

## **MONETARY ECONOMICS**

**Bachelor in Philosophy, Politics, Law and Economics PPLE  
SEP-2023 MO-PP.3.M.A**

Area Economics

Number of sessions: 30

Academic year: 23-24

Degree course: THIRD

Number of credits: 6.0

Semester: 2º

Category: COMPULSORY

Language: English

Professor: **FERNANDO NAVARRETE ROJAS**

E-mail: [fnavarrete@faculty.ie.edu](mailto:fnavarrete@faculty.ie.edu)

Fernando Navarrete holds an Economics degree from Universidad Complutense de Madrid and a Masters degree in Economics and Finance from CEMFI. He currently works as Chief of Staff to the Governor at Banco de España. He previously served in government as Secretary General of the Spanish Treasury in charge of financial policies and public debt management. Previously, he worked as Chief Financial Officer and Head of Strategy at State-owned bank Instituto de Crédito Oficial (ICO). Before re-joining the public sector he worked as head of the Economics and Public Policy department at think tank FAES. Previously he worked as senior economist at Banco de España in the Financial Regulation Department.

### **Office Hours**

Office hours will be on request. Please contact at:

[fnavarrete@faculty.ie.edu](mailto:fnavarrete@faculty.ie.edu)

## **SUBJECT DESCRIPTION**

Money is the one of greatest invention of our civilization, says Niall Ferguson a leading world historian. It has allowed unprecedented economic and social growth, and an impressive human development. Yet, money is not fully understood. Monetary and financial stability are essential ingredients of a stable and prosperous society. Economic development requires a well-functioning banking and financial system. Credit and trade foster growth. However, credit is prone to sudden episodes of bubbles and bursts, manias and panics that create deep and lasting economic and social costs. The finance system needs to be understood and properly regulated to avoid excesses and “irrational exuberances”, in the words of Allan Greenspan, the famous chairperson of the Federal Reserve Board, the USA central bank.

The global financial crisis (GFC) and its lasting damage has proven the importance of banks, financial markets and monetary policy. The Covid crisis has underlined the importance of Central Banks (CBs) and extended its mandate beyond their limited role as providers of liquidity and financial stability. Policy makers responded by reverting into a “whatever it takes” mode, adopting all kinds of unconventional measures, a monetary and regulatory policy tsunami. Consequently, CBs have been thrown into the limelight and its actions and omissions publicly discussed in media and social networks as never before. Politicians all over the world and the political spectrum are revisiting the issue of Central Bank independence. The sudden comeback of inflation as a global phenomenon has seen Central Bank policies perform rapid changes both in their practice and in their thinking. Yet, their decisions are seldom understood and their language remains arcane to the public.

While monetary authorities are still coping with the legacies of both crises and the more recent inflation surge, the financial landscape is changing dramatically. Digital transformation, consumer empowerment, data protection, are the main drivers of that change. In Europe, completing Monetary Union has become standard policy, but real progress is still lacking in many areas.

This course throws light into these matters by using simple economic principles to explain financial markets and institutions, monetary theory and policy. The aim is for the student to understand current policy debates; therefore, the emphasis is on basic concepts and methodologies. Formal analysis is deliberately reduced to the necessary minimum. Students are expected to read the materials and participate in class discussions. The goal of this course, in the simplest possible words, is to ensure students are able to rationalize and assess any central bank decision anywhere in the world. To have their own informed opinion and to express it in the appropriate economic and monetary language.

Topics: money, interest rates, inflation, banks, financial markets, central banks, monetary policy, financial stability, banking regulation.

## **LEARNING OBJECTIVES**

- Understand the basic concepts of money and banking
- Assess the trade-offs implicit in monetary policy and financial policy decisions.
- Be aware of the alternatives faced by politicians, regulators and academics.
- Appreciate financial stability, the necessary regulatory policies and its costs
- Grasp the challenges of the digital revolution to the financial system.
- Develop the ability to understand, explain and discuss current monetary and banking developments.

