

Love The Taste. Taste The Love.

At Culver's® we can't think of anything better than serving up our creamy frozen custard and delicious classics cooked fresh the minute you order them. Which is why when we bring them to your table, they're always accompanied by a warm smile and a friendly offer to see if there's anything else we can get for you. So come on into your neighborhood Culver's and see for yourself. You might just be in love by the time you leave.



16

Dividend Policy

“Finance is the art of passing currency from hand to hand until it finally disappears.”

—Robert W. Sarnoff

GM Cuts Its Dividend

On February 7, 2006, General Motors (GM) announced that it was cutting its common stock dividend by 50%. This move would save the company \$565 million per year in cash. The company had been bleeding red ink on its income statement for years, losing \$8.6 billion in 2005 alone.

Dividends use up cash. A company such as General Motors needs to turn a profit if it hopes to grow its dividends over the long haul. In early 2006 GM had a lot of cash on its balance sheet but its losses were draining that cash.

In this chapter we examine how dividends are related to profits and to cash. GM's dividend cut is a symptom of its more fundamental financial problems. It will need to address those fundamental problems if it hopes to get its dividends back to the levels its investors have grown to expect over the years.

Sources: <http://www.foxnews.com/story/0,2933,184088,00.html>, 6/11/06 <http://www.msnbc.msn.com/id/11275908/6/11/06>.

Campfire queen Cycling champion Sentimental geologist*

Learn more about
Marjon Walrod
and tell us more
about you. Visit
pwc.com/bringit.

Your life. You can
bring it with you.



*connectedthinking

PRICEWATERHOUSECOOPERS 

© 2006 PricewaterhouseCoopers LLP. All rights reserved. "PricewaterhouseCoopers" refers to PricewaterhouseCoopers LLP (a Delaware limited liability partnership) or, as the context requires, the PricewaterhouseCoopers global network or other member firms of the network, each of which is a separate and independent legal entity. *connectedthinking is a trademark of PricewaterhouseCoopers LLP (US). We are proud to be an Affirmative Action and Equal Opportunity Employer.



© PhotoEuphoria (<http://www.fotolia.com/p/4165>)

Chapter Overview

In this chapter we explore the importance of dividends, the factors that determine a firm's dividend policy, and leading dividend policy theories. We then examine how a firm makes dividend payments to shareholders. We finish by identifying alternatives to paying cash dividends.

Dividends

Dividends are the cash payments that corporations make to their common stockholders. Dividends provide the return common stockholders receive from the firm for the equity capital they have supplied.¹ Companies that do not currently pay dividends reinvest in the firm the earnings they generate. In this way they increase the ability of the firm to pay dividends in the future.

The board of directors decides what dividend policy best serves the common stockholders of the firm. Should a dividend be paid now, or should the earnings generated be reinvested for the future benefit of the common stockholders? If dividends are paid now, how much should be paid? These are some of the questions addressed in the following sections.

¹You may wonder about this statement because common stock investors can always receive a return by selling their stock. Remember, however, that when investors sell their stock they are paid by other investors, not by the corporation. Except when a corporation buys back its own stock (which is a form of dividend payment), the only cash corporations pay to investors is a dividend payment.

Learning Objectives

After reading this chapter, you should be able to:

1. Explain the importance of and identify factors that influence the dividend decision.
2. Compare the major dividend theories.
3. Describe how a firm pays dividends.
4. Identify alternatives to paying cash dividends.

Although only corporations officially pay dividends to owners, sole proprietorships and partnerships also distribute profits to owners. Many of the same considerations examined in this chapter for corporate dividend policy can also be used to help make proper profit distribution decisions for these other forms of business organization.

Why a Dividend Policy Is Necessary

Why does a company need a strategic policy relating to dividend payments? Why not just “wing it” each year (or quarter, or other span of time) and pay the dividend that “feels right” at that time? Because market participants (current and potential stockholders) generally do not like surprises. An erratic dividend policy means that those stockholders who liked the last dividend cannot be sure that the next one will be to their liking. This uncertainty can result in a drop in the company’s stock price. When stockholders do not get what they expect, they often show their displeasure by selling their stock. A well-planned policy, appropriate for the firm and its business strategy, can prevent unpleasant surprises for market participants and protect the stock price.

Factors Affecting Dividend Policy

Dividend policy is based on the company’s need for funds, the firm’s cash position, its future financial prospects, stockholder expectations, and contractual restrictions with which the firm may have to comply.

Need for Funds

Dividends paid to stockholders use funds that the firm could otherwise invest. Therefore, a company running short of cash or with ample capital investment opportunities may decide to pay little or no dividends. Alternatively, there may be an abundance of cash or a dearth of good capital budgeting projects available. This could lead to very large dividend payments.

Management Expectations and Dividend Policy

If a firm’s managers perceive the future as relatively bright, on the one hand, they may begin paying large dividends in anticipation of being able to keep them up during the good times ahead. On the other hand, if managers believe that bad times are coming, they may decide to build up the firm’s cash reserves for safety instead of paying dividends.

Stockholders’ Preferences

Reinvesting earnings internally, instead of paying dividends, would lead to higher stock prices and a greater percentage of the total return common stockholders receive coming from capital gains. *Capital gains* are profits earned by an investor when the price of a capital asset, such as common stock, increases.

