#### Syllabus: Economics 704b · Macroeconomics

Prof. Adam M. Guren  $\cdot$  Boston University  $\cdot$  Spring 2017

### Logistics

#### Instructor:

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Office Hours: Tuesday 3:30-5, Thursday 9:00-10:30, and by appointment

### Teaching Assistant:

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#### **Overview:**

This is the second half of the second semester first-year Ph.D. course in macroeconomics. The course focuses on Monetary Economics and particularly the New Keynesian Model. The course begins with a review of the Real Business Cycle framework. After considering the evidence for monetary non-neutrality, the course develops the basic building blocks of the New Keynesian framework by adding money, imperfect competition, and nominal rigidity to the RBC model. The course then turns to the conduct of monetary policy. After discussing the liquidity trap and policy in a liquidity trap, we will turn to recent topics in macroeconomics related to the Great Recession and its aftermath.

#### Textbooks and Course Materials:

- Lecture Notes and Readings will be posted on the Blackboard web site.
  - Readings outside of textbook and readings listed below each topic will be added and announced via e-mail.
- Textbook:
  - Gali, Jordi. Monetary Policy, Inflation, and the Business Cycle: An Introduction to the New Keynesian Framework and Its Applications, 2nd Edition. Princeton University Press: Princeton, NJ.
- Other Suggested Macroeconomics Textbooks

- Sargent, Thomas and Lars Ljungqvist. *Recursive Macroeconomic Theory*, Third Edition. MIT Press: Cambridge, MA.
- Romer, David. Advanced Macroeconomics, 4th Edition, McGraw-Hill.
- Woodford, Michael. Interest and Prices: Foundations of a Theory of Monetary Policy. Princeton University Press: Princeton NJ.

# **Requirements:**

- Final Exam
  - -2 hours, exclusively on second half of semester.
  - Scheduled by Registrar.
  - More information will be announced closer to the exam.
- Problem Sets
  - You are encouraged to work in groups
  - If you do so you must indicate who you worked with
  - Each student must hand in their own write up, preferably a PDF in  $LAT_{EX}$  (I recommend Lyx as an editor if you are looking for one).
  - Grading: Check+, Check, Check-, 0.
    - If you make an effort to answer every problem you will get a check, which is considered full credit.

The problem sets will be difficult, and I want to reward tackling the problem rather than getting everything right.

- Grading For This Half of Course: 75% Final, 25% Problem Sets
  - Regrade Policy: If you do not agree with your score, you may ask me for a regrade.
     I will personally regrade the *entire* test, and you may lose points as well as gain them. Note that I tend to be harsher than the TA.
- You are encouraged to stop me if you are confused and ask questions. I want this to be a discussion rather than a lecture as frequently as possible!
- You may not use electronic devices such as laptops, tablets, or phones in class. If you feel like you need an electronic device to learn or have another good reason to use electronic devices in class, please come see me.
- I want the course to be fun.
  - I will try to reference interesting recent research.
  - The focus will be on theory, but I will also discuss related empirics.
  - Please ask questions and be engaged. Even if you do not become a macroeconomist, you will be asked about monetary policy for the rest of your life. Now is the time to learn something about it.

## **Reading List**

Required readings are starred. Readings may be changed over the course of the semester.

- Business Cycle Facts
  - Rebelo, Sergio T. and Robert G. King (1999). "Resuscitating Real Business Cycles." In *Handbook of Macroeconomics*: 927-1007.
  - Stock, James and Mark Watson (1999). "Business Cycle Fluctuations in U.S. Macroeconomic Time Series." In *Handbook of Macroeconomics*: 3-64.
- Real Business Cycle Model: Review, Criticisms, and Business Cycle Accounting
  - \* Rebelo, Sergio and Robert G. King (1999). "Resuscitating Real Business Cycles." in *Handbook of Macroeconomics*": 927-1007.
  - \* Prescott, Edward (1986). "Theory Ahead of Business Cycle Measurement." MN FRB QR. 10(4): 9-22.
  - \* Summers, Lawrence (1986). "Some Skeptical Observations on Real Business Cycle Theory." MN FRB QR. 10(4): 23-27.
  - \* Prescott, Edward (1986). "Response to a Skeptic." MN FRB QR. 10(4): 28-33.
  - Chetty, Raj, Adam Guren, Day Manoli, and Andrea Weber (2013). "Does Indivisible Labor Explain the Difference Between Micro and Macro Elasticities? A Meta-Analysis of Extensive Margin Elasticities." NBER Macro Annual 2012: 1-56.
  - Gali, Jordi (1999). "Technology, Employment, and the Business Cycle: Do Technology Shocks Explain Aggregate Fluctuations?" AER 89(1): 249-271.
  - Basu, Susanto, John Fernald, and Miles Kimball. (2006). "Are Technology Improvements Contractionary?" AER 96(5): 1418-1448.
  - Rotemberg, Julio and Michael Woodford. (1996). "Real-Business-Cycle Models and the Forecastable Movements in Output, Hours, and Consumption." AER 86(1): 71-89.
  - Gali, Jordi, Mark Gertler, and David Lopez-Salido (2007). "Markups, Gaps, and the Welfare Costs of Business Cycle Fluctuations." *ReStat* 89(1) 44-59.
  - Chari, V.V., Patrick Kehoe, and Ellen McGrattan (2007). "Business Cycle Accounting." Emca 75(3): 781-836.
  - Shimer, Robert (2009). "Convergence in Macroeconomics: The Labor Wedge." AEJ: Macro 1(1): 280-297.
  - Bils, Mark, Peter Klenow, and Benjamin Malin (2016). "Resurrecting the Role of the Product Market Wedge in Recessions." WP.
- Empirical Motivation for Nominal Rigidity

