Central Bank Communication with Non-Experts:

Results from an Experiment

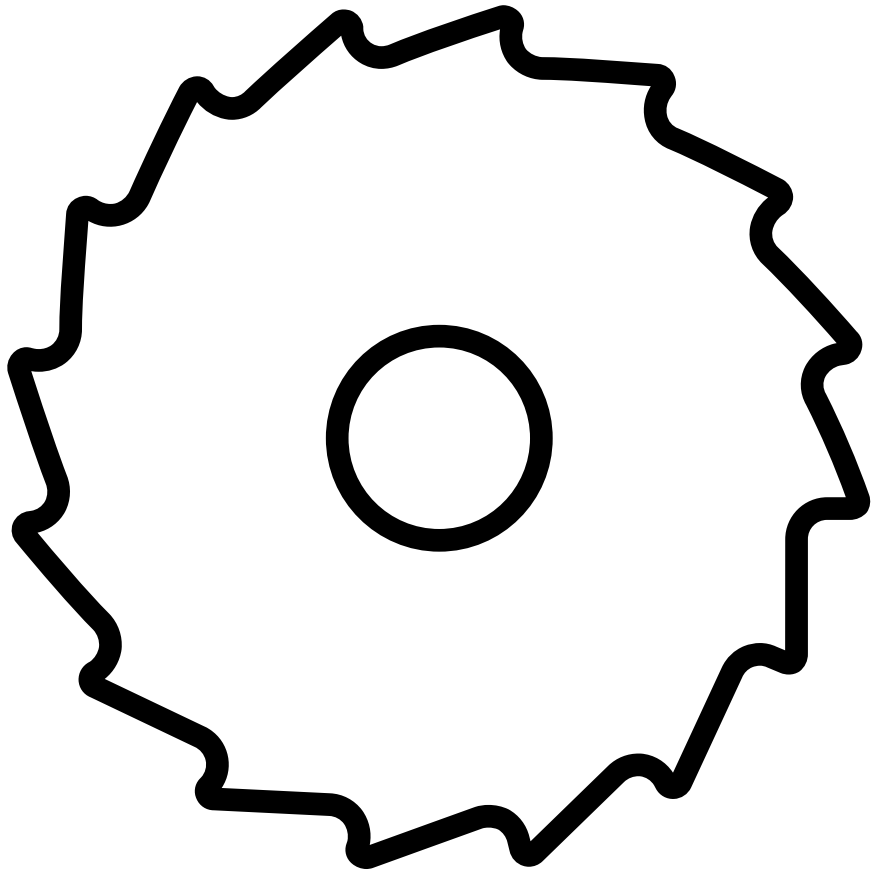
ALEXANDER JUNG (ECB/DGMP/ MAY DIVISION)

FRANCESCO MONGELLI (GOETHE UNIVERSITY, FRANKFURT AM MAIN)

"Within our mandate, the ECB is ready to do whatever it takes to preserve the euro. And believe me, it will be enough."

(Mario Draghi, 26 July 2012, at the Global Investment Conference in London)

Central bank communication has profound effects on public expectations.



