



EUROPEAN CENTRAL BANK

EUROSYSTEM

More, and more forward-looking: Central bank communication after the crisis

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ECB Central Bank Communications Conference

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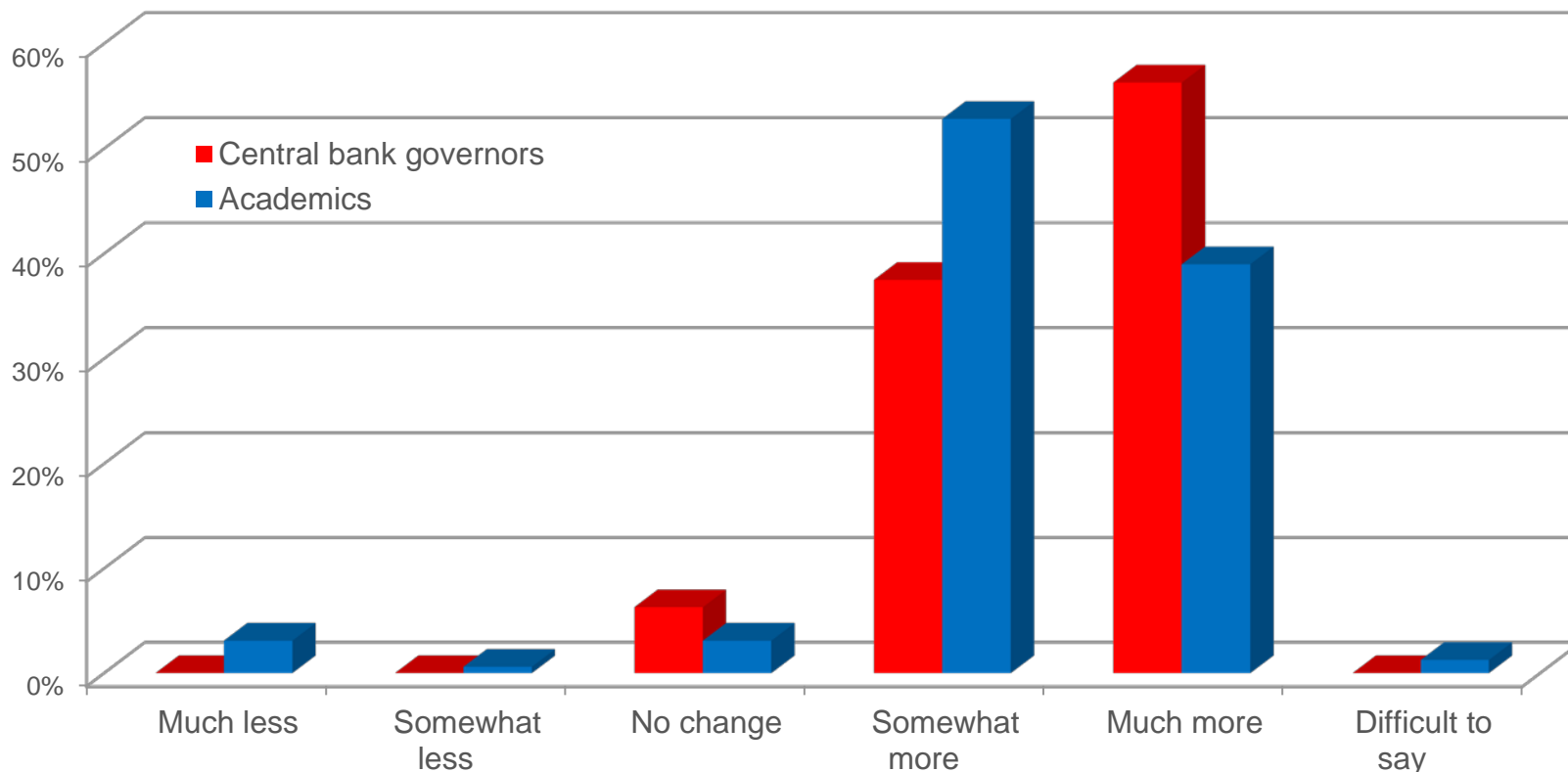
The views expressed here are my own and do not necessarily reflect those of the ECB or the Eurosystem

- Challenges in “unconventional times”
 - Even more important to enhance predictability of monetary policy
 - High economic uncertainty
 - Constrained policy instruments
 - Introduction of new policy instruments
 - Increased role for (clear) central bank communication
 - Reduce noise while acknowledging own uncertainty

- 1** Trends in monetary policy communication: more & more forward-looking
- 2 Guidance about implementation details of unconventional tools
- 3 What type of forward guidance?
- 4 Drafting matters
- 5 Conclusions

- Central banks stepped up their communication efforts

Since the crisis, the central bank has communicated with the public...



