# Monetary Transmission with Frequent Policy Events

**Carlo Altavilla**

European Central Bank
& CEPR

**Refet S. Gürkaynak**

Bilkent University
& CEPR

**Thilo Kind**

Frankfurt School of
Finance & Management

**Luc Laeven**

European Central Bank,
Tilburg University, CEPR

ChaMP WS1 Workshop
Lisbon, 11 December 2025

The opinions in this presentation are those of the authors and do not necessarily
reflect the views of the European Central Bank or the Eurosystem

# Central banks communicate policy also outside official meetings

❑ **From "Never Explain"**

  ➢ *Alan Greenspan* (1987) "Since I've become a central banker, I've learned to mumble with great incoherence. If I seem unduly clear to you, you must have **misunderstood** what I said."

❑ **.... to Transparency**

  ➢ *Alan Blinder* (2008) "perhaps the best a central bank can do is to **teach the markets** its way of thinking."

  ➢ *Mario Draghi* (2012) "Within our mandate, the ECB is ready to do **whatever it takes** to preserve the euro". And believe me, it will be enough."

❑ **Frequent Policy Events**: Scheduled meetings may not fully capture the impact of monetary policy

# What we do

❑ **Construct a new database**: Euro Area **Extended** Monetary Policy Event-Study Database (EA-**EMPD**)

❑ Assesses the **impact** of policy-related surprises on **financial variables:**

Do rate-setting meetings and policymakers' speeches generate **similar monetary policy surprises?**

❑ Assesses the **transmission** of monetary policy on **real outcomes**:

Does **combining** monetary policy surprises from both meetings and speeches matter?

# What we find

❑ **Construct a new database**: Euro Area **Extended** Monetary Policy Event-Study Database (EA-EMPD)

➢ High-frequency, intraday data on policy meetings and all speeches from Executive Board members

❑ Assesses the **impact** of policy-related surprises on **financial variables:**

Do rate-setting meetings and policymakers' speeches generate **similar monetary policy surprises?**

➢ YES – policymakers' speeches can significantly influence the price of financial assets, mirroring the effects of monetary policy announcements

❑ Assesses the **transmission** of monetary policy on **real outcomes:**

Does **combining** monetary policy surprises from both meetings and speeches matter?

➢ YES – broadening the scope of policy events is essential to understand the overall contribution of monetary policy shocks in explaining real economic fluctuations

C. Altavilla – R.S. Gurkaynak – T. Kind – L. Laeven Monetary Transmission with Frequent Policy Events

# Outline

❑ **Euro area extended monetary policy event-study database: EA-EMPD**

❑ **The impact of monetary policy on financial markets**

  ✓ The footprint of policy events on financial markets

  ✓ Policy-driven changes in asset prices

❑ **The transmission to the real economy**

  ✓ Relevance and exogeneity of monetary surprises

  ✓ Response of and contribution to real economy

# Outline

❑ **Euro area extended monetary policy event-study database: EA-EMPD**


❑ The impact of monetary policy on financial markets

  ✓ The footprint of policy events on financial markets

  ✓ Policy-driven changes in asset prices


❑ The transmission to the real economy

  ✓ Relevance and exogeneity of monetary surprises

  ✓ Response of and contribution to real economy

# Euro Area **<u>Extended</u>** Monetary Policy Event-Study Database (EA-EMPD)

❑ **Overnight Index Swap (OIS)**

    ✓   1-week; 3-month; 6-month; 1- to 10-year; 15-year; 20-year

❑ **Sovereign Bond Yield**

    ✓  Germany: 3-month; 6-month; 1- to 10-year; ; 15-year; 20-year; 30-year
    ✓  France:   2-year; 5-year; 10-year
    ✓  Italy:      2-year; 5-year; 10-year
    ✓  Spain:    2-year; 5-year; 10-year

❑ **Stock Market**

    ✓  STOXX50E index
    ✓  SX7E index (banks)

❑ **Exchange Rate**

    ✓  EURUSD: euro/dollar exchange rate
    ✓  EURGBP: euro/pound exchange rate
    ✓  EURJPY: euro/yen exchange rate

Altavilla et al. (2019) JME

Euro Area Monetary Policy Event-Study Database (EA-MPD)

https://www.ecb.europa.eu/pub/pdf/annex/Dataset_EA-MPD.xlsx

# Euro Area *Extended* Monetary Policy event study Database (EA-EMPD)

**Altavilla C., Gurkaynak R., Kind T., Laeven L. (2025)**
**Monetary Transmission with Frequent Policy Events**

*Definitions and data construction explained in detail in the paper and appendices.*

## Event Windows

*Monetary Event Window - Until June 2022, change in the median quote from the window 13:25-13:35 before the press release to the median quote in the window 15:40-15:50 after the press conference. As of July 20*

*Press Release Window - Until June 2022, change in the median quote from the window 13:25-13:35 before the press release to the median quote in the window 14:00-14:10 after it. As of July 2022, the relevant wind*

*Press Conference Window - Until June 2022, change in the median quote from the window 14:15-14:25 before the press conference to the median quote in the window 15:40-15:50 after it. As of July 2022, the releva*

*Speeches Window - Change in the median quote between the 20–10 minutes pre-event window and the 10–20 minutes post-event window, assuming a 30-minute speech.*

## Legend for the column "Event  type":

*GC_ME: Governing Council: Monetary Event Window*
*GC_PR: Governing Council: Press Release Window*
*GC_PC: Press Conference Window*
*EB: Speech - Excutive Board Member of the European Central Bank*
*P: Speech - President of the European Central Bank*

## Legend for Control Variables:

*ECB_database: 1 if the event comes from the ECB publicly available dataset, 0 otherwise.*
*Non_regular_trading_day: 1 if the event occurs on a non regular trading day, 0 otherwise.*
*Outside_regular_trading_hours: 1 if the time window of the event is inside regular trading hours ( i.e 9:00 - 18:00 CEST ), 0 otherwise*
*Days_until_next_GC: Number of days from the event date to the next Governing Council meeting (0 for GC events)*

## Assets in Columns:

*OIS_1W: 1 week OIS rate change in the relevant window in basis points.*
*OIS_1M: 1 month OIS rate change in the relevant window in basis points.*
*OIS_2M: 2 months OIS rate change in the relevant window in basis points.*
*OIS_3M: 3 months OIS rate change in the relevant window in basis points.*
*OIS_6M: 6 months OIS rate change in the relevant window in basis points.*
*OIS_1Y: 1 year OIS rate change in the relevant window in basis points.*

---

Notes | EA-EMPD | +

| Date_time | Event_type | Speaker | Title | ECB_database | Non_regular_trading_day | Outside_regular_trading_hour | Days_until_next_GC | OIS_1W | OIS_1M | OIS_2M | OIS_3M | OIS_6M | OIS_1Y | OIS_2Y | OIS_3Y | OIS_4Y | OIS_5Y |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1999-01-07 13:45:00 | GC_ME | Willem F. | Monetary | 1 | 0 | 0 | 0 | | 0 | | | -0.5 | 0 | | | | |
| 1999-01-07 13:45:00 | GC_PR | Willem F. | Press Rele | 1 | 0 | 0 | 0 | | 0 | | | -0.5 | 0 | | | | |
| 1999-01-07 14:30:00 | GC_PC | Willem F. | Press Con | 1 | 0 | 0 | 0 | | 0 | | | | | | | | |
| 1999-01-08 09:00:00 | EB | Otmar Issi | ECB's Issi | 0 | 0 | 1 | 13 | | 0 | | -1 | 0 | -1.25 | | | | |
| 1999-01-14 13:15:00 | EB | Tommaso | ECB's Pad | 0 | 0 | 0 | 7 | | -0.5 | | 0 | 0 | -0.5 | | | | |
| 1999-01-14 18:15:00 | EB | Otmar Issi | ECB's Issi | 0 | 0 | 1 | 7 | | | | | | | | | | |
| 1999-01-18 15:00:00 | P | Willem F. | Hearing at | 1 | 0 | 0 | 3 | 0 | | -1 | -1 | -1 | -1 | | | | |
| 1999-01-19 18:00:00 | P | Willem F. | ECB's Duis | 0 | 0 | 1 | 2 | | | | | | | | | | |
| 1999-01-21 13:45:00 | GC_ME | Willem F. | Monetary | 1 | 0 | 0 | 0 | | | 0 | 0 | 0 | -1 | | | | |
| 1999-01-21 13:45:00 | GC_PR | Willem F. | Press Rele | 1 | 0 | 0 | 0 | | | 0 | | -0.5 | -0.5 | | | | |
| 1999-01-21 14:30:00 | GC_PC | Willem F. | Press Con | 1 | 0 | 0 | 0 | | | 0 | 0 | 0 | 0 | | | | |
| 1999-01-25 19:00:00 | P | Willem F. | Monetary | 1 | 0 | 1 | 24 | | | | | -0.5 | | | | | |
| 1999-01-28 19:00:00 | EB | Otmar Issi | The euro - | 1 | 0 | 1 | 21 | | | | | | | | | | |
| 1999-01-30 11:45:00 | EB | Sirkka Här | ECB's Hae | 0 | 1 | 0 | 19 | | | | | | | | | | |
| 1999-02-01 20:00:00 | EB | Willem F. | The euro: | 1 | 0 | 1 | 17 | | | | | | | | | | |
| 1999-02-04 18:30:00 | P | Willem F. | ECB's Duis | 0 | 0 | 1 | 14 | | | | | | | | | | |
| 1999-02-05 09:00:00 | EB | Sirkka Här | The role o | 1 | 0 | 1 | 13 | -1.25 | 0 | -2 | 18 | 0 | 0 | | | | |
| 1999-02-08 15:00:00 | EB | Tommaso | ECB's Pad | 0 | 0 | 0 | 10 | | | | -0.5 | -0.5 | -0.5 | | | | |
| 1999-02-09 18:00:00 | P | Willem F. | The single | 1 | 0 | 1 | 9 | | | | | | 1 | | | | |
| 1999-02-12 08:30:00 | EB | Christian | ECB Vice- | 0 | 0 | 1 | 6 | | | | | | | | | | |
| 1999-02-18 13:45:00 | GC_ME | Willem F. | Monetary | 1 | 0 | 0 | 0 | | -0.5 | | 0.5 | 0 | 0 | | | | |
| 1999-02-18 13:45:00 | GC_PR | Willem F. | Press Rele | 1 | 0 | 0 | 0 | | | | | 0 | -0.5 | | | | |
| 1999-02-18 14:30:00 | GC_PC | Willem F. | Press Con | 1 | 0 | 0 | 0 | | | | 0.5 | 0.5 | 0 | | | | |
| 1999-02-22 19:00:00 | P | Willem F. | Tietmeyer | 0 | 0 | 1 | 10 | | | | | | | | | | |
| 1999-02-24 02:00:00 | EB | Christian | ECB's Noy | 0 | 0 | 1 | 8 | | | | | | | | | | |
| 1999-02-24 18:30:00 | EB | Tommaso | EMU and | 1 | 0 | 1 | 8 | | | | | | | | | | |
| 1999-02-25 05:20:00 | EB | Christian | ECB's Noy | 0 | 0 | 1 | 7 | | | | | | | | | | |
| 1999-02-25 14:00:00 | EB | Sirkka Här | European | 1 | 0 | 0 | 7 | | 2.5 | 0.5 | 1 | 1.5 | 0 | | | | |
| 1999-03-04 13:45:00 | GC_ME | Willem F. | Monetary | 1 | 0 | 0 | 0 | | | | 0 | 0 | 0 | | | | |
| 1999-03-04 13:45:00 | GC_PR | Willem F. | Press Rele | 1 | 0 | 0 | 0 | | | | -0.5 | 0 | 0 | | | | |
| 1999-03-04 14:30:00 | GC_PC | Willem F. | Press Con | 1 | 0 | 0 | 0 | -1 | | -1 | -0.5 | 0 | 0 | | | | |
| 1999-03-08 18:15:00 | EB | Christian | First exper | 1 | 0 | 1 | 10 | | | | | | 0.5 | | | | |
| 1999-03-09 04:40:00 | EB | Tommaso | The euro: | 1 | 0 | 1 | 9 | | | | | | | | | | |
| 1999-03-09 08:30:00 | EB | Sirkka Här | ECB's Hae | 0 | 0 | 1 | 9 | | | | | | | | | | |
| 1999-03-10 02:00:00 | EB | Tommaso | ECB's Pad | 0 | 0 | 1 | 8 | | | | | | | | | | |
| 1999-03-10 18:00:00 | EB | Eugenio D | The euro a | 1 | 0 | 1 | 8 | | | | | 0 | | | | | |