Aim of the presentation

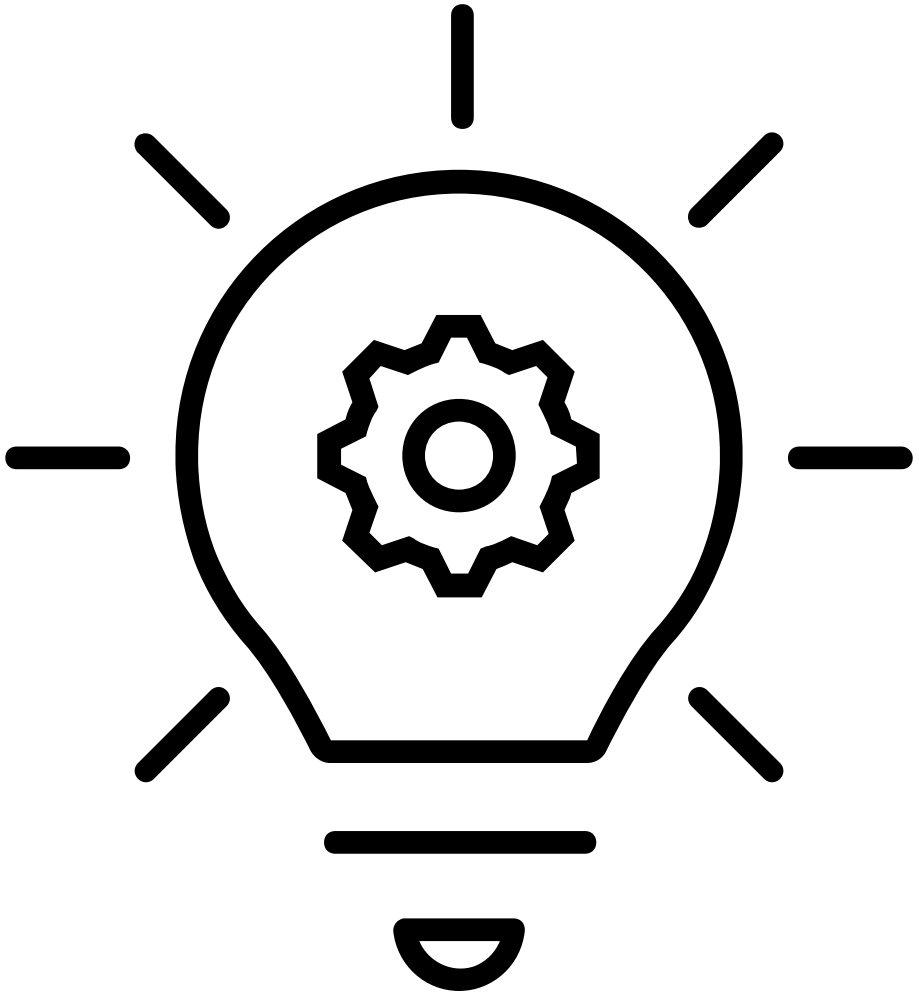
- **Why** a field experiment
- **How** communication anchors inflation expectations
- **What** is the role of knowledge and trust

What does the literature say?

1. **Public inflation expectations are not anchored**
   Media are the key source for non-experts to learn about monetary policy, but households may not pay attention to those news
   Binder (2017), Gardt et et al. (2021), Sims (2003), Coibion et al. (2020), Maćkowiak et al. (2023), Coibion and Gorodnichenko (2025)

2. **Financial literacy is still low**
   Households have limited knowledge of how monetary policy affects prices
   Lusardi and Mitchell (2011, 2014) Burke and Manz (2014), McCowage and Dwyer (2022)

3. **Trust in institutions has declined**
   Households need to trust the messenger to align medium-term inflation expectations with policy goals
   Christelis et al. (2020), Dreher (2024), Eickmeier and Petersen (2024), Ehrmann (2025), Wabitsch (2024)



Knowledge gap

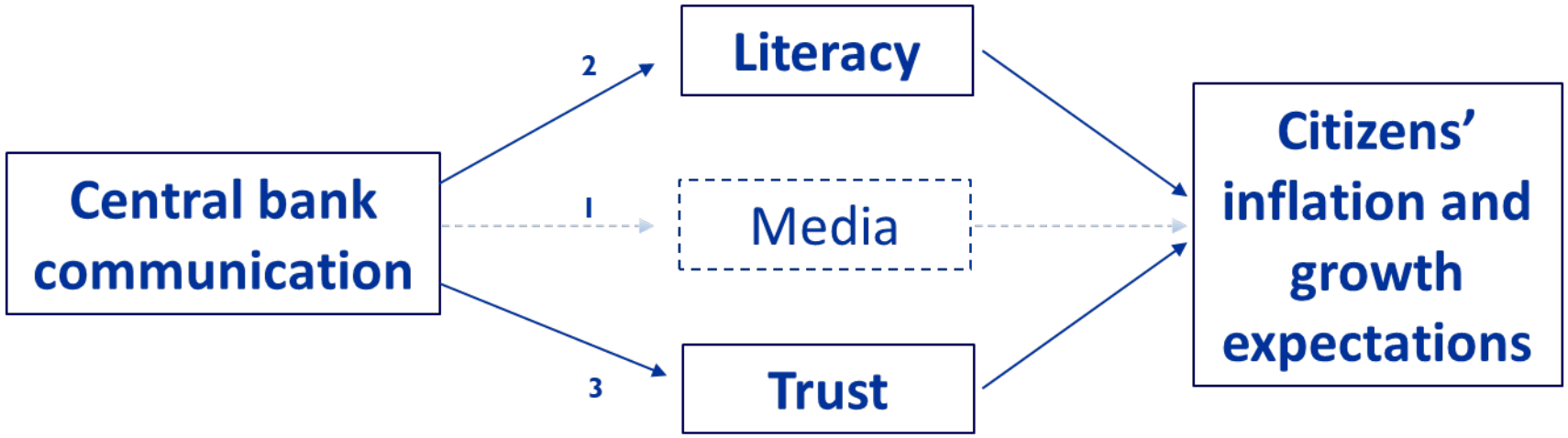
- Empirical literature has shown that central bank communications based on simple messages are more effective for the management of public expectations.

