



# MONETARY POLICY COMMUNICATIONS AND THEIR EFFECTS ON HOUSEHOLD INFLATION EXPECTATIONS

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# SCOPE OF DISCUSSION

Contribution

Approach and data

Findings

Implications for policy

Questions

Final remarks

# CONTRIBUTION

## Novel set of empirical facts

1. Providing households with simple statistics about inflation has statistically and economically significant effects on inflation expectations
2. Effects are mildly persistent (vanish after 6 months)
3. Effect of signal depends on source but not on priors of recipient

# APPROACH

Random assignment: the gold standard for causal inference

Large sample: ~24,000 respondents (SCE ~1.3k; SCF ~6k)

Eight different (and simultaneous) treatment groups and one control group

- First wave in May-June 2018
- Groups are similar in composition and size
- Each provided with different information (e.g., actual inflation, inflation target, FOMC forecast, ...)
- Each group asked about future inflation levels and to assign probabilities to each level

# APPROACH

Placebo treatment to rule out anchoring and spurious learning

- One treatment group received bit of information not useful to forecast future inflation, but that could still cause spurious update of beliefs (past population growth of 2 percent)

Follow-up surveys

- Conducted 3 and 6 months later
- Each group asked to provide point estimate

In each survey, respondents asked to update beliefs

# SPECIFICATION

Average effects on beliefs: run regression for each treatment group + control group

$$Y_i \equiv E_i(\pi_{t+h} \mid \text{post-treatment}) - E_i(\pi_{t+h} \mid \text{pre-treatment})$$

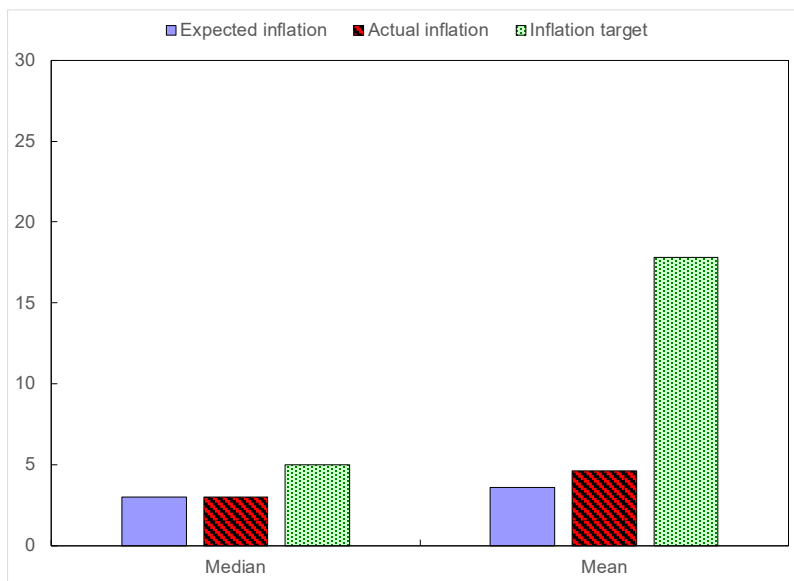
$$Y_i = \alpha + \beta D_i + X_i' \gamma + \varepsilon_i$$

$\beta$  = treatment effect

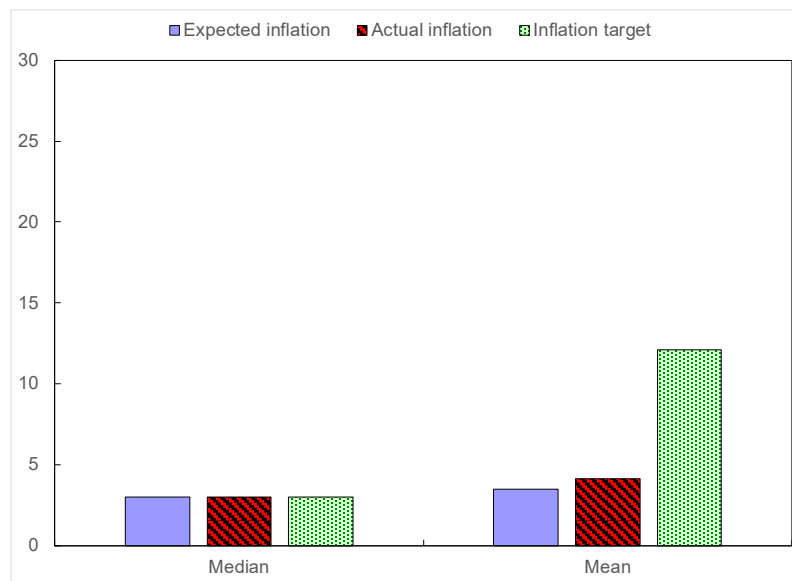
where  $D$  is dummy (0 if  $i$  is in control and 1 if  $i$  is treated) and  $X$  is a vector of individual-specific controls.  $\beta$  is the parameter of interest (ATE).

