Macroeconomics Theory I

Ph.D. Macro Course I

Fall, 2020

INSTRUCTOR

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LECTURES

Thursdays 8:00 AM - 10:30 AM, Ming De Main Building (MDMB) Room 0411

COURSE WEBSITE

http://portal.ruc.edu.cn/ypy.

OFFICE HOURS

Thursdays 2:00 PM - 5:00 PM in my office MDMB Room 512A or by appointment via email

COURSE DESCRIPTION

This is the first of the two core Ph.D. courses in Macroeconomics. This course is to give an overview of the major branches of theories and the associated empirics that contribute to the central questions in modern Macroeconomics. We will examine important topics including the intertemporal models of consumption and savings, the consumption-based asset pricing model, the overlapping generations model, the models of economic growth, the investment model, and the baseline labor search model. A number of math preliminaries and numerical algorithms for model solutions will be covered throughout the course.

PREREQUISITE

Students are required to have taken intermediate micro and macro classes. Math courses of advanced calculus, matrix algebra, and difference/differential equations are highly recommended.

TEXTBOOK AND READINGS

This course will be based on varieties of sources by drawing on materials from the following textbooks:

- *Recursive Macroeconomic Theory*, Third Edition, 2012. By Lars Ljungqvist and Thomas J. Sargent. MIT Press. [LS]
- *Introduction to Modern Economic Growth*, 2009. By Daron Acemoglu, Princeton University Press. [Acemoglu]
- *Advanced Macroeconomics*, Fourth Edition, 2011. By David Romer, McGraw-Hill. [Romer]
- *Equilibrium Unemployment Theory*, Second Edition, 2000. By Christopher A. Pissarides. MIT Press. [Pissarides]
- *Asset Pricing*, Revised Edition, 2005. By John H. Cochrane. Princeton University Press. [Cochrane]

GRADING

- 5 % Class participation
- 20% EIGHT Problem Sets
- 25% Midterm Exam.
- 40% Final Exam.
- 10% Referee Report

Your overall grade will be a *weighted average* of scores of *all* the categories above. If at any point during the semester, you face circumstances which prevent you from attending the lecture, handing in the assignment on time, and/or participating in exams, please contact me as *early* as possible to manage the situation. There is little that can be done after an unsatisfactory grade has been assigned.

STUDY PREPARATION AND PARTICIPATION

1. You are responsible for ALL the materials delivered in class to better prepare yourself for the successful completion of this course.
2. Do *read* and *study* the required papers and book chapters marked by a star as listed in each section corresponding to a given topic. In addition, carefully take notes from the class and read other relevant papers and handouts.

PROBLEM SETS

There will be **eight** mandatory problem sets throughout the semester, each of which will be given an equal weight that enters the total grade of the class. The problem sets will help you work through the materials covered in class and will be useful for the preparations of the mid-term and final exam. Each problem set is due at the **beginning** of the lecture that is **one week** following the assignment of the problem set. Please kindly put the problem sets on my teaching desk before class.

EXAMS

There will be **TWO** exams, one midterm and one final. If you fail to take an exam, you will receive a zero score, unless your absence is due to one of the legitimate causes and you provide documentation timely.

ACADEMIC INTEGRITY

As a student, you are responsible for upholding the academic integrity with full commitment to all the ethics, codes, and standards of the Renmin University of China. It is very important for you to be aware of the consequences of cheating, fabrication, facilitation, and plagiarism.

COURSE EVALUATION

At the end of the semester, please let me know what you think about this class and what can be improved by taking advantage of the university's on-line course evaluation system. I really appreciate your feedback. Incorporating your suggestions will greatly help me in updating the course for future generations of students.

ADDITIONAL HANDOUTS

- Lecture Schedule and Reading List (*Disclaimer: the course plan is subject to due changes throughout the semester*)

READING LIST

Disclaimer: We will primarily cover the core readings from this list but you are encouraged to keep on reading given your interest in any of the following sections.

