How Do Monetary Policy and Inflation Announcements Affect Firm Expectations in High Inflation?

Okan Akarsu
CBRT & Bilkent University

Emrehan Aktuğ
Sabancı University

May, 2026
Journal of the European Economic Association
Teaching Material

Outline

Outline

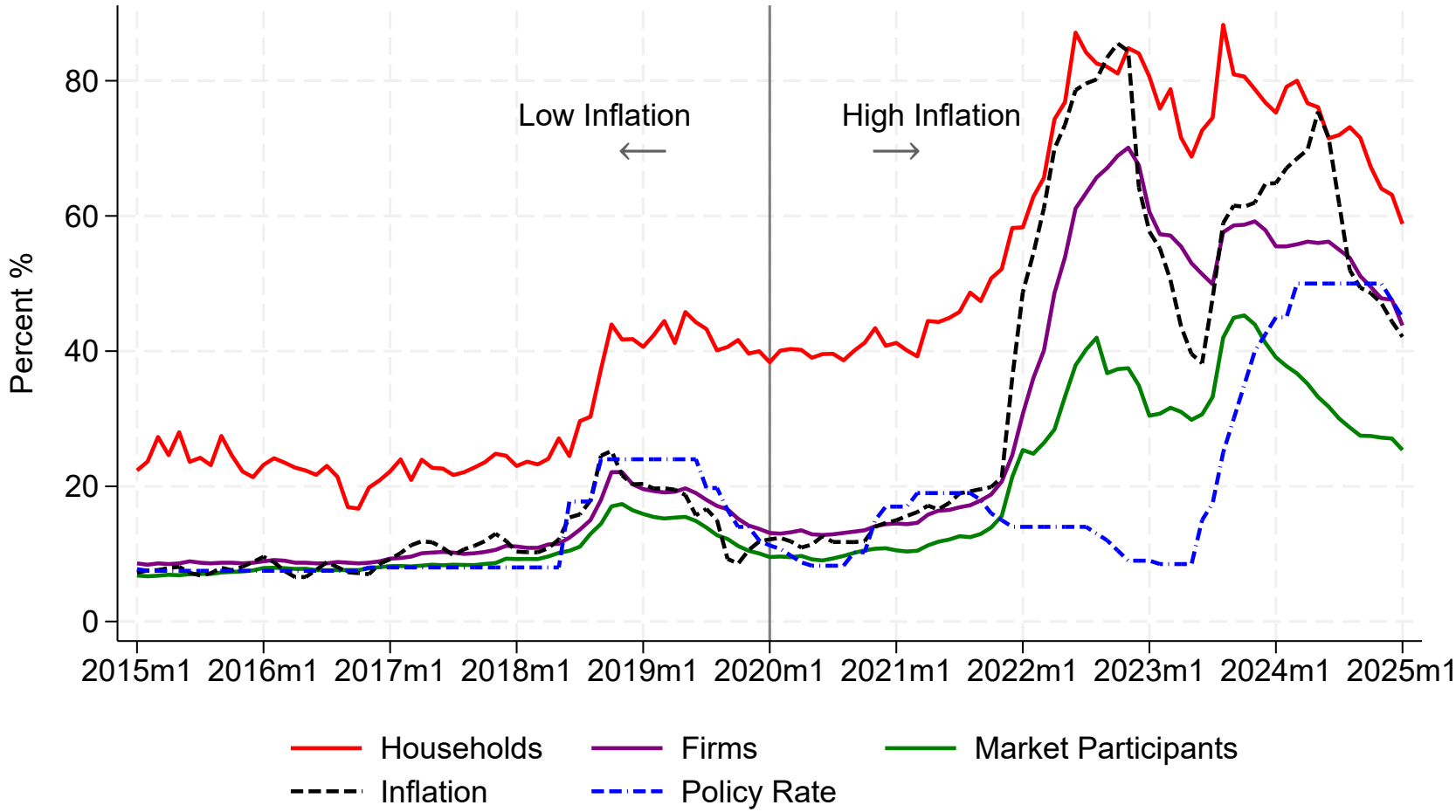
Motivation: The Central Role of Expectations

"The effects of monetary policy depend critically on the public getting the message about what policy will do months or years in the future."

Janet Yellen (2013)

- Expectations are a cornerstone of modern macroeconomics and policy.
  - They influence firms' pricing, investment, and financing decisions.
  - Anchoring expectations is a primary goal of central banks.
- In **low-inflation** environments, firms and households are often **inattentive** to policy announcements (Coibion et al., 2022).
- **What happens in a high and volatile inflation environment?**
  - Does attention increase? Are firms more attentive?
  - How do firms *interpret* policy signals?

The Turkish Context: A Natural Experiment



- The 2015-2024 period in Turkiye provides two distinct regimes:
  - **Pre-2020:** Relatively stable (though elevated) inflation.
  - **Post-2020:** High and volatile inflation, unanchored expectations.

This Paper: Research Questions

1. **How do firms' expectations respond to monetary policy and inflation announcements in a high-inflation economy?**
   - Do firms update their beliefs about inflation and the economic outlook?

2. **Is this response state-dependent?**
   - Does the transmission mechanism change when moving from a stable to a volatile inflation regime?