Common stockholders may prefer to receive their return from the company in the form of capital gains and some may prefer to receive their return from the company in the form of dividends. Federal income tax law in 2006 taxes dividends and capital gains

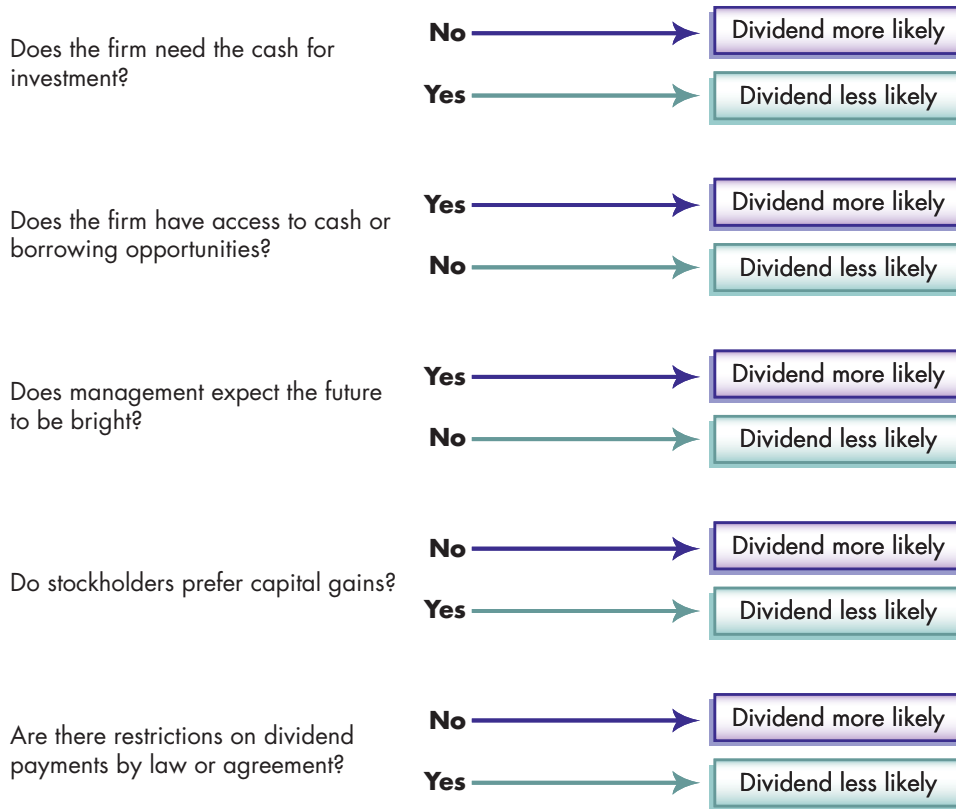


Figure 16-1 Dividend Decision Factors

This figure identifies key elements that make a dividend payment more or less likely.

at the same rate, but this could change in future years.² Capital gains are not taxed at all unless they are realized. That is, unless the stock is sold. The board of directors should consider stockholder preferences when establishing the firm's dividend policy.

Restrictions on Dividend Payments

A firm may have dividend payment restrictions in its existing bond indentures or loan agreements. For example, a company's loan contract with a bank may specify that the company's current ratio cannot drop below 2.0 during the life of the loan. Because payment of a cash dividend draws down the company's cash account, the current ratio may fall below the minimum level required.³ In such a case, the size of a dividend may have to be cut or omitted. In addition, many states prohibit dividend payments if they would create negative retained earnings on the balance sheet. This restriction is a prohibition against "raiding the initial capital." Figure 16-1 summarizes the factors that influence the dividend decision.

²Various provisions of tax legislation enacted in 2001, 2002, and 2003 are scheduled to phase in, phase out, and "sunset" entirely after 2010. As a result, federal tax rules will differ in every year from 2001 through 2011. (Source: "Effective Federal Tax Rates Under Current Law, 2001 to 2014" by Ed Harris, David Weiner, and Robertson Williams of the Congressional Budget Office's Tax Analysis Division, August 2004 (accessed at <http://www.cbo.gov/showdoc.cfm?index=5746> on June 22, 2006).)

³Recall that the current ratio is found by dividing current assets (of which cash is a part) by current liabilities. Thus, decreasing cash to pay a dividend will lower the ratio.

Cash versus Earnings

Dividends are often discussed in relation to a firm's earnings. The dividend payout ratio is often cited as an indicator of the generosity (or lack thereof) of the firm's dividend policy. The dividend payout ratio is calculated by dividing the total dollar amount of dividends paid by net income, as seen in Equation 16-1.

$$\begin{aligned} & \text{Dividend Payout Ratio} \\ \text{Dividend Payout Ratio} &= \frac{\text{Dividends Paid}}{\text{Net Income}} \end{aligned} \quad (16-1)$$

If Calvin Corporation, for example, earns a net income of \$10,000 and pays \$3,000 in dividends, then its dividend payout ratio will be as follows:

$$\begin{aligned} \text{Dividend Payout Ratio} &= \frac{\$3,000}{\$10,000} \\ &= .30, \text{ or } 30\% \end{aligned}$$

We see from our calculations that Calvin Corporation has a dividend payment ratio of 30 percent.

A caution, however: By focusing on reported earnings and the dividend payout ratio, we ignore the key to paying dividends. That key is *cash*. When a company generates earnings, this usually results in cash flowing into the firm. The earnings and the cash flows do not necessarily occur at the same time, however. Table 16-1 illustrates these timing differences.

Table 16-1 shows us that Easy Credit Corporation reported \$600,000 of earnings this year but did not receive any cash. Unless cash was acquired from previous earnings, the firm could not pay dividends.

Even if the company reported negative earnings, it could pay dividends if it had, or could raise, enough cash to do so. If a company believed that a certain dividend payment were critical to the preservation of the firm's value, it might even choose to borrow to obtain the cash needed for the dividend payment. Corporate borrowing to obtain cash for a dividend payment happens occasionally, when the dividend payment expected by the common stockholders is believed to be crucial.

Table 16-1 Easy Credit Corporation Selected Financial Data for Current Year

Sales (all on credit, payments due in next year)	\$ 1,000,000
Total expenses	<u>400,000</u>
Net income	600,000
Cash received this year	\$ 0

Leading Dividend Theories

We've investigated how corporations consider many different factors when they decide what their dividend policies should be. Financial experts attempt to consolidate these factors into theories about how dividend policy affects the value of the firm. We turn to some of these theories next.

The Residual Theory of Dividends

The residual dividend theory is widely known. The theory hypothesizes that the amount of dividends should not be the focus of the company. Instead, the primary issue should be to determine the amount of earnings the firm should retain within the firm for investment. The amount of earnings retained, according to this view, depends on the number and size of acceptable capital budgeting projects and the amount of earnings available to finance the equity portion of the funds needed to pay for these projects. Any earnings left after these projects have been funded are paid out in dividends. Because dividends arise from residual, or leftover earnings, the theory is called the *residual theory*. Table 16-2 shows how to apply this theory.

