UNIVERSITY OF CHICAGO BOOTH

MACROECONOMICS 33040

Spring 2015

Updated: 15 May 2015

Professor: Loukas Karabarbounis; loukas.karabarbounis@chicagobooth.edu; 305 Harper Center.

Course Webpage (posted material): http://faculty.chicagobooth.edu/loukas.karabarbounis/index.html. Note that we will not use the Chalk.

Teaching Assistant: Gabriela Antonie; gabrielaantonie@uchicago.edu

This **Course Outline** is divided in four Sections. Please read it carefully before registering for this class.

1) **Course Information and Policies**

2) **Reading List and Topics Outline**

3) **Course Calendar**

4) **Online Readings**

1. Course Information and Policies

Course Objective and Description:

This MBA course in Macroeconomics is designed to provide students with a unified framework that can be used to analyze macroeconomic issues such as growth, productivity, labor markets, wages, business cycles, inflation, money, interest rates, monetary policy, fiscal policy, and financial crises. The course is a mixture of macro theory and real-world applications. We will develop analytical models that stress the microeconomic underpinnings of aggregate outcomes and we will apply these models to the recent experience of the US and other countries.

The course satisfies the "Business Environment" requirement of the MBA curriculum. See http://www.chicagobooth.edu/fulltime/academics/curriculum/index.aspx for approved substitutes. You are not allowed to take the course Pass/Fail. Auditors are not allowed in the course.

Course Meeting Time and Place:

33040-01 (Full-Time MBA): Wednesday 13:30-16:30, Harper Center, HCC10.

33040-02 (Full-Time MBA): Thursday 08:30-11:30, Harper Center, HCC10.

33040-81 (Evening MBA): Wednesday 18:00-21:00, Gleacher Center, Lecture Hall 408.

Course Prerequisites:

Intermediate microeconomics (e.g. Business 33001 or equivalent) is a **strict** prerequisite. Familiarity with basic analytical tools (e.g. solving and graphing equations, taking simple derivatives) is highly recommended and will be assumed. Math (at a level similar to Bus-33001) is used in this class.

Course Materials:

Course materials are drawn from the following sources:

1) **The Lectures / Slides**. I will post detailed Slides that look like lecture notes in my webpage (http://faculty.chicagobooth.edu/loukas.karabarbounis/index.html) prior to class. Most students find these slides to be extremely helpful in reviewing course material and preparing for the exams. These slides will give a solid framework for the lectures, but are by no means a perfect substitute for coming to class. I do not provide copies of the slides, so print your own copies.

2) **Abel, Bernanke and Croushore [ABC]**, "Macroeconomics," Addison-Wesley, 7th Edition, 2010 (Required). Although the book is required, at times I follow it only loosely. As you will realize soon, the material in ABC is a subset of the stuff I do in class and included in my slides. Therefore, the book is a very imperfect substitute for showing up in class and reading the slides. Sometimes I will assign some **Practice Problems** from the textbook or my own Problems. Problems are not graded, but I highly recommend that you take a look at them. Similar problems and questions will appear in quizzes and exams. Solutions to problems will be sent after quizzes but before exams. The TA will go over these solutions during sessions.

   Note: We will use the 7th edition instead of the 8th as it covers almost everything we need for this class and is cheaper. It is likely that Booth's online bookstore will insist on listing the 8th edition. However, we will still use the 7th.

3) **Online Readings**. The Online Readings are listed by Topic in Section 4 of this Course Outline. The bulk of the online readings come from the **Economist**. I will link the material I teach in class to these online readings and in some cases I will cover these readings in detail in class. It is quite efficient if you buy a subscription to the Economist (there is a student version of the subscription). If you do not want to buy a subscription to the Economist, you can use free of charge the University of Chicago subscription which is available at the following link: http://sfx.lib.uchicago.edu/sfx_local?sid=sfx:e_collection&rfr_id=info:sid/lib.uchicago.edu:lens&rft.issn=0013-0613. Matching the date could be important given that the Economist re-uses article titles frequently. Some articles are actually in the Economist multiple times. You can minimize the chances that this happens to you by verifying the date. Also note that the readings that I assign have the date used by the Economist online. The date in the link above could be some days off if they use the newsstand date. All readings are linked to the online Economist at the last Section of this Course Outline. Therefore, the opportunity cost of not buying the subscription is the time you need to spend to find the articles yourselves.

Note: All "Starred'' (*) readings in the "Online Readings" Section of this Outline (Section 4) are fair questions for exams and quizzes, so you should be primarily focusing on these readings. You should also quickly skim all non-starred readings. Very general and easy questions on the non-starred readings are fair questions for quizzes, but these readings will never be tested on a midterm or a final exam. I use these readings primarily to motivate some topics I cover in class.

4) **Other Readings**. Many times I will not follow the ABC textbook. As required readings I will assign the relevant part from ABC, but what I do is tougher and the slides go beyond your textbook. In those instances, I will offer an alternative reading, either from a paper or from another textbook. However, what you are required to know is always included in the Slides and will always be discussed during the lecture time. Therefore, buying another textbook is not required (and is not encouraged). All readings in Section 2 of this Course Outline are required unless marked as "Not Required." The alternative textbooks you can look at are:

   (a) **Williamson**, "Macroeconomics," Addison-Wesley, 4th Edition.

   (b) **Mankiw**, "Macroeconomics," Worth Publishers, 7th Edition.

   (c) **Jones**, "Macroeconomics," W. W. Norton & Company, Economic Crisis Update.

   (d) **Cecchetti**, "Money, Banking, and Financial Markets," McGraw-Hill, 2005.

   (e) **Mishkin**, "Economics of Money, Banking and Financial Markets," Addison-Wesley, 9th Ed.

How to Succeed in the Course:

I want to stress the importance of understanding the material covered in lectures beyond what is included in the textbook. You should see a correlation between the stuff I think are important enough for me to include in the Slides and the stuff I think are important enough for me to test you on.

My experience is that students are much more likely to do well in the course if they don't get lost in the material early on. Attending lectures and doing each week's readings (after lectures) is a necessary condition for not getting lost. Quizzes guarantee that you put the minimum amount of effort to keep up with the material. Similarly, I very strongly recommend that you take the Midterm exam very seriously. Historically, less than 3% of students have chosen not to take the midterm. Try to avoid these common mistakes:

- Thinking you know the pre-requisites (basic micro) and not reviewing them before the first class.
- Thinking you can get away with it if you don't study seriously during the first two or three weeks. While the worst quiz is dropped from your final grade, the material is truly cumulative. It is important that you don't feel lost during the first three weeks as this will decrease your motivation to understand macroeconomics.
- You need to be patient if you really want to appreciate macroeconomics. The return from your investment will realize after Week 7 or 8.
- You will soon feel lost if you don't show up in lectures as I don't always follow the textbook.
- Not taking the Midterm seriously.

