

Course Syllabus

Monetary Economics (440.630)
Masters in Applied Economics Program
Johns Hopkins University

Spring Semester, 2018
Dr. Sang-Sub Lee
(slee193@jhu.edu)

Thursday 6:00 – 08:45

1. General Course Objective:

This course is designed as a survey of the basic theories in monetary economics for master level students. The main objective of the course is to help students understand the core aspects of monetary economy: how monetary phenomena and policies are determined, and how they interact with the rest of the macro economy. Several key theoretical frameworks will be constructed, and various monetary economic phenomena, including monetary policy actions will be analyzed within such frameworks.

Among the topics to be covered include: neutrality and super-neutrality of money, money demand and money supply, consumption CAPM and equity premium puzzle, inflation and optimal inflation rate, public finance and inflation, (new Keynesian) Phillips curve, monetary policy transmission mechanisms, the term structure of interest rates, strategy of monetary policy and optimal monetary policy, time inconsistency problem in monetary policy, monetary policy targets and rules, monetary policy at ZLB and non-conventional monetary policies.

2. Readings:

2-A) Textbook Sources:

Walsh, Carl, *Monetary Theory and Policy*, 4th edition, MIT Press, 2017

Cochrane, John, *Time Series for Macroeconomics and Finance**, 2005, can be downloaded at
http://faculty.chicagosb.edu/john.cochrane/research/Papers/time_series_book.pdf.

2-B) Other References of Interest:

Enders, Walter, 200?, *Applied Econometrics Time Series*, 4th ed., John Wiley & Sons Inc.

Freixas, Xavier and Jen-Charles Rochet, 2008, *Microeconomics of Banking*, 2nd ed., 2008, MIT Press

Gali, Jordi, 2015, *Monetary Policy, Inflation, and the Business Cycle*, 2nd ed., Princeton University Press (Will be on reserve)

Hamilton, James, 1994, *Time Series Analysis*, Princeton University Press

2-C) Articles:

Numerous articles from the FRB publications and academic journals will also be used and posted.

2-D) Other Requirements:

Matlab and Dynare (Detailed Instruction will come later)

3. Exams and Other Assignments:

There will be one mid-term (30%), final (30%), term paper (30%), and occasional homework (15%). The final exam will be a take-home exam.

Mid-Term I: Tentatively Scheduled on 03/01 /2018.

You may discuss HW problems and other assignments with your classmates. However, the answers submitted should ultimately be written by you, based on your own understanding. The answers copied from somebody else's answers or exact same answers prepared jointly are prohibited and will be graded with penalty.

4. Class Schedule and Office Hour:

Class will meet on Thursday from 6:00 to 8:45 PM.

Last day of class: 04/19/2018

No Class on March 22 (Spring Break)

Regular office hour will be held between 5:00-6:00 on Thursday in Conference Room 104 A. Cancellation of office hour will be announced ahead of time.

5. Tentative Course Outline (The detailed reading list could change somewhat.)

(*: Optional Reading)

I. Introduction and Overview

Readings: (Read casually. Don't worry if you are not sure of anything)

Walsh: **Introduction and Chapter 1**

Blanchard, Olivier, Giovanni Dell'Ariccia, and Paolo Mauro, Rethinking Macroeconomic Policy I and II, IMF

Gali, Chapter 1*.

II. Money in the Long Run and General Equilibrium Models of Monetary Economy

A. Review of Solow Growth Model and Tobin's Monetary Growth Model (Introduce some key concepts and notation for the next section. Otherwise, not very import.)

B. Sidrauski's Monetary Growth Model (Money-in-the-Utility Function Model) and Other Extensions

Readings:

Walsh: Chapter 2: (Skip pp51-57 on existence and skim through 2.5 and Appendix)
Chapter 3: Skim through Chapter 3*. (We will not discuss Chapter 3 in class.)

Campbell, John, 2000, *Asset Pricing at the Millennium*, Journal of Finance, Vol. LV, No. 4

Mehra, Rajnish and Edward Prescott, 2008, *The Equity Premium: ABCs*, Chapter 1 in Handbook of the Equity Premium.

Cochrane, John, 2017, Macro-Finance, Review of Finance, 2017, 945-985.

Gali, Chapter 2*.

Cochrane, John, Discount Rates, Journal of Finance, Vol. LXVI, No. 4, November 2011*

C. Money and Public Finance

Readings:

Walsh: Chapter 4: Read 4.1-4.5 (pp148-153; 4.4.4 -4.4.5, 4.5 can be skimmed through), 4.6.1-4.6.2, 4.6.4, and 4.7.

Other Readings

Bernanke, Ben, 2009, *Federal Reserve Policies to Ease Credit and Their Implications for the Fed's Balance Sheet*, Speech delivered at the National Press Club Luncheon, National Press Club, Washington, D.C.

