

The Financial Environment

Lecture 1

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MGM 237
Introduction to Finance



جامعة الجميع الذكية
EVERYONE'S SMART UNIVERSITY

LEARNING OBJECTIVES

After studying this lecture, you should be able to do the following:

LO 1.1 Define finance and describe the three areas of finance.

LO 1.2 Explain why finance should be studied.

LO 1.3 Describe and discuss the six principles of finance.

LO 1.4 Identify the four components of the financial system and describe their roles.

LO 1.5 Describe financial markets characteristics and the four types of financial markets.

1. What Is Finance?

Almost every day we hear news reports about economic conditions, unemployment, price changes, interest rates, stock prices, government expenditures and taxes, and monetary policy. Many of us are often overwhelmed trying to understand and interpret developments and interactions among these topics. We begin this textbook by defining finance and describing the financial environment and the three areas of finance.

Finance is the study of how individuals, institutions, governments, and businesses acquire, spend, and manage money and other financial assets. Understanding finance is important to all students regardless of the discipline or area of study, because nearly all business and economic decisions have financial implications. The decision to spend or consume now (for new clothes or dinner at a fancy restaurant) rather than save or invest (for spending or consuming more in the future) is an everyday decision that we all face.

The **financial environment** encompasses the financial system, institutions or intermediaries (we will use these terms interchangeably throughout this text), financial markets, business firms, individuals, and global interactions that contribute to an efficiently operating economy.

Figure 1.1 depicts the three areas of finance—institutions and markets, investments, and financial management—within the financial environment. Note that while we identify three distinct finance areas, these areas do not operate in isolation but rather interact or intersect with each other.

Financial institutions are organizations or intermediaries that help the financial system operate efficiently and transfer funds from savers and investors to individuals, businesses, and governments that seek to spend or invest the funds in physical assets (inventories, buildings, and equipment).

Financial markets are physical locations or electronic forums that facilitate the flow of funds among investors, businesses, and governments. The **investments** area involves the sale or marketing of securities, the analysis of securities, and the management of investment risk through portfolio diversification.

Financial management involves financial planning, asset management, and fund-raising decisions to enhance the value of businesses. Its objective is to maximize the value of the firm for stockholders.