However, not much is known about:

- the exact mechanisms through which they influence expectations of non-experts, and

- the extent to which the impact depends on monetary literacy and trust-building strategies

Key channels

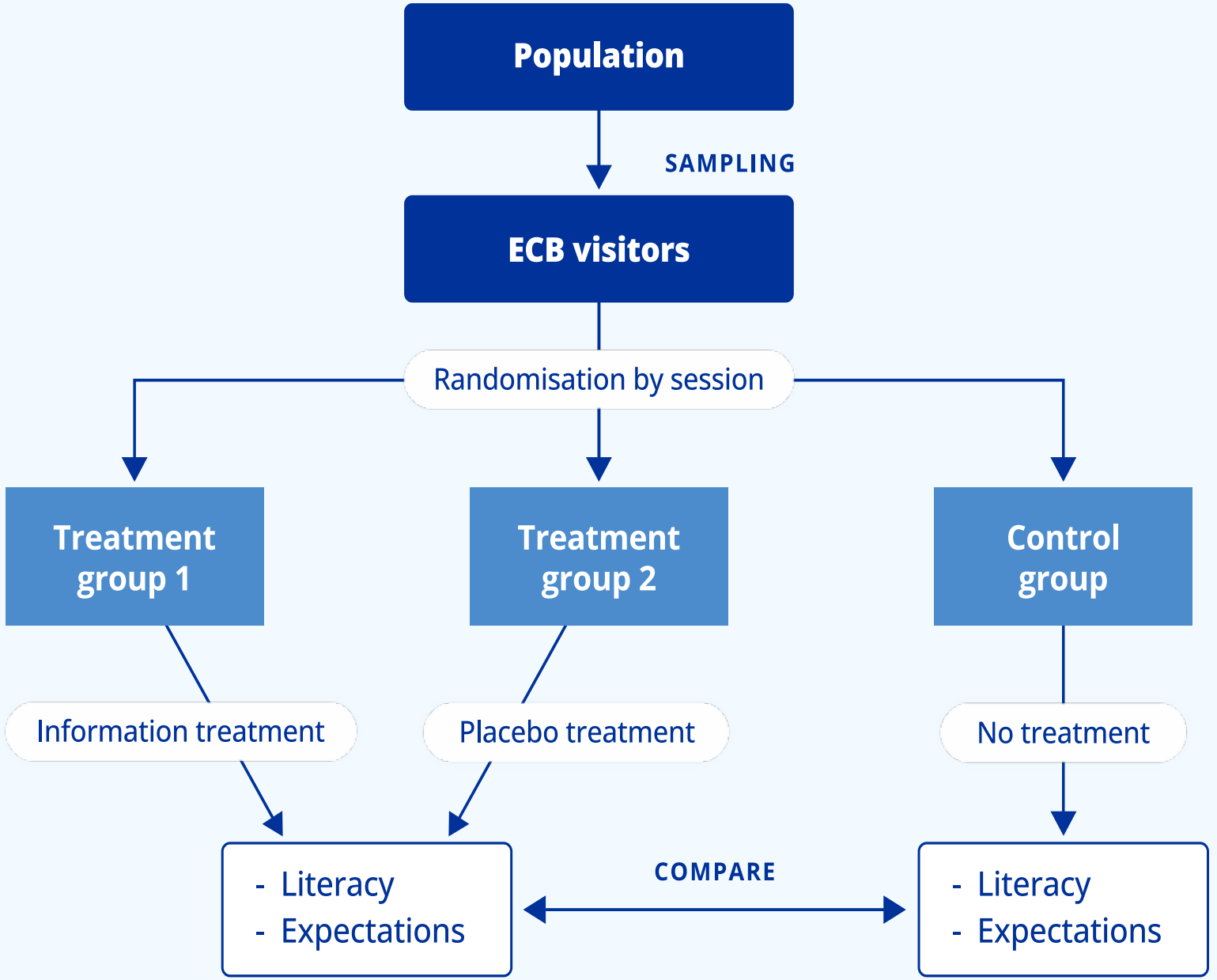


The field experiment: an overview

Test phase: Dec. 2022 – May 2025

Sample: 5,000 ECB visitors

Notes: The figure schematically illustrates the sampling process and the different treatment ECB visitor groups received during the experiment. Average treatment effects were computed for three outcome variables - monetary literacy, inflation, and growth expectations - by comparing the outcomes for participants receiving treatment with those for participants receiving no treatment.



