“FORWARD GUIDANCE AND HETEROGENEOUS BELIEFS”

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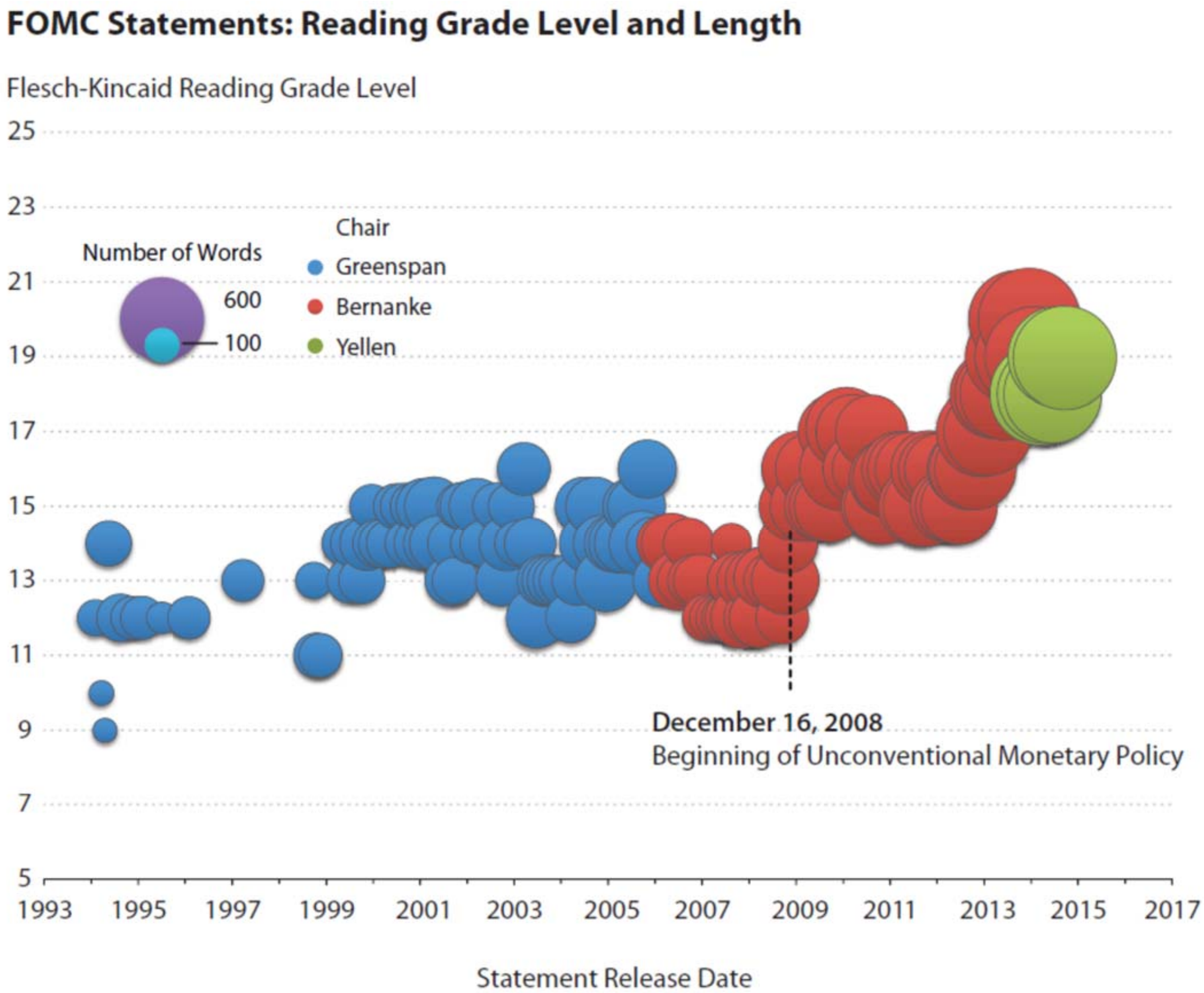
- A key challenge: interpretation of the Fed's announcements

  - A promise indicates that the current fundamentals are bad and the Fed reacts to the poor economic conditions ("delphic"; "state of the economy")

  - A promise indicates an innovation to monetary policy ("odyssean", "stance of monetary policy")

COMMUNICATION: RISING COMPLEXITY



NOTE: Reading grade-level calculated by ETS TextEvaluator℠; https://texteval-pilot.ets.org/TextEvaluator/.

