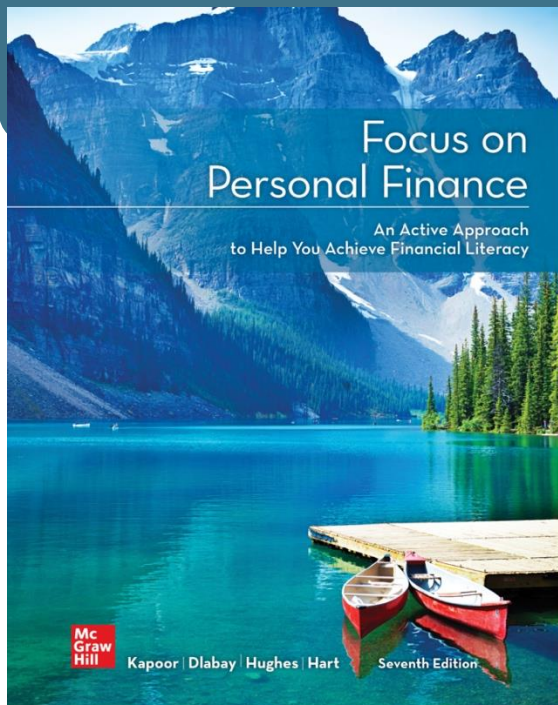


Chapter 12

Investing in Stocks



YinYang/Getty Images



Investing in Stocks

Chapter Learning Objectives

- LO12.1** Identify the most important features of common and preferred stock.
- LO12.2** Explain how you can evaluate stock investments.
- LO12.3** Analyze the numerical measures that cause a stock to increase or decrease in value.
- LO12.4** Describe how stocks are bought and sold.
- LO12.5** Explain the trading techniques used by long-term investors and short-term speculators.

Common and Preferred Stock

LO12.1

- Many investors face two concerns when they begin an investment program:
 1. They don't know where to get the information they need to evaluate potential investments
 2. They sometimes worry that they won't know what the information means when they do find it
- Common sense goes a long way when evaluating potential investments
 - Is an increase in sales revenues a healthy sign for a corporation? (*Answer: yes*)
 - Should a firm's profits increase or decrease over time? (*Answer: yes*)



The Psychology of Stock Investing

- Why invest in stocks?
 - For almost 100 years, stocks have returned an average return of a little less than 10% per year – well above the nation's inflation rate
 - Investors who want larger returns choose stocks
- Remember three facts:
 1. While the almost 10% average annual return on stock investments is enticing, keep in mind the value of stocks can also decrease
 2. There is risk when you invest in stocks
 3. The key to success with any investment program is often allowing your investments to work for you over a long period of time, and stocks are no exception

Why Corporations Issue Common Stock

- **Common stock** is the most basic form of ownership for a corporation
- Corporate managers prefer selling common stock as a method of financing for several reasons:
 - Stock is **equity financing**; money obtained from equity financing doesn't have to be repaid and the company doesn't have to buy back shares from the stockholders
 - **Dividends** are paid out of profits; they are not mandatory
 - Corporations are required to have an annual meeting at which stockholders have a right to vote, either in person or by **proxy**
 - Stockholders elect the corporation's board of directors and must approve major changes in corporate policies

Why Investors Purchase Common Stock

- **Income from dividends**

- Corporation's board members are under no legal obligation to pay dividends
- If the board declares a cash dividend, each common stockholder receives an equal amount per share
- Most companies pay dividends on a quarterly basis
- **Record date** is the date on which a stockholder must be registered on the corporation's books in order to receive dividend payments

- **Dollar appreciation of stock value**

- Stock price may change if potential investors or current stockholders receive information about the firm of its future prospects



What Happens When a Corporation Splits Its Stock

- **Stock split** is a procedure in which the shares of stock owned by existing stockholders are divided into a larger number of shares
 - Most common stock splits are 2-for-1, 3-for-1, or 4-for-1
 - Example: If a firm declares a 2-for-1 stock split, a stockholder who had previously owned 100 shares would own 200 shares after the split
- Why do corporations split their stock?
 - Management often has a theoretical ideal price range for the firm's stock, and if the price per share has risen above the ideal range, a stock split brings the price per share back in line
 - Decision to split stock and resulting, lower price may make the stock more attractive to the investing public

