

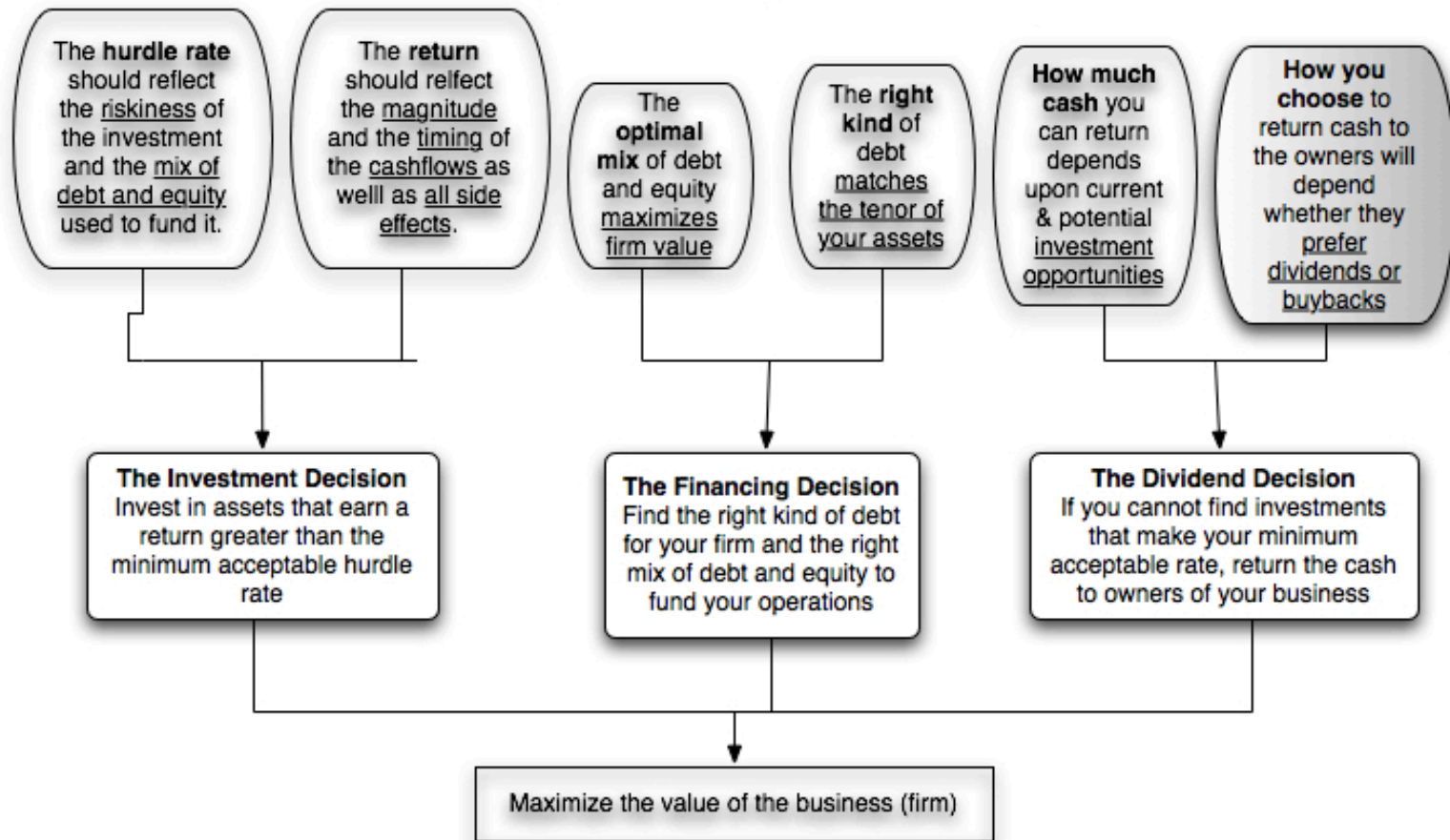


ASSESSING DIVIDEND POLICY:  
OR HOW MUCH CASH IS TOO  
MUCH?

