Corporate Finance

Lecture 11: Payout Policy

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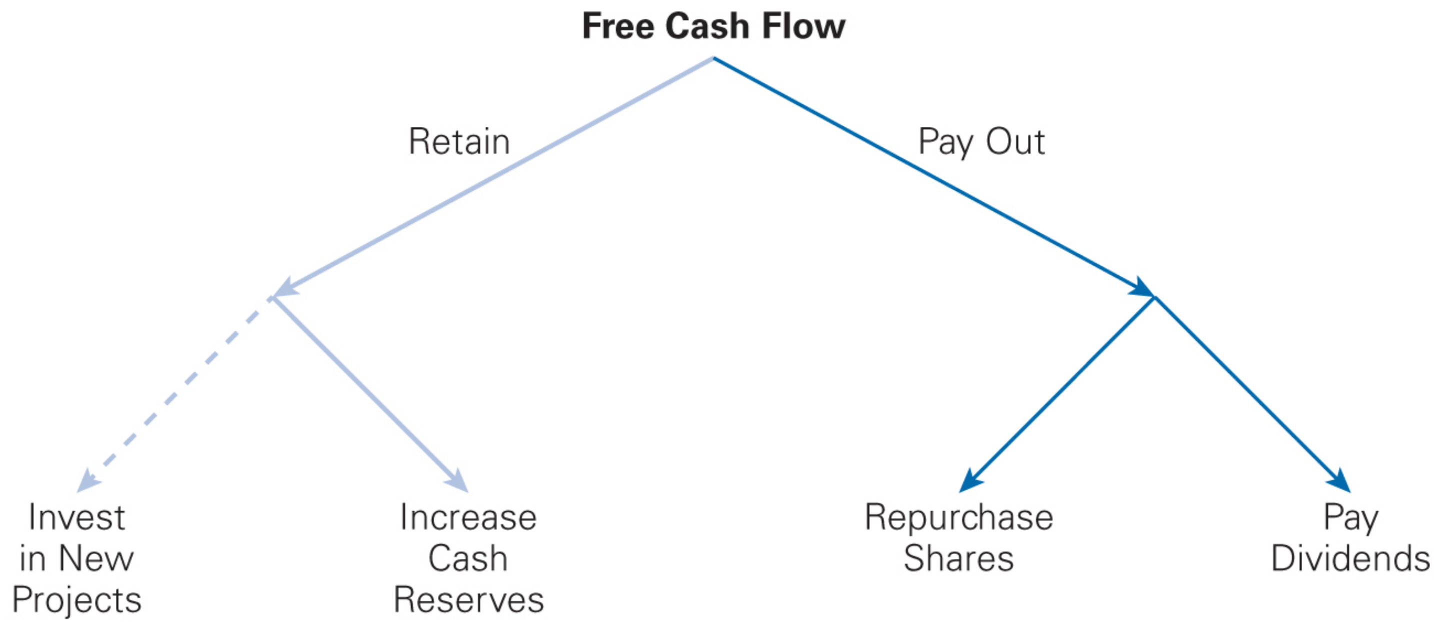
Uses of Free Cash Flow



- Note: this chart is for an all-equity firm; a levered firm can also use FCF for interest and principal debt payments.

