

# Three “good” reasons for paying dividends...

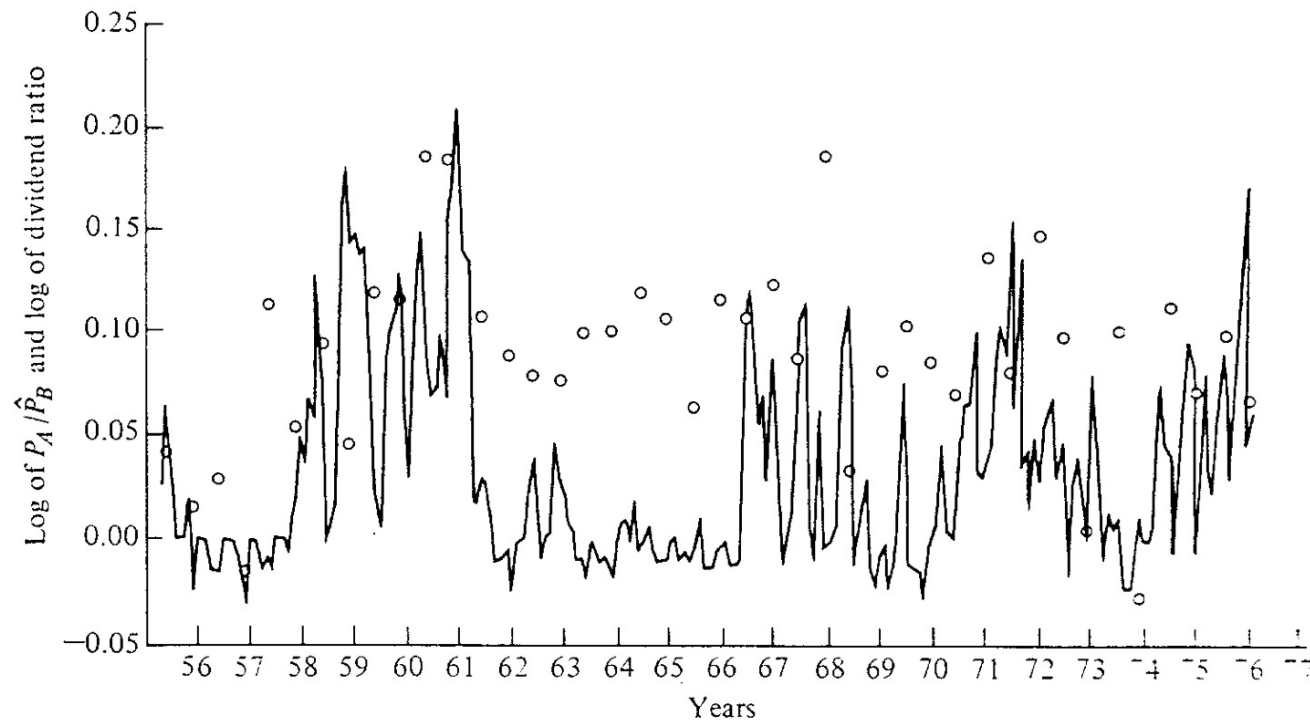
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- Clientele Effect: The investors in your company like dividends.
- The Signalling Story: Dividends can be signals to the market that you believe that you have good cash flow prospects in the future.
- The Wealth Appropriation Story: Dividends are one way of transferring wealth from lenders to equity investors (this is good for equity investors but bad for lenders)

# 1. The Clientele Effect

## The “strange case” of Citizen’s Utility

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Class A  
shares pay  
cash  
dividend

Class B  
shares offer  
the same  
amount as a  
stock  
dividend &  
can be  
converted to  
class A  
shares

# Evidence from Canadian firms

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Company	Premium for cash dividend shares
Consolidated Bathurst	+ 19.30%
Donfasco	+ 13.30%
Dome Petroleum	+ 0.30%
Imperial Oil	+12.10%
Newfoundland Light & Power	+ 1.80%
Royal Trustco	+ 17.30%
Stelco	+ 2.70%
TransAlta	+1.10%
Average across companies	+ 7.54%

# A clientele based explanation

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- Basis: Investors may form clienteles based upon their tax brackets. Investors in high tax brackets may invest in stocks which do not pay dividends and those in low tax brackets may invest in dividend paying stocks.
- Evidence: A study of 914 investors' portfolios was carried out to see if their portfolio positions were affected by their tax brackets. The study found that
  - ▣ (a) Older investors were more likely to hold high dividend stocks and
  - ▣ (b) Poorer investors tended to hold high dividend stocks

# Results from Regression: Clientele Effect

$$\text{Dividend Yield}_t = a + b\beta_t + c \text{Age}_t + d \text{Income}_t + e \text{Differential Tax Rate}_t + \epsilon_t$$

Variable	Coefficient	Implies
Constant	4.22%	
Beta Coefficient	-2.145	Higher beta stocks pay lower dividends.
Age/100	3.131	Firms with older investors pay higher dividends.
Income/1000	-3.726	Firms with wealthier investors pay lower dividends.
Differential Tax Rate	-2.849	If ordinary income is taxed at a higher rate than capital gains, the firm pays less dividends.

