

# Discussion of Miranda-Agrippino & Ricco: “The Transmission of Monetary Policy Shocks”

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## Very Ambitious Paper

- You can tell from the title! *The Transmission of Monetary Policy Shocks*
- ... and from the intro:

*We show that most of the lack of stability reported in previous studies can be explained by the compounded effects of the unrealistic assumptions of full information that are often made when identifying the shocks, and the use of severely misspecified models for the estimation of the dynamic responses.*

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*We reassess the empirical evidence on the effects of monetary policy shocks by adopting an identification strategy that is robust to the presence of informational frictions, in conjunction with a novel econometric method that is robust to model misspecifications of different nature.*

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## ... And Rightly So

- Two nice methodological contributions
  - A new instrument for monetary policy shock (*MPI*) that allegedly removes the Delphic part of monetary policy shocks:

$$mps_t = \alpha_0 + \sum_{i=1}^p \alpha_i mps_{t-i} + \sum_{j=-1}^3 \theta_j F_t^{cb} x_{t+j} + \sum_{j=-1}^3 \vartheta_j [F_t^{cb} x_{t+j} - F_{t-1}^{cb} x_{t+j}] + MPI_t$$

- BLP: Bayesian Local Projections. An attempt to improve the efficiency of local projections (direct estimation, which is robust to VAR misspecification) by using as a prior the iterated VAR impulse responses
- And a really nice set of results!

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# My Discussion

- ① Some non-VAR based evidence on Delphic and Odyssean component of monetary policy, based on Del Negro, Giannoni, Patterson (2015)
- ② “*Identification strategy that is robust to the presence of informational frictions*”? Informational frictions generally imply non-invertibility → can't recover responses from a VAR
- ③ Fragile instrument?
- ④ BLP: Throw away data (pre-sample needed to generate prior, that is, the VAR responses) to improve efficiency?
  - A bit more transparency would help!

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# Delphic and Odyssean Monetary Policy: Evidence from Blue Chip Financial Forecasters

- Compute *change in forecasts* in a one-month window around the announcement
- ... controlling for:
  - all macro economic news (surprises)
  - asset price movements (ex event window)
- Panel regression for variable ( $k$ ), horizon ( $h$ ), forecaster ( $i$ ):

$$\Delta f(k, h)_{t,i} = \gamma_0 + \gamma_1' \text{ Macro news} + \gamma_2' \text{ Asset Price Changes} \\ + \gamma_3' i\text{-specific control} + \beta \text{ Announcement Dummy} + \epsilon_{i,t}$$

for  $t = 2008.06, \dots, 2015.02$

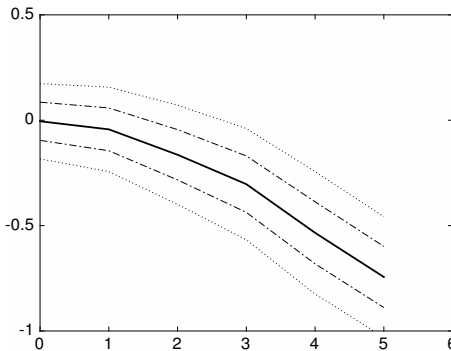
- Std errors corrected for correlation across  $i$ 's and heteroskedasticity

# August 2011

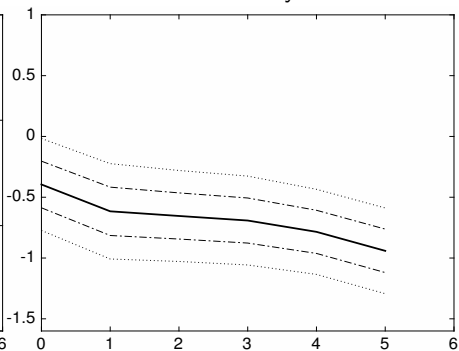
“ ... exceptionally low levels of the FFR **at least through mid-2013**”

- Projections for 3-month rates and 10-year yields decline
  - Change in forecasts of financial variables *in line with asset response in two-day window*
  - Forecasters *believe* the FOMC announcement

3-Month TBill



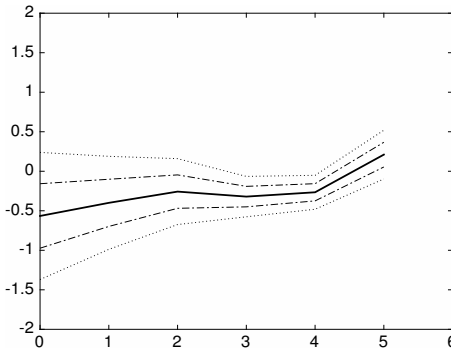
10 Treasury



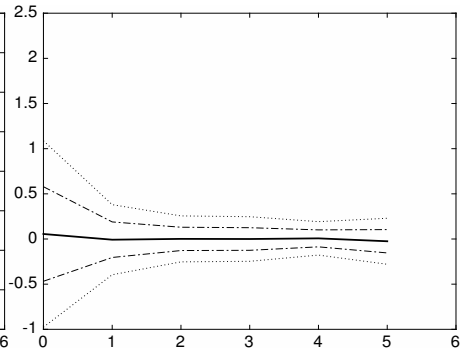
# August 2011

“... economic growth so far this year has been considerably slower than ... expected. ...The Committee now **expects a somewhat slower pace of recovery** over coming quarters ... **economic conditions ... are likely to warrant** exceptionally low levels of the FFR at least through mid-2013”

