



Universidad  
de Navarra

### ***Money, Banking and Digital Finance A***

*Guía docente 2025-26*

Money, Banking, Digital Finance

## **PRESENTACIÓN**

**Course:** Money, Banking, and Digital Finance

Academic Year: 2025-2026

### **Class description:**

How do we pay for things? What are the new payment systems? How is this system changing and why? Are crypto-currencies there to stay? Will there be Central Bank Digital Currencies soon? Will banks survive as we know them? Why are there so many M&As in the banking industry?

What is the role of banks in society? How does asymmetric information influence credit policies by banks? How does the transmission mechanism of monetary policy work through the banking system? What is systemic risk and what was its role in the financial crisis? Why can banks collapse and what is the effect in the overall economy? How can Central Banks avoid bank runs and mitigate systemic risk? Is finance changing in a fundamental way through decentralization?

What is the role of Central Banks in the economy? Why do international stock markets react to lower interest rate setting by the Central Banks? What are the differences between the ECB and the Federal Reserve monetary policy? What is the relation between monetary policy and the 2008 financial crisis? What is the relation between interest rates, GDP and inflation? What is the difference between expected and unexpected monetary policy actions? What to do when interest rates are close to zero and the economy needs an expansionary monetary policy? What is quantitative easing?

What is the European Banking Union? How is the new banking regulation affecting credit and economic growth? How is monetary policy and banking related to growth and development in poor nations?

"Money, Banking and Financial markets" deals with all these issues and some more. The class is intended to familiarize the student with the monetary policy strategy, implementation and its effects, as well as the role of banks in our economies as (1) transmission mechanism of monetary policy (2) providers of liquidity to the private sector and engine of growth and (3) providers of financial stability in the aftermath of crises

**ECTS:** 3

**Language:** English

**Type:** Optional (Economics)

**Módulo y materia de la asignatura:** Economía bilingüe: Modulo 7. Optativas / Materia 7.2 Optativas Específicas (7.2.2 International Economics and Finance)



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**Schedule: Mondays 10-12, Room 05 Amigos**

Money, Banking, Digital Finance : Consult Schedule Web:

<https://www.unav.edu/web/facultad-de-ciencias-economicas-y-empresariales/estudiantes/horarios>.

**Professor:** Antonio Moreno Ibáñez

**E-mail:** [antmoreno@unav.es](mailto:antmoreno@unav.es)

**Office:** Dean's Office

**Office hours:** 3 hours per week coinciding with office hours set by the professor: Tuesdays 4-7pm.

**IMPORTANT:** The use of laptops, mobile phones and similar devices is NOT ALLOWED during classes

## LEARNING OUTCOMES (Competencies)

The goal of this class is to provide a clear understanding of the role of money, monetary policy and banking dynamics, within in a Macro-Finance context. Both positive and normative analysis will be laid out. Students will be exposed to the new developments in monetary policy following the Great Recession.

### Specific Competencies

**SSOP 1:** Accessing and managing massive data

**SSOP 2:** Understanding programming languages potentially used to solve economic and/or business problems

**SSOP 3:** Working with visual elements that provide insights and an understanding into complex concepts and components of economic and/or business problems

**SSOP 4:** Identify patterns and trends and gather useful information from massive data in economics and/or business.

**SSOP 5:** Effective communication of results to a professional audience in economics and/or business

**SSOP 6:** Learn the mathematical, statistical language and IT tools needed to start research in economics

**SSOP 7:** Understand microeconomic strategies and their impact on financial management

**SSOP8:** Identify situations of resource and cost optimization.

**SSOP 9:** Understand the macroeconomic variables that regulate the economy and how they interact with business management

**SSOP 10:** Understand the societal role of economics and finance



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**SSOP 19:** Gain an in-depth understanding of the techniques used to draft financial statements and interpret them

**SSOP 20:** Understand important aspects of the regulation as it applies accounting and finance and understand its implications

**SSOP 21:** Master advanced concepts in auditing

**SSOP 22:** Know about and manage advanced tools and techniques to value financial assets

**SSOP 23:** Gain an in-depth knowledge of the workings of financial markets

## PROGRAM

Section IV will be based on students' presentations.