# Dividend Policy and Clientele

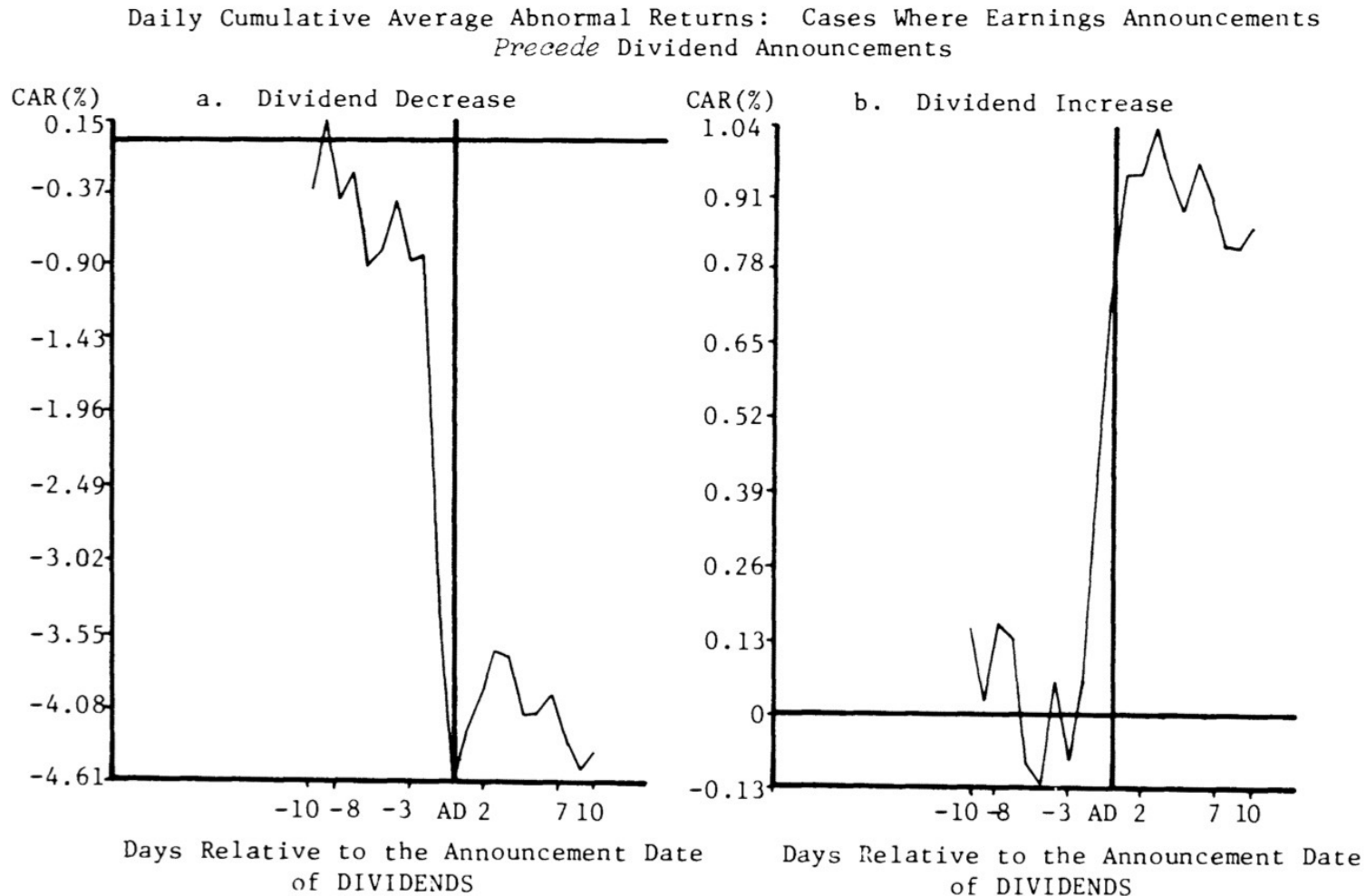
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- Assume that you run a phone company, and that you have historically paid large dividends. You are now planning to enter the telecommunications and media markets. Which of the following paths are you most likely to follow?
  - a. Courageously announce to your stockholders that you plan to cut dividends and invest in the new markets.
  - b. Continue to pay the dividends that you used to and defer investment in the new markets.
  - c. Continue to pay the dividends that you used to, make the investments in the new markets, and issue new stock to cover the shortfall
  - d. Other

## 2. Dividends send a “signal”

Increases in dividends are good news..

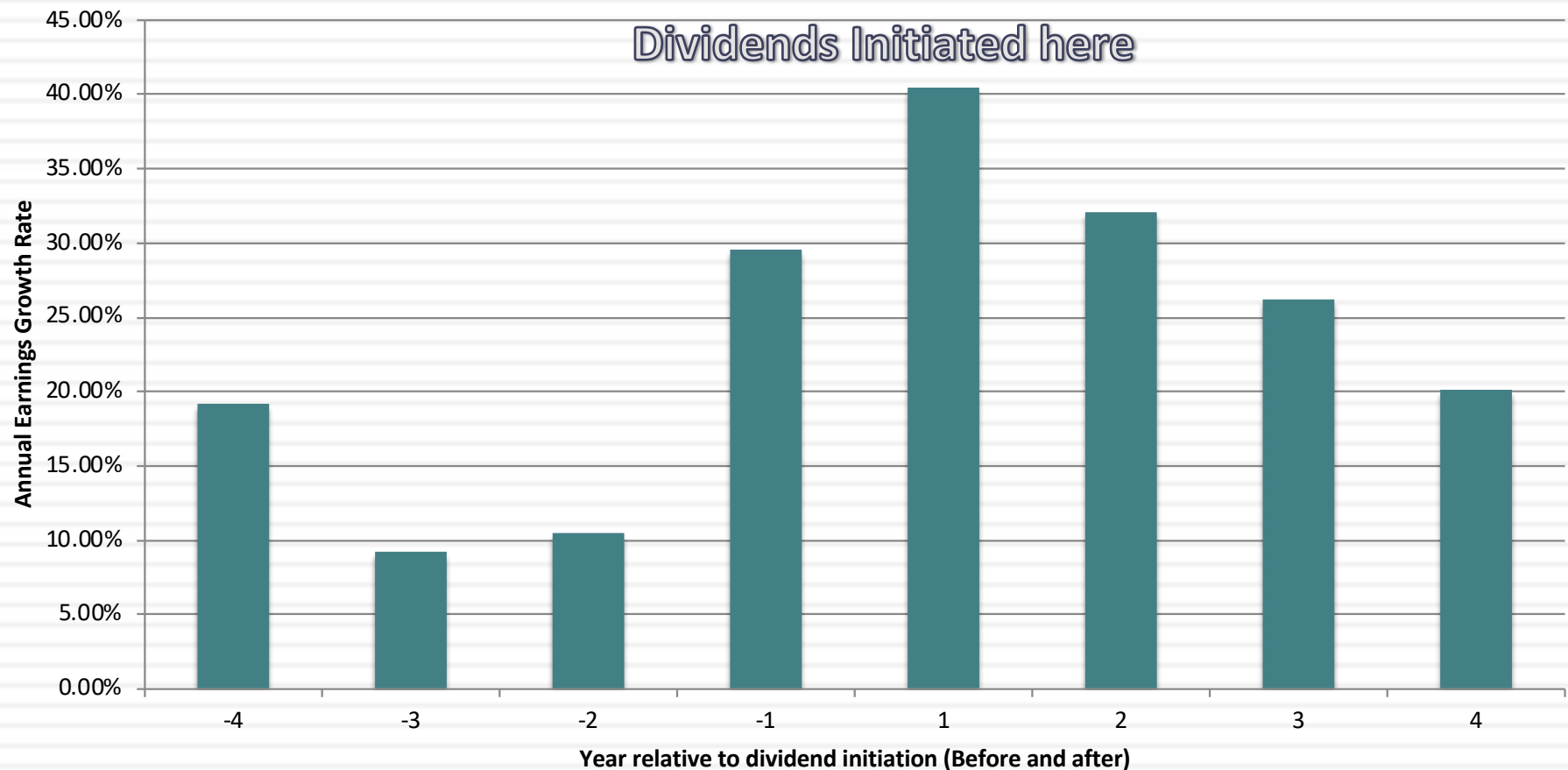
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# But higher or new dividends may signal bad news (not good)

