

The Econometrics of Fiscal Policy

Advanced Macroeconometrics, Block III 2019, EUI

Instructor: Alexandra Fotiou
E-mail: alexandra.fotiou@eui.eu

Course Overview:

The main objective of the course is to introduce seminal papers and research questions with high empirical content and relevance in fiscal policy. The emphasis will be on econometric methods generally used in empirical macroeconomics. We will discuss identification in macroeconomics through structural, quasi-experimental (narrative), and non-parametric (local projections) approaches, and compare the merits of these various approaches.

This course will follow an "inductive" approach. We will start from the facts and questions typically asked in fiscal policy, then review the econometrics tools used in light of these facts, and finally we will relate to existing empirical applications. My hope is that you may find some inspiration potentially for a chapter of your thesis. (This course complements Axelle's one, so If you also take her course, this will assist you to obtain a complete applied fiscal toolbox. Of course, none of the courses are a prerequisite for the other.)

Evaluation:

The evaluation will be based on: 1) the replication of the main results of an empirical paper (in groups of two), and 2) a short-presentation of a recent paper. For both, I shall give you a list of papers - among which to choose- at the very beginning of the block.

Tentative Outline and Syllabus:

1. Introduction. a) Causality in Macroeconomics and the fiscal multiplier, b) Reduced-form and structural-VARs.
 - D. Caldara and C. Kamps, The Analytics of SVAR: A Unified Framework to Measure Fiscal Multipliers, *The Review of Economic Studies*, Volume 84, Issue 3, 1 July, 2017.
 - J. Fernández-Villaverde, J. F. Rubio-Ramírez, T. J. Sargent, and M. W. Watson, ABCs (and Ds) of Understanding VARs, *American Economic Review*, 97 (3): 1021-1026, 2007.
 - E. Nakamura and J. Steinsson, Identification in Macroeconomics, *NBER Working Paper*, April 2018.
 - V. A. Ramey, Macroeconomic Shocks and Their Propagation, *Handbook of Macroeconomics*, edited by John B. Taylor and Harald Uhlig, 2:71–162. Elsevier, 2016.

- C. A. Sims, Macroeconomics and Reality, *Econometrica* 48, no. 1 (1980): 1–48.
 - H. Uhlig, Some fiscal calculus, *The American Economic Review* 100.2, 30-34, 2010.
2. Identification (and issues of invertibility, anticipations, curse of dimensionality) based on VARs.
- O. Blanchard and R. Perotti, An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes on Output, *Quarterly Journal of Economics*, 117, 1329–1368, 2002.
 - M. Forni and L. Gambetti, Fiscal Foresight and the Effects of Government Spending, CEPR Discussion Papers 7840, C.E.P.R. Discussion Papers, 2010.
 - M. Forni and L. Gambetti, Sufficient Information in Structural VARs, Center for Economic Research (RECent) 062, 2011.
 - E. M. Leeper, B. T. Walker, and S. S. Yang, Fiscal Foresight: Analytics and Econometrics, *NBER Working Papers* 14028, 2008.
 - A. Mountford and H. Uhlig, What are the Effects of Fiscal Policy Shocks?, *Journal of Applied Econometrics*, 24, 960–992, 2009.
3. Quasi-experimental identification: The narrative approach.
- A. Alesina, C. Favero, and F. Giavazzi, The Output Effect of Fiscal Consolidations, *Journal of International Economics*, 96, S19–S42, 2015.
 - P. Devries, J. Guajardo, D. Leigh, and A. Pescatori, A New Action-Based Dataset of Fiscal Consolidation, *IMF Working Paper* 11/128, 2011.
 - M., Karel and M. O. Ravn, The Dynamic Effects of Personal and Corporate Income Tax Changes in the United States, *American Economic Review*, vol. 103(4), pages 1212-47, June, 2013.
 - M., Karel and M. O. Ravn, Understanding the Aggregate Effects of Anticipated and Unanticipated Tax Policy Shocks, *Review of Economic Dynamics*, Elsevier for the Society for Economic Dynamics, vol. 14(1), pages 27-54, January, 2011.

- Ramey, Valerie A., Identifying Government Spending Shocks: It's all in the Timing, *The Quarterly Journal of Economics*, Vol. 126, No. 1, pp. 1–50, 2011.
 - C. Romer and D. H. Romer, The Macroeconomic Effects of Tax Changes: Estimates Based on a New Measure of Fiscal Shocks, *American Economic Review*, 100, 763–801, 2010.
4. a) Local projections, b) State-dependent fiscal multipliers.
- A. J. Auerbach and Y. Gorodnichenko, Measuring the Output Responses to Fiscal Policy, *American Economic Journal: Economic Policy* , 2012.
 - A. Auerbach and Y. Gorodnichenko, Fiscal Multipliers in Recession and Expansion, in *Fiscal Policy after the Financial Crisis*, A. Alesina and F. Giavazzi eds., University of Chicago Press, Chicago, 2013.
 - R. Barnichon and C. Matthes, Understanding the Size of the Government Spending Multiplier: It's in the Sign, Working Paper, 2018.
 - O. Jorda, Estimation and Inference of Impulse Responses by Local Projections, *American Economic Review*, 161–182, 2005.
 - G. Koop, M. H. Pesaran, and S. M. Potter, Impulse Response Analysis in Non-Linear Multivariate Models, *Journal of Econometrics*
 - V. A. Ramey and S. Zubairy, Government Spending Multipliers in Good Times and in Bad: Evidence from U.S. Historical Data, forthcoming , *Journal of Political Economy*.
 - T. Teräsvirta and Y. Yang, Specification, estimation and evaluation of vector smooth transition autoregressive models with applications, *Research Paper* 8, 2014.
5. Fiscal Spillovers: Global VARs.
- F. di Mauro and M. H. Pesaran The GVAR Handbook: Structure and Applications of a Macro Model of the Global Economy for Policy Analysis, *Oxford University Press*, 2013.
 - R. Beetsma, M. Giuliodori and F. Klaassen, Trade Spillovers of Fiscal Policy in the European Union: A Panel Analysis, *Economic Policy*, 2006.

- F. Canova and M. Ciccarelli, Panel Vector Autoregressive Models: A Survey, *Advances in Econometrics*, Vol. 31, 2013.

Textbooks:

- Hamilton, J. D., Time Series Analysis. Princeton University Press, Princeton, New Jersey, 1994.
- DeJong, D. N., and C. Dave, Structural Macroeconometrics, Princeton University Press, Princeton, N.J, 2007.