Bernanke, Ben, 2009, *The Federal Reserve's Balance Sheet*, Speech delivered at the Federal Reserve Bank of Richmond 2009 Credit Market Symposium, April, 2009 (Update in October)

http://www.federalreserve.gov/monetarypolicy/bst_fedsbalancesheet.htm

Cecchetti, Stephen, 2009, *Crisis and Responses: The Federal Reserve in the Early Stages of the Financial Crisis*, Journal of Economic Perspectives, Vol 23, Number 1, Winter 2009, pp51-75

Sims, Christopher A. , 2013, Paper Money, American Economic Review, 103(2): 563-84*.

III. Money in the Short Run: Short Run Models and Monetary Policy Transmission Mechanism

A. Static AD-AS Model and the Phillips Curve

Bernanke, Benjamin, 2003, *Remarks at the Federal Reserve Bank of Dallas Conference on the Legacy of Milton and Rose Friedman's Free to Choose*, Dallas, Texas

Ball, Laurence, and Gregory Mankiw, 2002, *The NAIRU in Theory and Practice*, NBER WP #8940

Mankiw, N.G. , 2006, *The Macroeconomist as Scientist and Engineer*, NBER WP #12349

Mankiw, N.G. and Ricardo Reiss, 2017, Friedman's Presidential Address in the Evolution of Macroeconomic Thought, NBER #24043.

Blanchard, Olivier, 2016, The U.S. Phillips Curve: Back to the 1960s, AER proceedings.

B. Rational Expectations, Simple Static/Dynamic Stochastic AD-AS models with Rational Expectations, and Taylor Rule

Walsh, Chapter 5 (for 5.2.3-5.2.4, and 5.3 just skim through), Chapter 7.2.1, 7.5(appendix), Chapter 2.7.3, and Chapter 10.2

Coibion, Oliver, Yuriy Gorodnichenko, Rupal Kamdar, 2017, The Formation of Expectations, Inflation and the Phillips Curve, Journal of Economic Literature

Taylor, John (1993), *Discretion versus Policy Rules in Practice*, Carnegie-Rochester Conference Series on Public Policy, v. 39, 1993, pp. 195–214.

Judd, John and Glenn Rudebusch, 1998, *Taylor's Rule and the Fed: 1970–1997*, FRBSF ECONOMIC REVIEW 1998, NUMBER 3

C. Extension of the Basic Rational Expectations AD-AS Model: Persistent Effects of Monetary Policy on Output and Price

Walsh, Chapter 7.2.2-7.4 (7.2.5 and 7.3 skim through).

Mankiw, N.G. (2000), *The Inexorable and Mysterious Tradeoff Between Inflation and Unemployment*, NBER WP #7884.

D. New Keynesian Synthesis

Mankiw, N.G. (2000), *The Inexorable and Mysterious Tradeoff Between Inflation and Unemployment*, NBER WP #7884

Walsh, Skim through 8.1-8.3.5 and 8.7.1 (Appendix) Don't worry about the detailed derivation.

Christiano, Lawrence, M. Eichenbaum, and M. Trabandt, (2018), On DSGE Models, Forthcoming in Journal of Economic Perspective.

Gali, Chapter 1-3*

Mavroeidis, Sophocles, Mikkel Plagborg-Moller, and James H. Stock, 2014, Empirical evidence on inflation expectations in the new Keynesian Phillips curve, JEL, Vol52, No.1*

E. Monetary Policy Transmission Mechanism and Credit Channel of Monetary Policy

Walsh, Chapter 10.6 and Skim over 10.7.

Freixas and Rochet, Chapter 4-6*.

Bernanke, Ben, 1983, Non-Monetary Effects of the Financial Crisis in the Propagation of the Great Recession, American Economic Review, 73(3), 257-276.

_____, and Mark Gertler (1995), *Inside the Black Box: The Credit Channel of Monetary Policy Transmission*, NBER WP #5146

Bernanke, Ben, (2007), *The Financial Accelerator and the Credit Channel*, Speech made at the Credit Channel of Monetary Policy in the Twenty-first Century Conference, Federal Reserve Board

Adrian, Tobias and Hyun Song Shin, 2010, Financial Intermediaries and Monetary Policy, Handbook of Monetary Economics.

Gertler, Mark, and Simon Gilchrist, 2017, What Happened: Financial Factors in the Great Recession.

Eggertsson, Gauti, and Paul Krugman 2012, Debt, Deleveraging, and the Liquidity Trap: A Fisher-Minsky-Koo Approach, Quarterly Journal of Economics, 2012, 1469-1513.*

Markus K., Brunnermeier, Thomas M. Eisenbach, and Yuliy Sannikov, 2012, *Macroeconomics with Financial Friction: A Survey**

Stock, James and Mark Watson, 2001, Vector Autoregressions, Journal of Economic Perspectives, Volume 15, Number 4—Fall 2001—Pages 101–115

Sims, Christopher A. , 2012, Statistical Modeling of Monetary Policy and Its Effects, American Economic Review, 102(4): 1187–1205.

Ramey, V., 2016, Macroeconomic Shocks and Their Propagation, in Handbook of Macroeconomics, ed. By J. Taylor and H. Uhlig, 71-162*.

Nakamura, Emi and Jon Steinsson, 2017, Identification in Macroeconomics*.

