Payout Policy

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Outline

1. **Some details + stylized facts**
2. Irrelevance
3. Taxes
4. Information asymmetry
5. Issuance + agency costs

Payout method 1: cash dividends (1/2)

Frequency
- Usually quarterly (some monthly, annually, etc…)
- Regular vs special dividends

Rules
- The level of dividends can be changed anytime
- Firms cannot pay dividends if its liabilities exceed the assets
- Subject to bond convenants

Payout method 1: cash dividends (2/2)

Dates
- Declaration date: Board declares a payment of dividends
- Record date: Dividends are distributable to shareholders of record on that date
- Ex-dividend date: Usually 3 days before the record date, stock prices become ex-dividend
- Payment date: Dividends checks are mailed

Reporting
- Dividend per share: £ per share
- Dividend yield: DPS / share price
- Payout ratio: DPS/EPS

Dividend patterns

Lintner (1956)

- Firms have long-run target dividend payout ratios
- Dividend policies are sticky: cuts are extremely rare
- Managers focus more on dividend changes from levels

Lintner model: $D_t = a(E_t) + (1\text{-}a)D_{t-1}$

Fama (1974)

- American firms pay out 59% of their earnings on average
- And put a weight of 73% on the previous year's dividend

"Do these statements describe factors that affect your company's dividend ratios ?"

Statement:	Percent agree or strongly agree (1)
(1) We try avoid reducing dividends per share (d)	93.8
(2) We try to maintain a smooth dividend stream from year to year (c)	89.6
(3) We consider the level of dividends per share that we have paid in recent quarters (a)	88.2
(4) We are reluctant to make dividend changes that might have to be reversed in the future (j)	77.9
(5) We consider the change or growth in dividends per share (b)	66.7
(6) The cost of raising external capital is smaller than the cost of cutting dividends (f)	42.8
(7) We pay dividends to attract investors subject to "prudent man" investment restrictions (e)	41.7
(8) We pay dividends to show that our firm is strong enough to raise costly external capital if needed (g)	17.9
(9) We pay dividends to show that our stock is valuable enough that investors buy it even though they have to pay relatively costly dividend taxes (h)	16.6
(10) We pay dividends to show that our firm is strong enough to pass up some profitable investments (i)	9.0

Brav, Graham, Harvey and Michaely, 2005

Payout method 2: share repurchases (1/2)

Open market purchase	• Most common way to repurchase shares • Firm announces its intention to buy back shares • Actual purchase in market like other investors
Tender offer	• Offer to buy shares at fixed price and fixed period • If the number tendered is greater than the number asked for, usually purchased on pro rata basis
Private negotiation	• Direct negotiation with major shareholders
Dutch auctions	• Shareholders specify price at which they would tender • Firm pays price that enables the number of shares seeked • http://www.youtube.com/watch?v=gq0wsXOKIL4

Payout method 2: share repurchases (2/2)

- Shares purchased belong to the remaining shareholders
- Repurchased shares usually kept in treasury rather than cancelled
- Shareholders do not need to authorise resale of such stocks
- Shareholders who sell shares are usually only taxed on capital gains

Repurchase patterns

- Shares repurchases were rare before the 80s, but have become increasingly common since
- Since the late 90s, US industrial firms pay out more in share repurchases than dividends
- Firms repurchase shares more often when there are tax advantages

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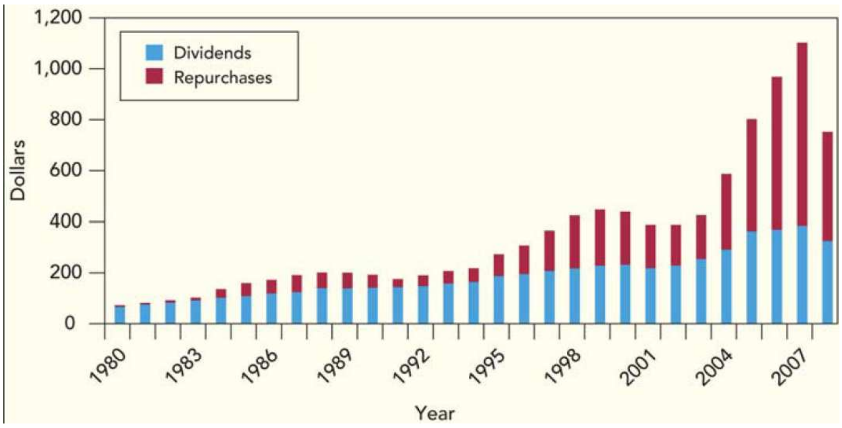
Repurchases vs dividends



Brealy, Myers, Allen

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Irrelevance

MM's dividend irrelevance

In perfect capital markets, the value of a firm is independent of its payout policy.

Proof:

- Paying dividends is a zero NPV transaction
- Investors can replicate dividends by selling shares, and vice-versa.

Q.E.D.