Optional Project:

The optional project aims to give students a practical experience with macroeconomics and to increase the level of interaction in class. Historically around 40% to 50% of students have participated in the optional project. There is a moderate positive correlation between participation in the project and final grade. Participating in the project is by no means necessary to succeed in the course and many students have scored A's without doing the project.

The project involves forming a group, finding data for some macroeconomic variable of interest, doing some basic data analysis, interpreting the data through the lens of the models we will develop in class, and finally putting your results in presentation slides. I am *very* flexible regarding what is a suitable project topic. I will suggest topics and offer guidelines to interested students, but my experience is that typically most students come up with their own ideas. Here are some example topics from past years:

- "Analyzing Global Current Account Trends."
- "Unemployment in the US: Structural or Cyclical?"
- "Google Insights into Consumer Sentiment."
- "The Gender Pay Gap."
- "The Stiglitz Report."

- "The Bitcoin."
- "Fiscal Stimulus: Where Did the Money Go?"

Projects should be short and to the point. Although I am obviously happy to see more sophisticated methods and deeper analyses of the problems, the purpose of the project is to get your hands dirty with some data work and basically have fun with macro. A decent project from a team of three students should require no more than roughly 10 hours of work per student during the semester.

The project will count for up to 10% of the final grade (see below for grading policies.) You have the option but not the obligation to present your work to me and your classmates during the last lecture.

Bi-Weekly Quizzes:

There will be 4 15-minute quizzes throughout the term. Quizzes always test everything that was discussed in class during the previous weeks, including the assigned readings. If you don't participate in the optional project, I will drop your **lowest quiz grade** (no additional exceptions – I will only drop 1 quiz.), but if you participate in the optional project you can drop as many as 2 quizzes. Quizzes always take place at the beginning of class. If you come late to class, you will lose valuable time. There are no exceptions to this policy even if you have a valid reason for showing up late. **Students are not allowed to take quizzes (and exams) in Sections other than the Section they are officially enrolled.** Please do not email me asking to switch sections for "just one quiz." This is unfair to your classmates who don't make such requests. Additionally, I already offer to students the possibility to drop one quiz (or two quizzes if you do the project). So, use this possibility meticulously.

Course Grading and Exam Policies:

30% Quizzes and Optional Project. The optional project counts as much as one quiz. For students not participating in the project, the 3 highest scores (out of the 4 scores) will count towards the 30% of the final grade (so, I will drop the worst score). For students participating in the project, the 3 highest scores (out of the 5 scores) will count towards the 30% of the final grade (so, I will drop the worst 2 scores, whether they are "quiz scores" or "project scores" – typically they are "quiz scores").

70% Midterm and Final Exams. The Midterm counts once and the Final counts twice. Take the highest two of those three. So, the **midterm is optional** (with the exception of provisional grades). However, I very strongly recommend taking the Midterm Exam. The reason is that students not taking the midterm consequently get lost in class as the material is cumulative.

The first midterm will occur during week 6 and will last 1 hour. Like the quizzes, the midterm will take place on class time. If you cannot make these exam times and you still want to take the midterm, you should not take my class. No alternate arrangements will be made. If for some serious reason you cannot make the final exam, try to contact me in advance of the exam. Those who have a documented emergency and contact me in advance will be given a grade of an incomplete. Those who do not contact me in advance or those with unacceptable excuses (e.g. sibling getting married, broken leg, unanticipated business trip, weather conditions, job interview, start of an internship etc.) will fail the course. Those who receive an incomplete can take the course the next time I teach this class. I do not give any make up finals and midterms! The exam times for the final are set by Booth and not by me. I want to stress that **I never** offer alternate final and midterm times and students are never allowed to sit in exams other than the ones in the Section in which they are enrolled. You must be able to make the final if you enroll in my course.

Note: All exams and quizzes are closed-books. Cheat sheets are not allowed. The only device allowed in quizzes and exams is a calculator. No other device (e.g. laptop or cell phone) is allowed.

Note: Students are not allowed to sit in the quizzes and the exams of my other Sections. I will monitor students' performance closely to verify that you have not shared exam questions with other students. Sharing questions with students of other Sections constitutes a major violation of the Honor Code, will be reported to the Dean, and will be punished to the greatest extent possible.

Note: It is an official Chicago Booth policy that the average grade for students that enroll in any class be *no more* that B+. The exams are designed to give me enough flexibility to discriminate between different types of student, i.e. the exams will not have a very high average grade *in absolute terms* so that I can make clearer inferences. Of course, what matters is how you score *relative* to your peers and the class is graded on a curve.

Class Participation:

Participation is not graded. However, participation is highly valued and to encourage participation I adopt the following policy. I *can* increase your grade if you are at the margin and if you have been active in class discussions, but I *will never* decrease your grade if you never talked or if your comments were totally off. Such grade increases due to participation are **not negotiable** (i.e. never show up in my office asking for extra credit when I have already decided that you do not deserve it). Historically, this policy has helped around 10-15% of students to move up to a higher grade relative to their grade in the absence of the policy.

Cell Phone and Laptops in Class:

Please turn off your cell phone during class. It is distracting and disrespectful to your classmates and to me. Regarding laptops, I strongly prefer that you don't play with your laptop during lectures. But I will not forbid you to do so. Playing with your laptop pretty much guarantees that you lose the benefits identified in the "Class Participation" section above. The exception to this policy is if you are using the laptop to take notes or if the laptop is otherwise necessary for your learning needs. In this case, please come and talk to me before or during the first class. In general, it is very easy for me to infer whether you use your laptop during class to produce (e.g. to take notes or follow the slides) or to consume (e.g. to chat in Facebook).

Provisional Grades:

To receive a provisional grade: 1) you must take the midterm and receive a grade *higher* than C+ and 2) you must have performed reasonably well in the quizzes. There are no exceptions to this policy.

Re-Grades:

Quizzes are never re-graded nor discussed, unless there is an obvious mistake on my part (e.g. if the TA adds up scores incorrectly). Note: It is OK (in fact, I encourage you) to ask why a particular answer is the correct answer in a quiz question, provided you have read the answer key. It is an official policy of

the class that I never discuss with students why a particular answer received 30% credit instead of 50% etc. In other words, please come and talk to me only if you have a genuine interest in macroeconomics.

