Financing decisions (1)

Class 15
Financial Management, 15.414

Today

Financing decisions

- Financing patterns and stock market reaction
- Payout policy

Reading

- Brealey and Myers, Chapter 17

Financing decisions

What is the goal?

How can financing decisions create value?

- **Ensure that funds are available, both today and in the future, for positive NPV investments**

  Equity = flexibility; debt = constraints (in extreme, bankruptcy)

  Can constraints be good?

- **Minimize taxes**

- **Sell debt or equity for more than it's worth**
  And avoid selling for less!

  } Signalling: What message is sent?

- **Corporate control**

‘Only the Paranoid Survive’ by Andrew Grove

In other words, it is best when management recognizes and accepts the inevitability of change early on and acts before the vitality of the business has been sapped …

The reality, unfortunately, is that we tend to do the opposite. Most management will do too little too late and therefore fritter away the protection that the bubble of their existing business provides.

Recall Intel’s memory episode. We had been losing money in memories for quite some time. Yet we only reacted when the rest of our business went into a recession also. Next only acted when their cash needs forced them to. The previously successful Compaq was slow to react as the PC business turned into a lower margin commodity-like business. It took a six-month decline in revenue, profits and market share, including a $70 million loss and its first-ever layoffs before Compaq’s board of directors took draconian steps.

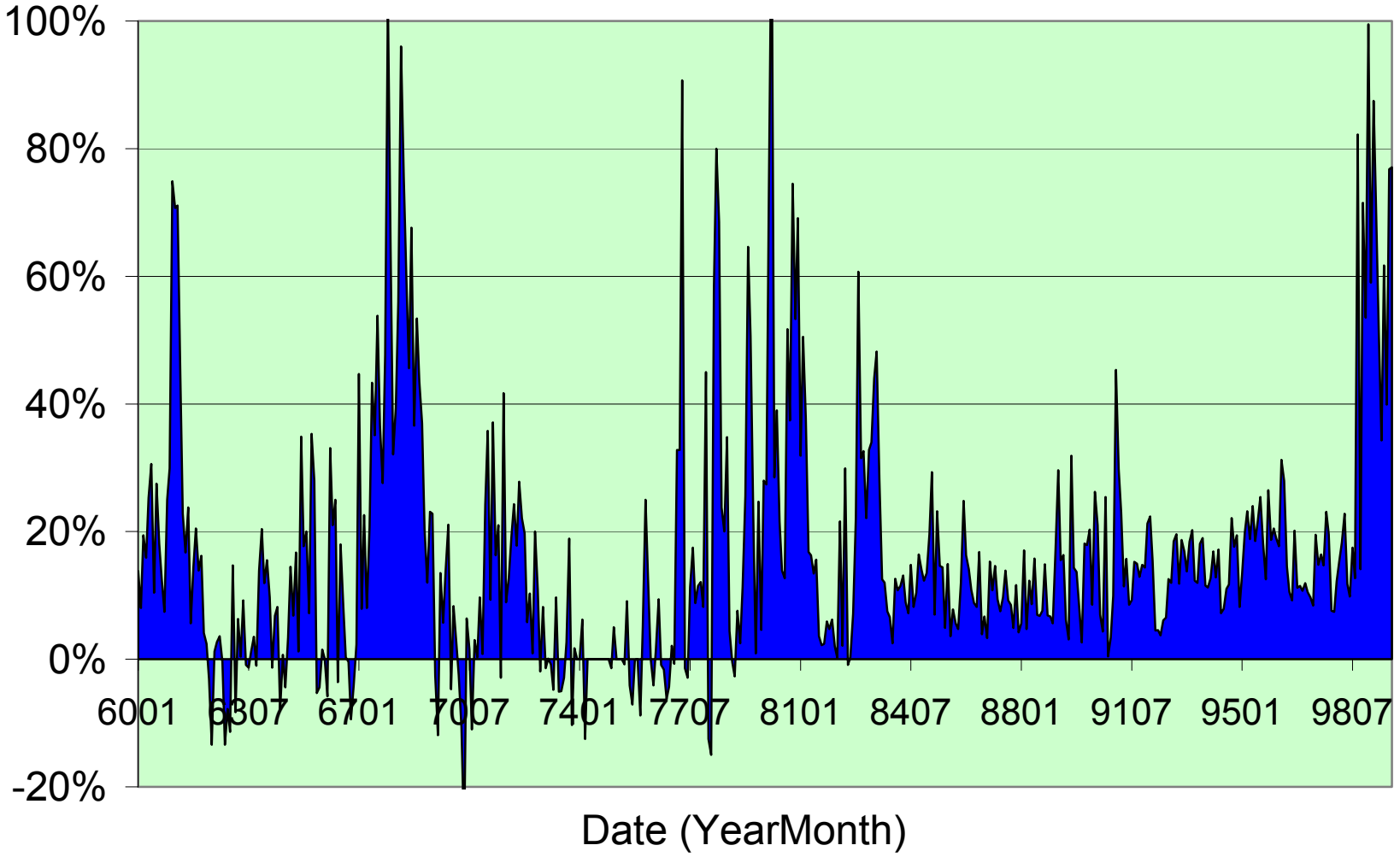
From: Grove, Andrew S. “Only the Paranoid Survive: How to Exploit the Crisis Points That Challenge Every Company.” Doubleday, 1999.

