Economics 516: Monetary Theory - Summer 2022
Prof. Claudio Paiva

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Lectures: MTWTh 2:30 pm – 3:50 pm **Office hours:** to be determined

Zoom Meetings

[redacted]

Meeting ID: [redacted] Password: [redacted]

Course Description (Catalog)

Micro- and macroeconomic theories of the supply of and demand for money; money substitutes and their significance; review of current empirical research; money in closed economy, macroeconomic, and static general equilibrium models; and analysis of inflation and unemployment.

Prerequisite: Consent of instructor. MSPE Graduate Student Standing.

Course Objectives

The purpose of this course is to introduce you to the major theoretical issues in monetary (and macro) economics that carry implications for policy decisions and policy assessment relating to interest rates, prices, output, and unemployment. Most of the course topics will be developed in the context of the historic evolution of monetary theories, most notably the debate between Classics and Keynesians (and their modern versions)

Grading Procedure.

The course grade will be determined by your performance on the following:

Mid-term: 45% Final Exam: 55%

The final exam is comprehensive and will take place on **Saturday, August 6, 3:30 pm – 5:30 pm**

I will post practice problem sets throughout the semester. The problem sets are important for you to check your understanding of the material. Given that we are all in different parts of the world and a wide variety of time zones, I decided that you don't have to turn in your work on the problem sets. They will not be for grade. Use them for material review and practice. Some questions on the exams will be directly related to the problems sets.

To the extent possible, I will post my PowerPoints and auxiliary pre-recorded explanations of the material ahead of our live Zoom discussion sessions. You will be responsible for reviewing the material at your own time. During our live Zoom sessions, I will give priority to answering your questions and explaining in more detail parts of the material that you ask about. Therefore, I suggest you take some notes while reviewing the material posted so that you may participate in and make the most out of our discussions.

During the exams, you may use your own notes and books as well as any material I provide through Compass. You are <u>not</u> allowed to communicate with anyone through any means or use shared resources during the exam. Students found to be in violation of these rules will be subject to disciplinary action according to the Academic Integrity Policies of the University of Illinois.

Course Materials:

- Recommended textbooks for background reading & lecture support (see separate, detailed reading list):
  - Macroeconomics, A. Abel, B. Bernanke, D. Croushore
  - Monetary Economics, M. Lewis and P. Mizen
  - Monetary Theory and Policy, C. Walsh
  - Monetary Economics, J. Handa
- Individual academic articles will be used, cited and/or posted throughout the course.
- Lecture slides, notes, media articles for discussion, practice problems and other supporting material will be posted on Canvas.
- I strongly recommend you follow current events related to global financial markets, macro and monetary policies. Some exam and homework questions will be related to those events. Among interesting and reputable sites, I recommend http://www.bloomberg.com and http://www.cnbc.com

Communication and Other Issues.

- Requests for re-graded exams must be handed in no later than one week after the exam is returned.
- Please use e-mail only for short and sporadic communication. Substantive questions about the material are best answered/discussed during our live Zoom sessions.
- If you would like to go further in depth regarding practical issues related to monetary and macro policies, I would be glad to discuss and share experience and material I have developed in the context of my work for the IMF. For instance, I would be happy to discuss the IMF's assessment and recommendations for your home country as presented in recent reports available at http://www.imf.org/en/Countries
- If you have any problems with the course, request an appointment with me as soon as possible - don't fall behind!

Course Content (see accompanying Excel file for the detailed schedule)

Part One: Introduction and Overview

1. The nature of money
   a. Basics
   b. A brief history of money
   c. Money supply and monetary aggregates
   d. Functions of money … and how they are lost – the case of Brazil

2. Monetary economics overview as an empirical relationship between money, output, and prices
   a. Introduction of quantity equation as a simple framework for stylized empirical measurements
      i. Velocity originally a technical issue
      ii. Velocity evolved to being viewed as inverse money demand
   b. Key question: money neutrality
      i. Long-run
      ii. Short-run
   c. Stylized facts and empirical correlations in the quantity theory
   d. Quick review: how the traditional Keynesian IS-LM, AD-AS-LRAS framework deals with neutrality
      i. Short-run AS
      ii. Long-run AS (LRAS)

3. The evolution of monetary theory schools of thought – an overview
   a. The classic ideas

b. Keynes
c. The New Classical
    i. Monetarism
    ii. The Rational Expectations revolution
    iii. Real Business Cycle Theory
d. The New Keynesians
    i. "General Disequilibrium"
    ii. Rational expectations without market clearing
    iii. Rationalization of sticky prices and wages

Part Two: Monetary Theory

4. The Classics
    a. Walras, Say's law, and the determination of relative prices
    b. The quantity theory and the determination of the price level
    c. The Classic Dichotomy
    d. Transmission mechanism
        i. Direct
        ii. Indirect - Wicksell as a precursor to interest rate targeting mon policy
    e. Patinkin Critique and the Real-Balance Effect