3. **Do expectations translate into real behavior?**
   - Do firms act on their revised beliefs by adjusting high-frequency financial decisions, like FX management?

Preview of Main Findings

1. **State-Dependent Sign Flip:** The effect of monetary policy on inflation expectations *reverses* with the economic regime.
   - **Stable Period:** Tightening *lowers* inflation expectations (standard demand channel).
   - **Volatile Period:** Tightening *raises* inflation expectations (cost-push/supply-side channel dominates).

2. **Attention Matters:** Firms become more attentive as inflation volatility rises.
   - Inflation surprises consistently increase pessimism, but the magnitude of the response is much larger in the volatile period.

3. **Beliefs drive Behavior:** Expectations translate into immediate financial actions.
   - Inflation surprise $\rightarrow$ Firms **buy FX** (hedging).
   - Policy tightening surprise $\rightarrow$ Firms **sell FX** (appreciation).

Outline

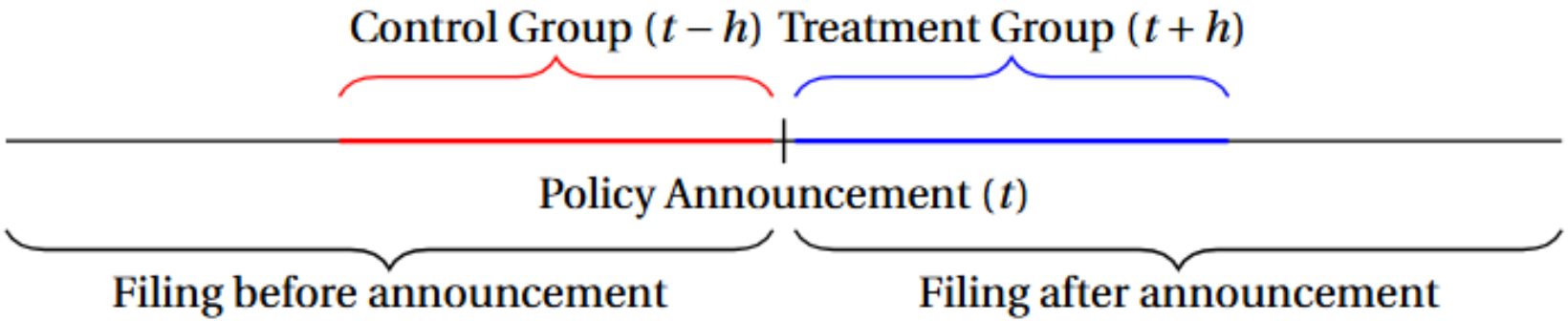
A Unique Combination of Datasets

We link four comprehensive administrative and survey datasets for Turkish firms (2015-2024):

- **CBRT Business Tendency Survey (BTS):**
  - Monthly expectations on inflation, prices, output, and economic outlook.
  - **Crucially, we know the exact date/day each firm responds.**
- **Revenue Administration:**
  - Annual balance sheet and income statement data for all firms.
- **Social Security Institution:**
  - Annual employment data.
- **Daily FX Transactions:**
  - A unique dataset covering all spot FX buy/sell transactions by firms.

Identification: High-Frequency Event Study

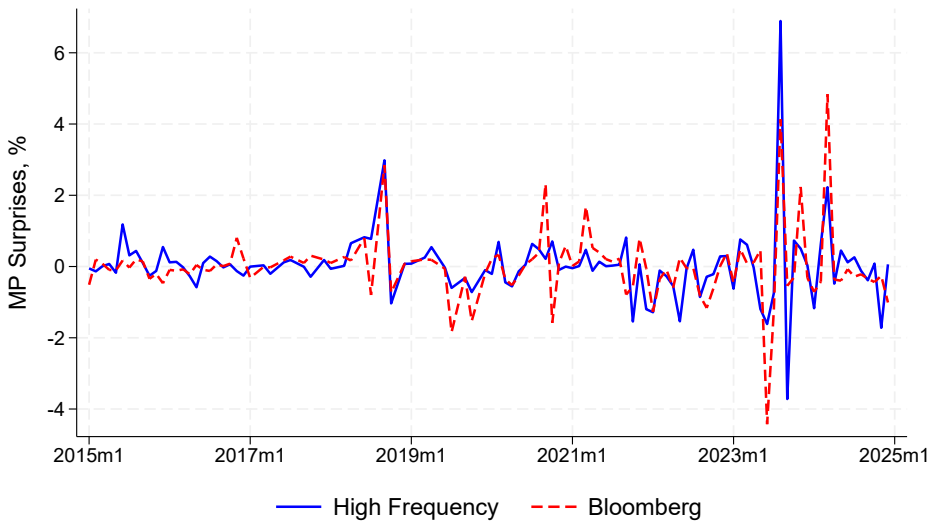
Narrow-window design around MPC and inflation announcements



