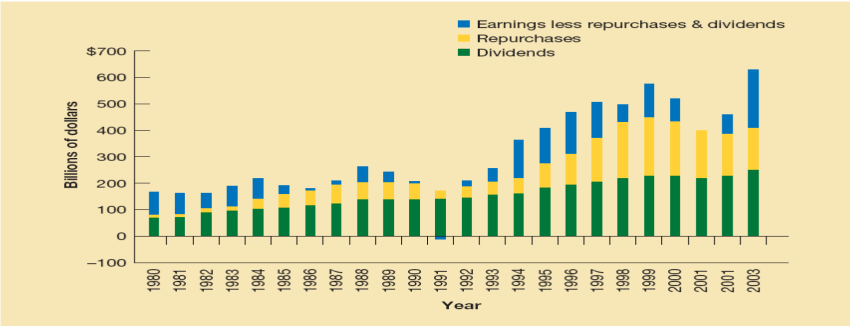
FIN 302 Class Notes

Chapter 16: Payout Policy

Companies can pay out cash to their shareholders in two ways: cash dividends or stock repurchases.



Cash dividends:

- Regular cash dividends (quarterly)
- Extra cash dividends (may or may not be repeated)
- Special dividends (won't be repeated)
- Liquidating dividends (financed from proceeds of asset sales)

Important dividends dates:

Declaration date: The board of directors declares a payment of dividends. On this day, dividend is a legal liability of the corporation

Ex-Dividend date: Date that determines whether a stockholder is entitled to a dividend payment; anyone holding stock before this date is entitled to a dividend.

Record date: The declared dividends are distributable to shareholders of record on a specific date (allows 2 days for change of ownership to be recorded, so "holders of record " on ex-dividend date get dividends).

Payment date: The dividend checks are mailed to shareholders of record.

Price behavior on Ex-dividend day

Assuming the stock price is $10: The stock price will fall by the amount of the after-tax dividend on the ex date.
(Without taxes): if the dividend is $1 per share, the price will be equal to $10 - $1 = $9 on the ex date.
(With a personal tax rate of 0.28, the price will be equal to $10 – $1(1-0.28) = $10-$0.72
= $9.28

Before ex date dividend = 0	**Price = $10**
On ex date dividend = $1	**Price = $9 (No tax) or $9.28 (with tax)**

Dividends Irrelevance

Investors do not care where the return comes from, dividend income or capital gains, so long as the expected return is commensurate with expected risk

MM dividend-irrelevance theory states that if markets are efficient, dividend policy should not affect shareholder value. Assuming that a business' capital budgeting decision (accept all positive NPVs) and borrowing decisions have been made, it then becomes a choice as to how to raise equity capital: internally from earnings or financing externally from the sale of stock?

The assumptions required for the Dividend irrelevance to hold include:
1. Markets are perfect and frictionless.
2. Future investments and cash flows are known with perfect certainty.
3. The investment policy is fixed and is not affected by changes in dividend policy.
4. No Taxes

Example - Assume Rational Demiconductor has no extra cash, but declares a $1,000 dividend. They also require $1,000 for current investment needs. Using M&M Theory, and given the following balance sheet information, show how the value of the firm is not altered when new shares are issued to pay for the dividend.

Record Date		Pmt Date	**Post Pmt**
Cash	1,000	0	**1,000 (91 sh @ $11)**
Asset Value	9,000	9,000	**9,000**
Total Value	10,000 +	9,000	**10,000**
New Proj NPV	2,000	2,000	**2,000**
# of Shares	1,000	1,000	**1,091**
price/share	$12	$11	**$11**

NEW SHARES ARE ISSUED

Example - continued - Shareholder Value

	Record	Pmt	**Post**
Stock	12,000	11,000	**12,000**
Cash	0	1,000	**0**
Total Value	12,000	12,000	**12,000**

Stock = 1,091sh @ $115 = 12,000

- Assume stockholders purchase the new issue with the cash dividend proceeds.

Effect of Taxes:

Although individual taxes on capital gains (price appreciation) and ordinary income (dividend) are equal, effectively, capital gains are taxed at a lower rate since they are deferrable.

If taxes matter, then it may be that firms which pay dividends will have a lower value to shareholders than firms which retain them for investment.

Example:
Suppose all shareholders are in the 28% tax bracket and have a choice between investing in Firm G which pays no dividend or Firm D that does pay a dividend.

Firm G's stock is currently $100 and has a 20% ROE. Assume that the investor does not sell the shares - and the capital gain is untaxed. Therefore, the value of the share one year from now should be $120.

Firm D pays a $20 dividend.

What's the Value of Each of These Shares?