- Think critically. Sustain informed opinions

## TEACHING METHODOLOGY

IE University teaching method is defined by its collaborative, active, and applied nature. Students actively participate in the whole process to build their knowledge and sharpen their skills. Professor's main role is to lead and guide students to achieve the learning objectives of the course. This is done by engaging in a diverse range of teaching techniques and different types of learning activities such as the following:

Learning Activity	Weighting	Estimated time a student should dedicate to prepare for and participate in
Lectures	53.33 %	80.0 hours
Group work	26.67 %	40.0 hours
Individual studying	20.0 %	30.0 hours
TOTAL	100.0 %	150.0 hours

## PROGRAM

### SESSIONS 1 - 2 (LIVE IN-PERSON)

Session 1. Money and the payment system

- a. Money and how we use it: means of payment, unit of account, store of value
- b. The payment system:
  - i. commodity money
  - ii. fiat money
  - iii. checks
  - iv. electronic payments

Session 2. The future (and the past) of money:

- a. Central Bank Digital Currencies vs. private monies
- b. Are some crypto assets money?
  - i. The crypto narrative
  - ii. Reality and future prospects

### SESSIONS 3 - 4 (LIVE IN-PERSON)

Session 3. The price of money: interest rates

- a. The meaning of interest rates
- b. Measuring interest rates: present and future value
- c. Nominal and real interest rates

Session 4. Interest rates and asset pricing

- d. The risk and term structure of interest rates
- e. The yield curve: the basics
  - i. Liquidity premium and segmented market theory

- ii. The theory of rational expectations
- iii. The efficient market hypothesis

## **SESSIONS 5 - 6 (LIVE IN-PERSON)**

Session 5. Financial instruments: Bonds, stocks and derivatives

- a. Bond prices: zero-coupon bonds, fixed payment loans, coupon bonds
- b. Bond yields: yield to maturity, current yield
- c. Why bonds are risky: default risk, inflation risk, interest-rates risk
- d. The essential characteristics of common stocks
- e. Pricing stocks: fundamental value and dividend discount model
- f. A basic on derivatives: futures, options and swaps.

Session 6. The role and functions of the financial system in the economy and society

- a. Bringing the future into existence now is inherently risky
- b. The trade-offs between real growth volatility and long term growth
- c. Understanding the role of the financial system in societies

## **SESSIONS 7 - 8 (LIVE IN-PERSON)**

Session 7: Banks and their role in the economy (I)

- a. pooling savings,
- b. providing liquidity
- c. diversifying risks and managing Risk: Credit Risk, Interest-rate risk, other risks (operational, reputational, and cybersecurity)
- d. informational advantages

Session 8: Banks and their role in the economy (II)

- a. What is a bank and what they do? Some metrics:  
balance sheet activities
  - i. The Balance Sheet of a typical Bank and Off
  - ii. Intermediation margin
  - iii. Fee income
  - iv. Profitability
  - v. Solvency

## **SESSIONS 9 - 10 (LIVE IN-PERSON)**

Session 9: From banks to the banking sector

- a. The banking industry: structure, regulation and competition
- b. General principles of bank management
  - i. Liquidity Management and Reserves
  - ii. Asset Management
  - iii. Liability Management
  - iv. Capital adequacy Management
- c. Shadow banking, financial inclusion and the digital disruption

Session 10: Financial stability, concept and challenges

- a. Different sources of financial instability
  - i. Liquidity
  - ii. Solvency
  - iii. Reputation
- b. Interrelation and contagion
  - i. Direct exposures and common exposures
  - ii. Anatomy of crises
- 1. Bank runs
- 2. Market disruptions
- 3. Neo-bank runs and the digital age

*Book Chapters: The Economics of Money, Banking, and Financial Markets - chapter 9 (See Bibliography)(Optional)*

## **SESSIONS 11 - 12 (LIVE IN-PERSON)**

Session 11. Macroprudential and microprudential policies for financial stability

- a. The cost and benefits of taming instability
- b. The rationale for regulation: asymmetric information, moral hazard and social externalities
- c. Prudential and Conduct regulation
- d. The government safety net
  - i. Lender of last resort
  - ii. Deposit insurance
- e. Regulation and Supervision of the financial system
  - i. Regulation is rule-setting
  - ii. Supervision is auditing: from checking ratios to stress testing
  - iii. Micro and Macro Prudential Regulation

Session 12. Basel III and the response to the Great Financial Crisis

- a. The role of capital
- b. Banking liquidity
- c. Incentives and risk management