### I. Money

1. Regular Money, Cryptocurrencies and Digital Money
2. Money and the Economy
  1. Money Architecture(s)
  2. Money and Monetary Policy
  3. Money and Financial Stability

### II. Banks

1. Banks as Financial Intermediaries The role of Asymmetric Information in Banks' Activities
2. Banking Models
3. Banking Business
4. Financial Risks Management by Banks
5. Banks post-2008 crisis
  1. Summary of the 2008 Crisis
  2. Systemic Risk
  3. Banking Business post-2008
  4. Changes in post 2022 context

### III. Monetary Policy

1. The role of the monetary authority and commercial banks in the provision of liquidity to the economy
2. Conventional Monetary Policy
3. Interest Rate Setting and Monetary Transmission Mechanisms
4. Unconventional Monetary Policy: When monetary policy rates are close to zero (yield curve context)
  1. Quantitative Easing
  2. Forward Guidance
  3. Negative Interest Rates

### IV. Digital Transformation: Money, Banking and Monetary Policy



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1. The Future of Money: Central Bank Digital Currencies
2. Fintechs and Challenger Banks: Examples, scope, enhancing financial inclusion, payments system, cybersecurity
3. Tech Giants as money providers, banking services
4. Artificial Intelligence in Money, Banking and Finance

## EDUCATIONAL ACTIVITIES

Class presentations by Professor

There will be 2 Short Exam-quizzes during the course of the subject. Each will be worth 15% of the grade...

Final exam

## GRADING

### DECEMBER GRADING

A PASS in this class is obtained if you reach 50% of the total grade (Spanish standards)

Quizz Exam #1 (15% of grade): October 21st

Quizz Exam #2 (15% of grade) : November 18th

Final exam: 70% of the grade: **December 19th at 12, ROOM 12 Amigos Building**

(IMPORTANT requirement: A grade higher than 40% in the final exam is needed to pass this class)

### JUNE GRADING

Final exam 100% of the June grade

## OFFICE HOURS

Antonio Moreno Ibáñez: Tuesdays 4-7pm (Dean's office)

E-mail: [antmoreno@unav.es](mailto:antmoreno@unav.es)

### BASIC BIBLIOGRAPHY

- F.S. MISHKIN: The Economics of Money, Banking and Financial Markets Addison Wesley.  
[Find it in the Library](#)



- R. GLENN HUBBARD: Money, the Financial System and the Economy. Addison Wesley. [Find it in the Library](#)

## INTERESTING RELATED BOOKS, ARTICLES

- C. ADOLPH: Bankers, Bureaucrats, and Central Bank Politics. The Myth of Neutrality, Cambridge University Press. [Find it in the Library](#)

- ADRIAN, ASHCRAFT: "[Shadow Banking: A Review of the Literature](#)", Staff Report, No. 580, Federal Reserve Bank of New York, New York, NY .

- S. AMMOUS: The Bitcoin Standard. The Decentralized Alternative to Central Banking . Wiley. [Find it in the Library](#) (ebook)

- B. BERNANKE: The Federal Reserve and the Financial Crisis. Princeton University Press [Find it in the Library](#) (ebook)

- BORDO, M: An Historical Perspective On The Quest For Financial Stability And The Monetary Policy Regime, [NBER Working Paper 24154](#)

- C.W. CALOMIRIS, S.H. HABER: Fragile by Design: The Political Origins of Banking Crises & Scarce Credit, Princeton University Press [Find it in the Library](#)

- M. KING: The End of Alchemy. Norton. [Find it in the Library](#)

- A. ADMATI (2019): [Towards a Better Financial System](#)

## READINGS AND ARTICLES USEFUL FOR THE PROJECT

- ADRIAN, MANCINI-GRIFFOLI (2019), "[The rise of digital money](#)", IMF Fintech Digital Notes.

- ALTIG, FUHRER, GIANNONI, LAUBACH (2020), "[The Federal Reserve's Review of Its Monetary Policy Framework: A Roadmap](#)", FEDS Notes, Board of Governors Federal Reserve.

- BANQUE DE FRANCE (2020): "[Central Bank Digital Currency](#)".

- BERG, FUSTER, PURI (2021): "Fintech Lending". NBER Working Paper 29421.

- BIS Papers No 101 (2019): "Proceeding with caution -a survey on central bank digital currency-" by Christian Barontini and Henry Holden. [Find it in the Library](#)

- BORDO, M.D. (2021): "Central Bank Digital Currency in Historical Perspective: Another Crossroad in Monetary History", [NBER Working Paper 29171](#).

- BORDO, M.D. and A.T. LEVIN (2017): "Central Bank Digital Currency and the Future of Monetary Policy", Hoover Institution Working Paper.

