

Master of Financial Technology

Finance Concepts



The background features a series of vertical panels with rounded ends. The first panel shows a person's arm. The second panel shows hands typing on a laptop. The third panel shows a laptop screen with a play button icon. The fourth panel shows a target icon. The fifth panel shows an open book and a magnifying glass icon. The sixth panel shows a person sitting at a desk with a laptop.

Introduction to the Financial System

Chapter 1



Chapter 01

Intended Learning Outcomes

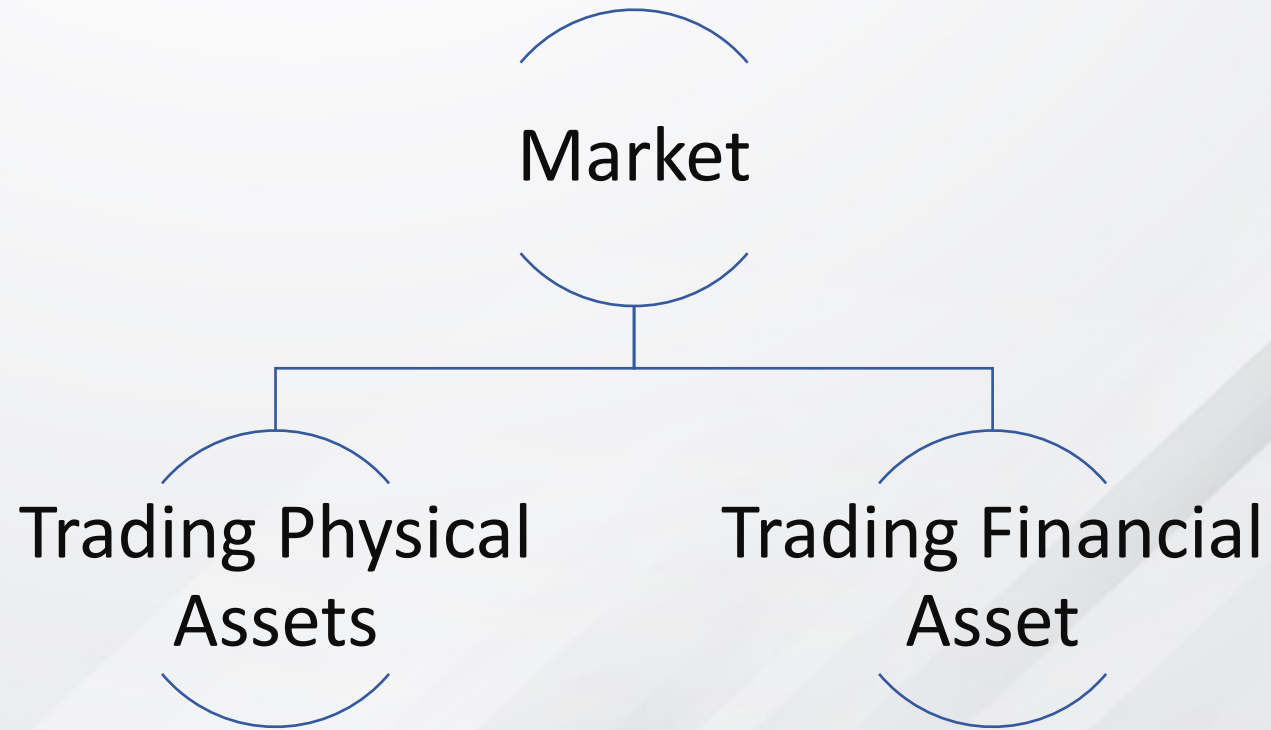
1. Understand the financial system and markets.
2. Describe financial markets and their functions.
3. Distinguish between Primary and Secondary Market.
4. Describe the types of securities traded within financial markets.
5. Understand why the financial markets exist.

What is a Market?

- A market is a place where two parties can gather to facilitate the exchange of goods and services. The parties involved are usually buyers and sellers.
- The market may be physical like a retail outlet, where people meet face-to-face, or virtual like an online market, where there is no direct physical contact between buyers and sellers.



Types of Markets



What is a Financial Market?

- A financial market is a market in which financial assets (securities) such as stocks and bonds can be purchased or sold.
- Funds are transferred in financial markets when one party purchases financial assets previously held by another party.
- Financial markets facilitate the flow of funds and thereby allow financing and investing by households, firms, and government agencies.