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

# The Big Picture...

## Chapter 11: Analyzing Cash Returned to Stockholders



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

	<b>Disney</b>		<b>Aracruz</b>		<b>Tata Chemicals</b>		<b>Deutsche Bank</b>	
<i>Year</i>	<i>Dividends</i>	<i>Buybacks</i>	<i>Dividends</i>	<i>Buybacks</i>	<i>Dividends</i>	<i>Buybacks</i>	<i>Dividends</i>	<i>Buybacks</i>
2004	\$430	\$335	\$74	\$0	Rs 1,307	\$0	€ 924	€ 0
2005	\$490	\$2,420	\$109	\$0	Rs 1,338	\$0	€ 1,386	€ 0
2006	\$519	\$6,898	\$199	\$0	Rs 1,589	\$0	€ 1,995	€ 0
2007	\$637	\$6,923	\$139	\$0	Rs 1,716	\$0	€ 2,255	€ 0
2008	\$664	\$4,453	\$252	\$0	Rs 2,010	\$0	€ 285	€ 0

# 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.

Net Income

+ Depreciation & Amortization

= Cash flows from Operations to Equity Investors

- Preferred Dividends

- Capital Expenditures

- Working Capital Needs

- Principal Repayments

+ Proceeds from New Debt Issues

= Free Cash flow to Equity

# Disney's FCFE

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Year	Net Income	Capital Expenditures	Depreciation	Chg in WC	Change in Net Debt	FCFE
1999	\$1,300	\$6,113	\$3,779	-\$363	\$176	-\$495
2000	\$920	\$1,091	\$2,195	-\$1,184	\$2,118	\$5,326
2001	-\$158	\$2,015	\$1,754	\$244	-\$77	-\$740
2002	\$1,236	\$3,176	\$1,042	\$27	-\$1,892	-\$2,817
2003	\$1,267	\$1,034	\$1,077	-\$264	\$1,145	\$2,719
2004	\$2,345	\$1,484	\$1,210	\$51	\$2,203	\$4,223
2005	\$2,533	\$1,691	\$1,339	\$270	\$699	\$2,610
2006	\$3,374	\$1,300	\$1,437	-\$136	-\$941	\$2,706
2007	\$4,687	\$627	\$1,491	\$45	-\$2,696	\$2,810
2008	\$4,427	\$2,162	\$1,582	\$485	-\$528	\$2,834
Aggregate	\$21,931	\$20,693	\$16,906	-\$825	\$207	\$19,176
Average					\$21	\$1,918

# Comparing Payout Ratios to Cash Returned Ratios.. Disney

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Year	Dividends	Earnings	Payout Ratio	Cash Returned	FCFE	Cash/FCFE
1999	\$0.00	\$1,300.00	0.00%	\$19.00	-\$495.00	-3.84%
2000	\$434.00	\$920.00	47.17%	\$600.00	\$5,326.00	11.27%
2001	\$438.00	-\$158.00	-277.22%	\$1,511.00	-\$740.00	-204.19%
2002	\$428.00	\$1,236.00	34.63%	\$428.00	-\$2,817.00	-15.19%
2003	\$429.00	\$1,267.00	33.86%	\$429.00	\$2,719.00	15.78%
2004	\$430.00	\$2,345.00	18.34%	\$765.00	\$4,223.00	18.12%
2005	\$490.00	\$2,533.00	19.34%	\$2,910.00	\$2,610.00	111.49%
2006	\$519.00	\$3,374.00	15.38%	\$7,417.00	\$2,706.00	274.09%
2007	\$637.00	\$4,687.00	13.59%	\$7,560.00	\$2,810.00	269.04%
2008	\$664.00	\$4,427.00	15.00%	\$5,117.00	\$2,834.00	180.56%
Aggregate	\$4,469.00	\$21,931.00	20.38%	\$26,756.00	\$19,176.00	139.53%



# Estimating FCFE when Leverage is Stable

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Net Income

-  $(1 - \delta)$  (Capital Expenditures - Depreciation)

-  $(1 - \delta)$  Working Capital Needs

= Free Cash flow to Equity

$\delta$  = Debt/Capital Ratio

Proceeds from new debt issues = Principal

Repayments +  $\delta$  (Capital Expenditures - Depreciation +  
Working Capital Needs)

# An Example: FCFE Calculation

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- Consider the following inputs for Microsoft in 1996. In 1996, Microsoft's FCFE was:
  - ▣ Net Income = \$2,176 Million
  - ▣ Capital Expenditures = \$494 Million
  - ▣ Depreciation = \$ 480 Million
  - ▣ Change in Non-Cash Working Capital = \$ 35 Million
  - ▣ Debt Ratio(DR) = 0%

$$\begin{aligned} \text{FCFE} &= \text{Net Income} - (\text{Cap ex} - \text{Depr}) (1-\text{DR}) - \text{Chg WC} (1-\text{DR}) \\ &= \$ 2,176 - (494 - 480) (1-0) - \$ 35 (1-0) \\ &= \$ 2,127 \text{ Million} \end{aligned}$$

# Microsoft: Dividends?

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- 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?