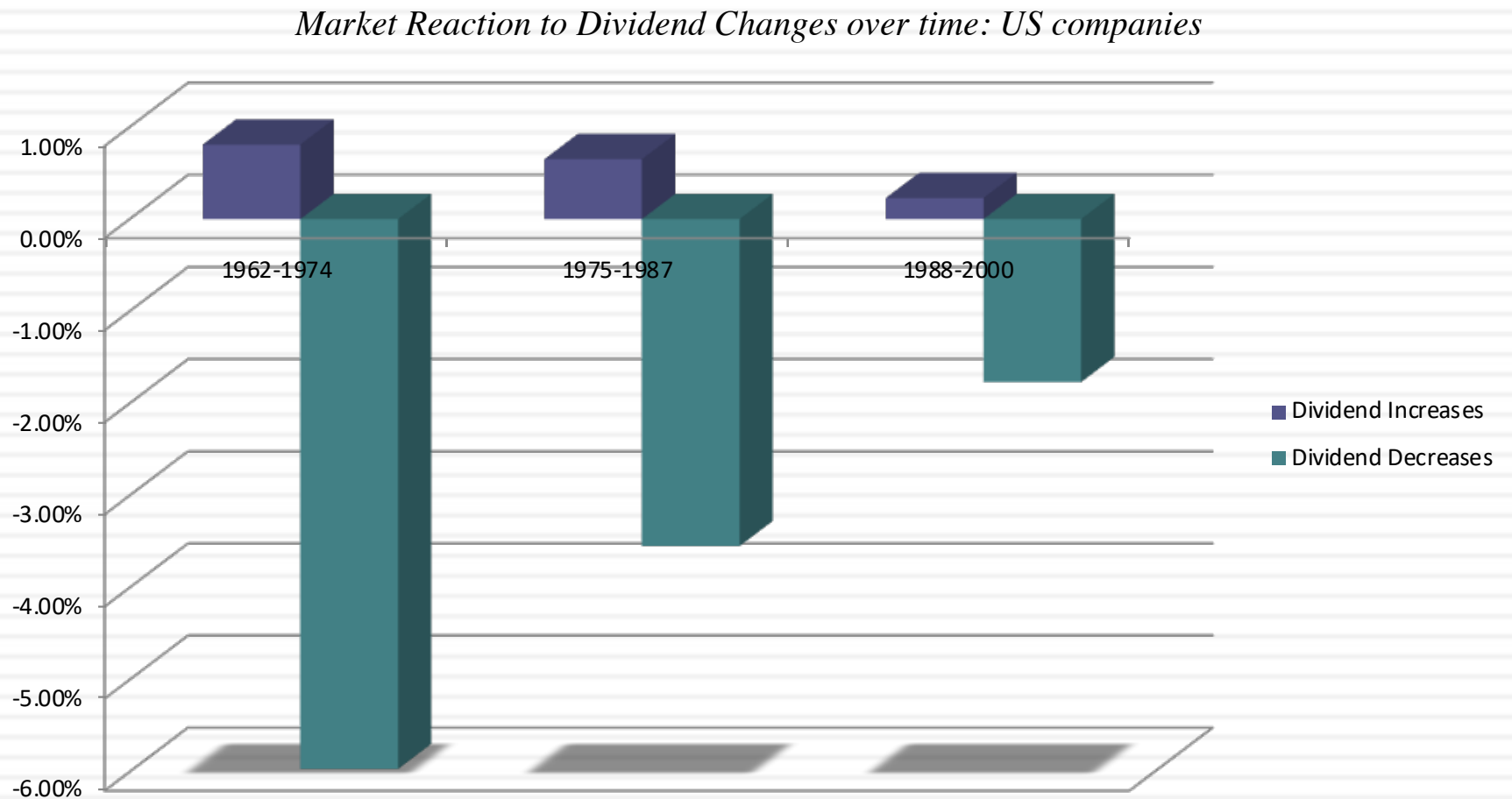
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## Dividend Initiations and Earnings Growth



