Fundamentals of Financial Management 14th edition Brigham Solutions Manual

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Chapter 2
Financial Markets and Institutions

Learning Objectives

After reading this chapter, students should be able to:

- Identify the different types of financial markets and financial institutions, and explain how these markets and institutions enhance capital allocation.
- Explain how the stock market operates, and list the distinctions between the different types of stock markets.
- Explain how the stock market has performed in recent years.
- Discuss the importance of market efficiency, and explain why some markets are more efficient than others.
- Develop a simple understanding of behavioral finance.

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Lecture Suggestions

Chapter 2 presents an overview of financial markets and institutions. Students definitely have an interest in financial markets and institutions. We base our lecture on the integrated case. The case goes systematically through the key points in the chapter, and within a context that helps students see the real world relevance of the material in the chapter. We ask the students to read the chapter, and also to "look over" the case before class. However, our class consists of about 1,000 students, many of whom view the lecture on TV, so we cannot count on them to prepare for class. For this reason, we designed our lectures to be useful to both prepared and unprepared students.

Since we have easy access to computer projection equipment, we generally use the electronic slide show as the core of our lectures. We make the electronic slides available to our students, and we strongly suggest to our students that they print a copy of the *PowerPoint* slides for the chapter and bring it to class. This will provide them with a hard copy of our lecture, and they can take notes in the space provided. Students can then concentrate on the lecture rather than on taking notes.

We do not stick strictly to the slide show—we go to the board frequently to present somewhat different examples, to help answer questions, and the like. We like the spontaneity and change of pace trips to the board provide, and, of course, use of the board provides needed flexibility. Also, if we feel that we have covered a topic adequately at the board, we then click quickly through one or more slides.

The lecture notes we take to class consist of our own marked-up copy of the *PowerPoint* slides, with notes on the comments we want to say about each slide. If we want to bring up some current event, provide an additional example, or the like, we use post-it notes attached at the proper spot. The advantages of this system are (1) that we have a carefully structured lecture that is easy for us to prepare (now that we have it done) and for students to follow, and (2) that both we and the students always know exactly where we are. The students also appreciate the fact that our lectures are closely coordinated with both the text and our exams.

The slides contain the essence of the solution to each part of the integrated case, but we also provide more in-depth solutions in this *Instructor's Manual*. It is not essential, but you might find it useful to read through the detailed solution. Also, we put a copy of the solution on reserve in the library for interested students, but most find that they do not need it. Finally, we remind students again, at the start of the lecture on Chapter 2, that they should bring a printout of the *PowerPoint* slides to class; otherwise, they will find it difficult to take notes.

DAYS ON CHAPTER: 2 OF 56 DAYS (50-minute periods)

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Answers to End-of-Chapter Questions

2-1 The prices of goods and services must cover their costs. Costs include labor, materials, and capital. Capital costs to a borrower include a return to the saver who supplied the capital, plus a mark-up (called a "spread") for the financial intermediary that brings the saver and the borrower together. The more efficient the financial system, the lower the costs of intermediation, the lower the costs to the borrower, and, hence, the lower the prices of goods and services to consumers.

2-2 In a well-functioning economy, capital will flow efficiently from those who supply capital to those who demand it. This transfer of capital can take place in three different ways:

1. Direct transfers of money and securities occur when a business sells its stocks or bonds directly to savers, without going through any type of financial institution. The business delivers its securities to savers, who, in turn, give the firm the money it needs.
2. Transfers may also go through an investment bank that underwrites the issue. An underwriter serves as a middleman and facilitates the issuance of securities. The company sells its stocks or bonds to the investment bank, which then sells these same securities to savers. The businesses' securities and the savers' money merely "pass through" the investment bank.
3. Transfers can also be made through a financial intermediary. Here the intermediary obtains funds from savers in exchange for its own securities. The intermediary uses this money to buy and hold businesses' securities, while the savers hold the intermediary's securities. Intermediaries literally create new forms of capital. The existence of intermediaries greatly increases the efficiency of money and capital markets.

2-3 A primary market is the market in which corporations raise capital by issuing new securities. An initial public offering (IPO) is a stock issue in which privately held firms go public. Therefore, an IPO would be an example of a primary market transaction.

2-4 A money market transaction occurs in the financial market in which funds are borrowed or loaned for short periods (less than one year). A capital market transaction occurs in the financial market in which stocks and intermediate—or long-term debt (one year or longer)—are issued.

a. A U.S. Treasury bill is an example of a money market security.

b. Long-term corporate bonds are examples of capital market securities.

c. Common stocks are examples of capital market securities.

d. Preferred stocks are examples of capital market securities.

e. Dealer commercial paper is an example of a money market security.

2-5 If people lost faith in the safety of financial institutions, it would be difficult for firms to raise capital. Thus, capital investment would slow down, unemployment would rise, the output of goods and services would fall, and, in general, our standard of living would decline.