We see in Table 16-2 that Residual Corporation needs \$10 million to finance its acceptable capital budgeting projects. It has earnings of \$12 million. It needs equity funds in the amount of 70 percent of the \$10 million needed, or \$7 million. This leaves residual earnings of \$5 million for dividends.

If the earnings available had been \$20 million instead of \$12 million, then the dividend payment would have been \$13 million (\$20 million – \$7 million). However, if earnings available had been \$6 million instead of \$12 million, then no dividends would have been paid at all. In fact, \$1 million in additional equity funding would need to be raised by issuing new common stock. The amount of dividends to be paid is an afterthought, according to this theory. The important decision is to determine the amount of earnings to retain.

The residual dividend theory focuses on the optimal use of earnings generated from the perspective of the firm itself. This may appeal to some, but it ignores stockholders' preferences about the regularity of and the amount of dividend payments. If a firm follows the residual theory, when earnings are large and the acceptable capital budgeting projects small and few, dividends will be large. Conversely, when earnings are small and many large, acceptable projects are waiting to be financed, there may be no dividends if the residual theory is applied. The dividend payments will be erratic and the amounts will be unpredictable.

Table 16-2 Residual Corporation—Applying the Residual Dividend Theory

Investment Needed for New Projects	\$10,000,000
Optimal Capital Structure	30% Debt – 70% Equity
Equity Funds Needed	70% x \$10,000,000 = \$ 7,000,000
Earnings Available	\$12,000,000
Residual	\$12,000,000 – \$ 7,000,000 = \$ 5,000,000
Amount of Dividends to Be Paid	\$ 5,000,000

The Clientele Dividend Theory

The **clientele dividend theory** is based on the view that investors are attracted to a particular company in part because of its dividend policy. For example, young investors just starting out may want their portfolios to grow in value from capital gains rather than from dividends, so they seek out companies that retain earnings instead of paying dividends. Stock prices tend to increase as earnings are retained, and the resulting capital gain is not taxed until the stock is sold.

Older investors, in contrast, may want to live off the income their portfolios provide. They would tend to seek out companies that pay high dividends rather than reinvesting for growth. According to the clientele dividend theory, each company, therefore, has its own clientele of investors who hold the stock in part because of its dividend policy.

If the clientele theory is valid, then it doesn't much matter what a company's dividend policy is so long as it has one and sticks to it. If the policy is changed, the clientele that liked the old policy will probably sell their stock. A new clientele will buy the stock based on the firm's new policy. When a dividend policy change is contemplated, managers must ask whether the effect of the new clientele's buying will outweigh the effect of the old clientele's selling. The new clientele cannot be sure that the most recent dividend policy implemented will be repeated in the future.

The Signaling Dividend Theory

The **signaling dividend theory** is based on the premise that the management of a company knows more about the future financial prospects of the firm than do the stockholders. According to this theory, if a company declares a dividend larger than that anticipated by the market, this will be interpreted as a signal that the future financial prospects of the firm are brighter than expected. Investors presume that management would not have raised the dividend if it did not think that this higher dividend could be maintained. As a result of this inferred signal of good times ahead, investors buy more stock, causing a jump in the stock price.

Conversely, if a company cuts its dividend, the market takes this as a signal that management expects poor earnings and does not believe that the current dividend can be maintained. In other words, a dividend cut signals bad times ahead for the business. The market price of the stock drops when the firm announces a lower dividend because investors sell their stock in anticipation of future financial trouble for the firm.

If a firm's managers believe in the signaling theory, they will always be wary of the message their dividend decision may send to investors. Even if the firm has some attractive investment opportunities that could be financed with retained earnings, management may seek alternative financing to avoid cutting the dividend that may send an unfavorable signal to the market.

The Bird-in-the-Hand Theory

The **bird-in-the-hand theory** claims that stockholders prefer to receive dividends instead of having earnings reinvested in the firm on their behalf. Although stockholders should expect to receive benefits in the form of higher future stock prices when earnings are retained and reinvested in their company, there is uncertainty about whether the benefits will actually be realized. However, if the stockholders were to receive the earnings now, in the form of dividends, they could invest them now in whatever they desired. In other words, "a bird in the hand is worth two in the bush."

If the bird-in-the-hand theory is correct, then stocks of companies that pay relatively high dividends will be more popular—and, therefore, will have relatively higher stock prices—than stocks of companies that reinvest their earnings.

Modigliani and Miller's Dividend Theory

Franco Modigliani and Merton Miller (commonly referred to as M&M) theorized in 1961 that dividend policy is irrelevant.⁴ Given some simplifying assumptions, M&M showed how the value of a company is determined by the income produced from its assets, not by its dividend policy. According to the **M&M dividend theory**, the way a firm's income is distributed (in the form of future capital gains or current dividends) doesn't affect the overall value of the firm. Stockholders are indifferent as to whether they receive their return on their investment in the firm's stock from capital gains or dividends—so dividends don't matter.

M&M's arguments have been critiqued for decades. Most often, financial theorists who disagree with M&M maintain that M&M's assumptions are unrealistic. The validity of a theory, however, lies with its ability to stand up to tests of its predictions. The results of these tests are mixed, and modern financial theorists continue to argue about what dividend policy a company should pursue.

The Mechanics of Paying Dividends

We've seen how the board of directors decides whether the firm will pay a dividend. Next, let's consider what happens when companies pay dividends and the timing of those payments.

The board's decision to pay a dividend is called *declaring* a dividend. This occurs on the **declaration date**. At that date a liability, called **dividends payable**, is created on the firm's balance sheet.

Because the common stock of public corporations typically is traded every day in the marketplace, the board of directors must select a cutoff date, or **date of record**, to determine who will receive the dividend. At the end of business on this date, the company stockholder records are checked. All owners of the common stock at that time receive the forthcoming dividend.