Preferred Stock

- **Preferred stock** is a type of stock that gives the owner the advantage of receiving cash dividends before common stockholders are paid any dividends
 - Dollar amount of dividend on preferred stock is known before the stock is purchased
- Referred to as “middle” investments because they represent an investment midway between common stock and corporate bonds
 - Compared to corporate bonds, yield on preferred stocks is often higher but preferred stock is often less secure
 - Compared to common stocks, preferred stocks are safer investments that offer more secure dividends
- Compared to the sale of common stock, issuance of preferred stock is used less often and by fewer firms

12-8

Evaluating a Stock Issue

LO12.2

- Many people purchase investments without doing *any* research, but it is important to evaluate the corporation issuing the stock and the industry in which it operates
- Keep in mind the nation's (and even the world's) economy—the big picture—may impact the way a corporation operates and cause a corporate stock to increase or decrease in value
- Another factor to consider when evaluating stocks is the amount of risk you are comfortable with
 - *Systematic risk* occurs because of overall risks in the market and the economy, while *unsystematic risk* affects a specific company or a specific industry

Classification of Stock Investments

Exhibit 12-3

Type of Stock	Characteristics of This Type of Investment
Blue chip	A stock that is issued by large, stable corporations that often have a history of paying dividends and that generally attracts conservative investors.
Cyclical	A stock that follows the business cycle of advances and declines in the economy.
Defensive	A stock that remains stable during declines in the economy.
Growth	A stock issued by a corporation that has the potential of increasing sales revenues and earning profits above the average of all firms in the economy.
Income	An investment that pays regular and often higher-than-average dividends.
Large-cap	A stock that is issued by a corporation that has a large amount of capitalization in excess of \$10 billion.
Micro-cap	A stock that is issued by a company that has a capitalization of between \$50 million and \$300 million.
Mid-cap	A stock that is issued by a corporation that has a capitalization of between \$2 billion and \$10 billion.
Penny	A stock that typically trades for less than \$5 per share (or in some cases, less than \$1 per share) and has a small amount of capitalization.
Small-cap	A stock that is issued by a company that has a capitalization of between \$300 million and \$2 billion.