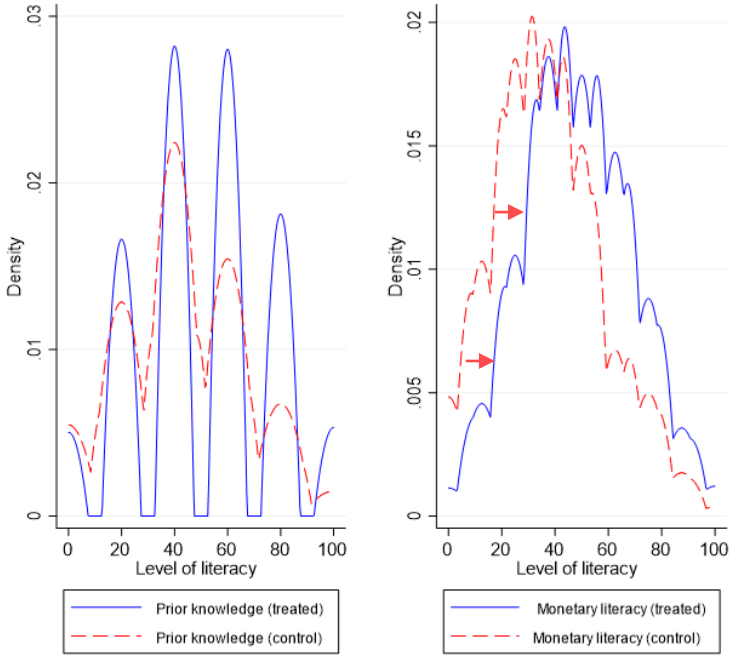
Visitor Survey Evidence

1. Participants learn from expert presentations

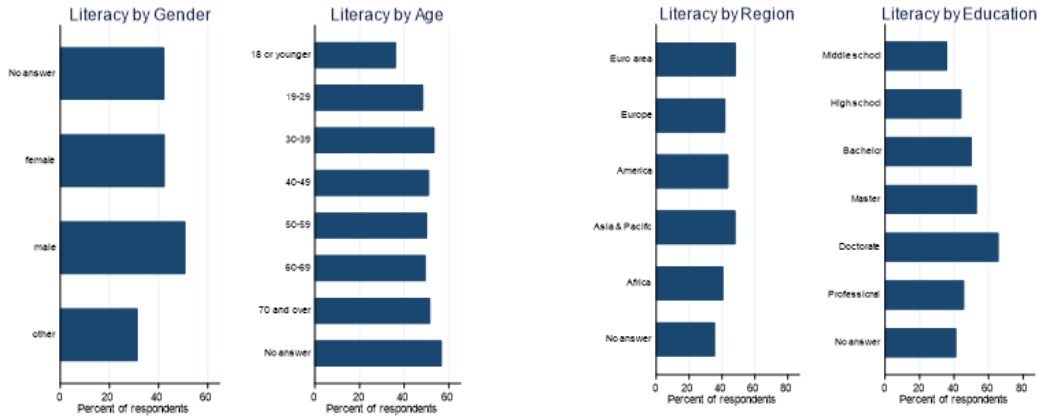
2. Demographics matter

Key results from the literacy survey

Monetary policy knowledge: treated versus control group



Monetary policy knowledge across demographics



Method

Average Treatment Effects (ATE) with regression adjustment (GMM) (Wooldridge, 2010)

$$y_i = \alpha \ + \sum_{j=1}^{2} \boldsymbol{\beta}_j \ Treat_{ji} + \gamma \ X_i + \varepsilon_i \ ,$$

where i denotes the individual participant and j the different treatments (1: Information treatment; 2: Placebo treatment).