IV. Topics in Monetary Policy

a) Interest Rates and Monetary Policy: The Term Structure of Interest Rates

Walsh: Chapter 10.3

Bernanke, Ben, (2005), *The Global Saving Glut and the U.S. Current Account Deficit.*, Federal Reserve Bank of St. Louis. April 14; Federal Reserve Bank of St. Louis Review

_____ (2006), *Reflections on the Yield Curve and Monetary Policy*, FRB, March 20, 2006

_____ (2013), *Long-Term Interest Rates*, FRB, March 1 2013.

Estrella, Arturo (2005), *The Yield Curve as a Leading Indicator: Frequently Asked Questions*, Federal Reserve Bank of New York, 2005.

Vayanos, D., and J. Vila, A Preferred-Habitat Model of the Term Structure of Interest Rates, NBER No. 15487.*

Krishnamurthy, Arvind and Annette Vissing-Jorgensen, 2013, The Ins and Outs of LSAPs, Jackson Hole Meeting.

Gagnon, Joseph, Raskin, Matthew, Remache, Julie, & Sack, Brian P. 2010 (March). Large-Scale Asset Purchases by the Federal Reserve: Did They Work? Staff Report 441. Federal Reserve Bank of New York*.

b) Monetary Policy Operating Procedures, Policy Instrument Choice, Policy Tools at ZLB

Readings:

Walsh: Chapter 12, 11.5*

Keister, Todd, Antoine Martin, and James McAndrews (2008), *Divorcing Money from Monetary Policy*, Federal Reserve Bank of New York

Woodford, Michael, 2012, Methods of Policy Accommodation at Interest Rate Lower Bound, Jackson Hole Symposium

Ihrig, Jane, Ellen Meade, and Gretchen Weinbach, 2015, Monetary Policy 101: A Primer on the Fed's Changing Approach to Policy Implementation, BOG.

Eggertsson, Gauti and Michael Woodford, The Zero Bound on Interest Rates and Optimal Monetary Policy, *Brookings Papers on Economic Activities**

Curdia, Vasco, and Michael Woodford, 2009, Conventional and Unconventional Monetary Policy*

_____ and _____, 2010, The Central-Bank Balance Sheet as an Instrument of Monetary Policy, NBER WP#16208*

c) Rules versus Discretion: Time Inconsistency Problem

Walsh: Chapter 6

Gali, Chapter 4*.

Abrams, Burton (2006), *How Richard Nixon Pressured Arthur Burns: Evidence from Nixon Tapes*, *Journal of Economic Perspectives**

d) Optimal Monetary Policy and Policy Rules

Readings

Walsh: Chapter 8.4

Gali, Chapter 4*

Bernanke, Ben and Frederic Mishkin (1997), *Inflation Targeting: A New Framework for Monetary Policy*, NBER WP #5893

Bernanke, Ben (2003), *Constrained Discretion and Monetary Policy*, FRB, Remarks before the Money Marketeers of New York University, Feb 2003

Clarida, R., J. Gali, and M. Gertler (1999), "*The Science of Monetary Policy: A New Keynesian Perspective*", **Journal of Economics Literature**, 37, 1661-1707*

e) Great Recession, Financial Stability, and Monetary Policy

Brunnermeier, Marcus (2009), *Deciphering the 2007-2008 Liquidity and Credit Crunch*, Journal of Economic Perspectives

Gorton, Gary, *Panic of 2007*, NBER WP.

Pozsar, Zoltan, Tobias Adrian, Adam Ashcraft, and Hayley Boesky, 2010, *Shadow Banking*, Federal Reserve Bank of New York Staff Reports #458

Hanson, Samuel G. , Anil K Kashyap, and Jeremy C. Stein, 21011 A Macro Prudential Approach to Financial Regulation, JEP

Stein, Jeremy, 2014, *Incorporating Financial Stability Considerations into a Monetary Policy Framework*.

Svensson, Lars E.O., 2015, *A Simple Cost-Benefit Analysis of Using Monetary Policy for Financial Stability Purposes*, in Olivier Blanchard, Raghuram Rajan, Kenneth Rogoff, and Lawrence Summers, eds., *The State of Macroeconomic Policies*.

Svensson, Lars E.O., 2017, *COST-BENEFIT ANALYSIS OF LEANING AGAINST THE WIND*, NBER Working Paper 21902.*

Borio, Claudio and Philip Lowe, 2002, *Asset Prices and Financial and Monetary Stability: Exploring the Nexus*, BIS*

Term Projects (30%)

Write a term paper on a monetary topic of choice, and presents to the class at the end of the semester

Paper should include some literature review, theoretical basis, and empirical evidence from your own data analysis

01/25/2018: (preliminary) Selection of Topic

02/08/2018: A Brief abstract submission

03/08/2018: Mid-point progress report

04//12/2018: Presentation (Tentative)

Sample Topics:

Financial Crisis and the Monetary Policy Responses

Monetary Policy and Financial Stability

Term Structure of Interest Rates

Inflation dynamics and forecasting

Phillips Curve

Monetary Policy and Asset Prices

(Structural) VAR and Monetary Policy Transmission Mechanism

Effects of Large Asset Purchase

Monetary Policy Rule (or Reaction Function)