Sheet tabs: Notes | **EA-EMPD**

# Focusing solely on scheduled meetings overlooks much of the policy communication
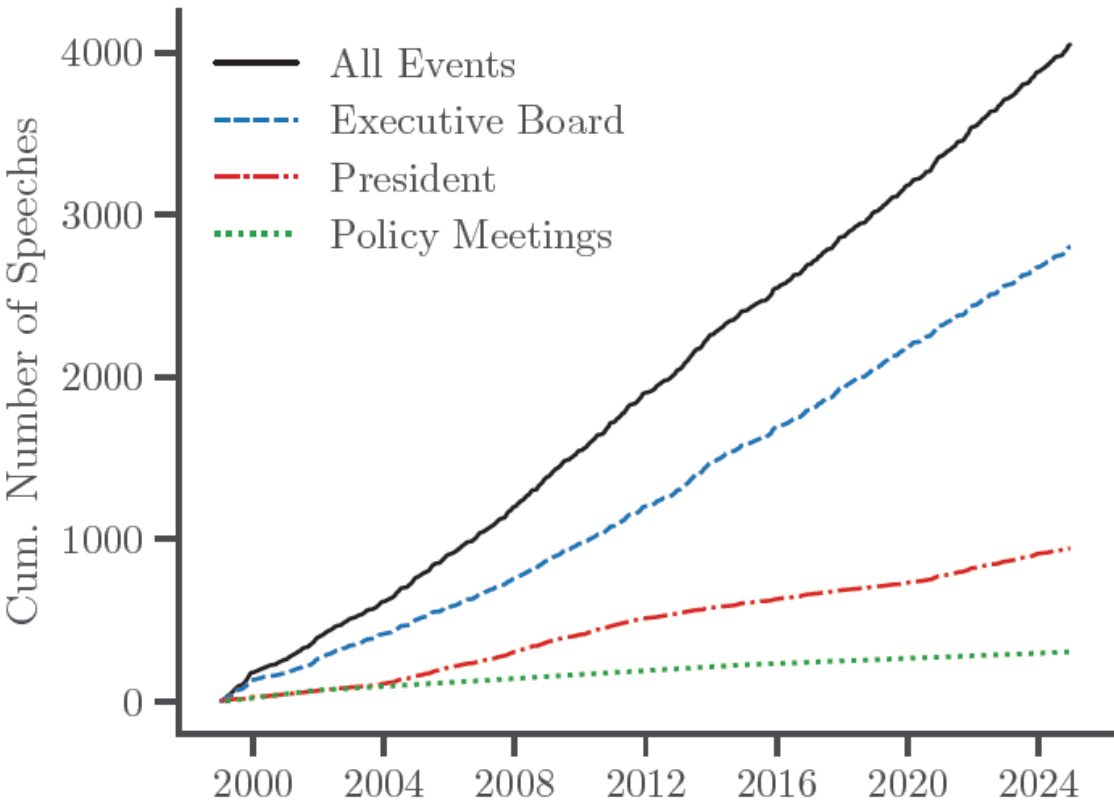


(a) Cumulative number of events
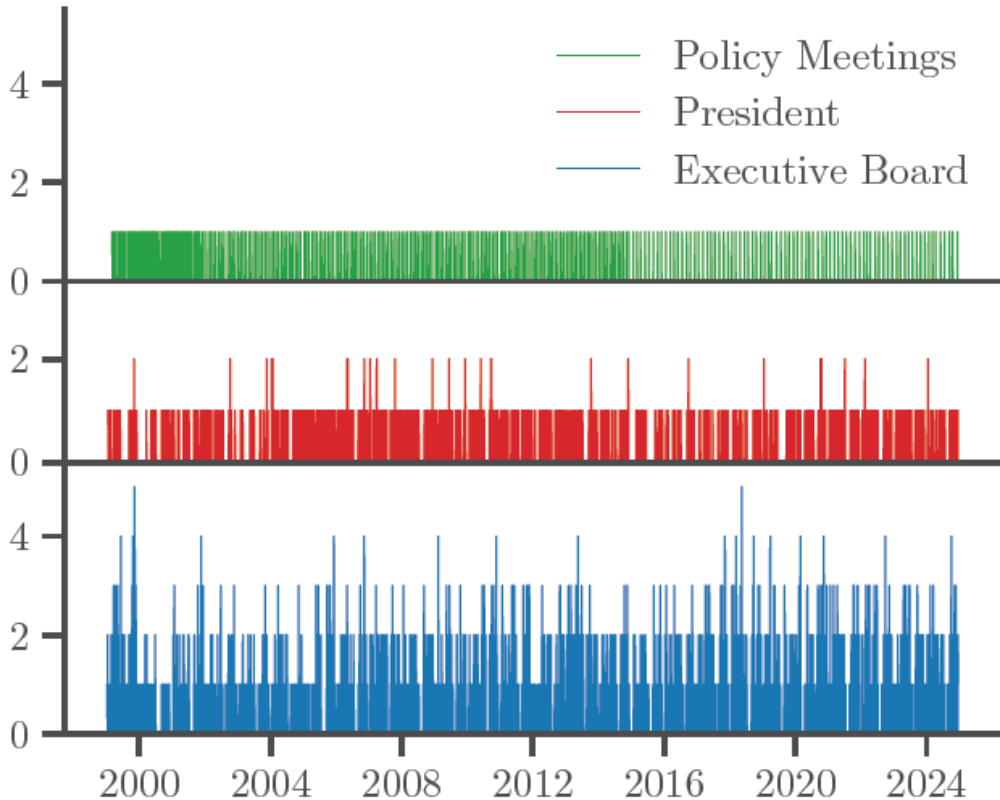
(b) Daily number of speeches

# Event windows, structure and quotation conventions of swap contracts

❑ **Market microstructure**

➢ **What** they trade?

✓ Compute the surprise using OIS contract with a **maturity** that includes 1 GC.
✓ **Weight** changes by the fraction of the relevant contract maturity that falls after the next policy date to calculate the surprise.

➢ **Who** is trading:

✓ Different **contributors** and market liquidity

❑ **Policy Event Window**

➢ Event window and Trading hours & concomitant macro releases

# Event windows, structure and quotation conventions of swap contracts

❏ **Market microstructure**

➢ **What** they trade?

✓ Compute the surprise using OIS contract with a **maturity** that includes 1 GC.
✓ **Weight** changes by the fraction of the relevant contract maturity that falls after the next policy date to calculate the surprise.

Assume the next GC is *m* days after the speech, the *1−month OIS* at time *t−1* and *t* are weighted averages of the known (old) policy rate $i^o$ that applies for *m* days of the month and the expected (new) policy rate $i^n$ that applies for the remaining *30 −m* days:

$$30 \times OIS_{t-1} = m \times i^o + (30 - m) \times \mathbb{E}_{t-1} i^n$$

$$30 \times OIS_t = m \times i^o + (30 - m) \times \mathbb{E}_t i^n$$

Subtracting the two relations eliminates the known $i^o$ term and gives the change in the market's expectation of the new policy rate — the policy surprise — is:

$$\mathbb{E}_t i^n - \mathbb{E}_{t-1} i^n = \frac{30}{30 - m} (OIS_t - OIS_{t-1})$$

# Event windows, structure and quotation conventions of swap contracts

❑ **Market microstructure**

➢ **What** they trade?

✓ Compute the surprise using OIS contract with a **maturity** that includes 1 GC.
✓ **Weight** changes by the fraction of the relevant contract maturity that falls after the next policy date to calculate the surprise.

➢ **Who** is trading:

✓ Different **contributors** and market liquidity

# Selected policy events
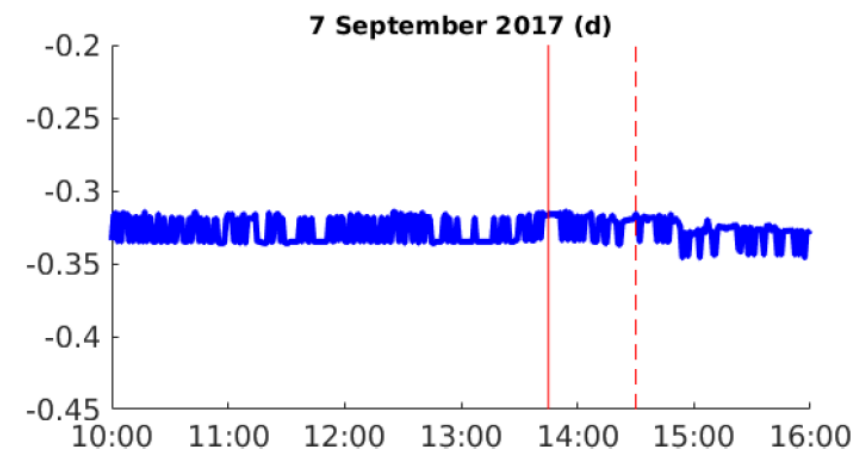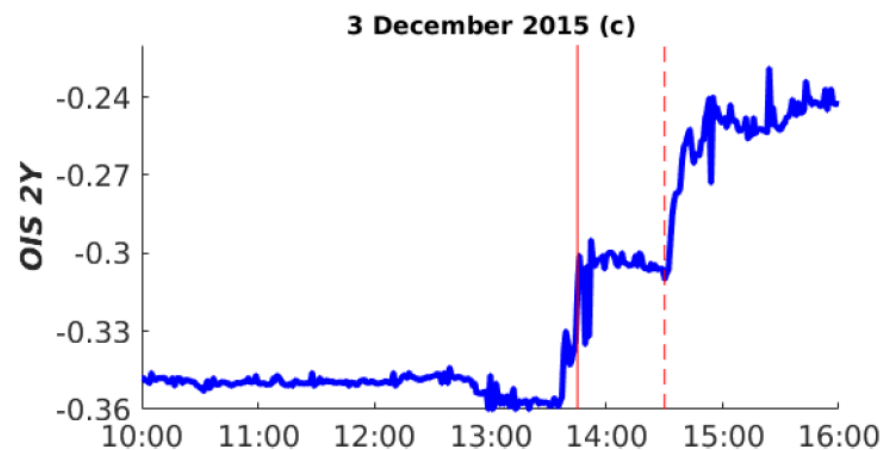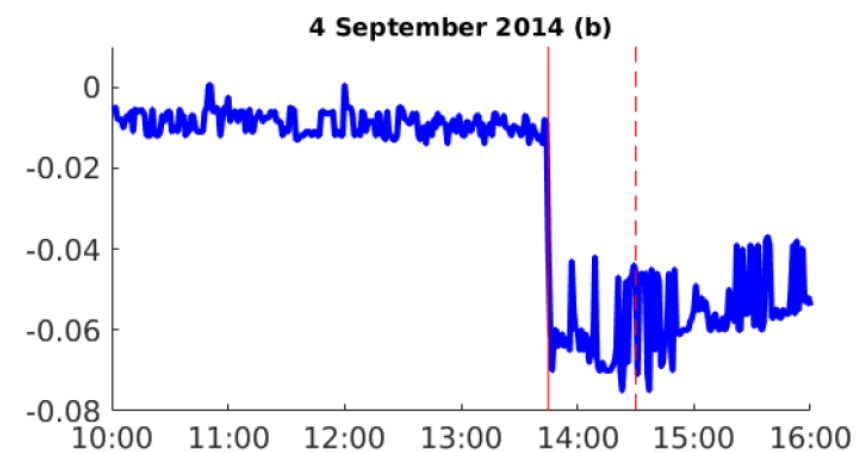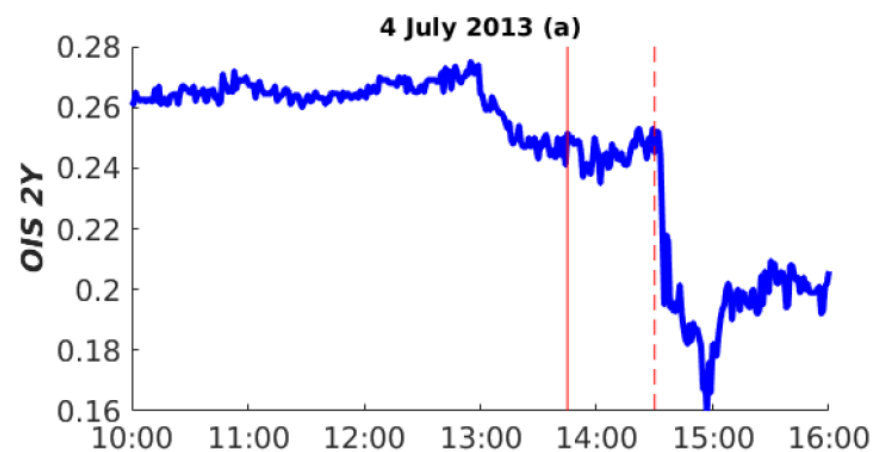