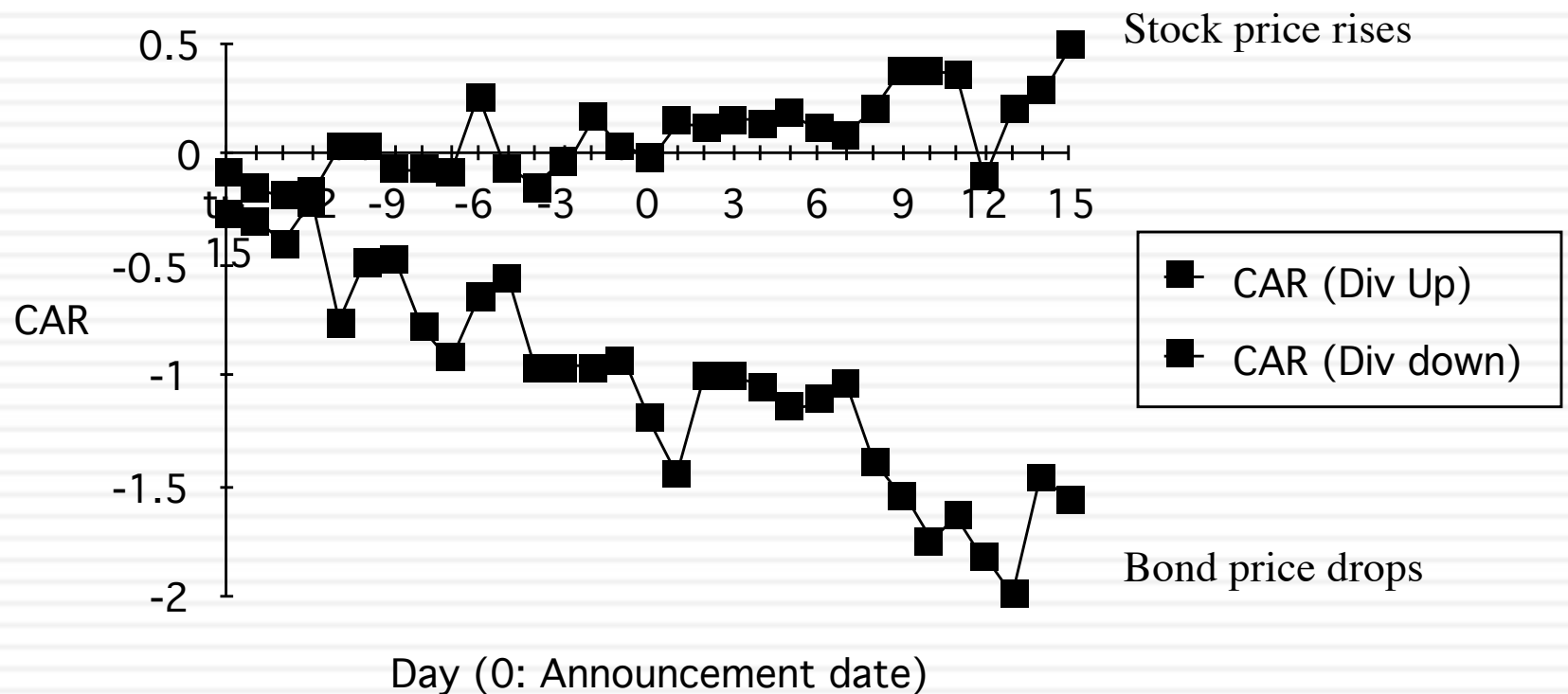


# Both dividend increases and decreases are becoming less informative...



### 3. Dividend increases may be good for stocks... but bad for bonds..

*EXCESS RETURNS ON STOCKS AND BONDS AROUND DIVIDEND CHANGES*



# What managers believe about dividends...

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<i>Statement of Management Beliefs</i>	<i>Agree</i>	<i>No Opinion</i>	<i>Disagree</i>
1. A firm's dividend payout ratio affects the price of the stock.	61%	33%	6%
2. Dividend payments provide a signaling device of future prospects.	52%	41%	7%
3. The market uses dividend announcements as information for assessing firm value.	43%	51%	6%
4. Investors have different perceptions of the relative riskiness of dividends and retained earnings.	56%	42%	2%
5. Investors are basically indifferent with regard to returns from dividends and capital gains.	6%	30%	64%
6. A stockholder is attracted to firms that have dividend policies appropriate to the stockholder's tax environment.	44%	49%	7%
7. Management should be responsive to shareholders' preferences regarding dividends.	41%	49%	10%