Types of Financial Markets

- 1. Money Markets** - Typically the money markets trade in products with *highly liquid short-term maturities* (of less than one year) and are characterized by a *high degree of safety and a relatively low return in interest*.
- 2. Capital Markets** - venues where savings and investments are channeled between the suppliers who have capital and those who need capital. The entities that have capital include *retail and institutional investors* while those who seek capital are businesses, governments, and people. Capital markets are *composed of primary and secondary markets*. The most common capital markets *are the equity market and the bond market*.
- 3. Foreign Exchange Market** - In such type of market, parties are involved in trading of currency. In a foreign exchange market (also called *currency market*), one party exchanges one country's currency with equivalent quantity of another currency.
- 4. Derivatives Markets** - Predictive market is a set up where exchange of good or service takes place for future. The buyer benefits when the market goes up and is at a loss when the market crashes.

1- Role of Financial Markets

Role of Financial Markets

- Financial markets transfer funds from those who have excess funds to those who need funds.
- If funds were not supplied, the financial markets would not be able to transfer funds to those who need them.
- Those participants who receive more money than they spend are referred to as surplus units (or investors). They provide their net savings to the financial markets.
- Those participants who spend more money than they receive are referred to as deficit units. They access funds from financial markets so that they can spend more money than they receive.



Role of Financial Markets

- A key role of financial markets is to
 1. Accommodate corporate finance needs, and
 2. Accommodate Investment needs.

through the primary and secondary market.

Accommodating Corporate Finance Need

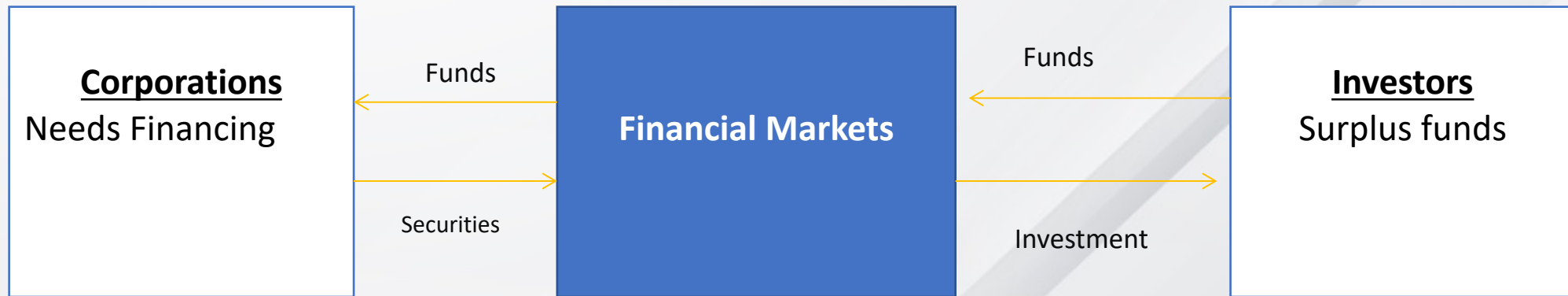
- A key role of financial markets is to accommodate corporate finance activity.
- Corporate finance (also called financial management) involves corporate decisions such as how much funding to obtain and what types of securities to issue when financing operations.
- The financial markets serve as the mechanism whereby corporations (acting as deficit units) can obtain funds from investors (acting as surplus units).



Accommodating Investment Needs

- Another key role of financial markets is accommodating surplus units who want to invest in either debt or equity securities.
- Investment management involves decisions by investors regarding how to invest their funds.
- The financial markets offer investors access to a wide variety of investment opportunities.
- Financial institutions serve as intermediaries within the financial markets.
 - They channel funds from surplus units to deficit units. For example, they channel funds received from individuals to corporations.
 - They connect the investment management activity with the corporate finance activity, as shown in Exhibit 1.1.
 - They also commonly serve as investors and channel their own funds to corporations.

How Financial Markets Facilitate Corporate Finance and Investment Management



Role of Financial Markets

- Many deficit units such as firms and government agencies access funds from financial markets by issuing securities, which represent a claim on the issuer.
 - **Debt securities** represent debt (also called credit or borrowed funds) incurred by the issuer. Deficit units that issue the debt securities are **borrowers**. The surplus units that purchase debt securities are **creditors**, and they receive **interest** on a periodic basis (such as every six months). Debt securities have a **maturity date**, at which time the surplus units can redeem the securities in order to receive the principal (face value) from the deficit units that issued them.
 - **Equity securities** (also called stocks) represent equity or ownership in the firm. Some large businesses prefer to issue equity securities rather than debt securities when they need funds but might not be financially capable of making the periodic interest payments required for debt securities.