Example

- Firm generates £1M annually
- Required rate of return on equity R_E = 10%
- 100,000 shares outstanding

<u>Current dividend policy</u>

- Pay out all cash flows
  - DPS = £10
- Market value = $\frac{£1M}{10\%} = £10M$

  Stock Price P_0= $\frac{£10M}{0.1M} = £100$

<u>Alternative</u>

- Increase next dividend to £15
- Raise the necessary £500,000 by issuing new equity

Example

- Operations are unchanged, risk is unchanged
  - Still £1M cash flow
  - New shares subject to same risk: required return still 10%
- To raise £500,000, the issuer need to promise new shareholders a perpetuity of £50,000 $\left(\frac{£50{,}000}{10\%} = £500{,}000\right)$= 5%
- After next year, dividend to old shareholders will be

  £1M - £50,000 = £950,000

  DPS = 9.5
- Next year's price of old and new shares, P_1= £95

Example

- Today's stock price:

$$P_0 = \frac{E(P_1) + E(D_1)}{1 + 10\%} = \frac{95 + 15}{1.1} = £100$$

➔ The value of old shares is not affected
➔ Changing the dividends is a zero NPV transaction

Misconceptions

	Argument	But…
Bird in the hand fallacy	• Dividends are cash in hand • Equity is risky • Increasing dividends make equity less risky	• Dividends came from retained earnings • Value difference assume change in investment policy
Clientele	• Some investors live on dividends • These investors prefer a steady stream of cash	• Can "create" dividends themselves by selling stock

Taxes

The effect of taxes: dividends vs repurchases

- Dividends are taxed more heavily than repurchases*
- Even if capital gains tax = income tax, capital gains can be deferred
- Shareholders would prefer to receive money from repurchases rather than dividends

* Abolished in the US in 2003

Example

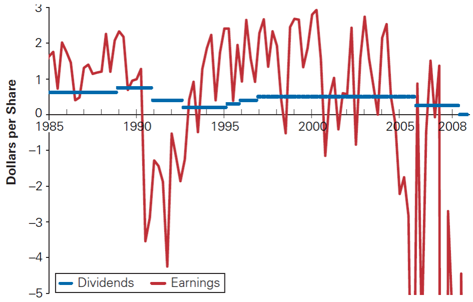
- All investors pay 28% tax on dividends and none on cap gains.
- Two identical firms except for dividend policy
- Firm G: P_0=100, R_E=10%, P_1=110
- Firm D pays a £10 dividend (and is then worth 100)

$$P_{D,0} = \frac{100 + 10(1 - 0.28)}{1.10} = 97.45$$

➔ The difference between firms D and G is the PV (tax paid by the investors)

Information asymmetry

Dividend smoothing



- Firms rarely cut dividends and only sometimes increase them
- Stock markets react +3-4% to initiations and -7% to omissions (*Michealy et al 1995*)

Berk & DeMarzo

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Signaling hypothesis - dividends

- Only good firms can sustain a high level of dividends over time
- Cuts are therefore a bad signal
- This should only be a temporary effect since the bad information will come out sooner or later

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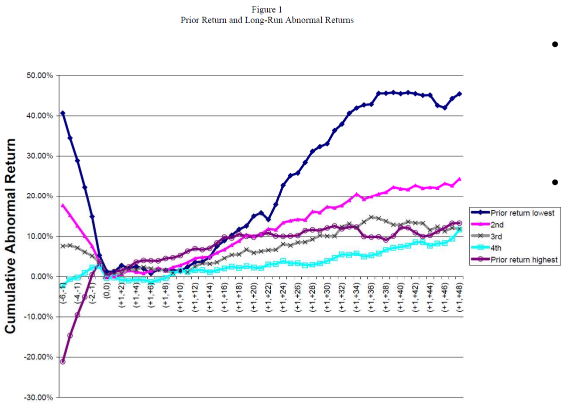
Market returns after repurchases



- Between 1980-90 buy-and-hold returns of 12% over 4 years after open market repurchases (Ikenberry et al.)
- Trading rule for tender offers:
  - Buy shares 6 days before expiration of offer
  - Tender if stock price is more than 3% below tender price
  - If not repurchased (oversubscribed) sell after expiration
  - Yields 6% returns

Peyer & Vermaelen

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Signaling hypothesis - repurchases

- Overreaction hypothesis: stocks overreact to bad news prior to the repurchase
- Stocks with most positive returns decline in previous 6 months

→ Market Timing

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Issuance and agency costs

Should the firm make a payout at all ?

What are the alternatives?

Retain cash	• Can alleviate liquidity problems especially if issuance is expensive • But can also create agency problems
Invest	• Depends on the availability of good projects
Buy back debt	• Back to capital structure question!

Conclusion

- Dividend changes are interpreted as signals about future prospects
  - Dividend smoothing
  - Provide information about reasons for cut

- Dividends and repurchases can serve to pay out excess cash
  - Drastic changes better with repurchases
  - Some shareholders may pay less tax on repurchases