Practical Exercise: GK (2015) vs. Swanson–Jayawickrema (2024)

Applied Time Series Econometrics

November 17, 2025

Readings. Gertler & Karadi (2015); Swanson & Jayawickrema (2024).

Submission. One PDF (max 10 pages + figures), README, and two scripts/notebooks (R or Python): one for parsing, second for reproducing figures. Provide also the data that you use (csv/xlsx format).

Baseline (max 7)

1. **Data & setup.** Use GK replication bundle (or prepared data). Document files/variables.

2. **Figure 1.** Replicate GK Fig.1 (IRFs to MP tightening) with 68/95% cinfidence bands.

3. **Two IDs.**

   (a) Proxy-SVAR: policy indicator = 1y Treasury; first stage; impact vector; test assumption (12), provide resutls.

   (b) Cholesky: justify ordering; compare IRFs to Proxy-SVAR.

4. **Event plot.** Scheduled vs unscheduled vs all FOMC; argue which set to use and why.

5. **Plot figure similar to Figure 1**, but use scheduled and unscheduled FOMC meetings, compare IRFs

Extension (max 9)

1. **1950–2025.** Extend VAR sample;

2. **FOMC-only.** Three IRF figures: scheduled, unscheduled, all for extended sample.

3. **Add speeches.** Include Chair and Vice Chair speeches (Kaggle allowed): event plots/some descriptive statiscits of events;

4. **Figure similar to figure 1**: IRFs for all, Chair only, Vice Chair only.

5. **All events.** IRFs pooling meetings+speeches; discuss instrument strength.

6. **Comment.** Consistency with theory/literature; which events are most informative?

Bonus (max 10): FRASER speeches

1. **Longer speeches.** Parse FRASER; merge with FRB (1996+); de-duplicate. That is include speeches not only from the website: https://www.federalreserve.gov/newsevents/speech/1996speech.htm

   but also from the website https://fraser.stlouisfed.org/series/statements-speeches-members-board-governors-federal-reserve-system-3763

2. the parsing will be a bit different from the one you can get from kaggle website

   - **Stats.** plot obtain events and provide some statistics on those speeches
   - **IRFs.** build IRFs in the same way as before and compare them with other IRFs that you built already
   - **Regimes/breaks** how do you take into account the long sample and the fact that there might be several regimes or breaks?

Surprises without intraday data

If intraday data (FED funds futures, or Eurodollar futures) is unavailable, think what alternative one can use? why? justify your choice. Use it. One example can be an open source like Yahoo finance and the use of trading volume on S&P 500 to define surprise. It is ok, if you will use not a 30-minutes window around the event, but instead follow Kuttner 2001 paper and use daily surprise instead of intraday.

p.s. Please address your questions to mkaramysheva@hse.ru