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- To estimate the FCFE for a bank, we redefine reinvestment as investment in regulatory capital. Since any dividends paid deplete equity capital and retained earnings increase that capital, the FCFE is:

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

- As a simple example, consider a bank with \$ 10 billion in loans outstanding and book equity (Tier 1 capital) of \$ 750 million. Assume that the bank wants to maintain its existing capital ratio of 7.5%, intends to grow its loan base by 10% (to \$11 billion) and expects to generate \$ 150 million in net income next year.

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

- If this bank wants to increase its regulatory capital ratio to 8% (for precautionary purposes) while increasing its loan base to \$ 11 billion

$$\text{FCFE} = \$ 150 \text{ million} - (\$ 880 - \$750) = \$20 \text{ million}$$

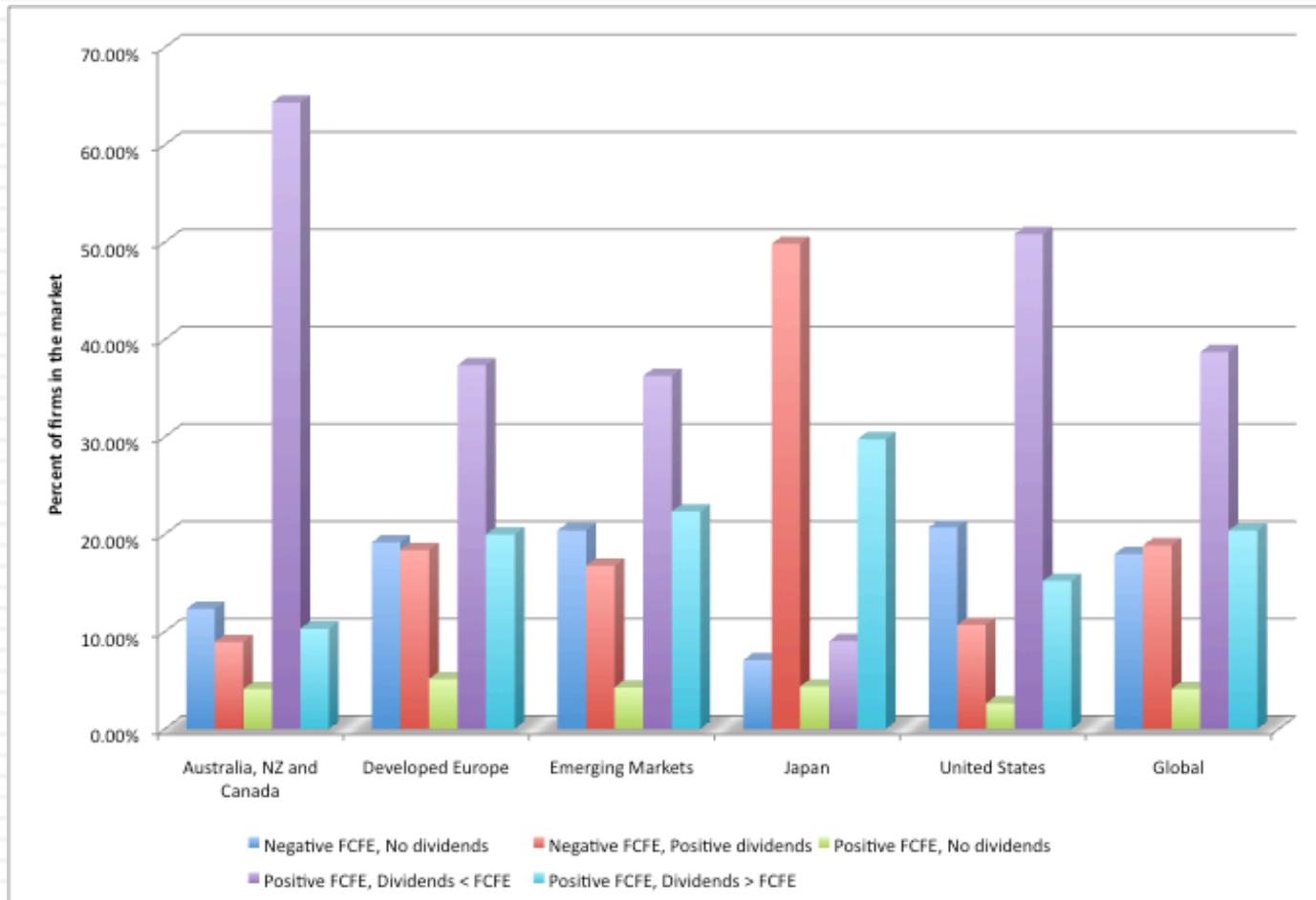