- BORDO, M.D. and A.T. LEVIN (2018): "Digital Cash: Principles and Practical Steps", [NBER Working Paper 25455](#)

- BECH, M. and R. GARRAT (2017): "Central Bank Crypto-Currencies", BIS Working Paper

- BUCHAK, HU, SHAN-JIN WEI (2021): "Fintechs as Financial Liberator", [NBER Working Paper 29448](#).

- CALOMIRIS, C.W. (2020): "[Chartering the Fin-Tech Future](#)", OCC Publications.



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- HARVEY, C.R., RAMACHANDRAN, A. and J. SANTORO (2021): "Defi and the Future of Finance", Wiley.
- CAPGEMINI REPORT (2017): "[The future of Fintech in the Financial Services](#)"
- CORBET, LUCEY, URQUHART, YAROVAYA (2019): " [Cryptocurrencies as a financial asset: A systematic analysis](#) ", International Review of Financial Analysis 62, 182-199.
- CRISANTO et al (2021): Big Tech Regulation, what is going on?, [FSI Insights on policy implementation 36, BIS](#).
- De MEIJER, C.R.W. (2018): "[Some Blockchain Predictions for 2019](#)", Finextra.
- EICHENGREEN, B. (2011): "[Exorbitant Privilege: The Rise and Fall of the Dollar and the Future of the International Monetary System](#)", Oxford University Press.
- FLORAKIS, LOUCA, MICHAELY, WEBER (2020), NBER Working Paper 28196, "Cybersecurity Risk".
- HARVEY, RAMANCHANDRA, BUTERING (2021), [DeFi and the Future of Finance](#).
- IMF Fintech Notes No19/01 (2019): "The Rise of Digital Money", by Tobias Adrian and Tommaso Mancini-Griffoli.
- KASHYAP, WETHERIT: [Some principles for regulating cyber-attacks](#).
- KANG, JUNGHO (2018): "[Mobile payment in Fintech environment: trends, security challenges, and services](#)", Human-centric Computing and Information Sciences 8(32).
- LAUBACH, WILLIAMS (2020): "[Measuring the Natural Rate of Interest](#)" (papers and materials in webpage on low real interest rates), New York Fed.
- LEONG, TAN AND OTHER CO-AUTHORS (2017): "[Nurturing a FinTech ecosystem: The case of a youth microloan startup in China](#)", International Journal of Information Management 37 (2), 92-97.
- LIBERTY STREET ECONOMICS: [Coming to terms with operational risk](#)
- MORENO, ANTONIO (2022): "Las nuevas monedas digitales", Lección Inaugural Universidad de Navarra, Curso 2022-23.
- NG, KWOK (2017), "[Emergence of Fintech and cybersecurity in a global financial centre: Strategic approach by a regulator](#)", Journal of Financial Regulation and Compliance 25(4).
- OEKE, EMEKA (2019): "[Consumer perception of UK Challenger Banks](#)", Bloomsbury Institute.
- PADILLA, J. (2020): "[BigTech "banks", financial stability and regulation](#)".
- POWELL, J. (2020): "[New Economic Challenges and the Fed's Monetary Policy Review](#)", Speech, Board of Governors, Federal Reserve.
- PRASAD, E. (2021): "[The Future of Money: How the Digital Revolution is Transforming Currencies and Finance](#)", Harvard University Press.
- REIS, R., and BRUNNERMEIER, M. (2023): "[A Crash Course on Crises](#)", Princeton University Press.



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- K. ROGOFF: The Curse of Cash. Princeton University Press. [Find it in the Library \(ebook\)](#).
- SAHAY, ERIKSSON AND OTHER CO-AUTHORS (2020): "The promise of fintech: Financial Inclusion in the Post-COVID-19 Era", IMF Monetary and Capital Markets Department 20/09.
- SÖDERBERG, G. (2018): "[Are Bitcoin and other Crypto-assets Money?](#)", Economic Commentaries, Riskbank.
- TAPSCOTT AND TAPSCOTT (2017): "How Blockchain is Changing Finance", Harvard Business Review.
- TOWNSED, E. (2017): "[Blockchain Debunked](#)", Macro Voices.
- VASUDEVAN, R. (2019): " [Libra and Facebook's Money Illusion](#) ", Challenge, <https://doi.org/10.1080/05775132.2019.1684662>
- VILLEROY DE GALHAU, F. (2019): Speech: "Central bank digital currency and innovative payments".