Outcome variable (y_i): Monetary literacy, Inflation expectations or Growth expectations

Independent variable ($Treat_{ji}$): Dummy variables that take the value one if an individual i received treatment and the value 0 if an individual received no treatment

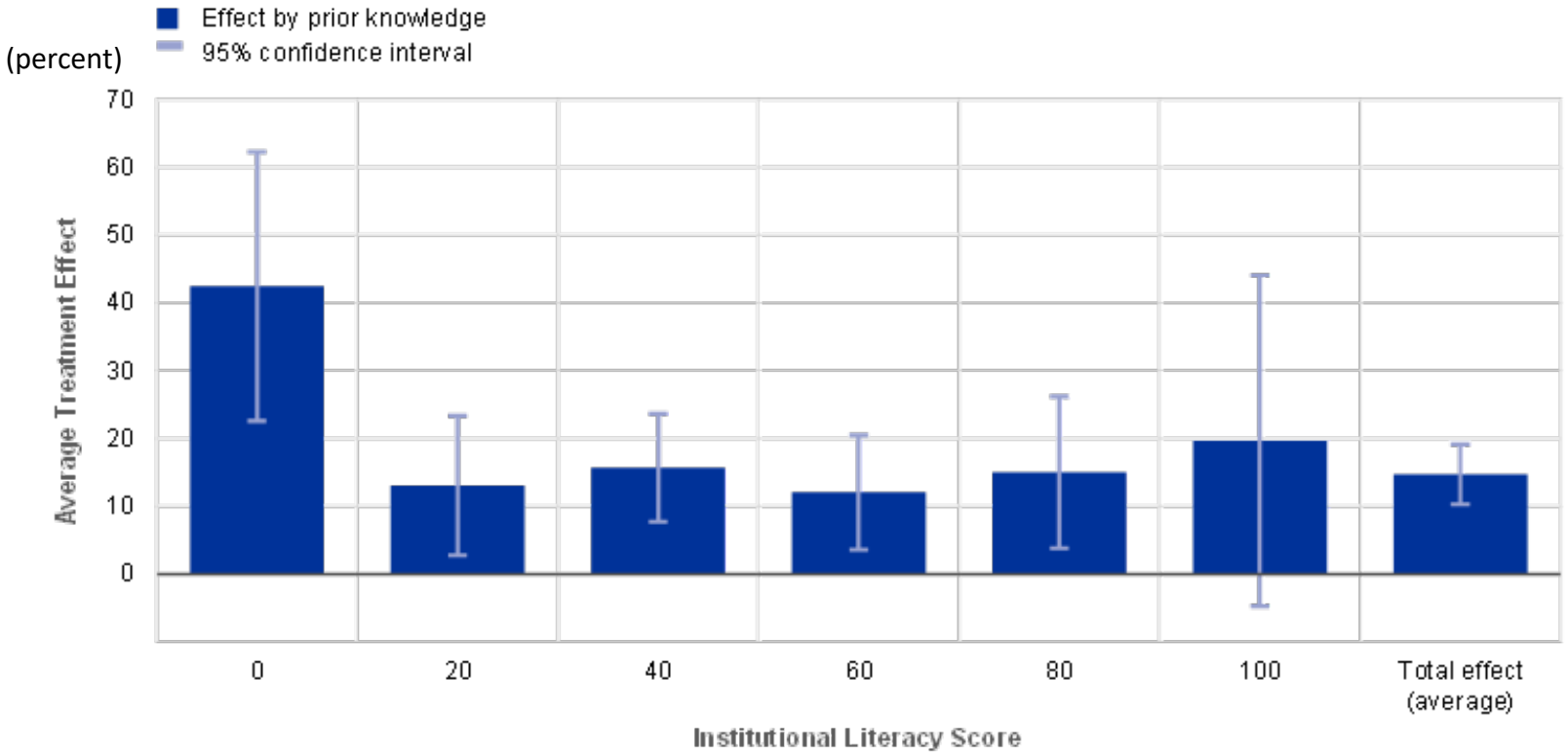
Controls (X_i): Individual demographics, inflation and growth perceptions, prior knowledge

Constant (α): Outcome when no treatments are applied

The knowledge channel

Notes: The figure shows the breakdown of average treatment effects (ATE) for the total population and subgroups with different prior knowledge of the ECB's monetary policy, notably the treatment group relative to the control group. ATE estimates, with regression adjustment, include controls for individual demographics such as age, gender, origin, and education, for individual inflation and economic growth perceptions, and for prior knowledge.