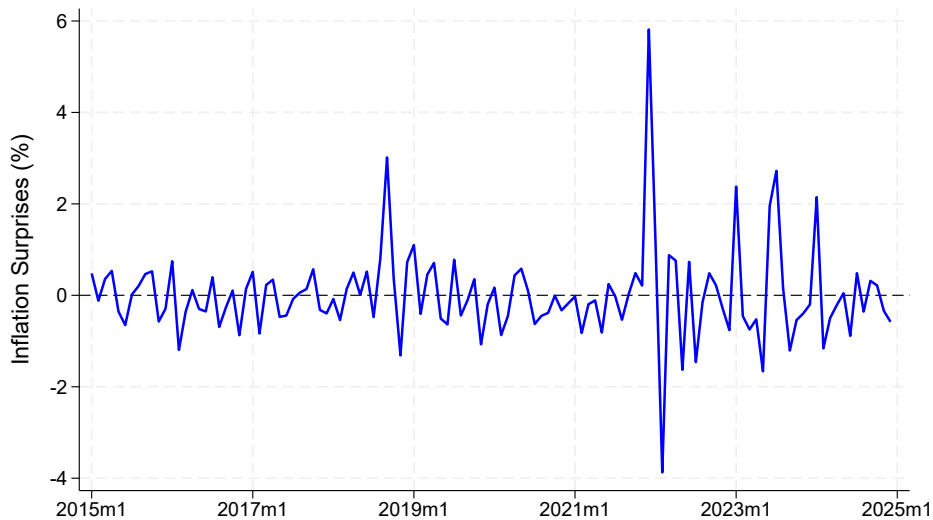
- Compare expectations of firms responding;
  - **just before** announcements (Control Group), and
  - **just after** announcements (Treatment Group).
- **Assumption:** The timing of survey response is random around the announcement.
  - Firms in both groups are balanced on all key observable characteristics
  - Size, leverage, exports, etc.

Measuring Macroeconomic Surprises

- We isolate the *unexpected* component of announcements.
- **Surprise = Actual Announcement - Market Expectation**
  - HF change in short-maturity government bond yields around MPC meetings.
  - HF forecasts from **Bloomberg** surveys, collected just before the announcement.
- Surprises are **orthogonalized** to pre-announcement macro data to remove any predictable component.

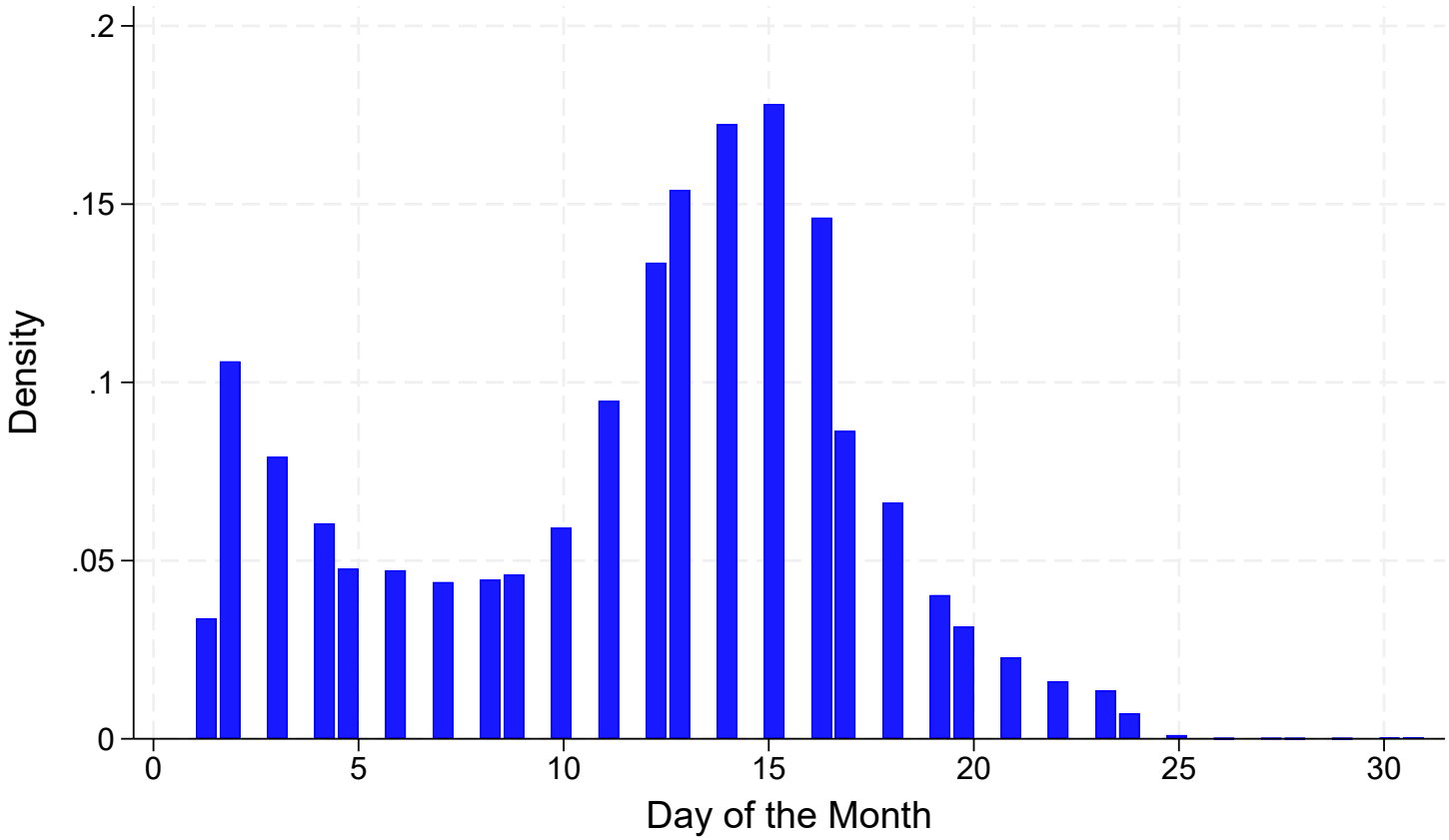


Monetary Policy Surprises



Inflation Surprises

Survey Respondents by Day



Distribution of the Survey Respondents by Day of the Month

Empirical Model

We estimate a difference-in-differences style regression:

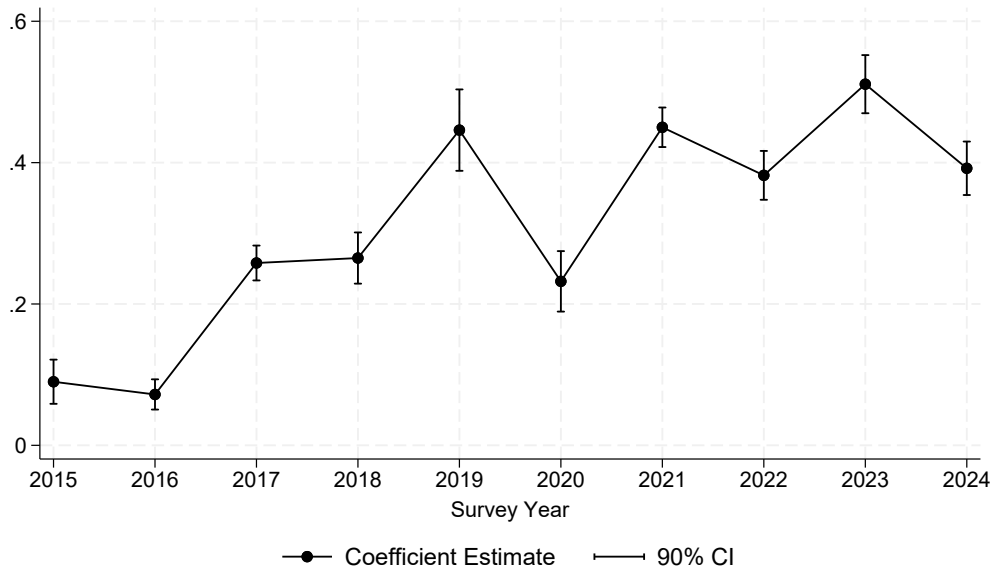
$$y_{it} = \beta_1 \textbf{Post}_{it} + \beta_2 \textbf{Post}_{it} \times \textbf{S}_t + \text{Controls}_{it-1} + \text{FEs} + \varepsilon_{it}$$

- y_{it}: Firm i's expectation (e.g., 12-month CPI inflation).
- $\textbf{Post}_{it}$: Dummy = 1 if firm responds within 5 days *after* the announcement.
- $\textbf{S}_t$: The orthogonalized **Monetary Policy** or **Inflation** surprise.
- β_2 **is our coefficient of interest**: It captures the causal effect of the surprise on expectations.
- Firm, Sector $\times$ Time, and Province $\times$ Time FEs.

Outline

Context: Attention Increases with Volatility

- Test if firms' attention to inflation changes over time.
- Estimate a learning model to measure the weight firms place on new inflation data (a proxy for attention or "Kalman gain").



- **Finding:** As inflation became more volatile post-2020, firms became significantly **more attentive**.
- Motivation $\Rightarrow$ *response* to news should also be stronger in this period.

Result 1: A State-Dependent Response to MP Shocks

	(1) All Sample	(2) Low Inflation	(3) High Inflation
Panel A: CPI Expectations			
MPS × Post	0.263***	-0.062**	0.329***
	(0.088)	(0.025)	(0.101)
Panel B: PPI Expectations			
MPS × Post	0.435***	-0.094**	0.492***
	(0.122)	(0.039)	(0.162)
Panel C: Effect on Volume Expectations			
MPS × Post	-0.014**	-0.008*	-0.016**
	(0.007)	(0.005)	(0.008)
Panel D: Effect on Economic Outlook			
MPS × Post	-0.020***	-0.014**	-0.026***
	(0.006)	(0.007)	(0.010)

- **Volatile Times:** Monetary tightening surprise lead to higher inflation expectations and a worse economic outlook.
- **Stable Times:** Monetary tightening surprise lead to lower inflation expectations and a worse economic outlook.