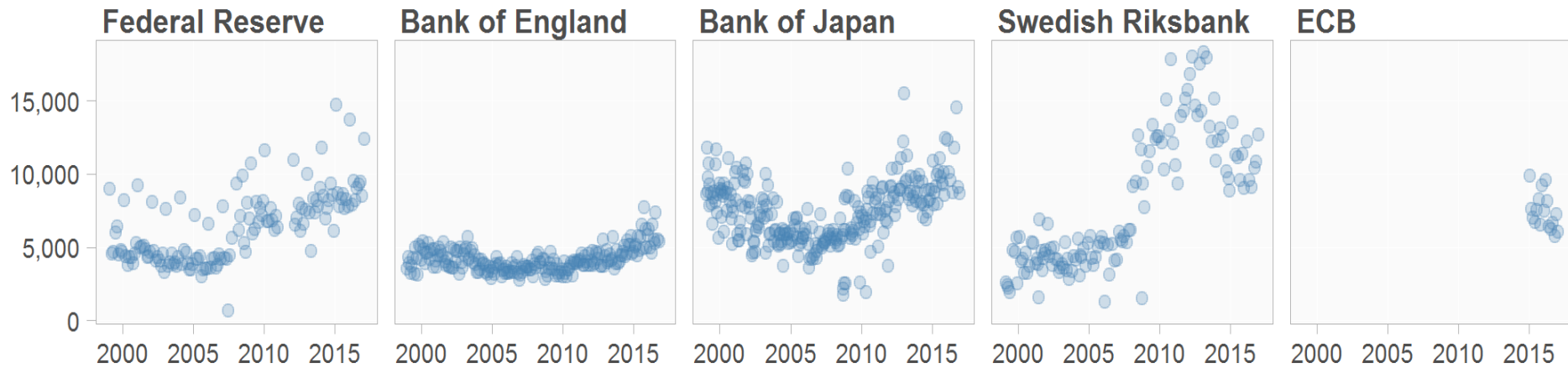
Source: Blinder et al. (2017) survey among central bank governors (55 responses) and academic economists (159 responses).

Governors: "In your view, did the crisis induce the central bank to communicate with the public more or less than it did prior to the crisis?"

Academics: "In your view, did your country's central bank communicate with the public more or less during and after the crisis than it had before?"

- Complexity of policy making increased

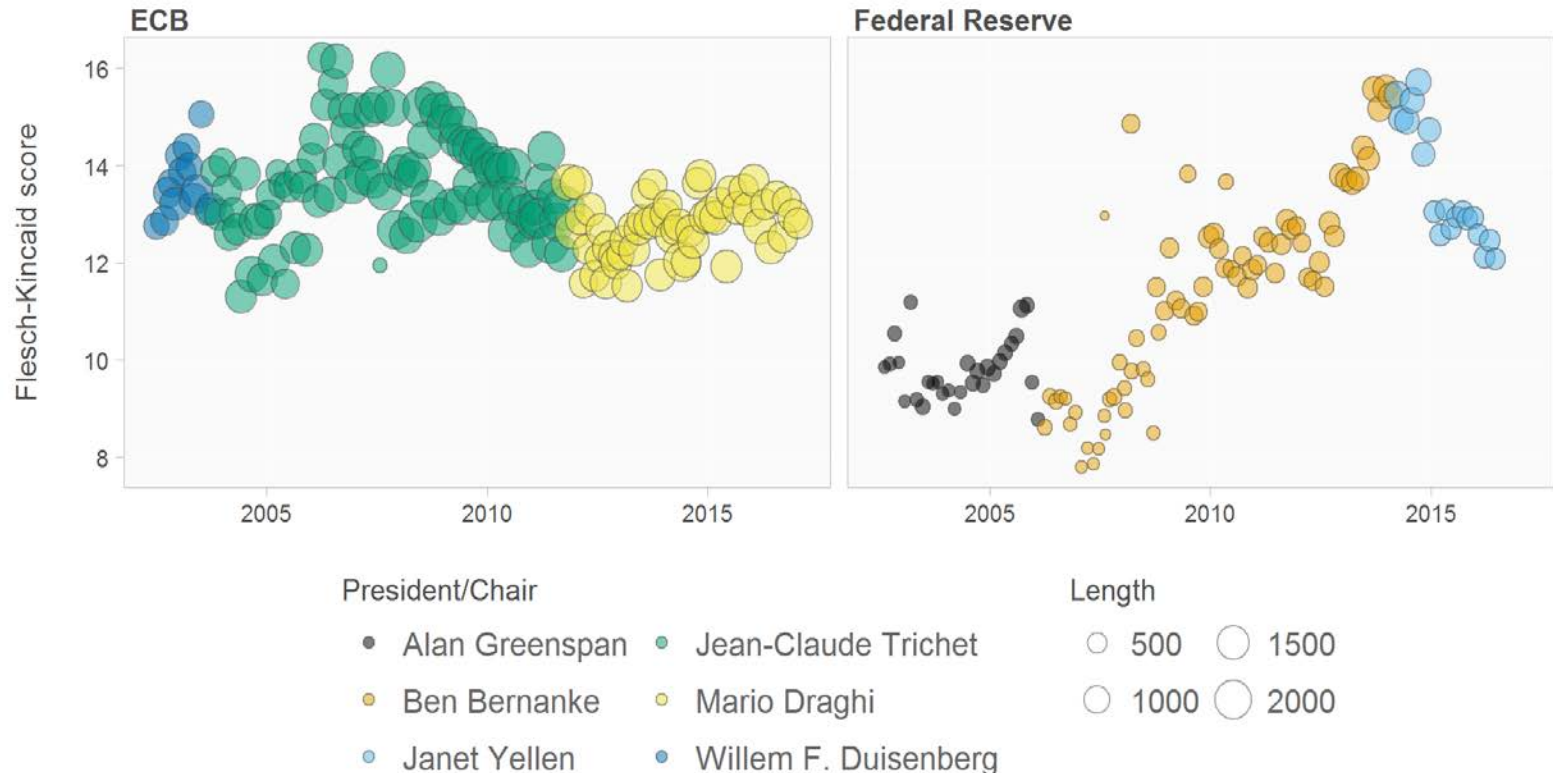
Length of monetary policy minutes



Source: Coenen et al. (2017). Length of the minutes (accounts) of the meetings of the monetary policy committees of different central banks, measured by the number of words.