Direct costs of public offerings, 1990 – 1994

	IPOs			SEOs		
Proceeds	Spread	Other	Total	Spread	Other	Total
2 – 10	9.05%	7.91%	**16.96%**	7.72%	5.56%	**13.28%**
10 – 20	7.24	4.39	**11.63**	6.23	2.49	**8.72**
20 – 40	7.01	2.69	**9.70**	5.60	1.33	**6.93**
40 – 60	6.96	1.76	**8.72**	5.05	0.82	**5.87**
60 – 80	6.74	1.46	**8.20**	4.57	0.61	**5.18**
80 – 99	6.47	1.44	**7.91**	4.25	0.48	**4.73**
100 – 200	6.03	1.03	**7.06**	3.85	0.37	**4.22**
200 – 500	5.69	0.86	**6.53**	3.26	0.21	**3.47**
500 +	5.21	0.51	**5.72**	3.03	0.12	**3.15**
Average	**7.31**	**3.69**	**11.00**	**5.44**	**1.67**	**7.11**

Straight debt = 2.2%; convertible debt = 3.8%

Underpricing of IPOs, 1960 – 1997



International comparison of underpricing

Country	Data Source(s)	Average Initial Return (%)	Sample Size	Years
Australia	Lee et al.	11.9	266	1976-89
Belgium	Rogiers et al.	10.1	28	1984-90
Brazil	Aggarwal et al.	78.5	62	1979-90
Canada	Jog & Riding; Jog & Srivastava	5.4	258	1971-92
Chile	Aggarwal et al.	16.3	19	1982-90
Finland	Keloharju	9.6	85	1984-92
France	Husson & Jacquillat; Leleux & Muzyka; Palliard & Belletante	4.2	187	1983-92
Germany	Ljungqvist	10.9	170	1978-92
Hong Kong	McGuinness	17.6	80	1980-90
Italy	Cherubini & Ratti	27.1	75	1985-91
Japan	Fukuda; Dawson & Hiraki; Hebner & Hiraki	32.5	472	1970-91
Korea	Dhatt et al.	78.1	347	1980-90
Malaysia	Isa	80.3	132	1980-91
Mexico	Aggarwal et al.	33.0	37	1987-90
Netherlands	Wessels; Eijgenhuijsen & Buijs	7.2	72	1982-91
New Zealand	Vos & Cheung	28.8	149	1979-91
Portugal	Alpalhao	54.4	62	1986-87
Singapore	Koh & Walter	27.0	66	1973-87
Spain	Rahnema et al.	35.0	71	1985-90
Sweden	Ridder; Rydqvist	39.0	213	1970-91
Switzerland	Kunz & Aggarwal	35.8	42	1983-89
Taiwan	Chen	45.0	168	1971-90
Thailand	Wethyavivorn & Koo-smith	58.1	32	1988-89
U.K.	Dimson; Levis	12.0	2133	1959-90

Stock market reaction

How do stock prices react to security offerings?

