

COMMENT: THE DYNAMIC EFFECTS  
OF FORWARD GUIDANCE SHOCKS  
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SAN FRANCISCO FED - 4 MARCH 2016

## WHAT ARE THE EFFECTS OF FORWARD GUIDANCE?

- Different answers from theoretical and empirical models
  - Strongly expansionary [Eggerston and Woodford (2003)]
  - Overrated by theory [Del Negro *et al* (2012), Kiley (2014)]
  - Contractionary due to signalling channel [Campbell *et al* (2012), Nakamura and Steinsson (2015)]



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- **This paper:**
  - High-frequency identification of FG shock at the ZLB
  - Standard model with nominal rigidities matches empirical findings
  - FG induces significant and sustained increase in both output and prices

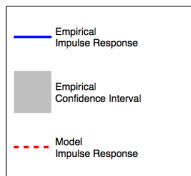
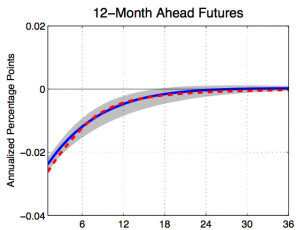
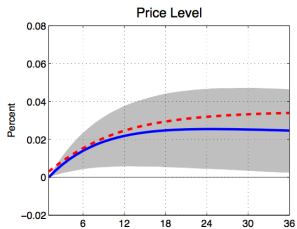
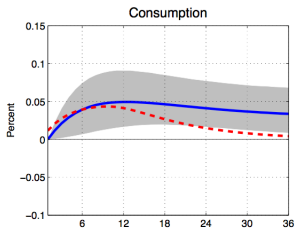


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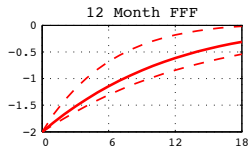
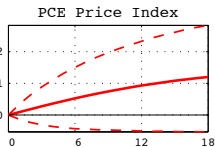
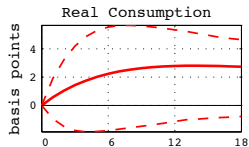


# PAPER RESULTS



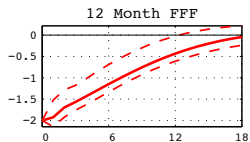
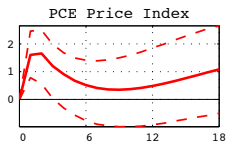
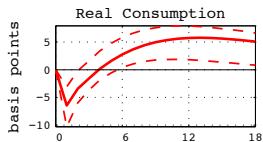
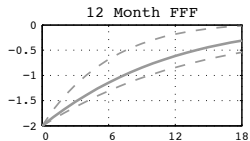
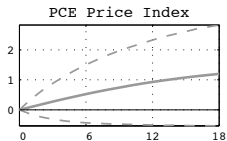
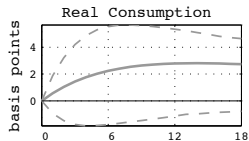
# #1: VAR SPECIFICATION

