

Discussion:

Monetary Policy as Insurance

Stefano Eusepi

Christopher G. Gibbs

Bruce Preston

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Gaetano GABALLO
HEC Paris

Forward Guidance and Learning

- **Problem:** Optimal FG design with ZLB of uncertain duration & agents learning over time.
- **RE no-learning benchmark:** longer commitments only if the crisis lasts longer.
- **This paper's trade off:**
 - ✓ Risk of **overshooting** inflation if the **shock is short** **vs.** ensuring **stronger** recovery if the **shock is long**.
- **Intuition:**
 - ✓ Early promises fuel expectations and allow general equilibrium effects to build gradually.
 - ✓ Helps the economy remain resilient if the shock persists.

Forward Guidance and Learning

➤ Key Policy Messages:

- ✓ Make bold, front-loaded promises & taper commitments if the crisis continues.
- ✓ High inflation in recovery isn't necessarily a policy mistake — it's the “insurance premium” for guarding against a persistent downturn.
- ✓ Calendar-based forward guidance (e.g., 6 quarters of low rates) approximates optimal policy.

“Insurance” vs “Learning takes time”

Perception:
$$z_t = \begin{cases} \omega_{0,L} r_L + \omega_t + e_t, & S = L \\ \omega_t + e_t, & S = H \end{cases}$$

Learning:
$$\omega_{t+1|t} = (\rho - g) \omega_{t|t-1} + g (z_t - \omega_{0,L} r_L \cdot \mathbb{1}_{\{S=L\}}),$$

Truth:
$$z_t = \begin{cases} \bar{\omega}_L r^L + \mathcal{T}_t(\omega_{t|t-1}) & S = L \\ \mathcal{T}_t(\omega_{t|t-1}), & S = H, \end{cases}$$

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Agents have a “simplified” yet quite specific view of the model economy:

- the GE effects ω do not depend neither on the state L vs H, nor on its persistency?

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→ Can front-loading being “simply” induced by time to learn? Proof of concept: change updating gain g !

“Homogenous views of policy”

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→ What is more unusual: GE effects or FG policy?