Primary versus Secondary Markets

- **Primary markets** facilitate the issuance of new securities.
- **Secondary markets** facilitate the trading of existing securities, which allows for a change in the ownership of the securities.
- Many types of debt securities have a secondary market, so that investors who initially purchased them in the primary market do not have to hold them until maturity.
- Primary market transactions provide funds to the initial issuer of securities; secondary market transactions do not.
- An important characteristic of securities that are traded in secondary markets is **liquidity**, which is the degree to which securities can easily be liquidated (sold) without a loss of value.
- Some securities have an active secondary market, meaning that there are many willing buyers and sellers of the security at a given moment in time.
- Investors prefer liquid securities so that they can easily sell the securities whenever they want (without a loss in value).
- If a security is illiquid, investors may not be able to find a willing buyer for it in the secondary market and may have to sell the security at a large discount just to attract a buyer.

Review Questions

1. Financial market participants who provide funds are called

	a.	deficit units.
	b.	surplus units.
	c.	primary units.
	d.	secondary units.

2. Which of the following is not an issuer of bonds?

	a.	households
	b.	corporations
	c.	the U.S. Treasury
	d.	government agencies

3. Those financial markets that facilitate the flow of short-term funds are known as

	a.	money markets.
	b.	capital markets.
	c.	primary markets.
	d.	secondary markets.

Review Questions

4. Funds are provided to the initial issuer of securities in the

a.	secondary market.
b.	primary market.
c.	deficit market.
d.	surplus market.

5. Which of the following transactions would **not** be considered a secondary market transaction?

a.	An individual investor purchases some existing shares of stock in Apple through her broker.
b.	An institutional investor sells some Disney stock through its broker.
c.	A firm that was privately held engages in an offering of stock to the public.
d.	All of the above are secondary market transactions.

6. Securities represent a claim on the issuer.

7. Debt securities represent debt (borrowed funds) incurred by the issuer.

Answers

1. B
2. A
3. A
4. B
5. C
6. True
7. True

2- Financial System

Financial System

- A financial system is a network of financial institutions – such as insurance companies, stock exchanges, and investment banks– that work together in the financial markets to exchange and transfer capital from one place to another.
- Through the financial system, investors receive capital to fund projects and receive a return on their investments.



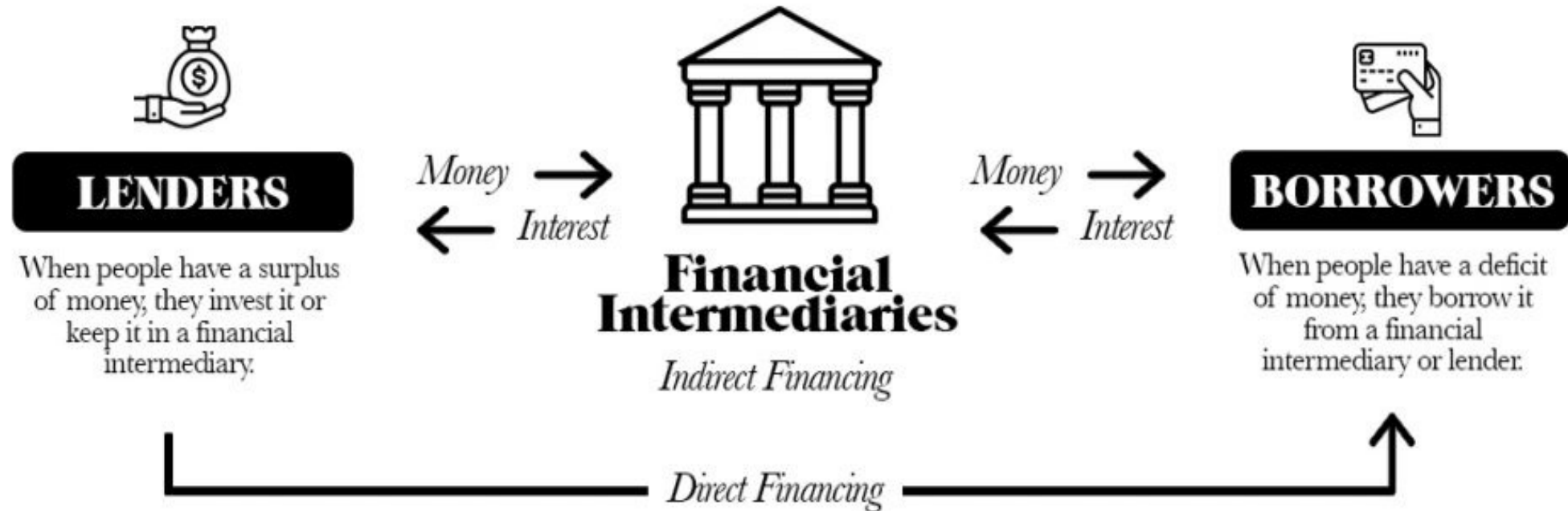
Understanding Financial Systems

- Financial markets involve various players, including borrowers, lenders, and investors.
- The borrowers and lenders tend to **trade money** in exchange for a return on the investment at some future date.
- When determining the guidelines of raising capital within a financial system, the project being funded and who funds them are decided upon by the planner, who can be a business manager. Thus, the financial system is **typically organized through central planning, a market economy, or a combination of both.**

