FACULTY OF ECONOMICS AND BUSINESS ADMINISTRATION

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MACROECONOMICS, POLICY, AND ECONOMETRICS RESEARCH GROUP

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THE GREAT MACROECONOMIC NEWS PURGE

VERY PRELIMENARY AND INCOMPLETE*

Motivation & Background

- Understanding the real economy effects of monetary policy is of paramount importance to central banks. An important part of this research objective is to obtain clean identification of monetary policy shocks in empirical macro models.
- Bauer & Swanson (2020) show that many external instruments used for monetary policy shock identification are forecastable using the macroeconomic data included in said SVAR/SDF models. This suggests researchers should purge their instruments of the macro data included in their empirical models. This however is only a portion of the information set; Miranda-Agrippino & Ricco (2021) purge high-frequency monetary policy surprises of Greenbook forecasts and forecast revisions, in order to clean their instrument of so-called "central bank information effects".
- In our paper, we aim to explore the importance of the "macro news" information set for cleaner monetary policy identification.

0. Data description

US Fed Fund Futures

- We have data on financial markets expectations for the next FOMC meeting, the meeting after that, and the meeting after that one (i.e., FF1, FF2, and FF3.)
- Daily changes from 23 Dec 1998 to 31 Jan 2020
- This allows us to construct monetary policy surprises on FOMC dates à la GSS (2005)

US macro news

- Macro news = realised macro data – Bloomberg consensus forecast where realised macro data is the first estimate
- Data is standardised (based on full information set)
- 104 macro news series included

Data source: Bloomberg.

1. Purge changes in Fed Futures of macro news

Eq. (1) $$mps_t = \alpha + \beta X_t + \delta_U U_t + \delta_S S_t + \delta_F F + \varepsilon_t$$

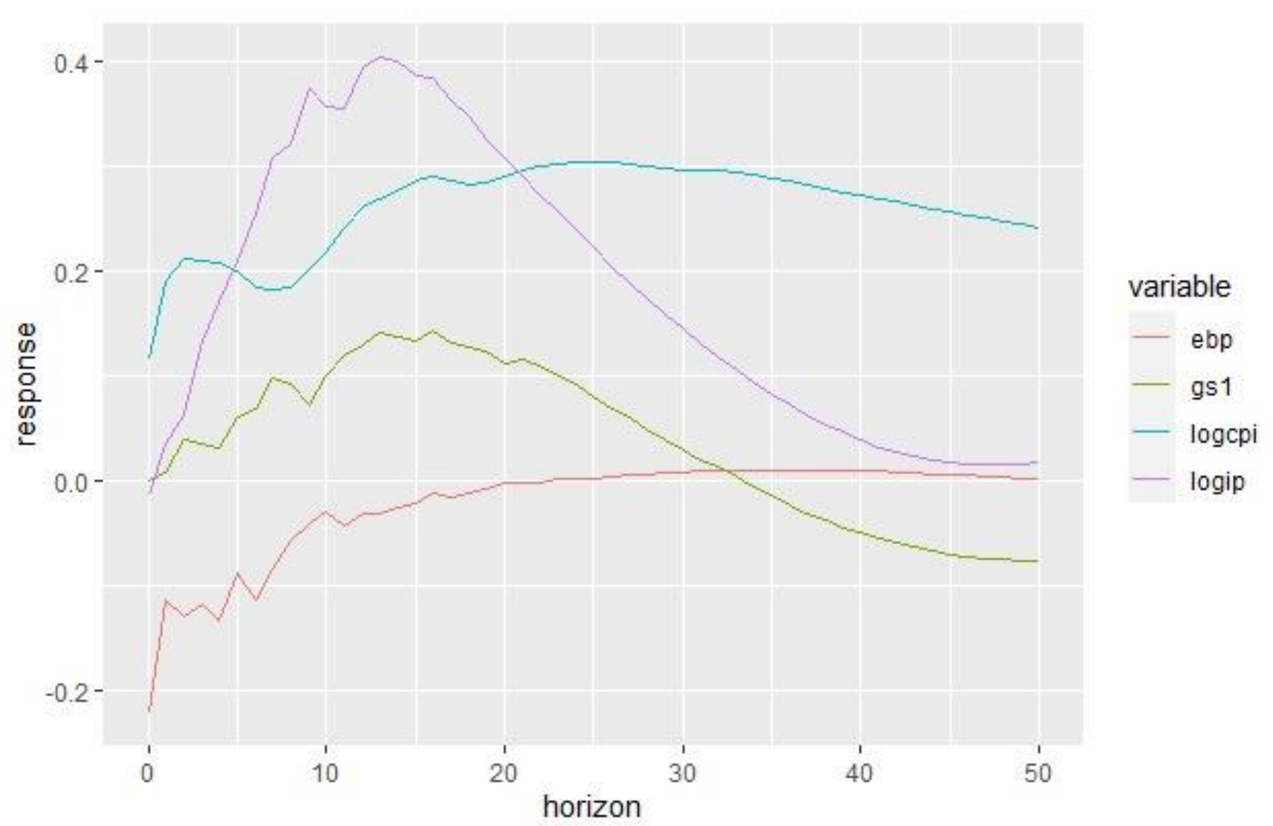
We estimate the above model using daily data where

- mps_t is the daily change in the Fed Fund Futures instrument
- X_t is the matrix of all macro news
- U_t is an indicator variable taking value 1 when an *unscheduled* FOMC meeting occurs and 0 otherwise
- S_t is an indicator variable taking value 1 when a *scheduled* FOMC meeting occurs and 0 otherwise
- We include FOMC meeting Fixed Effects, denoted by F
- The sample period is daily from 23 Dec 1998 to 31 Jan 2020 inclusive

Our variable of interest is ε_t which represents the proportion of daily changes in Fed Fund Futures which is unexplained by macro news.

2. Using ε_t as an external instrument in a monetary SVAR (in this example we show FF1)

- We sum ε_t between *scheduled* FOMC dates. This gives us a crude first potential external instrument for identifying a monetary policy shock in an SVAR model.
- We obtain a first stage F-test above 10 using the Gertler and Karadi (2015) model.
- The results are reminiscent of those in the *central bank information* literature.



3. Potential next steps……?

Option 1: Expand the information set

- Look at purging ε_t of other information, such as the macro data within the model, the Greenbook forecasts and forecasts revisions, financial markets data (equity prices, etc.), etc.

Option 2: Back to the start

- Aggregate the RHS in Eq. (1) between FOMC dates
- Let mps_t be the monetary policy surprise on the FOMC date itself *only*
- Estimate the aggregated regression, and use the newly obtained ε_t as an external instrument, also maybe purging of other aforementioned factors too

- Other thoughts, suggestions, comments…?

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