Type of security	Industrials	Utilities
Common stock*	**-3.14%**	**-0.75%**
Preferred stock	-0.19	0.08
Convertible preferred	**-1.44**	**-1.38**
Straight debt	-0.26	-0.13
Convertible bonds	**-2.07**	--
Private placements of debt	**-0.91**	--
Bank loan agreements	**1.93**	--

*Approximately 30% of issue size (sometimes > 100%)

Stock market reaction

Debt issues

Stated purpose	Loan agreement	Private placement	Public straight bonds
Repay debt	1.14%	0.51%	-0.35%
Cap expenditure	1.20	-0.23	0.55
General purpose	**4.67**	0.26	0.07
Repay bank loans	**3.10**	**-2.07**	**-1.63**
No purpose given	**1.74**	--	0.69

Stock market reaction

Recapitalizations

Transaction	Security issued	Security retired	Announce return
Leverage increasing			
Stock repurchase	Debt	Common	**21.9%**
Exchange offer	Debt	Common	**14.0**
Exchange offer	Preferred	Common	**8.3**
Leverage decreasing			
Call exercise	Common	Debt	**–2.1**
Exchange offer	Common	Preferred	**–2.6**
Exchange offer	Preferred	Debt	**–7.7**
Exchange offer	Common	Debt	**–9.9**

Stock market reaction

Stock issues are bad news, but debt issues are either neutral or good news

Interpretation

- Dilution?
- Signaling: what types of firms issue equity vs. debt?

  Firms that are overvalued

  Firms with relatively poor prospects

  Exception: growth stocks

  Convertibles as 'backdoor equity'

Financing decisions

Empirical summary

- **Pecking order**
  Firms prefer internal to external financing, and external debt to external equity

- **Target capital structure**
  Firms seem to have target debt ratios. Different industries view the trade-off between debt and equity differently.

- **Investor reaction**
  Stock offerings are bad news, debt offerings are neutral, and bank loans are good news. Prices react positively to leverage-increasing transactions.

Capital structure, 1997

Industry	Debt / (Debt + Equity)
High leverage	
Building construction	60.2%
Hotels and lodging	55.4
Air transport	38.8
Primary metals	29.1
Paper	28.2
Low leverage	
Drugs and chemicals	4.8
Electronics	9.1
Management services	12.3
Computers	9.6
Health services	15.2

Payout policy

Questions

- How do firms payout cash?
- What are the advantages and disadvantages of each method?
- How much cash should a firm hold?

Payout policy

Payout methods

- **Dividends**
  Regular dividend
  Special dividend

- **Share repurchases**
  Open market repurchase
  Fixed price tender offer
  Dutch auction tender offer

Repurchases

Fixed price tender offer

- **Offer specifies a number of shares, a purchase price, and an expiration date**

  Avg 20% premium over market price
  If oversubscribed, shares are purchased pro rata