FIGURE 1.1 Graphic Illustration of the Financial Environment

Individuals

Global Interactions

Financial System

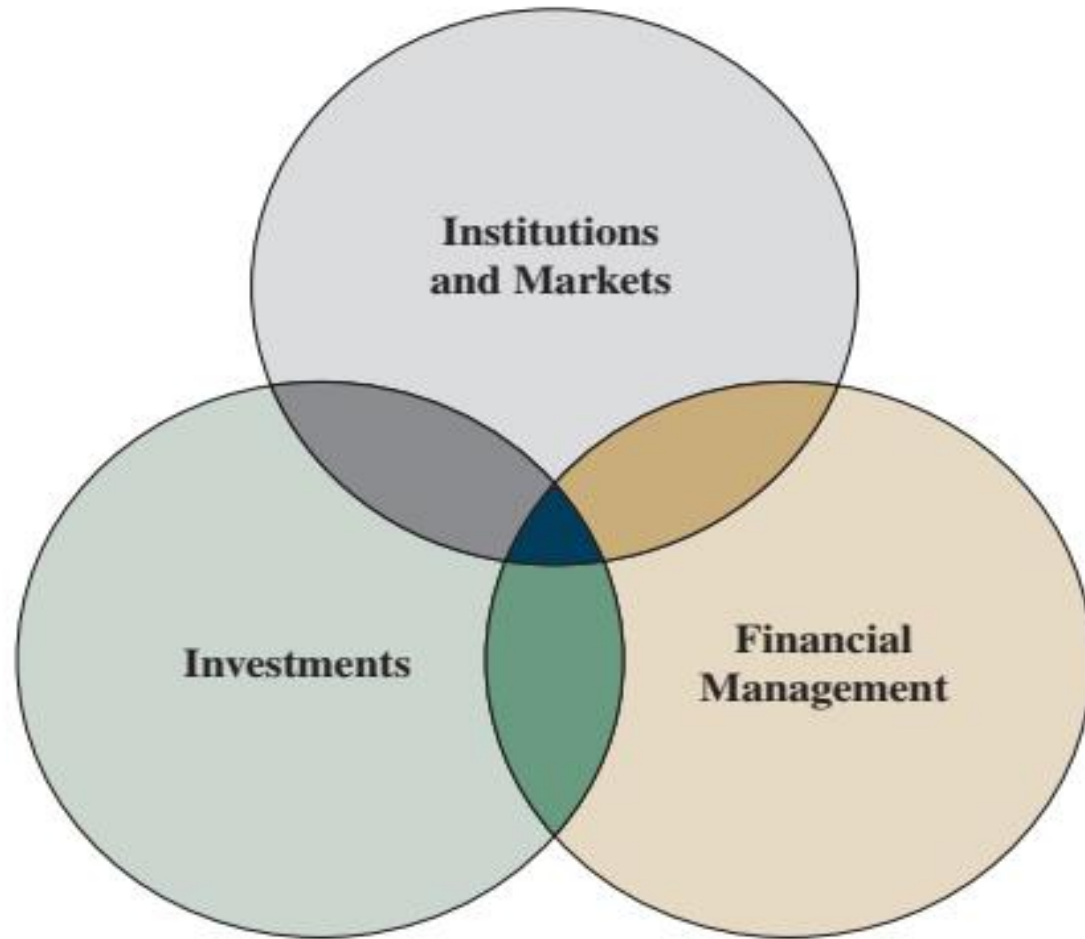
Three Areas of Finance

Institutions
and Markets

Investments

Financial
Management

Principles of Finance



Financial institutions are intermediaries, such as banks, insurance companies, and investment companies that engage in financial activities to aid the flow of funds from savers to borrowers or investors.

Investment management involves making decisions relating to issuing and investing in stocks and bonds. Financial management in business involves making decisions relating to the efficient use of financial resources in the production and sale of goods and services. The goal of the financial manager in a profit-seeking organization should be to maximize the owners' wealth. This is accomplished through effective financial planning and analysis, asset management, and the acquisition of financial capital. Financial managers in not-for-profit organizations aim to provide a desired level of services at acceptable costs and perform the same financial management functions as their for-profit counterparts.

Successful businesses typically progress through a series of [life-cycle stages](#)—from the idea stage to exiting the business. More specifically, the successful business typically moves through five stages: development, start-up, survival, rapid growth, and maturity. Individuals who choose to become small business owners do so for a number of different reasons.

Some small business owners focus on salary-replacement opportunities, where they seek income levels comparable to what they could have earned by working for much larger firms. Other individuals pursue lifestyle small business opportunities, where they get paid for doing things they like to do. Entrepreneurs seek to own and run businesses that stress high growth rates in sales, profits, and cash flows.

Entrepreneurial finance is the study of how growth driven, performance focused, early stage firms (from development through early rapid growth) raise financial capital and manage their operations and assets. Our small business practice boxes focus on operational and financial issues faced by early stage firms.

Personal finance is the study of how individuals prepare for financial emergencies, protect against premature death and the loss of property, and accumulate wealth over time. Our personal financial planning boxes focus on planning decisions made by individuals, regarding saving and investing their financial resources.

2. Why Study Finance?

1. To make informed economic decisions.

As we will see, the operation of the financial system and the performance of the economy are influenced by policy makers. Individuals elect many of these policy makers in the United States, such as the president and members of Congress. Since these elected officials have the power to alter the financial system by creating laws, and since their decisions can influence economic activity, it is important that individuals be informed when making political and economic choices. Do you want a balanced budget, lower taxes, free international trade, low inflation, and full employment? Whatever your financial and economic goals may be, you need to be an informed participant if you wish to make a difference. Every individual should attain a basic understanding of finance as it applies to the financial system.

2. To make informed personal and business investment decisions.

An understanding of finance should help you better understand how the institution, government unit, or business that you work for finances its operations. At a personal level, the understanding of investments will enable you to better manage your financial resources and provide the basis for making sound decisions for accumulating wealth over time. Thus, in addition to understanding finance basics relating to the financial system and the economy, you also need to develop an understanding of the factors that influence interest rates and security prices.