Exams are re-graded. Re-grade requests must be done within 3 days after I return the exam to you. You must email me and notify me that you are submitting such a request. In addition, the request for re-grade must be done in writing and attached to the exam when submitting the exam for a re-grade. The request must include a description of what the problem is and why you think the exam should be graded differently. In such cases, I will re-grade the whole exam – not just the question you identified. Since I am much tougher than the TA, chances are that your re-graded exam will have lower score than the original exam, unless there is an obvious mistake like adding-up the individual scores.

Review and Teaching Sessions:

Two review sessions will be offered. One will take place on the weekend before the midterm and the other on the weekend before the final. Historically, students have found extremely useful the review sessions. While not required, it is highly recommended that you attend the review sessions.

Four teaching sessions will be offered. Teaching sessions will take place before quizzes. I have scheduled the teaching sessions on Saturdays at Gleacher so that all students have the opportunity to attend. You are not required to attend the teaching sessions. The purpose of these Sessions is to go over some questions from problem sets, quizzes, and past exams. The TA will never teach material outside what I have already discussed explicitly in class.

Note: Review and teaching sessions are not videotaped.

Communication and Office Hours:

I answer quickly emails that concern macroeconomics in general or the course more specifically. Throughout the semester I will hold weekly office hours. I have chosen different dates and times for the office hours, so that all students can meet with me if necessary. Office hours labeled “HC” take place in my office in the Harper Center, Room 305. Office hours labeled “Gleacher” take place in the Gleacher Center, at the Faculty Suite in the 4th floor. You need to email me at least one day in advance for the office hours. The office hours are:

Week 1: 1 April 2015, HC, 11:00-12:00.

Week 2: 8 April 2015, Gleacher, 17:15-18:00.

Week 3: 16 April 2015, HC 11:30-12:30.

Week 4: 20 April 2015, HC, 10:30-11:30.

Week 5: 2 May 2015, Gleacher, 09:00-10:00 (before review).

Week 6: 4 May 2015, HC, 10:30-11:30.

Week 7: 13 May 2015, Gleacher, 17:15-18:00.

Week 8: 20 May 2015, HC, 12:30-13:30.

Week 9: 27 May 2015, Gleacher, 17:15-18:00.

Week 10: 6 June 2015, Gleacher, 09:00-10:00 (before review).

Week 11: 10 June 2015, HC, 10:30-11:30.

Honor Code:

Students are required to adhere to the standards of conduct of the Chicago Booth Honor Code and Standards of Scholarship. Each student will be required to sign the following pledge on each exam: "I pledge my honor that I have not violated the Honor Code during this examination." Sharing information across Sections pertaining to exams or quizzes violates the honor code in my class. Please remember that even if not explicitly stated on each exam and quiz, the honor code is always in effect. **I consider your printed name on any document as your agreement to the Honor Code**. Violations will be reported to the Dean and punished to the greatest extent possible.

2. Reading List and Topics Outline

Note: All readings below are required unless marked as "Not Required." See Section 4 of this Outline for the policy regarding the Online Readings.

TOPIC 0: Pre-Course Readings.

Readings**:** (1) ABC: Appendix A.1-A.7; (2) Skim quickly through pages 1-19 of the Handout posted at the webpage: http://faculty.chicagobooth.edu/loukas.karabarbounis/teaching/topic0.pdf; (3) Online Readings Topic 0.

Outline: Given that you have taken Microeconomics at the level of Bus-33001, this should be a quick refresher of things that you already know. Before class starts, you should be very comfortable with basic concepts like Functions, Graphs, Slopes of Functions, Elasticities, Exponents, Growth Rates and Systems of Equations. Also, you should be able to calculate derivatives for basic functions (e.g.: power function, log, linear functions). In addition, now is a good time to review your basic Micro course, especially the chapters about marginal products, profit maximization, marginal utilities, indifference curves, budget constraints, marginal rates of substitution, and utility maximization.

TOPIC 1: Introduction to Macroeconomics, Definitions and Measurement.

Readings**:** (1) Slides; (2) ABC: Chapter 1, 2, 3.5, 8.1, 8.2 and 8.3; (3) Online Readings Topic 1.

Outline: Basic Macroeconomic Variables, Growth, Business Cycles, Procyclical vs. Countercyclical Variables, Great Moderation, Definition and Measurement of GDP, Product-Expenditure-Income Approach to Measuring GDP, GDP vs. Utility and Welfare, Consumption (Durables, Non-Durables, Services), Investment (Business, Residential, Inventories), Government Spending, Exports and Imports, GDP vs. GNP, Depreciation, Net Factor Payments, Savings, Current Account, Real vs. Nominal Variables, Price Indices, Inflation, Interest Rates, Real vs. Nominal Interest Rates, Unemployment Rate, Employment-Population Ratio, Natural Rate of Unemployment, Cyclical, Frictional and Structural Unemployment, Labor Share of Income, Wages by Skill, Inequality.

TOPIC 2: Basic Macro Model: Where We Are Headed.

Readings**:** (1) Slides; (2) ABC: Chapter 8.4; (3) Online Readings Topic 2.

Outline: The AD/AS Framework, Aggregate Demand Curve, Aggregate Supply Curve, Equilibrium, Aggregate Demand vs. Supply Shocks, US Recessions, Interpreting Business Cycles, Great Recession of 2007-2009.

TOPIC 3: The Aggregate Production Function.

Readings**:** (1) Slides; (2) ABC: Chapter 3.1 and Appendix A.1-A.7; (3) Online Readings Topic 3; (4) [Not Required] Mankiw: Chapter 3.2.

Outline: Production Function, Inputs and Output, Capital vs. Investment, Total Factor Productivity (TFP), Marginal Products, Diminishing Marginal Products, Complementarities, Cobb-Douglas Production Function, Measuring Productivity, Labor and Capital Productivity, Labor Share of Income.

TOPIC 4: Economic Growth.

Readings**:** (1) Slides; (2) ABC: Chapter 6; (3) Online Readings Topic 4; (4) [Not Required] Jones: Chapter 5.

Outline: Growth Accounting, Labor Productivity, Productivity Booms and Slowdowns in the US, Capital Deepening, Information and Communication Technologies, Solow Growth Model, Capital Accumulation, Steady-State, Transitions, Growth Rate in the Steady-State and in the Transition, The Role of Diminishing Marginal Returns to Capital Accumulation, Savings, TFP Growth, Natural Disasters (Japan), China's Growth Miracle.

TOPIC 5: The Labor Market.

Readings**:** (1) Slides; (2) ABC: Chapters 3.2-3.4; (3) Online Readings Topic 5; (4) [Not Required] Williamson: Chapter 4 and 17 (pages 616-629).

Outline: Profit Maximization, Labor Demand, Utility Maximization, Substitution and Income/Wealth Effects, Permanent Income, Labor Supply, Taxes-Wages-Housing Prices, Labor Supply and Productivity in the US vs. Europe, Labor Market Equilibrium, Adjustment Mechanism under Flexible Wages/Prices, Labor Market Shocks, Voluntary Unemployment, Skill Premium, Potential Output, Long Run Aggregate Supply (LRAS), AD and Money Neutrality, Sticky Wages, Involuntary Unemployment, Productivity and Employment over the Business Cycle.

TOPIC 6: Household Consumption and Savings.

Readings**:** (1) Slides; (2) ABC: Chapter 4.1 (pages 104-113) and Appendix 4.A; (3) Online Readings Topic 6; (4) [Not Required] Williamson: Chapter 8 (pages 262-289) and 9 (pages 313-326); (5) [Not Required] Mankiw: Chapter 17.

Outline: Keynesian Consumption Function, Permanent Income Hypothesis, Preferences, Budget Constraints with Perfect Capital Markets, Consumption Smoothing, Consumption Function, Substitution and Income/Wealth Effects, Interest Rate Shocks, Permanent vs. Temporary Income Shocks, Expected vs. Unexpected Shocks, Housing Wealth, Precautionary Savings and Uncertainty, Credit Constraints, Interest Rate Spreads, Credit Crunch, Borrowing Constraints, Housing Price Drops and Collaterals.

TOPIC 7: Investment.

Readings**:** (1) Slides; (2) ABC: Chapter 4.2; (3) Online Readings Topic 8; (4) [Not Required] Williamson: Chapter 10 (pages 345-358); (5) [Not Required] Mankiw: Chapter 18.

Outline: Firm's Capital Choice, User Cost of Capital, Investment Demand Function, Interest Rates and Investment, Shifts of the Investment Curve, Tobin's q, Stock Market, Credit Constraints, Residential Investment, Housing Prices, 2007-2009 Housing Price Collapse.

TOPIC 8: Fiscal Policy.

Readings**:** (1) Slides; (2) ABC: Chapter 4.1 (pages 113-120), 15.1-15.3; (3) Online Readings Topic 7.

Outline: Government Budget Constraint, Outlays and Tax Revenues, Public Debt, Budget Deficits, Sustainability of Public Debt, Ricardian Equivalence, Timing of Taxes and Deficit Irrelevance, Private and Public Savings, Automatic Stabilizers, Fiscal Multiplier, Fiscal Policy in the Long Run, Consumption Crowd Out, Fiscal Policy in the Short Run, Keynesian Multiplier, Deficit vs. Taxes, Fiscal Policy with Borrowing Constraints, Evidence on Government Spending Multipliers.

TOPIC 9: The IS Curve.

Readings**:** (1) Slides; (2) ABC: Chapter 4.3 and 9.2; (3) Online Readings Topic 9.

Outline: Goods Market Equilibrium, Combining Investment and Savings, The IS Curve, Investment-Savings Equality and Interest Rates, Slope of IS, Shifts in the IS Curve, Paradox of Thrift.

TOPIC 10: Money, Inflation, and Monetary Policy.

Readings**:** (1) Slides; (2) ABC: Chapter 7.1, 7.3, 7.4, 14 (pages 525-544 and pages 561-563); (3) Online Readings Topic 10; (4) [Not Required] Cecchetti: Chapters 15-18; (5) [Not Required] Jones: Chapter 8.2, 11.2, 11.6, 12.6, and 14.3.

Outline: Definition of Money, Central Banks, Monetary Bapen Market Operations, Money Supply Creation, Bank's Reserves-Deposits, Public's Currency-Deposits, Money Multiplier, Money Supply During the Great Depression and the Great Recession, Money Demand, Quantity Theory of Money, Inflation in the Long-Run, Monetary Policy Toolbox, Effective and Target Fed Funds Rate, Market for Reserves, Interests on Reserves Fed's Balance Sheet during Great Recession, Quantitative Easing, Unconventional Monetary Policies, Taylor Rule, Responsiveness to Output and Inflation Shocks, Taylor Rule in the Run-Up to the 2007-2009 Financial Crisis, Housing Bubbles and Monetary Policy, The Monetary Policy (MP) Curve.

TOPIC 11: Aggregate Demand.

Readings**:** (1) Slides; (2) Romer: "Short-Run Fluctuations": Pages 1-8, 47-48; The Text is available at the link http://elsa.berkeley.edu/~dromer/papers/text2006.pdf and the accompanying Figures are

available at the link http://elsa.berkeley.edu/~dromer/papers/Figures_for_Web_1-2-06.pdf; (3) ABC: Chapter 12.3 (pages 459-462); (4) Online Readings Topic 11; (5) [Not Required] Jones: Chapter 8.4 and 8.5; (6) [Not Required] Mankiw: Chapter 4.6 and 4.7.

Outline: The AD Curve, IS-MP Intersection, Construction of AD, Slope of AD, Inflation vs. Output Fluctuations, Shifts of AD, Costs of Inflation, Costs of Disinflation, Disinflation and the Zero Lower Bound, Costs of Hyperinflation, Monetizing Public Debt.

TOPIC 12: Aggregate Supply in the Short-Run.

Readings**:** (1) Slides; (2) ABC: Chapter 10.3 (pages 381-383), 11.2 (pages 407-411), 12.1; (3) Online Reading Topic 12; (4) [Not Required] Romer: "Short-Run Fluctuations": Pages 44-47; (5) [Not Required] Mankiw: Chapter 13 (pages 379-395); (6) [Not Required] Jones: Chapter 9.3 and 11.3.

Outline: Sticky Wages, Sticky Prices and Monopolistic Competition, Imperfect Information, Short-Run Aggregate Supply (SRAS), Slope of SRAS, Shifts of SRAS, Inflationary Expectations, Phillips Curve.

TOPIC 13: Macroeconomic Equilibrium.

Readings**:** 1) Slides; (2) Online Readings Topic 13; (3) [Not Required] ABC: Chapter 10.1 and 12.3 (pages 465-466); (4) [Not Required] Romer: "Short-Run Fluctuations": Pages 48-68; (5) [Not Required] Mankiw: Chapter 14; (6) [Not Required] Jones: Chapter 11.4, 12.2-12.5, 13.2, 14.2.