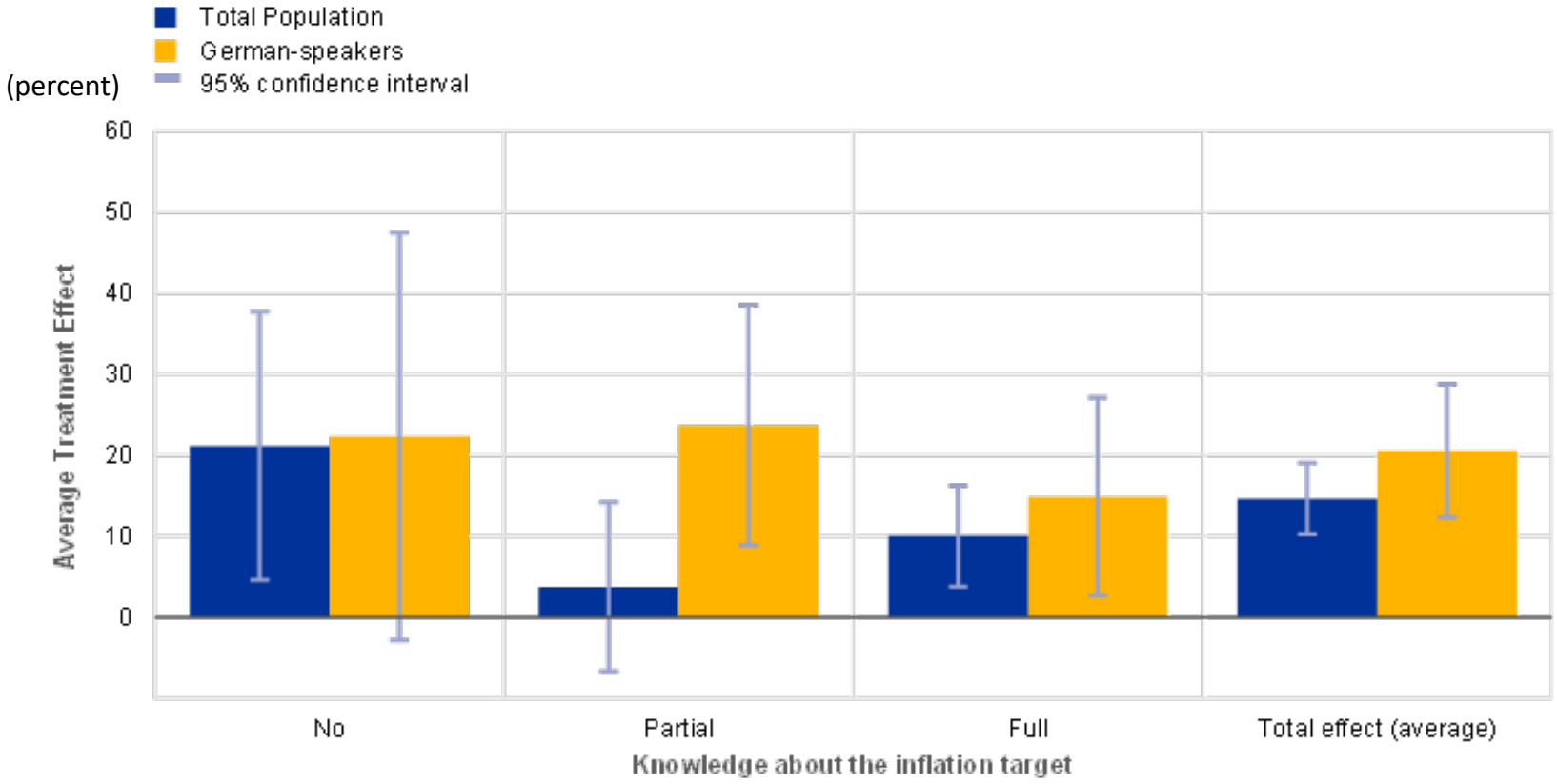
Monetary policy knowledge and inflation expectations



Knowledge about the inflation target and trust-building strategies

Notes: The figure shows the breakdown of average treatment effects (ATE) for the total population (blue bars) and the German population (yellow bars), notably the treatment group relative to the control group by knowledge about the ECB's inflation target. ATE estimates, with regression adjustment, include controls for individual demographics such as age, gender, origin, and education, and for individual inflation and economic growth perceptions.