∗: indicates a core and required reading
#: indicates a candidate for the referee report

A. Narrative Overview of Macroeconomics

- *Michael Woodford. Revolution and Evolution in Twentieth-Century Macroeconomics. Conference Paper, 1999

- *Gregory Mankiw. The Macroeconomist as Scientist and Engineer. *Journal of Economic Perspectives*, 20(4):29–46, Fall 2006

- *Michael Woodford. Convergence in Macroeconomics: Elements of the New Synthesis. *American Economic Journal: Macroeconomics*, 1(1):267–279, January 2009

- *Olivier Blanchard. The State of Macro. *Annual Review of Economics*, 1(1):209–228, 05 2009

- *#Ricardo Reis. Is Something Really Wrong with Macroeconomics? *Oxford Review of Economic Policy*, 34(1-2):132–155, 2018

- *#Mark Gertler and Simon Gilchrist. What Happened: Financial Factors in the Great Recession. *Journal of Economic Perspectives*, 32(3):3–30, Summer 2018

- #Olivier Blanchard. Do DSGE Models Have a Future? Policy Briefs PB16-11, Peterson Institute for International Economics, August 2016

- #Paul Romer. The Trouble With Macroeconomics. Working Paper, 2016

- #Joseph E Stiglitz. Where modern macroeconomics went wrong. *Oxford Review of Economic Policy*, 34(1-2):70–106, 2018

- #Jordi Galí. The State of New Keynesian Economics: A Partial Assessment. *Journal of Economic Perspectives*, 32(3):87–112, Summer 2018

- Edward C. Prescott. Nobel Lecture: The Transformation of Macroeconomic Policy and Research. *Journal of Political Economy*, 114(2):203–235, April 2006

- Delong, Brad. Future of Macroeconomics, *Textbook Chapter* 17

B. Consumption and Savings

- *LS, Chapter 3

- Stephen P. Zeldes. Optimal Consumption with Stochastic Income: Deviations from Certainty Equivalence. *The Quarterly Journal of Economics*, 104(2):275–298, 1989

- *Angus Deaton. Saving and Liquidity Constraints. *Econometrica*, 59(5):1221–1248, September 1991

- Robert E Hall. Stochastic Implications of the Life Cycle-Permanent Income Hypothesis: Theory and Evidence. *Journal of Political Economy*, 86(6):971–987, December 1978

- Robert E Hall. Intertemporal Substitution in Consumption. *Journal of Political Economy*, 96(2):339–357, April 1988

- #Jonathan A. Parker, Nicholas S. Souleles, David S. Johnson, and Robert McClelland. Consumer spending and the economic stimulus payments of 2008. *American Economic Review*, 103(6):2530–53, October 2013

- #Greg Kaplan and Giovanni L. Violante. A model of the consumption response to fiscal stimulus payments. *Econometrica*, 82(4), 2014

- #David Berger, Veronica Guerrieri, Guido Lorenzoni, and Joseph Vavra. House Prices and Consumer Spending. *The Review of Economic Studies*, 85(3):1502–1542, 10 2017

- #Ulrike Malmendier and Leslie Sheng Shen. Scarred consumption. Working Paper 24696, National Bureau of Economic Research, June 2018

- #Sean Hundtofte, Arna Olafsson, and Michaela Pagel. Credit smoothing. Working Paper Series, 2019

- #Kimberly A Berg, Chadwick C Curtis, Steven Lugauer, and Nelson C Mark. Demographics and monetary policy shocks. Working Paper 25970, National Bureau of Economic Research, June 2019

C. Complete Markets and Consumption-based Asset Pricing

- *Cochrane, Chapter 1

- *LS, Chapter 8

- *LS, Chapter 13

- #Rajnish Mehra and Edward C. Prescott. The equity premium: A puzzle. *Journal of Monetary Economics*, 15(2):145–161, March 1985

- Larry G Epstein and Stanley E Zin. Substitution, Risk Aversion, and the Temporal Behavior of Consumption and Asset Returns: A Theoretical Framework. *Econometrica*, 57(4):937–969, July 1989

- Larry G Epstein and Stanley E Zin. Substitution, Risk Aversion, and the Temporal Behavior of Consumption and Asset Returns: An Empirical Analysis. *Journal of Political Economy*, 99(2):263–286, April 1991

- *Jr Lucas, Robert E. Asset Prices in an Exchange Economy. *Econometrica*, 46(6): 1429–1445, November 1978