Distributions to Shareholders

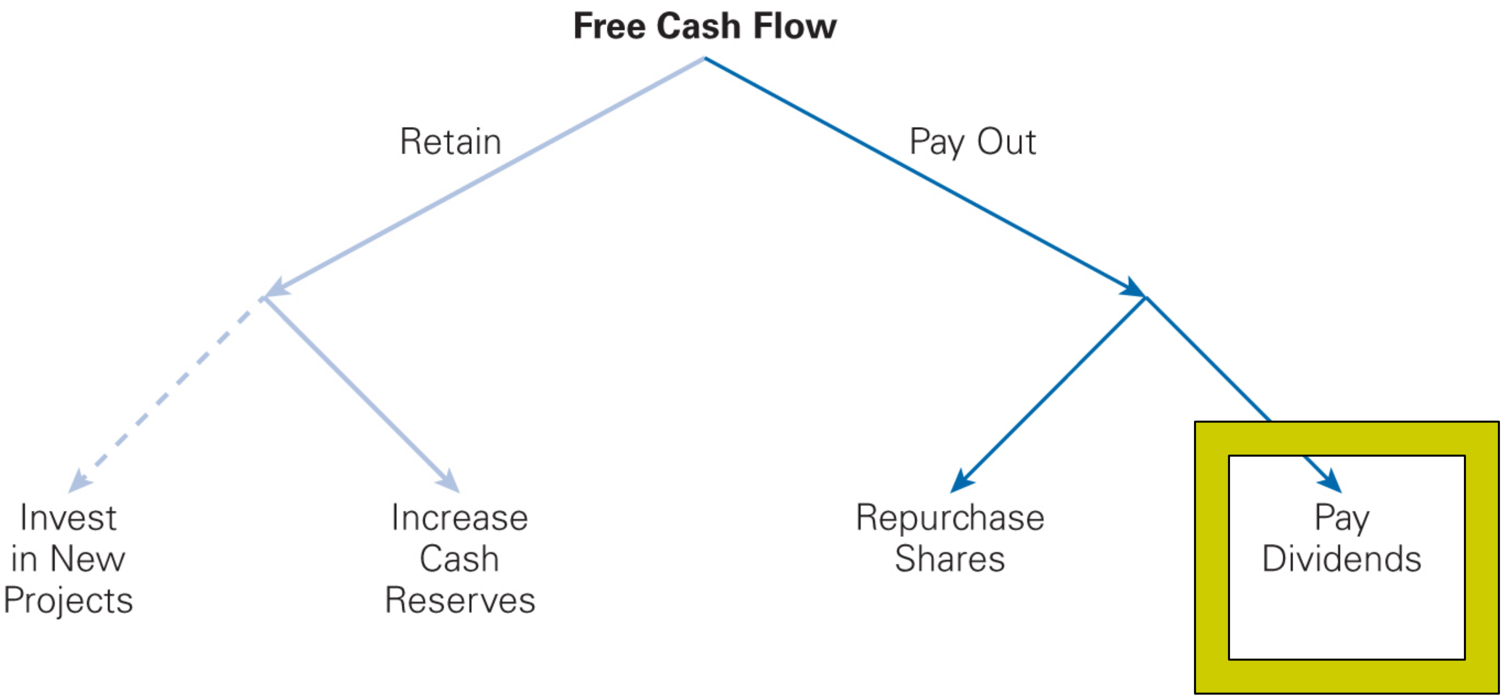
Payout Policy: The ways in which firms return capital to their equity investors

Two options:

1. Dividends
2. Share Repurchases

How are these different from debt coupon payments?

Dividends


Free Cash Flow
Retain
Pay Out
Invest in New Projects
Increase Cash Reserves
Repurchase Shares
Pay Dividends

Dividends - Definition

Dividend: Payments made at the discretion of the corporation to its equity holders

The board of directors determines the amount of the firm's dividend

Cum-dividend (with) vs Ex-dividend (without) stock price

Dividend - Types

Ordinary Dividend:

- Usually paid at regular, quarterly intervals

Special Dividend:

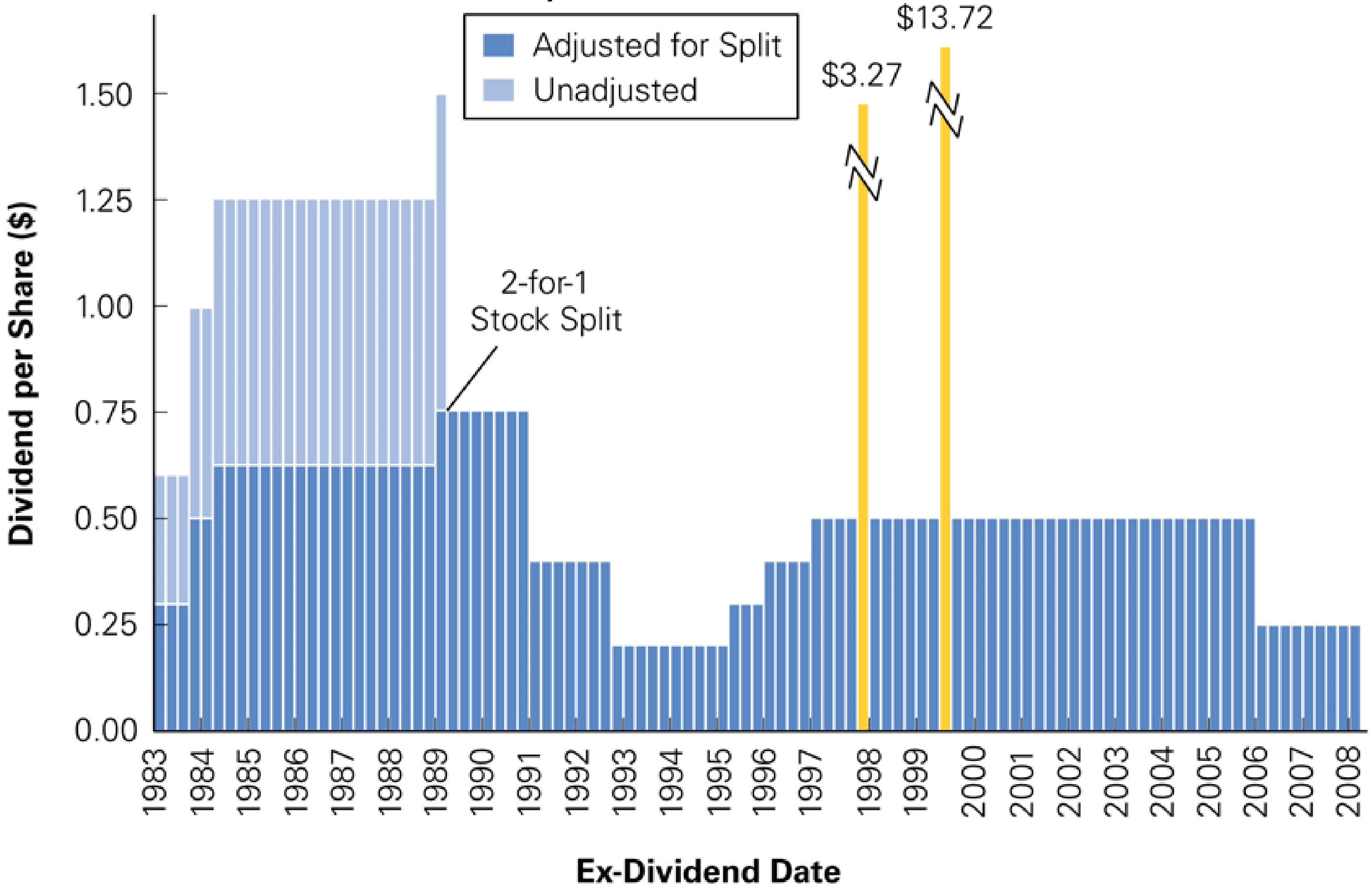
- One-time dividend payment a firm makes, which is usually much larger than a regular dividend

Stock Split (Stock Dividend)