**Identifying assumption:** monetary policy does not respond to asset price changes within the day

→ causality goes from monetary policy to asset prices

# Selected policy events – individual "contributors" (e.g. brokers and banks)



Panel A: Speech by Vítor Constâncio, November 16, 2015, 10:30
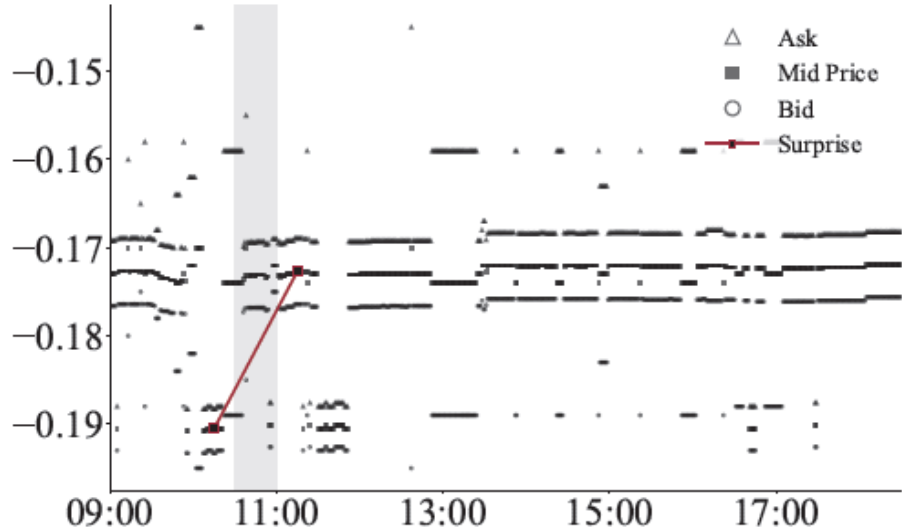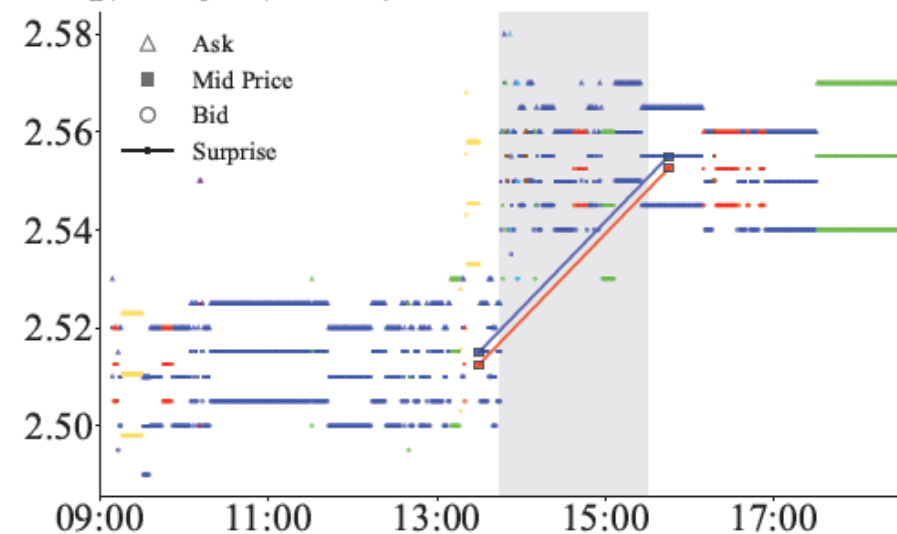
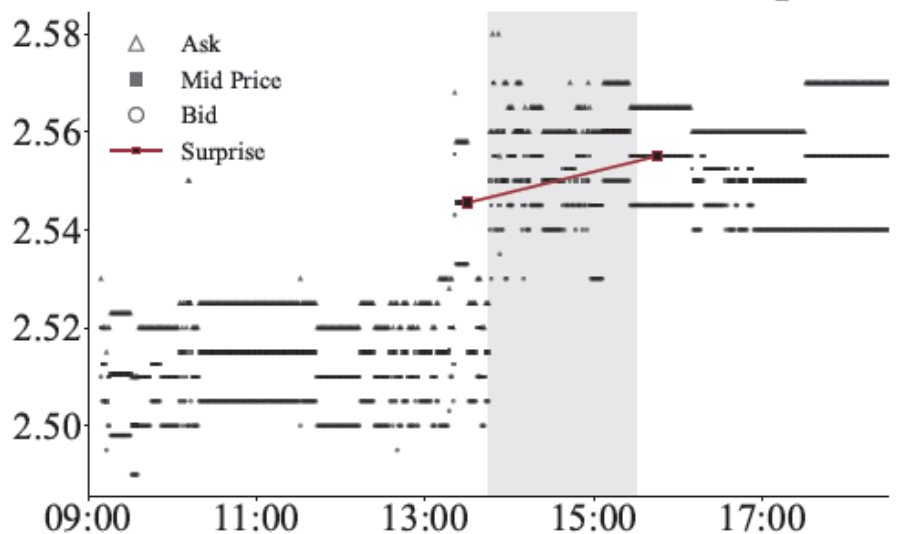Panel B: Governing Council Meeting, May 8, 2003, 13:45
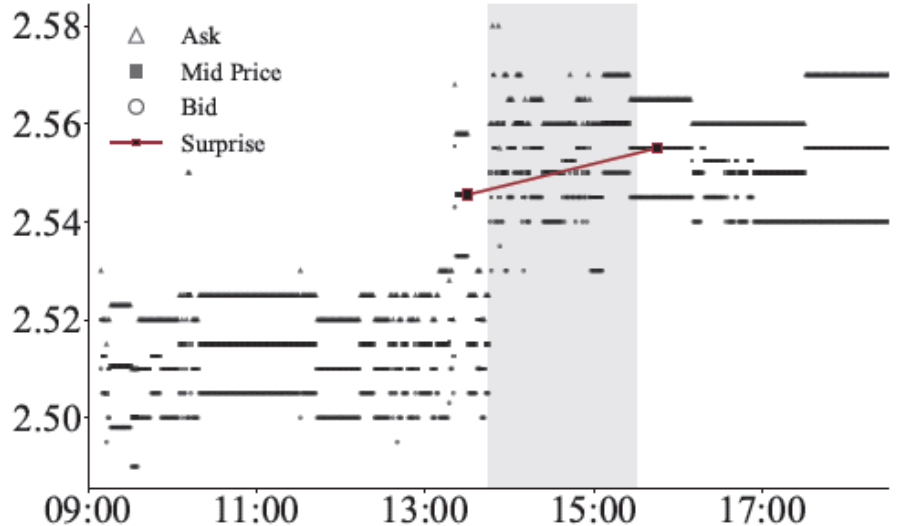
# Selected policy events – individual "contributors" (e.g. brokers and banks)



Panel A: Speech by Vítor Constâncio, November 16, 2015, 10:30
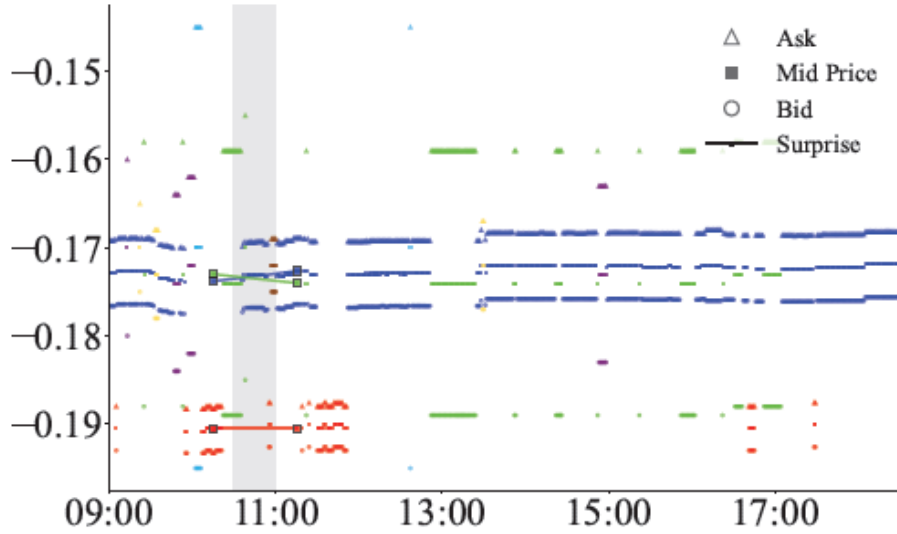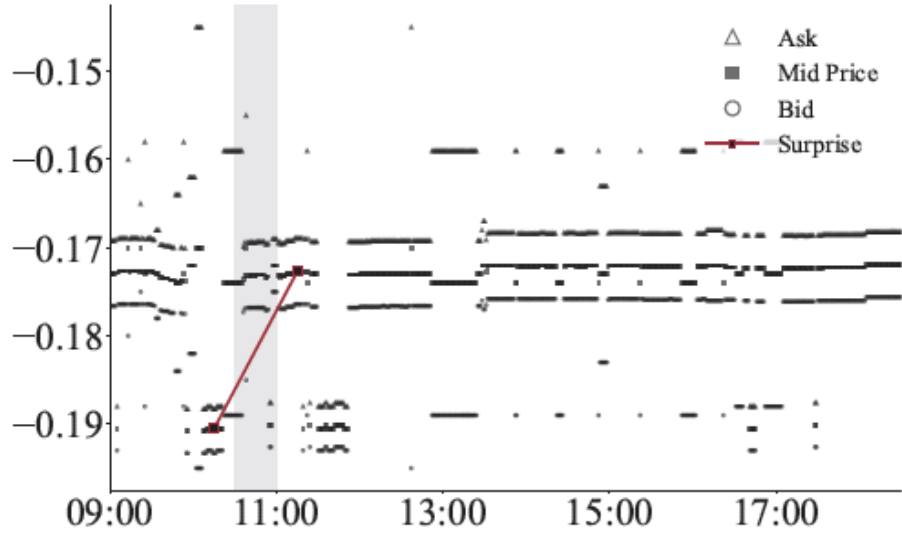
Panel B: Governing Council Meeting, May 8, 2003, 13:45

