

# Why Dividend Policy Matters 18

Corporate Financial Management 3e  
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## Learning Objectives

- Describe common dividend policy characteristics.
- Explain the mechanics of dividend payments.
- Apply the three-step approach to dividend decisions.
- Distinguish special dividends from regular dividends and stock dividends from cash dividends.
- Describe five methods of share repurchase.

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## Chapter Outline

- 18.1 Dividend Policy in Practice
- 18.2 Why Does Dividend Policy Matter?
- 18.3 Asymmetric Information
- 18.4 Transaction Costs
- 18.5 The Role of Income Taxes
- 18.6 Dividend Policy Guidelines
- 18.7 Applying the Dividend Policy Guidelines
- 18.8 Share Repurchases
- 18.9 Transferable Put Rights
- 18.10 Stock Dividends and Stock Splits

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## Dividend Policy and the Principles of Finance

- Capital Market Efficiency
  - The potential to increase value through dividend policy is limited.
- Risk-Return Trade-Off
  - Dividends versus retained earnings is a risk-return trade-off.
- Signaling
  - Dividend changes can be viewed as new information, so they should be considered carefully.
- Behavioral
  - Use the information in other firms' dividends.

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## Dividend Policy and the Principles of Finance

- Two-Sided Transactions
  - Share repurchases from takeover raiders transfer wealth to the raiders from the other shareholders.
- Valuable Ideas
  - Look for dividend value creating ideas in connection with tax law changes.
- Time Value of Money
  - Always correctly adjust for the time value of money
- Options
  - Transferable put options may create value.

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## 18.1 Dividend Policy in Practice

- Preference for paying common dividends
  - Smaller and younger firms
  - Mature firms
- Stability of dividends
  - Dividends are more stable from year to year than are earnings.
  - They follow the trend in cash flow more closely.

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## Dividend Policy in Practice

- Regular decisions
  - Review dividend policy at least annually, and at about the same time each year.
- Regular payments
  - Quarterly payments most common.
  - Annual, semi-annual and monthly payments are less common.

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## Dividend Policy in Practice

- Reluctance to cut dividends
  - Dividend cut is interpreted as a negative signal.
- Extra or special dividends
  - Paid during periods of temporarily high earnings.
  - Generally occur at the end of the fiscal year.

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## Industry Differences in Dividend Policy

- Payout ratios vary systematically across industries.
  - Investment opportunities are comparable within an industry, but vary across industries.
- Behavioral principle suggests using payout ratios similar to those of other firms in the industry.
  - Firm-specific information must be taken into account.

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## Industry Differences in Dividend Policy

Industry	Payout Ratio 1980-2004
Prepackaged software	4.3%
Steel	20.1%
Life Insurance	23.8%
Chemicals	37.7%
Pharmaceuticals	43.5%
Petroleum Refining	47.8%
Electric utilities	67.7%

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## Dividend Payment Mechanics

- Dividends are declared by the board of directors:
  - amount of dividend
  - record date
  - payment date
- The **ex-dividend date** is two business days prior to the record date.

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## Dividend Payment Mechanics

On October 15, 2007, General Supply Co. announced a dividend of \$0.36 per share payable to shareholders of record as of November 7, 2007. The dividend would be paid on December 9, 2007.

What is the ex-dividend day?

What happens to the stock price on this day?

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## Dividend Payment Mechanics

- The ex-dividend day is 2 business days prior to the ex-dividend day.
  - Tuesday, November 5, 2007.
- Suppose General Supply's stock closed at \$20 on Monday, November 4, 2007.
- The stock would open ex-dividend on Tuesday, November 5, 2007 at about  $\$19.64 = \$20 - \$0.36$

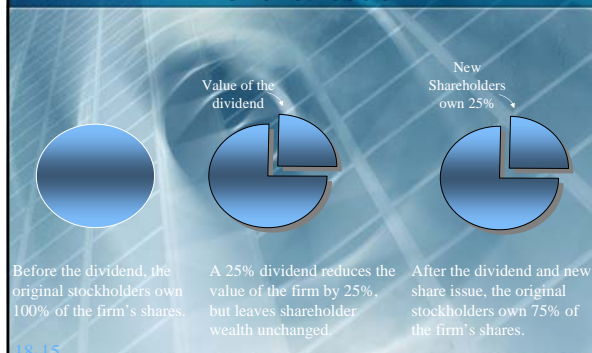
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## Dividend Payment Mechanics



