## Microeconomics of Banking

**Semester:** Spring semester

Class time: TBD

**Instructor:** Jianye Yan

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Office hour: TBD

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Course Arrangement/Time Allocation: This course is an introduction to the modern theory of banking and financial intermediation. Despite their long history and importance, banks do not easily fit into the models that economists typically use. We will examine different modeling approaches, with an emphasis on models based on asymmetric information. We will also study the hot and important topics like individual bank runs then systemic risk, and the management of risks from bank. After taking this course, the student will be familiar with the models underlying modern research in financial intermediation; we will also read some recent papers to give a sense of the current research frontier.

The first part (longer than the first half) of the course is devoted to providing a guide to the "relatively" new microeconomic theory of banking, which focuses on the main issues and provides the necessary tools to understand how they have been modeled. Because of the discouraging fact that banks are useless in the Arrow-Debreu world, our first objective is to explain why financial intermediaries exist. In other words, what are the important features of reality that are overlooked in the Arrow-Debreu model of complete contingent markets?

First, we explore the different theories of financial intermediation: transaction costs, liquidity insurance, coalitions of borrowers, and delegated monitoring.

Second, another important aspect that is neglected in the complete contingent market approach is the notion that banks provide costly services to the public (essentially management of loans and deposits), which makes them compete in a context of product differentiation. This is the basis of the industrial organization approach to banking that we will study.

Third, based on optimal contracting between a lender and a borrower, we study the equilibrium of the credit market, with particular attention to the possibility of rationing at equilibrium, a phenomenon that has provoked important discussions among economists.

Fourth, we study individual bank runs and systemic risk, and the management of risks in the banking firm.

If time permits, we further concern with bank regulation and its economic justifications as well as the macroeconomic consequences of financial imperfections.

The first part will be ended by an exam. The second half of the course mainly focuses on the exploration of broad scenarios of the theory and the navigation of classical papers, ended by presentation from students on a list of some recent and classic papers that the instructor provide. Apart from the reading/reviewing tip's training on classic/published papers, the skill to critically

read the most up-to-date unpublished working papers and how to write referee report is also trained and to submit a sample referee report is also a course assignment.

**Grading:** exam (45%) + problem sets (15%) + presentation (20%) + referee report (20%).

Brief Introduction of Course Topic: During the last three decades, the economic theory of banking has entered a process of change that has overturned economists' traditional view of the banking sector. Before that, the banking courses of most doctoral programs in economics, business, or finance focused either on management aspects (with a special emphasis on risk) or on monetary aspects and their macroeconomic consequences. Thirty years ago, there was no such thing as a microeconomic theory of banking, for the simple reason that the Arrow-Debreu general equilibrium model (the standard reference for microeconomics at that time) was unable to explain the role of banks in the economy.

Since then, a new paradigm has emerged (the asymmetric information paradigm), incorporating the assumption that different economic agents possess different pieces of information on relevant economic variables and will use this information for their own profit. This paradigm has proved extremely powerful in many areas of economic analysis. In banking theory it has been useful in explaining the role of banks in the economy and pointing out the structural weaknesses of the banking sector (exposure to runs and panics, persistence of rationing on the credit market, recurrent solvency problems) that may justify public intervention.

**Main Textbook:** *Microeconomics of Banking*, 2nd ed. (2008) by Xavier Freixas and Jean-Charles Rochet, published by MIT Press.

## **References:**

Books:

Matthews K., J. Thompson. 2014, *The Economics of Banking*. John Wiley & Sons, LTD. 3rd edition: 2014

Contemporary Financial Intermediation • 3rd Edition • 2015, Edited by: Stuart I. Greenbaum, Anjan V. Thakor and Arnoud W.A. Boot

Papers:

(To be added)

## **Course Outline:**

First part:

- 1. Introduction: What Is a Bank, and What Do Banks Do?
- 2. The Role of Financial Intermediaries
- 3. The Industrial Organization Approach to Banking
- 4. The Lender-Borrower Relationship
- 5. Equilibrium in the Credit Market
- 6. Bank Runs and Systemic Risk
- 7. Managing Risks in the Banking Firm
- 8.\* The Regulation of Banks

9.\* Macroeconomic Consequences of Financial Imperfections Second part:

papers + Instruction on

- 1. reading/reviewing tips on classic/published papers
- 2. constructive criticism and referee report for up-to-date unpublished working papers

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<sup>\*</sup> If time permits.