Understanding Financial Systems

- A **centrally planned economy** is structured around a central authority, such as a government, which makes economic decisions regarding the manufacturing and distribution of products for a specific country.
- A **market economy** is when the pricing of goods and services is resulting from the effects of supply and demand.
- An **efficient markets** is when all security prices fully reflect all available information.
- Financial systems are heavily regulated due to their influence and facilitation capabilities to contribute to the growth of real assets.

THE BASICS OF THE **FINANCIAL SYSTEM**



Review Questions

8. If security prices fully reflect all available information, the markets for these securities are

	a.	efficient.
	b.	primary.
	c.	overvalued.
	d.	undervalued.

9. If markets are ____, investors could use available information ignored by the market to earn abnormally high returns.

	a.	perfect
	b.	active
	c.	inefficient
	d.	in equilibrium

10. If financial markets were ____, all information about any securities for sale in primary and secondary markets would be continuously and freely available to investors.

	a.	efficient
	b.	inefficient
	c.	perfect
	d.	imperfect

Review Questions

11. When security prices fully reflect all available information, the markets for these securities are said to be efficient.
12. If markets are perfect, securities buyers and sellers to not have full access to information and cannot always break down securities to the precise size they desire.
13. financial markets are efficient, this implies that all securities should earn the same return.

Answers

8. A

9.C

10.C

11. True

12. False

13. False

3- Securities Traded in Financial Markets

Securities Traded in Financial Markets

SECURITIES



- Securities can be classified as
 - Money market securities,
 - Capital market securities, or
 - Derivative securities.

Money Market Securities

- Money markets facilitate the sale of short-term debt securities by deficit units to surplus units.
- The securities traded in this market are referred to as money market securities, which are debt securities that have a **maturity of one year or less**.
- These generally have a relatively **high degree of liquidity**, not only because of their short-term maturity but also because they are desirable to many investors and therefore commonly have an **active secondary market**.
- Money market securities tend to have a **low expected return** but also a **low degree of credit (default) risk**.
- **Common types of money market securities include**
 1. Treasury bills (issued by the U.S. Treasury and governments),
 2. Commercial paper (issued by corporations), and
 3. Negotiable certificates of deposit (issued by depository institutions).

Capital Market Securities

- Capital markets facilitate the sale of **long-term securities** by deficit units to surplus units.
- The securities traded in this market are referred to as capital market securities.
- Capital market securities are commonly issued to **finance the purchase of capital assets**, such as buildings, equipment, or machinery.
- **Three common types of capital market securities are**
 1. **Bonds** are long-term debt securities issued by the Treasury, government agencies, and corporations to finance their operations. They provide a return to investors in the form of interest income (coupon payments) every six months. Bonds commonly have maturities of between 10 and 20 years.
 2. **Stocks** (or equity securities) represent partial ownership in the corporations that issue them. They are classified as capital market securities because they have no maturity and therefore serve as a long-term source of funds. Investors who purchase stocks (referred to as stockholders) issued by a corporation in the primary market can sell the stocks to other investors at any time in the secondary market.
 3. **Mortgages** are long-term debt obligations created to finance the purchase of real estate. Residential mortgages are obtained by individuals and families to purchase homes. Financial institutions serve as lenders by providing residential mortgages in their role as a financial intermediary. They can pool deposits received from surplus units and lend those funds to an individual who wants to purchase a home.

Derivative Securities

- In addition to money market and capital market securities, derivative securities are also traded in financial markets.
- Derivative securities are financial contracts whose values are derived from the values of underlying assets (such as debt securities or equity securities).
- Many derivative securities enable investors to engage in speculation and risk management.
- Speculation
 - Derivative securities allow an investor to speculate on movements in the value of the underlying assets.
 - Investors who speculate in derivative contracts can achieve higher returns than if they had speculated in the underlying assets, but they are also exposed to higher risk.
- Risk Management
 - Derivative securities can be used to reduce the risk by locking the price of the financial asset.