Source: Hernández-Murillo and Shell (St. Louis Fed's Economic SYNOPSES, Nov 2014)

COMMUNICATION: FED WATCHERS

Select two statements to compare: Jan 28, 2015 › Mar 18, 2015 hide changes

Information received since the Federal Open Market Committee met in ~~December~~January suggests that economic ~~activity has been expanding at a solid pace~~growth has moderated somewhat. Labor market conditions have improved further, with strong job gains and a lower unemployment rate. ~~On balance, a~~A range of labor market indicators suggests that underutilization of labor resources continues to diminish. Household spending is rising moderately;~~ recent~~ declines in energy prices have boosted household purchasing power. Business fixed investment is advancing, while the recovery in the housing sector remains slow and export growth has weakened. Inflation has declined further below the Committee's longer-run objective, largely reflecting declines in energy prices. Market-based measures of inflation compensation ~~have declined substantially in recent months~~remain low; survey-based measures of longer-term inflation expectations have remained stable.

Consistent with its statutory mandate, the Committee seeks to foster maximum employment and price stability. The Committee expects that, with appropriate policy accommodation, economic activity will expand at a moderate pace, with labor market indicators continuing to move toward levels the Committee judges consistent with its dual mandate. The Committee continues to see the risks to the outlook for economic activity and the labor market as nearly balanced. Inflation is anticipated to ~~decline further~~remain near its recent low level in the near term, but the Committee expects inflation to rise gradually toward 2 percent over the medium term as the labor market improves further and the transitory effects of ~~lower ~~energy price declines and other factors dissipate. The Committee continues to monitor inflation

Source: WSJ Fed Statement Tracker

Communication: WSJ (Feb 5, 2015)

WSJ: We're all a little consumed right now with the word "patient" in the policy statement, which I'm sure really pleases you. What will it mean when the Fed removes patient from its statement?

PLOSSER: It could mean different things to different people. The chair has articulated what she means. I think it is fair to say that once the committee chooses to remove "patient" that they are making a different statement about the likelihood and timing of rate increases. More precisely what that means, it will depend on economic conditions. We would save ourselves a lot of headaches and you guys writing a lot of words if we didn't use (words like "patient"). I've been only marginally successful in reducing our efforts to do that.

WSJ: The Fed added new words to its policy statement in January, a reference to "international developments."

PLOSSER: Our statement is a bit like Hotel California. Words check in and they never check out. We have way too many words. I think our statement is too long. I think it is too confusing. I think it needs a thorough rewrite. I've suggested that before. Over the course of this unusual period of time, the statement has gotten longer and longer and policy has gotten more and more complex. I'm not sure that all of the extra words and all of the complexity have necessarily improved our communication particularly. At times I think it has gotten more confusing and not less confusing.

Source: "Plosser Says Fed 'Will Struggle' With Policy Statement at March Meeting"

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  $\Longrightarrow$Consume less now