- **Management typically does not participate**

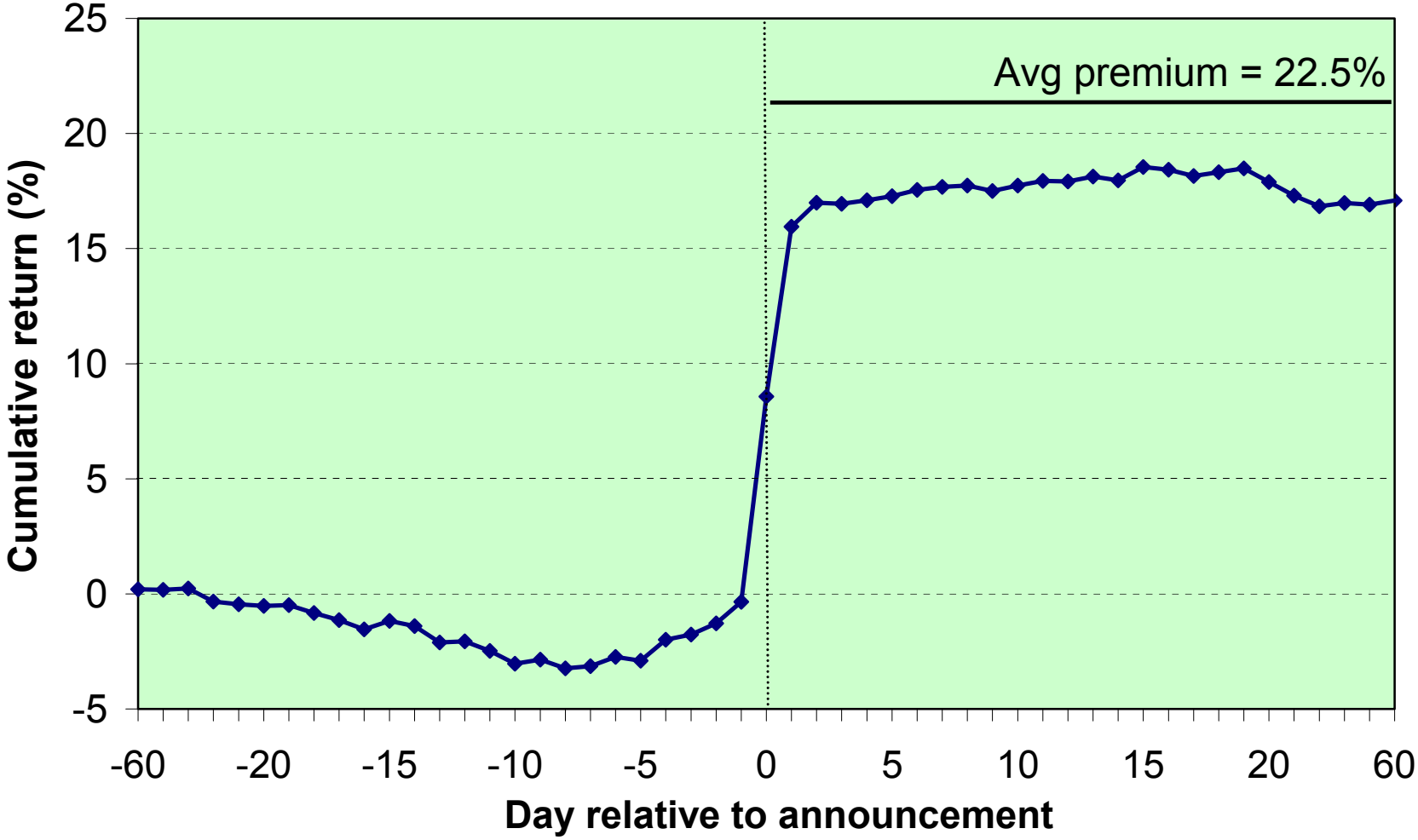
- **Example**
  Your firm has $5 million in excess cash and the stock is trading at $50. The firm announces that it will buy, directly from shareholders, up to 80,000 shares at $60 / share. You have 30 days to tender your shares.

Repurchases

How should the price react?

How should shareholders behave? Should you tender?

Fixed price tender offers, 1962 – 1979



Repurchases

Dutch auction tender offer

- **Offer specifies a number of shares, a price range, and an expiration date**

  Avg range is 2% – 16% above market price

- **Shareholders submit bids, specifying the number of shares and minimum price at which they'll sell**

  Repurchase price is the minimum necessary to complete the tender offer

- **Management may or may not participate**

  Participates 60% of the time

Repurchases

Example

Your firm has $5 million in excess cash and the stock is trading at $50. The firm announces that it will buy up to 80,000 shares at a price between $51 and $58.

Shareholders submit bids

- 10,000 shares at $51
- 20,000 shares at $52
- 30,000 shares at $53
- 20,000 shares at **$54**
- 10,000 shares at $55
- etc.