- 1Lag, 80% Bands – 5,000 bootstrap samples



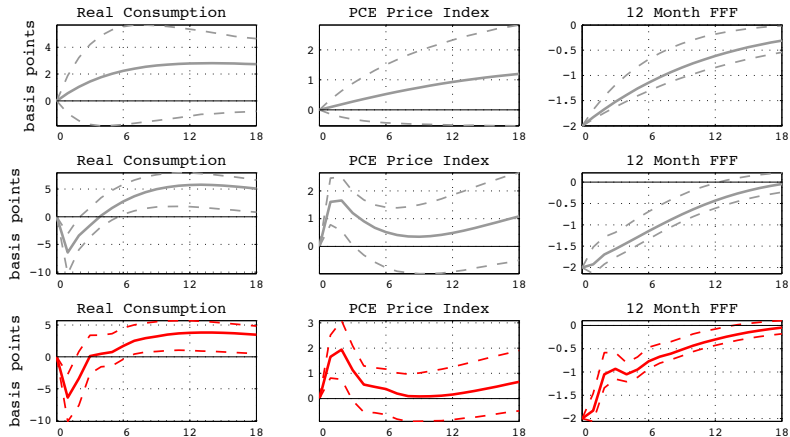
# #1: VAR SPECIFICATION

- 2 Lags



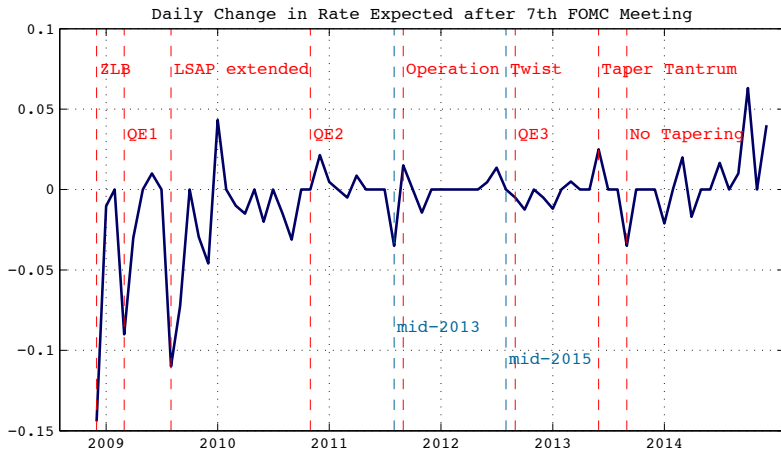
# #1: VAR SPECIFICATION

- 3 Lags

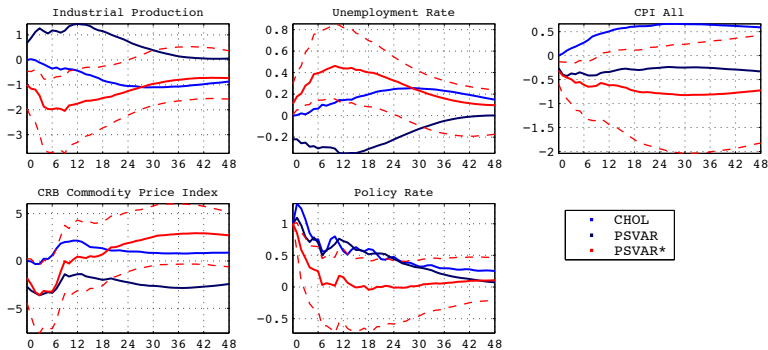




## #2: QE OR FG?



### #3: MONETARY POLICY OR NEWS?



Proxy SVAR(12) – 1969:2014. CHOL: EFR ordered last, PSVAR: average market surprise, PSVAR\* proxy orthogonal to CB and private information set [Miranda-Agrippino (2015)]

▶ External Proxy Identification

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→ project onto Greenbook forecasts and forecast revisions



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  2. **Orthogonal to CB forecasts of output and prices**  
→ project onto Greenbook forecasts and forecast revisions
  3. **Not forecast by the markets**  
→ surprise in 30-min window surrounding FOMC announcement
- Builds on Miranda-Agrippino and Ricco (2015)

▶ FG Shock Series



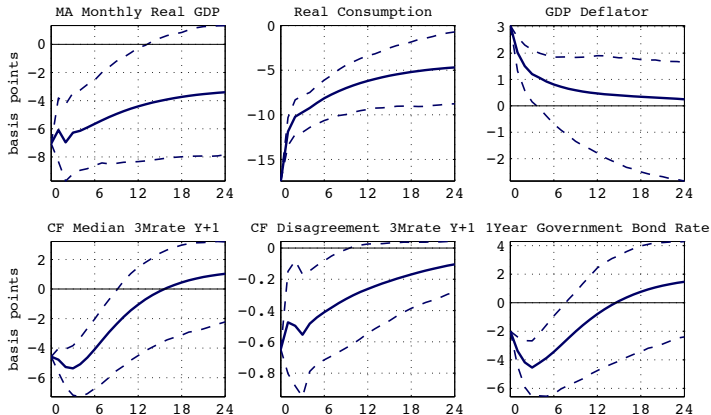
## ALTERNATIVE IDENTIFICATION #1: FG PROXY PRE ZLB

- Path Factor orthogonal to Greenbook forecasts for inflation and output for identification from 1993 to 2007
  - Use as external instrument: Proxy SVAR
  - No QE/ZLB interference: *conventional policy* sample
  - No news interference: orthogonal to CB projections
- Estimate VAR over the ZLB subsample: 2008 to 2014
- **Identification Assumptions:**
  1. FG part of CB toolset prior to ZLB
  2. No break in use of FG over the two subsamples: **Potentially strong one**