3. To make informed career decisions based on a basic understanding of business finance.

Even if your business interest is in a nonfinance career or professional activity, you likely will need to interact with finance professionals both within and outside your firm or organization. Doing so will require a basic knowledge of the concepts, tools, and applications of financial management.

3. Six Principles of Finance

Finance is founded on six important principles. The first five relate to the economic behavior of individuals, and the sixth focuses on ethical behavior. Knowing about these principles will help us understand how managers, investors, and others incorporate time and risk into their decisions, as well as why the desire to earn excess returns leads to information-efficient financial markets in which prices reflect available information. Unfortunately, sometimes greed associated with the desire to earn excess returns causes individuals to risk losing their reputations by engaging in questionable ethical behavior and even unethical behavior in the form of fraud or other illegal activities. The bottom line is, “Reputation matters!”

The following are the six principles that serve as the foundation of finance:

- • Money has a time value.
- • Higher returns are expected for taking on more risk.
- • Diversification of investments can reduce risk.
- • Financial markets are efficient in pricing securities.
- • Manager and stockholder objectives may differ.
- • Reputation matters.

1. Time Value of Money

Let's look at these principles one by one. Money in hand today is worth more than the promise of receiving the same amount in the future. The “time value” of money exists because a sum of money today could be invested and grow over time.

For example, assume that you have \$1,000 today and that it could earn \$60 (6 percent) interest over the next year. Thus, \$1,000 today would be worth \$1,060 at the end of one year (i.e., \$1,000 plus \$60). As a result, a dollar today is worth more than a dollar received a year from now.

The time-value-of-money principle helps us to understand the economic behavior of individuals and the economic decisions of the institutions and businesses that they run.

2. Risk Versus Return

A trade-off exists between risk and expected return in all types of investments—both assets and securities. Risk is the uncertainty about the outcome or payoff of an investment in the future. For example, you might invest \$1,000 in a business venture today. After one year, the firm might be bankrupt and you would lose your total investment. On the other hand, after one year your investment might be worth \$2,400. This variability in possible outcomes is your risk. Instead, you might invest your \$1,000 in a U.S. government security, where after one year the value may be \$950 or \$1,100. Rational investors would consider the business venture investment to be riskier and would choose this investment only if they feel the expected return is high enough to justify the greater risk. Investors make these trade-off decisions every day.

Business managers make similar trade-off decisions when they choose between different projects in which they could invest. Understanding the risk/return trade-off principle also helps us understand how individuals make economic decisions.

3. Diversification of Risk

While higher returns are expected for taking on more risk, all investment risk is not the same. In fact, some risk can be removed or *diversified* by investing in several different assets or securities. Let's return to the example involving a \$1,000 investment in a business venture, where after one year the investment could provide a return of either zero dollars or \$2,400.

Now let's assume that there also is an opportunity to invest \$1,000 in a second, unrelated business venture in which the outcomes would be zero dollars or \$2,400. Let's further assume that we will put one-half of our \$1,000 investment funds in each investment opportunity such that the individual outcomes for each \$500 investment would be zero dollars or \$1,200.

While it is possible that both investments could lose everything (i.e., return zero dollars) or return \$1,200 each (a total of \$2,400), it is also possible that one investment would go broke and the other would return \$1,200. So, four outcomes are now possible:

Possible Outcomes	Combined Investment	Possible Returns		Combined Return
Outcome 1:	\$500 + \$500	\$0 + \$0	=	\$0
Outcome 2:	\$500 + \$500	\$0 + \$1,200	=	\$1,200
Outcome 3:	\$500 + \$500	\$1,200 + \$0	=	\$1,200
Outcome 4:	\$500 + \$500	\$1,200 + \$1,200	=	\$2,400

If each outcome has an equal, one-fourth (25 percent), chance of occurring, most of us would prefer this diversified investment. While it is true that our combined investment of \$1,000 (\$500 in each investment) at the extremes could still return zero dollars or \$2,400, it is also true that we have a 50 percent chance of getting \$1,200 back for our \$1,000 investment. As a result, most of us would prefer investing in the combined or diversified investment rather than in either of the two investments separately.