Knowledge about the inflation target and inflation expectations



Robustness checks

1. Propensity score matching and IPWRA (Rosenbaum and Rubin, 1983; Imbens and Wooldridge, 2009)
2. Comparison of ATEs with Placebo group
3. Alternative outcome variable: Growth expectations
4. Stratification: Monetary policy vs. Institutional framework presentations
5. Additional Controls for Group and Speaker Fixed Effects

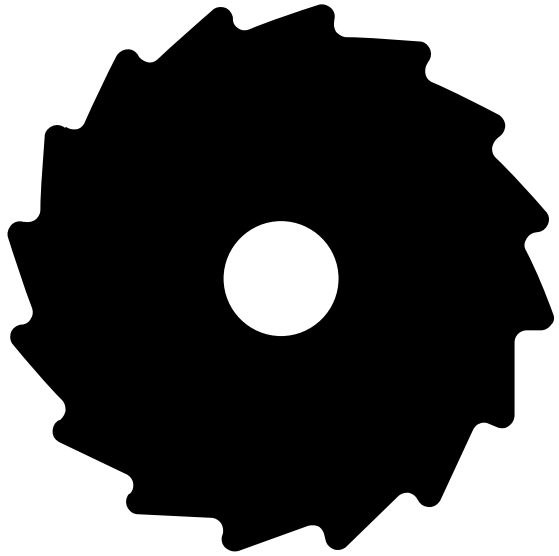
Limitations of the field experiment

1. **External validity**
   Sample primarily consists of younger, financially educated individuals
   Participants had on average higher monetary policy knowledge than public

2. **Persistence of treatment effects**
   Findings capture short-term impacts not persistence of treatment effects
   Repetition of treatments necessary in real-world context (Draeger and Nghiem, 2023)

3. **No explicit test of trust levels**
   Findings focus on trust-building communication strategies
   Questions on trust in central banks could be added in future experiments

Conclusion



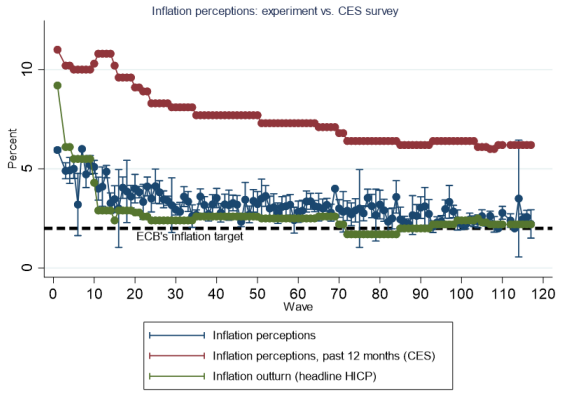
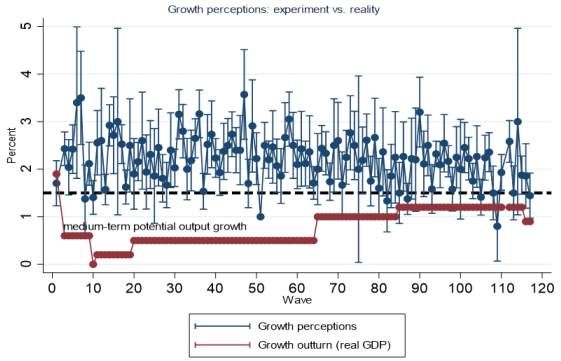
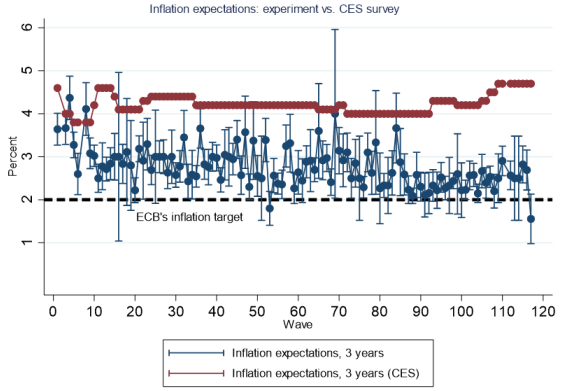
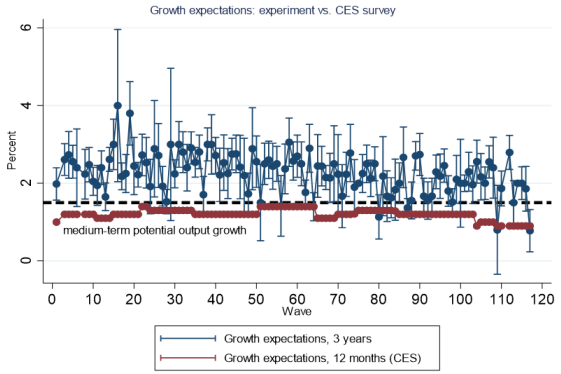
1. Central bank communication with non-experts shapes their medium-term inflation expectations
2. Knowledge and trust-building strategies improve the anchoring of non-experts' inflation expectations
3. Knowledge about the ECB's inflation target was crucial for anchoring inflation expectations
4. Addressing citizens in their native language amplified the effects on inflation expectations