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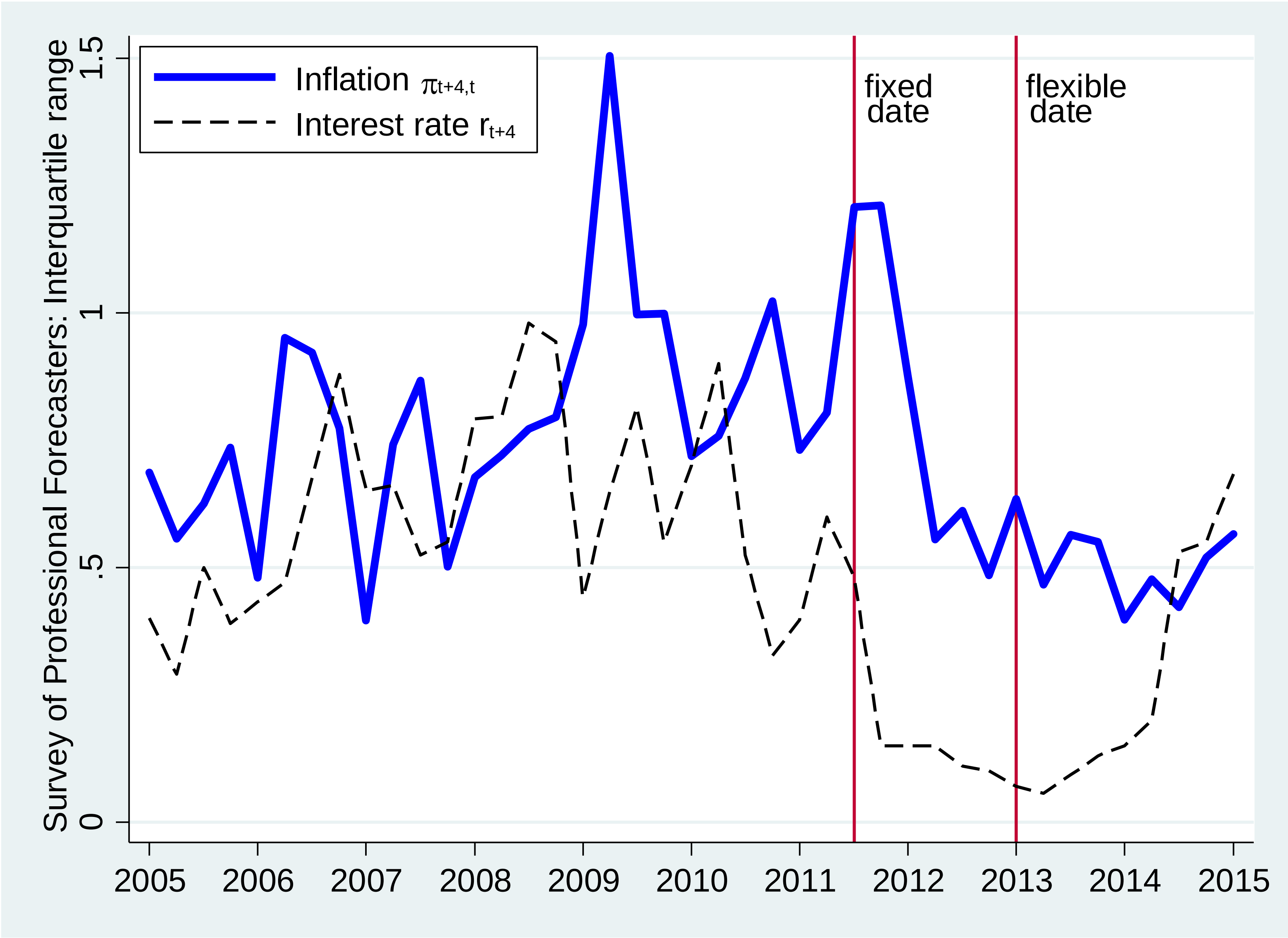
How to measure? Examine disagreement

$$var_i(r) = f^2 var_i(\Omega) + var_i(\epsilon)$$

DISAGREEMENT



FORWARD GUIDANCE AND COVARIANCE OF BELIEFS

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  If forecaster A has a more negative belief about ϵ than forecaster B ($E_t^A \epsilon_{t+4} < E_t^B \epsilon_{t+4}$), then forecaster A should predict a worse fundamental than forecaster B ($E_t^A \Omega_{t+4} < E_t^B \Omega_{t+4}$).

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  $\Longrightarrow$ In the cross-section, the covariance between Ω and ϵ should be **POSITIVE**.

- ϵ is low which indicates expansionary policy of the Fed ("odyssean")

  If forecaster A believes in expansionary policy more strongly than forecaster B ($E_t^A \epsilon_{t+4} < E_t^B \epsilon_{t+4}$), then forecaster A should predict a stronger fundamental than forecaster B ($E_t^A \Omega_{t+4} > E_t^B \Omega_{t+4}$).

  $\Longrightarrow$ In the cross-section, the covariance between Ω and ϵ should be **NEGATIVE**.