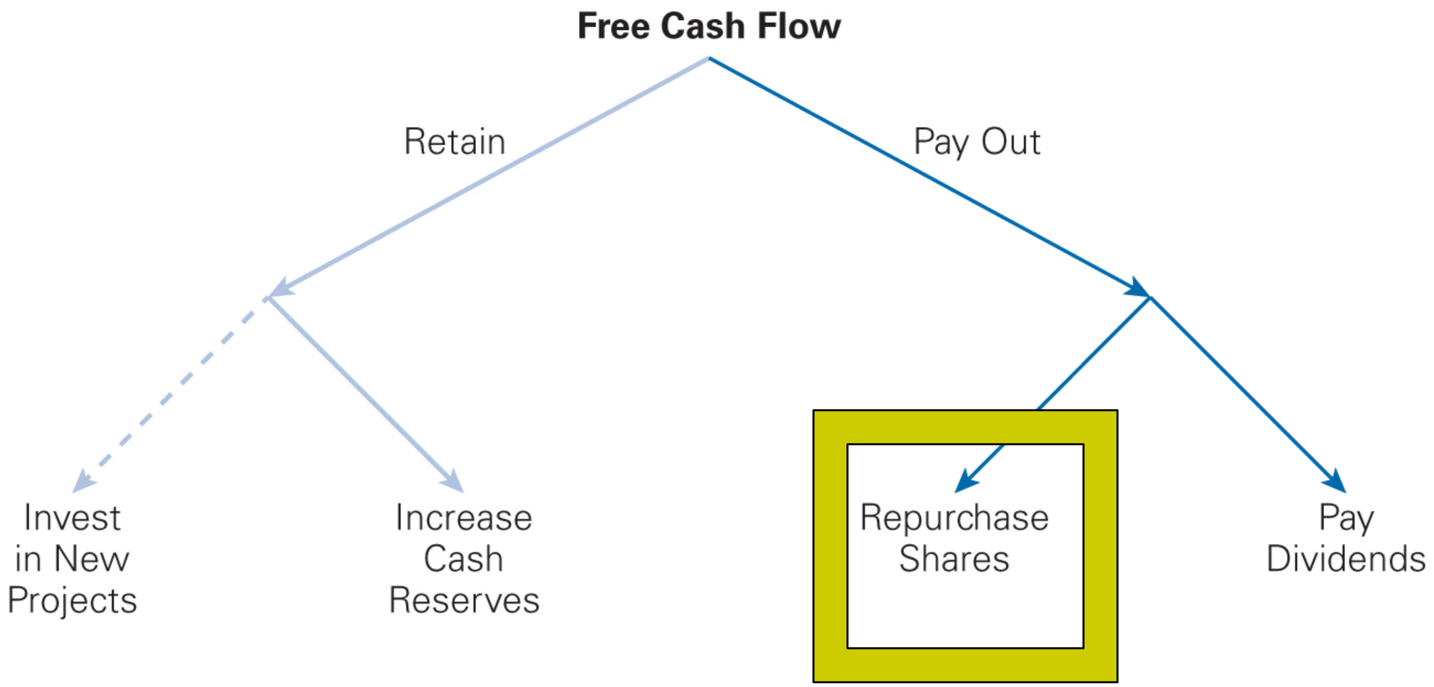
- When a company issues a dividend in shares of stock rather than cash to its shareholders

Dividend - Types

GM's dividend history:



Share Repurchases



Share Repurchases (Outline)

Definition

3 Types of Share Repurchases

- Open Market Purchase
- Tender Offer
- Targeted Repurchase

Share Repurchases – Definition

An alternative way to pay cash to investors is through a share repurchase or buyback

- The firm uses cash to buy shares of its own outstanding stock
- These shares are generally held in the corporate treasury and can be resold if the company needs to raise money in the future

Share Repurchases - Types

Open Market Purchase

When a firm repurchases shares by buying shares in the open market just like any other investors

Can take a year or even more to do so

These represent about 95% of all repurchase transactions

Share Repurchases - Types

<u>Open Market Purchase</u>

The firm must not buy its shares in a way that might manipulate the price

- Less than 25% of average daily trading volume
- No transactions either at the market open or close
- Why?
  - The purpose of this condition is to prevent the issuer from establishing either the opening or closing price of the stock, both of which are considered to be the guide in the direction of trading. (SEC Rule 10b-18)

Share Repurchases - Types

<u>Tender Offer</u>

A public announcement of an offer to all existing security holders to buy back a specified amount of outstanding securities

2 common methods: at pre-specified price or dutch auction

At a pre-specified price: typically set at a 10%-20% premium to the current market price

Over a pre-specified period of time: usually about 20 days

If shareholders do not tender enough shares, the firm may cancel the offer and not buyback occurs

Share Repurchases - Types

Tender Offer

Dutch Auction: A share repurchase method in which the firm lists different prices at which it is prepared to buy shares

Shareholders in turn indicate how many shares they are willing to sell at each price

The firm then pays the lowest price at which it can buy back its desired number of shares

Share Repurchases - Types

<u>Targeted Repurchase</u>

When a firm purchases shares directly from a specific major shareholder

The purchase price is negotiated directly with the seller

It often occurs if a major shareholder desires to sell a large number of shares, but the market for the shares is not sufficiently liquid