4. Financial Markets Are Efficient

A fourth finance-related aspect of economic behavior is that individuals seek to find undervalued and overvalued investment opportunities involving both real and financial assets. It is human nature, economically speaking, to search for investment opportunities that will provide returns higher than those expected for undertaking a specified level of risk. This attempt by many to earn excess returns, or to “beat the market,” leads to information- efficient financial markets.

However, at the same time it becomes almost impossible to consistently earn returns higher than those expected in a risk/return trade-off framework. Rather than looking at this third pillar of finance as a negative consequence of human economic behavior, we prefer to couch it positively in that it leads to information-efficient financial markets.

A financial market is said to be information efficient if at any point the prices of securities reflect all information available to the public. When new information becomes available, prices quickly change to reflect that information

For example, let's assume that a firm's stock is currently trading at \$20 per share. If the market is efficient, both potential buyers and sellers of the stock know that \$20 per share is a fair price. Trades should be at \$20, or near to it, if the demand (potential buyers) and supply (potential sellers) are in reasonable balance. Now, let's assume that the firm announces the production of a new product that is expected to substantially increase sales and profits. Investors might react by bidding up the price to, say, \$25 per share to reflect this new information. Assuming this new information is assessed properly, the new fair price becomes \$25 per share.

This informational efficiency of financial markets exists because a large number of professionals are continually searching for mispriced securities. Of course, as soon as new information is discovered, it is immediately reflected in the price of the associated security. Information-efficient financial markets play an important role in the marketing and transferring of financial assets between investors by providing liquidity and fair prices.

5. Management Versus Owner Objectives

A fifth principle of finance relates to the fact that management objectives may differ from owner objectives. Owners, or equity investors, want to maximize the returns on their investments but often hire professional managers to run their firms. However, managers may seek to emphasize the size of firm sales or assets, have company jets or helicopters available for their travel, and receive company-paid country club memberships.

Owner returns may suffer as a result of manager objectives. To bring manager objectives in line with owner objectives, it often is necessary to tie manager compensation to measures of performance beneficial to owners. Managers are often given a portion of the ownership positions in privately held firms and are provided stock options and bonuses tied to stock price performance in publicly traded firms. The possible conflict between managers and owners is sometimes called the *principal-agent problem*.

6.Reputation Matters

The sixth principle of finance is, “Reputation matters!” An individual’s reputation reflects his or her ethical standards or behavior. **Ethical behavior** is how an individual or organization treats others legally, fairly, and honestly. Of course, the ethical behavior of organizations reflects the ethical behaviors of their directors, officers, and managers. For institutions or businesses to be successful, they must have the trust and confidence of their customers, employees, and owners, as well as that of the community and society they operate in.

All would agree that firms have an ethical responsibility to provide safe products and services, to have safe working conditions for employees, and not to pollute or destroy the environment. Laws and regulations exist to ensure minimum levels of protection and maintain the difference between unethical and ethical behavior. Examples of high ethical behavior include when firms establish product safety and working-condition standards well above the legal or regulatory standards.

Unfortunately, and possibly due in part to the greed for excess returns (such as higher salaries, bonuses, more valuable stock options, personal perquisites, etc.), directors, officers, managers, and other individuals sometimes are guilty of unethical behavior for engaging in fraudulent or other illegal activities.