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2-6 Financial markets have experienced many changes during the last two decades. Technological advances in computers and telecommunications, along with the globalization of banking and commerce, have led to deregulation, which has increased competition throughout the world. As a result, there are more efficient, internationally linked markets, which are far more complex than what existed a few years ago. While these developments have been largely positive, they have also created problems for policy makers. With these concerns in mind, Congress and regulators have moved to reregulate parts of the financial sector following the recent financial crisis.

Globalization has exposed the need for greater cooperation among regulators at the international level. Factors that complicate coordination include (1) the different structures in nations' banking and securities industries; (2) the trend toward financial services conglomerates, which obscures developments in various market segments; and (3) the reluctance of individual countries to give up control over their national monetary policies. Still, regulators are unanimous about the need to close the gaps in the supervision of worldwide markets.

Another important trend in recent years has been the increased use of derivatives. The market for derivatives has grown faster than any other market in recent years, providing investors with new opportunities but also exposing them to new risks. Derivatives can be used either to reduce risks or to speculate. Derivatives should allow companies to better manage risk but it's not clear whether recent innovations have "increased or decreased the inherent stability of the financial system."

2-7 The physical location exchanges are tangible entities. Each of the larger ones occupies its own building, allows a limited number of people to trade on its floor, and has an elected governing body. A dealer market includes all facilities that are needed to conduct security transactions not conducted on the physical location exchanges. The dealer market system consists of (1) the relatively few dealers who hold inventories of these securities and who are said to "make a market" in these securities; (2) the thousands of brokers who act as agents in bringing the dealers together with investors; and (3) the computers, terminals, and electronic networks that provide a communication link between dealers and brokers.

2-8 The two leading stock markets today are the New York Stock Exchange (NYSE) and the Nasdaq stock market. The NYSE is a physical location exchange, while the Nasdaq is an electronic dealer-based market.

2-9 There is an "efficiency continuum," with the market for some companies' stocks being highly efficient and the market for other stocks being highly inefficient. The key factor is the size of the company—the larger the firm, the more analysts tend to follow it and thus the faster new information is likely to be reflected in the stock's price. Also, different companies communicate better with analysts and investors; and the better the communications, the more efficient the market for the stock.



2-10 **a.** False; derivatives can be used either to reduce risks or to speculate.

b. True; hedge funds have large minimum investments and are marketed to institutions and individuals with high net worths. Hedge funds take on risks that are considerably higher than that of an average individual stock or mutual fund.

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c. False; hedge funds are largely unregulated because hedge funds target sophisticated investors.

d. True; the NYSE is a physical location exchange with a tangible physical location that conducts auction markets in designated securities.

e. False; a larger bid-ask spread means the dealer will realize a higher profit.

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Integrated Case

2-1
Smyth Barry & Company
Financial Markets and Institutions

Assume that you recently graduated with a degree in finance and have just reported to work as an investment adviser at the brokerage firm of Smyth Barry & Co. Your first assignment is to explain the nature of the U.S. financial markets to Michelle Varga, a professional tennis player who recently came to the United States from Mexico. Varga is a highly ranked tennis player who expects to invest substantial amounts of money through Smyth Barry. She is very bright; therefore, she would like to understand in general terms what will happen to her money. Your boss has developed the following questions that you must use to explain the U.S. financial system to Varga.

A.	**What are the three primary ways in which capital is transferred between savers and borrowers? Describe each one.**

Answer: **[Show S2-1 through S2-3 here.] Transfers of capital can be made (1) by direct transfer of money and securities, (2) through an investment bank, or (3) through a financial intermediary. In a direct transfer, a business sells its stocks or bonds directly to investors (savers), without going through any type of institution. The business borrower receives dollars from the savers, and the savers receive securities (bonds or stock) in return.**

If the transfer is made through an investment bank, the investment bank serves as a middleman. The business sells its securities to the investment bank, which in turn sells them to the savers. Although the securities are sold twice, the two sales constitute one complete transaction in the primary market.

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If the transfer is made through a financial intermediary, savers invest funds with the intermediary, which then issues its own securities in exchange. Banks are one type of intermediary, receiving dollars from many small savers and then lending these dollars to borrowers to purchase homes, automobiles, vacations, and so on, and also to businesses and government units. The savers receive a certificate of deposit or some other instrument in exchange for the funds deposited with the bank. Mutual funds, insurance companies, and pension funds are other types of intermediaries.