Result 1: A State-Dependent Response to MP Shocks

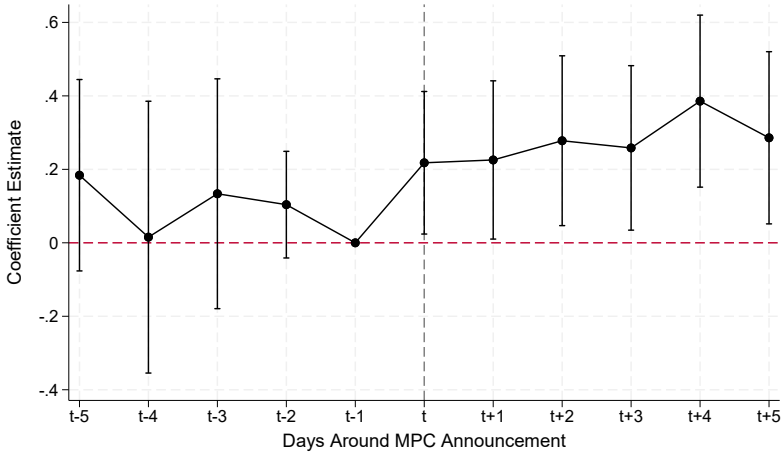
Table: MPC Announcements and Firms' Price Expectations

	(1) All Sample	(2) Low Inflation	(3) High Inflation
Panel A: Price Expectations			
MPS × Post	0.012**	0.007	0.015***
	(0.006)	(0.009)	(0.005)
Panel B: Unit Cost Expectations			
MPS × Post	0.014***	0.006	0.018**
	(0.005)	(0.004)	(0.008)

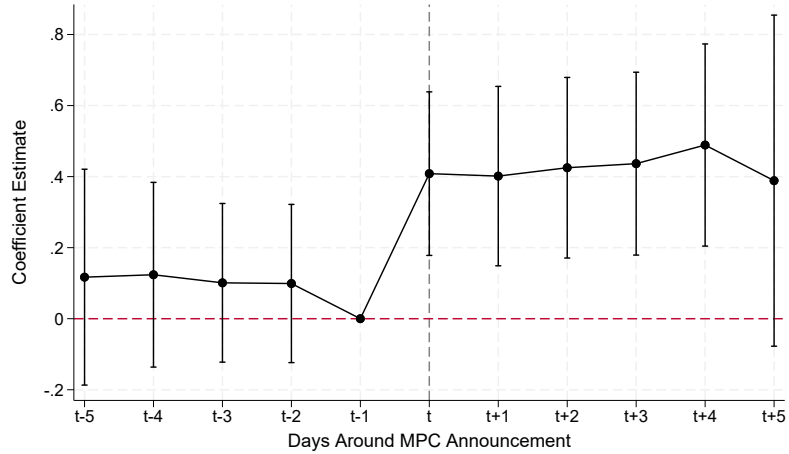
- **Volatile Times:** Monetary tightening surprise lead to higher price and unit cost expectations.
- **Stable Times:** No significant impact.

Event-Study Analysis

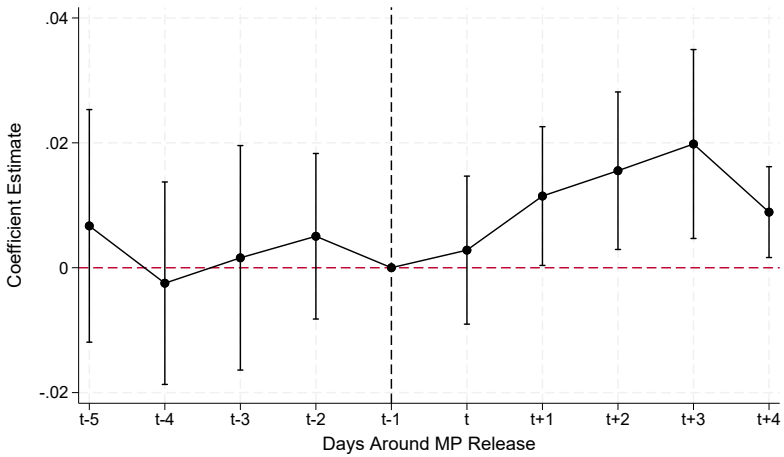
Impact of a 1 p.p. Monetary Policy Tightening Surprise



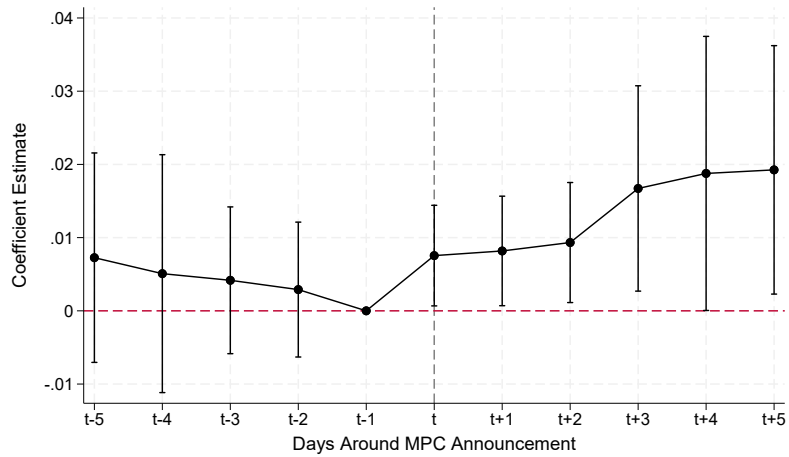
(a) 1-Year Ahead CPI Expectations



(b) 1-Year Ahead PPI Expectations



(c) 3-Months Ahead Price Exp



(d) 3-Months Ahead Unit Cost Exp

Result 2: Size and Sign-Dependent Response to MP Shock

	Size of Shock		Sign of Shock	
	Small Shocks	Large Shocks	Positive Shocks	Negative Shocks
Panel A: CPI Expectations				
MPS × Post	-0.197**	0.311**	0.349**	0.167**
	(0.087)	(0.151)	(0.176)	(0.073)
Panel B: PPI Expectations				
MPS × Post	-0.186**	0.520***	0.460**	0.286**
	(0.070)	(0.209)	(0.212)	(0.115)
Panel C: Economic Outlook				
MPS × Post	-0.015**	-0.034**	-0.028**	-0.019*
	(0.008)	(0.014)	(0.014)	(0.010)

Interpretation: A Tale of Two Transmission Channels

The response to monetary policy flips depending on the regime.