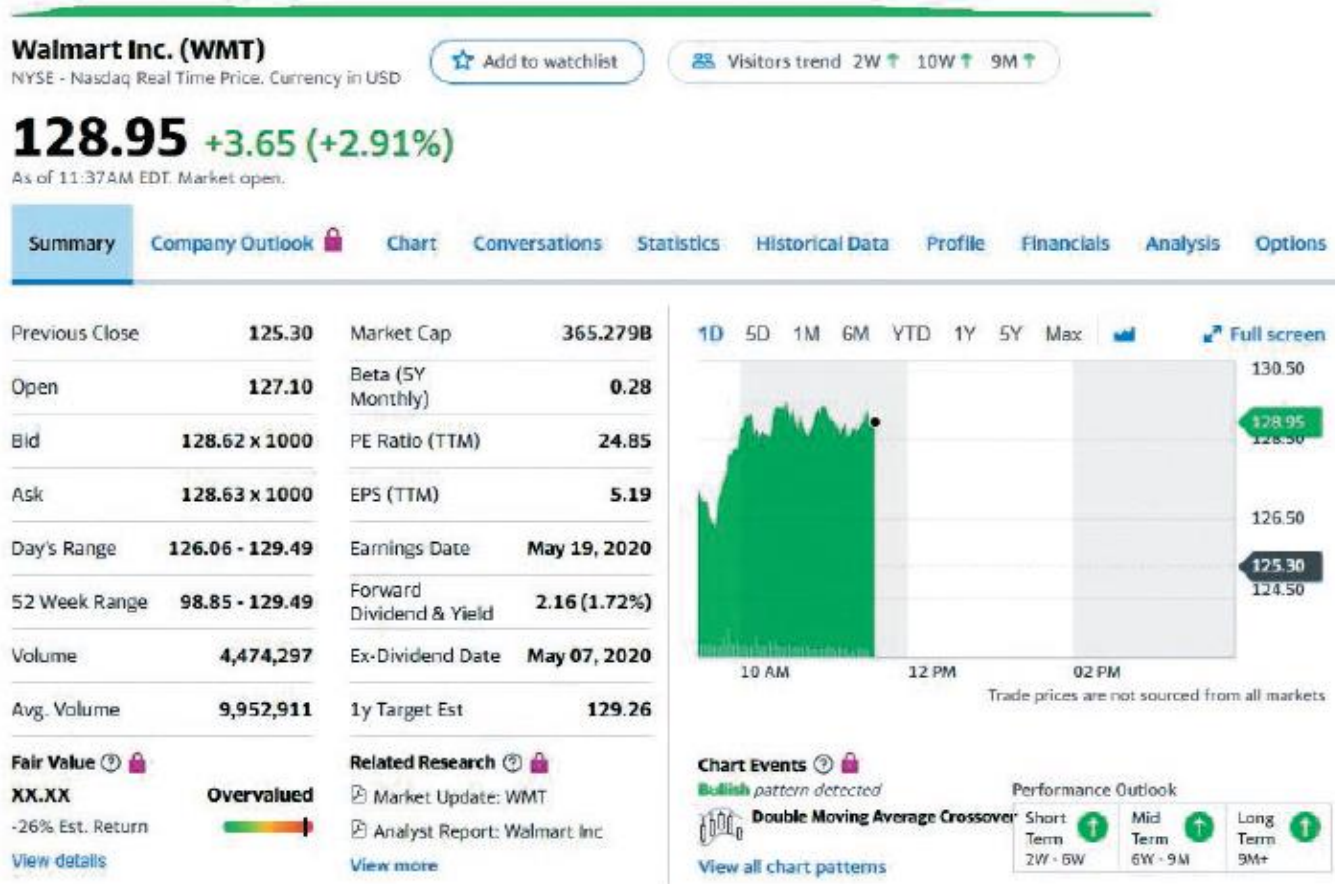


The Internet

- Most corporations have a website, and the information such sites provide is especially useful
 - Easily accessible
 - May be more up-to-date and thorough than printed material obtained from the corporation or outside sources
- Internet search engines
 - E.g., Google, Yahoo!, and others
- Personal finance websites
 - E.g., Motley Fool, Kiplinger, and The Balance
- Financial news
 - E.g., The Street, Market Watch, MSN Money, and CNN Business

A Portion of the Opening Page from the Yahoo! Finance Website for Walmart

Exhibit 12-4



Yahoo! Finance, <https://finance.yahoo.com/quote/WMT?p=WMT&.tsrc=fin-srch>, accessed April 14, 2020