GDP Growth



CPI Inflation

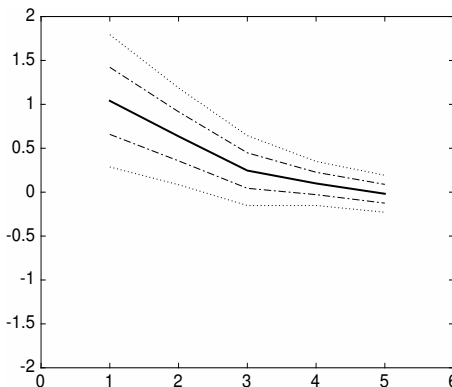


- Possible example of **Delphic** forward guidance: bad news about the economy

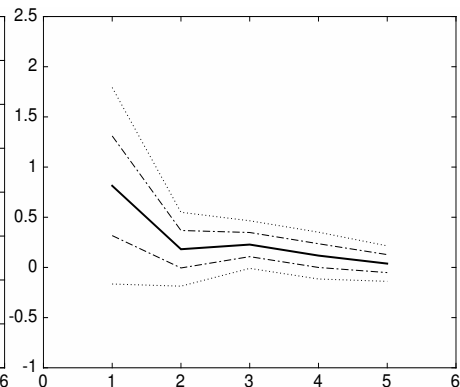
## September 2012

- ... “highly accommodative stance ... will remain appropriate for a considerable time after the economic recovery strengthens. ... at least through mid-2015”

GDP Growth



CPI Inflation



- **Odyssean:** significant increase in forecasts for real activity and inflation

# Informational Frictions and Invertibility

- Models with informational frictions generally imply a non-invertible MA representation
  - Think about the simplest one: Erceg and Levin (2003)'s model, where interest rate surprises can reflect both temporary policy shocks and changes in the inflation target
  - When interest rates change, nobody in the economy knows whether interest rate changes are persistent or transitory
  - Agents (and the econometrician) can only tell which shock is which from *future* variables → non-invertibility
  - Unlike in the case of news shocks, which also generate non-invertible representations, survey expectations don't help

# Informational Frictions and Invertibility

- Non-invertible models look like

$$y_t = (1 + \theta L)\varepsilon_t, \quad |\theta| > 1$$

- They do have an observationally equivalent invertible representation, but its impulse responses are different from those of the true model
- Even if you nail  $\varepsilon_t$ , you can't recover the true responses from a VAR
- This can be tested (see Giannone & Reichlin, 2006)

## Fragile Instrument?

- The instrument ( $MPI$ ) is the residual from the regression:

$$mps_t = \alpha_0 + \sum_{i=1}^p \alpha_i mps_{t-i} + \sum_{j=-1}^3 \theta_j F_t^{cb} x_{t+j} + \sum_{j=-1}^3 \vartheta_j [F_t^{cb} x_{t+j} - F_{t-1}^{cb} x_{t+j}] + MPI_t$$

- Implicitly it assumes that the Fed follows the rule  $\sum_{j=-1}^3 \theta_j F_t^{cb} x_{t+j} + \sum_{j=-1}^3 \vartheta_j [F_t^{cb} x_{t+j} - F_{t-1}^{cb} x_{t+j}]$  to change the policy rate. Is that a good rule? Could it be misspecified? If it is, what does that imply for the instrument?
- Changes in the central bank's forecast reflect contemporaneous shocks  $\Rightarrow$  **if rule is misspecified, shocks other than monetary policy enter the instrument**
- Even if correctly specified, its coefficients are *estimated*

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## BLP: A Good Idea?

- LP (Local Projections) amounts to direct estimation: robust to model misspecification, but inefficient
- The point of BLP (Bayesian LP) is to *improve the efficiency* of plain LP—that is, narrow the bands— using the standard VAR (iterated) impulse responses as a *prior*
- Problem: as the paper implements it, you need to use a chunk of the sample (**pre-sample**) to estimate the VAR IRFs
- If the pre-sample is too long, you are throwing away data—arguably not the best way to improve efficiency of LP
- If the pre-sample is too short, as is the case here (10 years), then the VAR IRFs being used as a prior are very poorly estimated (more so at long horizons)

# Conclusions

- Ambitious and very nice paper
- The authors try to push the frontier
- Very interesting results
- Thank you!