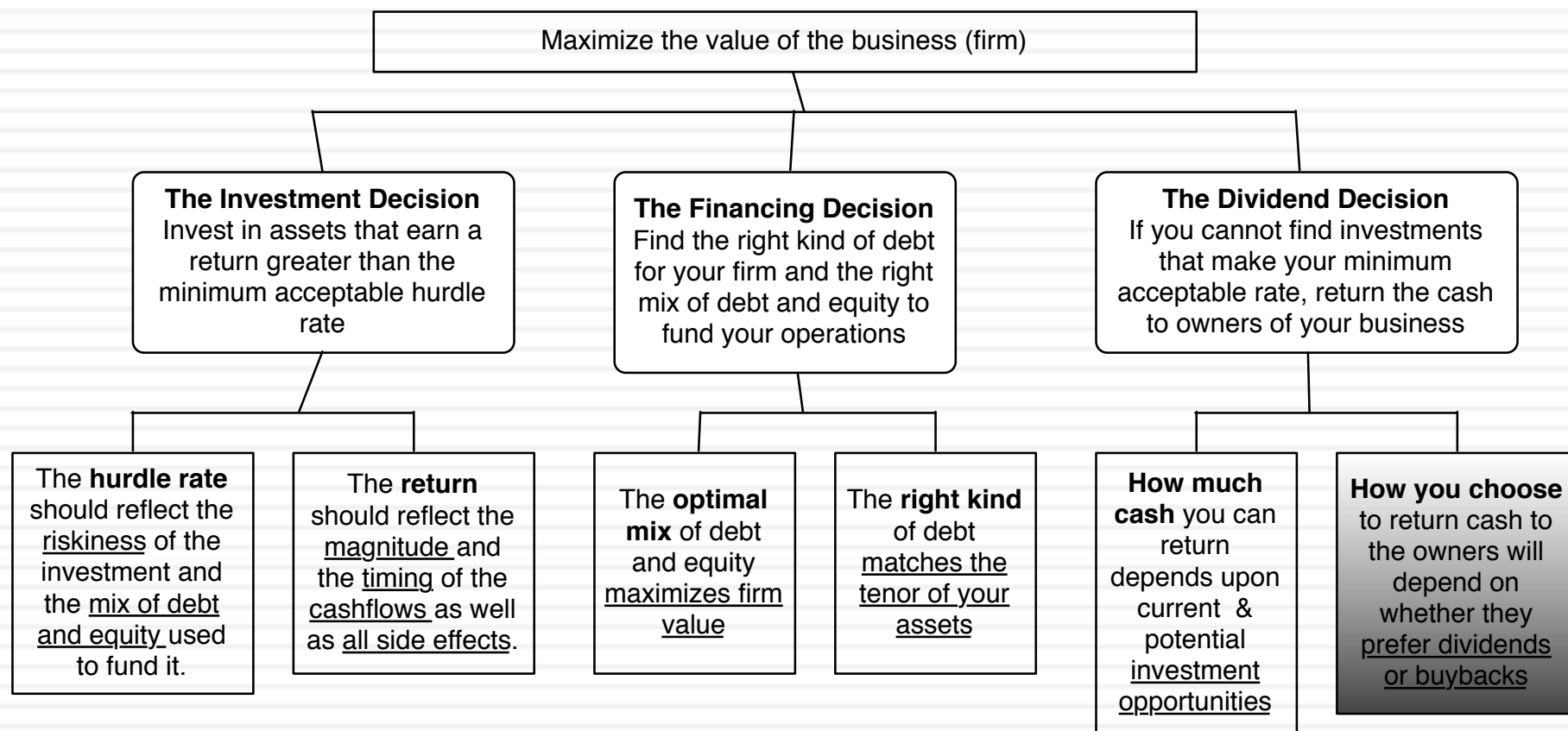


## ASSESSING DIVIDEND POLICY: OR HOW MUCH CASH IS TOO MUCH?

It is my cash and I want it now...

# The Big Picture...

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# Assessing Dividend Policy

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- Approach 1: The Cash/Trust Nexus
  - ▣ Assess how much cash a firm has available to pay in dividends, relative what it returns to stockholders. Evaluate whether you can trust the managers of the company as custodians of your cash.
- Approach 2: Peer Group Analysis
  - ▣ Pick a dividend policy for your company that makes it comparable to other firms in its peer group.

# I. The Cash/Trust Assessment

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Step 1: How much did the the company actually pay out during the period in question?

Step 2: How much could the company have paid out during the period under question?

Step 3: How much do I trust the management of this company with excess cash?

- ▣ How well did they make investments during the period in question?
- ▣ How well has my stock performed during the period in question?

# How much has the company returned to stockholders?

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- As firms increasingly use stock buybacks, we have to measure cash returned to stockholders as not only dividends but also buybacks.
- For instance, for the five companies we are analyzing the cash returned looked as follows.

	<i>Disney</i>		<i>Vale</i>		<i>Tata Motors</i>		<i>Baidu</i>		<i>Deutsche Bank</i>	
Year	Dividends	Buybacks	Dividends	Buybacks	Dividends	Buybacks	Dividends	Buybacks	Dividends	Buybacks
2008	\$648	\$648	\$2,993	\$741	7,595₹	0₹	¥0	¥0	2,274 €	0 €
2009	\$653	\$2,669	\$2,771	\$9	3,496₹	0₹	¥0	¥0	309 €	0 €
2010	\$756	\$4,993	\$3,037	\$1,930	10,195₹	0₹	¥0	¥0	465 €	0 €
2011	\$1,076	\$3,015	\$9,062	\$3,051	15,031₹	0₹	¥0	¥0	691 €	0 €
2012	\$1,324	\$4,087	\$6,006	\$0	15,088₹	970₹	¥0	¥0	689 €	0 €
<b>2008-12</b>	<b>\$4,457</b>	<b>\$15,412</b>	<b>\$23,869</b>	<b>\$5,731</b>	<b>51,405₹</b>	<b>970₹</b>	<b>¥0</b>	<b>¥0</b>	<b>¥4,428</b>	<b>¥0</b>



# A Measure of How Much a Company Could have Afforded to Pay out: FCFE

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- The Free Cashflow to Equity (FCFE) is a measure of how much cash is left in the business after non-equity claimholders (debt and preferred stock) have been paid, and after any reinvestment needed to sustain the firm's assets and future growth.

Standard Definition	Modified Version	Simplified (if debt ratio = constant)
Net Income	Net Income	Net Income
+ Depreciation	<b>Reinvestment</b>  - (Cap Ex - Depreciation + Change in Working Capital)	<b>Reinvestment from Equity</b>  - (Cap Ex - Depreciation + Change in Working Capital) (1 - Debt Ratio)
- Cap Ex		
- Change in WC		
<i><b>FCFE before debt cash flow</b></i>	<i><b>FCFE before debt cash flow</b></i>	
+ New Debt Issued	<b>Net CF from Debt</b>  + (New Debt Issued - Debt Repaid)	
- Debt Repaid		
<i><b>FCFE</b></i>	<i><b>FCFE</b></i>	<i><b>FCFE</b></i>

# Estimating FCFE when Leverage is Stable

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- The cash flow from debt (debt issue, netted out against repayment) can be a volatile number, creating big increases or decreases in FCFE, depending upon the period examined.
- To provide a more balanced measure, you can estimate a FCFE, assuming a stable debt ratio had been used to fund reinvestment over the period.

