ECB FORUM ON CENTRAL BANKING

30 June-2 July 2025

Giovanni Trebbi

TILBURG UNIVERSITY

Inflation Narratives and Expectations

EUROPEAN CENTRAL BANK

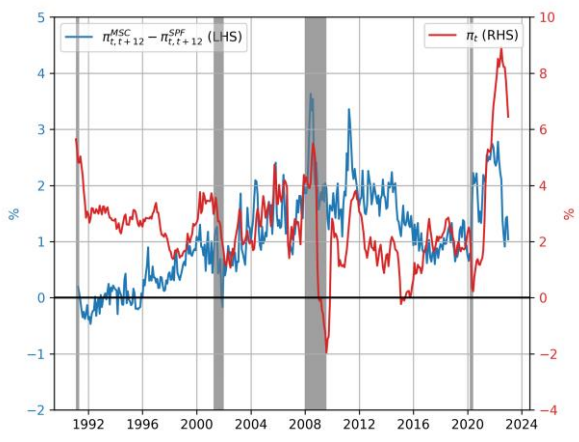
EUROSYSTEM

Inflation Narratives and Expectations

Giovanni Trebbi
g.trebbi@tilburguniversity.edu

Motivation

Inflation Expectation Gap and Inflation



Note: Difference in average one-year ahead inflation expectations from Michigan Survey of Consumers (MSC) and Survey of Professional Forecasters (SPF)

Households' inflation expectation gap with experts ($\pi^{MSC}_{t,t+12} - \pi^{SPF}_{t,t+12}$):

- Positive since the mid90s; and
- Time-series variation not fully explained by fundamentals.

Media channel (Caroll, 2003):

- Assumption: households learn experts' views from newspapers
- Prediction: absolute expectation gap ↓ when inflation press coverage ↑

However, Pfajfar and Santoro (2013) find the opposite using news from NYT and The Post.

Households may not learn experts' views if general newspapers report them less accurately than specialized newspapers, namely, about what causes inflation.

↓

Inflation narrative: story of what causes inflation

- Demand narratives (e.g., *"stimulus checks"*)
- Supply narratives (e.g., *"supply chain disruptions"*)

Households and experts had different narratives in 2022 (Andre, Haaland, Roth, and Wohlfart, 2024) → Newspapers might also have different narratives.

I study the following questions:

1. **Does the absolute expectation gap widen with demand-supply narrative disagreement between newspapers?**
2. **Do demographics moderate this relationship?**

Contribution

Measure demand and supply narratives and narrative disagreement between newspapers

1. Create corpus of inflation articles from general (NYT, USA Today, The Post) and specialized newspapers (WSJ).
2. Identify inflation narratives using **Causality Extraction**.
3. Measure narrative disagreement between general and specialized newspapers.
4. Show the absolute expectation gap widens with narrative disagreement, particularly for older and non-college-educated households.

Why Causality Extraction and not other methods?

- Dictionary methods, topic models, and embedding models capture words' frequency and similarity, but not how they are causally related (e.g., *"Fed officials are wary of recent increases in inflation."*).

Inflation Narratives

Adaptation of CE algorithm from Baele, De Jong, and Trebbi (2023):

- Intra-sentential explicit causality: **cause** and **effect** within inflation sentence via **explicit keywords** (Yang, Han, and Poon, 2022)
- Khoo, Kornfilt, Oddy, and Myaeng (1998): causality explicitly expressed using

1. Causal links: "Inflation rose due to supply chain bottlenecks."
2. Causal verbs: "High government spending is boosting inflation."
3. Conditionals: "If the Fed eases, expect to see higher inflation."

Demand and Supply Narratives

Use dictionary method to classify inflation narratives into the demand and supply narratives by Andre et al. (2024):

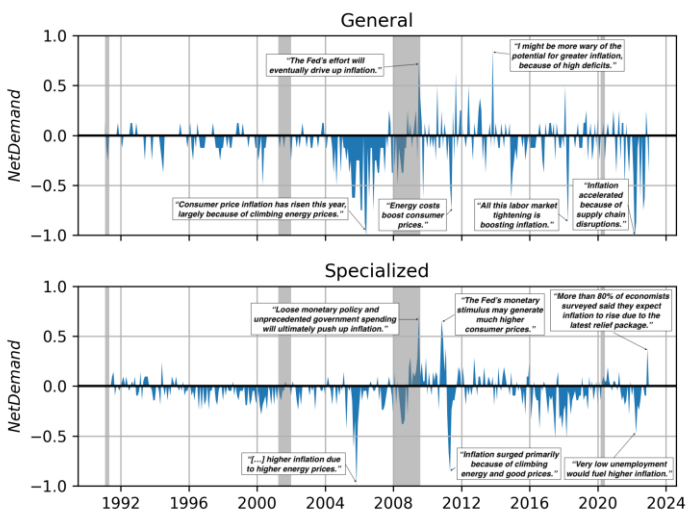
- Demand narratives: "Consumer spending/sentiment" + "Monetary policy" + "Government spending/deficit/debt" (Baker, Bloom, Davis, and Kost, 2021)
- Supply narratives: "Commodities/Energy" + "Labor" (Baker et al., 2021) + "Supply chain" (Ersahin, Giannetti, and Huang, 2024)