- \* Stock, James and Mark Watson (2001). "Vector Autoregressions." JEP 15(4): 101-115.
- Econometrics Reference: Enders, Walter (2014). "Applied Econometric Time Series." Wiley.
- Christiano, Lawrence, Martin Eichenbaum, and Charles Evans (2005). "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy." JPE 113(1): 1-45.
- Romer and Romer (2004). "A New Measure of Monetary Shocks: Derivation and Implications." AER 94(4): 1055-1084.
- Velde, Francois (2009). "Chronicle of a Deflation Unforetold." JPE. 117(4): 591-634.
- Money, Money Demand, and Output
  - \* Gali Chapter 2.
- Monopolistic Competition and Markups
  - \* Gali Chapter 3, appendix.
  - Blanchard, Olivier, and Nobuhiro Kiyotaki (1987). "Monopolistic Competition and the Effects of Aggregate Demand." *AER* 77(4): 647-666.
- The New Keynesian Model
  - \* Gali Chapter 3.
  - Gali, Jordi and Mark Gertler (2007). "Macroeconomic Models for Monetary Policy Evaluation." JEP 21(4): 24-45.
  - Ball, Laurence (1994). "Credible Disinflation With Staggered Price Setting." AER 84(1): 282-289.
  - Goodfriend, Marvin, and Robert King (2005). "The Incredible Volcker Disinflation." JME 52: 981-1015.
  - Fuhrer, Jeff (2011). "Inflation Persistence." In Handbook of Monetary Economics: 423-486.
  - Mankiw, N. Gregory, and Ricardo Reis (2002). "Sticky Information Versus Sticky Prices: A Proposal To Replace the New Keynesian Phillips Curve." *QJE* 117(4):1295-1328.
  - Christiano, Lawrence, Martin Eichenbaum, and Charles Evans (2005). "Nominal Rigidities and the Dynamic Effects of a Shock to Monetary Policy." JPE 113(1): 1-45.
  - Smets, Frank and Rafael Wouters (2007). "Shocks and Frictions in U.S. Business Cycle Models." AER 97(3): 586-606.

- Chari, V.V., Patrick Kehoe, and Ellen McGrattan (2009). "New Keynesian Models: Not Yet Useful for Policy Analysis." *AEJ: Macro* 1(1): 242-266.
- Cochrane, John (2011). "Determinacy and Identification With Taylor Rules." JPE 119(3): 565-615.
- Sbordone, Argia (2002). "Prices and Unit Labor Costs: A New Test of Price Stickiness." JME 49: 265-292.
- Gali, Jordi and Mark Gertler (1999). "Inflation Dynamics: A Structural Econometric Analysis." *JME* 44: 195-222.
- Mavroeidis, Sophocles, Mikkel Plagborg-Moller, and James Stock (2014). "Empirical Evidence on Inflation Expectations in the New Keynesian Phillips Curve." *JEL* 52(1): 124-188.
- Optimal Monetary Policy in a New Keynesian Framework
  - \* Clarida, Richard, Jordi Gali, and Mark Gertler (1999). "The Science of Monetary Policy: A New Keynesian Perspective." JEL 37(4): 1661-1707.
  - -\* Gali Chapters 4-5.1-3
- The Liquidity Trap
  - \* Eggertsson, Gauti and Paul Krugman (2012). "Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach. *QJE* 127(3): 1469-1513.
  - Guerrieri, Veronica and Guido Lorenzoni (2015). "Credit Crises, Precautionary Savings, and the Liquidity Trap." WP.
  - Midrigan, Virgiliu and Thomas Philippon (2016). "Household Leverage and the Recession." WP.
- Policy in a Liquidity Trap
  - \* Gali Chapter 5.4.
  - Eggertsson, Gauti and Michael Woodford (2003). "Optimal Monetary and Fiscal Policy in a Liquidity Trap." BPEA 2003(1): 139-233.
  - Werning, Ivan (2012). "Managing a Liquidity Trap: Monetary and Fiscal Policy." WP.
  - \* Simsek, Alp and Anton Korinek (2016). "Liquidity Trap and Excessive Leverage." AER 106(3): 699-738.
  - Carlstrom, Charles, Timothy Fuerst, and Matthias Paustian (2015). "Inflation and Output in New Keynesian Models With a Transient Interest Rate Peg." *JME* 76: 230-243.
  - Del Negro, Marco, Marc Giannoni, and Christina Patterson (2015). "The Forward Guidance Puzzle." WP.