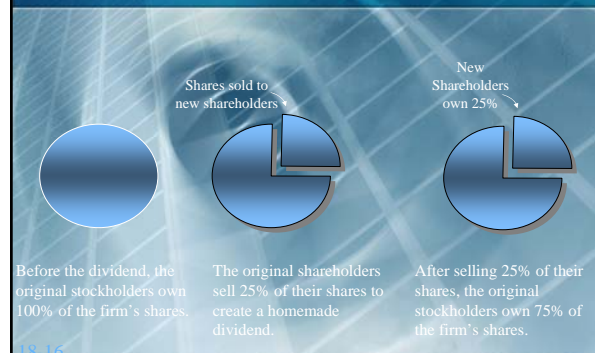
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## Cash Dividend Financed with Share Issue



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## Homemade Dividend



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## Irrelevance of Dividend Policy

- A compelling case can be made that dividend policy is irrelevant.
- Since investors do not need dividends to convert shares to cash, they will not pay higher prices for firms with higher dividend payouts.
- In other words, dividend policy will have no impact on the value of the firm because investors can create whatever income stream they prefer by using homemade dividends.

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## Homemade Dividends

- Bianchi Inc. is a \$42 stock about to pay a \$2 cash dividend.
- Bob owns 80 shares and prefers \$3 cash dividend.
- Bob's homemade dividend strategy:
  - Sell 2 shares ex-dividend

	homemade dividends	\$3 Dividend
Cash from dividend	\$160	\$240
Cash from selling stock	\$80	\$0
Total Cash	\$240	\$240
Value of Stock Holdings	$\$40 \times 78 =$ \$3,120	$\$39 \times 80 =$ \$3,120

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## Dividend Policy Is Irrelevant

- Since investors do not need dividends to convert shares to cash, dividend policy will have no impact on the value of the firm.
- In the above example, Bob began with total wealth of \$3,360:

$$\$3,360 = 80 \text{ shares} \times \frac{\$42}{\text{share}}$$

- After a \$3 dividend, his total wealth is still \$3,360:

$$\$3,360 = 80 \text{ shares} \times \frac{\$39}{\text{share}} + \$240$$

- After a \$2 dividend, and sale of 2 ex-dividend shares, his total wealth is still \$3,360:

$$\$3,360 = 78 \text{ shares} \times \frac{\$40}{\text{share}} + \$160 + \$80$$

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## Dividend Policy Is Irrelevant

- Since investors do not need dividends to convert shares to cash they will not pay higher prices for firms with higher dividend payouts. In other words, dividend policy will have no impact on the value of the firm.

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## 18.2 Why Does Dividend Policy Matter?

- Dividend policy is not irrelevant.
  - Actual capital markets are not perfect.
  - Capital market imperfections affect our conclusions about dividend policy.
- However, when there is an open flow of information (transparency) and reasonably efficient capital markets, a firm's value is less affected by its dividend policy than it is by its capital budgeting decisions.

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## 18.3 Asymmetric Information

- Asymmetric information is the main reason why dividend policy matters.
  - Accumulating free cash flow can lead to agency costs (employees may become "fat and happy.")
    - Reduced employee effort
    - Wasted expenses
    - Increased employee compensation and perquisites
  - Dividends can provide a monitoring device.

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## 18.4 Transaction Costs

- Flotation costs and brokerage commissions vary inversely with the size of the transaction.
  - This makes it cheaper for the firm to sell a large block of shares than for individual shareholders to make small purchases to reinvest their dividends.
- Restrictions in bond indentures, loan agreements, and preferred stock agreements
  - Designed to minimize the firm's agency costs.
- State laws
  - Designed to prevent excessive payments of dividends.
  - Often prohibit dividends to exceed a legally defined "surplus":
    - Retained earnings

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## DRIPs

- Dividend Reinvestment Plans offer shareholders the option to reinvest their dividends with little or no brokerage commission.
- This reduces the transaction-cost penalty a high-dividend-payout policy would otherwise impose on shareholders who wish to reinvest their dividends.
- DRIPs permit firms to reduce issuance costs substantially.
- They do not, however, eliminate the tax bias in favor of capital gains because shareholders must recognize the dividend income.

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## 18.5 The Role of Income Taxes

- Investor income taxes have historically created a bias in favor of capital gains and against dividends.
- This also reinforces the clientele effect.