## **SESSIONS 13 - 14 (LIVE IN-PERSON)**

Session 13. Group presentation I. Characterize the financial system of a selected country

a. Each group of students will select a country of their choice and will prepare and deliver a presentation (10 min. + short Q&A) on the main characteristics of its financial system from the view point of a Head of Strategy of a global banks deciding whether or not to set up operations in that country.

i. By focusing on the specificities of a particular financial system this will help students grasp the nuances of financial policy choices and their implications.

ii. By listening to the presentations of other groups this will help students grasp the wide variety of institutional set ups, policy objectives by authorities and competitive environments prevalent in a rather diverse global financial system.

Session 14. Group presentations I (cont.)

## SESSIONS 15 - 16 (LIVE IN-PERSON)

Session 15. The role of Central Banks in the financial system

Historical origins of Central Banks

- i. Why a central bank?
- ii. The evolving role of central banks and their

institutional setting

Session 16. Stability: the primary objective of any modern Central Bank

- a. Price stability: the central bank as a monetary authority
- b. Financial stability: the Central bank as supervisor and/or regulator
- c. Exchange Rate stability
- d. Cross border liquidity

## SESSIONS 17 - 18 (LIVE IN-PERSON)

Session 17. Central Banks' mandates and institutional set up

- a. Extending the role of Central Banks beyond stability
  - i. Growth and employment, the Fed vs the ECB
  - ii. Non-traditional functions: macroprudential policies,
  - iii. Emerging goals: ¿distributional issues?, ¿the greening of the economy?
  - iv. Potential conflicts of objectives

Session 18. Central Banks' independence

- a. Why independent?
- b. The different attributes of the Central Bank independence
  - i. Operational and financial independence
  - ii. A stylized fact increasingly challenged
  - iii. Independence, transparency and accountability

chapters 1, 2, 3 and 15

## SESSIONS 19 - 20 (LIVE IN-PERSON)

Session 19. Traditional Monetary theory

- a. The Money Supply process:
  - i. Central Bank balance sheet
  - ii. The Monetary Base and Money Supply
  - iii. The Money multiplier
- b. Money demand
  - i. Drivers of money demand
  - ii. Money demand stability and monetarism

Session 20. Tools of monetary policy in an open economy

- a. Tools of monetary policy:
  - iii. reserve requirements,
  - iv. discount window and refinancing operations
  - v. open market operations

- b. The basic monetary approach to the balance of payments
  - vi. Net domestic assets and net international reserves
  - vii. Capital account convertibility: monetary and exchange rate sovereignty

## SESSIONS 21 - 22 (LIVE IN-PERSON)

Session 21. Introducing some price rigidities in macro models (Keynesian and neo-keynesian frameworks and some extensions)

- a. The role of money and interest rates in determining the aggregate demand in a Keynesian model with price rigidities
  - i. The goods market equilibrium:
    - 1. The IS curve
    - 2. Understanding the IS curve and its shifts
  - ii. The money market equilibrium
    - 1. The traditional LM curve with exogenous money supply
    - 2. The monetary policy curve
    - 3. Understanding the MP curve and its shifts
  - iii. Deriving the Aggregate Demand curve
    - 1. Understanding its logic
    - 2. Factors that shift the AD curve

Session 22. How monetary policy can help stabilize the economy against different types of shocks.

- a. Aggregate supply
  - i. Long-Run Aggregate Supply (AS) curve
  - ii. Price stickiness and a Short-Run AS curve
  - iii. Shifts in the AS curves (Long and Short run)
- b. Equilibrium in Aggregate Demand and Supply analysis
  - i. Demand shocks
  - ii. Supply shocks
  - iii. Is the Philips curve still valid? A Short-Run Trade-Off
    - iv. The response of Monetary Policy to shocks

## SESSIONS 23 - 24 (LIVE IN-PERSON)

Session 23. Monetary policy in a real world context (I)

- a. The role of expectations
  - i. Rational expectations and the Lucas critique
  - ii. Rules vs discretion. The existential macro debate
- o Discretion and time consistency
- o The case for rules: the Taylor Rule
- o The case for constrained discretion
- b. The role of credibility and the need of a nominal anchor
  - i. Central bank credibility today: reviewing the Monetary Policy framework