# The Effect of controlling for contributor-level variation

|  | OIS Rates | | | | | | |
|---|---|---|---|---|---|---|---|
|  | 1m | 2m | 3m | 1y | 2y | 5y | 10y |
| **Panel A: Policy Meetings** | | | | | | | |
| *2000–2008* | | | | | | | |
| Correlation | 0.94 | 0.87 | 0.96 | 0.94 | 0.92 | - | - |
| Mean | 0.57 | 0.69 | 0.56 | 0.44 | 0.49 | - | - |
| Median | 0.20 | 0.31 | 0.33 | 0.25 | 0.28 | - | - |
| *2009–2025* | | | | | | | |
| Correlation | 0.99 | 0.99 | 0.99 | 0.97 | 0.98 | 1.00 | 0.99 |
| Mean | 0.28 | 0.26 | 0.25 | 0.34 | 0.36 | 0.15 | 0.16 |
| Median | 0.11 | 0.10 | 0.13 | 0.16 | 0.22 | 0.09 | 0.09 |
| *Full Sample* | | | | | | | |
| Correlation | 0.96 | 0.93 | 0.97 | 0.96 | 0.96 | 1.00 | 0.99 |
| Mean | 0.41 | 0.45 | 0.39 | 0.38 | 0.42 | 0.15 | 0.16 |
| Median | 0.13 | 0.17 | 0.20 | 0.19 | 0.25 | 0.09 | 0.09 |
| **Panel B: Speeches** | | | | | | | |
| *2000–2008* | | | | | | | |
| Correlation | 0.76 | 0.65 | 0.60 | 0.91 | 0.91 | - | - |
| Mean | 0.40 | 0.39 | 0.42 | 0.31 | 0.37 | - | - |
| Median | 0.15 | 0.20 | 0.20 | 0.22 | 0.25 | - | - |
| *2009–2025* | | | | | | | |
| Correlation | 0.53 | 0.73 | 0.75 | 0.93 | 0.93 | 0.98 | 0.92 |
| Mean | 0.14 | 0.15 | 0.16 | 0.19 | 0.25 | 0.15 | 0.14 |
| Median | 0.01 | 0.05 | 0.07 | 0.11 | 0.14 | 0.10 | 0.06 |
| *Full Sample* | | | | | | | |
| Correlation | 0.72 | 0.67 | 0.65 | 0.92 | 0.92 | 0.98 | 0.92 |
| Mean | 0.20 | 0.20 | 0.22 | 0.22 | 0.28 | 0.15 | 0.14 |
| Median | 0.02 | 0.07 | 0.09 | 0.13 | 0.16 | 0.10 | 0.06 |

Notes: The table shows the impact of controlling for different contributors. Reported values are absolute changes in basis points (except for correlation) between surprises estimated with and without controlling for individual contributors in the OIS market. OIS rate observations for 5- and 10-year maturities start in 2011.

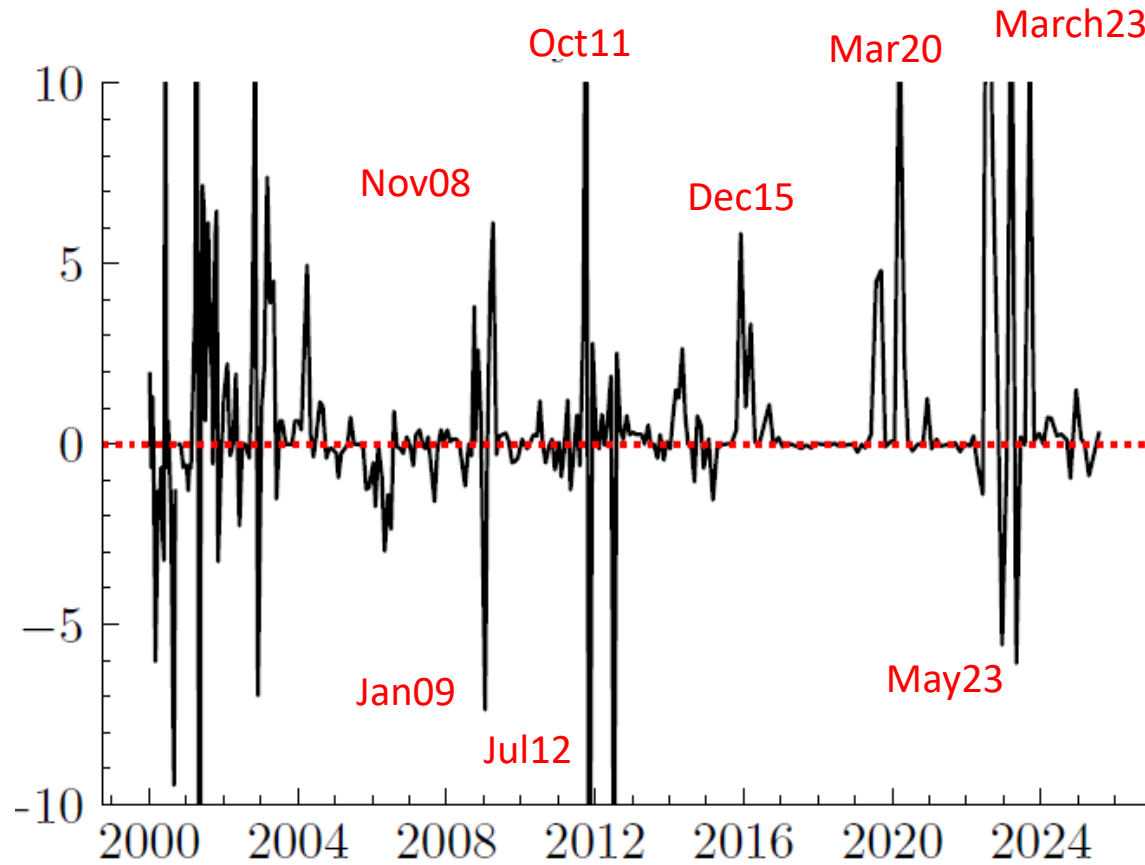# Euro Area Extended Monetary Policy Event-Study Database (EA-EMPD)
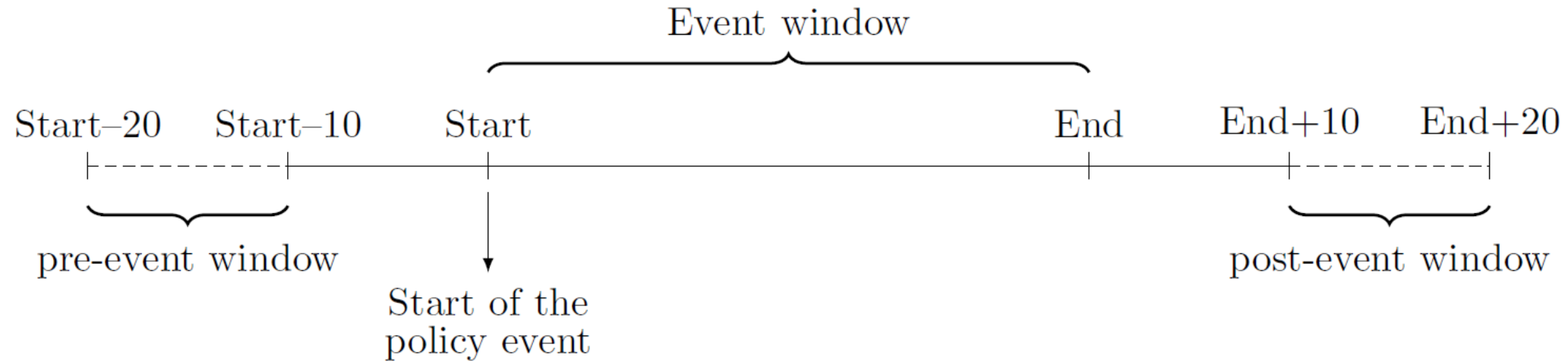


Starting point: Euro Area Monetary Policy Event-Study Database (EA-MPD) - Altavilla et al. (JME, 2019)

◦ Intraday data: include only events during **trading hours, exclude** concomitant macro releases (R>95%)

◦ Use 30-minutes event windows on top of 10-minute buffer windows around meetings and speeches
- Speeches are in between meetings
- Apply announcement window of 30 minutes for speeches (the typical speech lasts 20-30 minutes)
- use alternative windows (40, 50, 60, 120, 180 min)

# Monetary policy surprises



Policy Meetings

Speeches
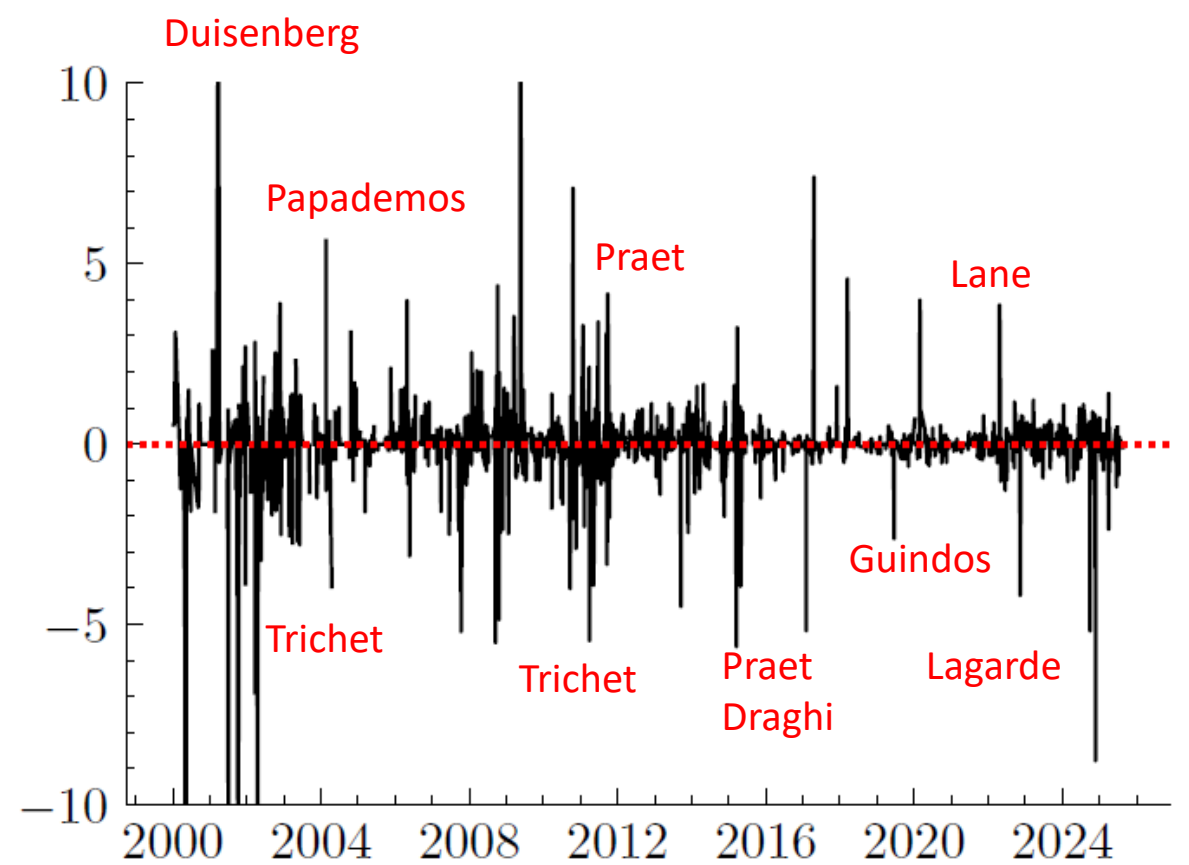
# Outline

❑ Euro area extended monetary policy event-study database: EA-EMPD

❑ **The impact of monetary policy on financial markets**
  - ✓ The footprint of policy events on financial markets
  - ✓ Policy-driven changes in asset prices