- Longer FOMC statements, more difficult language
- Relatively stable ECB introductory statements (more standardised)

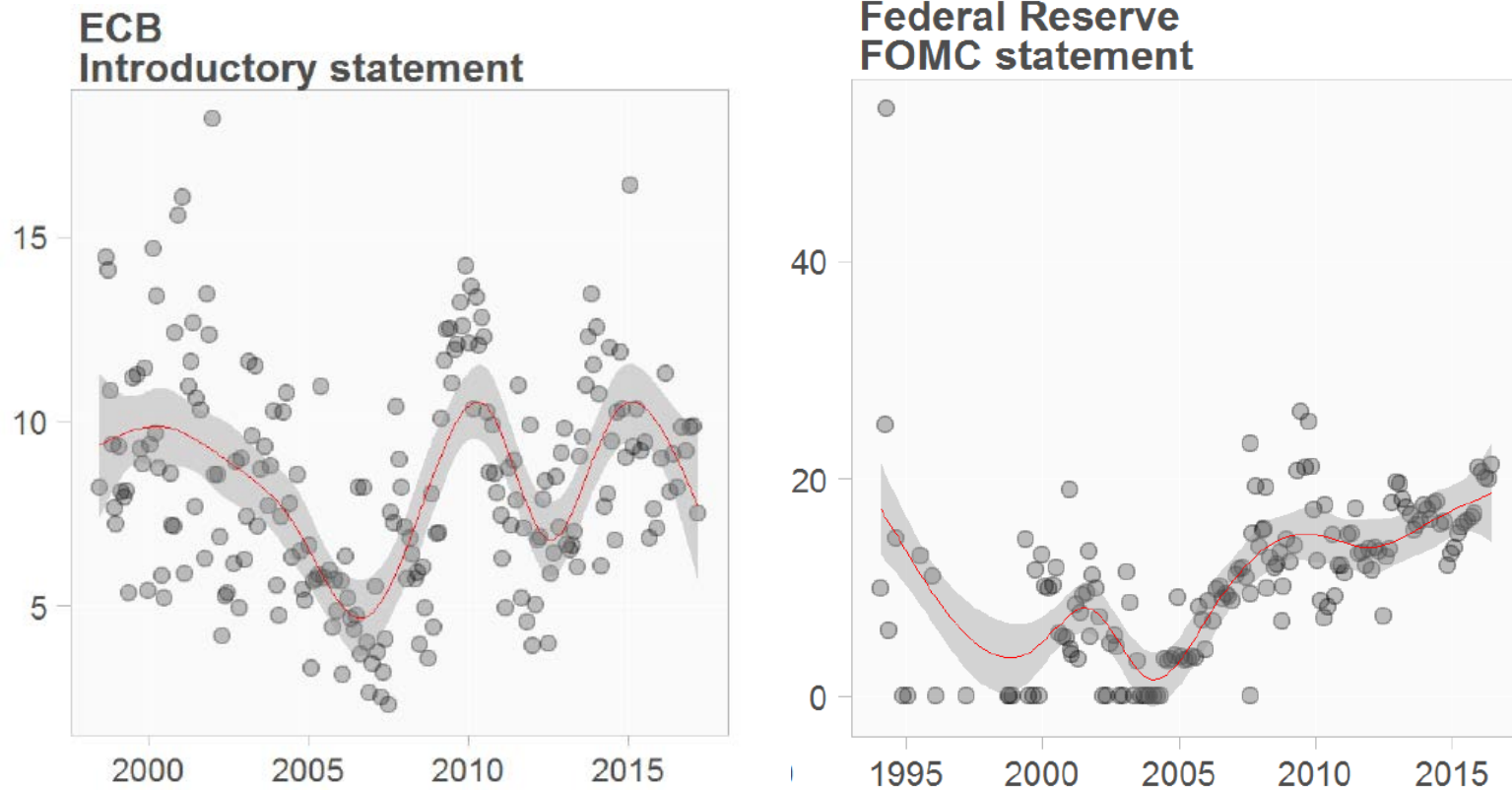
Length of ECB / FOMC statements and difficulty of language employed



Source: Coenen et al. (2017). Difficulty of language measured by Flesch Kincaid reading grade level. Last observation: March 2017.