FORWARD GUIDANCE AND COVARIANCE OF BELIEFS

Procedure:

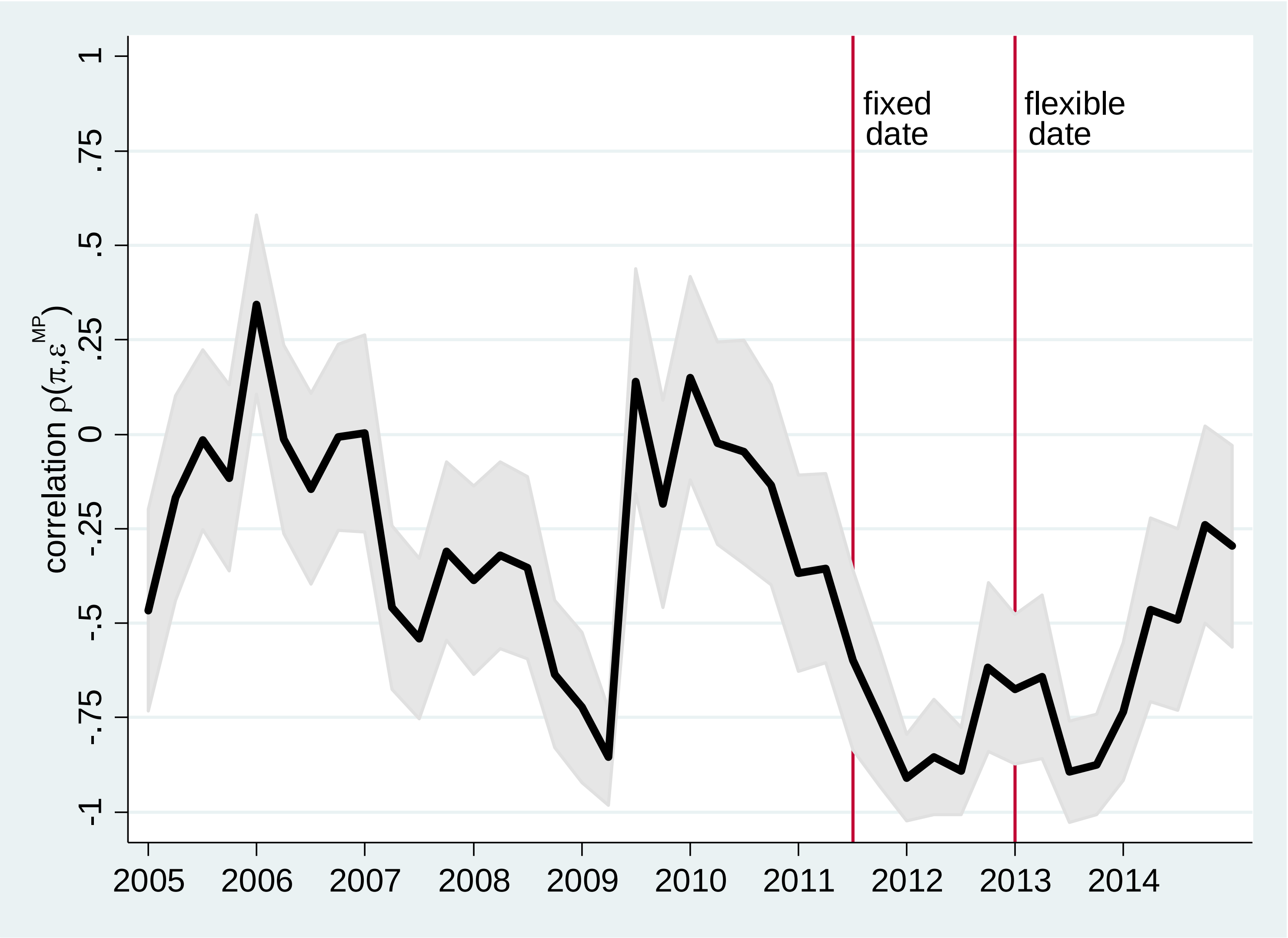
- Estimate policy reaction function using pre-Great Recession period (1992Q1-2007Q1)

$$r_{i,t+4} = b_\pi \pi_{i,t+4|t} + b_{UR} UR_{i,t+4|t} + b_r r_{i,t-1} + \psi_i + \epsilon_{i,t+4|t}$$

- Calculate residuals $\hat{\epsilon}_{i,t+4|t}$.