❑ The transmission to the real economy
  - ✓ Relevance and exogeneity of monetary surprises
  - ✓ Response of and contribution to real economy

# Importance of different policy events

| | OIS rates | | | | | | | other assets | |
|---|---|---|---|---|---|---|---|---|---|
| | 1m | 2m | 3m | 1y | 2y | 5y | 10y | EXR | stock |
| **Mean absolute change [bp]** | | | | | | | | | |
| Policy Meetings | 1.36 | 1.23 | 1.27 | 1.30 | 1.40 | 1.71 | 1.37 | 24.62 | 37.50 |
| President | 0.22 | 0.24 | 0.27 | 0.60 | 0.83 | 0.84 | 0.90 | 10.85 | 22.73 |
| Executive Board | 0.20 | 0.21 | 0.22 | 0.43 | 0.62 | 0.67 | 0.78 | 9.73 | 23.69 |

Notes: This table reports the impact of different policy events on risk-free rates, exchange rates and the European stock index. It shows the average absolute change around each policy event in basis points. Observations of the risk-free rates for 5- and 10-year maturities start in 2011.
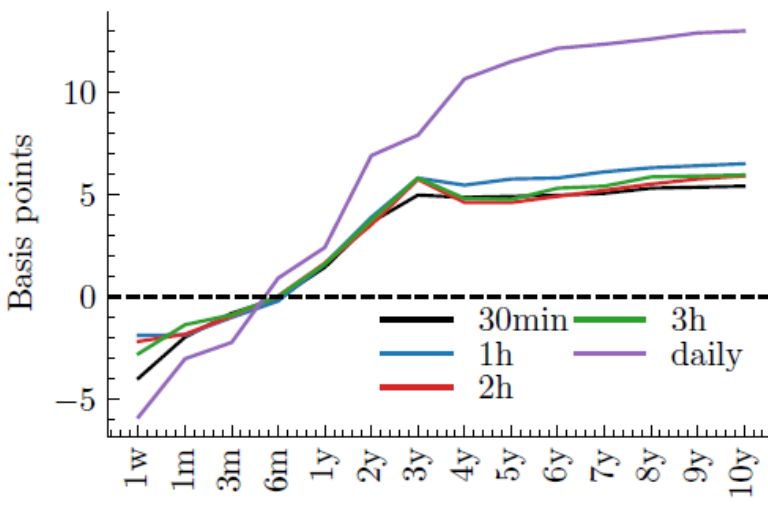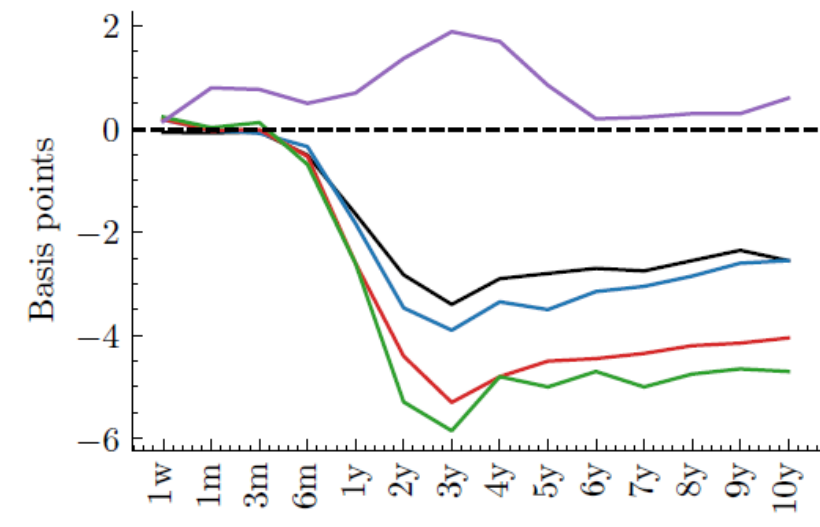
# Selected policy events
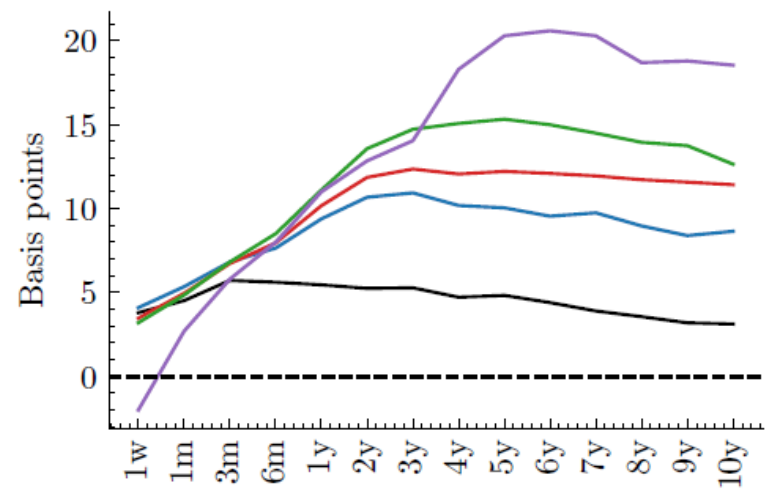


Mario Draghi - 3 Dec 2015
Governing Council of the ECB
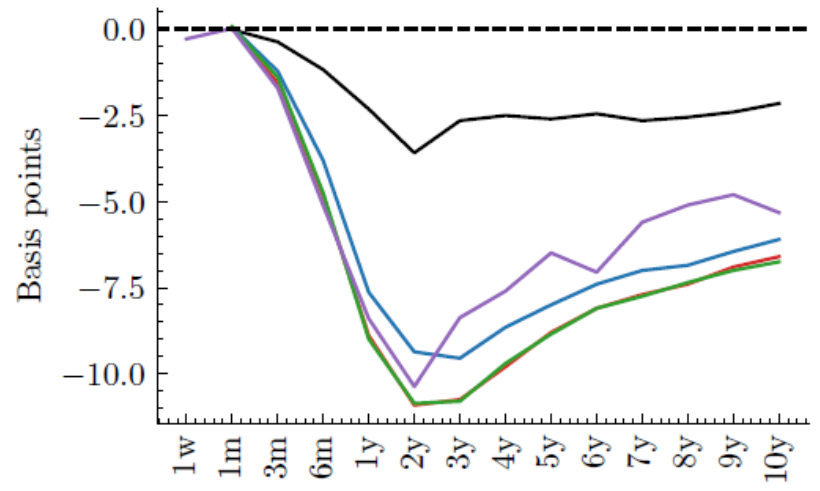


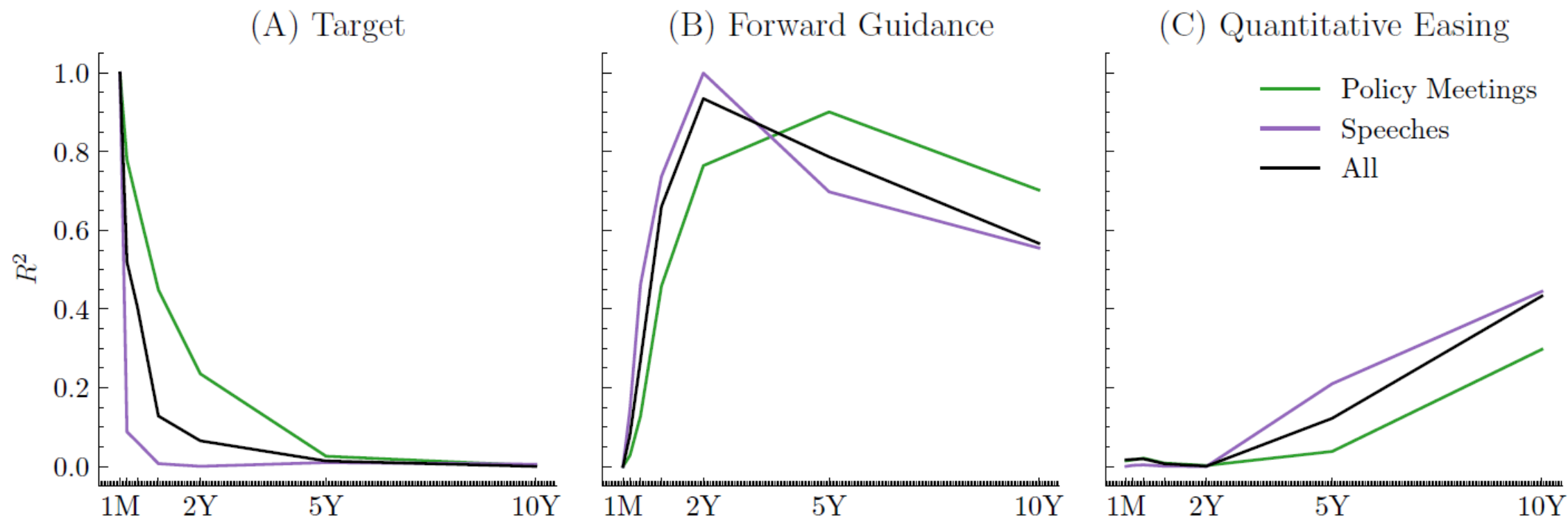Christine Lagarde - 25 Jan 2024
Governing Council of the ECB