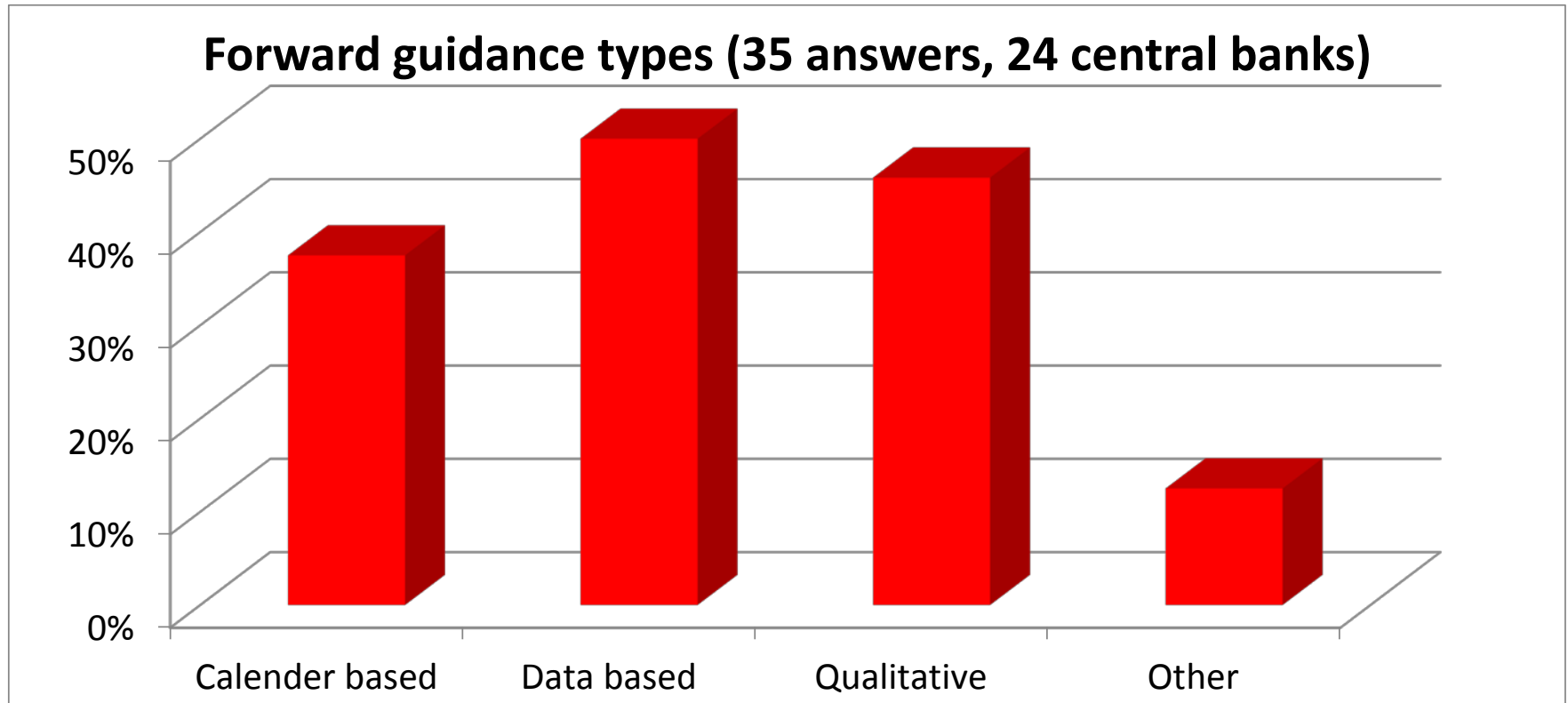
- Communication more forward-looking since the crisis

The use of forward-looking terms by the ECB and the Federal Reserve



Source: Coenen et al. (2017). Share of forward-looking terms (expect, going to, may, might, shall, will) per 1,000 words . Red lines denote Loess curves, grey shaded areas the 95% confidence interval. Last observation: March 2017.

- Forward guidance more widespread after the crisis; several types



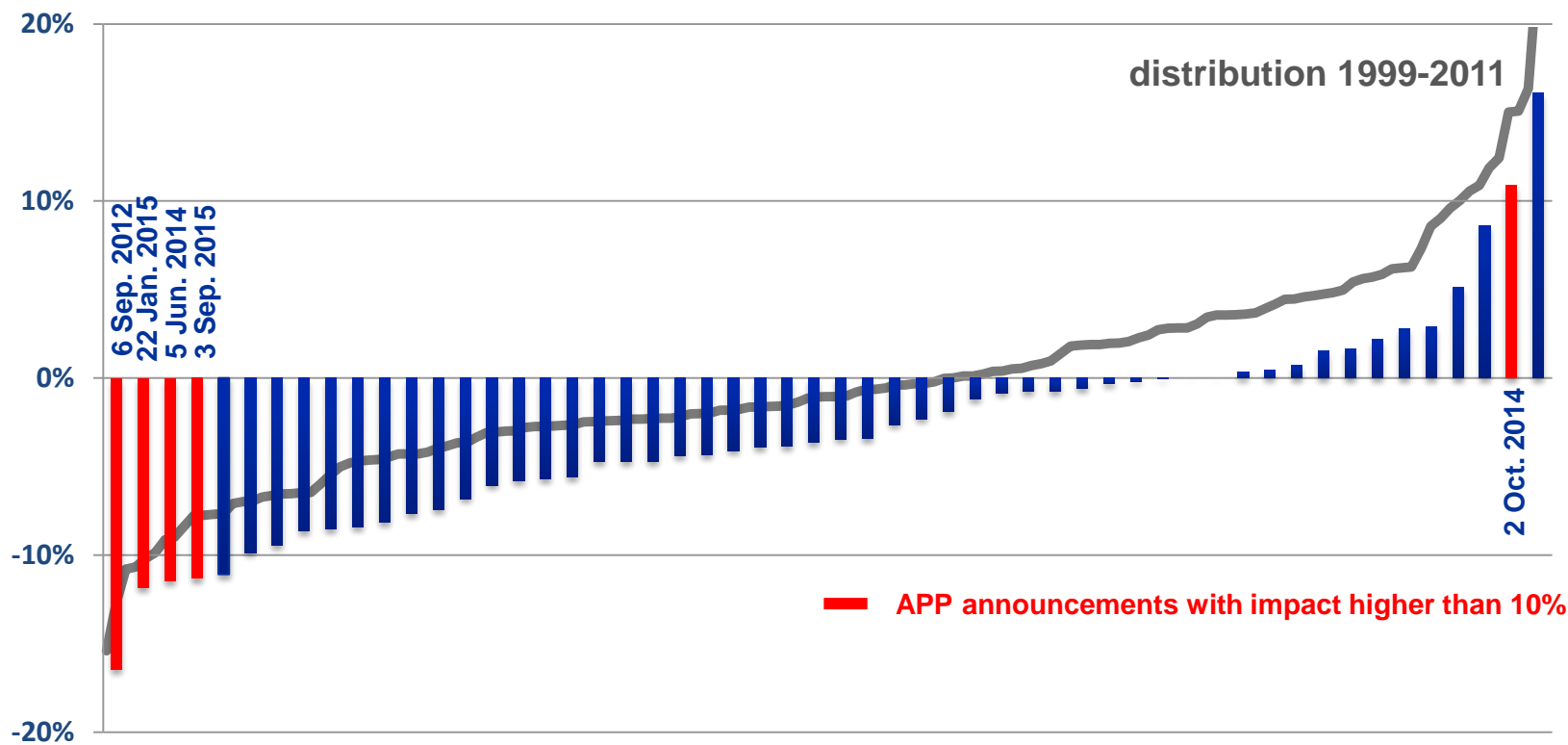
Source: Blinder et al. (2017) survey among central bank governors (55 responses).