Newspaper-level demand-supply narrative measure:

$$NetDemand^n_t = \frac{Demand^n_t - Supply^n_t}{\max_t |Demand^n_t - Supply^n_t|}$$
$$n \in \{G, S\}$$

Narrative disagreement between newspapers:
$NetDemand^n_t = NetDemand^G_t - NetDemand^S_t$

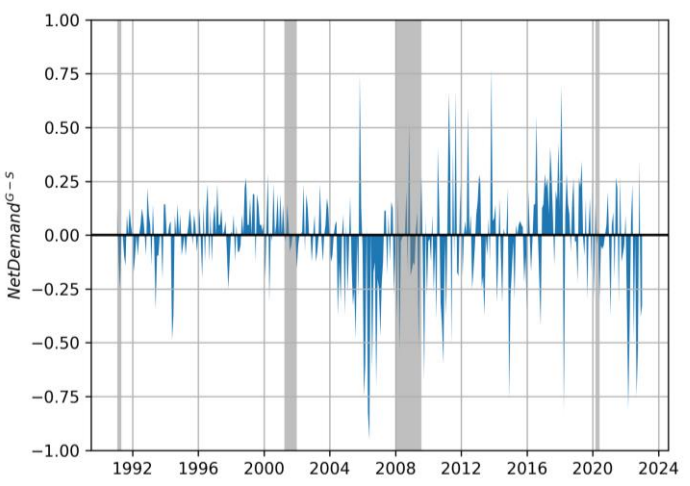
Demand vs. Supply Narratives



Both newspapers publish more supply narratives

- $\overline{NetDemand^G} = -0{,}073^{***}$
- $\overline{NetDemand^S} = -0{,}050^{***}$

Narrative Disagreement



Narrative disagreement goes in both directions ($\overline{NetDemand^{G-S}} = -0{,}023^{*}$).

Results: Expectations Gap

$$GAP_t = \pi^{MSC}_{t,t+12} - \pi^{SPF}_{t,t+12}$$
$$GAP_{i,t} = \pi^{MSC}_{t,t+12} - \pi^{SPF}_{t,t+12}$$

	$\lvert GAP_t \rvert$	$\lvert GAP_{i,t} \rvert$
$\lvert NetDemand^{G-S}_{t-1} \rvert$	0.376*	0.133***
	(0.200)	(0.037)
Inflation controls	Yes	Yes
Demographic controls	Yes	
Inflation news perceptions control	Yes	Yes
Adj-R2	39.81	3.97
N	384	162,453

The absolute expectation gap widens with absolute narrative disagreement.

	$\lvert GAP_{i,t} \rvert$	
$\lvert NetDemand^{G-S}_{t-1} \rvert$	0.077*	0.232***
	(0.043)	(0.053)
$\cdots * Age^{MSC}_{i,t}$	0.005**	
	(0.002)	
$\cdots * College^{MSC}_{i,t}$		-0.245***
		(0.072)
Inflation controls	Yes	Yes
Demographic controls	Yes	
Inflation news perceptions control	Yes	Yes
Adj-R2	3.94	3.99
N	162,453	162,453

The absolute expectation gap widens more with age and less with college education.

Results are robust to controlling for:

- Disagreement about inflationary-disinflationary narratives and realized-future narratives
- Using general newspaper individually
- Disagreement among experts.

Channel: Demand and Supply Views

$$DS^{MSC}_{i,t} = \Delta\pi^{MSC}_{t,t+12} * \Delta u^{MSC}_{t,t+12}$$
$$DS^{SPF}_{i,t} = \Delta\pi^{SPF}_{t,t+12} * \Delta u^{SPF}_{t,t+12}$$

	$DS^{MSC}_{i,t}$	$DS^{SPF}_{i,t}$
$NetDemand^G_{t-1}$	-0.131***	0.405***
	(0.033)	(0.049)
$NetDemand^S_{t-1}$	-0.119***	-0.345***
	(0.044)	(0.044)
Inflation controls	Yes	Yes
Demographic controls	Yes	
Inflation news perceptions control	Yes	
Adj-R2	0.51	8.60
N	161,044	4,614

Households have more predominant demand views when newspapers publish demand narratives, but the opposite occurs for experts.

Policy lesson

Households might not learn about central banks' narratives.