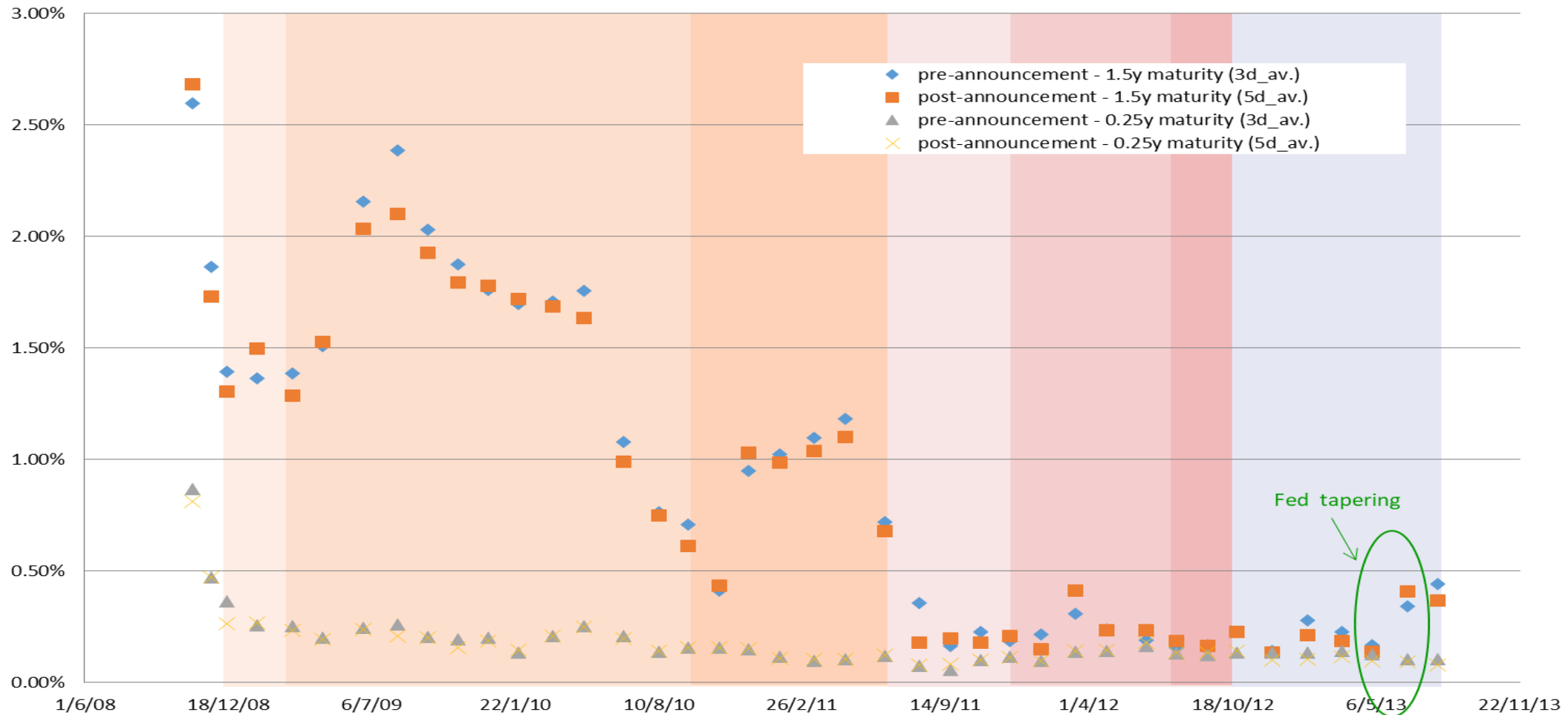
The birth of FG in the US

Date	FG Wording	FG Features	Additional measures
16/12/08	"... the Committee anticipates that weak economic conditions are <u>likely</u> to warrant exceptionally low levels of the federal funds rate for some time. "	Open-date	rate cut from 1 to 0.25 pre-announced the 25/11/08
18/03/09	"... the Committee anticipates that weak economic conditions are <u>likely</u> to warrant exceptionally low levels of the federal funds rate for an extended period. "	Open-date	Q1: \$750 b. MBS, \$100 b. agency debt, \$300 b. Treasuries (in 6 months) + TALF
03/11/10	"... the Committee anticipates that weak economic conditions are <u>likely</u> to warrant exceptionally low levels of the federal funds rate for an extended period. "	Open-date	Q2: \$600 b. Treasuries by mid 2011, (\$75 billion/month)
09/08/11	"... economic conditions -- including low rates of resource utilization and a subdued outlook for inflation over the medium run -- are <u>likely</u> to warrant exceptionally low levels of the federal funds rate at least through mid-2013. "	Fixed date	
25/01/12	"...anticipates that economic conditions -- including low rates of resource utilization and a subdued outlook for inflation over the medium run -- are <u>likely</u> to warrant exceptionally low levels for the federal funds rate at least through late 2014. "	Fixed date	Releases of FOMC members' projections of appropriate monetary policy
13/09/12	"...anticipates that exceptionally low levels for the federal funds rate are <u>likely</u> to be warranted at least through mid 2015. "	Fixed date	Q3 : \$40 b. MBS per month
12/12/12	"anticipates that this exceptionally low range for the federal funds rate <u>will be</u> appropriate at least as long as (i) the unemployment rate remains above 6-1/2 percent, (ii) inflation between one and two years ahead is projected to be no more than a half percentage point above the Committee's 2 percent longer-run goal, (iii) and longer-term inflation expectations continue to be well anchored. "	State - contingent	Q3': Treasuries at \$45 b. per month



Calendar FG vs Contingent FG

Effect of Fed announcement



open-date



fixed date

state-cont.