“FG is often classified as being either calendar based (or “time contingent”), data based (or “state contingent”), or purely qualitative (i.e., providing neither a time frame nor economic conditions). Which type(s) of FG has your bank employed?”

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- On ECB press conference days, market uncertainty has generally declined, especially for APP announcements

Change in stock market uncertainty on ECB press conference days, 2012-2017



Source: Coenen et al. (2017). Change in stock market uncertainty measured by the 30-day VSTOXX index, all press conferences days 2012-2017, sorted by size. Last observation: March 2017.

- Uncertainty generally declined for APP announcements,...
- ... and more for announcements with information on size

Change in stock market uncertainty on ECB press conference days, 1999-2017

| | (1) | (3) |
|-------------------------------|---------|----------|
| APP announcement | -0.04** | |
| APP announcement with size | | -0.08*** |
| APP announcement without size | | -0.03** |
| APP outlier 2/10/2014 | | 0.15*** |
| Observations | 191 | 191 |

Source: Coenen et al. (2017). OLS regressions of daily percentage changes of the euro VSTOXX index on ECB press conference days, controlling for the readability and length of the introductory statement, the absolute surprise component in interest rate decisions and in U.S. jobless claims, the absolute change in German 2-year government bond yields and the level of the euro VSTOXX index one and two days before the press conference. ***/**/* denote statistical significance at the 1%/5%/10% level. Robust standard errors shown in brackets. Last observation: January 2017

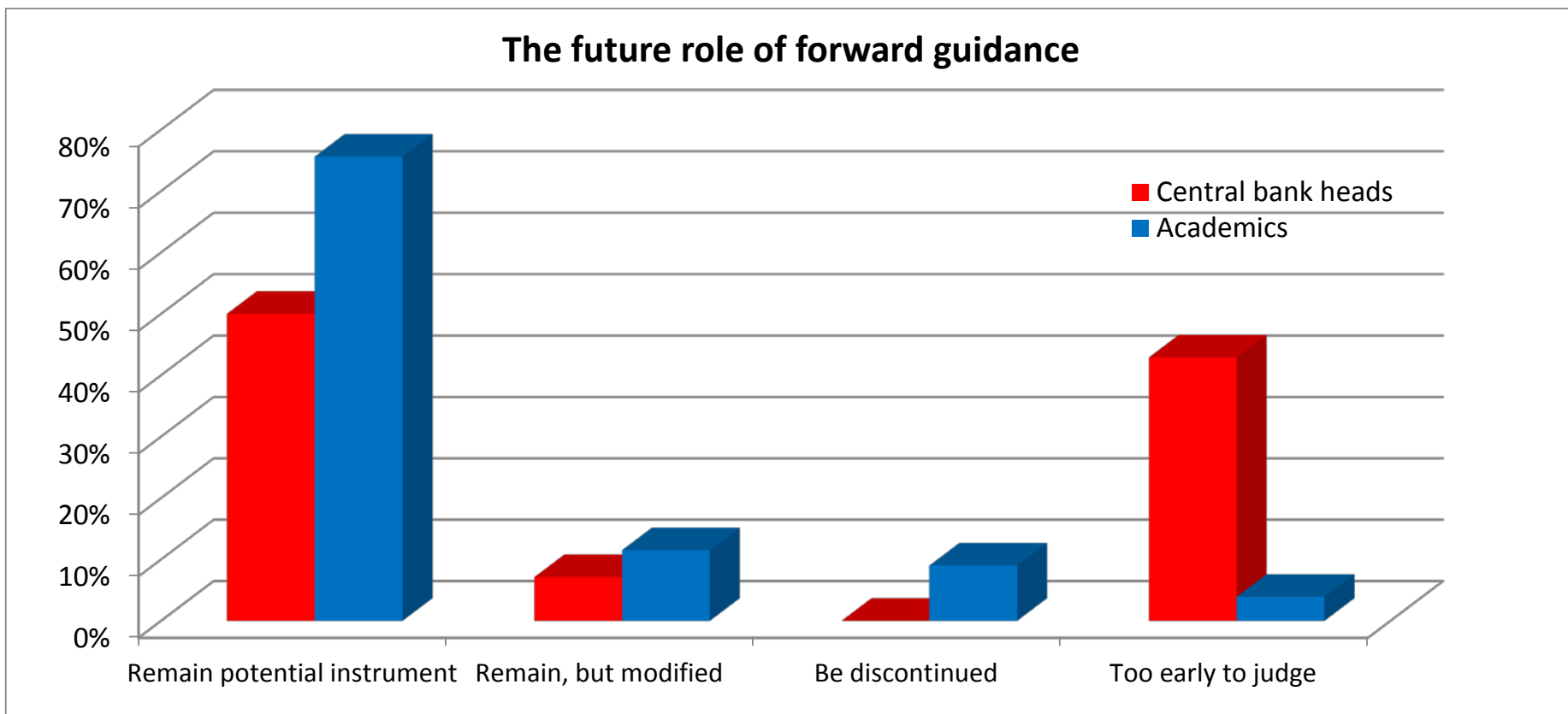
- What happened on 2 October 2014?
 - ABSPP and CBPP3 announced on 4 September 2014
 - Programme modalities released at 15:30; no concrete info on size
 - Several questions during Q&A, e.g. first question on size of programme
 - Financial Times: *“The lack of a hard figure from the ECB for the size of the purchases [...] fuelled disappointment. Information on the size of the programme was vague, the central bank saying only that it would have a “sizeable” effect on its balance sheet.”*
 - Bloomberg survey after the press conference
 - 67% of respondents express dissatisfaction with the information provided

- Summary
 - Press conferences have recently mostly reduced market uncertainty
 - More so for APP announcements
 - And especially for APP announcements with information on the size
- Results call for detailed and unambiguous communication about new policies (to the extent possible)

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What type of forward guidance?

