

# MONEY AND BANKING

## INTRODUCTION: FINANCIAL SYSTEM

Gu, Xin

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## CONTACT INFORMATION

- Instructor: Gu, Xin, PhD in Economics from School of Economics and Asia-Pacific Economic Cooperation Research Center, Nankai University.

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- Cell No.: 137-3228-3624. Please don't call me after 21:00.

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- How do you define *economics* in your own words?
- Rational agents optimize their decisions given resource constraints.
- In *Macroeconomics*, we study the optimization of households, producers, and government decision jointly.

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- Any student that is absent from the lectures for more than 6 times is not allowed to take the final exam, or make-up exam in the next semester.

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- Instructors would ask students to bring the reading notes to the classes. Anyone's reading notes that fails to submit as required is graded zero.

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- Any student is not allowed to submit the assignments after the deadline. NO EXCUSES.

## RECOMMENDED TEXTBOOKS

- The course is largely based on Frederic S. Mishkin's *The Economics of Money, Banking, and Financial Markets* (9th edition).

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<sup>1</sup>The link is [https://www.amazon.cn/dp/B00DIN7CDO/ref=sr\\_1\\_7?s=books&ie=UTF8&qid=1528788252&sr=1-7&keywords=The+Economics+of+Money%2C+Banking%2C+and+Financial+Markets](https://www.amazon.cn/dp/B00DIN7CDO/ref=sr_1_7?s=books&ie=UTF8&qid=1528788252&sr=1-7&keywords=The+Economics+of+Money%2C+Banking%2C+and+Financial+Markets)



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- This textbook can be ordered from Amazon.cn<sup>1</sup>.
- Strongly suggest you to have a textbook for two reasons. First, you need it for reading notes (it is 10% of your total score). Second, you need it for final review.

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- Financial infrastructure is the set of institutions that enable effective operation of financial intermediaries.
- It includes such elements as *payment systems, credit information bureaus and collateral registries*. It also includes legal and regulatory framework for financial sector operations.

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- Major investment banks around the world include Barclays, Bank of America Merrill Lynch, Goldman Sachs, Deutsche Bank, Morgan Stanley, UBS, Credit Suisse, and Citibank.

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- The world most influential central banks are the Federal Reserve (U.S.A), the People's Bank of China, the European Central Bank, and Bank of Japan.

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- Central banks in many countries or economies, for example, serve as a regulatory and supervisory institution for the banking sector.
- Securities Exchange Committee, on the other hand, oversees securities markets.
- It puzzles many that why financial system is probably the most regulated sector in the economy. To answer this question, we need to investigate the importance of financial system.

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- A simple and frictional case to illustrate the importance of financial system (not the whole picture yet).
- Suppose you want to start up your own business, say, a computer store near campus. The rent, electricity, water bills, and staff wage are going to cost you every 30,000 RMB per month. It is 360,000 RMB per year; yet you only have 10,000 RMB to invest. How to fill the gap of 350,000 RMB for the first year?
- several options





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- Direct finance - investment banks which underwrite your equity or bonds to investors.
- Indirect finance - banks which grants you business loans.

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- When you in an attempt to raise funds by your own, you will acknowledge the time and energy that you need to invest in this financing process.

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- Even though investors were interested in your store investment, they would come up with different terms about investing in your store.
- For example, Lee prefers a fixed interest rate of 6% per year; Richy might like 5,000 RMB to become an owner, although you don't think he knows anything about computer stuff.

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- For example, Lee prefers a fixed interest rate of 6% per year; Richy might like 5,000 RMB to become an owner, although you don't think he knows anything about computer stuff.
- By comparison, we find out that raising funds through financial intermediaries is time-saving. What more does financial system do for us?

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- It is very likely to have a QR code for customers to buy a computer in your store.
- Besides, you don't need to line up in banks to buy mutual funds or fund wire.

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- It is very hard to you to raise funds from one person or entity even when it is the most economical way.
- Banks, in this case, pool funds from various entities (e.g., households and corporations), and then to distribute to units which are in need.

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- e.g. insurance companies and pension funds would give investors contingency payment and retirement annuities.



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- If you wanted to sell it quickly, you would choose investment banks, for instance.

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- It is a typical problem in economics, known as **asymmetric information**.

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- Incentive problems arise because parties to transactions cannot easily observe or control one another, and because contractual enforcement mechanisms are not costless to invoke.
- It is known as "**incomplete contract**" in economics.
- For more readings, please consult Bodie, Z, and Merton, R.C. (1995). *A Conceptual Framework for Analyzing the Financial System*, Chapter 1 to 8, Harvard Business School Press.

# COURSE STRUCTURE

- I build up a big picture of this course by three balance sheets.









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- Commercial banks and investment banks, acting on the principle of *profit maximization*, provide financing for fund demanders.
- Decisions of either fund demanders, banks, or investment banks are highly influenced by decisions of the central banks.



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- In *Understanding Interest Rates*, we will introduce a *plain vanilla bond*, interest rate measurement - *yield to maturity*, techniques of *present value*, and *calculation of rate of return*.