5. Keynesian Inspiration
    a. Rejecting (short-run) neutrality – evidence from Great Depression.
    b. Motives for holding money
    c. Money demand in Keynesian synthesis: LM curve; velocity revisited
    d. The macroeconomics of wage and price rigidities
    e. Keynesian Business Cycle Theory
    f. The Phillips Curve

6. New Classical Inspiration
    a. Micro-foundations of demand for money: CIA and MIU to complement Solow and Ramsey models
        i. Neutrality and super-neutrality derived
        ii. Seigniorage and inflation tax
        iii. Welfare costs of inflation
        iv. Necessary conditions for neutrality and super-neutrality
    b. Friedman, monetarism, and the quantity theory revisited
    c. Real Business Cycle Theory
    d. Information asymmetry, Rational expectations, and Lucas Supply Curve
    e. Phillips Curve revisited

7. Dynamic Stochastic General Equilibrium Models – an introduction

8. Additional Implications for Monetary Policy
    a. Time inconsistency
    b. Rules v. discretion
    c. Taylor rule

Part Three: Open Economy and Fiscal Considerations

9. IS-LM in open economy: Fixed v. Flexible ER

10. Monetary and Exchange Rate Arrangements
    a. Inflation Targeting

    b. Monetary and exchange rate-based stabilization plans

11. Some Unpleasant Monetarist Arithmetic

12. IMF Debt Sustainability Assessment Framework

Reading list

1. **The nature of money**
   - A-Bernanke-C: Section 7.1
   - LM: Ch 1

2. **Monetary economics as an empirical relationship between money, output, and prices:**
   - Walsh: Introduction + Ch. 1
   - Handa: Sections 2.2 and 3.12
   - Pavel Gertler and Boris Hofmann (2016), Monetary facts revisited, Bank of International Settlements, Working Paper No 566.
   - Breuer, McDermott, and Weber (2015), Time Aggregation, Bias, and the Money-Inflation Relationship
   - George T. McCandless Jr. Warren E. Weber (1995), Some Monetary Facts, Federal Reserve Bank of Minneapolis Quarterly Review, Vol. 19, No. 3, Summer 1995, pp. 2–11
   - A-Bernanke-C: Ch. 9
   - Gabriel Rodrıguez and Nicholas Rowe (2007) Why U.S. money does not cause U.S. output, but does cause Hong Kong output, Journal of International Money and Finance, no. 26

3. **The evolution of monetary theory schools of thought – an overview:**
   - G. Mankiw (2006), The Macroeconomist as Scientist and Engineer, NBER Working Paper #12349
   - Handa: Section 14.13

4. **The Classics**
   - LM: Ch. 3-4
   - Handa: Sections 14.1-14.7

5. **Keynesian Inspiration**
   - Ben Bernanke and Kevin Carey (1996), Nominal Wage Stickiness and Aggregate Supply in the Great Depression, National Bureau of Economic Research Working Paper No. 5439
   - A-Bernanke-C: Section 1.3 + Section 7.3 + Ch. 11 + pp. 441-444
   - LM: pp. 100-108

6. **New Classical Inspiration**
   - Walsh: Ch 2 + Sections 5.1 and 5.2
   - A-Bernanke-C: Ch. 10 + Ch. 12
   - LM: Ch. 4 + Ch. 9
   - Handa: Sections 14.10 to 14.16

7. **Dynamic Stochastic General Equilibrium Models – an introduction**
   - A-Bernanke-C: p. 427
   - Klaus Masuch, S. Nicoletti-Altimari, M. Rostagno and H. Pill (2003) The Role of Money in Monetary Policy Making, BIS Paper #19
   - Walsh: Section 6.3

8. **Additional Implications for Monetary Policy**
   - LM: Sections 10.1 to 10.4 + Sections 16.2 to 16.4
   - A-Bernanke-C: Section 14.3
   - Paper(s) discussed in lecture

9. **IS-LM in open economy: Fixed v. Flexible ER**
   - A-Bernanke-C: Ch. 13

10. **Monetary Frameworks: Fixed, Pegged or Flexible Exchange Rates? Money, Interest, or Inflation Targeting?**
    - Ghosh, A., Ostry, J., and Qureshi M. (2014) Managing the exchange rate: It's not how much, but how. Available at http://voxeu.org/article/managing-exchange-rate
    - Eichengreen, B. and P. Gupta (2013) Tapering talk: The impact of expectations of reduced Federal Reserve security purchases on emerging markets
    - Reserve Bank of India (2014) Chapter II : Revisiting the Choice of Nominal Anchor for India's Monetary Policy. Available at: https://rbi.org.in/Scripts/PublicationReportDetails.aspx?ID=746
    - Ebeke, C and A. Fouejieu (2015) Inflation Targeting and Exchange Rate Regimes in Emerging Markets, IMF Working Paper No. 15/228

11. **Fiscal and Money Interaction: Some Unpleasant Monetarist Arithmetic**
    - Sargent, T. and Wallace, N. (1981) Some Unpleasant Monetarist Arithmetic, Federal Reserve Bank of Minneapolis, Quarterly Review, vol. 5, no 3