Outline: All Pieces Together: IS/MP/AD/SRAS/LRAS/Expectations, Endogenous vs. Exogenous Variables, Long-Run Equilibrium, Classical Dichotomy and Money Neutrality, Short-Run Equilibrium, Transition to LR Equilibrium and Expectations, Example 1: Volcker's Disinflation, Example 2: 2007-2009 Great Recession and the Credit Crunch as a Demand Shock, Example 3: 1990-1991 Recession, Loss in Consumer Confidence, Example 4: Permanent vs. Temporary TFP Shocks and Oil Shocks, Example 5: Government Spending Shocks.

3. Course Calendar

	TOPICS AND SCHEDULE
Week 1 **33040-01/81:** 1 April 2015 **33040-02:** 2 April 2015	(1) Organization and Outline of Course (2) Topic 1 (1.1–1.3)
Week 2 **33040-01/81:** 8 April 2015 **33040-02:** 9 April 2015 **TA Session:** 11 April 2011, Gleacher 404, 09:45-11:45	(1) Topic 1 (1.4–1.6) (2) Topic 2 (3) Topic 3 (3.1–3.3)
Week 3 **33040-01/81:** 15 April 2015 **33040-02:** 16 April 2015	(1) Quiz 1 (Topics 1.1–3.3) (2) Topic 3 (3.4) (3) Topic 4
Week 4 **33040-01/81:** 22 April 2015 **33040-02:** 23 April 2015 **TA Session:** 25 April 2015, Gleacher 404, 09:45-11:45	(1) Topic 5 (5.1–5.4)
Week 5 **33040-01/81:** 29 April 2015 **33040-02:** 30 April 2015 **Review Session:**	(1) Quiz 2 (Topics 3.4–5.4) (2) Topic 5 (5.5-5.6) (3) Topic 6

2 May 2015, Gleacher 300, 10:00-12:00

Week 6	(1) **MIDTERM EXAM (Topics 1-6)**
33040-01/81: 6 May 2015	(2) Topic 7
33040-02: 7 May 2015	(3) Topic 8 (8.1)
Week 7	(1) Topic 8 (8.2–8.3)
33040-01/81: 13 May 2015	(2) Topic 9
33040-02: 14 May 2015	
TA Session:	
16 May 2015, Gleacher 404, 09:45-11:45	
Week 8	(1) Quiz 3 (Topics 7, 8, and 9)
33040-01/81: 20 May 2015	(2) Topic 10
33040-02: 21 May 2015	
Week 9	(1) Topic 11
33040-01/81: 27 May 2015	(2) Topic 12
33040-02: 28 May 2015	(3) Topic 13 (13.1)
TA Session:	
30 May 2015, Gleacher 404, 09:45-11:45	
Week 10	(1) Quiz 4 (Topics 10, 11, and 12)
33040-01/81: 3 June 2015	(2) Topic 13 (13.2–13.6)
33040-02: 4 June 2015	(3) Presentation of Projects
Review Session:	
6 June 2015, Gleacher 404, 09:45-11:45	
Week 11	(1) **FINAL EXAM (Topics 1-13)**

33040-01/81: 10 June 2015

33040-02: 11 June 2015

Deadline for projects: 12 June 2015

33040-01: 13:30-16.30.

33040-81: 18:00-21:00.

33040-02: 08:30-11:30.

4. Online Readings

Topic and Reading	Link to Reading	Summary of Reading
TOPIC 0: Pre-Course Readings		
0.1 (*) Why Wages Do Not Fall in Recessions *Economist*, 24 Feb 2000	http://www.economist.com/node/330089	Keynesian vs. Neoclassical approaches to labor market and sources of wage stickiness.
0.2 The Hidden Potential of Macroeconomics in MBA Programs for CEO Decision Making, pp. 1-11 *Peter Navarro*, 2006	http://works.bepress.com/cgi/viewcontent.cgi?article=1002&context=peter_navarro	The value of Macroeconomics to the MBA Curriculum.
0.3 (*) The New Head of the Federal Reserve: Dove Ascendant *Economist*, 12 Oct 2013	http://www.economist.com/news/finance-and-economics/21587798-janet-yellen-will-stick-her-predecessors-expansionary-policies-dove-ascendant	Janet Yellen's appointment as the Fed's next chair.
TOPIC 1: Intro to Macro		
1.1 (*) Grossly Distorted Picture *Economist*, 13 May 2008	http://www.economist.com/node/10852462	GDP vs. GDP per capita as a measure of standard of living and in defining recessions.
1.2 (*) Measuring What Matters	http://www.economist.com	GDP does not measure all things

Economist, 17 Sep 2009	/node/14447939	that enter the utility function.
1.3 Why Use Core Inflation? *Economist*, 30 March 2011	http://www.economist.com/blogs/freeexchange/2011/03/inflation_1	Core inflation may be a better predictor of future inflation than headline inflation.
1.4 (*) Why Negative Interest Rates Have Arrived – and Why They Won't Save the Global Economy *Economist*, 18 Feb 2015	http://www.economist.com/blogs/economist-explains/2015/02/economist-explains-15	Negative nominal interest rates have been observed recently.
1.5 (*) Is The Unemployment Rate Really Just a Big Lie? *Fortune*, 4 Feb 2015	http://fortune.com/2015/02/04/unemployment-rate-gallup/	Despite a significant decrease in the unemployment rate, employment can still be low.
1.6 (*) The Three Types of Unemployment *Economist*, 27 Aug 2014	http://www.economist.com/blogs/economist-explains/2014/08/economist-explains-8	The meaning of structural unemployment, its causes, and policies.
1.7 Hard Times, for Some *NYT*, 21 Aug 2013	http://opinionator.blogs.nytimes.com/2013/08/21/hard-times-for-some/?_r=0	The global decline of the labor share of income.
1.8 (*) The Privileged Few: To Those That Have Shall Be Given *Economist*, 4 Oct 2014	http://www.economist.com/news/special-report/21621160-labour-steadily-losing-out-capital-those-have-shall-be-given	Automation and technical progress and its effects on job market polarization and the labor share of income.
1.9 Disinformation on Inequality *NYT*, *Paul Krugman*, 2 Jan 2014	http://krugman.blogs.nytimes.com/2014/01/02/disinformation-on-inequality/?smid=tw-	An example of an erroneous inference of inequality trends based on the distinction of real vs. nominal dollars.

