those of the Federal Reserve Bank of New York or the Federal Reserve System.

# Summary

1. Inflation expectations and the disagreement among households about the inflation outlook increased sharply during the pandemic.
2. Positive and strong link between experienced inflation and inflation expectations.
  - Experienced inflation during the same time period also increased.
  - Disparities in realized inflation originated mostly from different spending patterns across demographics groups and high dispersion in inflation across product categories.
3. Stronger link between perceived inflation and inflation expectations.
  - Widespread disagreement in perceptions during the pandemic.
4. Households continue to hold the supply-side view: with a recession they expect prices to rise.

# Comments

Great paper, shedding more light on how individuals' inflation expectations react to changes in economic conditions.

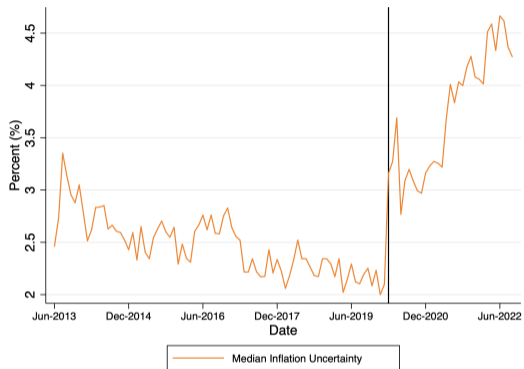
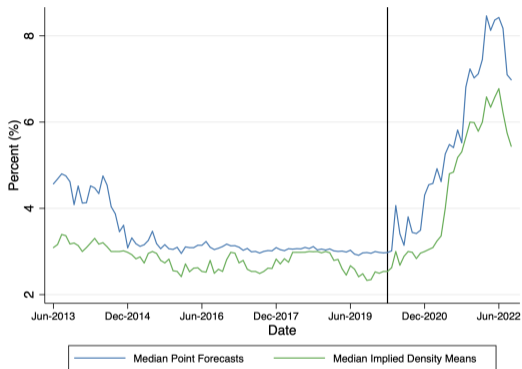
Three comments:

1. Inflation expectations vs uncertainty about future inflation.
2. Link between short and medium-term inflation expectations.
3. How do people form/update their expectations?

# Uncertainty

- In terms of expectations, the paper focuses on point forecasts and to some extent on the implied density means for year-ahead inflation expectations.
- Eliciting the full density for inflation forecast allows us to measure how uncertain individual's are over their inflation forecasts.
  - A measure of the spread of each individual's density.
  - I'll focus on the IQR (p75-p25).
- Uncertainty in expectations are especially important for consumption or savings decisions.

# Uncertainty



- Somewhat muted response in inflation expectations at the onset of the pandemic.
- Uncertainty on the other hand rose sharply in March 2020.

# Uncertainty and Behavior during the Pandemic

Are there any implications of this sudden rise in inflation uncertainty during the pandemic on consumer behavior?

- Armantier et al (2021) use the SCE panel and check how the change in inflation uncertainty is related to how individuals used their stimulus checks in Spring 2020.
- All else equal, those with larger increase in their year-ahead inflation uncertainty save a larger portion of their stimulus checks, whereas the impact of the change in inflation expectations on the use of stimulus checks is essentially zero.
- Results are consistent with precautionary saving behavior.

Coibion et al (2021) also document households decrease their spending on durables and propensity to invest when they are given information about higher macroeconomic uncertainty.

# Uncertainty - things we still don't know

The paper documents how experienced and perceived inflation are related to inflation expectations.

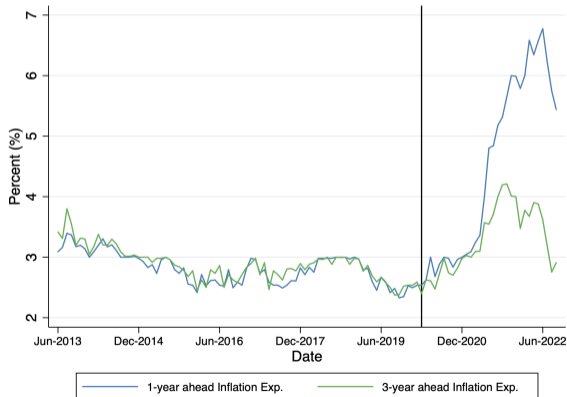
It would be interesting to document:

- How is experienced inflation linked to inflation uncertainty?
  - Do people with larger consumption baskets or more variety in the goods they consume have higher uncertainty in their inflation forecasts?
  - Can the dispersion in the experienced inflation within a consumption basket be influential in determining forecast uncertainty?
- How did the uncertainty in inflation perceptions change during this period?
- Do people who are more uncertain in their perceptions of inflation also more uncertain in their inflation forecasts?
- Is there any heterogeneity based on observables in the link between the uncertainty in inflation perceptions and uncertainty in inflation forecasts?
- On the flip side, how do inflation forecasts (uncertainty and levels) change the consumption basket?

# Short and Medium-Term Expectations

This paper focuses on year-ahead inflation expectations:

- short-term expectations are more influential for consumer behavior.
- short and medium-term expectations move together.



However, since mid-2021 it looks like the link between short and medium-term expectations is broken.



# Short and Medium-Term Expectations

What happened to medium-term inflation expectations in 2021? Why did they decline?

- Increase in disagreement, driven by the growth of the left tail.
- Share of respondents expecting deflation in the medium-term more than doubled – from 10% to 27% – between April 2021 and September 2022.

In Armantier et al (2022), we consider 3 hypotheses:

- Respondents may confuse deflation with low, but positive rate of inflation.
- Respondents may expect mean reversion in prices.
- Respondents may anticipate economic conditions will worsen, resulting in deflation.

# Short and Medium-Term Expectations

Results show:

- Confusion can only explain 1pp of the 27% expecting deflation.
- Those who expect deflation do expect mean reversion in commodity prices over the same-horizon. (can explain 17pp of the 27% expecting deflation)
- Those with deflation expectations are in fact relatively more optimistic (consistent with the literature). The link between inflation exp and expectations about economic conditions are not constant, seems to change sign over time.

Going back to the paper, it will be very interesting:

- to link the medium-term expectations to experienced inflation.
- what types of goods might be drivers for this increase in deflation expectations over the medium-term?

## Expectations formation/updating

This paper documents the gap between experienced and perceived inflation.

- Measurement issues, scanner data only include certain items.
- “Households may use information beyond their own experiences with prices to form beliefs about aggregate prices...”.

Still little is known how and using what kind of information households form or update expectations.

- Growing literature:
  - Theory of the impact of memory on beliefs (Bordalo et al, 2021)
  - Role of associative memory on belief formation (Enke et al, 2020)
  - Beliefs may not be continuously or permanently updated with new information. Anecdotal (as opposed to statistical) information is more influential in shaping beliefs. (Graeber et al, 2022).

For future research:

- need for empirical analyses on explaining the gaps between individuals' experiences and perceptions, especially regarding inflation and other macroeconomic aggregates.
- crucial for communication of Central Banks and monetary policy transmission mechanisms.