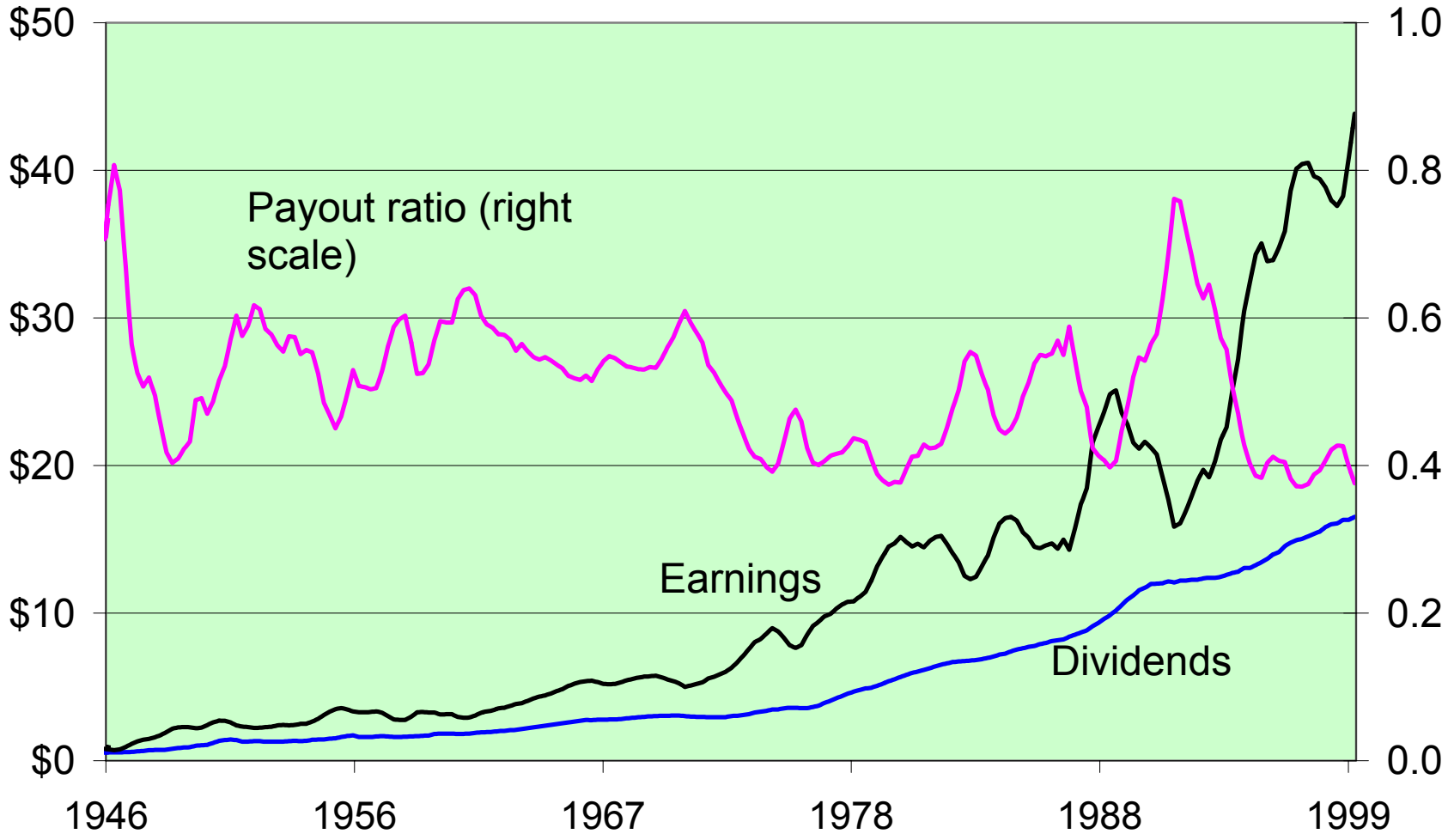
80,000 shares

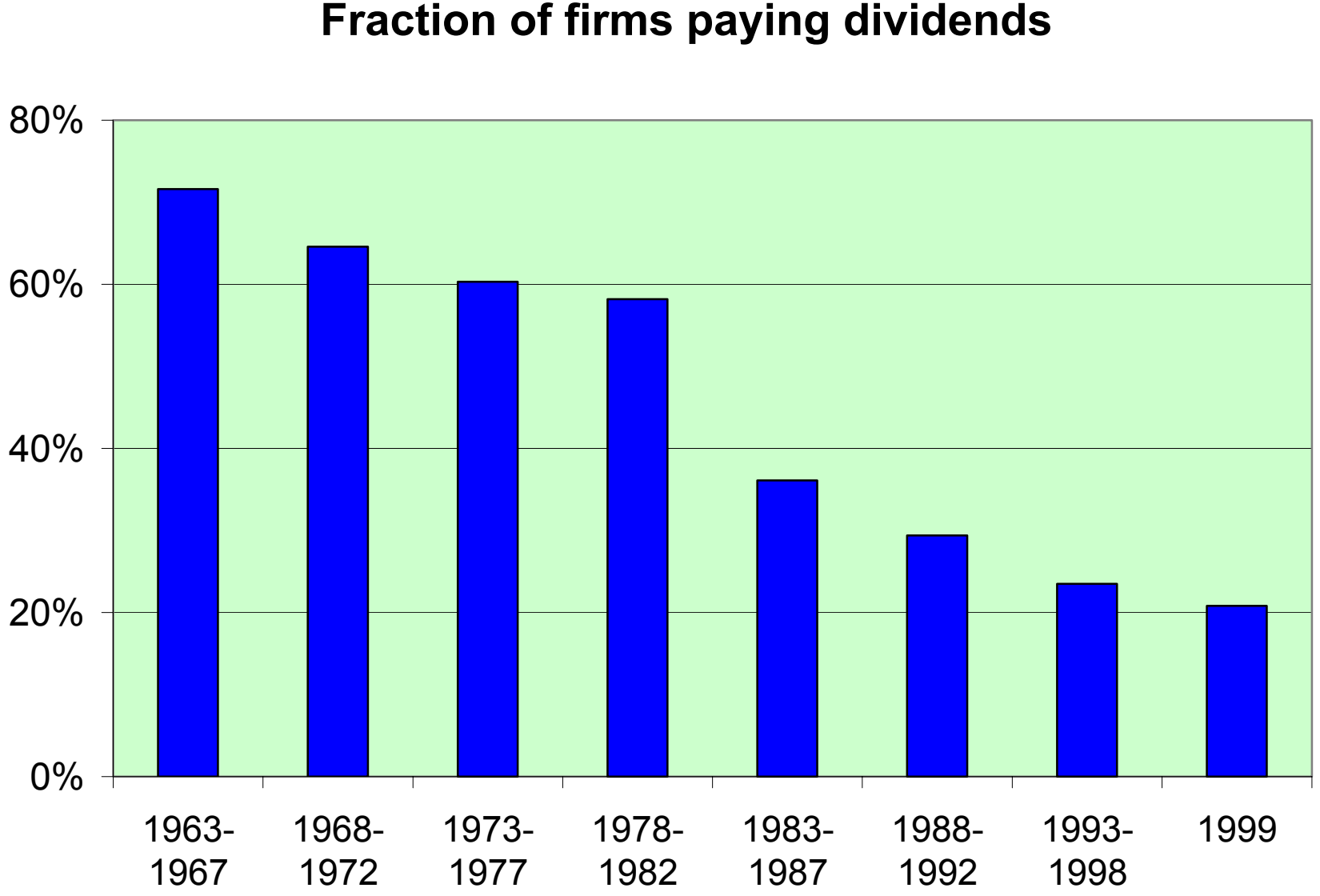
Repurchase price = $54 to all who tendered at $54 or lower