- Shareholder may be willing to sell at a discount

Another situation: anti-takeover (greenmail)

Comparison of Dividends and Share Repurchases

Payout Policy in PCM (Outline)

MM Dividend Policy Irrelevance

Examples:

- Pay Dividend
- Share Repurchase
- High Dividend

Current and Future Dividend Trade-Off

Dividend Policy Irrelevance

Modigliani-Miller Dividend Irrelevance:

In perfect capital markets, holding fixed the investment policy of a firm, the firm's choice of dividend policy is irrelevant and does NOT affect the initial share price.

A consequence:

A firm's free cash flow determines the level of payouts that it can make to its investors

Example

Consider JKR Corporation in Perfect Capital Market:

- No debt and $50mm of excess cash today
- Future perpetual free cash flows of $100mm/year
- 5mm shares outstanding and WACC of 10%

JKR's board is considering three payout policies:

1. Pay out $50mm as a dividend
2. Use $50mm to repurchase shares
3. Pay out an even larger dividend of $100mm today given higher future FCF

Example – Case I: Pay Dividend

JKR will be able to pay a dividend of:

- \$50 M/5 million shares = \$10/share

Given that the firm will distribute all of its \$100 M cash flow, what will the dividend be for each year in the future?

- \$100 M/5 million shares = \$20/share

Example – Case I: Pay Dividend

What will the **cum-dividend** (i.e. with the dividend) price of JKR's shares be?

Share price = Market Value / # shares

= $1,050M/5M shares = $210/share

OR

Share Price =Current dividend + PV(Future Dividends)

=$10+($20/10%) = $210

Example – Case I: Pay Dividend

After the ex-dividend date, new buyers will not receive the current dividend

What will be the new share price?

$1,000/5 million shares = $200/share

OR

PV(Future Dividends)=$20/10% = $200/share

Example – Case I: Pay Dividend

	Cum-Dividend	Ex-Dividend
Cash	$50	$0
Other Assets	$1,000	$1,000
Total Market Value	**$1,050**	**$1,000**
Shares	5	5
Share Price	**$210**	**$200**

Example – Case I: Pay Dividend

In a perfect capital market, when a dividend is paid, the share price drops by the amount of the dividend

Why?

- What if the stock price fell by less than the dividend?

Example – Case II: Share Repurchase

Instead of paying a dividend this year, JKR uses the $50 million to repurchase shares on the open market

With an initial share price of $210, JKR will repurchase how many shares?

$50 M/$210 per share = 238,095 shares

This will leave how many shares in the market?

5 million – 238,095 = 4,761,905 shares

Example – Case II: Share Repurchase

What is the net effect on share price?

	Before Repurchase	After Repurchase
Cash	$50	$0
Other Assets	$1,000	$1,000
Total Market Value	**$1,050**	**$1,000**
Shares	5	4.761905
Share Price	**$210**	**$210**

Example – Case II: Share Repurchase

After the repurchase,

- What is the future dividend?
  - $100M/4.761M shares = $21 per share
- What is JKR's share price?
  - PV(Future dividends) = $21/10% = $210

In perfect capital markets, an open market share repurchase has ***no*** effect on the stock price.

Stock price is the same as the cum-dividend price if dividend was paid instead

Example – Investor Preferences

Investor preferences

- In perfect capital markets, investors are indifferent between the firm distributing funds via dividends or share repurchases
- By reinvesting dividends or selling shares, they can replicate either payout method on their own
  - **Homemade dividend**
- Consider an investor who holds 1000 shares

Example – Investor Preferences

	Dividends	Share Repurchase	
		Your shares are repurchased	Your shares are not repurchased
(Ex-dividend) Share Price	$200	$210	$210
# Remaining Shares	1000		1000
Remaining Stock Value	$200,000		$210,000
Dividend Received	$10,000		
Capital Gains		$210,000	
Total Portfolio Value	$210,000	$210,000	$210,000

Example – Investor Preferences

The value of the investor's portfolio remains the same regardless of payout policy

If the firm repurchases shares and the investor wants cash:

- Investor can raise cash by selling shares
- How much to sell?