Net Income

- (1- Debt Ratio) (Capital Expenditures - Depreciation)

- (1- Debt Ratio) Working Capital Needs

= Free Cash flow to Equity

Debt Ratio = Debt/Capital Ratio (either an actual or a target)

# Disney's FCFE and Cash Returned: 2008 – 2012

	2012	2011	2010	2009	2008	Aggregate
Net Income	\$6,136	\$5,682	\$4,807	\$3,963	\$3,307	\$23,895
- (Cap. Exp - Depr)	\$604	\$1,797	\$1,718	\$397	\$122	\$4,638
- $\Delta$ Working Capital	(\$133)	\$940	\$950	\$308	(\$109)	\$1,956
Free CF to Equity (pre-debt)	\$5,665	\$2,945	\$2,139	\$3,258	\$3,294	\$17,301
+ Net CF from Debt	\$1,881	\$4,246	\$2,743	\$1,190	(\$235)	\$9,825
= Free CF to Equity (actual debt)	\$7,546	\$7,191	\$4,882	\$4,448	\$3,059	\$27,126
Free CF to Equity (target debt ratio)	\$5,720	\$3,262	\$2,448	\$3,340	\$3,296	\$18,065
Dividends	\$1,324	\$1,076	\$756	\$653	\$648	\$4,457
Dividends + Buybacks	\$5,411	\$4,091	\$5,749	\$3,322	\$1,296	\$19,869

Disney returned about \$1.5 billion more than the \$18.1 billion it had available as FCFE with a normalized debt ratio of 11.58% (its current debt ratio).

# How companies get big cash balances: Microsoft in 1996...

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- Consider the following inputs for Microsoft in 1996.
  - ▣ Net Income = \$2,176 Million
  - ▣ Capital Expenditures = \$494 Million
  - ▣ Depreciation = \$ 480 Million
  - ▣ Change in Non-Cash Working Capital = \$ 35 Million
  - ▣ Debt = None

$$\begin{aligned}\text{FCFE} &= \text{Net Income} - (\text{Cap ex} - \text{Depr}) - \text{Change in non-cash WC} - \text{Debt CF} \\ &= \$ 2,176 - (494 - 480) - \$ 35 - 0 = \$ 2,127 \text{ Million}\end{aligned}$$

- By this estimation, Microsoft could have paid \$ 2,127 Million in dividends/stock buybacks in 1996. They paid no dividends and bought back no stock. Where will the \$2,127 million show up in Microsoft's balance sheet?

# FCFE for a Bank?

- We redefine reinvestment as investment in regulatory capital.

$$FCFE_{\text{Bank}} = \text{Net Income} - \text{Increase in Regulatory Capital (Book Equity)}$$

- Consider a bank with \$ 10 billion in loans outstanding and book equity of \$ 750 million. If it maintains its capital ratio of 7.5%, intends to grow its loan base by 10% (to \$11 and expects to generate \$ 150 million in net income:

$$FCFE = \$150 \text{ million} - (11,000 - 10,000) * (.075) = \$75 \text{ million}$$

*Deutsche Bank: FCFE estimates (November 2013)*

	Current	1	2	3	4	5
Risk Adjusted Assets (grows 3% each year)	439,851 €	453,047 €	466,638 €	480,637 €	495,056 €	509,908 €
Tier 1 as % of Risk Adj assets	15.13%	15.71%	16.28%	16.85%	17.43%	18.00%
Tier 1 Capital	66,561 €	71,156 €	75,967 €	81,002 €	86,271 €	91,783 €
Change in regulatory capital		4,595 €	4,811 €	5,035 €	5,269 €	5,512 €
Book Equity	76,829 €	81,424 €	86,235 €	91,270 €	96,539 €	102,051 €
ROE (increases to 8%)	-1.08%	0.74%	2.55%	4.37%	6.18%	8.00%
Net Income	-716 €	602 €	2,203 €	3,988 €	5,971 €	8,164 €
- Investment in Regulatory Capital		4,595 €	4,811 €	5,035 €	5,269 €	5,512 €
FCFE		-3,993 €	-2,608 €	-1,047 €	702 €	2,652 €