B.	**What is a market? Differentiate between the following types of markets: physical asset markets versus financial asset markets, spot markets versus futures markets, money markets versus capital markets, primary markets versus secondary markets, and public markets versus private markets.**

Answer: **[Show S2-4 and S2-5 here.] A market is a venue where assets are bought and sold. There are many different types of financial markets, each one dealing with a different type of financial asset, serving a different set of customers, or operating in a different part of the country. Financial markets differ from physical asset markets in that real, or tangible, assets such as machinery, real estate, and agricultural products are traded in the physical asset markets, but financial securities representing claims on assets are traded in the financial markets. Spot markets are markets in which assets are bought or sold for "on-the-spot" delivery, while futures markets are markets in which participants agree today to buy or sell an asset at some future date.**

Money markets are the markets in which debt securities with maturities of less than one year are traded. New York, London, and

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Tokyo are major money market centers. Longer-term securities, including stocks and bonds, are traded in the capital markets. The New York Stock Exchange is an example of a capital market, while the New York commercial paper and Treasury bill markets are money markets.

Primary markets are markets in which corporations raise capital by issuing new securities, while secondary markets are markets in which securities and other financial assets are traded among investors after they have been issued by corporations. Private markets, where transactions are worked out directly between two parties, are differentiated from public markets, where standardized contracts are traded on organized exchanges.

C.	**Why are financial markets essential for a healthy economy and economic growth?**

Answer: **[Show S2-6 here.] In a global context, economic development is highly correlated with the level and efficiency of financial markets and institutions. It is difficult, if not impossible, for an economy to reach its full potential if it doesn't have access to a well-functioning financial system.**

A healthy economy is dependent on efficient funds transfers from people who are net savers to firms and individuals who need capital. Without efficient transfers, the economy simply could not function. Obviously, the level of employment and productivity, hence our standard of living, would be much lower. Therefore, it is absolutely essential that our financial markets function efficiently—not only quickly, but also at a low cost.

D.	**What are derivatives? How can derivatives be used to reduce risk? Can derivatives be used to increase risk? Explain.**

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Answer: **[Show S2-7 here.] Derivatives are any financial asset whose value is derived from the value of some other "underlying" asset. Derivatives can be used either to reduce risks or to speculate. For an example of risk reduction, suppose an importer's costs rise and its net income falls when the dollar falls relative to the yen. The company could reduce its risk by purchasing derivatives whose values increase when the dollar declines. This is a hedging operation, and its purpose is to reduce risk exposure. Speculation, on the other hand, is done in the hope of high returns, but it raises risk exposure.**

E. **Briefly describe each of the following financial institutions: investment banks, commercial banks, financial services corporations, pension funds, mutual funds, exchange traded funds, hedge funds, and private equity companies.**

Answer: **[Show S2-8 here.] Investment banks are organizations that underwrite and distribute new investment securities and help businesses obtain financing.**

Commercial banks are the traditional department stores of finance serving a variety of savers and borrowers. Historically, they were the major institutions that handled checking accounts and through which the Federal Reserve System expanded or contracted the money supply. Today, however, several other institutions also provide checking services and significantly influence the money supply. Conversely, commercial banks are providing an ever-widening range of services, including stock brokerage services and insurance.

Financial services corporations are large conglomerates that combine many different financial institutions within a single

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corporation. Most financial services corporations started in one area but have now diversified to cover most of the financial spectrum.

Pension funds are retirement plans funded by corporations or government agencies for their workers and are administered primarily by the trust departments of commercial banks or by life insurance companies. Pension funds invest primarily in bonds, stocks, mortgages, and real estate.

Mutual funds are corporations that accept money from savers and then use these funds to buy stocks, long-term bonds, or short-term debt instruments issued by businesses or government units. These organizations pool funds and thus reduce risks by diversification.

Exchange traded funds (ETFs) are similar to regular mutual funds and are often operated by mutual fund companies. ETFs buy a portfolio of stocks of a certain type—for example S&P 500—and then sell their own shares to the public.

Hedge funds are similar to mutual funds because they accept money from savers and use the funds to buy various securities, but there are some important differences. While mutual funds are registered and regulated by the SEC, hedge funds are largely unregulated. This difference in regulation stems from the fact that mutual funds typically target small investors, whereas hedge funds typically have large minimum investments (often exceeding $1 million) that are marketed primarily to institutions and individuals with high net worths. These funds received their name because they traditionally were used when an individual was trying to hedge risks.

Private equity companies are organizations that operate much like hedge funds, but rather than buying some of the stock of a firm,

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private equity players buy and then manage entire firms. Most of the money used to buy the target companies is borrowed.

F.	**What are the two leading stock markets? Describe the two basic types of stock markets.**

Answer: **[Show S2-9 here.] The two leading stock markets today are the New York Stock Exchange and the Nasdaq stock market. There are just two basic types of stock markets: (1) physical location exchanges, which include the New York Stock Exchange (NYSE), and (2) electronic dealer-based markets that include the Nasdaq stock market, the less formal over-the-counter market, and the recently developed electronic communications networks (ECNs).**

The physical location exchanges are formal organizations having tangible, physical locations and trading in designated securities. There are exchanges for stocks, bonds, commodities, futures, and options. The physical location exchanges are conducted as auction markets with securities going to the highest bidder. Buyers and sellers place orders with their brokers who then execute those orders by matching buyers and sellers, although specialists assist in providing continuity to the markets.