Review Questions

14. Which of the following is a capital market instrument?

	a.	a six-month certificate of deposit
	b.	a three-month Treasury bill
	c.	a ten-year bond
	d.	an agreement for a bank to loan funds directly to a company for nine months

15. Which of the following is a money market security?

	a.	Treasury note
	b.	municipal bond
	c.	mortgage
	d.	commercial paper

16. Investors in equity securities may earn a return from

	a.	coupon payments and the return of principal at the maturity date.
	b.	coupon payments and a capital gain when they sell the securities.
	c.	quarterly dividends (if paid) and a capital gain when they sell the securities.
	d.	quarterly dividends (if paid) and the return of principal at the maturity date.

Review Questions

17. Money market securities generally have ____.

a.	relatively low liquidity, low expected return, and a high degree of credit risk.
b.	relatively high liquidity, high expected return, and a high degree of credit risk.
c.	relatively low liquidity, high expected return, and a low degree of credit risk.
d.	relatively high liquidity, low expected return, and a low degree of credit risk.

18. Stock issued by a corporation is an example of a(n)

a.	debt security.
b.	money market security.
c.	equity security.
d.	A and B

19. ____ securities have a maturity of one year or less; ____ securities generally have relatively high liquidity.

a.	Money market; capital market
b.	Money market; money market
c.	Capital market; money market
d.	Capital market; capital market

Review Questions

- 20. Debt securities include commercial paper, Treasury bonds, and corporate bonds.
- 21. Common types of capital market securities include Treasury bills and commercial paper.
- 22. Common types of money market securities include negotiable certificates of deposit and Treasury bills.
- 23. Those financial markets that facilitate the flow of short-term funds (with maturities of less than one year) are known as capital markets, while those that facilitate the flow of long-term funds are known as money markets.

Answers

14. C

15.D

16.C

17.D

18.C

19.B

20. True

21. False

22. True

23. False

4- Functions of Financial Markets

What are the functions of markets?

- Financial markets take many different forms and operate in diverse ways. But all of them, whether highly organized, like the London Stock Exchange, or highly informal, like the money changers on the street corners, serve the same basic functions.
 1. Price Setting,
 2. Asset Valuation,
 3. Arbitrage,
 4. Raising Capital,
 5. Commercial Transaction,
 6. Investment, and
 7. Risk Management

1. Price setting

- The value of an ounce of gold or a share of stock is no more, and no less, than what someone is willing to pay to own it.
- Markets provide price discovery, a way to determine the relative values of different items, based upon the prices at which individuals are willing to buy and sell them.



2. Asset valuation

- Market prices offer the best way to determine the value of a firm or of the firm's assets, or property.
- This is important not only to those buying and selling businesses, but also to regulators.
- An insurer, for example, may appear strong if it values the securities it owns at the prices it paid for them years ago, but the relevant question for judging its solvency is what prices those securities could be sold for if it needed cash to pay claims today.



3.Arbitrage

- In countries with poorly developed financial markets, commodities and currencies may trade at very different prices in different locations.
- As traders in financial markets attempt to profit from these divergences, prices move towards a uniform level, making the entire economy more efficient.

ARBITRAGE

4. Raising capital

- Firms often require funds to build new facilities, replace machinery or expand their business in other ways.
- Shares, bonds and other types of financial instruments make this possible.
- Increasingly, the financial markets are also the source of capital for individuals who wish to buy homes or cars, or even to make credit-card purchases.



5. Commercial Transaction

- As well as long-term capital, the financial markets that makes many commercial transactions possible.
- This includes such things as arranging payment for the sale of a product abroad and providing working capital so that a firm can pay employees if payments from customers run late.



6. Investment

- The stock, bond and money markets provide an opportunity to earn a return on funds that are not needed immediately, and to accumulate assets that will provide an income in future.



7. Risk management

- Futures, options and other derivatives contracts can provide protection against many types of risk, such as the possibility that a foreign currency will lose value against the domestic currency before an export payment is received.



Review Questions

24. Without the participation of financial intermediaries in financial market transactions,

a.	information and transaction costs would be lower.
b.	transaction costs would be higher but information costs would be unchanged.
c.	information costs would be higher but transaction costs would be unchanged.
d.	information and transaction costs would be higher.

25. When particular securities are perceived to be ____ by the market, their prices decrease when they are sold by investors.

a.	undervalued
b.	overvalued
c.	fairly priced
d.	efficient
e.	none of the above

26. Valuing stocks is easier than valuing debt securities because stocks promise to provide investors with specific payments at regular intervals.

Answers

24. D

25.B

26. False



Thank You