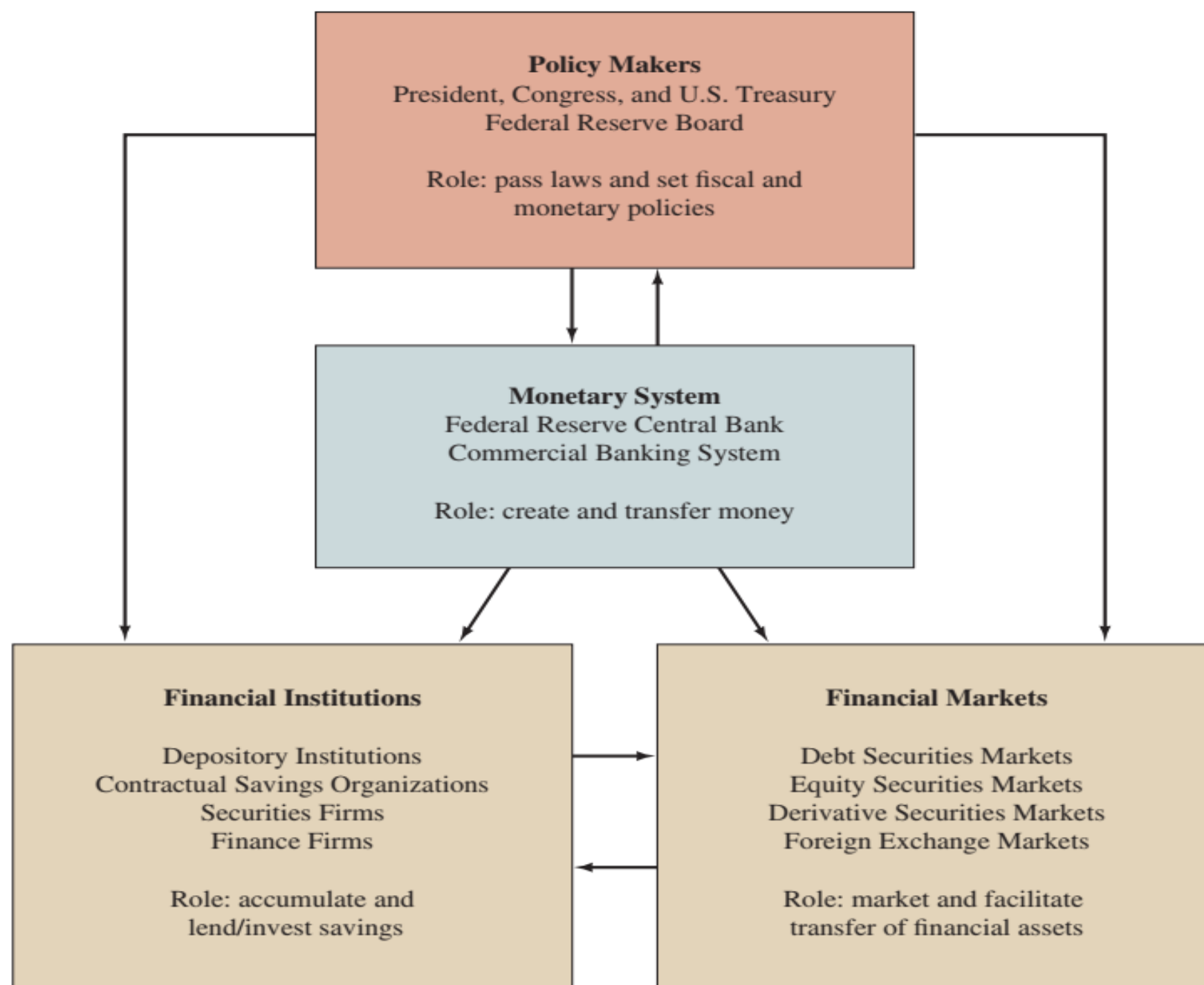
Reputations are destroyed, criminal activities are prosecuted, and involved individuals may receive jail sentences. The unethical behavior of directors, officers, and managers also may lead to a loss of reputation and even destruction of the institutions and businesses for which they work.

4. Overview of the Financial System

The **financial system** is a complex mix of financial intermediaries, markets, instruments, policy makers, and regulations that interact to expedite the flow of financial capital from savings into investment.

Figure 1.2 provides a graphical review of the four major components of the U.S. financial system. **First**, an effective financial system must have several sets of policy makers who pass laws and make decisions relating to fiscal and monetary policies. These policy makers include the president, Congress, and the U.S. Treasury, plus the Federal Reserve Board. Since the United States operates within a global economy, political and economic actions of foreign policy makers influence, although indirectly, the U.S. financial system and its operations.