“Heterogeneous views of policy”

* different dimensions of disagreement *

Rates

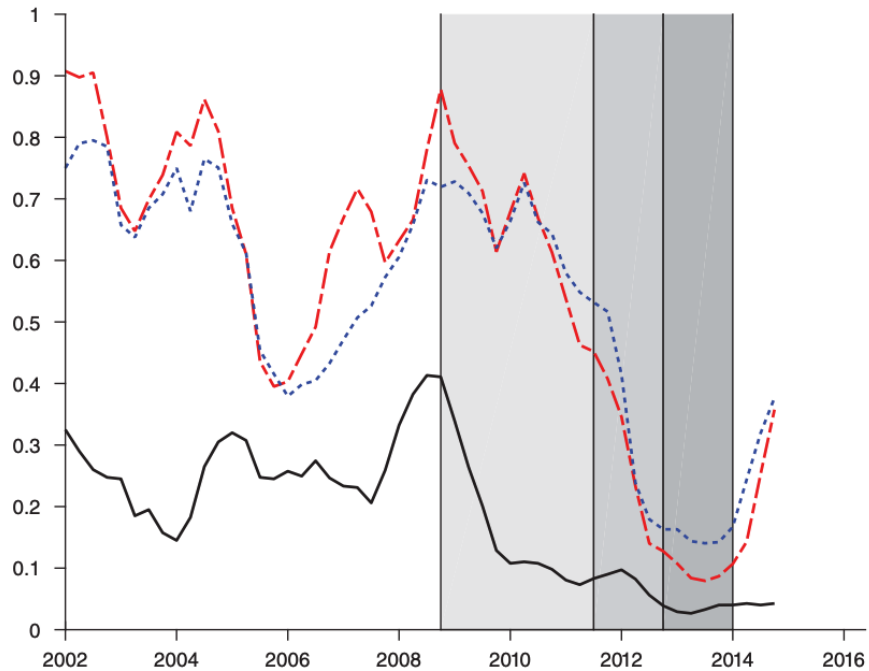


FIGURE 1. DISAGREEMENT ABOUT FUTURE SHORT-TERM INTEREST RATES

Notes: The chart displays the evolution of a moving average over the last 4 quarters of the 75/25 inter-quantile range in the distribution of 1-quarter (plain line), 1-year (dotted/dashed line), and 2-year (dotted line) ahead individual mean point forecasts for 3-month T-Bill interest rate. The shaded areas correspond to the periods of the ZLB and “open-date” forward guidance, “date-based” forward guidance, and the “state-contingent” forward guidance.

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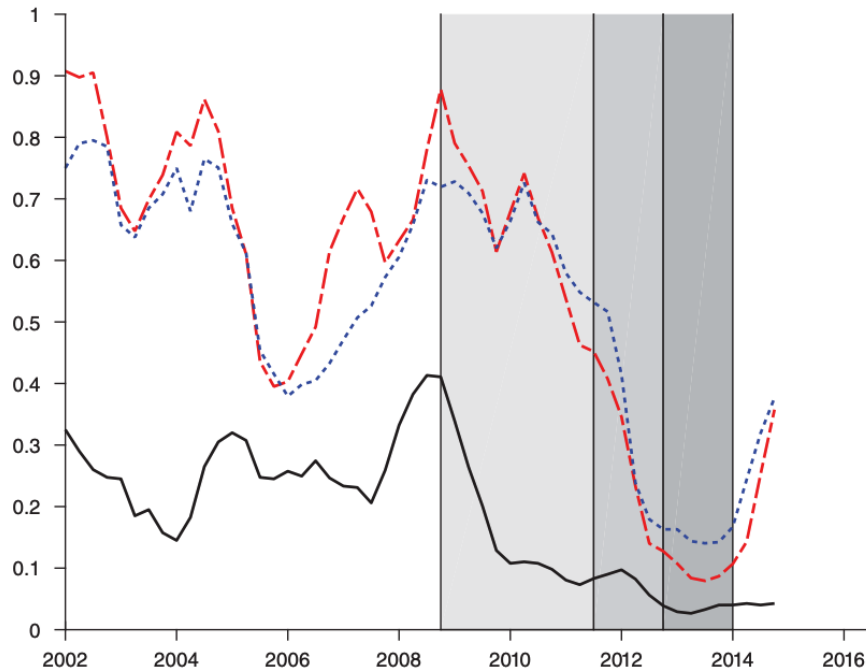
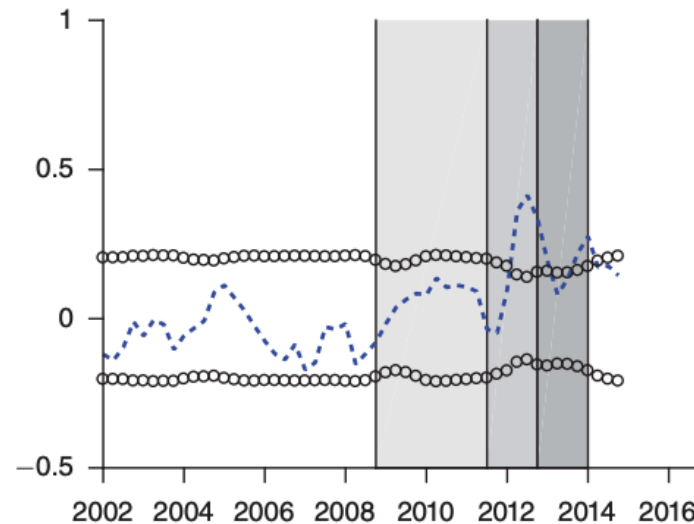