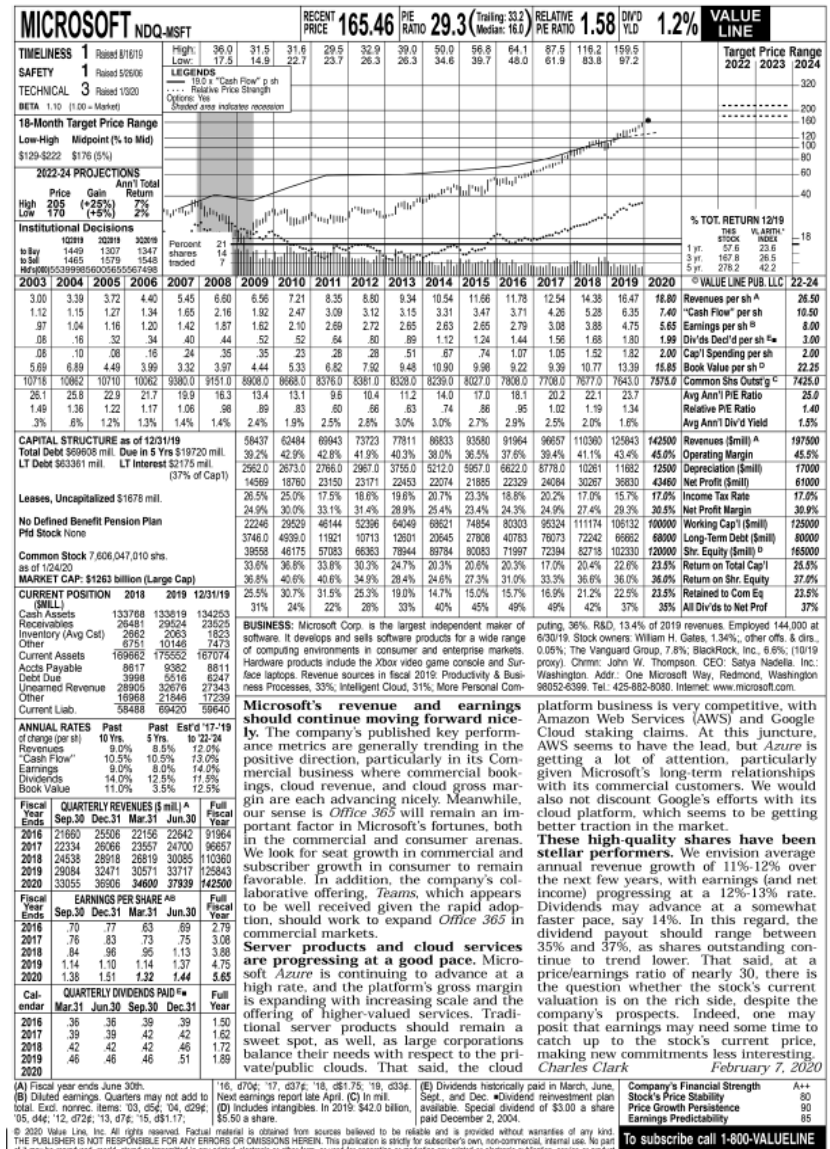
Stock Advisory Services

- Information provided by stock advisory services ranges from simple alphabetical listings to detailed financial reports
 - While some information is free, the more detailed online information is often provided for a charge
- Three most widely used services:
 1. Value Line
 2. Morningstar
 3. Zacks

Newspaper Coverage and Corporate News

- While some newspapers have eliminated or reduced the amount of financial coverage they offer, *The Wall Street Journal* and most metropolitan newspapers still contain some information about stocks
 - Typical information provided by newspapers includes the name of the company, stock symbol, current price information, and net change from one day to the next
- Federal government requires corporations selling new issues of securities to disclose information
 - SEC website supplies information a corporation has reported to the federal government
- Many periodicals contain information about stock investing

Value Line Report for Microsoft Corporation Exhibit 12-5



Microsoft," The Value Line Investment Survey, Value Line Publishing, LLC., 2020, Used with permission of Value Line Publishing

Numerical Measures that Influence Investment Decisions

LO12.3

- How do you determine whether the time is right to buy or sell a particular stock?
- Corporate earnings are one of the most significant factors that account for an increase or decrease in the value of a stock
 - Higher earnings generally equate to higher stock prices; the reverse is also true
- **Earnings per share (EPS)** are a corporation's earnings divided by the number of outstanding shares of a firm's common stock
 - Measure of the company's profitability
 - As a general rule, an increase in EPS is a healthy sign

12-16



Numerical Measures that Influence Investment Decisions (Continued)

- **Price-earnings ratio** is the price of a share of stock divided by the corporations EPS of stock
 - Gives investors an idea of how much they are paying for a company's earning power
 - The higher the price-earnings ratio, the more investors are paying for earnings
 - Stocks with high PE ratios often indicate investor optimism because of the expectation of higher earnings in the future, while lower PE ratios indicate investors have lower earnings expectations for a company's stock
 - Average PE ratio for market is usually between 15 - 25
- Projected earnings are estimated future earnings

EPS and PE Ratio Examples

EXAMPLE: Earnings per Share (General Mills)

General Mills's earnings are \$1,753 million. Also assume that General Mills has 605 million shares of common stock. Earnings per share are \$2.90 as illustrated below.

$$\begin{aligned}\text{Earnings per share} &= \frac{\text{Earnings}}{\text{Number of shares outstanding}} \\ &= \frac{\$1,753 \text{ million}}{605 \text{ million}} = \$2.90\end{aligned}$$

EXAMPLE: Price-Earnings (PE) Ratio (ULTA BEAUTY)

ULTA Beauty's common stock is selling for \$296 a share. ULTA Beauty's earnings per share are \$11. The corporation's price-earnings ratio is 27, as illustrated below.

$$\begin{aligned}\text{Price-earnings (PE) ratio} &= \frac{\text{Price per share}}{\text{Earnings per share}} \\ &= \frac{\$296}{\$11} = 27\end{aligned}$$