1. The US and ECB experiences
    - ii. Inflation targeting, symmetrical targets or nominal GDP targeting
- Session 24. Monetary policy in a real world context (II)
- a. Should Central Bank target asset-prices as well?
  - b. Global Monetary spillovers
    - i. Conducting monetary policy in the US. When your currency is the global reserve: exorbitant privilege or exorbitant responsibility.
  - c. The basics of nonconventional monetary policies
    - i. Providing unlimited liquidity at zero cost
    - ii. Quantitative easing
    - iii. Negative interest rates
    - iv. Communication policies (forward guidance)
  - d. The path to policy normalization
    - i. Acknowledging the impact of new shocks
    - ii. Assessing time lags in monetary policy transmission in an era of financial revolution
- Book Chapters: 21st Century Monetary Policy. The Federal Reserve from the Great Inflation to COVID-19 - chapters 11, 12, 13 (See Bibliography)*

## **SESSIONS 25 - 26 (LIVE IN-PERSON)**

- Session 25. Group presentation II. Making monetary policy decisions
- a. All groups will be provided with a set of materials analyzing the macroeconomic and financial situation of a specific real world economy. On the basis of that information each group should internally discuss and decide on the monetary policy decision most appropriate for that economy at that point in time as if they were the governing body of the responsible central bank for that jurisdiction. The monetary policy decisions taken by the group and their rationale will be presented in 10 minutes in the form of a central banker press conference. A short Q&A session will follow.
    - i. This will confront student with real world decision making process and making explicit their objectives, the trade-offs considered and the selected best option as any central banker has to do to the press after each monetary policy meeting.
- Session 26. Group presentation II. Making monetary policy decisions (cont.)

## **SESSIONS 27 - 28 (LIVE IN-PERSON)**

- Session 27. Crisis management
- a. The global financial crisis of 2007-09 and beyond
    - i. The causes of the crisis: the blaming game
    - ii. The dynamics of the crisis in advance economies
    - iii. The EU sovereign debt crisis
  - b. Lessons learnt from Covid-19
    - i. Endogenous vs. exogenous crisis
    - ii. The need for implicit policy coordination
    - iii. Global spillovers
- Session 28. Conducting monetary policy and managing crisis in an incomplete monetary union



- a. The basics: Understanding Maastricht
- b. From a Monetary to a Banking Union
- c. The need for fiscal rules in a monetary union
- d. Fragmentation risk and monetary policy transmission impairment
- e. Is fiscal union necessary?
  - i. What type of fiscal rules?
  - ii. Is a central fiscal capacity needed for macro stabilization or coordination is enough
- f. How to make the EMU more resilient?

## SESSIONS 29 - 30 (LIVE IN-PERSON)

Session 29. Final individual exam

- a. Students will be provided with two policy papers. They will select one and make in writing a critical comment based on what they have learnt during the course.

Session 30. Final exam (cont.)

## EVALUATION CRITERIA

criteria	percentage	Learning Objectives	Comments
Final Exam	40 %		
Group Presentation II	20 %		
Class Participation	20 %		
Group Presentation I	20 %		

## RE-SIT / RE-TAKE POLICY

### BIBLIOGRAPHY

#### Compulsory

- Ben S. Bernanke. (2022). *21st Century Monetary Policy. The Federal Reserve from the Great Inflation to COVIDW*. First. W.W.. Norton & Company. ISBN 9781324020479 (Digital)

#### Recommended

- Frederic S. Mishkin. (2019). *The Economics of Money, Banking and Financial Markets*. 13. Pearson. ISBN 9781292268859 (Printed)

- R. Glenn Hubbard, anthony Patrick O' Brien. (2018). *Money, Banking, and the Financial System*. third. Perason. ISBN 9780134524063 (Printed)

Textbook

## BEHAVIOR RULES

Please, check the University's Code of Conduct [here](#). The Program Director may provide further indications.

## **ATTENDANCE POLICY**

Please, check the University's Attendance Policy [here](#). The Program Director may provide further indications.

## **ETHICAL POLICY**

Please, check the University's Ethics Code [here](#). The Program Director may provide further indications.