Stable Period (Pre-2020): **Demand Channel Dominates**

- A surprise hike is seen as a credible commitment to fight inflation.
- Firms expect higher rates to cool aggregate demand, reducing their pricing power.
- **Result:** Inflation expectations ***decrease***.

Volatile Period (Post-2020): **Cost Channel Dominates**

- With unanchored expectations, the direct impact on financing costs becomes more salient.
- Firms anticipate passing higher borrowing costs on to consumers.
- **Result:** Inflation expectations ***increase***, while pessimism about the economy deepens. (stagflationary response)

Result 3: Inflation Surprises Reinforce Pessimism

	(1) All Sample	(2) Low Inflation	(3) High Inflation
Panel A: CPI Expectations			
INFSURP × Post	0.234***	0.194***	0.252***
	(0.012)	(0.018)	(0.014)
Panel B: PPI Expectations			
INFSURP × Post	0.344***	0.204***	0.379***
	(0.009)	(0.024)	(0.042)
Panel C: Effect on Volume Expectations			
INFSURP × Post	-0.035***	-0.029**	-0.038***
	(0.006)	(0.015)	(0.010)
Panel D: Effect on Economic Outlook			
INFSURP × Post	-0.023***	-0.015*	-0.025***
	(0.006)	(0.009)	(0.008)

- **Consistent Pattern:** Positive inflation surprises always lead to higher inflation expectations and a worse economic outlook.
- **Amplified Magnitude:** The response is **larger** in the post-2020 volatile period, consistent with firms being more attentive.

Result 3: Inflation Surprises Reinforce Pessimism

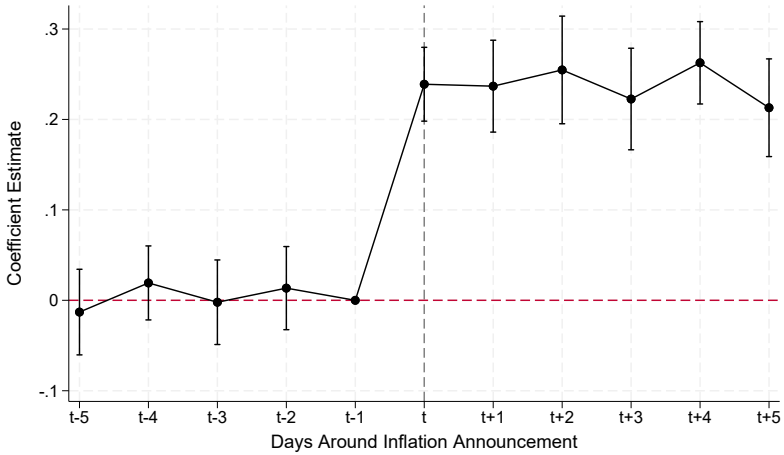
Table: Inflation Announcements and Firms' Price Expectations

	(1) All Sample	(2) Low Inflation	(3) High Inflation
Panel A: Price Expectations			
INFSURP × Post	0.029**	0.015**	0.036**
	(0.014)	(0.006)	(0.019)
Panel B: Unit Cost Expectations			
INFSURP × Post	0.025**	0.019	0.034**
	(0.012)	(0.012)	(0.015)

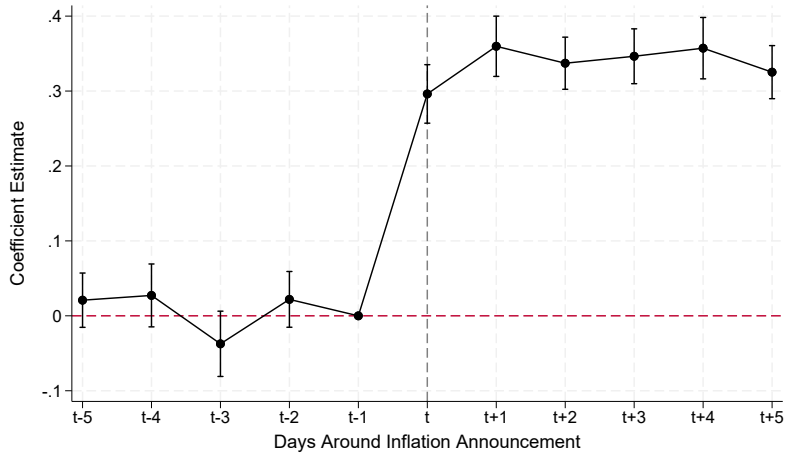
- **Consistent Pattern:** Positive inflation surprises always lead to higher inflation expectations and a worse economic outlook.
- **Amplified Magnitude:** The response is **larger** in the post-2020 volatile period, consistent with firms being more attentive.

