

EE432 Monetary Theory and Policy



Lecture 1 The Financial System
Dr. Chamadanai Marknual
Faculty of Economics, Thammasat University
Semester 1/2020

Course Evaluation

- EE432 is textbook-based.
- Students are required to read all lecture notes and should have access to this online textbook. The primary text book is:

Cecchetti, Stephen and Schoenholtz, Kermit.
(2017) **Money, banking, and financial markets**.
McGraw-Hill.

Course Evaluation

The course will be assessed by

- Pre-class reading 10%
- After-class quiz assignments 10%
- Individual report assignment 10%
- Mid-term examination 30%
3 October 2020 9.00 AM -11.00 AM
- Final examination 40%
4 December 2020 1.30 PM – 4.30 PM

Course Evaluation

- **Individual pre-class reading 10%**
 - 10 times throughout semester as details shown in the class schedule
- **Individual after-class quiz assignments (multiple choices) 10%**

2 times throughout semester, each worth 5%.

The dates below are the due dates for the out-of-class quiz assignments:

 - *Quiz assignment 1 (covering chapter 11, 12, 14): due 26 September*
 - *Quiz assignment 2 (covering chapter 17, 18, 19): due 31 October*

Class Schedule

Week	Topic	Date
1	Financial instruments, financial markets, and financial institutions (Cecchetti & Schoenholtz Textbook Chapter 3)	15 Aug 2020
2	Understanding risk (Cecchetti & Schoenholtz Textbook Chapter 5) <i># Pre-class reading 1 for Chapter 5, worth 1%</i>	22 Aug 2020
3	The risk and term structure of interest rates (Cecchetti & Schoenholtz Textbook Chapter 7) <i># Pre-class reading 2 for Chapter 7, worth 1%</i>	29 Aug 2020
4	The economics of financial intermediation (Cecchetti & Schoenholtz Textbook Chapter 11) <i># Pre-class reading 4 for Chapter 11, worth 1%</i>	5 Sep 2020
5	Depository institutions: banks and bank management (Cecchetti & Schoenholtz Textbook Chapter 12) <i># Pre-class reading 5 for Chapter 12, worth 1%</i>	12 Sep 2020
6	Regulating the financial system (Cecchetti & Schoenholtz Textbook Chapter 14) <i># Pre-class reading 5 for Chapter 14, worth 1%</i>	19 Sep 2020
7	Central banks in the world today (Cecchetti & Schoenholtz Textbook Chapter 15) <u>& Mid-semester Exam Revision</u>	26 Sep 2020

Week	Topic	Date
8	The central bank balance sheet and the money supply process (Cecchetti & Schoenholtz Textbook Chapter 17)	10 Oct 2020
9	Monetary policy: stabilizing the domestic economy (Cecchetti & Schoenholtz Textbook Chapter 18) <i># Pre-class reading 6 for Chapter 18, worth 1%,</i>	17 Oct 2020
10	Exchange rate policy (Cecchetti & Schoenholtz Textbook Chapter 19) <i># Pre-class reading 7 for Chapter 19, worth 1%</i>	24 Oct 2020
11	Money growth and money demand (Cecchetti & Schoenholtz Textbook Chapter 20) <i># Pre-class reading 8 for Chapter 20, worth 1%</i>	31 Oct 2020
12	Output, inflation, and monetary policy (Cecchetti & Schoenholtz Textbook Chapter 21) <i># Pre-class reading 9 for Chapter 21, worth 1%</i>	7 Nov 2020
13	Understanding business cycle fluctuations (Cecchetti & Schoenholtz Textbook Chapter 22) <i># Pre-class reading 10 for Chapter 22, worth 1%</i>	14 Nov 2020
14	Modern monetary policy and the challenges (Cecchetti & Schoenholtz Textbook Chapter 23)	21 Nov 2020
15	Special topic: New Keynesian monetary economics <u>& Final Exam Revision</u>	28 Nov 2020

Outline

- The Financial System
- Financial Instruments
- Financial Markets
- Financial Institutions