Dividend Yield and Total Return

- **Dividend yield** is the annual dividend amount divided by the stock's current price per share
 - Increase in dividend yield is a healthy sign for any stock investment
 - Though dividend yield is useful, you should also consider whether the stock's price per share is increasing or decreasing in dollar value
- **Total Return** is a calculation that includes the yearly dividend amount as well as any increase or decrease in the original purchase price of the investment

Dividend Yield and Total Return Examples

EXAMPLE: Dividend Yield (Walmart)

A share of Walmart stock pays an annual dividend of \$2.16 and is currently selling for \$125.30 a share. The current dividend yield is 1.72 percent.

$$\begin{aligned}\text{Dividend yield} &= \frac{\text{Annual dividend amount}}{\text{Current price per share}} \\ &= \frac{\$2.16}{\$125.30} = 0.0172, \text{ or } 1.72\%\end{aligned}$$

EXAMPLE: Total Return (Pepsico)

Assume you own 100 shares of Pepsico stock that you purchased for \$113 a share and hold your stock for one year before selling it for \$143 a share. The increase in value is \$3,000. Dividend income totaled \$380. Your total return is \$3,380.

$$\begin{aligned}\text{Total return} &= \text{Dividends} + \text{Capital gain} \\ &= \$380 + \$3,000 = \$3,380\end{aligned}$$

Beta and Book Value

- **Beta** is a measure that compares the volatility associated with a specific stock issue with the volatility of the stock market or an index
 - Market beta is 1.0, with most stocks having betas that range between 0.5 and 2.0
 - Conservative stocks tend to have low betas, while more speculative stocks have betas greater than one
 - Most betas are positive, but it is possible for beta to be negative
- **Book value** for a share of stock is determined by deducting all liabilities from the corporation's assets and dividing the remainder by the number of outstanding shares of common stock
 - Book value calculations may be misleading because the dollar amount of assets used in the formula may be understated or overstated on the firm's financial statements

Beta and Book Value Examples

EXAMPLE: Beta Calculation (Sony)

Assume that the overall stock market increases by 10 percent and that Sony has a beta of 1.40. Based on the calculation below, Sony stock will increase 14 percent when the market increases 10 percent.

$$\begin{aligned}\text{Volatility for a stock} &= \text{Increase in overall market} \times \text{Beta for a specific stock} \\ &= 10 \text{ percent} \times 1.40 \\ &= 0.14, \text{ or } 14\%\end{aligned}$$

EXAMPLE: Book Value (Southwest Airlines)

Assume Southwest Airlines has assets of \$26,243 million and liabilities of \$16,390 million. The company has also issued 573 million shares of stock.

$$\begin{aligned}\text{Book value} &= \frac{\text{Assets} - \text{Liabilities}}{\text{Number of shares outstanding}} \\ &= \frac{\$26,243 \text{ million} - \$16,390 \text{ million}}{573 \text{ million}} = \$17.20 \text{ per share}\end{aligned}$$



Other Factors that Affect the Price of a Stock

- Two other factors can affect the price of a stock:
 - Predicting future value for a share of stock is a practical example of time value of money concepts
 - Always remember that the price for a share of stock is determined by what another investor is willing to pay for it
- Price that a successful investor is willing to pay for a share of stock is determined by:
 - Amount of dividends you expect to receive in the future, or
 - Potential increase in the price for a share of stock, and/or
 - Combination of future dividends and a potential increase in the price of the stock



Making a Decision to Buy, Hold, or Sell a Stock

- Use the following suggestions to evaluate individual stocks:
 - Evaluate each investment
 - Access a professional advisory service
 - Analyze the firm's finances
 - Track the firm's product line
 - Monitor economic developments
 - Be patient

Buying and Selling Stocks

LO12.4

- In the **primary market**, you purchase financial securities, via an **investment bank** or other representative, from the issuer of those securities
 - **Investment bank** is a financial firm that assists corporations in raising funds, usually by helping to sell new security issues
- New security issues sold through investment bank can be issued by corporations that have sold stocks and securities before (and need to sell new issues) or they can be **initial public offerings (IPOs)**
- **Secondary market** is a market for existing financial securities that are currently traded among investors

Secondary Markets for Stocks

- **Securities exchange** is a marketplace where member brokers who represent investors meet to buy and sell securities
 - New York Stock Exchange (NYSE) is one of the largest securities exchanges in the world
 - Most members of the NYSE represent brokerage firms; other members are called *specialists* and buy or sell a particular stock to maintain a fair and orderly market
- **Over-the-counter (OTC) market** is a network of dealers who buy and sell the stocks of corporations that are not listed on a securities exchange
 - Most OTC securities are traded through **Nasdaq**, an electronic marketplace for stocks