Event-Study Analysis

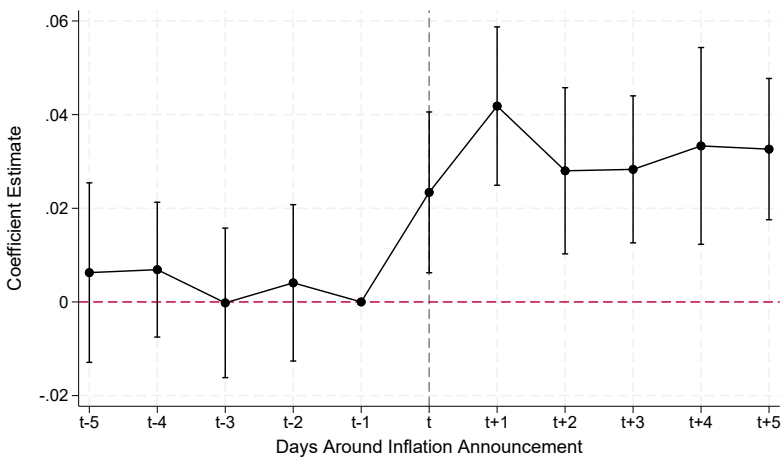
Impact of a 1 p.p. Inflation Surprise



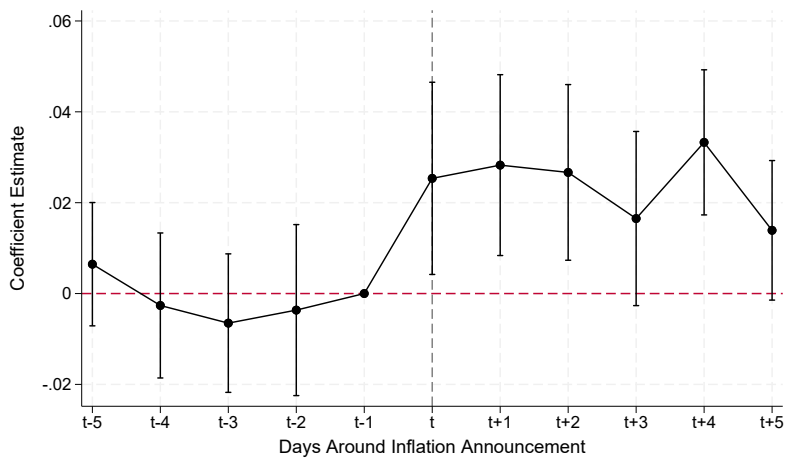
(a) 1-Year Ahead CPI Expectations



(b) 1-Year Ahead PPI Expectations



(c) 3-Months Ahead Price Expec



(d) 3-Months Ahead Unit Cost Expec

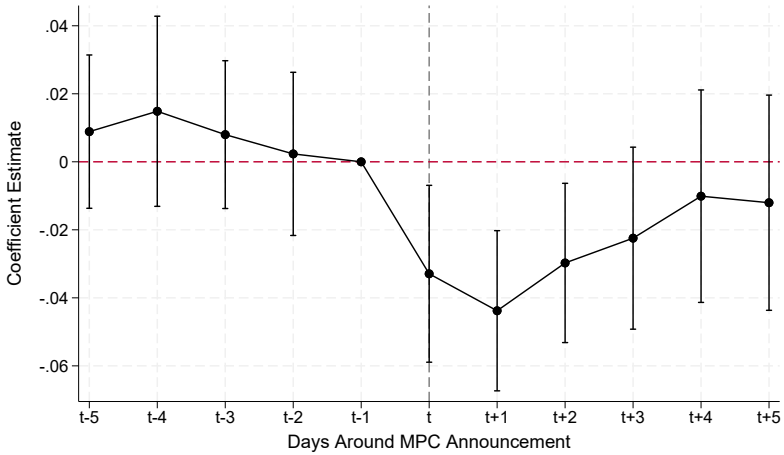
Result 4: Expectations Translate to FX Behavior

Do these updated beliefs trigger immediate actions? Yes. We look at daily net FX purchases within a 5-day window of announcements.

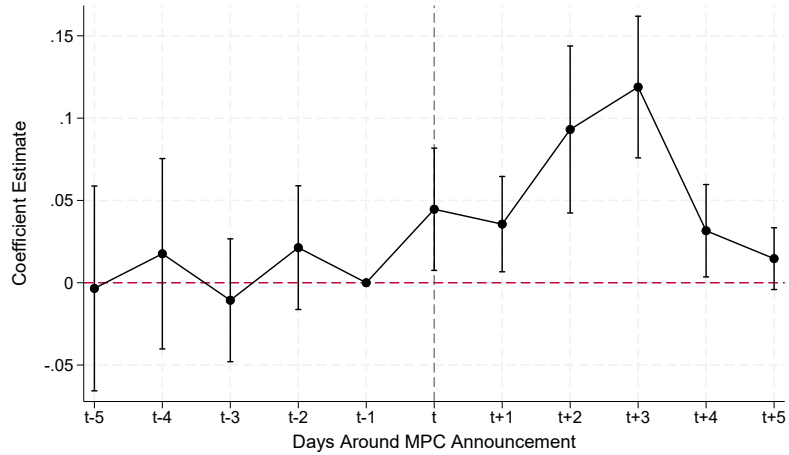
	FX Purchases	FX Sales
Panel A: MP Surprise		
MPS * Post	**-0.011*** **	**+0.036*** **
	(0.002)	(0.002)
Panel B: Inflation Surprise		
INFSURP * Post	**+0.035*** **	**-0.028*** **
	(0.001)	(0.001)

- A positive **MP surprise** $\rightarrow$ Firms **sell FX**, anticipating a stronger local currency (UIP logic).
- A positive **inflation surprise** $\rightarrow$ Firms **buy FX**, hedging against expected currency depreciation.