When stock is traded on an exchange or in the over-the-counter market, it takes several days to process the paperwork necessary to record the change of ownership that occurs when the stock changes hands. On the date of record, then, the company's transfer agent will not yet know of stock trading that occurred in the days immediately preceding the date of record.

The **transfer agent** is the party, usually a commercial bank, that keeps the records of stockholder ownership for a corporation. The transfer agent pays dividends to the appropriate stockholders of record after the company has deposited the required money with the transfer agent.

Because it takes time for news of a stock trade to reach the transfer agent, the rules of trading dictate that two days before the date of record, common stock that has an upcoming dividend payment will begin to trade **ex-dividend**. (The prefix *ex* is a Latin

⁴Merton Miller and Franco Modigliani, "Dividend Policy, Growth, and the Valuation of Shares," *Journal of Business* (October 1961): 411-33.

Figure 16-2 The Dividend Payment Time Line

This figure shows the sequence of events for a dividend payment.

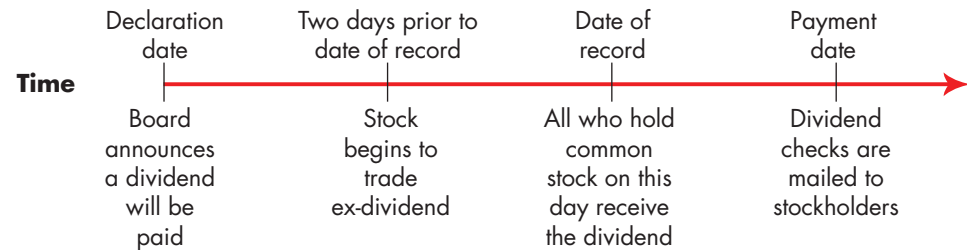


Table 16-3 H. J. Heinz Company Dividend Payment Sequence

Dividend declared	May 31, 2006
Stock begins trading ex-dividend	June 22, 2006
Date of record	June 24, 2006
Payment date	July 10, 2006

Source: H.J. Heinz Company website (http://www.heinz.com/Dividends_f.aspx)

word meaning “without.”) Investors who buy the stock on or after the ex-dividend date will be buying it “without” entitlement to the forthcoming dividend. The two-day period gives exchange officials enough time to notify the transfer agent of the last batch of stock trades that occurred before the ex-dividend period. The extra time ensures that the stockholder records will be correct on the date of record.

A few weeks after the date of record, the checks are mailed out to the common stockholders. The date of mailing is called the **payment date**.

Figure 16-2 shows a time line for the dividend payment sequence.

Table 16-3 summarizes the dividend payment sequence for the H. J. Heinz Company’s second-quarter 2006 dividend. The table shows the sequence of events that led to the payment of a 2006 second-quarter dividend of 35 cents per share.

Dividend Reinvestment Plans

Many corporations offer a **dividend reinvestment plan (DRIP)**, under which stockholders reinvest their dividends rather than receive them in cash. DRIPs are popular because they allow stockholders to purchase additional shares of stock without incurring the commission costs that accompany regular stock purchases made through a stockbroker. The new shares, including fractional shares, are purchased at the price prevailing in the market at that time. The amount of the dividend paid and reinvested is still taxable income to the stockholder.

Alternatives to Cash Dividends

Sometimes corporations want to give something to the stockholders even though there is insufficient cash available to pay a cash dividend. At other times, corporations don’t

want to pay a cash dividend because they want to build up their cash position. Let's look at some of the options available for giving stockholders something without using precious cash.

Stock Dividends and Stock Splits

Instead of sending out checks to stockholders, the firm could issue additional shares. Many stockholders view the receipt of these extra shares as a positive event, similar to the receipt of a check. In the sections that follow, we will question the validity of this widely held view.

New shares of common stock can be distributed to existing shareholders with no cash payment in two different ways: stock dividends and stock splits. Both increase the number of shares of common stock outstanding, and neither raises additional equity capital. There is an accounting difference between them, however. Let's examine these two alternatives to cash dividends next.

Stock Dividends When a **stock dividend** is declared, the existing common stockholders receive new shares, proportionate to the number of shares currently held. This is usually expressed in terms of a percentage of the existing holdings, such as 5 percent, 10 percent, or 20 percent, but usually less than 25 percent. For example, if a 20 percent stock dividend were declared, one new share would be sent out to existing stockholders for every five currently owned. The following example illustrates how the process works and how the transaction would be accounted for on the firm's balance sheet.

Suppose that Bob and Bill own a chain of bed and breakfast lodges called BB Corporation. Now suppose the BB Corporation declares a 20 percent stock dividend so that each stockholder receives 20 new shares for every 100 shares they hold. This will increase the total number of shares outstanding from 100,000 to 120,000. Assume that the market price of BB's stock at the time of this stock dividend is \$24. The equity section of BB's balance sheet, before and after the 20 percent stock dividend, is shown in Table 16-4.

Table 16-4

BB Corporation Capital Account as of December 31, 2006 (before a 20% stock dividend)

Common Stock (100,000 shares, \$1 par)	\$ 100,000
Capital in Excess of Par	\$ 900,000
Retained Earnings	<u>\$5,000,000</u>
Total Common Stock Equity	<u>\$6,000,000</u>

BB Corporation Capital Account as of January 1, 2007 (after a 20% stock dividend)

Common Stock (120,000 shares, \$1 par)	\$ 120,000
Capital in Excess of Par	\$1,360,000
Retained Earnings	<u>\$4,520,000</u>
Total Common Stock Equity	<u>\$6,000,000</u>

First, note in Table 16-4 that after the 20 percent stock dividend the common stock account changed from \$100,000 to \$120,000, an increase of 20 percent or \$20,000. This change occurred because as of January 1, 2007, the firm had 20,000 more shares outstanding and each new share had the same \$1 par value as the old shares (20,000 shares \times \$1 = \$20,000). Next, note that the capital in excess of par account changed from \$900,000 to \$1,360,000, an increase of \$460,000. This increase happened because the new shares were issued when the market price of the stock was \$24, which is \$23 in excess of the \$1 par value. The \$23 “in excess” figure is multiplied by the 20,000 additional shares to get the \$460,000 increase in the capital in excess of par account ($\$23 \times 20,000$ shares = \$460,000). The \$20,000 increase in the common stock account and the \$460,000 increase in the capital in excess of par account total \$480,000.