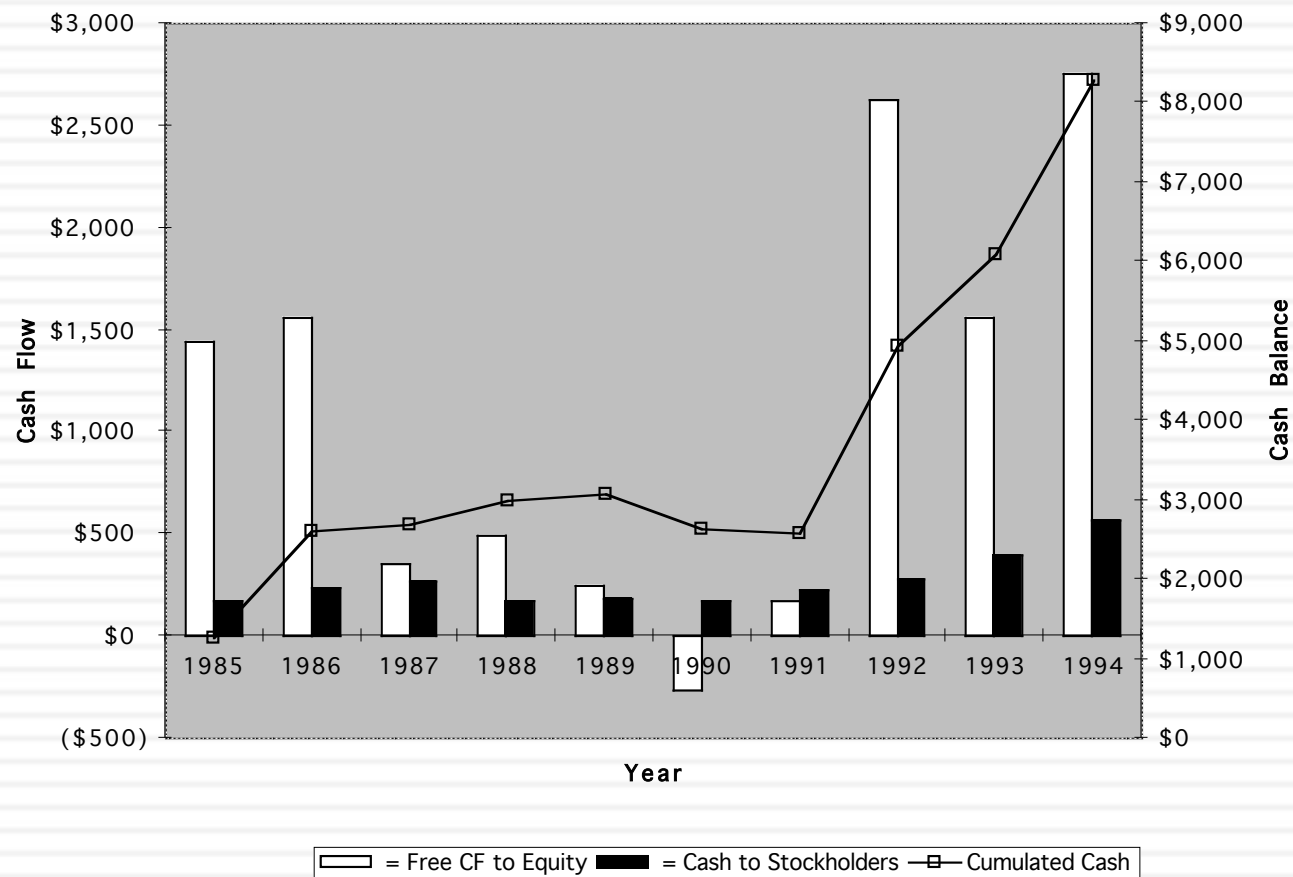
# Dividends versus FCFE: Across the globe

<i>Dividend/FCFE Category</i>	<i>Australia, NZ and Canada</i>	<i>Developed Europe</i>	<i>Emerging Markets</i>	<i>Japan</i>	<i>United States</i>	<i>Global</i>
FCFE>0, Dividends+Buybacks=0	34.68%	15.35%	9.33%	4.55%	16.08%	14.53%
FCFE>0, FCFE>Dividends+Buybacks	12.40%	18.38%	21.29%	13.26%	31.93%	21.01%
<b>Cash Accumulators</b>	<b>47.08%</b>	<b>33.73%</b>	<b>30.62%</b>	<b>17.81%</b>	<b>48.01%</b>	<b>35.54%</b>
FCFE<0, Dividends+Buybacks=0	28.19%	13.53%	11.75%	6.07%	8.64%	11.60%
FCFE>0, Dividends+Buybacks>FCFE	14.16%	33.23%	30.39%	44.18%	22.96%	29.16%
FCFE<0, Dividends+Buybacks>0	10.57%	19.51%	27.24%	31.94%	20.39%	23.70%
<b>Cash Overpayers</b>	<b>24.73%</b>	<b>52.74%</b>	<b>57.63%</b>	<b>76.12%</b>	<b>43.35%</b>	<b>52.86%</b>

# Cash Buildup and Investor Blowback: Chrysler in 1994

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Chrysler: FCFE, Dividends and Cash Balance



# Application Test: Estimating your firm's FCFE

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□ In General,  
Net Income  
+ Depreciation & Amortization  
- Capital Expenditures  
- Change in Non-Cash Working Capital  
- Preferred Dividend  
- Principal Repaid  
+ New Debt Issued  
  
= FCFE

□ Compare to  
Dividends (Common)  
+ Stock Buybacks

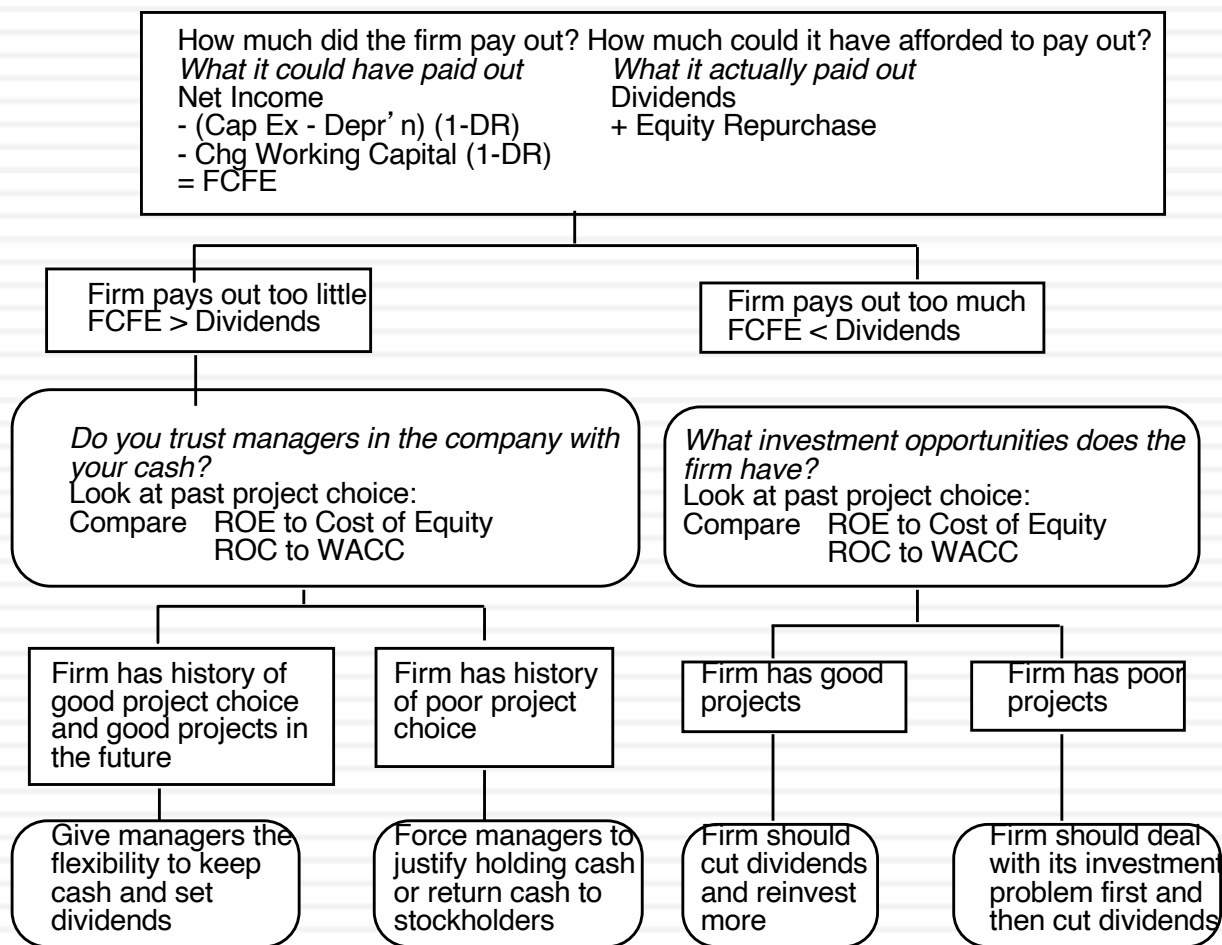
If cash flow statement used  
Net Income  
+ Depreciation & Amortization  
+ Capital Expenditures  
+ Changes in Non-cash WC  
+ Preferred Dividend  
+ Increase in LT Borrowing  
+ Decrease in LT Borrowing  
+ Change in ST Borrowing  
  