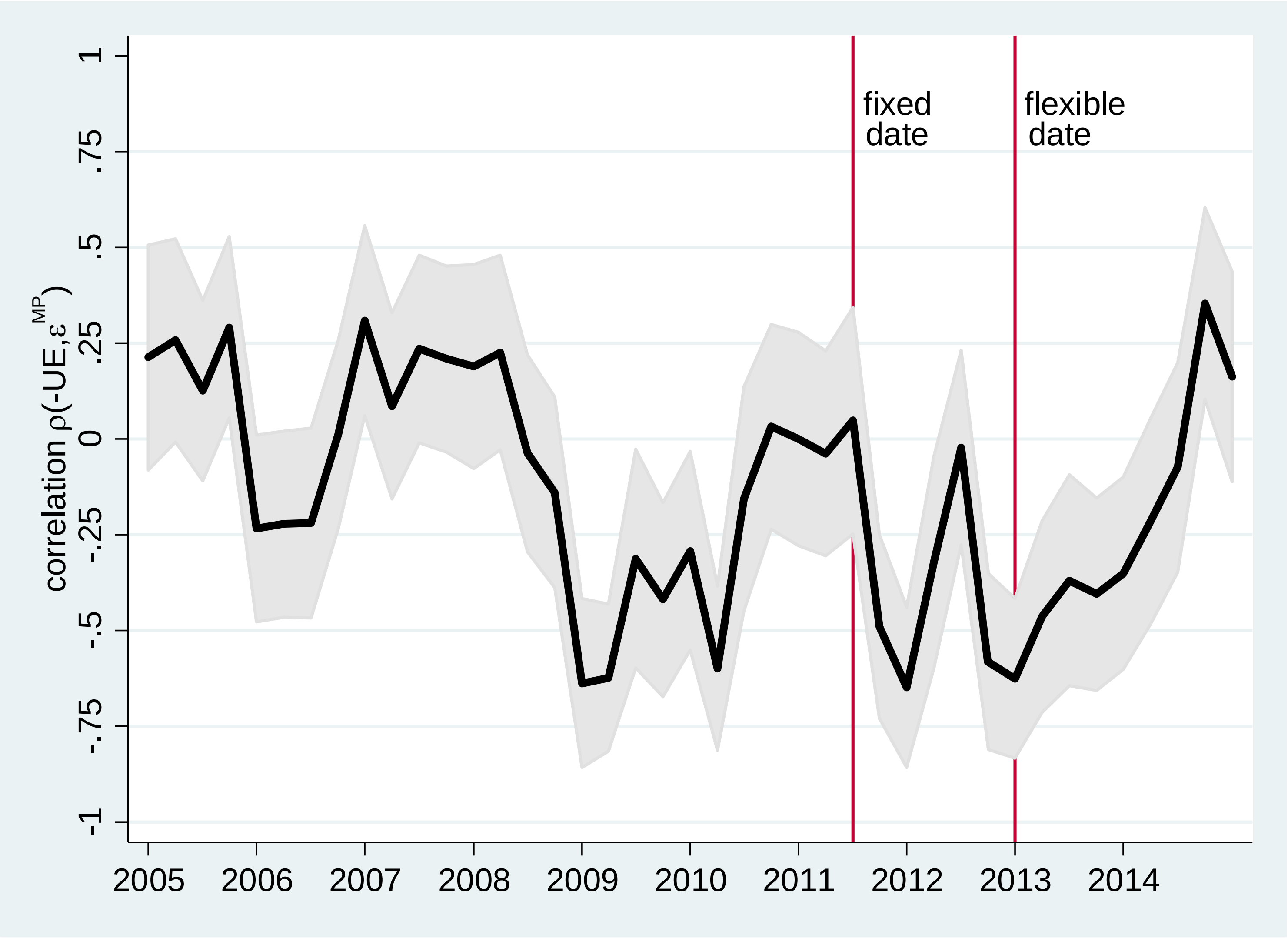
- Examine time series of $\rho_t(\hat{\epsilon}_{i,t+4|t}, \pi_{i,t+4|t})$ and $\rho_t(\hat{\epsilon}_{i,t+4|t}, UR_{i,t+4|t})$.

CORRELATION BETWEEN MP SHOCKS AND INFLATION



If inflation is a good fundamental, then a negative correlation indicates that agents interpret forward guidance as revealing new information about monetary policy ("odyssean") rather than fundamentals ("delphic").