Finally, note that the retained earnings account changed from \$5 million to \$4,520,000, a decrease of \$480,000. This change reflects the transfer of \$20,000 to the common stock account and \$460,000 to the capital in excess of par account ($\$20,000 + \$460,000 = \$480,000$). Retained earnings must decrease because the 20 percent stock dividend did not alter the firm’s total equity capital.

Thus, we see that a stock dividend is just an accounting transfer from retained earnings to the other capital accounts. The number of shares of common stock increased by 20,000 in this case, but the overall economic effect was zero. Neither profits nor cash flows changed, however, nor did the degree of risk in the firm. The firm’s ownership “pie” was cut into more pieces, but the pie itself was the same size.

On receiving their new shares of stock in the mail, some stockholders may think they have received something of economic value because they have new stock certificates for which they did not pay. But who issued these new stock certificates? The corporation did. Who owns the corporation? The stockholders do. The stockholders have given themselves new shares of stock, but they continue to hold the same percentage of the firm as they held before the stock dividend.

The price per share of common stock will drop because of the increase in the number of shares outstanding. The price decrease happens or the total market value of the common stock will increase (price per share \times number of shares outstanding) while no economically significant event has occurred.

Adjustment of a Stock’s Market Price after a Stock Dividend Investors in the stock market generally recognize that a stock dividend simply increases the number of shares of a firm and does not otherwise affect the total value of the firm. After a firm declares a stock dividend, then, the market price of the firm’s stock will adjust accordingly. Table 16-5 illustrates the expected stock price adjustment for BB Corporation.

Table 16-5 BB Corporation Stock Price Adjustment in Response to a 20% Stock Dividend

	Number of Shares Outstanding	x	Price per Share	=	Total Value of the Firm’s Stock
Before Stock Dividend	100,000	x	\$24	=	\$2,400,000
After Stock Dividend	120,000	x	?	=	\$2,400,000

With the information from Table 16-5, we can find the new price of BB's stock as follows:

New number of shares: 120,000

Total value of firm's stock: \$2,400,000

Now let X = the new stock price. We solve for the new stock price as shown:

$$120,000 X = \$2,400,000$$

$$X = \$20$$

Here's the key to solving for the new stock price after a stock dividend: Remember that the total value of all the firm's stock remains the same as it was before the stock dividend. There may be a positive effect on the stock price due to expectations about the cash dividend. We explore this effect later in the chapter.

Stock Splits When an increase of more than 25 percent in the number of shares of common stock outstanding is desired, a corporation generally declares a stock split instead of a stock dividend. The firm's motivation for declaring a stock split is generally different from that for a stock dividend. A stock dividend appears to give stockholders something in place of a cash dividend. A **stock split** is an attempt to bring the firm's stock price into what management perceives to be a more popular trading range.

Stock splits are usually expressed as ratios. A *4-1 (four-for-one) stock split*, for example, indicates that new shares are issued such that there are four shares after the split for every one share before the split. In a *3-2 split*, there would be three shares after the split for every two outstanding before the split.

The accounting treatment for a stock split is simpler than for a stock dividend. Table 16-6 shows how the BB Corporation would account for a 4-1 stock split.

Note in Table 16-6 that only the common stock entry in the equity section of the balance sheet is affected by the stock split. The entry indicates that after the stock split there are four times as many shares of common stock outstanding as before the split.

Table 16-6

**BB Corp. Capital Account as of Dec. 31, 2006
(before a 4-1 stock split)**

Common Stock (100,000 shares, \$1 par)	\$ 100,000
Capital in Excess of Par	\$ 900,000
Retained Earnings	<u>\$5,000,000</u>
Total Common Stock Equity	<u>\$6,000,000</u>

**BB Corp. Capital Account as of Jan. 1, 2007
(after a 4-1 stock split)**

Common Stock (400,000 shares, \$.25 par)	\$ 100,000
Capital in Excess of Par	\$ 900,000
Retained Earnings	<u>\$5,000,000</u>
Total Common Stock Equity	<u>\$6,000,000</u>

Table 16-7 BB Corporation Stock Price Adjustment Due to a 4–1 Stock Split

	Number of Shares Outstanding	x	Price per Share	=	Total Value of the Firm's Stock
Before Stock Dividend	100,000	x	\$24	=	\$2,400,000
After Stock Dividend	400,000	x	\$6	=	\$2,400,000

It also indicates that the par value of each share is one-fourth the value it was before (100,000 shares \times 4 = 400,000 shares and \$1 par value \div 4 = \$.25). The total dollar value of \$100,000 remains the same. Capital in excess of par and retained earnings accounts are completely unaffected by a stock split.

Adjustment of a Stock's Market Price after a Stock Split As with a stock dividend, investors in the stock market recognize that a stock split simply increases the number of shares of a firm and does not otherwise affect the total value of the firm. Therefore, the market price of the firm's stock will adjust accordingly following a stock split. Table 16-7 illustrates the stock price adjustment for the BB Corporation in response to the 4–1 stock split.

We see in Table 16-7 that, just as with the stock dividend, no economically significant event has occurred. The common stock ownership “pie” has been cut into four times as many pieces as before, but the size of the pie is the same. As Table 16-7 shows, after the 4–1 split, each share will trade in the market at approximately one-fourth the price it commanded before the split.