- #John H Cochrane. Production-Based Asset Pricing and the Link between Stock Returns and Economic Fluctuations. *Journal of Finance*, 46(1):209–237, March 1991

- #Monika Piazzesi, Martin Schneider, and Selale Tuzel. Housing, consumption and asset pricing. *Journal of Financial Economics*, 83(3):531 – 569, 2007. ISSN 0304-405X

- #Oscar Jorda, Moritz Schularick, and Alan M Taylor. The total risk premium puzzle. Working Paper 25653, National Bureau of Economic Research, March 2019

D. Models of Economic Growth

- *Acemoglu, Chapter 1

- *Romer, Chapter 1 and Chapter 2

- *Peter A. Diamond. National Debt in a Neoclassical Growth Model. *American Economic Review*, 55(5):1126–1150, December 1965

- *Paul M Romer. Endogenous Technological Change. *Journal of Political Economy*, 98 (5):71–102, October 1990

- Paul Romer. Increasing returns and long-run growth. *Journal of Political Economy*, 94(5):1002–37, 1986

- Robert Jr. Lucas. On the mechanics of economic development. *Journal of Monetary Economics*, 22(1):3–42, July 1988

- Peter Klenow and Andrés Rodríguez-Clare. The Neoclassical Revival in Growth Economics: Has It Gone Too Far? In *NBER Macroeconomics Annual 1997, Volume 12*, NBER Chapters, pages 73–114. National Bureau of Economic Research, Inc, 1997

- #Daron Acemoglu and Pascual Restrepo. The race between man and machine: Implications of technology for growth, factor shares, and employment. *American Economic Review*, 108(6):1488–1542, June 2018

- #Robert J. Barro. Economic growth and convergence, applied especially to china. Working Paper 21872, National Bureau of Economic Research, January 2016

- #Philippe Aghion, Benjamin F. Jones, and Charles I. Jones. Artificial intelligence and economic growth. Working Paper 23928, National Bureau of Economic Research, October 2017

- #Daron Acemoglu and Pascual Restrepo. Secular Stagnation? The Effect of Aging on Economic Growth in the Age of Automation. *American Economic Review*, 107(5): 174–179, May 2017

E. Investment Dynamics

- *Fumio Hayashi. Tobin's Marginal q and Average q: A Neoclassical Interpretation. *Econometrica*, 50(1):213–224, January 1982

- Andrew B Abel and Janice C Eberly. A Unified Model of Investment under Uncertainty. *American Economic Review*, 84(5):1369–1384, December 1994

- *Russell W. Cooper and John C. Haltiwanger. On the Nature of Capital Adjustment Costs. *Review of Economic Studies*, 73(3):611–633, 2006

- #Rüdiger Bachmann, Ricardo J. Caballero, and Eduardo M. R. A. Engel. Aggregate Implications of Lumpy Investment: New Evidence and a DSGE Model. *American Economic Journal: Macroeconomics*, 5(4):29–67, October 2013

- #Rüdiger Bachmann and Christian Bayer. Investment Dispersion and the Business Cycle. *American Economic Review*, 104(4):1392–1416, 2014

- #Jack Favilukis and Xiaoji Lin. Long run productivity risk and aggregate investment. *Journal of Monetary Economics*, 60(6):737 – 751, 2013

F. Labor Search Model

- *Pissarides, Chapters 1, 2 and 8.

- Romer, Chapter 9.

- *Dale T. Mortensen and Christopher A. Pissarides. Job Creation and Job Destruction in the Theory of Unemployment. *Review of Economic Studies*, 61(3):397–415, 1994

- Robert Shimer. The Cyclical Behavior of Equilibrium Unemployment and Vacancies. *American Economic Review*, 95(1):25–49, March 2005

- #Steven J. Davis, R. Jason Faberman, and John Haltiwanger. The Flow Approach to Labor Markets: New Data Sources and Micro-Macro Links. *Journal of Economic Perspectives*, 20(3):3–26, Summer 2006

- #Steven J. Davis, R. Jason Faberman, and John C. Haltiwanger. The Establishment-Level Behavior of Vacancies and Hiring. *The Quarterly Journal of Economics*, 128(2): 581–622, 2013