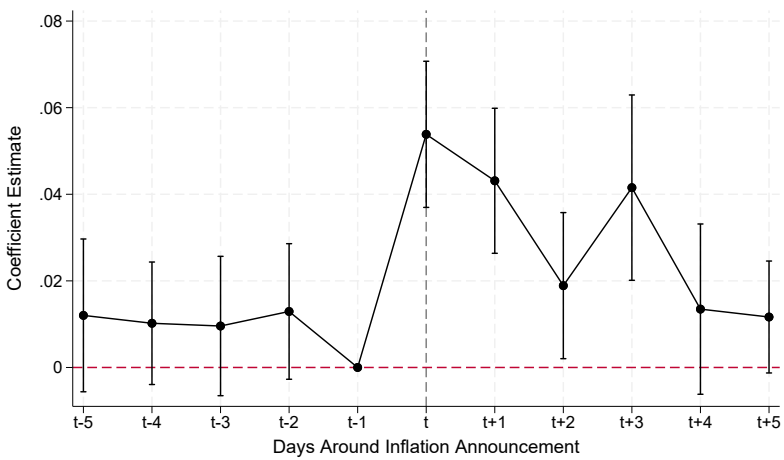
Event-Study Analysis (FX)



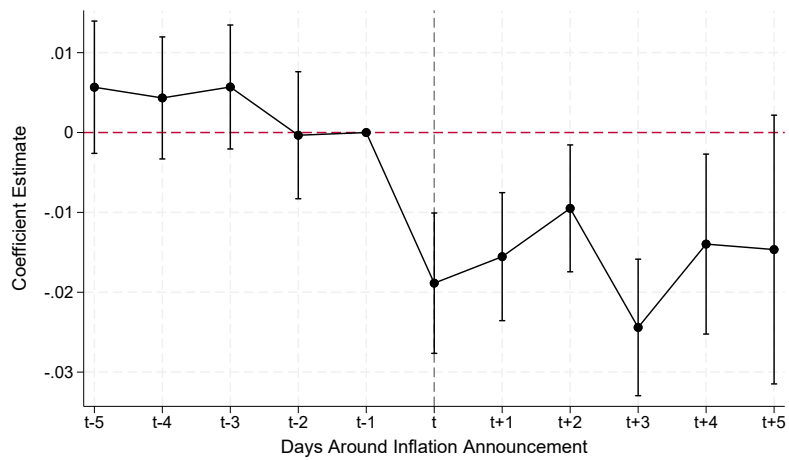
(a) FX Purchases - MPC Event



(b) FX Sales - MPC Event



(c) FX Purchases - Inflation Event



(d) FX Sales - Inflation Event

Outline

Conclusion

We use high-frequency data from Turkiye to study how firms process macroeconomic news in stable vs. volatile inflation regimes.

- **The monetary policy transmission mechanism is not universal; it is state-dependent.**
  - The effect of policy on expectations flips from disinflationary to inflationary when moving from a stable to a volatile environment, as a cost-push channel comes to dominate.
- **Firms are highly attentive in high-inflation settings.**
  - They react strongly to inflation news, and their attention grows with volatility, amplifying the impact of shocks.
- **Expectations have real, immediate consequences.**
  - Firms act on revised beliefs by adjusting their FX positions within days of an announcement.

Policy Implications

- **Communication is not a remedy itself.** The way policy signals are interpreted depends critically on the macroeconomic environment and central bank credibility.

- In high-inflation, low-credibility regimes, central banks must be aware that conventional tightening could have the **unintended consequence of raising inflation expectations** in the short run via the cost channel.

- Restoring a credible, low-inflation anchor is paramount. It not only lowers inflation but fundamentally changes how economic agents interpret policy actions, restoring the effectiveness of the traditional demand channel.

- Monitoring firm-level expectations and high-frequency behavior (like FX flows) can provide real-time insights into the state of the transmission mechanism.

Thank you!

Robustness: Balance of Covariates

Table: Descriptive Statistics: 5 Days Before and After MPC Announcements

	5 days before		5 days after	
	mean	sd	mean	sd
Firm Characteristics				
Net Sales (billion TL)	1.31	8.96	1.22	6.17
Assets (billion TL)	1.23	5.79	1.14	5.01
Number of Employees	667.82	1312.65	669.32	1283.14
Firm Expectations				
CPI Expectations	21.68	20.72	20.81	19.37
PPI Expectations	24.31	22.71	22.60	20.04
Economic Outlook	2.11	0.57	2.09	0.58

- Firms responding before and after announcements are statistically indistinguishable across a wide range of characteristics.
- A formal probit model confirms that response timing is not predictable by firm characteristics.