

Monetary Economics - Money and Banking Theory

UCLA - 25F-ECON221-1 Fall 2025

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Office Hours: By Appointment

Content: This class covers recent theoretical and empirical research on monetary policy. Over the last 10 years, monetary policy has experienced a fundamental change. Central banks in Europe, Japan and the US have carried out large-scale open-market operations and are changing their systems of monetary implementation.

The goal with the class is to do a blend of a tools course, together with an overview of a literature that studies monetary economics while acknowledging the importance of financial factors. I will try to be as broad as possible in term of topics, and let students deepen their knowledge on a particular subject on their own. I will build primarily on a core model that we will work to extend little by little. In terms of tools, I will try to introduce students to stochastic-calculus tools. I will also ask students to produce homeworks in Julia.

I will not go into the deep questions of why money is essential or why banks exists. I will speak to some of those issues, but I will take a monetary/financial arrangement as given.

1. How is monetary policy implemented in practice?
2. What are the effects of different monetary policy instruments?
3. How do different financial frictions impact the effects of monetary policy?
4. What restrictions does monetary policy impose on governments?
5. What are the welfare costs of inflation?
6. How does monetary policy affect asset prices?

Prerequisites: Students are assumed to have knowledge equivalent or above a first year PhD sequence in economics.

Grading Policy: Problem Sets (80%), Research Proposal (20%),

Homeworks: Will approximately between three weeks spacing. There will be a total of 3 homeworks.

Research Proposal: The research proposal is essentially a sketch of a paper. It should contain a short 1-2 page motivation, a discussion of how the literature has addressed the question in consideration 2 pages and where you see a void in the literature. You should have some empirical motivation, just a few graphs and then discuss what do you plan to do about the void in the literature: if you are thinking of a new model, sketch the key features of your model and how would you solve it. If the plan is to identify a feature in data, explain the methodology you would use and the data sets you would consider.

Participation: To gain participation points, which can be used to boost your grades, I want you to actively participate updating the course material in our Github repository. I will post the course material for you to adapt if necessary.

Outline: We will follow the outline of the next pages, but not in strict order. The outline is admittedly over ambitious, so we won't complete the material. However, I do want students to have an idea of the "full" picture. I will add references on a continuous basis. We will use this syllabus as a weekly guide on the topics we will cover.

Part I: Intermediation and the Credit Channel

- **Lectures 1-2: Interbank Market (Introduction to OTC markets)**

- Overview of Interbank-Market Facts
- [Bianchi and Bigio \(2024\)](#) Interbank Market (Afonso Lagos)
- Reference: Lecture Notes
- Additional Readings:
 - * Empirical: [Lopez-Salido and Vissing-Jorgenson \(2023\)](#), [Afonso et al. \(2023\)](#)
 - * Quantitative: [Lagos and Navarro \(2023\)](#), [Wong and Zhang \(2023\)](#)
 - * Book on OTC models: [Hugonnier et al. \(2025\)](#)

- **Lectures 3-4: Bank Liquidity Management, Monetary Policy, and the Credit Channel (Aggregation)**

- [Bianchi and Bigio \(2024\)](#) model
- Reference: Lecture Notes
- Additional Readings:
 - * Empirical Work: [Kashyap and Stein \(2000\)](#); [Bernanke and Blinder \(1988\)](#)
 - * Theoretical Work: [Piazzesi and Schneider \(2018\)](#), [De Fiore et al. \(2018\)](#), [Arce et al. \(2019\)](#), [Drechsler et al. \(2015\)](#), [De Fiore et al. \(2018\)](#)

- ★ **Homework I: OTC and Liquidity Management**

- Homework 1 (derivations in special cases of OTC model, data fit, aggregation exercise)

- **Lecture 5: Overview of the Effects of QE (Comparative Statics)**

- [Bigio et al. \(2024\)](#)
- Additional Readings:
 - * Empirical: [Kojen and Yogo \(2019, 2020\)](#)
 - * Theoretical Work: Piotr's paper, Auclert et al.

- **Lecture 6: Other Risks: Duration and Credit Risk**

american

- Bigio et al english
- Additional Readings:
 - * Empirical: Begenau et al.
 - * Theoretical Work: Dreschler et al. Amador-Bianchi

Part II: Open-Economy Considerations

- **Lectures 7-8: Open-Economy Model**

- Overview of International Payments
- [Bianchi et al. \(2021\)](#), Bigio, Castillo and Hahn (2024)
- Reference: Lecture Notes
- Additional Readings:
 - * Empirical: [Engel \(2016\)](#); [Jiang et al. \(2021, 2023\)](#), [Gabaix and Maggiori \(2015\)](#); [Itskhoki and Mukhin \(2021a,b\)](#)
 - * Theoretical Work: [Gabaix and Maggiori \(2015\)](#), [Gabaix and Maggiori \(2015\)](#); [Itskhoki and Mukhin \(2021a,b\)](#)

- ★ **Homework II: Transmission Mechanisms**

- Homework 2 (comparative statics, open-economy homework)

Part III: New-Keynesian Model

- **Lecture 9: Continuous-Time Bellman Equations**

- Introduction to the HJB equation for Poisson Models
- Reference: Lecture Notes

- **Lecture 10: New-Keynesian Model in Continuous Time**

- [Cochrane \(2017\)](#)
- Lecture Notes
- Additional Readings:
 - * Empirical Work (Overview of Sticky Price Facts): [Bils Klenow](#), [Nakamura-Steinsson](#) facts on Sticky Prices, [Hazell et al.](#),
 - * Theoretical Work: [Werning \(2014\)](#), [J Caballero and Farhi \(2017\)](#)
 - * Other papers: [Virgilius](#) paper on inventory, paper with Akira

- ★ **Homework III: NK Transmission Homework**

- Homework 2 (exercises within the NK model)

Part IV: Bonus Lectures (if time permits)

- **Lecture: Monetary-Fiscal Considerations**

- Adding government debt
- Caramp-Silva I

- **Lecture: Investment Lags**

- Maturity
- Investment Lags

References

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