- McKay, Alisdair, Emi Nakamura, and Jon Steinsson (2016). "The Power of Forward Guidance Revisited." AER 106(10): 3133-3158.
- Werning, Ivan (2015). "Incomplete Markets and Aggregate Demand." WP.
- New Perspectives on the Monetary Transmission Mechanism
  - Heterogenous Agents I: Liquidity Constrained Consumers and Monetary Transmission
    - \* \* Kaplan, Greg, Benjamin Moll, and Giovanni Violante (2016). "Monetary Policy According to HANK." WP.
    - \* Kaplan, Greg and Giovanni Violante (2014). "A Model of the Consumption Response to Fiscal Stimulus Payments." *EMCA* 82(4): 1199-1239.
    - \* Guvenen, Fatih, Serdar Ozkan, and Jae Song (2014). "The Nature of Countercyclical Income Risk." JPE 122(3): 621-660.
    - \* Guvenen, Fatih, Fatih Karahan, Serdard Ozkan, and Jae Song (2016). "What Do Data on Millions of U.S. Workers Reveal About Life-Cycle Earnings Risk?"
    - \* Campbell, John, and N. Gregory Mankiw (1989). "Consumption, Income, and Interest Rates: Reinterpreting the Time Series Evidence." *NBER Macro Annual 1989*: 185-246.
    - \* Gali, Jordi, David Lopez-Salido, and Javier Valles (2007). "Understanding the Effects of Government Spending on Consumption." *JEEA* 5(41): 227-270.
    - \* Johnson, David, Jonathan Parker, and Nicholas Souleles (2006). "Household Expenditure and the Income Tax Rebates of 2001." *AER* 96(5): 1589-1610.
    - \* Parker, Jonathon, Nicholas Souleles, David Johnson, and Robert McClelland 2013). "Consumer Spending and the Economic Stimulus Payments of 2008." *AER* 103(6) 2530-2553.
    - \* Hsieh, Chang-Tai (2003). "Do Consumers React to Anticipated Income Changes? Evidence from the Alaska Permanent Fund." AER 93(1): 397-405.
    - \* Japelli Tullio and Luigi Pistaferri (2010). "The Consumption Response to Income Changes." Annual Review of Economics 2: 479-506.
  - Heterogenous Agents II: Redistribution and Monetary Transmission
    - \* \* Aucltert, Adrien (2016). "Monetary Policy and the Redistribution Channel." WP.
    - \* Doepke, Matthias, and Martin Schneider (2006). "Inflation and the Redistribution of Nominal Wealth." *JPE* 114(6): 1069-1097.
  - Household Finance and the Mortgage Channel of Monetary Transmission
    - \* \* Wong, Arlene (2016). "Population Aging and the Transmission of Monetary Policy to Consumption." WP.
    - \* Beraja, Martin, Andreas Fuster, Erik Hust, and Joseph Vavra (2016). "Regional Heterogeneity and Monetary Policy." WP.

- \* Greenwald, Daniel (2016). "The Mortgage Credit Channel of Macroeconomic Transmission." WP.
- \* Di Maggio, Kermani, Keys, Piskorski, Ramcharan, Seru, and Yao (2017) "Monetary Policy Pass-Through: Mortgage Rates, Household Consumption, and Voluntary Delevarging." AER.
- \* Fuster, Andreas, and Paul Willen (2015). "Payment Size, Negative Equity, and Mortgage Default." WP.