# A QUICK LOOK AT THE (UNFILTERED) DATA

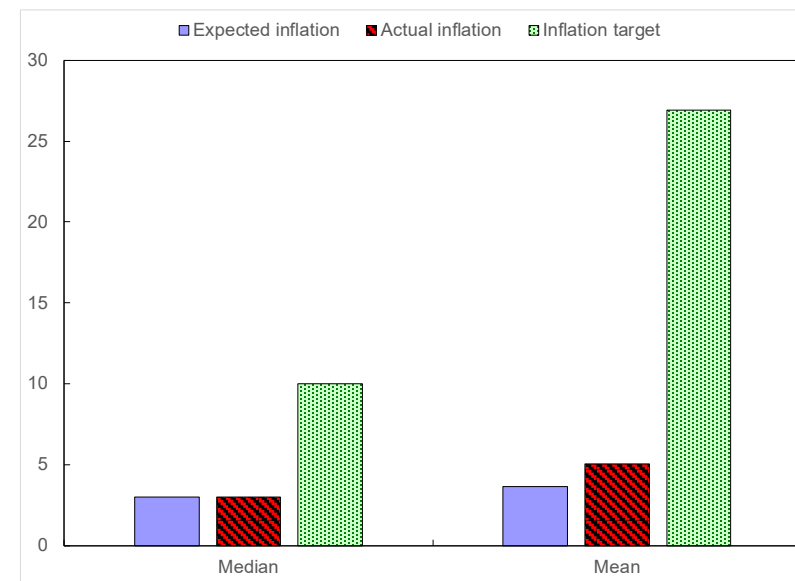
## Full sample



## College



## High school or less



Source: Coibion, Gorodnichenko, and Weber (2019)

# RESULTS

Anchoring effects are small

Providing simple information works just as well as providing more complex one

Effects of communication short-lived

Media not a powerful vehicle for communication

Changes in beliefs in the intensive margin

Table 2: Average Household Responses to Treatments

Treatments	Outcome: forecast revision					
	Immediate revision		Revision after 3 months		Revision after 6 months	
	(1)	(2)	(3)	(4)	(5)	(6)
T5 (pop growth)	-0.218** (0.105)	-0.269** (0.109)	-0.074 (0.090)	-0.097 (0.093)	0.086 (0.102)	0.096 (0.104)
T6 (UE)	-0.337*** (0.104)	-0.330*** (0.109)	-0.231** (0.093)	-0.250*** (0.096)	-0.116 (0.101)	-0.115 (0.103)
T4 (gas prices)	1.491*** (0.114)	1.430*** (0.119)	-0.169* (0.092)	-0.190** (0.095)	-0.121 (0.102)	-0.117 (0.103)
T2 (past inflation)	-1.039*** (0.104)	-1.111*** (0.109)	-0.014 (0.091)	-0.067 (0.094)	0.276*** (0.102)	0.251** (0.104)
T3 (inflation target)	-0.996*** (0.102)	-1.034*** (0.109)	-0.329*** (0.091)	-0.394*** (0.095)	0.032 (0.101)	-0.017 (0.103)
T7 (Fed inflation forecast)	-1.071*** (0.102)	-1.143*** (0.108)	-0.220** (0.093)	-0.240** (0.095)	0.162 (0.101)	0.142 (0.103)
T8 (FOMC statement)	-1.197*** (0.103)	-1.213*** (0.108)	-0.138 (0.092)	-0.163* (0.095)	0.078 (0.104)	0.075 (0.107)
T9 (USA today coverage)	-0.444*** (0.105)	-0.528*** (0.109)	-0.196** (0.092)	-0.211** (0.095)	0.117 (0.101)	0.104 (0.103)
Remove outliers	Yes	Yes	Yes	Yes	Yes	Yes
Using sampling weights	Yes	Yes	Yes	Yes	Yes	Yes
Controls for demographics	No	Yes	No	Yes	No	Yes
Observations	19,269	17,629	13,339	12,553	11,716	11,223
R <sup>2</sup>	0.048	0.061	0.002	0.012	0.002	0.015