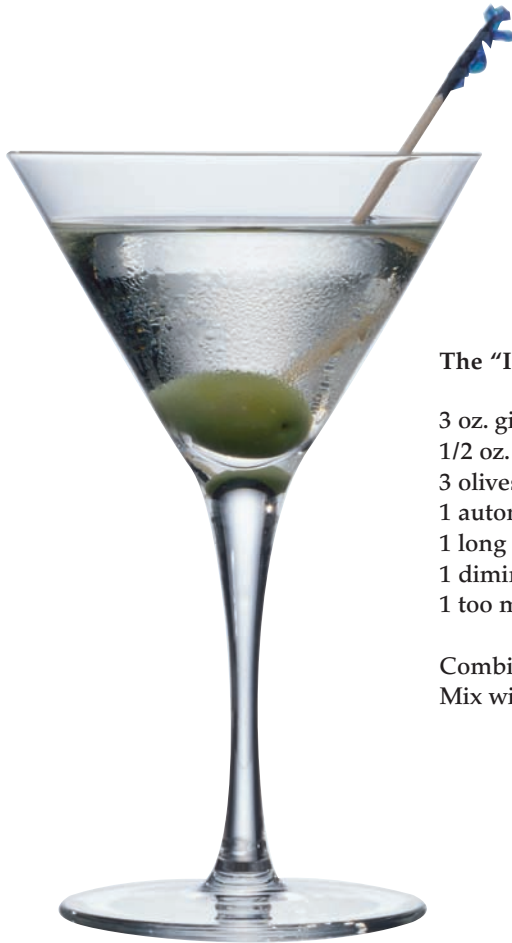
Sometimes the cash dividend is increased at the same time as a stock split or a stock dividend. In our 4–1 stock split example, if the cash dividend per share is decreased by less than three-fourths, stockholder cash dividends received would increase. A \$1 per share cash dividend, for instance, could be cut to \$0.30 instead of the \$0.25 value that would leave total cash dividends unchanged. The market sometimes anticipates such an increase in the cash dividend, leading to a possible increase in the total market value of the common stock.

The Rationale for Stock Splits Most companies split stock in an attempt to increase its value. Managers believe that as the market price per share of their common stock increases over time, it gets too expensive for some investors. Management perceives that a stock split will decrease the price per share, thereby increasing the number of potential investors who can afford to buy it. More potential investors might create additional buying pressure, which would result in an increase in stock price. This argument is less persuasive, however, as the percentage of stock ownership and trading activity by institutional investors (mutual funds, pension funds, insurance companies, and so on) continues to increase. These investors can afford to pay a very high price per share. Managers, however, continue to use stock splits to adjust the stock price to a lower level to make it more affordable.



Interactive Module

Go to Downloadable Companion Material, chapter 16. Follow the instructions there. Read about stock splits and stock dividends. What is the economic significance of these events?



The "I'll Just Have One More" Martini

3 oz. gin or vodka
1/2 oz. dry vermouth
3 olives
1 automobile
1 long day
1 diminishing attention span
1 too many

Combine ingredients. Drink. Repeat.
Mix with sharp turn, telephone pole.

Never underestimate 'just a few.'
Buzzed driving is drunk driving.

Freeload Press

<http://www.freeloadpress.com>



U.S. Department of Transportation

What's Next

In this chapter we looked at how firms make their dividend decisions. This chapter ends Part 4 on long-term financing decisions. Part 5 focuses on short-term financing decisions. In Chapters 17 through 20, we will examine how firms manage the three primary current assets: cash, inventory, and accounts receivable.

Summary

1. Explain the importance of and identify the factors that influence the dividend decision.

Stock prices often change dramatically when a dividend change is announced, indicating that the market believes dividends affect value. The dividend decision, then, must be carefully planned and implemented. Factors that influence dividend decisions are a company's need for funds, its future financial prospects, stockholder preferences and expectations, and the firm's contractual obligations.

Although dividends are often discussed in the context of a firm's earnings, dividends are paid in cash. As a result, a firm's cash flow is a crucial factor affecting its dividend policy.

2. Compare the major dividend theories.

The major dividend theories that help guide dividend policy include the residual theory of dividends, the clientele theory, the signaling theory, the bird-in-the-hand theory, and the Modigliani and Miller theory.

The residual theory posits that the amount of dividends matters less than the amount of earnings retained. If a firm enacts a residual policy, its dividend payments are likely to be unpredictable and erratic.

The clientele dividend theory assumes that one of the key reasons investors are attracted to a particular company is its dividend policy. Under this theory, it doesn't matter what the dividend policy is so long as the firm sticks to it.

The signaling dividend theory is based on the premise that management knows more about the future finances of the firm than do stockholders, so dividends signal the firm's future prospects. A dividend decrease signals an expected downturn in earnings; a dividend increase signals a positive future is expected. Managers who believe the signaling theory will be conscious of the message their dividend decision may send to investors.

The bird-in-the-hand theory assumes that stockholders prefer to receive dividends instead of having earnings reinvested in the firm on their behalf. If correct, stocks of companies that pay relatively high dividends will be more popular and, therefore, will have relatively higher stock prices than stocks of companies that reinvest their earnings.

The Modigliani and Miller theory claims that earnings from assets, rather than dividend policy, affect firm value, so dividend policy is irrelevant.

3. Describe how firms make dividend payments.

Dividends are declared by the corporate board of directors. Stockholders on the date of record are entitled to the declared dividend. Investors who buy the stock before the ex-dividend date (two days before the date of record) will receive the dividend declared by the board. Investors who buy the stock on or after the ex-dividend date have bought the stock too late to get the dividend.

4. Identify alternatives to paying cash dividends.

Corporations often award stockholders stock dividends (additional shares of stock) and stock splits instead of cash dividends. Both stock splits and stock dividends increase the number of outstanding shares and decrease the price per share. Although neither of these actions is a real substitute for a cash dividend, many investors perceive these events as good news even though earnings do not increase nor does risk decrease.

Equations Introduced in This Chapter

Equation 16-1. The Dividend Payout Ratio:

$$\text{Dividend Payout Ratio} = \frac{\text{Dividends Paid}}{\text{Net Income}}$$

Self-Test

ST-1. A company pays \$4 per share in dividends and has 100,000 shares outstanding. The company has net income of \$1 million. Its market price per share is \$100. What is its dividend payout ratio?

ST-2. Is the amount of the dividend to be paid the primary focus of the board of directors if the board is guided by the residual theory of dividends? Explain.