Brokerage Firms and Account Executives

- **Account executive** (i.e., stockbroker) is a licensed individual who works for a brokerage firm and buys or sells securities for clients
 - You should have already determined your financial objectives before choosing an account executive
 - You must be careful to communicate those objectives to the account executive
 - You should be actively involved in the decisions related to your investment program, and you should never allow your account executive to use his or her discretion without your approval
 - Keep in mind account executives generally are not liable for client losses that result from their recommendations

Should You Use a Full-Service or a Discount Brokerage Firm?

Type of Brokerage Firm	Type of Investor
• Full-service	Beginning investors with little or no experience. Individuals who are uncomfortable making investment decisions. Individuals who are uncomfortable trading stocks online.
• Discount	People who understand how to research stocks and prefer to make their own decisions. Individuals who are comfortable trading stocks online.



Factors to Consider when Choosing Between a Full-Service or a Discount Brokerage Firm

- What commissions are charged?
- How much research information is available?
- How much help do you need when making an investment decision?
- How easy is it to buy and sell stock and other securities?
 - Can I buy or sell stocks using the Internet or over the phone?
 - What is the typical commission for a stock transaction?
 - Is there a toll-free telephone number for customer use?
 - Is there a charge for statements, research reports, and other financial reports?
 - Are there any fees in addition to the commissions I pay when I buy or sell stocks?

Sample Stock Transactions

- **Market order** is a request to buy or sell a stock at the best available price
 - Payment is generally required within two business days after the transaction
- **Limit order** is a request to buy or sell a stock at a specified price
 - When you purchase, a limit order ensures you will buy at the limit price or lower
 - When you sell, a limit order ensures you will sell at the limit price or higher
- **Stop-loss order** is an order to sell a particular stock at the next available opportunity after its market price reaches a specified amount



Commission Charges

- Many brokerage firms charge a minimum commission ranging from \$5 to \$25 for buying and selling stock
 - Additional commission charges may be based on the number of shares and the value of stock bought and sold
- Generally, full-service brokerage firms charge higher commissions than those charged by discount brokerage firms
 - Full-service brokers may charge approximately 1% of the transaction amount

Long-Term and Short-Term Investment Strategies LO12.5

- Long-term techniques include the following:
 1. **Buy-and-hold technique** is characterized by purchasing the stock and holding it for several years
 - Investment can increase in value through dividends or the price of the stock increasing
 2. **Dollar cost averaging** is a technique used by investors who purchase an equal dollar amount of the same stock at equal intervals
 - Goals are to minimize the average cost per share and avoid the common pitfall of buying high and selling low
 3. **Direct investment plans** allow you to purchase stock directly from a corporation without having to use an account executive or brokerage firm, while **dividend reinvestment plans** allow you the option to reinvest your cash dividends to purchase stock of the corporation

Dollar Cost Averaging for Johnson & Johnson

Year	Investment	Stock Price	Shares Purchased
2014	\$ 2,000	\$ 95	21.1
2015	2,000	102	19.6
2016	2,000	112	17.9
2017	2,000	135	14.8
2018	2,000	118	16.9
2019	2,000	138	14.5
2020	<u>2,000</u>	153	<u>13.1</u>
Total	\$14,000		117.9

Average cost = Total investment ÷ Total shares
= \$14,000 ÷ 117.9
= \$118.74

Short-Term Investment Strategies

1. Buying stock on **margin** is a speculative technique whereby an investor borrows part of the money needed to buy a particular stock
 - Current margin requirement is 50%, which means you may borrow up to half of the total stock purchase price
 - You face the possibility of larger dollar losses because you own more shares, and you must also pay interest on money borrowed to purchase stock on margin
2. **Selling short** is to sell stock that has been borrowed from a brokerage firm and must be replaced later
3. Trading in options (e.g., *call option* or *put option*)
 - **Options** give the right, but not the obligation, to buy/sell a stock at a predetermined price during a specified period

Selling Short: An Example

- Assume you think GM stock is overvalued at \$35 a share. You believe the stock price will *decrease* over the next 4 to 6 months.
- You call your broker and arrange to borrow 100 shares of GM stock. The broker then sells your borrowed stock for you at the current market price of \$35 a share.
- Assume that four months later, GM stock drops to \$27 a share. You instruct your broker to purchase 100 shares of GM stock at the current lower price.
- The newly purchased stock is given to the brokerage firm to repay the borrowed stock.