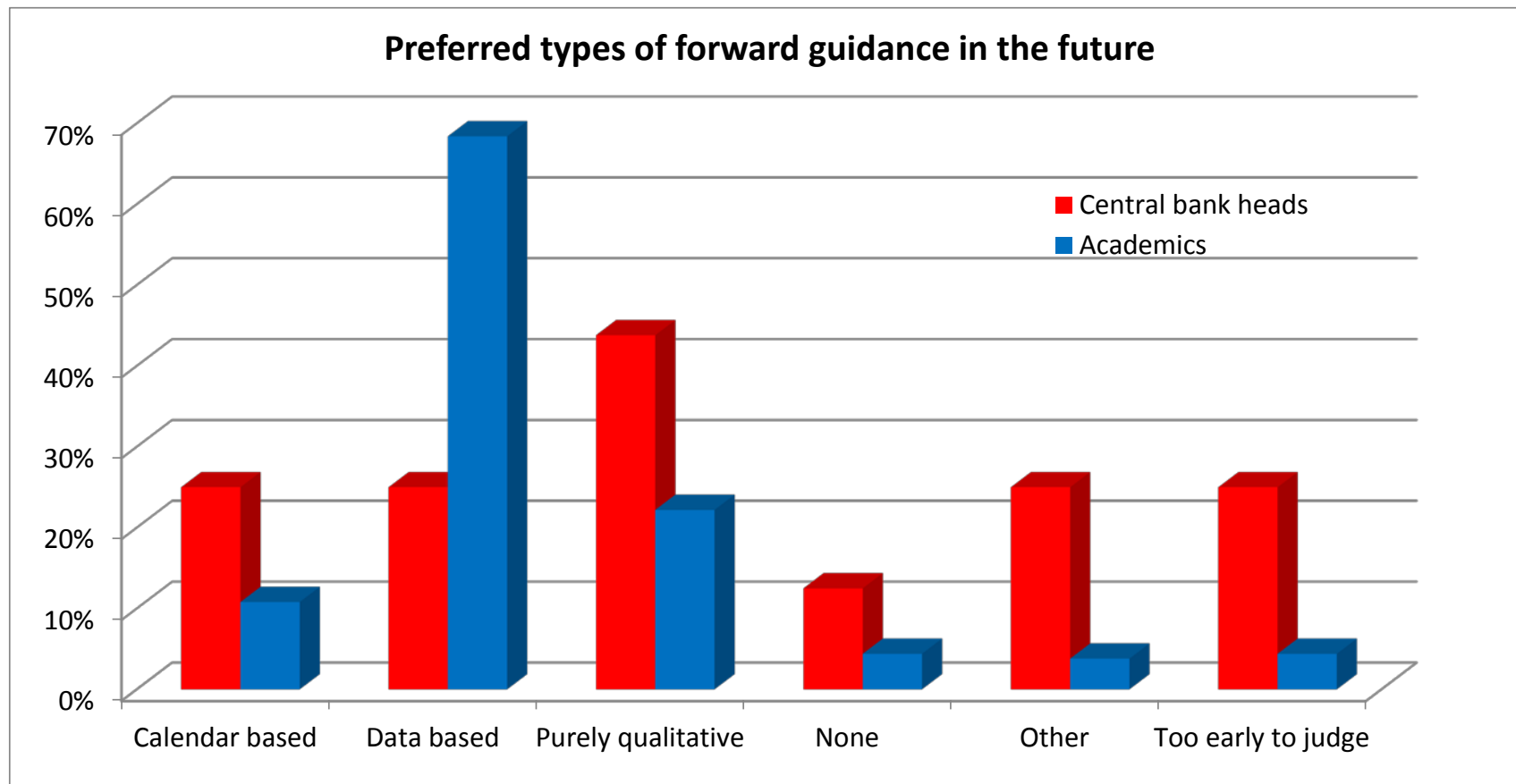
- FG to stay in the toolkit, yet many CB heads still skeptical



Source: Blinder et al. (2017) survey among central bank governors (55 responses) and academic economists (159 responses).

“Once conditions return to normal, do you think each of the following should remain a potential instrument of monetary policy, remain an instrument but in modified form, be discontinued, or that it is too early to judge?”

- Different views on the preferred type of FG



Source: Blinder et al. (2017) survey among central bank governors (55 responses) and academic economists (159 responses).

“In the future, which type(s) of forward guidance do you believe would be most effective for your central bank?”

- Does the *type* of FG matter for uncertainty?
 - Distinguishing
 - State-dependent FG
 - Time-dependent FG, with short and long horizons (1.5 years)
 - Open-ended FG
 - Two tests
 - Responsiveness of bond yields to macroeconomic surprises; Swanson & Williams (2014a,b); Feroli et al. (2016)
 - Disagreement across 1-year ahead forecasts of 3-month rates; Andrade et al. (2015)
 - Sample of advanced economies, periods with policy rates at or below 1%

What type of forward guidance?