CORRELATION BETWEEN MP SHOCKS AND (MINUS) UNEMPLOYMENT



Low unemployment is a good fundamental. Hence a negative correlation indicates that agents interpret forward guidance as revealing new information about monetary policy ("odyssean") rather than fundamentals ("delphic").

ADDITIONAL COMMENTS

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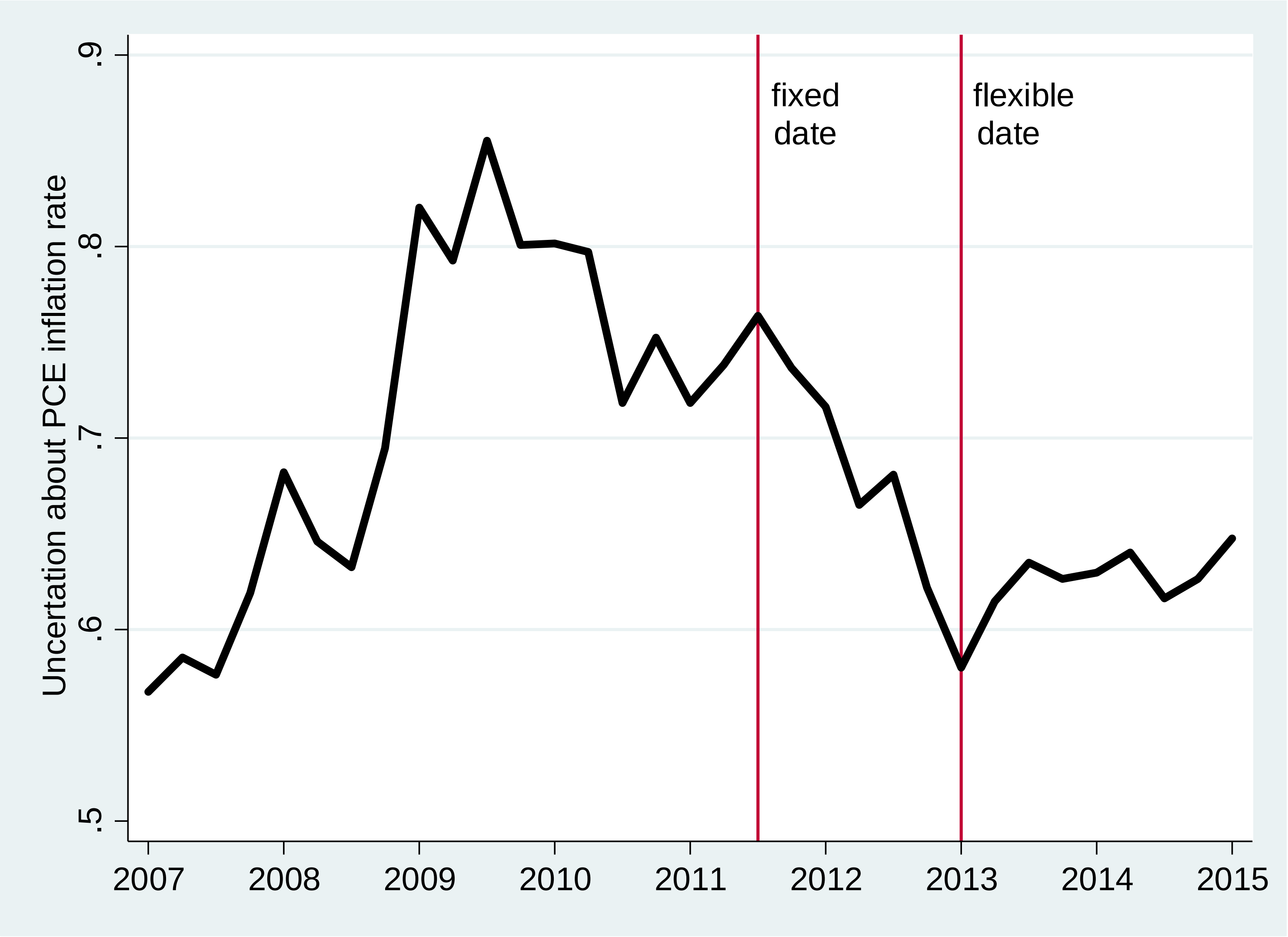

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- If one is interested in which view prevails (delphic or odyssean), looking at the first moments may be more informative.