# IMPLICATIONS FOR POLICY

Communicating with financial markets and forecasters is not enough

Central banks need communication strategy and repeated interactions with public

Simple communication more effective

It matters who says it: outsourcing to media not as powerful

# COMMUNICATING WITH FINANCIAL MARKETS AND FORECASTERS IS NOT ENOUGH

Economic literacy is low

Public does not know Fed's inflation target...

...and does not understand why stable but low inflation is better than deflation

**This matters for central bank independence**

# CENTRAL BANKS NEED COMMUNICATION STRATEGY AND REPEATED INTERACTIONS WITH PUBLIC

Effective communication can move expected real rates as much as QE or forward guidance

Especially important at ZLB...

But it also has implications for choice of monetary policy framework (e.g., IT vs PLT)

Systematic evaluation of communications needed

# IT MATTERS WHO SAYS IT AND HOW YOU SAY IT

## Results could reflect US public preferences

- Federal Reserve is trusted by public: 69 pct favorable view vs 22 pct unfavorable view (i.e., +47 percent favorable rating) according to Pew Research Center
- 52 pct do not trust news media (Gallup polls)

## Results could reflect choice of media

- USA Today is not particularly trusted nor distrusted: 28 pct trust vs 16 pct distrust (Pew Research Center)
- CGW (Table 5): US Today higher average credibility score (for information about economy) than others (e.g., WSJ)

Results on extensive margin suggest content more important than source

# QUESTIONS

## 1. Can we generalize this result to other countries?

- In EU, 42 pct trust ECB vs 41 pct do not trust (Eurobarometer)
- 46 pct trust the press vs 47 do not trust (Eurobarometer)

## 2. Randomized trials vs reality: how close can they be?

- Does participation change involvement?
- How would respondents react to repeated treatments?

# QUESTIONS

## 3. Does low inflation environment influence responses?

- Respondents may not care about inflation right now
- May be more receptive to information from experts (i.e., central bank)
- But in high inflation environment (high involvement), do we expect similar results?

## 4. Do same implications hold for other types of CB communication?

- e.g., exchange rates or financial stability?
- Could be more difficult to communicate
- Public engagement may be different

# QUESTIONS

## 5. Response rates: is 26.5 percent enough?

1. Why are high response rates important?
  - A. Ensure representativeness: nonresponse bias (73.5 percent)
2. Survey standards: 60-80 percent in biomedical sciences (e.g., Draugalis et al. 2008)
3. Response rate of other surveys of consumer behavior:
  1. NY Fed Survey of Consumer Expectations ~60-75 percent
  2. Federal Reserve Survey of Consumer Finances ~65 for main sample but smaller for list sample
  3. van der Cruisen et al (2015) for ECB ~70 percent
  4. EC Consumer Survey (2004-2015): >70 percent (41k consumers)

# QUESTIONS

## 6. Treatment of outliers: is Huber $M$ -estimation appropriate?

- Are outliers representative or nonrepresentative (Chambers, 1986)?
- Truncation or deletion?
- Are there sub-populations?
- Assumptions about underlying distribution?





# FINAL REMARKS

Great contribution to literature on central bank communications

Raises the bar in empirical macroeconomics

Useful policy implications

Grounds efforts on capacity development in central banking and monetary policy