- Responsiveness of bond yields to macroeconomic surprises
 - Lower under state-dependent FG and long-horizon FG
 - No change under open-ended FG
 - *Increased* responsiveness under short-horizon FG arises in absence of APP

| | Overall | No APP | APP in place |
|------------------------------|----------------|----------------|--------------|
| Time-dependent FG, <1.5years | 0.99*** | 1.91*** | 0.18 |
| Open-ended FG | 0.49** | 0.33* | 0.60* |
| No FG | 0.41** | 0.41 | 0.41** |
| State-dependent FG | 0.22* | n.a. | 0.22* |
| Time-dependent FG, ≥1.5years | 0.03 | 0.19 | 0.00 |

Source: Coenen et al. (2017). Responsiveness of 2-year government bond yields to macroeconomic surprises. Sample: Canada, Czech Republic, Germany, Italy, Japan, Norway, Sweden, UK and US. ***/**/* denote statistical significance at the 1%/5%/10% level. Surprises cover business confidence, consumer confidence, CPI inflation, GDP growth, industrial production, nonfarm payrolls, PMI, retail sales, unemployment. Bold numbers indicate that the coefficient estimate of a given FG regime is significant at a 10% level.

What type of forward guidance?

- Disagreement across 1-year ahead forecasts of 3-month rates
 - Eliminated under long-horizon; halved under state-dependent FG
 - No effect from open-ended FG and short-horizon FG
 - Without APP: increased disagreement under short-horizon FG
 - With APP: reduced disagreement for all types of FG

| | Overall | No APP | APP in place |
|-------------------------------|----------|--------|--------------|
| State-dependent | -0.27*** | n.a. | -0.39*** |
| Open-ended | -0.12 | 0.14 | -0.31** |
| Time-dependent, long horizon | -0.51*** | 0.07 | -0.80*** |
| Time-dependent, short horizon | 0.03 | 0.19** | -0.20* |
| $\bar{\Omega}$ | | 0.54 | |

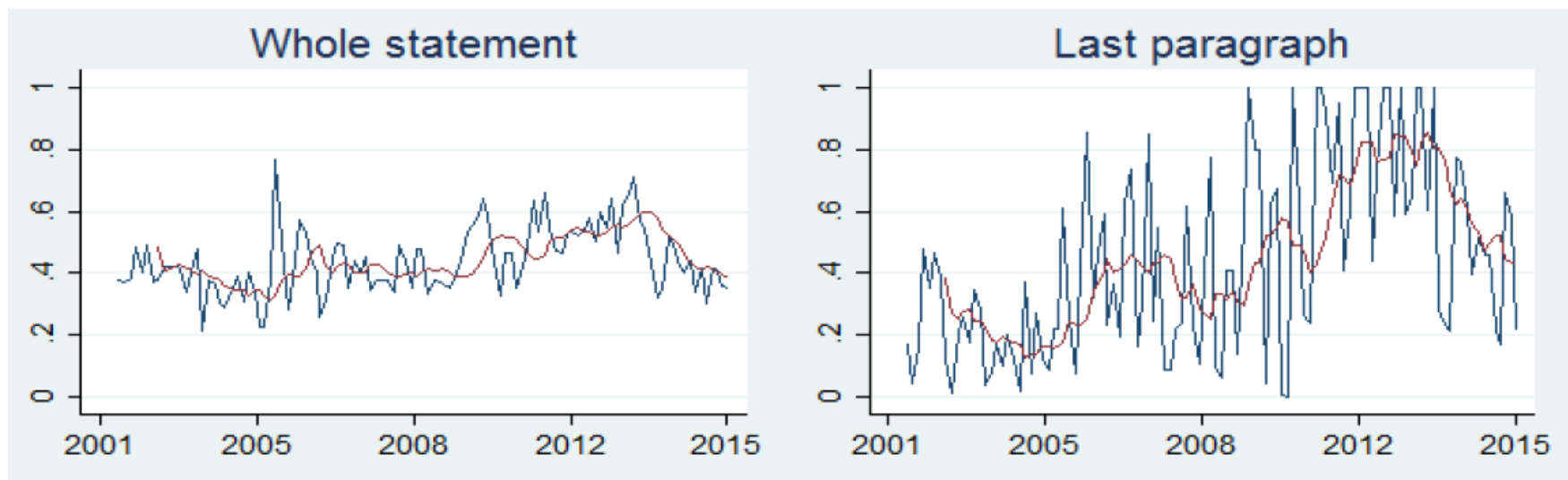
Source: Coenen et al. (2017). Effects of FG on disagreement across Consensus Economics forecasters. Sample: Canada, Czech Republic, euro area, Japan, Norway, Sweden, UK and US. ***/**/* denote statistical significance at the 1%/5%/10% level. $\bar{\Omega}$ denotes the sample average of the interquartile range in the absence of FG.

- FG strengthened in the presence of an APP
- Short-horizon and open-ended FG have little (or perverse) effects
- Long-horizon FG seems more effective
- State-dependent FG preserves market responsiveness, lowers disagreement
- Caveats
 - Time inconsistency
 - Credibility required
 - Trade-off between simplicity and accuracy/robustness of state contingency

- Use state contingency that is
 - Consistent with the central bank's mandate
 - Reliable and available in real time
 - Independently verifiable
 - Robust
 - Easy to communicate

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- To clarify guidance, statements are often drafted starting from the previous text
- Statements have become more similar, e.g., Bank of Canada



Source: Ehrmann and Talmi (2017). The chart shows the cosine similarity (distance) between fixed-length vector representations of consecutive pairs of press releases (bag of words model). The measure lies between 0 (different statements) and 1 (identical statements).

- This shapes the way the media report, e.g.