ST-3. Does a company following the clientele theory of dividends pay high or low dividends? Explain.

ST-4. When paying dividends, what is the date of record?

ST-5. If a company stock has a \$2 par value, what will be the accounting effect of a 4–1 stock split?

Need more money for college expenses?

The CLC Private LoanSM can get you up to
\$40,000 a year for college-related expenses.

Here's why the CLC Private LoanSM is a smart choice:

- ✓ Approved borrowers are sent a check within four business days
- ✓ Get \$1000 - \$40,000 each year
- ✓ Interest rates as low as prime + 0% (8.66% APR)
- ✓ Quick and easy approval process
- ✓ No payments until after graduating or leaving school

CLICK HERE

or call **800.311.9615.**

*We are available 24 hours
a day, 7 days a week.*





Review Questions

1. Explain the role of cash and of earnings when a corporation is deciding how much, if any, cash dividends to pay to common stockholders.
2. Are there any legal factors that could restrict a corporation in its attempt to pay cash dividends to common stockholders? Explain.
3. What are some of the factors that common stockholders consider when deciding how much, if any, cash dividends they desire from the corporation in which they have invested?
4. What is the Modigliani and Miller theory of dividends? Explain.
5. Do you believe an increased common stock cash dividend can send a signal to the common stockholders? If so, what signal might it send?
6. Explain the bird-in-the-hand theory of cash dividends.
7. What is the effect of stock (not cash) dividends and stock splits on the market price of common stock? Why do corporations declare stock splits and stock dividends?

Build Your Communication Skills

- CS-1.** Find a company that has recently cut its dividend. Write a report on the market's reaction to this decision and the timing of that reaction. What are some possible explanations for this market reaction?
- CS-2.** Many people perceive a stock split as a very positive event. Find a company that has gone through a stock split. Write a short report on the market's reaction to the stock split around the time it was announced and at the time the split actually occurred. Were they different? Were they what you would expect? Explain.

Problems

- 16-1.** After discussion with the board of directors of the company, Lionel Mandrake, founder and chairman of Mandrake, Inc., decided to retain \$600 million from its net income of \$1 billion. Calculate the payout ratio.  **Payout Ratio**
- 16-2.** The net income of Harold Bissonette Resorts, Inc., was \$50 million this past year. The company decided to have a 40 percent payout ratio. How much was paid in dividends and how much was added to the retained earnings?  **Payout Ratio**
- 16-3.** Charleston Industrial revised its dividend policy and decided that it wants to maintain a retained earnings account of \$1 million. The company's retained earnings account at the end of 2005 was \$750,000, and it had earnings available to common stockholders of \$800,000 in 2006. What is Charleston Industrial's dividend payout ratio for 2006?  **Payout Ratio**
- 16-4.** Delenburk had net income of \$4 million for 2006, and it has a policy of maintaining a dividend payout ratio of 35 percent. Calculate the amount that was paid to shareholders in 2006. If the company had a retained earnings account of \$1.2 million at the end of 2005, what is the balance in the retained earnings account at the end of 2006?  **Payout Ratio**

Constant Payout Ratio and Retained Earnings

- 16-5.** Hannah Brown International maintains a dividend policy with a constant payout ratio of 30 percent. In the last three years, the company has had the following earnings.

	Year 1	Year 2	Year 3
Net Income (\$ million)	30	20	25

What is the total addition to retained earnings over the last three years?

Constant Dollar Dividend Policy

- 16-6.** Use the same data given in problem 16-5. Now, if the company followed a constant dollar dividend policy and paid \$10 million in dividends each year, compute the dividend payout ratios for each year and the total addition to retained earnings over the last three years.

Residual Dividend Theory

- 16-7.** Eliza Doolittle, the chief financial officer of East West Communications Corporation, has identified \$14 million worth of new capital projects that the company should invest in next year. The optimal capital structure for the company is 40 percent debt and 60 percent equity. If the expected earnings for this year are \$10 million, what amount of dividend should she recommend according to residual theory?

Residual Dividend Theory

- 16-8.** Use the same data given in problem 16-7. Now, what would be the amount of dividend that could be paid if East West's net income for this year is:
- \$16 million?
 - \$6 million?

Residual Dividend Theory

- 16-9.** DreamScapes Entertainment's financial managers have determined that the company needs \$12 million to fund its new projects for next year. It has an optimal capital structure of 20 percent debt and the rest equity. This year the company has \$24 million in earnings available to common stockholders and 20,000,000 shares outstanding. According to the residual theory, what is the dividend per share paid to common stockholders?

Stock Dividend

- 16-10.** Jan Brady, chief accountant of Mulberry Silk Products, is trying to work out the feasibility of a 20 percent stock dividend. The equity section of the balance sheet follows:

	(\$ 000s)
Common Stock (2 million shares, \$1 par)	2,000
Capital in Excess of Par	8,000
Retained Earnings	10,000
Total Common Equity	20,000

The current market price of the company's stock is \$31 per share. Is it possible to pay a 20 percent stock dividend? Is it possible to pay a 10 percent stock dividend? Explain.

Stock Dividend

- 16-11.** Use the same data given in problem 16-10. After payment of a 10 percent stock dividend, what will be the expected market price of the stock? Also, show how the equity section of the balance sheet will change.

- 16-12.** Malea Liberty has 800,000 common stock shares outstanding. It has decided to declare a 30 percent stock dividend. The new par value is the same as the original par value, \$3. Before the declared dividend, the retained earnings account was \$60,000,000 and capital in excess of par was \$13,600,000. The current stock price is \$40 per share. Calculate the new values for the following items:
- Number of shares of common stock
 - Capital in excess of par
 - Retained earnings

 **Stock Dividend**

- 16-13.** Malea Liberty's market price before the declared stock dividend was \$40 per share. What would be the market price after the declared stock dividend described in the problem 16-12? (Assume the total value of the firm's stock remains the same.)