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## 18.6 Dividend Policy Guidelines

- Project future residual funds.
  - Earnings and cash flow projections for the next few years.
  - Include depreciation generate funds.
  - Deduct capital expenditures.
- Determine an appropriate target payout ratio.
  - Range of payout ratios.
- Set the quarterly dividend.
  - Evaluate alternative dividend policies.

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## 18.7 Applying the Dividend Policy Guidelines

The Bondex Paper Co. (BPC) has 10 million shares outstanding. During 2006, it earned \$40 million and paid out \$1.20 per share in dividends. You are given the forecasts of earnings, depreciation funds, and capital expenditures for 2007 - 2009.

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## Applying the Dividend Policy Guidelines

- Evaluate the following three dividend policies and make a recommendation.
  - Maintain the 2006 dividend amount.
  - Maintain the 2006 payout ratio.
  - Increase the dividend to \$1.60 per share effective 2007.

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## Bondex Paper Co. (BPC): Residual Funds

	2007	2008	2009
Earnings to common	\$50	\$60	\$67
Depreciation funds	\$12	\$14	\$18
Capital expenditures	\$45	\$54	\$74
<b>Residual Funds</b>	<b>\$17</b>	<b>\$20</b>	<b>\$11</b>

*Note: All dollar values are in millions.*

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## BPC: Maintain Current Dividend

	2007	2008	2009
Earnings to common*	\$50 M	\$60 M	\$67 M
Earnings per share	\$5.00	\$6.00	\$6.70
Dividend per share	\$1.20	\$1.20	\$1.20
Payout ratio	24.0%	20.0%	17.9%
Total dividends*	\$12 M	\$12 M	\$12 M
<b>Surplus (deficit)*</b>	<b>\$5 M</b>	<b>\$8 M</b>	<b>(\$1 M)</b>

*\* In Millions of dollars*

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## BPC: Maintain Current Payout Ratio

	2007	2008	2009
Earnings to common*	\$50 M	\$60 M	\$67 M
Earnings per share	\$5.00	\$6.00	\$6.70
Dividend per share	\$1.50	\$1.80	\$2.01
Payout ratio	30.0%	300%	30.0%
Total dividends*	\$15M	\$18M	\$20.1 M
Surplus (deficit)*	\$2M	\$2M	(\$9.1 M)

\* In Millions of dollars

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## BPC: Increase Dividend to \$1.60

	2007	2008	2009
Earnings to common*	\$50 M	\$60 M	\$67 M
Earnings per share	\$5.00	\$6.00	\$6.70
Dividend per share	\$1.60	\$1.60	\$1.60
Payout ratio	32.0%	26.6%	23.9%
Total dividends*	\$16 M	\$16 M	\$16 M
Surplus (deficit)*	\$1 M	\$4 M	(\$5 M)

\* In Millions of dollars

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## Applying the Dividend Policy Guidelines

Dividend Policy	Average Payout Ratio	Total Surplus Funds
Maintain DPS	23.0%	\$12 Million
Maintain POR	30.0%	(\$5.1 Million)
DPS of \$1.60	28.0%	none

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## 18.8 Share Repurchases

- Factors Influencing Share Repurchase
  - Tax advantage to share repurchases
  - Reaction of investors
  - Impact on debt ratings
  - Effect on accounting for acquisitions

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## Implementing a Share Repurchase Program

- Open-market purchases
- Cash tender offers
- Transferable put rights
- Privately negotiated block purchases
- Exchange offers

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## Open-Market Purchases

- Advantages
  - No premium over market price.
  - Holders who desire liquidity get cash.
  - Less market impact than tender offer or exchange offer if program is not completed successfully.
- Disadvantages
  - Danger that buying can drive up market price, leading to a *de facto* premium.
  - Risk that market price can appreciate independent of the repurchase program before the program is completed.

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## Cash Tender Offers

- Advantages
  - Allows repurchase of significant number of shares quickly at a maximum price fixed at the outset of the program.
  - Targeted repurchases provide means of eliminating small holdings.
  - Holders who desire liquidity get cash.
- Disadvantages
  - Requires a premium of 10% to 25% over market price.
  - Higher transaction costs than open market repurchase.
  - Oversubscription or undersubscription may embarrass firm.

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## Transferable Put Rights

- Advantages
  - More effective than open market purchase at drawing out "loose" shares.
  - Provides means of eliminating small holdings.
- Disadvantages
  - Higher transaction costs than open market purchase program and than tender offer.
  - Put rights taxed as a dividend upon distribution but give rise to a short-term capital loss if they expire worthless; variety of complex tax consequences.