	NytimesKrugman&seid=auto&_r=1&	

TOPIC 2: Basic Macro Model

2.1 (*) What Caused the Economic Crisis? *Slate Magazine*, 9 January 2010	http://www.slate.com/id/2240858/	Discussion of various causes of the 2007-2009 Great Recession.
2.2 The Great Recession: Grasping at an Understanding of the Crisis *Economist*, 8 Jan 2011	http://www.economist.com/blogs/freeexchange/2011/01/great_recession	Rising inequality, credit expansion, housing bubbles, and the economic crisis.
2.3 What Can We Learn From the Depression? *Economist*, 8 Nov 2013	http://www.economist.com/blogs/freeexchange/2013/11/economic-history-0	Drawing parallels between the Great Depression and the Great Recession.
2.4 Federal Reserve Transcripts: The Great Recession! Its Right Behind You! *Economist*, 24 Feb 2014	http://www.economist.com/blogs/freeexchange/2014/02/federal-reserve-transcripts	Policy decision making at the beginning of the Great Recession.

TOPIC 3: Production Function

3.1 On the Shop Floor *Economist*, 11 Sep 2003	http://www.economist.com/node/2051779	Technology improvements in FedEx, Dell, Procter & Gamble and Delta.
3.2 You're Hired *Economist*, 16 Sep 2004	http://www.economist.com/node/3171466	Self-service in airlines, banks, phone companies etc. increases production for given number of labor and capital.

3.3 Hedging Against Oil *Bloomberg Businessweek*, 7 May 2008	http://www.businessweek.com/bwdaily/dnflash/content/may2008/db2008056_075377.htm	Increasing fuel prices send many companies into bankruptcy. Southwest's management was successful in hedging risks.
3.4 High-speeding Railroading *Economist*, 22 Jul 2010	http://www.economist.com/node/16636101?story_id=16636101	Deregulation led to productivity growth in US railroads.
3.5 (*) What Witch Doctors? *Economist*, 13 Nov 2007	http://www.economist.com/node/10126841	Bloom and Van Reenen on management, productivity, and firm performance.
3.6 (*) A Productivity Primer *Economist*, 4 Nov 2004	http://www.economist.com/node/3352969	Difference between Labor Productivity and TFP (Multi-factor Productivity).
3.7 (*) Workers' Share of National Income: Labour Pains *Economist*, 2 Nov 2013	http://www.economist.com/news/finance-and-economics/21588900-all-around-world-labour-losing-out-capital-labour-pains	More on the global decline in the labor share of income.
3.8 Labor Shares and Corporate Savings *EconBrowser*, 26 Jun 2012	http://www.econbrowser.com/archives/2012/06/guest_contribut_19.html	Declines in the cost of capital associated with global declines in labor shares and increases in corporate savings.

TOPIC 4: Economic Growth

4.1 Productivity *Federal Reserve Board, Ben*	http://www.federalreserve.gov/boarddocs/speeches/2	Bernanke on the productivity boom of the late 1990s and the role of ICT technologies and

Bernanke, 24 Feb 2005	005/20050119/default.htm	intangible capital.
4.2 (*) Intangible Measures *Economist*, 2 Aug 2007	http://www.economist.com/node/9601016	Trying to quantify investment in intangible assets.
4.3 IT Was Fun While IT Lasted *Economist*, 7 Jul 2014	http://www.economist.com/blogs/freeexchange/2014/07/productivity	Productivity slowed down in the 2000s as gains from the IT revolution became smaller.
4.4 (*) The Mystery of Declining Productivity Growth. *WSJ*, Alan Blinder, 14 May 2015	http://www.wsj.com/articles/the-mystery-of-declining-productivity-growth-1431645038	Declining labor productivity: the role of weak capital investment, declining firm dynamism, and rise of leisure technology.
4.5 What Use is Sources-Of-Growth Accounting? *Dani Rodrik's Weblog*, 11 Feb 2008	http://rodrik.typepad.com/dani_rodriks_weblog/2008/02/what-use-is-sou.html	Growth accounting is not an economic theory; it is just a diagnostic tool.
4.6 (*) The Macroeconomics Aftermath of the Earthquake/Tsunami in Japan *Econbrowser*, *Ilan Noy*, 15 Mar 2011	http://www.econbrowser.com/archives/2011/03/guest_contribut_8.html	Summary of the current evidence on the direct and the indirect macroeconomic effects of large natural disasters.
4.7 Why China Grows so Fast? *WSJ*, *Michael Spence*, 23 Jan 2007	http://faculty.nps.edu/relooney/00_New_1026.pdf	Savings and other determinants of China's growth miracle.
4.8 (*) Secret Sauce *Economist*, 12 Nov 2009	http://www.economist.com/node/14844987	TFP growth driving Chinese economic growth.
4.9 A Bumpier But Freer Road *Economist*, 30 Sep 2010	http://www.economist.com/node/17145035?story_id=17145035	India's recent growth experience: role of demographics, education, instability, and corruption.

TOPIC 5: The Labor Market

5.1 (*) Automatic Reaction *Economist*, 9 Sep 2010	http://www.economist.com/node/16990700?story_id=16990700	How the IT revolution led to a differential labor demand shock for high vs. mid skilled workers.
5.2 Time, Money and Unemployment *New York Times*, 29 August 2011	http://economix.blogs.nytimes.com/2011/08/29/time-money-and-unemployment/	What people do with their time when not working during recessions?
5.3 (*) Still Good for a Few More Years *Economist*, 10 Sep 2009	http://www.economist.com/node/14428535	Older workers, labor supply shocks and the 2007-2009 Great Recession.
5.4 (*) Relax! It's the Law *Economist*, 19 May 2005	http://www.economist.com/node/3987228	US-Europe differences in labor supply.
5.5 The Anemic Response of Skill Investment to Skill Premium Growth *VOXEU, Altonji, Bharadwaj and Lange*, 6 May 2008	http://www.voxeu.org/index.php?q=node/1110	The supply of skills, conditional on parental education and other exogenous factors, has remained relatively constant.
5.6 (*) Sticky, Sticky Wages *Economist*, 11 Jan 2011	http://www.economist.com/blogs/freeexchange/2011/01/labour_markets_1	Discussion of sticky wages following the 2007-2009 Great Recession.
5.7 Labour Markets: Stuck *Economist*, 3 Apr 2012	http://www.economist.com/blogs/freeexchange/2012/04/labour-markets	Low inflation and non-decreasing nominal wages put upward pressure on real wages and do not help reduce unemployment.
5.8 (*) Slash and Earn *Economist*, 18 Mar 2010	http://www.economist.com/node/15731230	Why productivity increased in the US but decreased in Europe in the Great Recession? The role of

		rigidity in labor markets.
5.9 Hard Times, Lean Firms *Economist*, 31 Dec 2011	http://www.economist.com/node/21542211	Reorganization of production can improve productivity during recessions.
5.10 (*) Man vs. Machine, a Jobless Recovery *WSJ*, 17 Jan 2012	http://online.wsj.com/article/SB10001424052970204468004577164710231081398.html	Capital spending, jobless recoveries, productivity, labor-capital substitutability.