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Consumption

Panel A. Consumption—two years ahead



Inflation

Panel B. Inflation—two years ahead

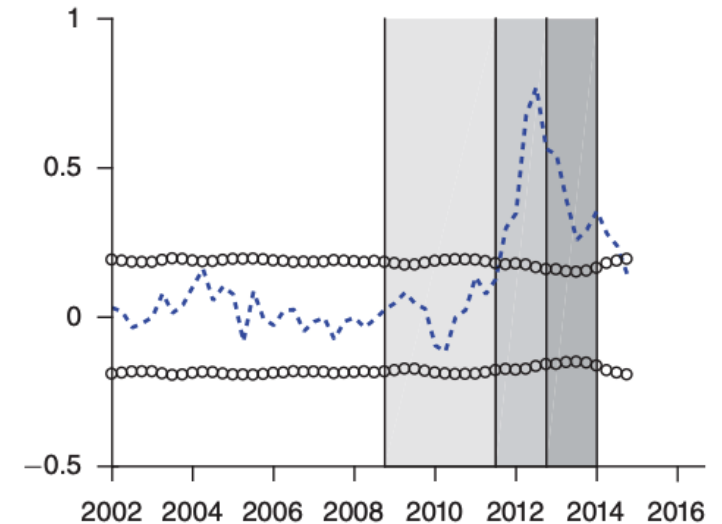


FIGURE 2. EXCESS DISAGREEMENT ABOUT FUTURE CONSUMPTION AND INFLATION

Notes: The figure plots the residuals of a regression of the (log) disagreement on two-year-ahead consumption growth (inflation) forecasts on the (log) disagreement on two-year-ahead short-term interest rate and disagreement on one-quarter-ahead consumption growth (inflation) forecast. The regression is estimated on a pre-crisis sample (1982:II–2008:IV). Circles give the bands of a 95 percent confidence interval that takes into account autocorrelation and heteroscedasticity of the residuals. The shaded areas correspond to the periods of the ZLB and “open-date” forward guidance, “date-based” forward guidance, and the “state-contingent” forward guidance.

Final remarks

- **Great paper on difficult question:**

- how to design forward guidance policy when agents are backward looking ?

- **Nice logic:**

- build a stock of learning on policy effects before it is too late and costly

- **Challenges ahead:**

- people have heterogeneous beliefs about policy and model economy

Angeletos & Chen “Forward Guidance without Common Knowledge.” AER, 2018.

Michelacci & Paciello “Ambiguous Policy Announcements.” ReStud, 2020.

Iovino & Sergeyev “Central Bank Balance Sheet Policies Without Rational Expectations” ReStud, 2023.

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