Lecture 2

SVAR models

Topics in applied macroeconomics

Vladimir Arčabić

varcabic@efzg.hr

Reading list

1. Chapters to read
   - Martin, Hurn, and Harris, ch. 14 (Excellent!)
   - Enders, ch. 5

2. Papers to read
   - Blanchard, O. and R. Perotti (2002) An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output. *The Quarterly Journal of Economics*, 117 (4), pp. 1329-1368. (Short-run restrictions)
   - Diebold, F. X., & Yilmaz, K. (2012). Better to give than to receive: Predictive directional measurement of volatility spillovers. *International Journal of Forecasting*, *28*(1), 57-66. (spillover index)
   - Galí, J. (1999) Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations? *American Economic Review*, Vol. 89 (1), pp. 249-271 (Long-run restrictions)
   - Uhlig, H. (2005). What are the effects of monetary policy on output? Results from an agnostic identification procedure. *Journal of Monetary Economics*, 52 (2), pp. 381-419. (Sign restrictions)
   - Ramey, V. A. (2016) Macroeconomic shocks and their propagation. *NBER Working paper*, no. 21978 (Excellent literature review)

3. Codes and data files (In SVAR folder)
   - Blanchard and Perotti fiscal shocks.rpf
   - var_5_5.rpf
   - dyijf2012.rpf and dyijf2012_sensitivity.rpf
   - Gali_aer.rpf and Technology shocks simplified.rpf
   - cro_var_history.rpf

- Uhlig 2005 (different files)

4. RATS Handbook for Vector Autoregressions, 2nd Edition
   - Very practical and very useful
5. BVAR examples includes Bayes Workbook for RATS
   - very practical and very useful, different Bayesian VAR examples based on Bayes Workbook, and the procedure for Time-Varying Parameter VAR estimation based on Primiceri (2005) paper.
   - This is an advanced issue, but the procedure makes it easier to implement. We won’t talk much about that, though!

Overview of the lecture

1. Introduction

2. Identification and structural decomposition

3. Short-run restrictions

    - Examples: Blanchard and Perotti; Sims and Zha
    - Impulse response functions and confidence intervals
    - Overidentified systems
    - Generalized impulse response functions
    - GIRFs in action: Diebold and Yilmaz spillover index (*new*)

4. Long-run restrictions

    - Examples: Galí; Globan, Arčabić and Sorić
    - Historical decomposition
    - Variance decomposition

5. Sign restrictions

    - Example Uhlig 2005