FIGURE 1.2 Graphical View
of the Major Components of the
U.S. Financial System



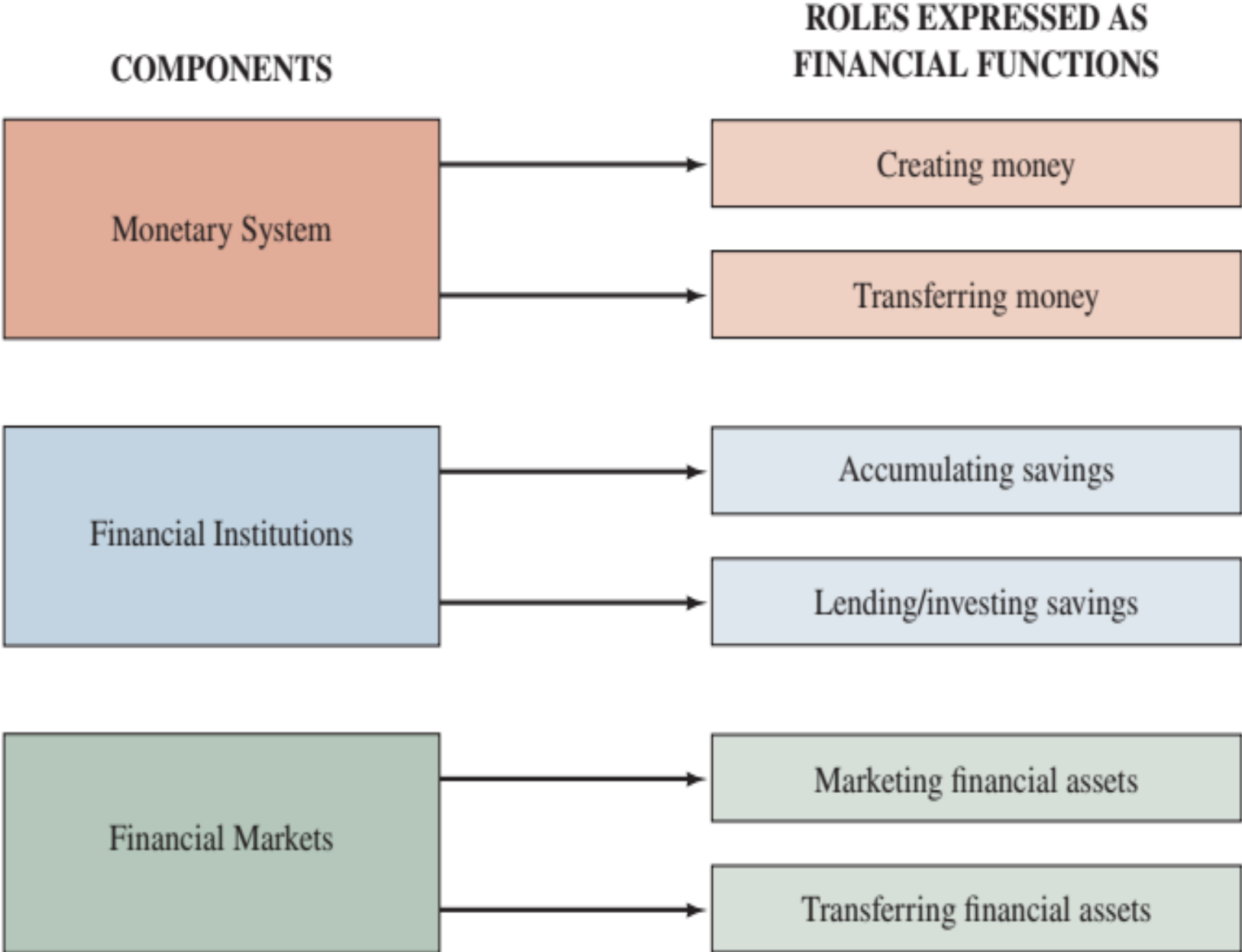
Second, an effective financial system needs an efficient *monetary system* that is composed of a central bank and a banking system that is able to create and transfer a stable medium of exchange called money. In the United States, the dollar is the medium of exchange, the central bank is the Federal Reserve System, and the banking system is commonly referred to as the commercial banking system.

Third, an effective financial system also must have *financial institutions*, or intermediaries, that support capital formation either by channeling savings into investment in real assets or by fostering direct financial investments by individuals in financial institutions and businesses.

Fourth, an effective financial system must also have *financial markets* that facilitate the transfer of financial assets among individuals, institutions, businesses, and governments. Figure 1.2 identifies three types of financial markets—debt securities markets, equity securities markets, and derivative securities markets.