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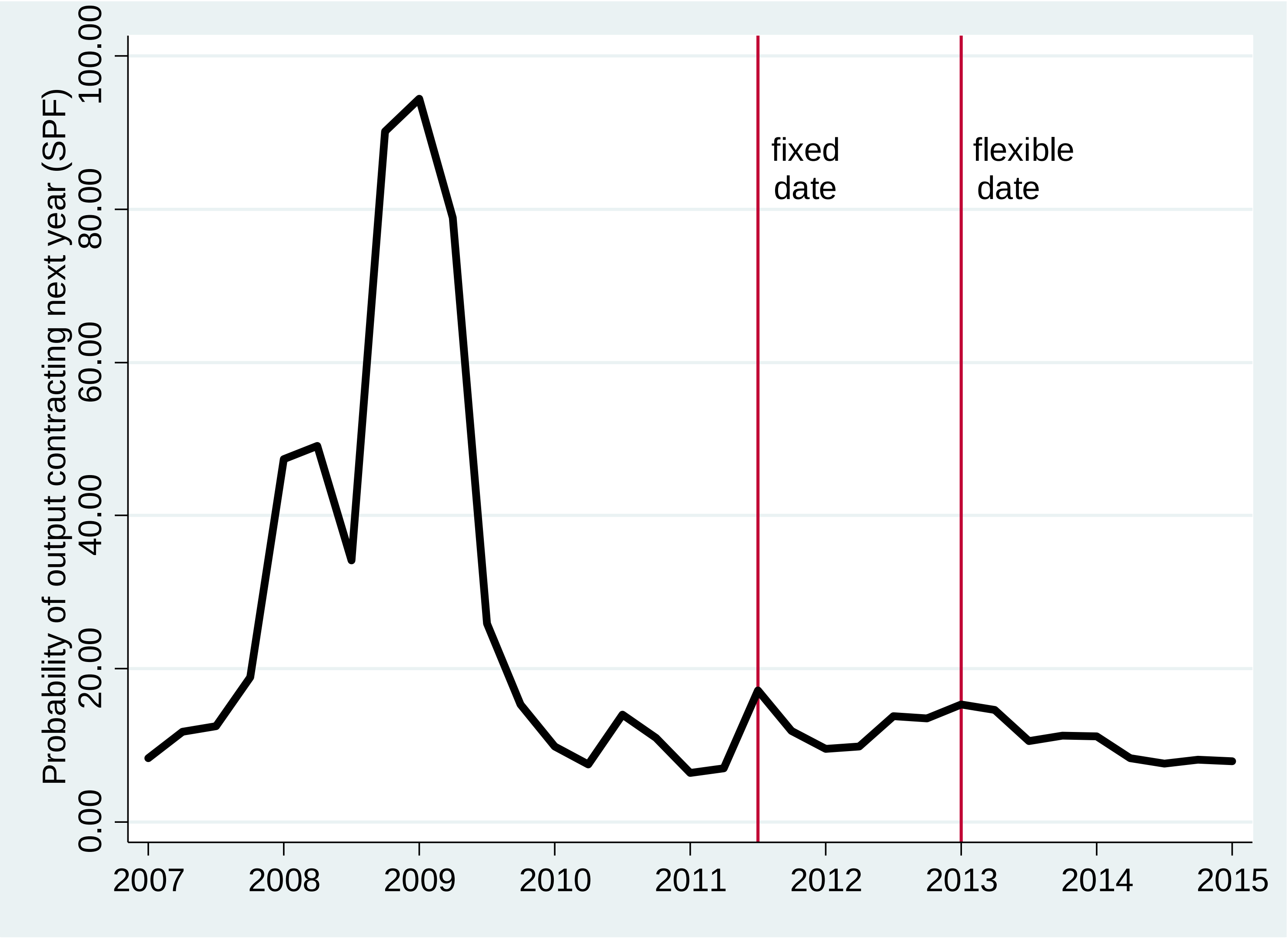

First moments in the SPF did not move much at the time announced forward guidance.

