Course Syllabus
Advanced Macroeconomics: ECON8860
Fall 2018

Time and Place:
Tuesday and Thursday
9:00am - 10:15am
Maloney 313

Professor:
Ryan Chahrour
Email: ryan.chahrour@bc.edu
Course Homepage: chahrour.net
Office Hours:
Wednesday, 1:30pm - 3:00pm
Sign up at chahrour.net

Course Overview:

The first part of this course introduces some basic tools for solving and estimating linearized, full-information, dynamic-stochastic general equilibrium (DSGE) models. During this portion of the class, coursework consists of several problem sets with a computational emphasis. You will spend a great deal of time programming in matlab. After completing these problem sets, each student will have a"toolbox" of programs that she can use to address empirical macroeconomic questions in a structural manner.

The second part of this course explores alternatives to the linearized, full-information, rational expectations paradigm described above. We will focus on relaxing the assumption of full information, including static information games, models of news and noise, and models with dynamic signal extraction. Depending on interest and time, we may also consider some theories deviations from rational expectations.

Optional Text

David N. DeJong and Chetan Dave. *Structural Macroeconometrics*. Princeton University Press, 2011

Grading:

- 3 problem sets, presented in class for 30 minutes. (Presenter selected at random, with replacement.): 33%
- One replication, based on a paper that goes beyond full information: 33%
- Paper based on an extension of the replicated paper (due at end of finals.): 33%

Course Outline

Part 1: Computation and estimation of linearized DSGE models

Week 1: Solving linearized rational expectations models

Paul Klein. Using the Generalized Schur Form to Solve a Multivariate Linear Rational Expectations Model. *Journal of Economic Dynamics and Control*, 24:1405–1423, 2000

Week 2: Structural vector autoregression (SVAR): estimation, identification

Olivier Jean Blanchard and Danny Quah. The Dynamic Effects of Aggregate Demand and Supply Disturbances. *The American Economic Review*, 79(4):655–673, 1989

Olivier J. Blanchard and Roberto Perotti. An Empirical Characterization of the Dynamic Effects of Changes in Government Spending and Taxes On Output. *The Quarterly Journal of Economics*, 117(4):1329–1368, 2002

Paul Beaudry and Franck Portier. Stock Prices, News, and Economic Fluctuations. *The American Economic Review*, 96(4):pp. 1293–1307, 2006

Week 3: SVAR: alternative identification approaches; factor-augmented VAR

Jean Boivin, Marc P. Giannoni, and Ilian Mihov. Sticky Prices and Monetary Policy: Evidence from Disaggregated U.S. Data. *American Economic Review*, 99(1):350–84, 2009

Robert B. Barsky and Eric R. Sims. News Shocks and Business Cycles. *Journal of Monetary Economics*, 58(3):273 – 289, 2011

Week 4: Generalized method of moments, impulse response matching

Lawrence J. Christiano, Martin Eichenbaum, and Charles L. Evans. Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy. *Journal of Political Economy*, 113(1):1–45, 2005

J. Fernandez-Villaverde, J.F. Rubio-Ramirez, T.J. Sargent, and M.W. Watson. ABCs (and Ds) of Understanding VARs. *The American Economic Review*, 97(3):1021–1026, 2007

Lawrence J. Christiano, Mathias Trabandt, and Karl Walentin. DSGE Models For Monetary Policy Analysis. Working Paper 16074, National Bureau of Economic Research, June 2010

Week 5: Likelihood estimation and the Kalman filter

Week 6: Identification in DSGE models

Fabio Canova and Luca Sala. Back to Square One: Identification Issues in DSGE Models. *Journal of Monetary Economics*, 56(4):431 – 449, 2009

Nikolay Iskrev. Local Identification in DSGE Models. *Journal of Monetary Economics*, 57(2):189 – 202, 2010

Part 2: Alternatives to FIRE

Week 7-8: News and Noise

Guido Lorenzoni. A Theory of Demand Shocks. *American Economic Review*, 99(5), December 2009

Eric R. Sims Robert B. Barsky. Information, Animal Spirits, and the Meaning of Innovations in Consumer Confidence. *The American Economic Review*, 102(4):1343–1377, 2012

Ryan Chahrour and Kyle Jurado. News or Noise? The Missing Link. Boston College Working Paper 917, 2017

Week 9: Coordination Games

Stephen Morris and Hyun Song Shin. Unique Equilibrium in a Model of Self-Fulfilling Currency Attacks. *The American Economic Review*, 88(3):pp. 587–597, 1998

Stephen Morris and Hyun Song Shin. Social Value of Public Information. *The American Economic Review*, 92(5):pp. 1521–1534, 2002

Week 10-11: Dynamic Models of Incomplete Information: Exogenous Information

M. Woodford. *Knowledge, Information and Expectations in Modern Macroeconomics*, chapter Imperfect Common Knowledge and the Effects of Monetary Policy. Princeton University Press, Princeton, NJ, 2002

Kristoffer Nimark. Dynamic Higher Order Expectations. Economics Working Papers 1118, Department of Economics and Business, Universitat Pompeu Fabra, 2011

Leonardo Melosi. Estimating Models With Dispersed Information. *American Economic Journal: Macroeconomics*, 6(1):1–31, 2014

Week 12: Dynamic Models of Incomplete Information: Applications

Giacomo Rondina and Todd B. Walker. Dispersed Information and Confounding Dynamics. Working paper, Indiana University, 2014

Leonardo Melosi. Signaling Effects of Monetary Policy. Technical report, Federal Reserve Bank of Chicago, 2015

Zhen Huo and Naoki Takayama. Higher Order Beliefs, Confidence, and Business Cycles. 2015

Ryan Chahrour and Robert Ulbricht. Information driven business cycles: A primal approach. Technical report, Boston College, 2017

Week 13: Sentiments

George-Marios Angeletos and Jennifer La'O. Sentiments. *Econometrica*, 81(2):739–779, March 2013

Ryan Chahrour and Gaetano Gaballo. Learning from Prices: Amplification and Sentiments. Boston College Working Paper 873, 2016

Week 14: Rational Inattention

Bartosz Mackowiak and Mirko Wiederholt. Optimal Sticky Prices under Rational Inattention. *American Economic Review*, 99(3):769 – 803, 2009

Week 15: TBD