EXAMPLE: Selling Short (General Motors)

Your profit from the General Motors short transaction was \$800 because the price declined from \$35 to \$27.

$$\begin{array}{rcl} \$3,500 \text{ Selling price} & = & \$35 \text{ price per share} \times 100 \text{ shares (step 2)} \\ -\$2,700 \text{ Purchase price} & = & \$27 \text{ price per share} \times 100 \text{ shares (step 3)} \\ \hline \$ 800 & \text{Profit from selling short} & \end{array}$$



Chapter Summary

LO12.1: Identify the most important features of common and preferred stock.

- Corporations sell stock (a form of equity) to finance their business start-up costs and help pay for their ongoing business activities.
- In return for providing the money needed to finance the corporation, stockholders have the right to elect the board of directors.
 - They must also approve major changes to corporate policies.

Chapter Summary

LO12.1 (Continued)

- People invest in stock because they want the larger returns that stocks offer.
 - Possible reasons for stock investments include dividend income, appreciation of value, and the *possibility* of gain through stock splits.
- In addition to common stock, a few corporations may issue preferred stock.
 - The most important priority an investor in preferred stock enjoys is receiving cash dividends before any cash dividends are paid to common stockholders.



Chapter Summary

LO12.2: Explain how you can evaluate stock investments.

- A wealth of information is available to stock investors.
- A logical place to start the evaluation process is with the classification of different types of stock investments that range from very conservative to very speculative; see Exhibit 12–3.
- Today, many investors use the information available on the Internet to evaluate individual stocks.
 - Information is also available from stock advisory services such as Value Line, Morningstar, and Zacks.
 - Newspapers, corporations that issue stocks, business and personal finance periodicals, and government publications and websites can also help you evaluate a stock investment.



Chapter Summary

LO12.3: Analyze the numerical measures that cause a stock to increase or decrease in value.

- Many analysts believe that a corporation's ability or inability to generate earnings in the future may be one of the most significant factors that account for an increase or decrease in a stock's price.
 - Generally, higher earnings equate to higher stock prices, and lower earnings equate to lower stock prices.
- Investors can also calculate earnings per share and a price-earnings ratio to evaluate a stock investment.



Chapter Summary

LO12.3 (Continued)

- Whereas both earnings per share and the price-earnings ratio are historical numbers based on what a corporation has already done, investors can obtain earnings estimates for most corporations.
- Other calculations that help evaluate stock investments include dividend yield, total return, beta, and book value.
 - Stock prices are also affected by what another investor will pay for a share of stock.
- Several suggestions to help you evaluate a stock investment were included in this section.



Chapter Summary

LO12.4: Describe how stocks are bought and sold.

- A corporation may sell a new stock issue with the help of an investment banking firm in the primary market.
- Once the stock has been sold in the primary market, it can be sold time and again in the secondary market.
 - In the secondary market, investors purchase stock listed on a securities exchange or traded in the over-the-counter market.
- Securities transactions are made through a full-service brokerage firm or a discount brokerage firm.



Chapter Summary

LO12.4 (Continued)

- Whether you trade online or use more traditional trading techniques, you must decide if you want to use a market, limit, or stop-loss order to buy or sell stock.
- Although some brokerage firms have eliminated commissions on stock transactions, other brokerage firms do charge a minimum commission.
- Additional commission charges are based on the number and value of the stock shares bought or sold.
- Generally, full-service brokerage firms charge higher commissions than discount brokerage firms.



Chapter Summary

LO12.5: Explain the trading techniques used by long-term investors and short-term speculators.

- Purchased stock may be classified as either a long-term investment or a speculative investment.
 - Long-term investors typically hold their investments for at least a year or longer; speculators (sometimes referred to as *traders*) usually sell their investments within a shorter time period.
- Traditional trading techniques long-term investors use include the buy-and-hold technique, dollar cost averaging, direct investment plans, and dividend reinvestment plans.
- More speculative techniques include buying stock on margin, selling short, and trading in options.