# ALTERNATIVE IDENTIFICATION #1: FG PROXY PRE ZLB



- BVAR(4) with NIW priors – 2008:12 to 2014:12 (ZLB)
- Proxy SVAR – 1993:2007, **caveat:** no  $B_0$  uncertainty
- CF: Consensus Economics Forecasts
- **Open issue:**

CB forecasts in estimation sample, break in implementation of policy

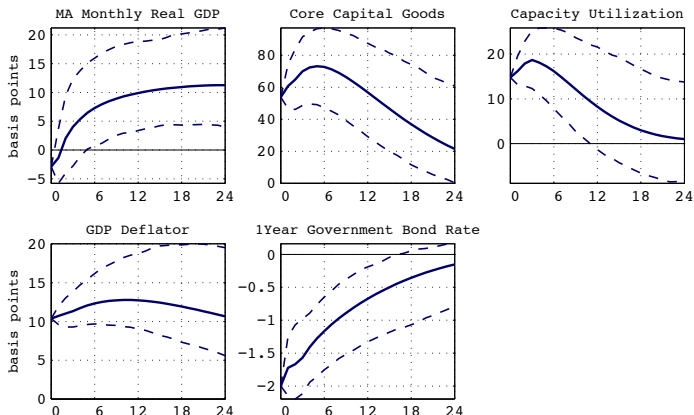


## ALTERNATIVE IDENTIFICATION #2: SURPRISE AS PROXY

- EFR after 7th FOMC for identification from 2008 to 2014
  - Orthogonal to VAR lags: partial account of news
  - No prior cumulation: market surprise
  - Use as external instrument: Proxy SVAR
- Estimate VAR over the ZLB subsample: 2008 to 2014
- **Identification Assumptions:**
  1. No QE interference: **STRONG!** [▶ Chart](#)
  2. No news effect: **STRONG!** [▶ Chart](#)



## ALTERNATIVE IDENTIFICATION #2: SURPRISE AS PROXY



- BVAR(4) with NIW priors – 2008:12 to 2014:12 (ZLB)
- Surprise in EFR after 7th FOMC orthogonal to VAR lags
- Proxy SVAR – 2008:12 to 2014:12, **caveat:** no  $B_0$  uncertainty
- **Open issue:**  
CB forecasts in estimation sample, no obvious distinction between FG and QE

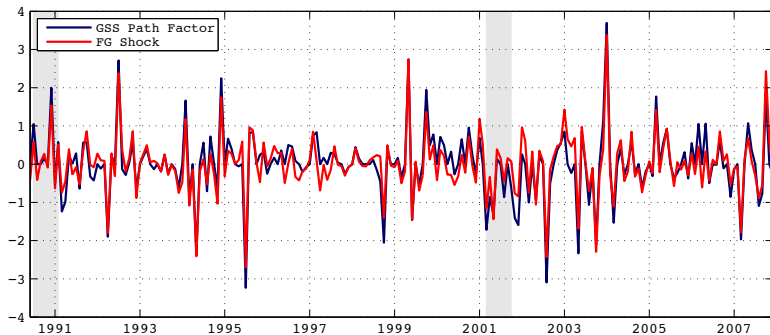


## SUMMARY

- Very challenging question! Significant step towards providing an answer
- Open Issues:
  1. **Limited sample span** → High estimation uncertainty, risks of model misspecification
  2. **Break in the implementation of policy** → Explicit signalling ≠ inferring from policy actions
  3. **MP shocks or macro news** → Need to control for CB information
  4. **Unconventional MP** → Need to disentangle QE from FG
  5. **Important nonlinearities at ZLB**



# FORWARD GUIDANCE SHOCK



▶ back



# CUMULATED SURPRISES

$$\underbrace{[\mathbb{E}_t(r_{t+h}) - \mathbb{E}_{t-1}(r_{t+h})]}_{\text{Revision of expectation for } r_{t+h}} + \dots + \underbrace{[\mathbb{E}_{t+n}(r_{t+n+h}) - \mathbb{E}_{t+n-1}(r_{t+n+h})]}_{\text{Revision of expectation for } r_{t+n+h}}$$

Baseline VAR without cumulation:

