

# Chapter 17

## Dividends and Dividend Policy

### Chapter Organization

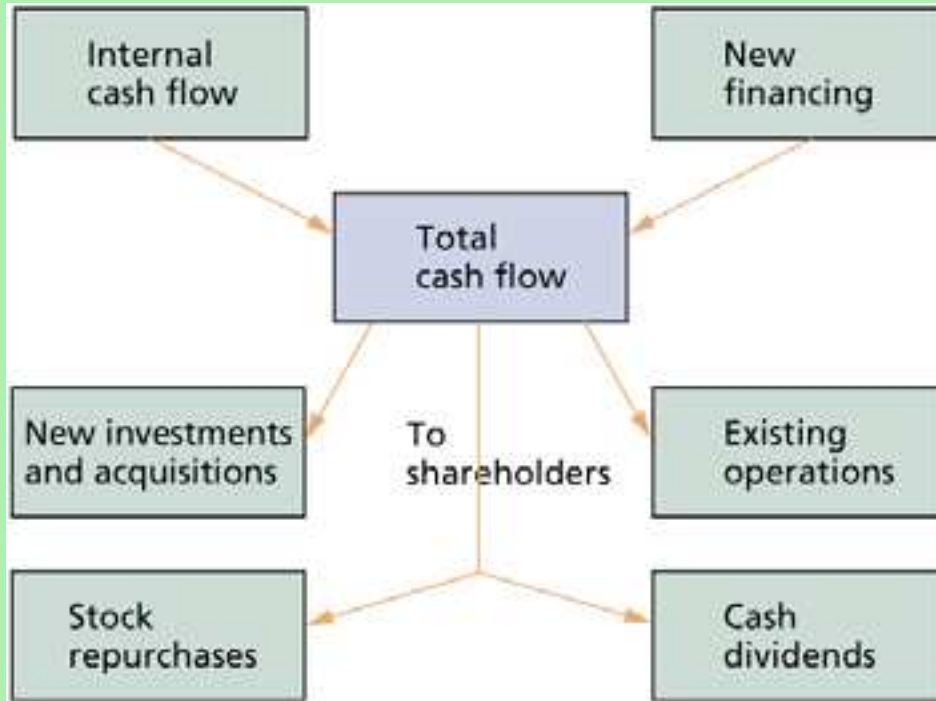
- 17.1 Cash Dividends and Dividend Payment
- 17.2 Does Dividend Policy Matter?
- 17.3 Real-World Factors Favoring a Low Payout
- 17.4 Real-World Factors Favoring a High Payout
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- 17.6 Establishing a Dividend Policy
- 17.7 Stock Repurchase: An Alternative to Cash Dividends
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## T17.2 Types of Distributions to Shareholders

- Cash dividends
  - ◆ Regular cash dividends
  - ◆ Extra cash dividends
  - ◆ Special dividends
  - ◆ Liquidating dividends
  
- Stock dividends and stock splits
  - ◆ Stock splits
  - ◆ Small stock dividends
  - ◆ Large stock dividends

Do all distributions have the same effect on shareholder wealth? Stay tuned!

## T17.2 Types of Distributions to Shareholders



**Figure 17.1**

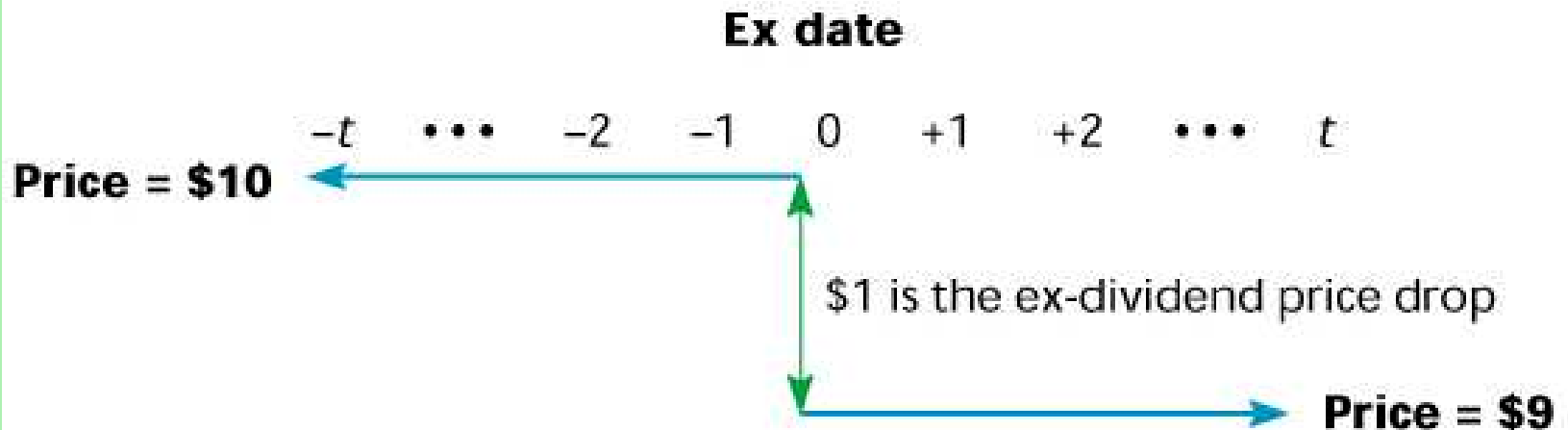
Distribution of corporate cash flow

### T17.3 Example of Procedure for Dividend Payment (Figure 17.1)



1. *Declaration date*: The board of directors declares a payment of dividends.
2. *Ex-dividend date*: A share of stock goes ex dividend on the date the seller is entitled to keep the dividend; under NYSE rules, shares are traded ex dividend on and after the second business day before the record date.
3. *Record date*: The declared dividends are distributable to those people who are shareholders of record as of this specific date.
4. *Payment date*: The dividend checks are mailed to shareholders of record.

## T17.4 The Ex-Day Price Drop (Figure 17.2)



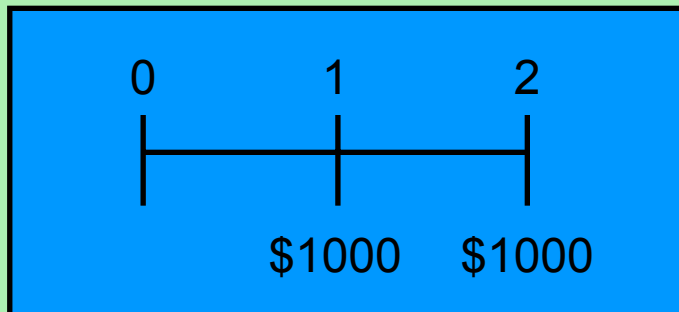
The stock price will fall by the amount of the dividend on the ex date (Time 0). If the dividend is \$1 per share, the price will be  $\$10 - 1 = \$9$  on the ex date:

Before ex date (Time -1), dividend = \$0	Price = \$10
On ex date (Time 0), dividend = \$1	Price = \$9

## T17.5 Does Dividend Policy Matter?

### Dividend policy versus cash dividends

- An illustration of dividend irrelevance
  - ◆ Original dividends

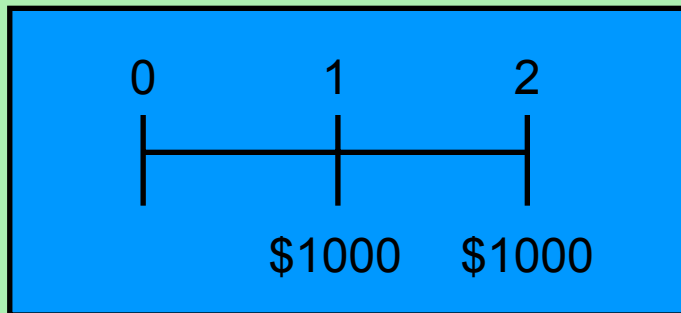


if  $R_E = 20\%$ :  $P_0 = \$1000/1.2 + \$1000/1.2^2 = \$$ \_\_\_\_\_

## T17.5 Does Dividend Policy Matter?

### Dividend policy versus cash dividends

- An illustration of dividend irrelevance
  - ◆ Original dividends



$$\text{if } R_E = 20\%: P_0 = \$1000/1.2 + \$1000/1.2^2 = \$1,527.78$$

## T17.5 Does Dividend Policy Matter? (concluded)

- ◆ New dividend plan

0	1	2
	\$1000	\$1000
	+200	-240
	<hr/>	<hr/>
	\$1200	\$760

$$P_0 = \$1200/1.2 + \$760/1.2^2 = \$ \underline{\hspace{2cm}}$$



## T17.5 Does Dividend Policy Matter? (concluded)

- ◆ New dividend plan

0	1	2
	\$1000	\$1000
	+200	-240
	<hr/>	<hr/>
	\$1200	\$760

$$P_0 = \$1200/1.2 + \$760/1.2^2 = \$1,527.78$$

## T17.6 Dividends and the Real World

- A **low payout** is better if one considers:
  - ◆ Taxes
  - ◆ Flotation costs
  - ◆ Dividend restrictions
  
- A **high payout** is better if one considers:
  - ◆ The need for current income
  - ◆ Uncertainty resolution
  - ◆ Tax benefits
  - ◆ Legal issues
  
- Who is right? Resolving the issue ---
  - ◆ The information content of dividends
  - ◆ The clientele effect

## T17.7 Example: Residual Dividend Policy

- A residual dividend policy:
  - ◆ Net income (projected) = \$200M
  - ◆ D/E (target) = 2/3 (E/V = \_\_\_%; D/V = \_\_\_%)
  - ◆ Capital budget (planned) = \$260M
  - ◆ Maximum capital spending with no outside equity:  
 $.60 \times C = \$200M \Rightarrow C = \$\underline{\hspace{2cm}}$
  - ◆ Therefore, a dividend will be paid
  - ◆ New equity needed =  $.60 \times \$260M = \$\underline{\hspace{2cm}}$   
New debt needed =  $.40 \times \$260M = \$\underline{\hspace{2cm}}$
  - ◆ Dividend =  $\$ \underline{\hspace{2cm}} - \$156M = \$\underline{\hspace{2cm}}$

## T17.7 Example: Residual Dividend Policy

- A residual dividend policy:
  - ◆ Net income (projected) = \$200M
  - ◆ D/E (target) = 2/3 (E/V = 60%; D/V = 40%)
  - ◆ Capital budget (planned) = \$260M
  - ◆ Maximum capital spending with no outside equity:  
 $.60 \times C = \$200M \Rightarrow C = \$333.33M$
  - ◆ Therefore, a dividend will be paid
  - ◆ New equity needed =  $.60 \times \$260M = \$156M$   
New debt needed =  $.40 \times \$260M = \$104M$
  - ◆ Dividend =  $\$200M - \$156M = \$44M$

## T17.8 The Best of All Worlds? Establishing a Compromise Dividend Policy

- What do financial managers really do? Many firms follow a compromise policy, balancing several factors. The compromise policy suggests that one should:

*Avoid rejecting +NPV projects to pay a dividend*

*Avoid cutting dividends*

*Avoid issuing new equity*

*Maintain target debt/equity ratio*

*Maintain target dividend payout ratio*

## T17.9 Example: Stock Repurchase Announcement

“America West Airlines announced today that its Board of Directors has authorized the purchase of up to 2.5 million shares of its Class B common stock on the open market as circumstances warrant over the next two years. . . .

“Following the approval of the stock repurchase program by the company’s Board of Directors earlier today, W.A. Franke, chairman and chief officer said ‘The stock repurchase program reflects our belief that America West stock may be an attractive investment opportunity for the Company, and it underscores our commitment to enhancing long-term shareholder value.’

“The shares will be repurchased with cash on hand, but only if and to the extent the Company holds unrestricted cash in excess of \$200 million to ensure that an adequate level of cash and cash equivalents is maintained.”

## T17.10 Example: The Effects of a Cash Dividend versus a Share Repurchase

- Assume no taxes, commissions, or other market imperfections
- Consider a firm with 50,000 shares outstanding and the following balance sheet

	Market Value	Balance Sheet	
Cash	\$ 100,000	\$ 0	Debt
Other Assets	900,000	1,000,000	Equity
Total	<u>\$1,000,000</u>	<u>\$1,000,000</u>	Total

## T17.10 Example: The Effects of a Cash Dividend versus a Share Repurchase (continued)

- Price per share is \$20 ( $\$1,000,000/50,000$ )  
Net income is \$100,000, so EPS = \$2.00  
The P/E ratio is 10
  
- The firm is considering;
  - ◆ 1) paying a \$1 per share cash dividend  
or
  - ◆ 2) repurchasing 2,500 shares at \$20 a share



## T17.10 Example: The Effects of a Cash Dividend versus a Share Repurchase (continued)

- 1. Choose the cash dividend  
(all stockholders get \$1 per share)

	Market Value	Balance Sheet	
Cash	\$ 50,000	\$ 0	Debt
Other Assets	900,000	950,000	Equity
Total	<u>\$ 950,000</u>	<u>\$ 950,000</u>	Total

- Price per share is \$19 ( $\$950,000/50,000$ )  
Net income is still \$100,000, so  $EPS = \$2.00$   
The P/E ratio becomes 9.5

## T17.10 Example: The Effects of a Cash Dividend versus a Share Repurchase (concluded)

- 2. Choose the repurchase  
(2,500 shares are repurchased at \$20 a share)

	Market Value	Balance Sheet	
Cash	\$ 50,000	\$ 0	Debt
Other Assets	900,000	950,000	Equity
Total	\$ 950,000	\$ 950,000	Total

- Price per share remains \$20 ( $\$950,000/47,500$ )  
Net income is still \$100,000, so EPS = \$2.10  
The P/E ratio is 9.5

## T17.11 Stock Dividends and Stock Splits

- Previously we included stock dividends and stock splits in the list of “distributions to shareholders.” Now let’s look at these events a little more closely.
  
- Do they matter?
  - ◆ *“Popular trading range” argument*
  - ◆ *Liquidity/ownership base*
  - ◆ *Cosmetic effects*
  - ◆ *Information effects*
  
- How about reverse splits?
  - ◆ *The trading range argument again*
  - ◆ *Can we “buy respectability”?*
  - ◆ *Minimum price requirements*
  - ◆ *Facilitating buyouts*

## T17.12 Accounting Treatment of Stock Dividends and Stock Splits

■ A. Before:

Common (\$1 par; 1 million shares)	\$1M
Add. paid in capital	9M
Retained earnings	<u>100M</u>
Total equity	<u><u>\$110M</u></u>
Market price per share	\$50

## T17.12 Accounting Treatment of Splits and Stock Dividends (concluded)

- B. “Small” stock dividend (10%)
  - ◆ 100,000 new shares at \$50 each = \$5M, so

Common (\$1 par; 1.1 million shares)	\$1.1M
Add. paid in capital	___M
Retained earnings	<u>___M</u>
Total equity	<u><u>\$110M</u></u>
Market price per share	\$45.45

## T17.12 Accounting Treatment of Splits and Stock Dividends (concluded)

- B. “Small” stock dividend (10%)
  - ◆ 100,000 new shares at \$50 each = \$5M, so

Common (\$1 par; 1.1 million shares)	\$1.1M
Add. paid in capital	13.9M
Retained earnings	<u>95M</u>
Total equity	<u><u>\$110M</u></u>
Market price per share	\$45.45

## T17.13 Chapter 17 Quick Quiz

1. When would managers issue an “extra” cash dividend?

*When management wishes to make a one-time cash distribution.*

2. Why does the price of a share of dividend-paying stock fall on the ex-dividend date?

*Because the buyer no longer receives the right to the dividend.*

3. What are the implications of the “clientele effect” for those who set the firm’s dividend policy?

*A dividend change, cet. par., is unlikely to attract additional investors.*

4. What are the implications of the “clientele effect” for those who set the firm’s dividend policy?

*If all dividend clienteles are satisfied (i.e., the dividend market is in equilibrium), then further changes in dividend policy are pointless.*

## T17.14 Solution to Problem 17.8

- The company with the common equity accounts shown below has declared an 8 percent stock dividend at a time when the market value of its stock is \$10 per share. What effects on the equity accounts will the distribution of the stock dividend have?

Common stock (\$1 par value)	\$ 450,000
Capital surplus	1,550,000
Retained earnings	<u>3,000,000</u>
Total	<u><u>\$5,000,000</u></u>





## T17.14 Solution to Problem 17.8 (concluded)

New shares outstanding =  $450,000 (1.08) = 486,000$

Capital surplus for new shares = \$324,000

Common stock (\$1 par value)	\$486,000
Capital surplus	1,874,000
Retained earnings	<u>2,640,000</u>
Total	<u><u>\$5,000,000</u></u>

## T17.15 Solution to Problem 17.12

- Farside Corporation follows a strict residual dividend policy. Its debt-to-equity ratio is 3.
  - a. If earnings for the year are \$100,000, what is the maximum amount of capital spending possible with no new equity?
  - b. If planned investment outlays for the coming year are \$550,000, will Farside pay a dividend? If so, how much?
  - c. Does Farside maintain a constant dividend payout? Why or why not?

## T17.15 Solution to Problem 17.12 (concluded)

- a. Maximum capital outlays with no equity financing  
= \$100,000 + 3(\$\_\_\_\_\_) = \$\_\_\_\_\_.
- b. If planned capital spending is \$\_\_\_\_\_, then no dividend will be paid and new equity will be issued.
- c. The firm (does/does not) maintain a constant dividend payout ratio.

## T17.15 Solution to Problem 17.12 (concluded)

- a. Maximum capital outlays with no equity financing  
= \$100,000 + 3(\$100,000) = \$400,000.
- b. If planned capital spending is \$550,000, then no dividend will be paid and new equity will be issued.
- c. The firm **does not** maintain a constant dividend payout ratio.

**With a strict residual policy, the dividend will depend on the investment opportunities and earnings. As these two things vary, the dividend payout will also vary.**

## T17.16 Solution to Problem 17.14

- You own 1,000 shares of Metaphysics Corporation. You will receive a 35-cent per share dividend in one year. In two years, Metaphysics will pay a liquidating dividend of \$20 per share. The required return on Metaphysics stock is 15 percent. What is the current share price of your stock (ignoring taxes)? If you would rather have equal dividends in each of the next two years, show how you can accomplish this by creating homemade dividends. (Hint: Dividends will be in the form of an annuity.)

$$P_0 = \$.35/1.15^1 + 20/1.15^2 = \$.304 + 15.123 = \$15.43$$

$$\text{Let } D_1 = D_2 = D;$$

$$\$15.43 = D/1.15^1 + D/1.15^2 = D(\text{PVIFA}_{15,2}) = D(1.6257)$$

$$D = \$9.49$$