<http://projects.wsj.com/fed-statement-tracker/#>



Fed Statement Tracker



The Federal Reserve releases a statement at the conclusion of each of its policy-setting meetings, outlining the central bank's economic outlook and the actions it plans to take. Pundits and traders parse the changes between statements closely to see how policy makers' views are evolving. Use the tool below to compare any two statements since 2007.

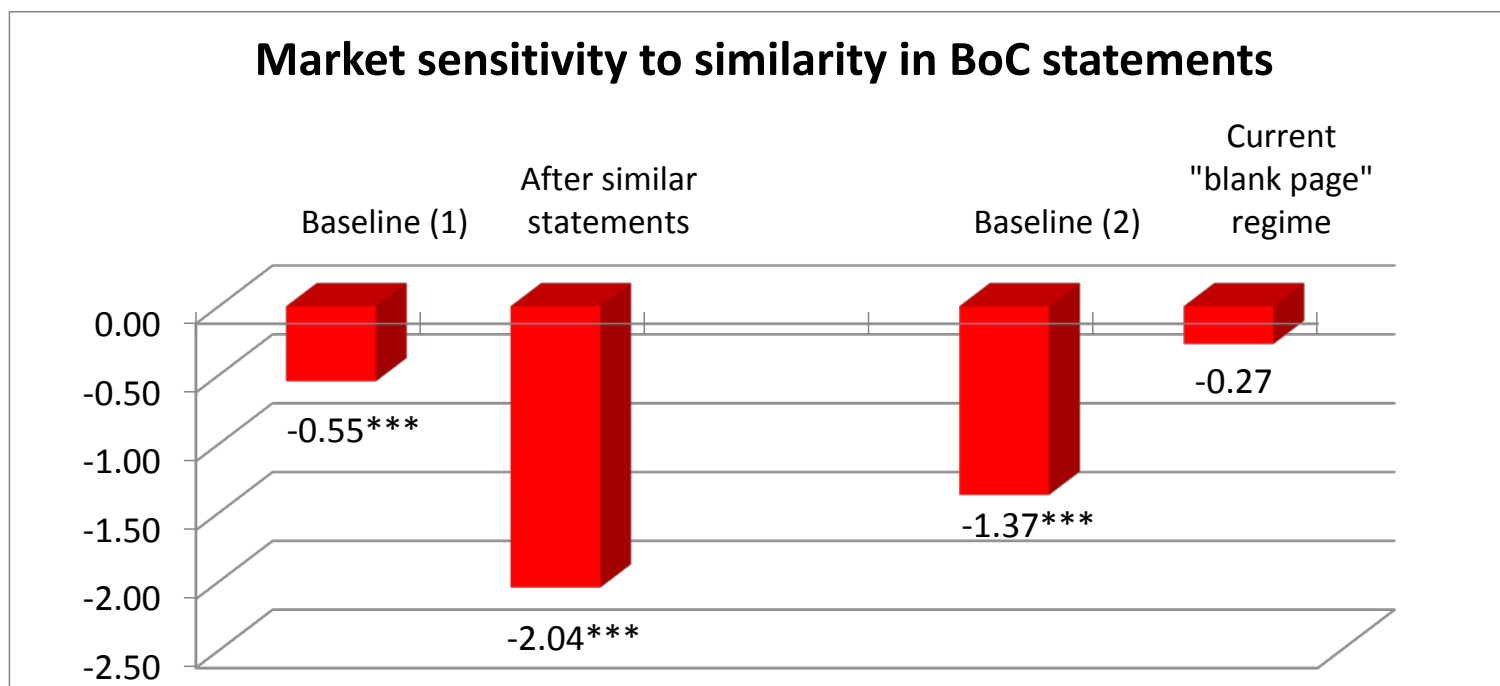
By [WSJNewsGraphics](#)

Select two statements to compare: > [hide changes](#)

Information received since the Federal Open Market Committee met in ~~December~~ **January** suggests that ~~labor market conditions improved further even as economic growth slowed late last year.~~ **Household spending and business fixed investment have** economic activity has **been expanding at a moderate pace despite the global economic and financial developments of recent months.** Household spending has been increasing at a moderate rates ~~in recent months,~~ and the housing sector has improved further; however, ~~net exports have been soft and inventory investment~~ **business fixed investment and net exports have been slowed**oft. A

- In Ehrmann and Talmi (2016), use BoC statements to test for the effect of similarity on market volatility
 - Conditional volatility derived from EGARCH model
 - 1-year government bond yields, daily changes
 - Starting November 2001
 - Control for (absolute) surprise in decision via Bloomberg survey

- Markets are sensitive to the drafting
 - More similar statements easier to digest – less market volatility
 - Sensitivity four-fold after highly similar statements; volatility rises
 - Market sensitivity small and insignificant under current regime



Source: Ehmann and Talmi (2017). The chart shows regression coefficients for the effect of similarity on the conditional variance of 1-year government bond yields. *** denotes statistical significance at the 1% level.

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- Detailed and unambiguous guidance comes at a premium, but also has costs
- Drafting matters
- Forward guidance
 - Strengthened in the presence of an APP
 - State-dependent FG preserves market responsiveness and lowers disagreement
- Important to stress state-dependency of central bank actions

Thank you for your attention!

- Blinder, A., M. Ehrmann, J. de Haan, and D.-J. Jansen (2017), “Necessity as the mother of invention: Monetary policy after the crisis”, *Economic Policy* 32(92), 707–755.
- Coenen, G., M. Ehrmann, G. Gaballo, P. Hoffmann, A. Nakov, S. Nardelli, E. Persson, and G. Strasser (2017), “Communication of monetary policy in unconventional times”, ECB Working Paper No. 2080
- Ehrmann, M., and J. Talmi (2017), “Starting from a blank page? Semantic similarity in central bank communication and market volatility”, ECB Working Paper No. 2023