Chapter 3



Financial Instruments, Financial Markets, and Financial Institutions

The Financial System

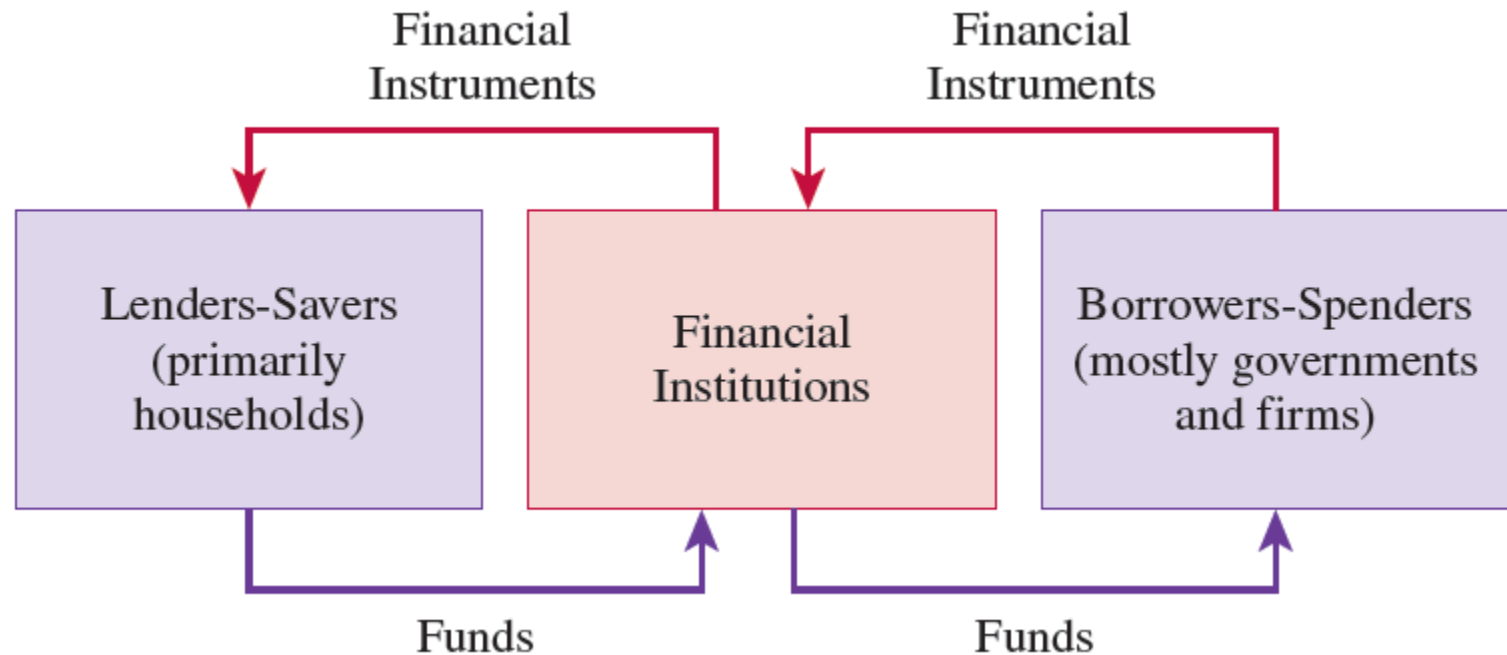
The Financial System

- **Direct Finance:** *Borrowers sell securities (bonds) directly to lenders* in the financial markets.
 - Direct finance *provides financing for governments and corporations.*
- **Indirect Finance:** An *institution* stands **between lender** and **borrower**.
 - We get a loan *from a bank or finance company* to buy a car.
- **Asset:** Something of *value that you own*.
- **Liability:** Something you *owe*.

The Financial System

- Financial development is linked to *economic growth*.
- The *role of the financial system* is to facilitate production, employment, and consumption.
- Resources are channeled through the system so that *resources flow to their most efficient uses*.

Funds Flowing through Financial Market



Financial Instruments

Financial Instruments

Financial Instruments:

The written legal obligation of one party to transfer something of value, usually money, to another party at some *future date*, under *specified conditions*.

Financial Instruments

Financial Instruments:

- The *enforceability* of the **obligation (requirement)** is *important*.
- Financial instruments *specify payment will be made at some future date*.
- Financial instruments *specify conditions under which a **payment** will be made*.

Uses of Financial Instruments

- Three functions:
 - Financial instruments act as a **means of payment** (*like money*).
 - Employees take **stock options** as payment for working.
 - Financial instruments act as **stores of value** (*like money*).
 - Financial instruments can be *used to* transfer purchasing power into the future.
 - Financial instruments **allow for the transfer of risk** (unlike money).
 - **Futures and insurance contracts** allows *one person to transfer risk to another*.

Characteristics of Financial Instruments

- These contracts are **very complex** thus make it *costly*.
- Standardization of financial instruments *overcomes potential costs* of complexity.
- Financial instruments *also communicate* information about the issuer.

Characteristics of Financial Instruments

- It is a mechanism *to reduce the cost of monitoring the behavior* of counterparties.
 - A **counterparty** is the person or institution *on the other side of the contract*.
- *Financial instruments* are **designed to handle the problem of asymmetric information**.
 - *Borrowers* have some information they **don't disclose** to lenders.

Underlying Versus Derivative Instruments

- **Underlying instruments** are used by *savers/lenders* to transfer resources directly to *investors/borrowers*.
 - This *improves* the **efficient allocation** of resources.
 - Examples: **stocks and bonds**
- **Derivative instruments** are those where their *value and payoffs* are **derived** from the underlying instruments.
 - The primary use is to ***shift risk*** among investors.
 - Examples: **futures, options, and swaps**.

A Primer for Valuing Financial Instruments

Four fundamental **characteristics** *influence the value* of a financial instrument:

1. Size of the payment:

- Larger payment - *more valuable*.