 **Stock Dividend**

- 16-14.** Wesley Crusher, chief accountant of Blue Sky Cruise Lines, is trying to figure out the effect of a 3–1 stock split. The equity section of the balance sheet follows:

 **Stock Split**

	(\$ 000s)
Common Stock (3 million shares, \$1.00 par)	3,000
Capital in Excess of Par	7,000
Retained Earnings	<u>10,000</u>
Total Common Equity	20,000

The current market price of the company's stock is \$33 per share. If Blue Sky Cruise Lines decided to have a 3–1 stock split, how would the equity section change after the split? What would be the stock's market price?

- 16-15.** Use the same information given in problem 16-14. If Blue Sky Cruise Lines' net income is \$800,000, what is the earnings per share before and after the 3–1 stock split? Will there be any change in the price to earnings ratio before and after the stock split?

 **Stock Split**

- 16-16.** Sumner Outdoor Equipment Company decided to go for a 5–1 stock split. The common shareholders received a dividend of \$1.33 per share after the split.

 **Stock Split**

- If the dollar amount of dividends paid after the split is the same as that paid last year before the split, what was the dividend per share last year?
- If the dollar amount of dividends paid after the split is 10 percent higher than what was paid last year before the split, what was the dividend per share last year?

- 16-17.** Market price of Linden Landscaping Company's stock is \$30 the day before the stock goes ex-dividend. The earnings of the company are \$10 million, and the company follows a dividend policy with constant payout ratio of 40 percent. There are 1 million shares of common stock outstanding. What would be the new ex-dividend price of the stock?

 **Challenge Problem**

**Long-Term
Dividend (Residual
Theory)**



- 16-18.** In its strategic plan for the next five years, Springfield Manufacturing Company has projected the following net income and capital investments (figures in \$000s):

Year	Net Income	Investments
2007	1,000	800
2008	1,100	1,000
2009	1,200	2,000
2010	1,300	800
2011	1,400	1,000

The capital structure the company wishes to maintain is 40 percent debt and 60 percent equity. There are currently 500,000 shares of common stock outstanding.

If you own 500 shares of common stock, calculate the amounts you would receive in dividends over the next five years (2007 to 2011), assuming that the company uses the residual dividend theory each year to determine the dividend to be paid to its common stock holders.

**Long-Term
Dividend (Residual
Theory)**



- 16-19.** Use the same data given in problem 16-18. Now assume that the company plans to issue 100,000 new shares of common stock in 2009 at \$6 per share (\$1 par plus \$5 capital in excess of par). What will be the dividend that you receive in 2005, 2006, and 2007 assuming your common stock holding remains the same at 500 shares?

**Comprehensive
Problem)**

- 16-20.** The equity section of the balance sheet of Cafe Vienna is given next:

	(\$ 000s)
Common Stock (500,000 shares, \$3 par)	1,500
Capital in Excess of Par	3,500
Retained Earnings	5,000
Total Common Equity	10,000

The company earned a net income of \$3 million this year. Historically, the company has paid dividends with a constant payout ratio of 50 percent. The stock will sell at \$47 after the ex-dividend date.

William Riker, the vice president of finance for Cafe Vienna, is considering all possible ways to increase the company's earnings per share (EPS). One possibility he is weighing is to buy back some of the company's outstanding shares of common stock from the market using all the net income earned this year without paying any dividend to common stockholders.

- a. Determine the repurchase price of the common stock.
- b. Calculate the number of shares that could be repurchased using this year's net income.
- c. Show the changes in the equity section of the balance sheet after the repurchase.
- d. If net income next year is expected to be \$4 million, what would be the EPS next year with and without the repurchase?
- e. If you own 50 shares of the company's common stock, would you like the company's decision of buying back the stock instead of paying a dividend?

16-21. Blue Jays wants to bring its stock price down to a more attractive level. In order to do this, Blue Jays wants to implement a 4–1 stock split. Before the split, the company has 300,000 shares outstanding at \$4 par that were issued at a market price of \$9 per share; retained earnings is \$10,000,000. Fill in the values before and after the split.



Before the Split

Number of shares	_____
Common Stock	_____
Par Value	_____
Capital in Excess of Par	_____
Retained Earnings	_____
Total Common Stock Equity	_____

After the Split

Number of shares	_____
Common Stock	_____
Par Value	_____
Capital in Excess of Par	_____
Retained Earnings	_____
Total Common Stock Equity	_____

Student Mags

The student/educator site from MagazineLine

Study Break!

Order Now - Pay Later



\$5 Off

26 Issues Only \$15

Over 1,000 Titles Save up to 85%



1 Year - \$12 Save 80%

Online Access

Click Here to find your Favorite

Great Gift Ideas



Only \$7.50

Only \$14

www.StudentMags.com

Answers to Self-Test

- ST-1.** Dividend Payout Ratio = Dividends Paid \div Net Income = $(\$4/\text{share} \times 100,000 \text{ shares}) \div \$1,000,000 = \$400,000 \div \$1,000,000 = .40 = 40\%$
- ST-2.** No. According to the residual theory of dividends, the amount of earnings that should be retained is determined first. Whatever amount is not retained is paid out in dividends.
- ST-3.** A company following the clientele theory of dividends might have either high or low dividend payments. If the stockholders preferred high dividends, that is what would be paid. If they preferred low dividends, that would be the policy.
- ST-4.** The date of record is the date on which a company checks its stockholder records. Investors listed in the records on that date are entitled to receive the dividend that was recently declared.
- ST-5.** $\$2 \text{ original par value} \div 4 \text{ (4 for 1 split)} = \$.50 \text{ new par value}$



Extra Credit Rocks

Sign up for a Discover® Student Card today and enjoy:

- 0% Intro APR* on Purchases for 6 Months
- No Annual Fee
- Easiest Online Account Management Options
- Full 5% *Cashback Bonus*®* on Get More purchases in popular categories all year
- Up to 1% *Cashback Bonus*®* on all your other purchases
- Unlimited cash rewards that never expire as long as you use your Card

[APPLY NOW](#)

DISCOVER
CARD

*View Discover® Card Rates, Fees, Rewards and Other Important Information.