Financial System Components and Financial Functions

FIGURE 1.3 Three Financial System Components and the Financial Functions Used to Carry Out Their Roles



1. Creating Money

One of the most significant functions of the monetary system within the financial system is creating money, which serves as a medium of exchange. A sufficient amount of money is essential if economic activity is to take place at an efficient rate. Having too little money constrains economic growth. Having too much money often results in increases in the prices of goods and services.

2. Transferring Money

Individuals and businesses hold money for purchases or payments they expect to make in the near future. One way to hold money is in checkable deposits at depository institutions. When money is held in this form, payments can be made easily by check. The check is an order to the depository institution to transfer money to the party who received the check. Institutions can also transfer funds between accounts electronically, making payments without paper checks. Funds transfers can be made by telephone, at automated teller machines (ATMs) connected to a bank's computer, and via the Internet.

3. Accumulating Savings

A function performed by financial institutions is the accumulation or gathering of individual savings. Most individuals, businesses, and organizations do not want to take the risks involved in having cash on hand. Even if cash amounts are relatively small, these are put into a depository institution for safekeeping. When all the deposits are accumulated in one place, they can be used for loans and investments in amounts much larger than any individual depositor could supply.

4. Lending and Investing Savings

Another basic function of financial institutions is lending and investing. The money that has been put into these intermediaries may be lent to businesses, farmers, consumers, institutions, and governmental units. It may be lent for varying periods and for different purposes, such as to buy equipment or to pay current bills. Some financial institutions make almost all types of loans. Others specialize in only one or two types of lending. Still other financial institutions invest all or part of their accumulated savings in the stock of a business or in debt obligations of businesses or other institutions.

5. Marketing Financial Assets

New financial instruments and securities are created and sold in the primary securities market. For example, a business may want to sell shares of ownership, called stock, to the general public. It can do so directly, but the process of finding individuals interested in investing funds in the business is likely to be difficult, costly, and time consuming. One particular financial intermediary—an investment banking firm—can handle the sale of shares of ownership. The function of the investment banking firm is essentially one of merchandising. Brokerage firms market existing, or “seasoned,” instruments and securities.

Initial public offering (IPOs) occur when a privately-owned company decides to raise revenue, offering ownership shares of stock or debt securities to the public for the first time. **A seasoned issue** occurs when a company that was previously listed releases additional shares or debt instruments.

6. Transferring Financial Assets

Several types of financial institutions facilitate or assist in the processes of lending and selling securities. Brokerage firms market and facilitate the transferring of existing, or seasoned, instruments and securities. Also, if shares of stock are to be sold to the general public, it is desirable to have a ready market in which such stocks can be resold when the investor desires. [Organized stock exchanges](#) and [the over-the-counter market](#) provide active secondary markets for existing securities. The ability to buy and sell securities both quickly and at fair-market values is important in an efficient financial system.

	Over-the-Counter Market	Exchange-Traded Market
Contract terms	Separately negotiated	Standardized
Size of a trade	Parties to the transaction agree on the size.	Set by the exchange, depends on the product and standardized specifications. May need to purchase multiple contracts, depending on how much of the product is required.
Price	Parties determined price through negotiation.	Generally reflects the value market participants trade at. Price is disseminated by price-reporting services.
Legal requirements	Separately agreed and documented between the parties, although form “master agreements” are usually set forth in general terms with annexes used to customize the agreement.	Parties agree to abide by the rules of the exchange, which are legally binding.
Transparency	Little if any transparency	Highly transparent
Counterparty risk	Each party determines the risk of its counterparty and limits its transactions according to its own risk appetite for that counterparty.	Exchange clearinghouses guarantee the transaction, eliminating the need to consider the counterparty’s risk profile. However, should look at exchange guarantee system to ensure comfort with exchange clearinghouse guarantee system and risk.
Collateral	Individually negotiated and held by the party demanding the collateral.	Broker requires collateral from its customer, which is calculated on the exchange’s margin requirements, although the broker may ask for more from the customer than the exchange may require. The broker transfers the margin to the exchange to cover all its customer positions at that exchange. The broker’s margin requirement is tied directly to the exchange’s margin requirements.