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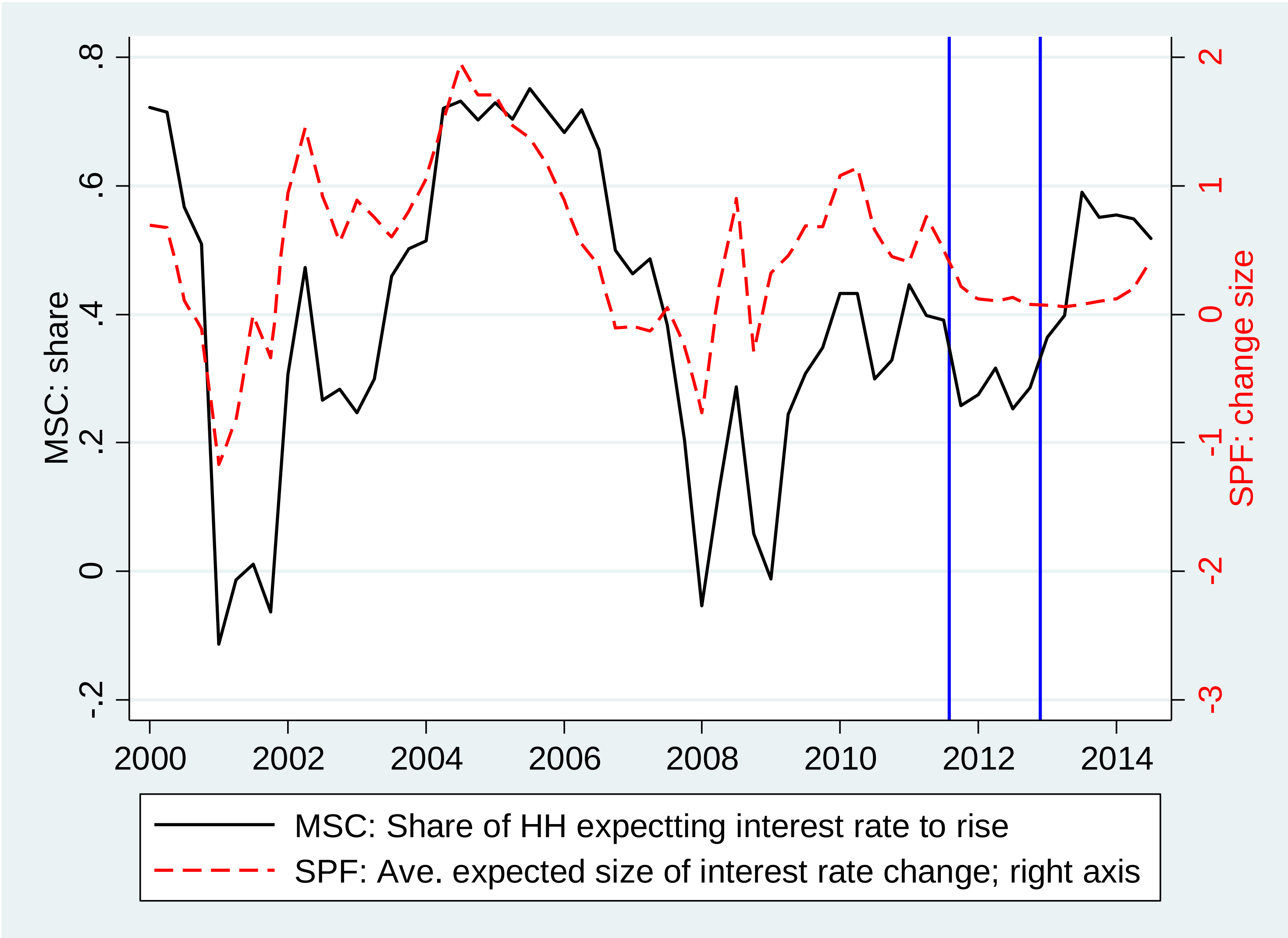

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  - SPF and Michigan Survey of Consumers suggest different timing of "lift-off" in the interest rates.

- The difference between delphic and odyssean views only matters if economic agents with stronger inflationary expectations consume more.
  - Bachmann, Berg, and Sims (2015) find no evidence for this in the Michigan Survey of Consumers.

SUMMARY

- Excellent question and great start.

- Using alternative moments of cross-sectional dispersion in forecasts could be more informative about how agents interpret forward guidance.

- Using additional moments of SPF and other sources of expectations can help assess the power of forward guidance.