2. Timing of payment:

- Payment is **sooner** - *more valuable*.

3. Likelihood payment is made:

- **More likely to be made** - *more valuable*.

4. Conditions under which payment is made:

- Made **when we need them** - *more valuable*.

Financial Instruments Used Primarily as Stores of Value

1. Bank loans

- Borrower *obtains resources* from a ***lender*** to be ***repaid in the future***.

2. Bonds

- A form of a **loan** *issued by a corporation* or **government**.

3. Home mortgages

- *Home buyers* usually need to **borrow** using the **home** as **collateral** for the loan to *protect the lender's interests*.

Financial Instruments Used Primarily as Stores of Value

4. Stocks

- The holder **owns** a small *piece of the firm* and *entitled to part of its profits*.
- Firms *sell stocks* to **raise fund**.

5. Asset-backed securities

- ***Shares in the returns*** arising from specific assets, such as ***home mortgages***.
- **Mortgage backed securities** bundle a large number of mortgages together into a pool in which shares are sold.

Financial Instruments Used Primarily to Transfer Risk

1. Insurance contracts.

- Primary purpose is *to assure* that **payments will be made *under*** particular, and *often rare, circumstances*.

2. Futures contracts.

- An agreement between two parties to **exchange a fixed quantity of a commodity** or an **asset at a fixed price** on a set future date.
- A ***price*** is always **specified**.

Financial Instruments Used Primarily to Transfer Risk

3. Options

- Give the holder the ***right***, not obligation, to ***buy or sell*** a fixed quantity of the asset at a pre-determined price on either a specific date or at any time during a specified period.
- ***Derivative instruments*** whose prices are based on the ***value of an underlying asset***.

4. Swaps

- ***Agreements*** to exchange two specific cash flows at certain times in the future.

Financial Markets

Financial Markets

- **Financial markets** are places where *financial instruments* are **bought and sold**.
- These markets *enable both firms and individuals* to **find financing** for their activities.
- These markets *promote economic efficiency*

The Role of Financial Markets

1. Market liquidity:

- Ensure owners can ***buy and sell*** financial instruments cheaply.
- Keeps ***transactions costs low***.

2. Information:

- ***Pool and communicate information*** about issuers of financial instruments.

3. Risk sharing:

- ***Provide individuals*** a place to ***buy and sell risk***.

Primary versus Secondary Markets

- A **primary market** is one in which *a borrower obtains funds from a lender* by selling newly issued securities.
- **Secondary financial markets** are those where people can *buy and sell* existing securities.

Debt and Equity versus Derivative Markets

- **Debt markets** are *markets for loans, mortgages, and bonds*.
 - Debt instruments categorized by the *loan's maturity*
 - *Repaid in less than a year* - traded in **money markets**.
 - *Maturity of more than a year* - traded in **bond markets**.
- **Equity markets** are the *markets for stocks*.
- **Derivative markets** are the *markets where investors trade derivative instruments like futures, options, and swaps*.

Financial Institutions

Financial Institutions

- Firms that **provide access** to the *financial markets*, both
 - to **savers** who wish to purchase *financial instruments* directly and
 - to **borrowers** who want to issue them.
- *Also known as* **financial intermediaries**.

The Role of Financial Institutions

- To **reduce transaction costs** by specializing in the *issuance* of **standardized securities**.
- To **reduce the information costs** of *screening and monitoring borrowers*.
 - They curb **asymmetries**, helping resources *flow to most productive uses*.
- To **give savers access to their funds**.

The Structure of the Financial Industry

- We can *divide intermediaries* into 2 broad *categories*:
 - **Depository institutions**,
 - *Take deposits* and *make loans*
 - What most people think of as banks
 - **Non-depository institutions.**
 - Include **insurance companies, securities firms, mutual fund companies, hedge funds, private equity or venture capital firms, finance companies, and pension funds.**

The Structure of the Financial Industry

1. **Depository institutions** take *deposits* and make *loans*.
2. **Insurance companies** accept premiums, which they invest, in *return for promising compensation* to *policy holders* under *certain events*.
3. **Pension funds** *invest* individual and company contributions in *stocks, bonds, and real estate* in order to provide payments to retired workers.

The Structure of the Financial Industry

4. **Securities firms** include *brokers, investment banks, underwriters, mutual fund companies, private equity firms, and venture capital firms.*
- **Brokers and investment banks** *issue* stocks and bonds for corporate customers, **trade** them, and **advise** customers.
 - **Mutual-fund companies** *pool the resources* of individuals and companies and **invest** them *in portfolios.*
 - **Hedge funds** do the same for *small groups of wealthy investors.*
 - **Private equity and venture capital firms** also serve wealthy investors by **acquiring controlling stakes** in a few firms and **manage them** actively.

The Structure of the Financial Industry

5. Finance companies *raise funds* directly *in the financial markets* in order *to make loans* to individuals and firms.
6. Government-sponsored enterprises (GSEs) are federal credit agencies that *provide loans directly for farmers and home mortgagors.*

End of lecture