= FCFE

Common Dividend  
Stock Buybacks



# A Practical Framework for Analyzing Dividend Policy

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# A Dividend Matrix

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		<i>Quality of projects taken: Excess Returns</i>	
		Poor projects	Good projects
<i>Cash Returned, relative to Free Cash flow to Equity</i>	Cash Return < FCFE	<p><i>Cash Surplus + Poor Projects</i> Significant pressure to pay out more to stockholders as dividends or stock buybacks</p>	<p><i>Cash Surplus + Good Projects</i> Maximum flexibility in setting dividend policy</p>
	Cash return > FCFE	<p><i>Cash Deficit + Poor Projects</i> Reduce or eliminate cash return but real problem is in investment policy.</p>	<p><i>Cash Deficit + Good Projects</i> Reduce cash payout, if any, to stockholders</p>

# More on Microsoft

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- Microsoft had accumulated a cash balance of \$ 43 billion by 2002 by paying out no dividends while generating huge FCFE. At the end of 2003, there was no evidence that Microsoft was being penalized for holding such a large cash balance or that stockholders were becoming restive about the cash balance. There was no hue and cry demanding more dividends or stock buybacks. Why?
- In 2004, Microsoft announced a huge special dividend of \$ 33 billion and made clear that it would try to return more cash to stockholders in the future. What do you think changed?

# Case 1: Disney in 2003

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- FCFE versus Dividends
  - Between 1994 & 2003, Disney generated \$969 million in FCFE each year.
  - Between 1994 & 2003, Disney paid out \$639 million in dividends and stock buybacks each year.
- Cash Balance
  - Disney had a cash balance in excess of \$ 4 billion at the end of 2003.
- Performance measures
  - Between 1994 and 2003, Disney has generated a return on equity, on it's projects, about 2% less than the cost of equity, on average each year.
  - Between 1994 and 2003, Disney's stock has delivered about 3% less than the cost of equity, on average each year.
  - The underperformance has been primarily post 1996 (after the Capital Cities acquisition).

# Can you trust Disney's management?

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- ☐ Given Disney's track record between 1994 and 2003, if you were a Disney stockholder, would you be comfortable with Disney's dividend policy?
  - a. Yes
  - b. No
- ☐ Does the fact that the company is run by Michael Eisner, the CEO for the last 10 years and the initiator of the Cap Cities acquisition have an effect on your decision.
  - a. Yes
  - b. No

# The Bottom Line on Disney Dividends in 2003

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- ❑ Disney could have afforded to pay more in dividends during the period of the analysis.
- ❑ It chose not to, and used the cash for acquisitions (Capital Cities/ABC) and ill fated expansion plans (Go.com).
- ❑ While the company may have flexibility to set its dividend policy a decade ago, its actions over that decade have frittered away this flexibility.
- ❑ Bottom line: *Large cash balances would not be tolerated in this company. Expect to face relentless pressure to pay out more dividends.*

# Following up: Disney in 2009

- Between 2004 and 2008, Disney made significant changes:
  - It replaced its CEO, Michael Eisner, with a new CEO, Bob Iger, who at least on the surface seemed to be more receptive to stockholder concerns.
  - Its stock price performance improved (positive Jensen's alpha)
  - Its project choice improved (ROC moved from being well below cost of capital to above)
- The firm also shifted from cash returned  $<$  FCFE to cash returned  $>$  FCFE and avoided making large acquisitions.
- If you were a stockholder in 2009 and Iger made a plea to retain cash in Disney to pursue investment opportunities, would you be more receptive?
  - a. Yes
  - b. No

# Final twist: Disney in 2013

- Disney did return to holding cash between 2008 and 2013, with dividends and buybacks amounting to \$2.6 billion less than the FCFE (with a target debt ratio) over this period.
- Disney continues to earn a return on capital well in excess of the cost of capital and its stock has doubled over the last two years.
- Now, assume that Bob Iger asks you for permission to withhold even more cash to cover future investment needs. Are you likely to go along?
  - a. Yes
  - b. No