

# Discussion

Connecting the dots: market reactions to forecasts of policy rates and forward guidance provided by the Fed

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**What is this  
paper about?**



# What is this paper really about?

- Can market participants make sense of dissonant communication and guidance?
- Which information do they weigh most?
- Can several kinds of guidance be used simultaneously and to good effect?

# Summary of the main results

1. Time-to-lift-off implied by FOMC statements, dot plots and economic outlook all correlated with market pricing of lift off.
2. Markets adjust time-to-lift-off-pricing in the same direction as the surprises in the dot plots and FOMC statement.

➔ Market participants incorporate dissonant information

3. Markets remain sensitive to macroeconomic news

➔ Forward guidance is understood to be conditional.



# Let's have a closer look at the ingredients



**Dot plots:** when the means reaches 0,375 percent.

**Fed funds futures:** when the rate passes through 0,375 percent

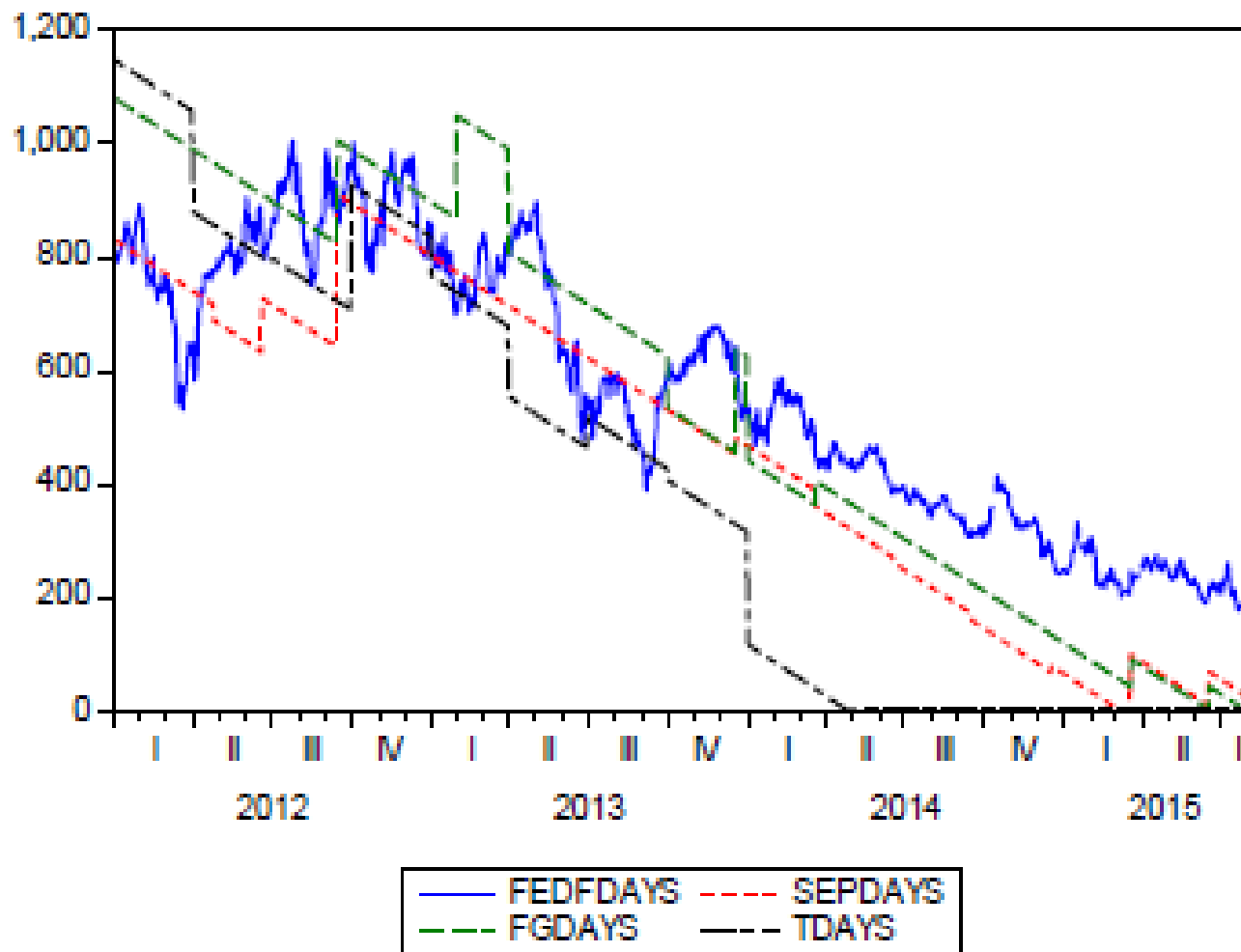
**FOMC statements:** map forward guidance into days to lift-off

**Primary Dealer survey:** map qualitative answers to days to lift-off

**Taylor rule:** use mean SPF inflation and unemployment forecasts

# Comment 1: Level regressions with trending variables

Figure 2: Different measures of expected days to lift-off from the ZLB



# Comment 1: Level regressions with trending variables

High risk for spurious regression and significant coeffs.

**Table 1**

Dependent variable: LOG(FEDFDAYS)	
Variable	
$\alpha$	4.653***
LOG(SEPDAYS)	0.075***
LOG(FGDAYS)	0.150***
LOG(TDAYS)	0.069***
Adj. $R^2$	0.91
No. of observations	932

- Run tests.  $R^2 > DW$ ?
- Trend stationary? Include a trend in the estimation.
- Near integrated with drift? Test for cointegration.