Jürgen Stark - 12 Oct 2011
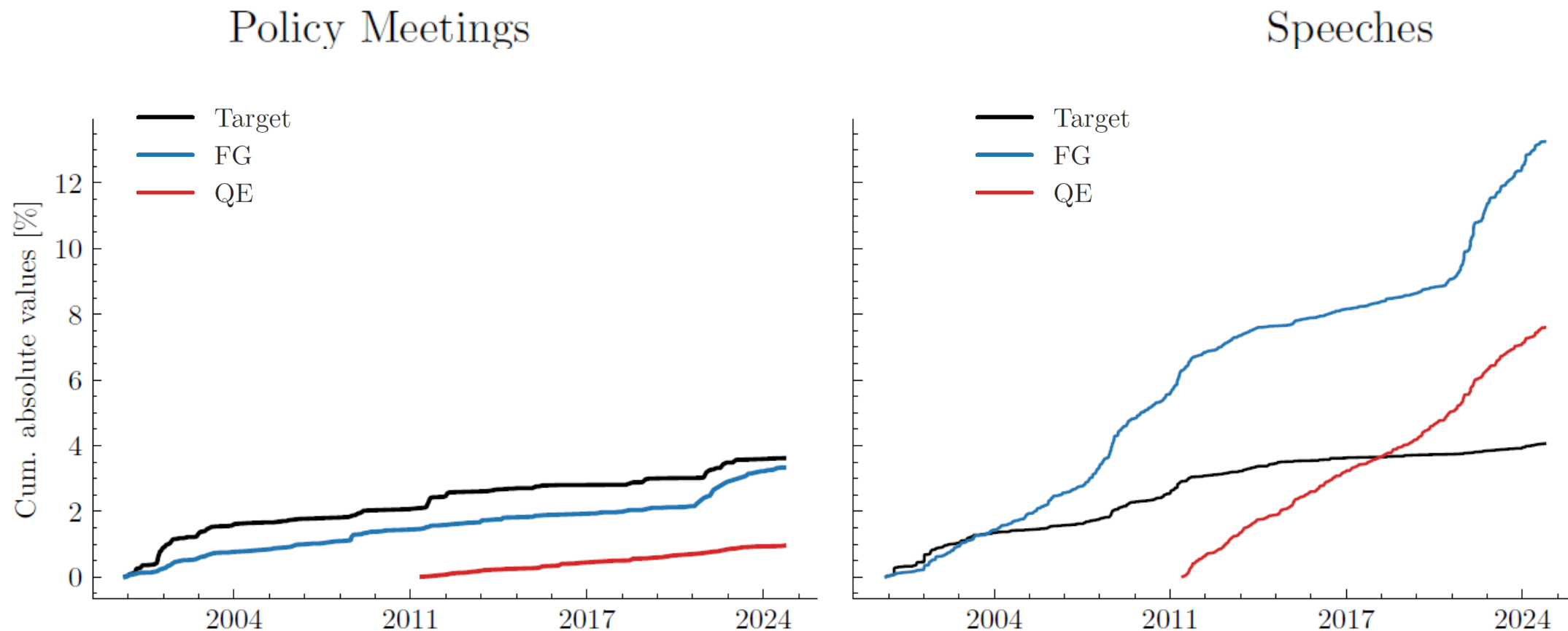Economic adjustment in a monetary union

Legend: 30min, 1h, 2h, 3h, daily



Philip R. Lane - 27 May 2024
Inflation in the euro area

20

# Empirical Factors



(A) Target   (B) Forward Guidance   (C) Quantitative Easing

- ❑ Target: $\Delta i_t^{1m}$ → regress $\Delta i_t^{1m}$ on each maturity
- ❑ Forward guidance: $\epsilon_t^{2y}$ from $\Delta i_t^{2y} = \beta \Delta i_t^{1m} + \epsilon_t^{2y}$ → regress $\epsilon_t^{2y}$ on each maturity
- ❑ Quantitative easing: $\epsilon_t^{10y}$ from $\Delta i_t^{10y} = \beta \Delta i_t^{2y} + \epsilon_t^{10y}$ → regress $\epsilon_t^{10y}$ on each maturity

C. Altavilla – R.S. Gurkaynak – T. Kind – L. Laeven
Monetary Transmission with Frequent Policy Events

# The impact of policy events over time



Notes: The chart shows the cumulative absolute changes of policy events classified as Target, Forward Guidance, and Quantitative Easing, based on the event with the largest absolute empirical factor movement.

# Outline

❑ Euro area extended monetary policy event-study database: EA-EMPD

❑ The impact of monetary policy on financial markets
  ✓ The footprint of policy events on financial markets
  ✓ Policy-driven changes in asset prices

❑ **The transmission to the real economy**
  ✓ Relevance and exogeneity of monetary surprises
  ✓ Response of and contribution to real economy

# Why high-frequency surprises?

"Old-style" VAR models

$$\begin{pmatrix} a_{11} & 0 & 0 \\ a_{21} & a_{22} & 0 \\ a_{31} & a_{32} & a_{33} \end{pmatrix} \begin{pmatrix} GDP_t \\ \pi_t \\ i_t \end{pmatrix} = A(L) \begin{pmatrix} GDP_{t-1} \\ \pi_{t-1} \\ i_{t-1} \end{pmatrix} + \begin{pmatrix} \varepsilon_t^{GDP} \\ \varepsilon_t^{\pi} \\ \varepsilon_t^{i} \end{pmatrix}$$

❑ Contemporaneous restrictions:

➢ Macro do not react to monetary policy

➢ Interest rates react to macro

➢ **Implausible timing restrictions**
   ✓ output and inflation do respond within a quarter to monetary policy

➢ **Monetary policy shocks are confounded with systematic policy responses**
   ✓ Cannot isolate the unexpected component of policy decisions from the anticipated one

**Solution: high-frequency identification**

# The transmission of monetary policy shocks

"Industry-standard" BVAR model

$$\begin{pmatrix} 1 & 0 \\ A_0^{y,mps} & I \end{pmatrix} \begin{pmatrix} mps_t \\ y_t \end{pmatrix} = A(L) \begin{pmatrix} mps_{t-1} \\ y_{t-1} \end{pmatrix} + \begin{pmatrix} \varepsilon_t^{mps} \\ \varepsilon_t^y \end{pmatrix}$$

$y_t$ : industrial production, inflation, loan volumes, lending spreads (lending rates-Eurobor).

$mps_t$ : vector of policy surprises in month $t$ (i. Speech; ii. Policy meetings; iii. All events).
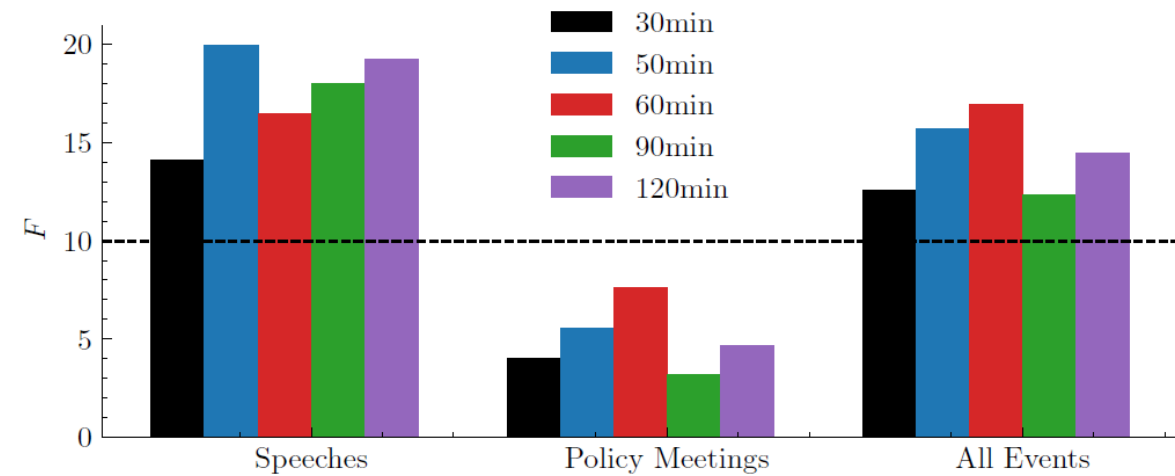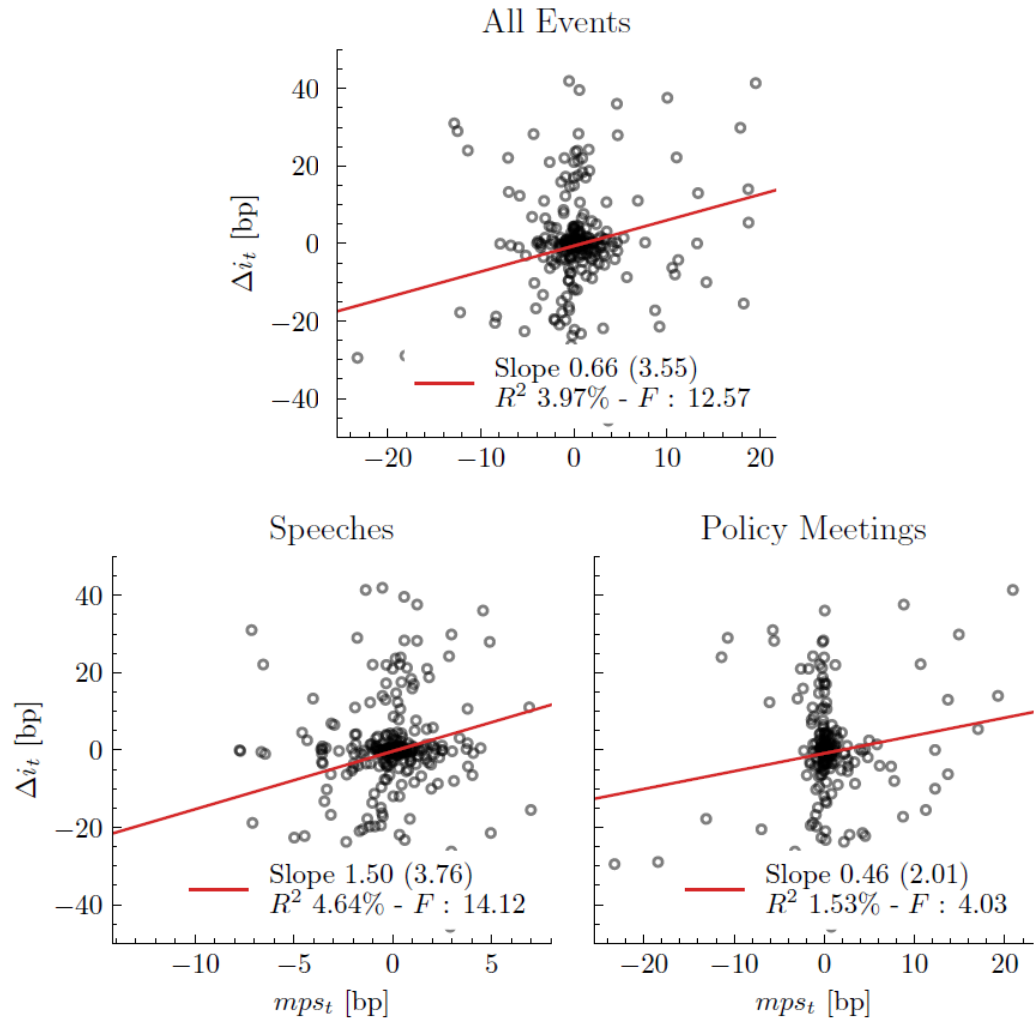
**Sample** : Jan.2000 – Sept.2025

**Identifying restriction:** $mps_t$ is exogenous

➤ $mps_t$ treated as (relevant and exogenous) internal instrument (Plagborg-Møller and Wolf, 2021).

# Relevance

First Stage Regression: $\Delta i_t^{1m} = \alpha + \beta mps_t + \epsilon_t$
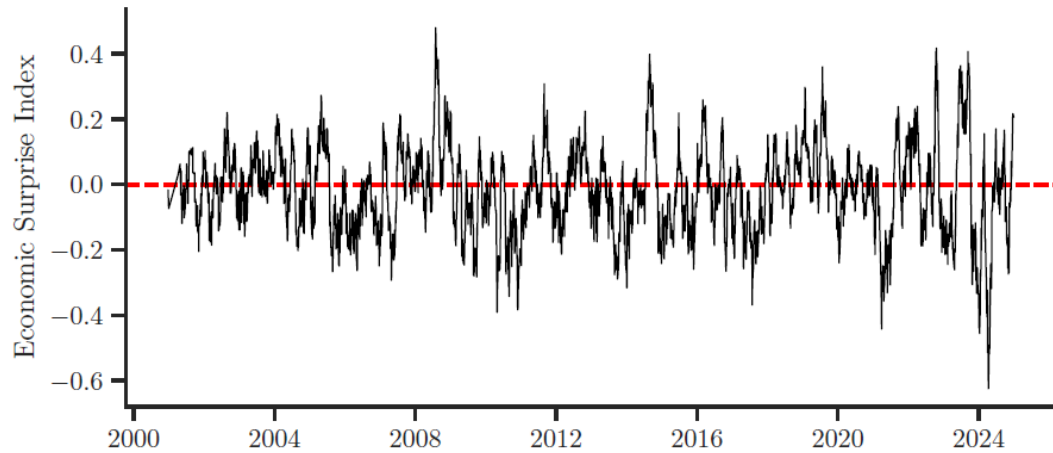


Weak instrument threshold



Notes: The figure reports the F-test statistics for the first stage regression of daily changes in the one-month OIS on the high-frequency monetary policy shocks of the same underlying asset.