Price of Stock G

$$P0 = \frac{100 + 20}{1.20} = \$100$$

Price of Stock D

$$P0 = \frac{100 + 20\,(1-.28)}{1.20} = \$95.33$$

The difference between the price of Firm D's stock and Firm G's stock is simply the present value of the taxes that must be paid by the investor.

Taxes and Dividends

	Without Dividends	With Dividend
Next Year Price	$112.50	$102.50
Dividends	0	10
Before tax Payoff	**112.5**	**112.5**
Tax on dividends	0.4	0.4
Tax on capital gain	0.2	0.2
What is the value of the two stocks in the market if you want to make 10% return after tax?	**$100.00**	**$97.78**
Source of return		
Dividend	0	10
Capital gain	12.5	4.72
Total return before tax ($)	**12.5**	**14.72**
Total return before tax (%)	**12.50%**	**15.05%**
Total return after tax ($)	**10**	**9.78**
Total return after tax (%)	**10%**	**10%**

Determinants of Dividend Policy

- Legal constraints
- Restrictive covenants
- Tax considerations
- Liquidity and cash flow considerations
- Borrowing capacity
- Access to capital markets
- Earnings stability
- Information signaling
- Growth prospects
- Shareholder preferences

Different Policies

Passive Residual Policy: Dividends depends on the firm's investment opportunities. Dividends are determined after the firm takes its investment decisions. e.g. Growth firms will have low dividend payout

Stable Dollar Dividend Policies: most firms are reluctance to reduce dividends; therefore, they determine a certain dollar amount of dividend per share that they are certain they can maintain.

Constant payout ratio Policy: Pays a constant % of earnings as dividends. Here dividends are fluctuating.

Stock Repurchase : Firm buys back stock from its shareholders.

Stock Repurchase versus Cash Dividend

Assets ***Liabilities & Equity***

A. Original balance sheet

Cash	$150,000	Debt	0
Other assets	850,000	Equity	1,000,000
Value of Firm	1,000,000	Value of Firm	1,000,000

Shares outstanding=100,000

Price per share = $1,000,000/100,000=$10

Assets ***Liabilities & Equity***

B. After cash dividend

Cash	$50,000	Debt	0
Other assets	850,000	Equity	900,000
Value of Firm	900,000	Value of Firm	900,000

Shares outstanding=100,000

Price per share = $900,000/100,000=$9

Assets ***Liabilities & Equity***

C. After stock repurchase

Cash	$50,000	Debt	0
Other assets	850,000	Equity	900,000
Value of Firm	900,000	Value of Firm	900,000

Shares outstanding=90,000

Price per share = $900,000/90,000=$10

Motivation for Stock Repurchases in Practice

1. Return excess cash to stockholdrs
2. Takeover defense
3. Signal of confidence in the firm's future prospects
4. To meet the needs of employee stock options and convertible securities
5. Alternative to a cash dividend

Advantages of Stock Repurchase to the Investor
1- Lower capital gains tax
2- Investor free to decide whether or not to participate
Stock Dividend : Distribution of additional shares to a firm's stockholders.

Example: Before stock dividends

Common Stock ($1 par; 1million shares)	$1M
Add. paid in capital	9M
Retained earnings	100M
Total equity	$110M

After stock dividends

Stock dividends of 100,000 new shares at $50 each = $5M

Common Stock ($1 par; 1.1million shares)	$1M + $100,000	= $1.1M
Add. paid in capital	9M + $4.9M	= 13.9M
Retained earnings	100M – 5M	= 95M
Total equity		$110M

Stock dividends come out of retained Earnings and gets distributed between Common and Add. paid in capital.

stock split: Issuance of added shares to shareholders. No cash is exchanged, only a change in the number of shares issued and the par value.

Example: Before stock split

Common Stock ($1 par; 1million shares)	$1M
Add. paid in capital	9M
Retained earnings	100M
Total equity	$110M

After stock split

4 for 1 Stock Split

Common Stock ($0.25 par; 4 million shares)	$1M
Add. paid in capital	9M
Retained earnings	100M
Total equity	$110M

Example - After the stock dividend what is the new price per share and what is the new value of the firm?

Answer

- The value of the firm was 1mil x $50 per share, or $50 mil. After the dividend the value will remain the same.
- Price per share = $50 mil / 1.1 mil sh = $45.45 per sh.

Reasons for Declaring a Stock Dividend and Stock Split

1- Broaden the ownership of the firm's shares and broaden the appeal of the stock to investors

2- Signal the firm's future prospects

What do financial managers really do?

Many firms follow the following rules:

1- Avoid rejecting +NPV projects to pay a dividend
2- Avoid cutting dividends
3- Avoid issuing new equity (to finance a high dividend payout)
4- Maintain target debt/equity ratio (to max. firm value)
5- Maintain target dividend payout ratio (i.e. a long-run proportion of earnings that is paid out in dividends)