

# Subjective Inflation Expectations

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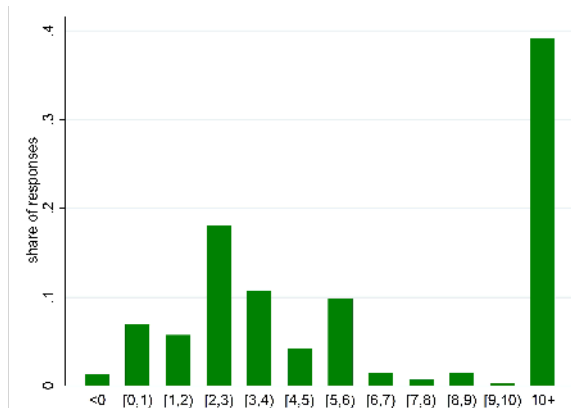
# The Role of Expectations for Household Decisions...

- Key variable for economic decisions: perceived real interest rate

$$r_t^i = i_t - \mathbb{E}_t^i \pi_{t+1}$$

- Most **households'** choices depend on inflation expectations
  - Consumption/saving choices (D'Acunto, Hoang, and Weber, 2018)
  - Mortgage Uptaking, Type (Malmendier and Nagel, 2015)
  - Stock Market Participation (Das, Kuhnen, and Nagel, 2019)
  - **Wage bargaining**
- Normal times:  $\Delta i_t \longrightarrow \Delta r_t$  if expectations anchored

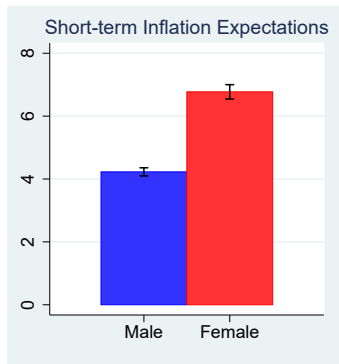
## BUT Households have dispersed knowledge...



Source: Coibion, Gorodnichenko, Weber, JPE (2022):  
*“Monetary Policy Communication and Households’ Inflation Expectations”*

- Expectations do react to info and determine actual consumption in scanner data

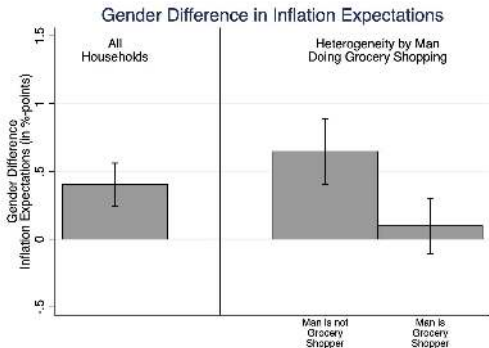
# Within-Household Inflation Expectations: Gender Gap



Source: D'Acunto, Malmendier, Weber, PNAS (2021):  
*"Gender Roles Produce Divergent Economic Expectations"*

- Women have (more) positively biased inflation expectations

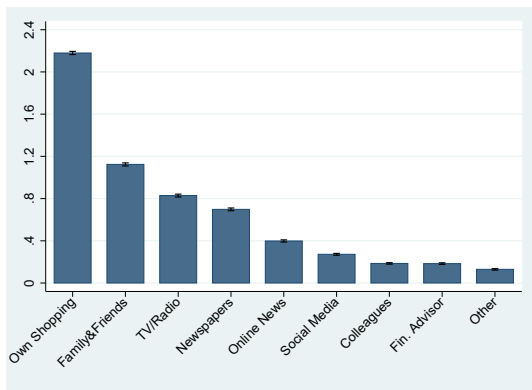
# Why Are Women (More) Biased? They Do the Groceries!



Source: D'Acunto, Malmendier, Weber, PNAS (2021):  
“Gender Roles Produce Divergent Economic Expectations”

- Large difference in inflation expectations by gender *within* household
- Unconditional difference driven by differences in grocery shopping

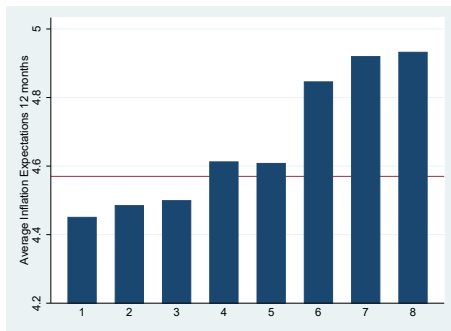
# Shopping is the Most Important Source of Information



Source: D'Acunto, Malmendier, Ospina, Weber, JPE (2021):  
*"Exposure to Grocery Prices and Inflation Expectations"*

- Most relevant sources of information when we asked their inflation expectations
- Own (and family) shopping much more common than media, other sources

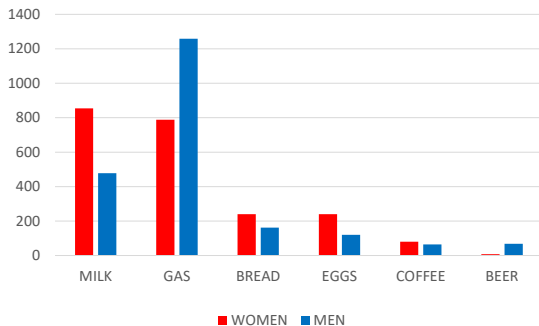
# Variation in Households' Bundles → Inflation Expectations