Stock price reaction

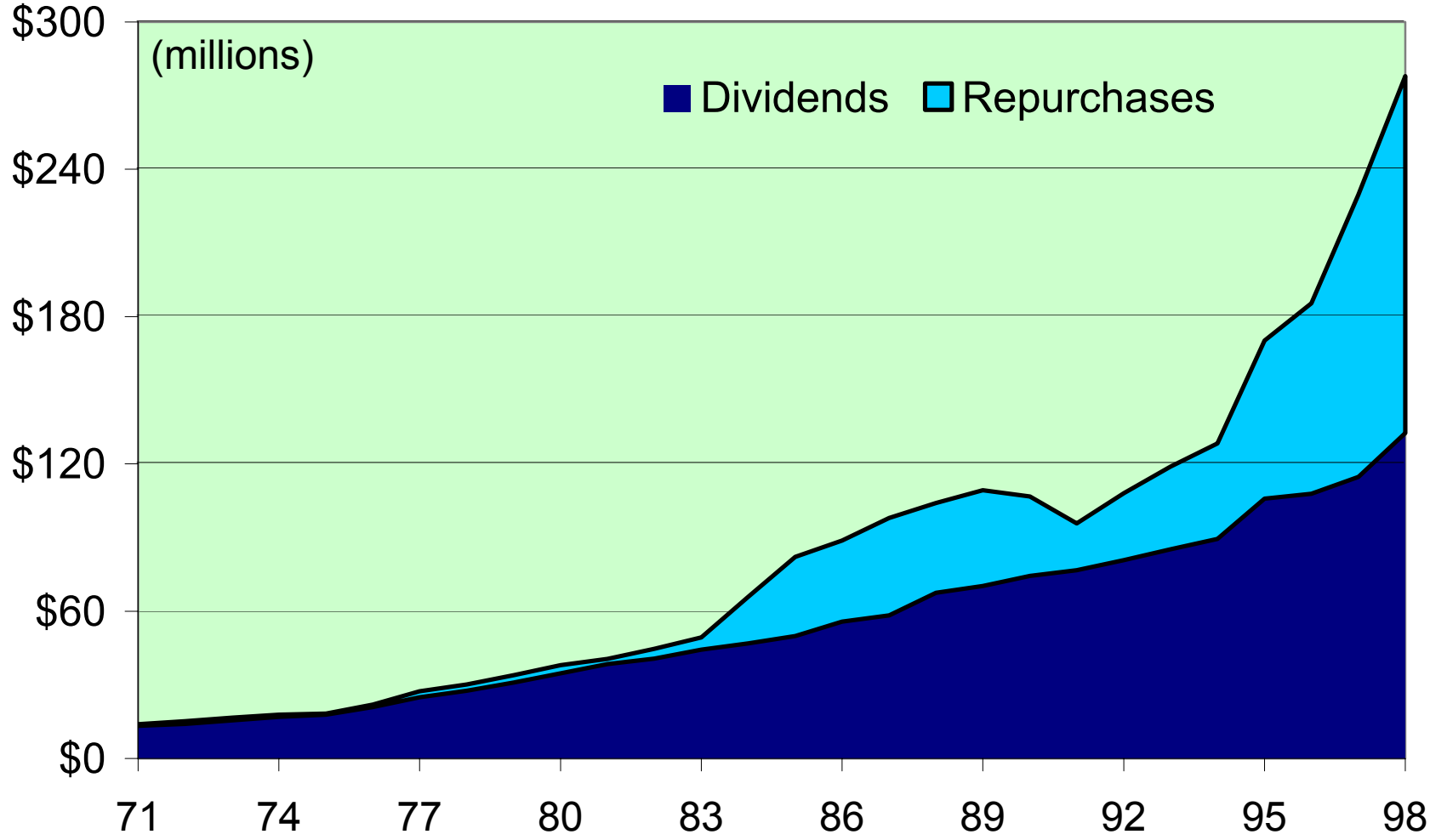
Event	Announcement return
Increases	
Repurchase: open market	3.6%
Repurchase: tender offer	16.2
Dividend increase	0.9
Dividend initiation	3.7
Special dividend	2.1
Decreases	
Dividend omission	-7.0%
Dividend decrease	-3.6

S&P 500, earnings and dividends




Fraction of firms paying dividends
80%
60%
40%
20%
0%
1963-1967
1968-1972
1973-1977
1978-1982
1983-1987
1988-1992
1993-1998
1999

S&P 500, dividends and repurchases



Payout policy

Factors

- **Dividends vs. repurchases**
  Taxes (repurchases are taxed less)
  Cashflow permanence (dividends are hard to cut)
  Signaling (do we think the stock is underpriced?)

- **Size of payouts (or cash holdings)**
  Taxes (retained earnings are cheaper than new equity)
  Future cash needs
  Debt ratio
  Stock price now and projected
  Riskiness of earnings and cashflows

  } maintain flexibility for positive NPV projects

Payout policy

So why do firms pay dividends?

‘Morality is all right, but what about dividends?’

Kaiser Wilhelm II