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## Privately Negotiated Block Purchases

- Advantages
  - Blocks can often be purchased at a discount from market price.
  - Attracts less attention than other methods.
- Disadvantages
  - Success of program dependent upon location of blocks.
  - Preferential treatment toward the selling shareholders may become an issue with other shareholders if blocks are purchased at a premium.

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## Exchange Offers

- Advantages
  - If preferred stock is offered in the exchange, there is a tax advantage to shareholders who exchange and hold the preferred.
  - Transaction cost savings to shareholders who exchange and hold.
- Disadvantages
  - Higher transaction costs than open market purchase program.
  - Shareholders offered a less liquid security that they may not wish to hold; thus exchange offer may require larger premium than a tender offer.
  - Oversubscription or undersubscription may embarrass firm.

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## 18.9 Transferable Put Rights

- Serve as a mechanism for reducing the cost of share repurchase program.
- A Transferable Put Right is the right to sell *the firm* one share of its common stock at a fixed price (the strike price) within a stated period (the time to maturity of the option).
- It's "transferable" because the option can be sold independent of its "birth" share.

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## Transferable Put Rights

- The put right can be bought or sold on the open market.
- In this way, shareholders can get the option value by selling the put if they do not want to exercise it.
  - Shareholders with a low cost basis would sell the option to avoid triggering a capital gains tax.
  - These shareholders would not have participated in a traditional share repurchase.

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## Valuing Transferable Put Rights

- Recall the option pricing models of Chapter 13.
- Transferable put rights are usually issued deep-in-the-money to induce shareholders (or the eventual put option holders) to sell the shares to the firm.
- The time to maturity is usually small, and the option's time premium is typically small. For convenience, we will ignore it.

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## Valuing Transferable Put Rights

- The initial value of a put right just after the offering is announced, and while the put right is still attached to the share is approximately:

$$R_p = \frac{S - P_R}{N - 1}$$

Where

$R_p$  is the value of one put right

$P_R$  is the market value of one share with the put right attached

$S$  is the strike price and

$N$  is the number of rights to sell one share

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## Valuing Transferable Put Rights

- Tax considerations modify things a bit:

$$R_p = \frac{(1 - T_g)S + T_g B - P_E}{(1 - T_g)N}$$

Where

$T_g$  is the capital gains tax rate.

$B$  is the tax basis of the marginal purchaser of the put right.

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## 18.10 Stock Dividends and Stock Splits

- A stock dividend proportionately increases the number of shares each shareholder owns.
- A 10% stock dividend:
  - Increases the total number of shares outstanding by 10%.
  - Increases each shareholder's holdings by 10%.
    - If a shareholder own 50 shares before the dividend, she owns 55 shares after the stock dividend is paid.

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## Stock Dividends

- The fair market value of these new shares is transferred from retained earnings to:
  - Paid-in capital
  - Capital contributed in excess of par value.
- Total common stockholders' equity remains unchanged.

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## Stock Splits

- A stock split alters the par value of the shares but there is no transfer of balances between the equity accounts.
- The total number of shares outstanding increases.
  - In a 3-for-2 stock split, 3 new shares are issued for every 2 pre-split shares outstanding.
  - Thus, there is a 50% increase in the number of shares outstanding.

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## Financial Impact of Stock Distributions

- Apart from any informational effects, the total market value of the stock remains unchanged after a stock dividend or a stock split.
- Since the number of shares outstanding increases in either case, the per-share price will drop correspondingly.

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## Financial Impact of Stock Distributions

- Assume the share price is \$45 before the stock distribution.
- After a 3-for-2 stock split, the share price will be  $\$45(2/3)$  or \$30.
- After a 10% stock dividend, the share price would be  $(\$45/1.10)$  or \$40.91.

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## Financial Impact of Stock Distributions

- After a stock dividend, the per-share cash dividend is usually unchanged.
- After a stock split, the cash dividend is either unchanged or reduced less than proportionately.
- In both cases,
  - the cash dividend per original share increases.
  - positive signal about firm value.

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## Financial Impact of Stock Distributions

- A popular rationale for stock dividends and stock splits is to bring the stock price to a more popular trading range (about \$10 to \$30 per share).
  - This may broaden the ownership of the firm's shares.

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## Summary

- Dividends matter because the capital markets are not perfect.
  - Failure to pay out excess cash can lead to waste and inefficiency.
  - Dividends are often believed to convey information.
- Dividends can provide a monitoring device for the firm's stakeholders.
- There are a number of alternative ways to pay dividends.

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