If the firm pays a dividend and the investor prefers stock:

- Investor can use the dividend to purchase additional shares
- How much to buy?

Summary for case 1 and 2

Overall methodology:

- Stock price = PV(Cash flow per share)
- Stock price = PV(cash flow)/#SharesOutstanding

Dividend

- stock price reduce by the amount of the dividend

Repurchase

- Stock price stays unchanged, future dividend per share increases

The overall value should be the same

Homemade dividend:

- Investor can replicate a higher (lower) dividend by selling (buying) the company's shares by the value he wants

Example – Case III: High Dividend

Suppose JKR wants to pay \$100 million in dividends starting this year

It only has \$50 million in cash today

- Thus, JKR needs an additional \$50 million to pay the larger dividend now
- To do this, the firm decides to raise the cash by selling new shares

Example – Case III: High Dividend

Given a current share price of $210, JKR could raise $50 million by selling ??? shares

- $50 M/$210 per share = 238,095 shares
- This will increase shares outstanding to 5,238,095 shares

Example – Case III: High Dividend

New Dividend Per Share:

$100M/5,238,095 shares = $19.09/share

New Price Per Share:

Current Dividend + PV(Future Dividends)

$19.09 + $19.09/10% = $210

Share price is unchanged

Current vs. Future Dividends

There is a trade-off between current and future dividends

- If JKR pays a higher current dividend, future dividends will be lower
- If JKR pays a lower current dividend, future dividends will be higher

Let's look at a table…

Current vs. Future Dividends

JKR’s Dividends per share each year under the 3

		Dividend Paid ($/share)			
	Initial Share Price	Year 0	Year 1	Year 2	....
Dividend	$210	$10	$20	$20	...
Repurchase	$210	$0	$21	$21	...
High Dividend	$210	$19.09	$19.09	$19.09	...

Current vs. Future Dividends

JKR's Dividends per share each year under the 3 policies:

		Dividend Paid ($/share)			
	Initial Share Price	Year 0	Year 1	Year 2	….
Dividend	$210	$10	$20	$20	…
Repurchase	$210	$0	$21	$21	…
High Dividend	$210	$19.09	$19.09	$19.09	…

Q (Homemade dividend): If the company is paying dividend with policy 1, but an investor with 4000 shares wants a high dividend today (policy 3), how could (s)he achieve it through homemade dividend?

Dividend Policy Irrelevance

The net effect of changing dividends through share issuance and repurchase is that the *current* share price is *unchanged*

- Recall that under PCM trading securities is zero-NPV and any choice of leverage can be replicated by investors
- Same logic applies here as investors can replicate any dividend policy through a homemade dividend

Modigliani-Miller Dividend Irrelevance:

In perfect capital markets, holding fixed the investment policy of a firm, the firm's choice of dividend policy is irrelevant and does NOT affect the initial share price.

Here in the Real World…

In perfect markets, dividend policy is irrelevant

In reality, capital markets are not perfect and these imperfections should determine a firm's payout policy

Different payout policies have different tax implications

Smooth dividend payment conveys positive signal about the company's profitability

17-10. Suppose B&E Press paid dividends at the end of each year according to the schedule below. It also reduced its share count by repurchasing 5 million shares at the end of each year at the ex-dividend stock prices shown. (Assume perfect capital markets.)

	2009	2010	2011	2012	2013
Ex-Dividend Stock Price ($/share)	10.00	12.00	8.00	11.00	15.00
Dividend ($/share)		0.50	0.50	0.50	0.50
Shares Outstanding (millions)	100	95	90	85	80

a. What is total market value of B&E's equity, and what is the total amount paid out to shareholders, at the end of each year?

b. If B&E had made the same total payouts using dividends only (and so kept its share count constant), what dividend would it have paid and what would its ex-dividend share price have been each year?

c. If B&E had made the same total payouts using repurchases only (and so paid no dividends), what share count would it have had and what would its share price have been each year?

d. Consider a shareholder who owns 10 shares of B&E initially, does not sell any shares, and reinvests all dividends at the ex-dividend share price. Would this shareholder have preferred the payout policy in (b), (c), or the original policy?