The electronic dealer-based market is made up of hundreds of brokers and dealers around the country who are connected electronically by telephones and computers. The dealer-based market facilitates trading of securities that are not listed on a physical location exchange. A dealer market is defined to include all facilities that are needed to conduct security transactions not made on the physical location exchanges. These facilities include (1) the relatively few dealers who hold inventories of these securities and who are said to make a market in these securities; (2) the thousands of brokers who

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act as agents in bringing the dealers together with investors; and (3) the computers, terminals, and electronic networks that provide a communication link between dealers and brokers. Dealers continuously post a price at which they are willing to buy the stock (the bid price) and a price at which they are willing to sell the stock (the ask price). The ask price is always higher than the bid price, and the difference (or "bid-ask spread") represents the dealer's markup, or profit.

G.	If Apple Computer decided to issue additional common stock and Varga purchased 100 shares of this stock from Smyth Barry, the underwriter, would this transaction be a primary or a secondary market transaction? Would it make a difference if Varga purchased previously outstanding Apple stock in the dealer market? Explain.

Answer: [Show S2-10 here.] If Varga purchased newly issued Apple stock, this would constitute a primary market transaction, with Smyth Barry acting as an investment banker in the transaction. If Varga purchased "used" stock, then the transaction would be in the secondary market.

H.	What is an initial public offering (IPO)?

Answer: [Show S2-11 here.] An initial public offering (IPO) occurs when a company issues stock in the public market for the first time. "Going public" enables a company's owners to raise capital from a wide variety of outside investors. Once issued, the stock trades in the secondary market.

[Show S2-12 and S2-13 here. Use these slides to show market performance in recent years and how to read a stock quote.]

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I.	**What does it mean for a market to be efficient? Explain why some stock prices may be more efficient than others.**

Answer: **[Show S2-14 here.] If markets are efficient, investors can buy and sell stocks and be confident that they are getting good prices. If markets are inefficient, then investors will be afraid to invest, and this will lead to a poor allocation of capital and economic stagnation. So from an economic standpoint, market efficiency is clearly good.**

There is an "efficiency continuum," with the market for some companies' stocks being highly efficient and that for other stocks highly inefficient. The key factor is the size of the company—the larger the firm, the more analysts tend to follow it, and thus the faster new information is likely to be reflected in the stock's price. Also, different companies communicate better with analysts and investors generally, and the better the communications, the more efficient the market for the stock.

J.	**After your consultation with Michelle, she wants to discuss these two possible stock purchases:**
(1)	**While in the waiting room of your office, she overheard an analyst on a financial TV network say that a particular medical research company just received FDA approval for one of its products. On the basis of this "hot" information, Michelle wants to buy many shares of that company's stock. Assuming the stock market is highly efficient, what advice would you give her?**

Answer: **[Show S2-15 here.] If the market is highly efficient, this stock's market price will have already incorporated this information. So it's probably too late for her to "capitalize" on the information. There**

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would be no gains to be made on this stock on the basis of the recent FDA approval because its price already reflects this information.

J. (2)	She has read a number of newspaper articles about a huge IPO being carried out by a leading technology company. She wants to purchase as many shares in the IPO as possible and would even be willing to buy the shares in the open market immediately after the issue. What advice do you have for her?

Answer: [Show S2-16 here.] Not all IPOs are well received. And, even if you are able to identify a "hot" issue, it is often difficult to purchase shares in the initial offering. These deals are generally oversubscribed, which means that the demand for shares at the offering price exceeds the number of shares issued. In such instances, investment bankers favor large institutional investors (who are their best customers), and small investors find it hard, if not impossible, to get in on the ground floor. She can purchase the stock in the after-market, but evidence suggests that if you do not get in on the ground floor the average IPO underperforms the overall market over the long run.

K.	How does behavioral finance explain the real world inconsistencies of the efficient markets hypothesis (EMH)?

Answer: [Show S2-17 here.] Behavioral finance borrows insights from psychology to better understand how irrational behavior can be sustained over time. It is often difficult for traders to take advantage of mispriced assets. In addition, experiments indicate that investors and managers behave differently in down markets than they do in up markets. Also, individuals tend to overestimate their true abilities. This overconfidence may stem from two other biases: self-attribution bias and hindsight bias. Self-attribution bias refers to people's

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tendency to ascribe any success they have in an activity to their own talents, while blaming failure on bad luck rather than on their ineptitude. Hindsight bias is the tendency of people to believe, after an event has occurred, that they predicted it before it actually happened.

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