Source: D'Acunto, Malmendier, Ospina, Weber, JPE (2021):  
*"Exposure to Grocery Prices and Inflation Expectations"*

- Sort households into bins by grocery price changes
- High-low portfolio: difference in expected inflation of 0.5 percentage points
- Economically sizeable given inflation target of 2%
- **Higher weight on positive prices changes of frequently purchased goods**

# Men and Women often Think about Individual Goods

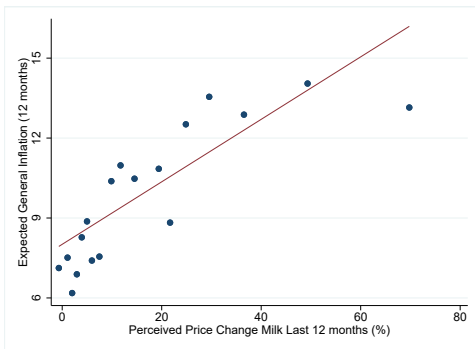


Source: D'Acunto, Malmendier, Weber, PNAS (2021):  
*"Gender Roles Produce Divergent Economic Expectations"*

- Individuals often focus on price changes if specific items
- NB: gas price changes largely uniform across US, can't drive dispersion in  $\mathbb{E}\pi$
- Inflationary impulse in narrow categories can result in spike in inflation expectations



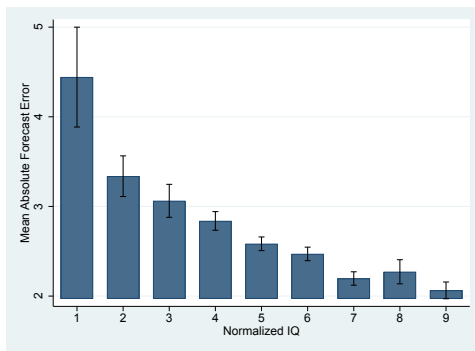
# From Recalled Good-Specific Signals to Aggregate Beliefs



Source: D'Acunto and Weber (2022):  
*"Memory and Beliefs: Evidence from the Field"*

- **Survey January 2022:** Elicit recalled milk prices, milk inflation
- Perceived milk inflation correlates with general inflation expectations

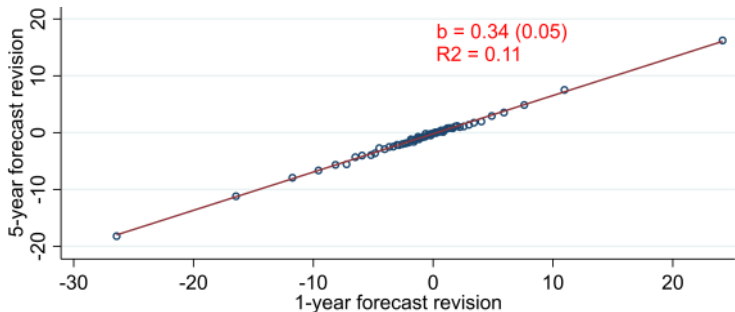
# Forecast Accuracy and Expectations



Source: D'Acunto, Hoang, Paloviita, Weber, Restud (2022):  
*"IQ, Expectations, and Choice"*

- IQ data for all men in Finland from military
- Men with low IQ: absolute forecast error for inflation of 4.5%
- Decreases monotonically with IQ
- Effect unrelated to income and education

## $\Delta$ in long- and short-term Inflation Expectations Comove



Source: Weber, D'Acunto, Gorodnichenko, Coibion, JEP (2022):

*"The Subjective Inflation Expectations of Households and Firms"*

- Central banks aim for stable long-term inflation expectations
- Short-term expectations might temporarily move due to shocks
- Households with high trust should have well anchored long-term expectations
- When households revise short-term expectations, so they so for long-term as well

## Recent Reviews of This Literature

- “What Do the Data Tell Us About Inflation Expectations?”  
D’Acunto, Malmendier, Weber, Handbook of Subjective Expectations (forthcoming)
- “The Subjective Inflation Expectations of Households and Firms: Measurement, Determinants, and Implications”  
Coibion, D’Acunto, Gorodnichenko, Weber, Journal of Economic Perspectives (Summer 2022)
- “The Expected, Perceived, and Realized Inflation of U.S. Households before and during the COVID19 Pandemic”  
Coibion, Gorodnichenko, Weber, IMF Economic Review (forthcoming)
- “Subjective Inflation Expectations: Models meet Reality”  
Weber, Annual Review of Economics (forthcoming)

# Take Aways

- Households focus on specific goods to form expectations
- Spike in inflation in narrow categories → in spike in expectations
- Larger weight on positive price changes
  - $\mathbb{E}\pi$  will stay elevated even if  $\pi$  comes down
- Messaging by Central Bank important
  - Message, medium, and sender matter