

“Monetary policy communications and their
effect on household expectations”
by O. Coibion, Y. Gorodnichenko, and M. Weber

Discussion by Gernot J. Müller
University of Tübingen, CEPR, CESifo

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The issue

The impact of monetary policy communications on households inflation expectations

- ▶ Are inflation expectations sensitive to relevant information?
- ▶ Do central banks succeed in anchoring inflation expectations?
- ▶ Which type of communication is particularly effective?

Key for transmission of (non-conventional) monetary policy

The paper: large-scale survey

Randomized control trials on 20,000 consumers

- ▶ Alternative information treatments
- ▶ Follow up survey (3 and 6 months later) to measure persistence

Main results

- ▶ Information treatment reduces inflation expectations substantially (up to 1.2 pp in case of FOMC forecast)
- ▶ Effectiveness depends on type of treatment/media (FOMC forecast >> USA today)
- ▶ But effect of treatment not persistent: gone after 6 months

The main result: expectations respond to info treatment

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 ²	0.048	0.061	0.002	0.012	0.002	0.015

Assessment

Fascinating paper

- ▶ Important topic, spectacular data set, compelling evidence . . .

Three questions

- ▶ Does information treatment matter for actual purchases?
- ▶ Do households do as poorly as suggested by the paper?
- ▶ Implications for monetary policy transmission?

Question 1: Information treatment and actual purchases?

Communicating inflation target reduces expected inflation

- ▶ Paper suggests that effective communication can be powerful tool to change perceived real interest rate
- ▶ Notably at ZLB/relative to QE

But

- ▶ All else equal, perceived real interest rate **increases**:
 $i_t - E_t \pi_{t+1}$, such that consumption expenditure should decline
- ▶ Implicit assumption: **effect symmetric**, monetary policy can raise inflation expectations in the same way to lower real rate

Why not explore whether effect is indeed symmetric. . .

- ▶ Does effect of treatment differ depending on whether hh have too high or too low inflation expectation?

Question 1: Information treatment and actual purchases?

Striking feature of the data set

- ▶ Households do report their actual purchases in the panel

Should be able to go after holy grail ...

- ▶ Use RCT (information treatment) to assess whether changes in inflation expectations actually impacts consumption behavior

Question 2: Household expectations that poor?

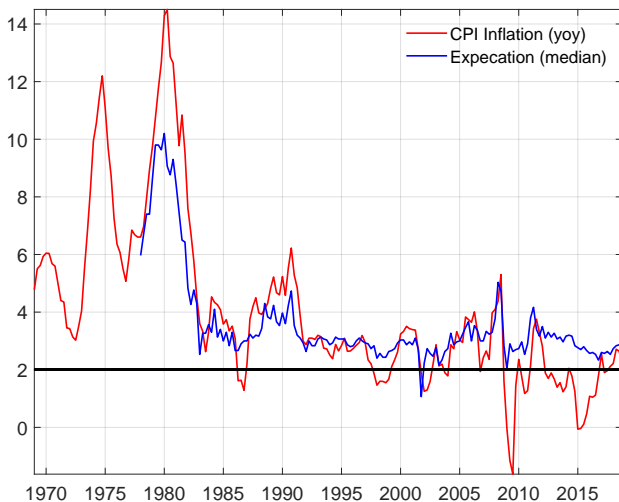
Paper suggests that inflation expectations not well anchored...

- ▶ Different from actual inflation and different from forecast of FOMC
- ▶ When presented with the most basic facts about inflation, household views change dramatically

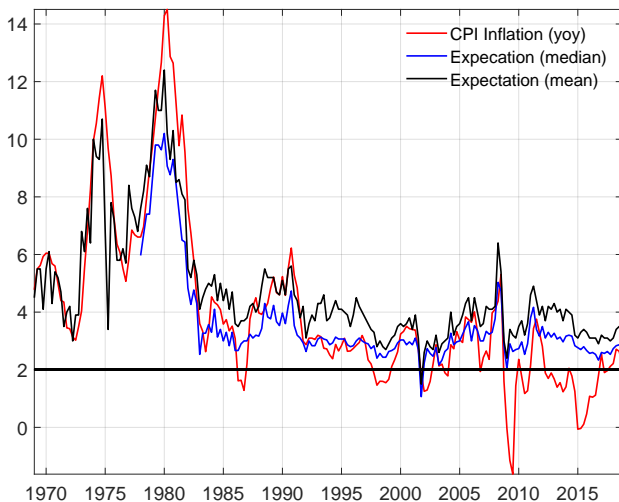
Quite thought-provoking...

- ▶ Cross check by looking at time-series dimension
- ▶ Michigan survey: “By what percent do you expect prices to go up, on the average, during the next 12 months?”

Actual inflation and inflation expectations 1969–2018



Actual inflation and inflation expectations 1969–2018



Question 3. Expectations in monetary policy transmission

Workhorse New Keynesian model

- ▶ Monetary policy operates through expectations

Direct evidence?

- ▶ Coibion Gorodnichenko (2012): do not report result for monetary policy shock
- ▶ Melosi (2017): SPF inflation expectations adjust sluggishly
- ▶ Nakamura Steinsson (2018): inflation expectations (extracted from bond prices) fairly flat
- ▶ Enders et al (2019): firm expectations respond non-linearly

What about household expectations?

- ▶ Look at hh inflation expectation from Michigan survey (mean)

Local projections

Specification follows Coibion Gorodnichenko Kueng Silvia (2017)

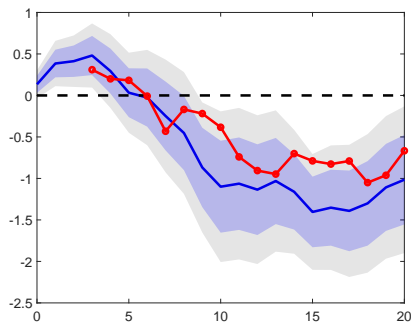
Estimate impulse response to monetary policy shock

$$x_{t+h} = c^{(h)} + \sum_{j=1}^J \alpha_j^{(h)} x_{t-j} + \sum_{k=0}^{K-1} \beta_k^{(h)} e_{t-k}^{MP} + \varepsilon_{t+h}$$

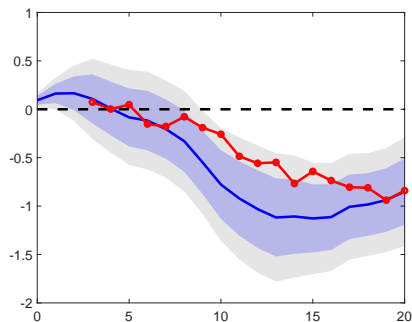
- ▶ $x_t \in \{\pi_t, \pi_{t+4}^e\}$ measure (expected) inflation, based on CPI (Michigan survey) and PPI (SPF)
- ▶ e_{t-k}^{MP} is narrative shock measure due to Romer and Romer (update by Coibion et al)
- ▶ Sample: 1970Q–2008Q4, set $J = K = 4$

Response to monetary policy shock: π_{t+h} vs π_{t+4+h}^e

CPI: hh Michigan



PPI: SPF



- ▶ Expectations surprisingly well on track
- ▶ hh not any worse than professional forecasters

In sum . . .

Fascinating and compelling new evidence at household level

- ▶ Average households poorly informed about monetary policy
- ▶ Certainly much less than standard theory has it

But implications less obvious than what authors suggest

- ▶ Because unclear whether info treatment maps into actions
- ▶ And by and large expectation not completely off track along time-series dimension