Thank you for your attention

Descriptive statistics by group

Variables	(1) Total population	(2) Treatment group	(3) Control group	(4) Placebo group	(5) Balance tests
Total observations	2,432	1,067	1,118	247	
Of which: German language	798	307	446	45	
Individual demographics (%)					
Female	41.9	38.9	46.3	34.4	
Male	56.5	59.6	51.7	64.4	
Euro area	71.4	73.7	70.1	67.2	
European (other)	9.2	10.5	8.9	4.9	
America	8.1	3.3	11.4	13.8	
Africa	1.4	1.7	0.9	2.0	
Asia & Pacific	9.6	10.4	8.3	12.2	
Age (below 30 years)	77.9	76.1	80.7	73.3	
Age (30 to 59 years)	19.1	19.7	17.4	24.3	
Age (60 years and above)	2.8	3.9	1.7	2.4	
Bachelor	23.3	26.9	17.2	35.8	
Master	24.8	30.6	19.6	24.0	
Doctorate	2.7	3.2	2.1	3.3	
Middle school	13.2	8.6	19.1	5.7	
High school	32.4	28.0	37.8	26.4	
Professional	2.2	1.4	1.7	3.7	
Binary demographics (%)					
"Female"	43.0	40.1	47.3	35.6	0
"Euroarea"	71.3	73.6	70.1	67.2	0.07
"Young"	77.9	76.1	80.7	73.3	0.01
"Higheredu"	50.3	59.4	38.8	62.8	0
Expectations and perceptions (mean in %)					
Inflation perceptions	3.3	3.3	3.4	2.7	0.78
Growth perceptions	2.2	2.1	2.4	2.2	0
Inflation expectations, 3 years	2.8	2.7	3.0	2.6	0
Growth expectations, 3 years	2.3	2.1	2.5	2.2	0
Literacy scores (mean in %)					
Monetary literacy	42.6	48.5	37.3	41.1	0
Institutional literacy	47.1	50.6	43.0	50.9	0
Quantitative literacy	38.1	46.9	30.9	33.0	0

Comparison with CES household survey

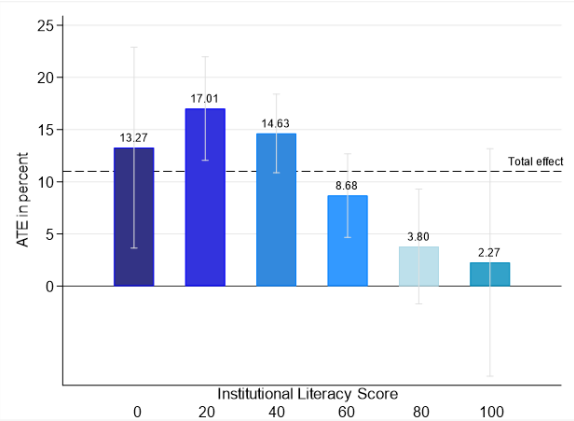
	Inflation	Economic growth
Perceptions		
Expectations		

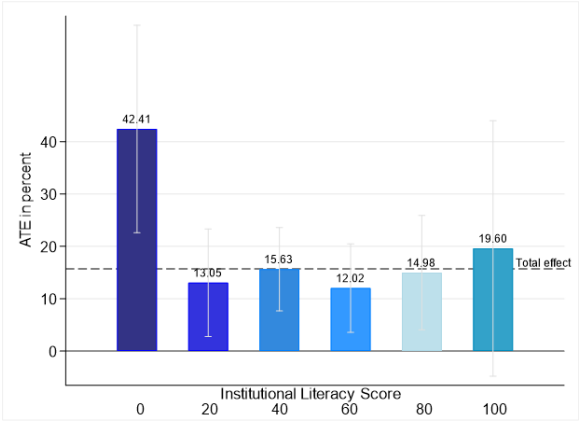
Impact of Communication on …

Quantitative literacy

Inflation expectations

Prior knowledge





Treatment heterogeneity