TOPIC 6: Consumption & Savings

6.1 (*) Home Discomforts *Economist*, 2 Jun 2009	http://www.economist.com/node/13956186	How strong is the housing wealth effect?
6.2 (*) The Nature of Wealth *Economist*, 8 Oct 2009	http://www.economist.com/node/14587262	Should housing and asset prices perceived as wealth?
6.3 Uncertainty: Are They All Keynesians Again? *Economist*, 8 Dec 2010	http://www.economist.com/blogs/democracyinamerica/2010/12/uncertainty	Political and economic uncertainty as contributing factors to recessions.
6.4. (*) The Feel-Bad Factor *Economist*, 1 Oct 2009	http://www.economist.com/node/14558526	The UK savings rate increases sharply during the Great Recession, as households hoard wealth to insure against the larger uncertainty.
6.5 Labor Shares and Corporate Savings *Econbrowser.com*, 26 June 2012	http://econbrowser.com/archives/2012/06/guest_contribut_19	The global rise of corporate savings and the decline of the labor share.
6.6 (*) Credit Crunch Moves Beyond	http://online.wsj.com/articl	Drying of consumer credit at the

Mortgages *WSJ, Jane Kim*, 22 Aug 2007	e/SB118773982869404682.html	onset of the 2007-2009 Great Recession.
6.7 The Morning After *Economist*, 24 Jun 2010	http://www.economist.com/node/16397124?story_id=16397124	The boom and the recent bust in the availability of credit.

TOPIC 7: Investment

7.1 (*) Let's Stimulate Private Risk Taking *WSJ, Alberto Alesina and Luigi Zingales*, 21 Jan 2009	http://online.wsj.com/article/SB123249646698200289.html	Alesina and Zingales argue that investment tax credits are much more likely to boost demand.
7.2 Overvaluation: The Evidence *Economist*, 22 Jan 2014	http://www.economist.com/blogs/buttonwood/2014/01/stockmarkets	The usefulness of Tobin's *q* in thinking about the valuation of stocks.
7.3 (*) Desperately Seeking a Cash Cure *Economist*, 20 Nov 2008	http://www.economist.com/node/12636353	External financing dries up and firms hoard cash to finance their projects.
7.4 (*) Home Economics *Economist*, 14 Aug 2008	http://www.economist.com/node/11921704	The US housing bubble.
7.5 Structural Cracks *Economist*, 22 May 2008	http://www.economist.com/node/11412518	Global housing prices during the Great Recession.

TOPIC 8: Fiscal Policy

8.1 Not So Risk-Free *Economist*, 11 Feb 2010	http://www.economist.com/node/15498265	Debt sustainability around the world.

8.2 Why Does the Debt Ceiling Matter? *Economist*, 2 Oct 2013	http://www.economist.com/blogs/economist-explains/2013/10/economist-explains-0	The US government shutdown in October 2013.
8.3 Defying Gravity *Economist*, 14 Aug 2012	http://www.economist.com/blogs/freeexchange/2012/08/fiscal-sustainability	The large Japanese debt (mostly held domestically).
8.4 (*) Ricardian Equivalence Revisited *WSJ*, 30 Aug 2011	http://blogs.wsj.com/source/2011/08/30/ricardian-equivalence-revisited/	Mixed evidence for the Ricardian Equivalence proposition.
8.5 (*) Recession Cost Uncle Sam 4.2 Trillion *WSJ*, 21 April 2011	http://www.marketwatch.com/story/recession-cost-uncle-sam-42-trillion-2011-04-21?mod=marketwatch	How the automatic stabilizers interacted with discretionary spending to create a huge fiscal deficit.
8.6 (*) Remember Fiscal Policy *Economist*, 17 Jan 2002	http://www.economist.com/node/939990	The effectiveness of fiscal policy and the consumption function.
8.7 (*) Government Spending is No Free Lunch *WSJ*, *Barro*, 22 Jan 2009	http://online.wsj.com/article/SB123258618204604599.html	Robert Barro argues that the "peacetime multiplier" is essentially zero.
8.8 (*) Most Stimulus Went Into Savings *WSJ*, *Shapiro and Slemrod*, 7 Aug 2008	http://blogs.wsj.com/economics/2008/08/07/economists-most-stimulus-went-into-savings/	Research by Shapiro and Slemrod argues that the 2008 tax rebate was mostly saved.
8.9 The Impact of the 2008 Rebate *VOXEU*, *Broda and Parker*, 15 Aug	http://www.voxeu.org/index.php?q=node/1541	As in 2001, Broda and Parker argue that large part of the 2008 rebate was spent, with a stronger

2008		effect for low wealth households.
8.10 (*) Much Ado About Multipliers *Economist*, 24 Sept 2009	http://www.economist.com/node/14505361	Uncertainty about the size of the fiscal multiplier.
8.11 (*) No Sort Cuts *Economist*, 27 Oct 2012	http://www.economist.com/news/finance-and-economics/21565150-short-term-austerity-aftermath-severe-crisis-may-prove-more-painful	Summary of recent research on the fiscal multiplier.
8.12 (*) Stimulus Spending Doesn't Work *WSJ, Barro and Redlick*, 1 Oct 2009	http://online.wsj.com/article/SB10001424052748704471504574440723298786310.html	Barro and Redlick estimate fiscal multipliers using data from war episodes.

TOPIC 9: The IS Curve

9.1 (*) Why Are Interest Rates So Low, Part 3: The Global Savings Glut *Ben Bernanke's Blog*, 1 Apr 2015	http://www.brookings.edu/blogs/ben-bernanke/posts/2015/04/01-why-interest-rates-low-global-savings-glut	Ben Bernanke on the global savings glut and low interest rates.
9.2 (*) The Paradox of Thrift – For Real *NYT, Paul Krugman*, 7 Jul 2009	http://krugman.blogs.nytimes.com/2009/07/07/the-paradox-of-thrift-for-real/	Paul Krugman argues that the paradox of thrift is for real during the 2007-2009 Great Recession.
9.3 (*) The Paradox of the Paradox of Thrift *Economist*, 18 Nov 2009	http://www.economist.com/blogs/freeexchange/2009/11/the_paradox_of_the_paradox_of	Have we been in a paradox-of-thrift mode?