Do the coefficients survive?

# Comment 2: pesky term premia

Term premia in funds futures pricing distort the measurement of implied days-to-lift-off. Small, time-varying and hard to measure.

## 1. Level regressions: probably not a problem.

- If term premia  $>0$ , time-to-lift-off is longer than implied by price quotes. Vice versa if term premia negative.
- Hopefully comes out in the wash in the intercept.

## 2. Surprise regressions: more problematic

- The coefficients could owe to correlation between term premia and surprises.



## Comment 2: pesky term premia

$$\Delta fedfunds_{future}^m_t = \Delta E_t(fedfunds_{t+m}) + \Delta term\ premium^m_t$$

- $\Delta term\ premium$  might be correlated with surprises in the dot plots or FOMC statements
  - Lower for longer = less near-term rate risk
  - Even small  $\Delta tp$  can generate sizeable coefficients
- Try including variables which might covary with term premia, e.g. disagreement about near-term rates, or fed funds option-implied densities.
- Do the coefficients on the dot plots survive this treatment?

## Comment 2: pesky term premia

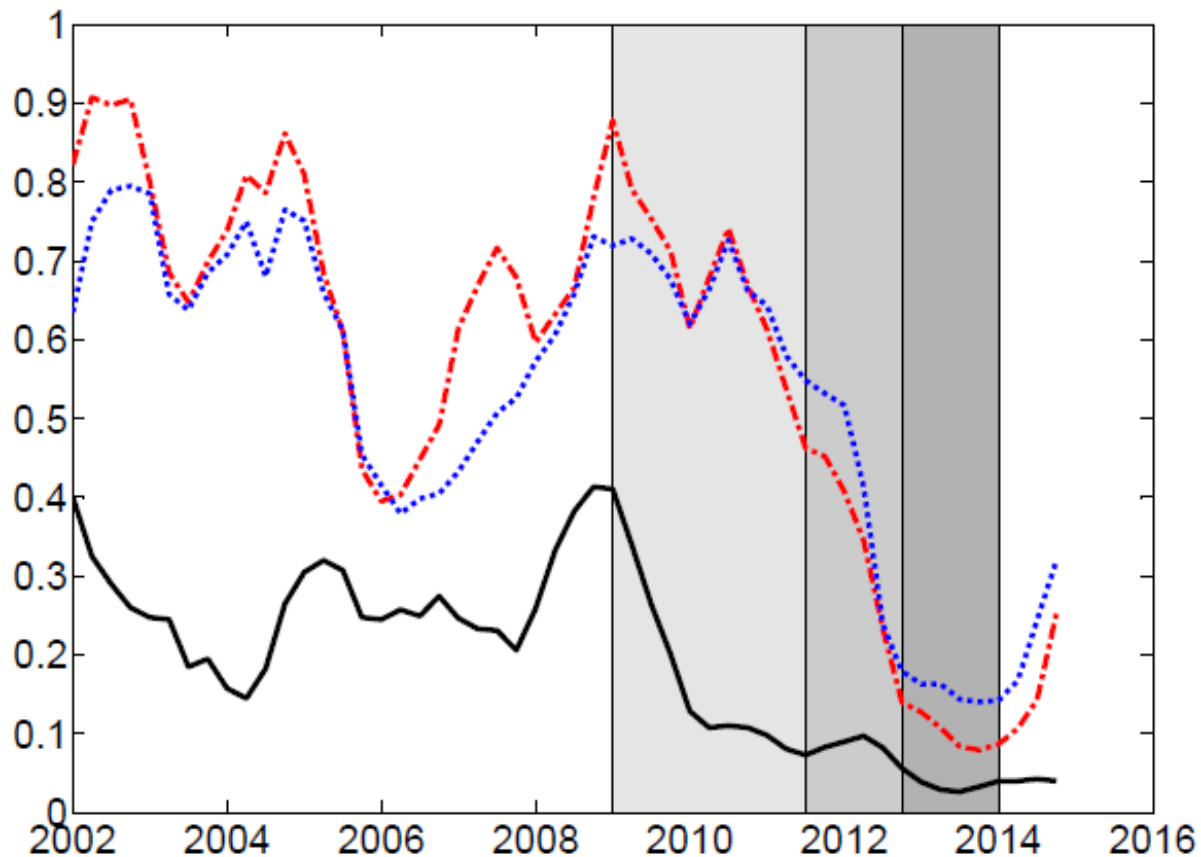


Figure 3: Disagreement about future short-term interest rates.

# Comment 3: There is richness beyond the mean

Account for and exploit heterogeneity for more insight into the workings of lift-off guidance.

1. Did markets react to disagreement in the dot plots?
2. Dispersion in SPF forecasts of inflation and unemployment generate a distribution for threshold-based lift-off. Did dispersion drive pricing?
3. Primary dealers' expectations of Forward Guidance differed. As well as the modal expectation, exploit the range of views.

# Final reflection: an effective communication combo?

- Can several kinds of guidance be used simultaneously to good effect?
- This paper shows us that markets reacted to information which was made available. But ...
  - Was this an effective combination of communication?
  - Should we be delighted that the dot plots contained market-moving information, or distraught that they distracted from the statements?