# Exogeneity

### Index for EA and US macro news

$$I_t = \sum_{i \in [t-s,t]} w_i \frac{Release_t^i - Forecast_t^i}{\sigma^i}$$
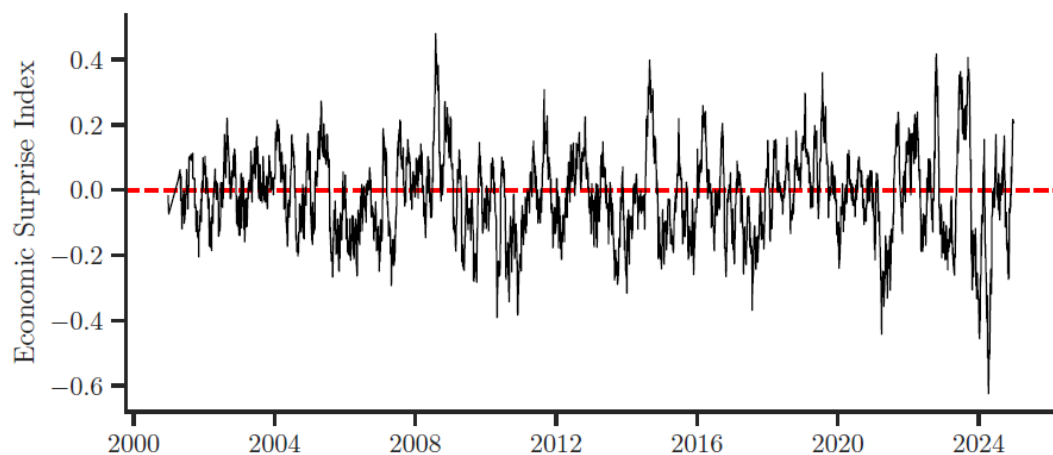


### The Real-time data flow



News index as in Altavilla, Giannone, Modugno (2017) Low frequency effects of macroeconomic news on government bond yields, Journal of Monetary Economics

C. Altavilla – R.S. Gurkaynak – T. Kind – L. Laeven   **Monetary Transmission with Frequent Policy Events**

# Exogeneity

### Index for EA and US macro news

$$I_t = \sum_{i \in [t-s,t]} w_i \frac{Release_t^i - Forecast_t^i}{\sigma^i}$$



### Regression

$$mps_t = \alpha + \beta I_{t-1} + \epsilon_t$$

|  | OIS 1M | OIS 3M | OIS 1Y | DE 2Y | IT 2Y | FR 2Y | ES 2Y |
|---|---|---|---|---|---|---|---|
| **A: Policy Meetings** | | | | | | | |
| $\beta$ | 1.42 | 0.909 | −0.718 | −1.33 | −2.58 | −0.832 | −1.66 |
| $R^2$ | 0.29% | 0.18% | 0.13% | 0.34% | 0.68% | 0.14% | 0.44% |
| **A: Speeches** | | | | | | | |
| $\beta$ | −0.0907 | −0.215* | −0.172 | −0.128 | −0.596* | −0.121 | −0.0748 |
| $R^2$ | 0.03% | 0.17% | 0.06% | 0.01% | 0.14% | 0.01% | 0.00% |

**Result**: Monetary surprises are exogenous to the macroeconomic news

News index as in Altavilla, Giannone, Modugno (2017) Low frequency effects of macroeconomic news on government bond yields, Journal of Monetary Economics

C. Altavilla – R.S. Gurkaynak – T. Kind – L. Laeven Monetary Transmission with Frequent Policy Events

# Exogeneity

Regression

$$mps_t = \alpha + \beta X_{t-1} + \epsilon_t$$

X = [Slope,
     Commodity Prices,
     Stock Market,
     Economic Surprise Index]

|  | OIS 1M | OIS 3M | OIS 1Y | DE 2Y | IT 2Y | FR 2Y | ES 2Y |
|---|---|---|---|---|---|---|---|
| **A: Policy Meetings** | | | | | | | |
| $\beta$(Dslope) | −0.0448 | −0.146 | −0.0734 | 0.0115 | 0.0882 | 0.0212 | −0.164 |
| $\beta$(DBCI) | −0.437* | −0.217 | −0.0546 | −0.112 | 0.0917 | −0.187 | 0.225 |
| $\beta$(Dstoxx) | −0.946*** | −0.44** | −0.443** | −0.36* | −1.15*** | −0.398* | −0.616*** |
| $\beta$(ESI) | −0.0602 | −0.0362 | −0.315* | −0.353* | −0.744*** | −0.306 | −0.411* |
| $R^2$ | 10.24% | 3.87% | 3.66% | 2.63% | 9.63% | 3.29% | 4.20% |
| **A: Speeches** | | | | | | | |
| $\beta$(Dslope) | 0.014 | 0.0229 | −0.00947 | −0.0494 | −0.0993 | −0.076 | −0.0164 |
| $\beta$(DBCI) | 0.0115 | 0.033 | 0.074** | 0.059 | 0.0228 | 0.0476 | 0.03 |
| $\beta$(Dstoxx) | −0.00783 | −0.0413 | −0.063* | −0.0256 | −0.0906 | −0.0307 | −0.0398 |
| $\beta$(ESI) | −0.0241 | −0.0412* | −0.0396 | −0.0225 | −0.222*** | −0.00764 | −0.107 |
| $R^2$ | 0.19% | 0.78% | 0.72% | 0.21% | 0.96% | 0.24% | 0.26% |

**Result**:
Policy meeting are not exogenous to macro-financial news
Speeches     are     exogenous to macro-financial news

# Outline

❑ Euro area extended monetary policy event-study database: EA-EMPD

❑ The impact of monetary policy on financial markets
   - ✓ The footprint of policy events on financial markets
   - ✓ Policy-driven changes in asset prices

❑ **The transmission to the real economy**
   - ✓ Relevance and exogeneity of monetary surprises
   - ✓ Response of and contribution to real economy

# The transmission of monetary policy shocks

BVAR model

$$\begin{pmatrix} 1 & 0 \\ A_0^{y,mps} & I \end{pmatrix} \begin{pmatrix} mps_t \\ y_t \end{pmatrix} = A(L) \begin{pmatrix} mps_{t-1} \\ y_{t-1} \end{pmatrix} + \begin{pmatrix} \varepsilon_t^{mps} \\ \varepsilon_t^y \end{pmatrix}$$

$y_t$ : industrial production, inflation, loan volumes, lending spreads (lending rates-Eurobor).
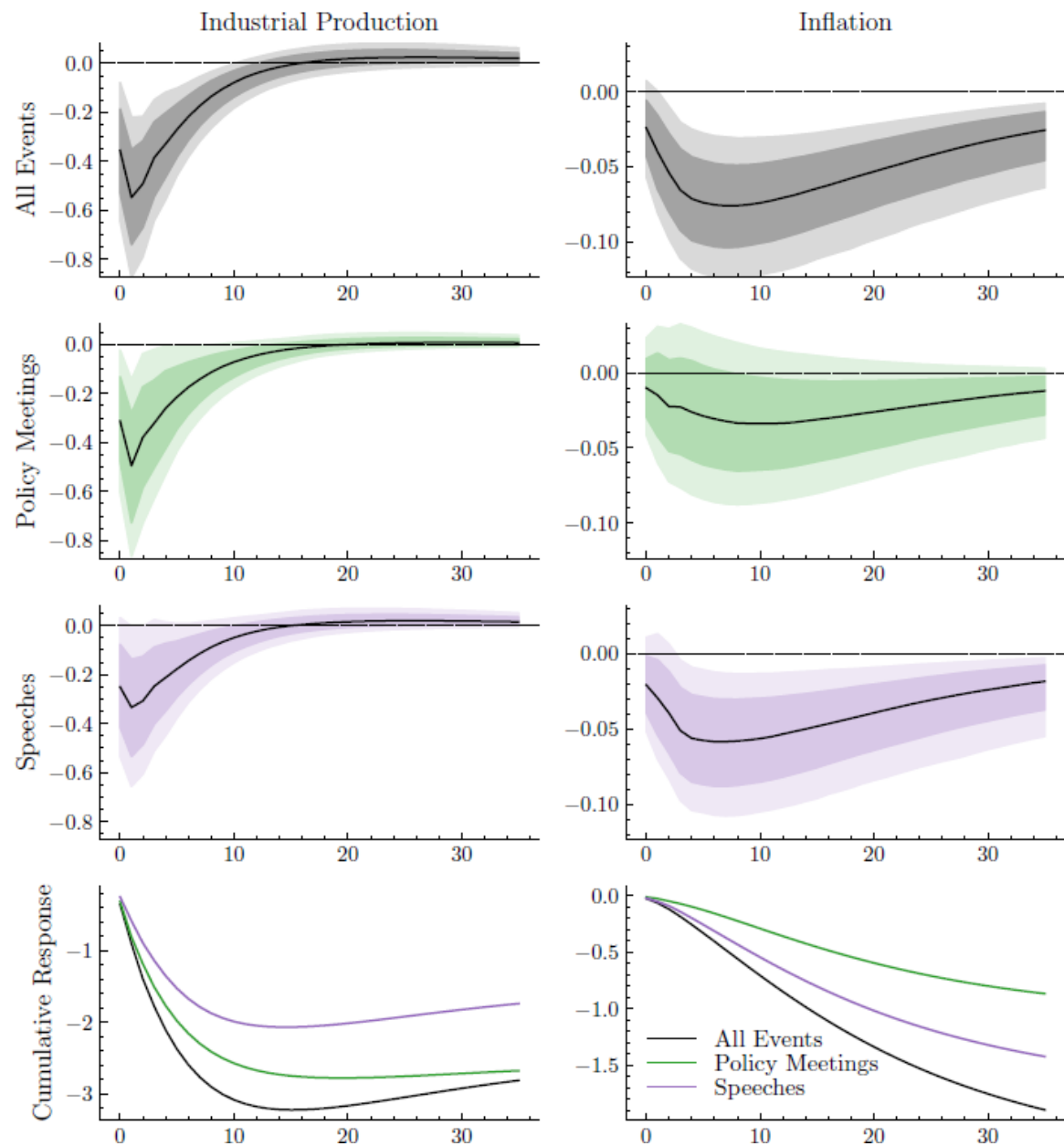
$mps_t$ : vector of policy surprises in month $t$ (i. Speech; ii. Policy meetings; iii. All events).

**Sample** : Jan.2000 – Sept.2025

**Identifying restriction:** $mps_t$ is exogenous

➤ $mps_t$ treated as (relevant and exogenous) internal instrument (Plagborg-Møller and Wolf, 2021).