FIGURE 6.10 A General Comparison between OTC and Exchange Markets

5. Financial Markets: Characteristics and Types

Financial markets facilitate the raising of financial capital by government entities and business firms. Government entities can issue or sell debt securities to finance the building of roads and bridges or to provide added services to the people. Business firms can issue debt securities, and corporations can sell equity securities or stocks to raise funds to invest in and grow their businesses. Financial markets also facilitate the transfer of previously issued debt and equity securities from existing to new investors.

1. Money and Capital Markets

Money markets are where debt securities with maturities of one year or less are issued and traded. These markets are generally characterized by high liquidity whereby money market securities can be easily sold or traded with little loss of value. These short-lived securities generally have low returns and low risk.

Capital markets are where debt instruments or securities with maturities longer than one year and corporate stocks or equity securities are issued and traded. Capital market securities are generally issued to finance the purchase of homes by individuals, buildings and equipment by businesses, and for provision of infrastructure (roads, bridges, buildings, etc.) by governments. Business firms and governments issue long-term debt securities, called **bonds**, to finance their assets and operations. **Mortgages** are issued to finance homes and buildings. Corporations also issue stocks to meet their financing needs.

2. Primary and Secondary Markets

There are primary and secondary markets for debt (bonds and mortgages) and equity securities. The initial offering, or origination, of debt and equity securities takes place in a **primary market**. Proceeds from the sale of new securities after issuing costs go to the issuing business or government issuer. The primary market is the only “market” where the security issuer directly benefits (receives funds) from the sale of its securities. Mortgage loans provide financing for the purchase of homes and other real property.

Secondary markets are physical locations or electronic forums where debt (bonds and mortgages) and equity securities are traded. Secondary markets for securities facilitate the transfer of previously issued securities from existing investors to new investors. Security transactions or transfers typically take place on organized security exchanges or in the electronic over-the-counter market.

Individuals and other investors can actively buy and sell existing securities in the secondary market. While these secondary market investors may make gains or losses on their securities investments, the issuer of the securities does not benefit (nor does it lose) from these activities. The secondary market for securities is typically divided into short-term (money) and long-term (capital) market categories. There also is an active secondary market for real estate mortgages.

Major Types of Financial Markets

There are four main types of financial markets—debt securities markets, equity securities markets, derivative securities markets, and foreign exchange markets. **Debt securities** are obligations to repay borrowed funds. **Debt securities markets** are markets where money market securities, bonds (corporate, financial institution, and government), and mortgages are originated and traded. **Bond markets** are where debt securities with longer-term maturities are originated and traded. Government entities (federal, state, and local), financial institutions, and business firms can issue bonds.

Mortgage markets are where loans to purchase real estate (buildings and houses) are originated and traded.

Equity securities, also called common stocks, are ownership shares in corporations. **Equity securities markets** are markets where ownership shares in corporations are initially sold and traded. Corporations can raise funds either through a *private placement*, which involves issuing new common stocks directly to specific investors, or through a *public offering*, which involves selling new common stocks to the general public. Financial institutions can also raise equity capital by selling common stocks in their firms.

There are also **derivative securities markets**, which are markets for financial contracts or instruments that derive their values from underlying debt and equity securities. A familiar form of *derivative security* is the opportunity to buy or sell a corporation's equity securities for a specified price and within a certain amount of time. Derivative securities may be used to speculate on the future price direction of the underlying financial assets or to reduce price risk associated with holding the underlying financial assets. Organized exchanges handle standardized derivative security contracts, while negotiated contracts are handled in electronic markets often involving commercial banks or other financial institutions.

Foreign exchange markets (also called FOREX markets) are electronic markets in which banks and institutional traders buy and sell various currencies on behalf of businesses and other clients. In the global economy, consumers may want to purchase goods produced or services provided in other countries. Likewise, an investor residing in one country may wish to hold securities issued in another country.

For example, a U.S. consumer may wish to purchase a product in a foreign country. If the product is priced in the foreign country's currency, it may be necessary to exchange U.S. dollars for the foreign currency in order to complete the transaction. Businesses that sell their products in foreign countries usually receive payment in the foreign currencies. However, because the relative values of currencies may change, firms often use the currency exchange markets to reduce the risk of holding too much of certain currencies.

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