TOPIC 10: Money, Inflation, Fed

10.1 Bitcoin Has No Intrinsic Value, And Will Never Be a Threat to Fiat Currency *Business Insider*, 11 Apr 2013	http://www.businessinsider.com/bitcoins-have-no-value-2013-4	Fiat currency vs. virtual currencies.
10.2 Money Mystery: Who's Holding US Currency? *National Public Radio*, 9 Jan 2009	http://www.npr.org/templates/story/story.php?storyId=99147699	The missing currency puzzle: Drug dealers and foreigners hold most of the US currency.
10.3 Monetary Policy in a World with Interest on Reserves *FRB of Cleveland*, June 2010	http://www.clevelandfed.org/research/commentary/2010/2010-4.cfm	Paying a small interest on reserves effectively puts a floor on the effective funds rate, allowing the Fed to hit the target more efficiently.
10.4 (*) Ground Zero *Economist*, 18 Dec 2008	http://www.economist.com/node/12818300	With the fed funds rate close to zero, the Federal Reserve had to follow unconventional policies to expand its balance sheet.
10.5 Loose Thinking *Economist*, 15 Oct 2009	http://www.economist.com/node/14649284	Comparison of Bank of Japan's Quantitative Easing with Fed's Credit Easing.
10.6 Sense and Nonsense in the Quantitative Easing Debate *VOXEU, John Cochrane*, 7 Dec 2010	http://www.voxeu.org/index.php?q=node/5900	John Cochrane argues against the Fed buying long-term bonds.
10.7 Bonding Session *Economist*, 13 Mar 2008	http://www.economist.com/node/10854944	The TAF and TSLF lending facilities.

10.8 (*) Plan C *Economist*, 27 Nov 2008	http://www.economist.com/node/12689745	Fed's MBS purchases and Treasury's TARP program.
10.9 Fed's Twist May Prompt Bigger Turn *WSJ*, 30 Sep 2011	http://online.wsj.com/article/SB10001424052970203405504576601313434984974.html	The October 2011 Operation Twist and its differences from QE2.
10.10 (*) The Fed's Meeting: A Loss of Patience *Economist*, 18 Mar 2015	http://www.economist.com/blogs/freeexchange/2015/03/feds-meeting	Will the Fed increase soon the interest rate?
10.11 (*) The Global Secular Savings Stagnation Glut *Economist*, 3 Apr 2015	http://www.economist.com/blogs/freeexchange/2015/04/puzzles	Depressed demand, secular stagnation, and the global savings glut.
10.12 (*) A Double Dip? *Economist*, 15 Aug 2002	http://www.economist.com/node/1283285	Fears of a double dip recession in 2002 led the Fed to keep interest rates lower than prescribed by the Taylor Rule.
10.13 (*) The Government Caused The Crisis *WSJ*, *John Taylor*, 9 Feb 2009	http://online.wsj.com/article/SB123414310280561945.html	Taylor blames the low interest rates during 2003-2005 for the housing bubble.
10.14 (*) It Wasn't Us *Economist*, 18 Mar 2010	http://www.economist.com/node/15719180	Bernanke and Greenspan blame the "Savings Glut" for the housing bubble.
10.15 Did the Fed Cause the Housing Bubble? *WSJ*, 27 Mar 2009	http://online.wsj.com/article/SB123811225716453243.html	Symposium on Fed vs. Savings Glut views of the Great Recession.

TOPIC 11: Aggregate Demand

11.1 The Deflation Dilemma *Economist*, 3 Jun 2010	http://www.economist.com/node/16274363	Fears of deflation during the Great Recession.
11.2 (*) Grease Or Sand? *Economist*, 24 Jul 1997	http://www.economist.com/node/152569	Can moderate inflation levels "grease-the-wheels" of the economy?
11.3 Out of Keynes's Shadows *Economist*, 12 Feb 2009	http://www.economist.com/node/13104022	How Fischer's debt-deflation hypothesis works and its relevance for the financial crisis.
11.4 (*) Deflation: Feeling Down *Economist*, 21 Feb 2015	http://www.economist.com/news/leaders/21644148-deflation-can-be-good-thing-todays-version-pernicious-feeling-down	The dangers of deflation when the nominal interest rate is stuck at zero.
11.5 The Next Round of Ammunition *Greg Mankiw Blog*, 16 Dec 2008	http://gregmankiw.blogspot.com/2008/12/next-round-of-ammunition.html	Greg Mankiw argues that committing to a moderate inflation reduces real interest rates which may help overcome the zero lower bound constraint.
11.6 (*) Level Worship *Economist*, 28 Oct 2010	http://www.economist.com/node/17359344?story_id=17359344	Price-level targeting (instead of inflation targeting) helps create inflationary expectations and reduce real interest rates.
11.7 Billionaire's Woes *Economist*, 16 May 2008	http://www.economist.com/node/11378439	In March 2008 inflation reached 355000% in Zimbabwe.
11.8 A Worthless Currency	http://www.economist.com/node/11751346	Disruption of production and instability in Zimbabwe due to

Economist, 17 Jul 2008		hyperinflation.
11.9 (*) Monetizing the Debt *FRB St. Louis, Daniel Thornton*, 2010	http://research.stlouisfed.org/publications/es/10/ES1014.pdf	Explanation of monetization of public debt.

TOPIC 12: Short-Run AS

12.1 (*) Why Has Wage Growth Stayed Strong? *FRB San Francisco*, 2 Apr 2012	http://www.frbsf.org/economic-research/publications/economic-letter/2012/april/strong-wage-growth/	Evidence and discussion of downward nominal wage rigidity. Wage rigidity more important in the last recession, for less educated workers, and in industries hit harder during the recession.
12.2 (*) Sticky Situations *Economist*, 9 Nov 2006	http://www.economist.com/node/8135819	Measuring price stickiness (Bils and Klenow and Nakamura and Steinsson).

TOPIC 13: Macro Equilibrium

13.1 Navigators in Troubled Waters *Economist*, 23 Sep 1999	http://www.economist.com/node/242095	Volcker's disinflation, how Central Banks became powerful, and recent challenges.
13.2 CSI: Credit Crunch *Economist*, 18 Oct 2007	http://www.economist.com/node/9972489	An early account of the subprime crisis and the credit crunch.
13.3 (*) Shock Treatment *Economist*, 15 Nov 2007	http://www.economist.com/node/10130655	Relative to 1970s and 1980s, oil price shocks seem to matter less for economic fluctuations.