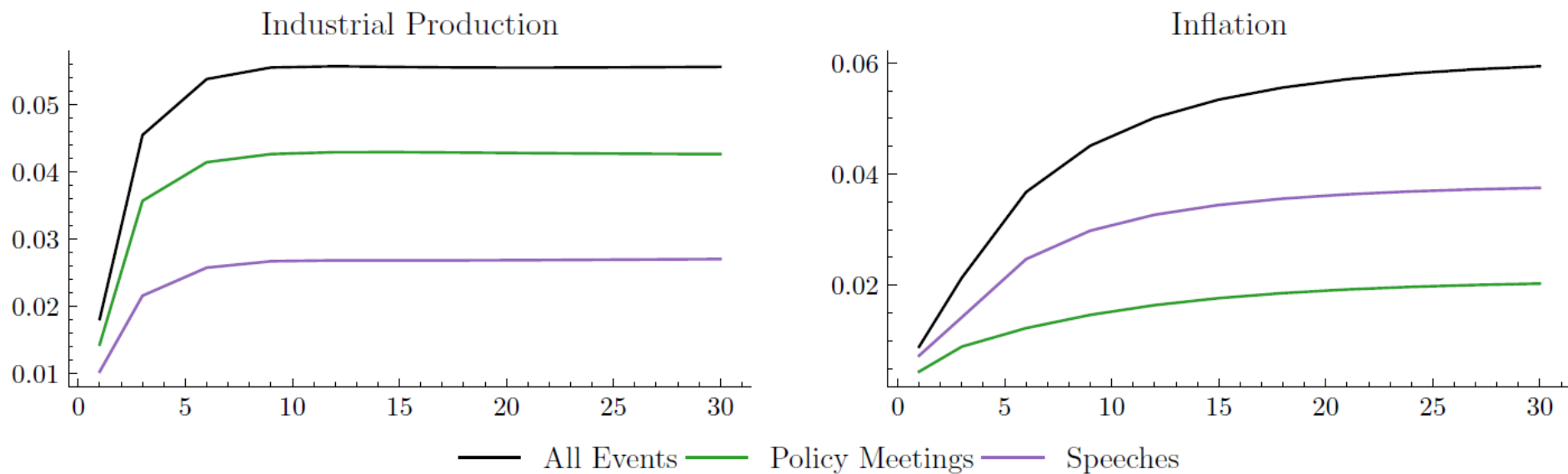# The response to a 1 StDev monetary policy shock



Results:

➢ Official rate-setting meetings are valuable for predicting how policy changes affect the real economy

➢ Combining all policy events:

   i.  Improves inference

   ii.  Stronger impact

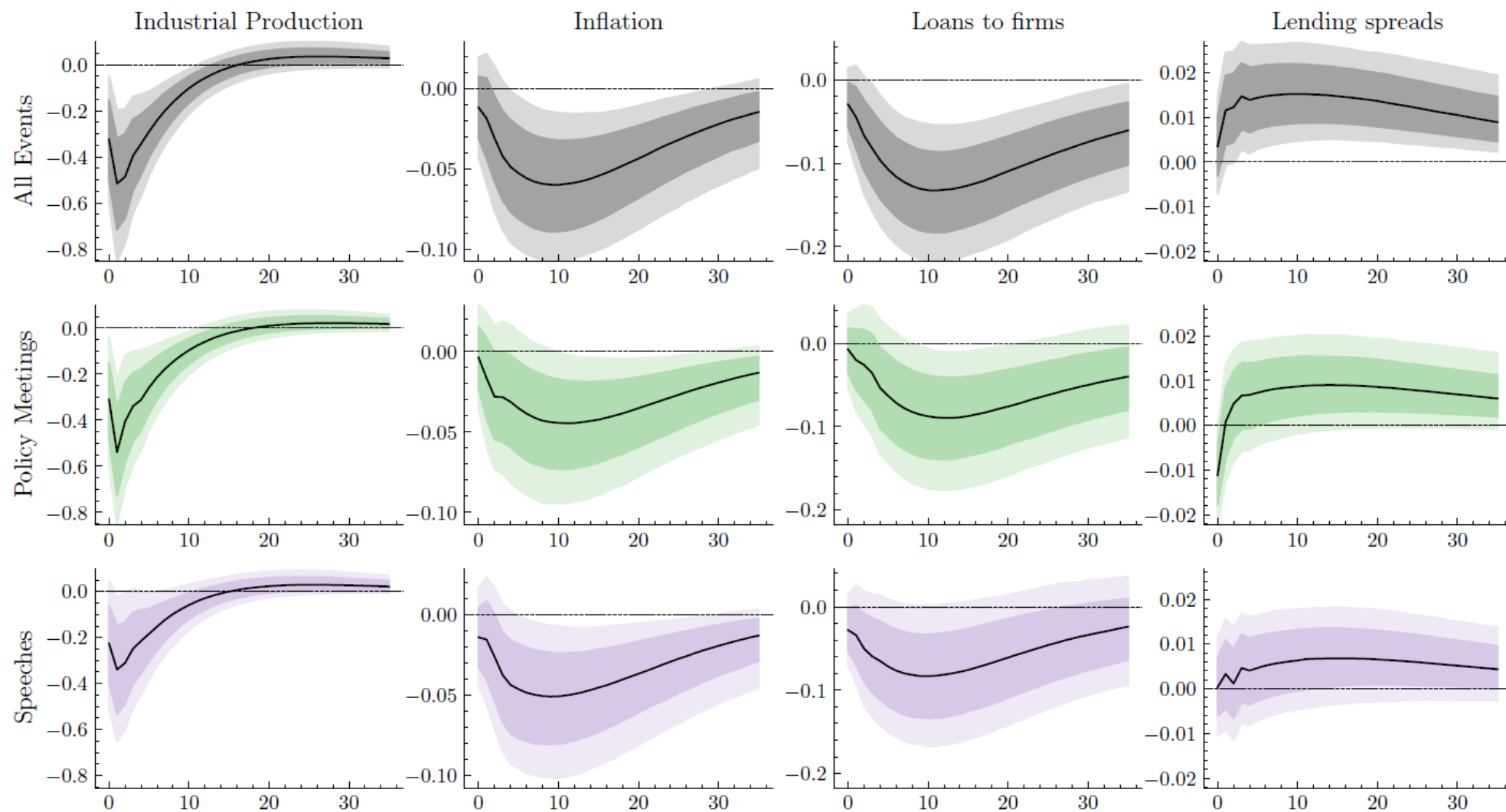# Forecast error variance decomposition (FEVD)

By "decomposing" the variance of the forecast error into the contributions from monetary policy shocks:

- How important a monetary policy shock is in explaining the variations of the real variables.
- How that importance changes over time.



Result: Expanding the policy event set is crucial for evaluating the overall impact of monetary policy

# The response to a 1 St.Dev. monetary policy shock



- ➢ Official rate-setting meetings are valuable for predicting how policy changes affect the real economy
- ➢ Combining all policy events produces stronger impact on the real economy

# Forecast error variance decomposition (FEVD)

By "decomposing" the variance of the forecast error into the contributions from monetary policy shocks:

- How important a monetary policy shock is in explaining the variations of the real variables.
- How that importance changes over time.
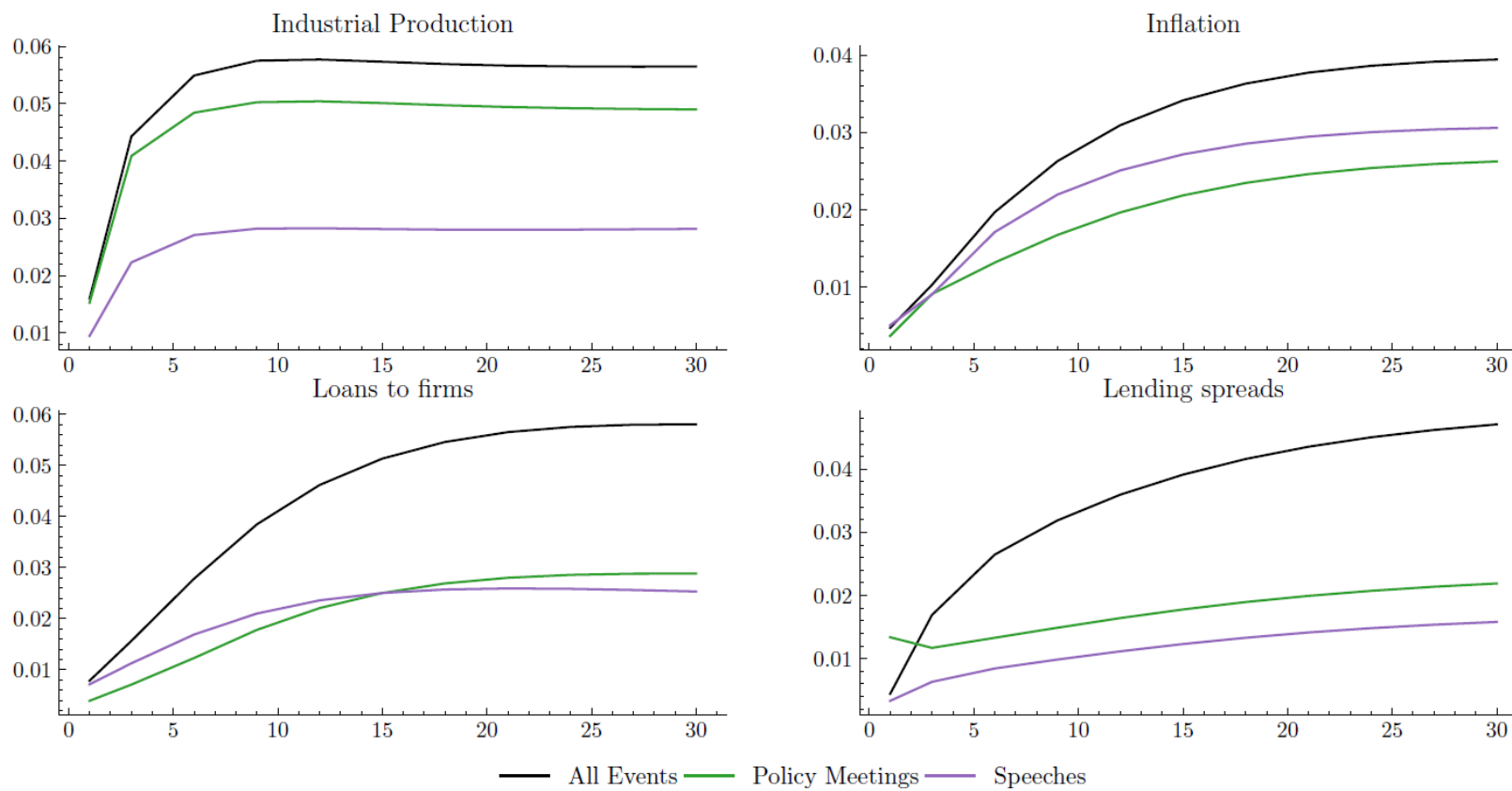


Result: Expanding the policy event set is crucial for evaluating the overall impact of monetary policy

# Conclusions

❑ **Construct a new database:** Euro Area **Extended** Monetary Policy Event-Study Database (EA-EMPD)

➢ High-frequency, tick-by-tick data on policy meetings and all speeches from Executive Board members

❑ Assesses the **impact** of these surprises on **financial variables:**

Do rate-setting meetings and policymakers' speeches generate **similar monetary policy surprises?**

➢ YES – policymakers' speeches can significantly influence the price of financial assets, mirroring the effects of monetary policy announcements

❑ Assesses the **transmission** of monetary policy on **real outcomes:**

Does **combining** monetary policy surprises from both meetings and speeches matter?

➢ YES – broadening the scope of policy events is essential to understand the overall contribution of monetary policy shocks in explaining real economic fluctuations

Thank you!