# Deutsche Bank' s FCFE

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	Current	2009	2010	2011	2012	2013	Steady state (2014)
Asset Base	312,882 €	325,398 €	338,414 €	351,950 €	366,028 €	380,669 €	392,089 €
Capital ratio	10.20%	10.16%	10.12%	10.08%	10.04%	10.00%	10.00%
Regulatory Capital	31,914 €	33,060 €	34,247 €	35,477 €	36,749 €	38,067 €	39,209 €
Change in regulatory capital		1,146 €	1,187 €	1,229 €	1,273 €	1,318 €	1,142 €
ROE	9.40%	9.52%	9.64%	9.76%	9.88%	10.00%	10.00%
Net Income	3,000 €	3,147 €	3,302 €	3,463 €	3,631 €	3,807 €	3,921 €
- Investment in Regulatory Capital		1,146 €	1,187 €	1,229 €	1,273 €	1,318 €	1,142 €
FCFE		2,001 €	2,114 €	2,233 €	2,358 €	2,489 €	2,779 €

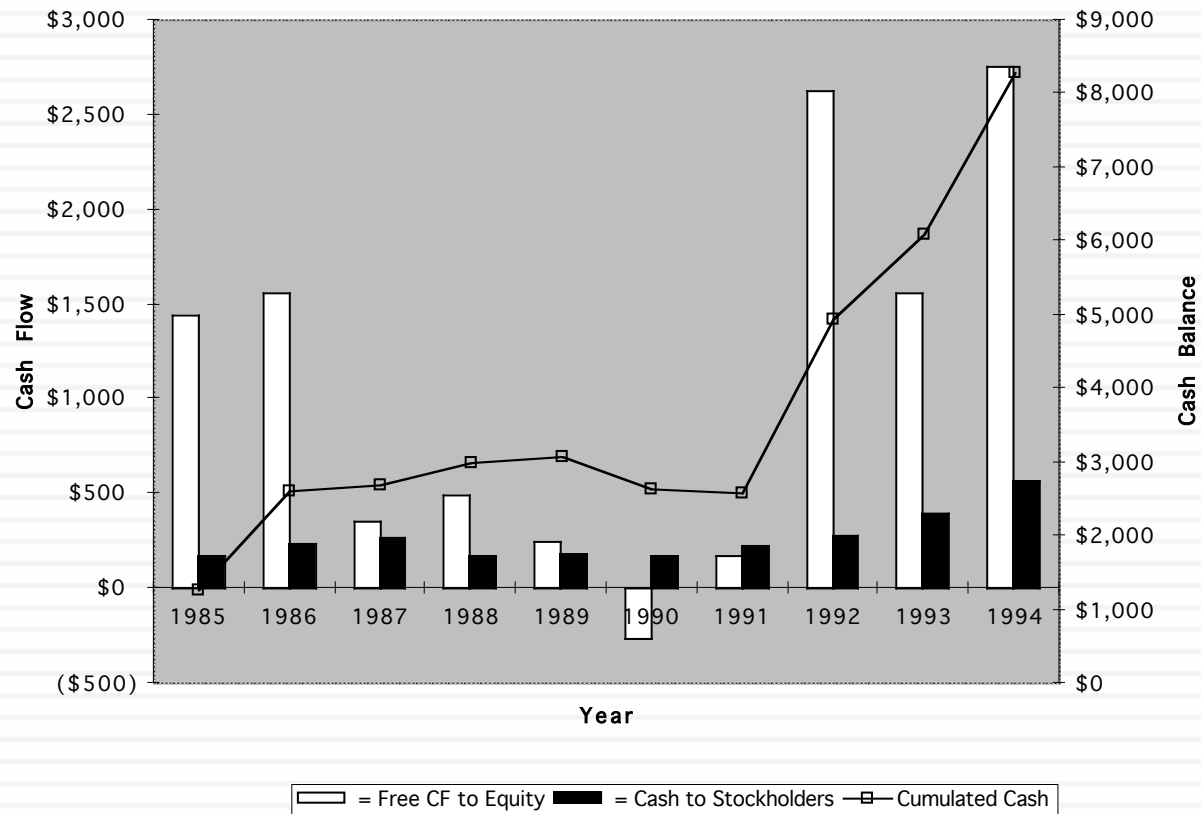
# Dividends versus FCFE: Cash Deficit versus Buildup

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# The Consequences of Failing to pay FCFE

Chrysler: FCFE, Dividends and Cash Balance



## 6 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

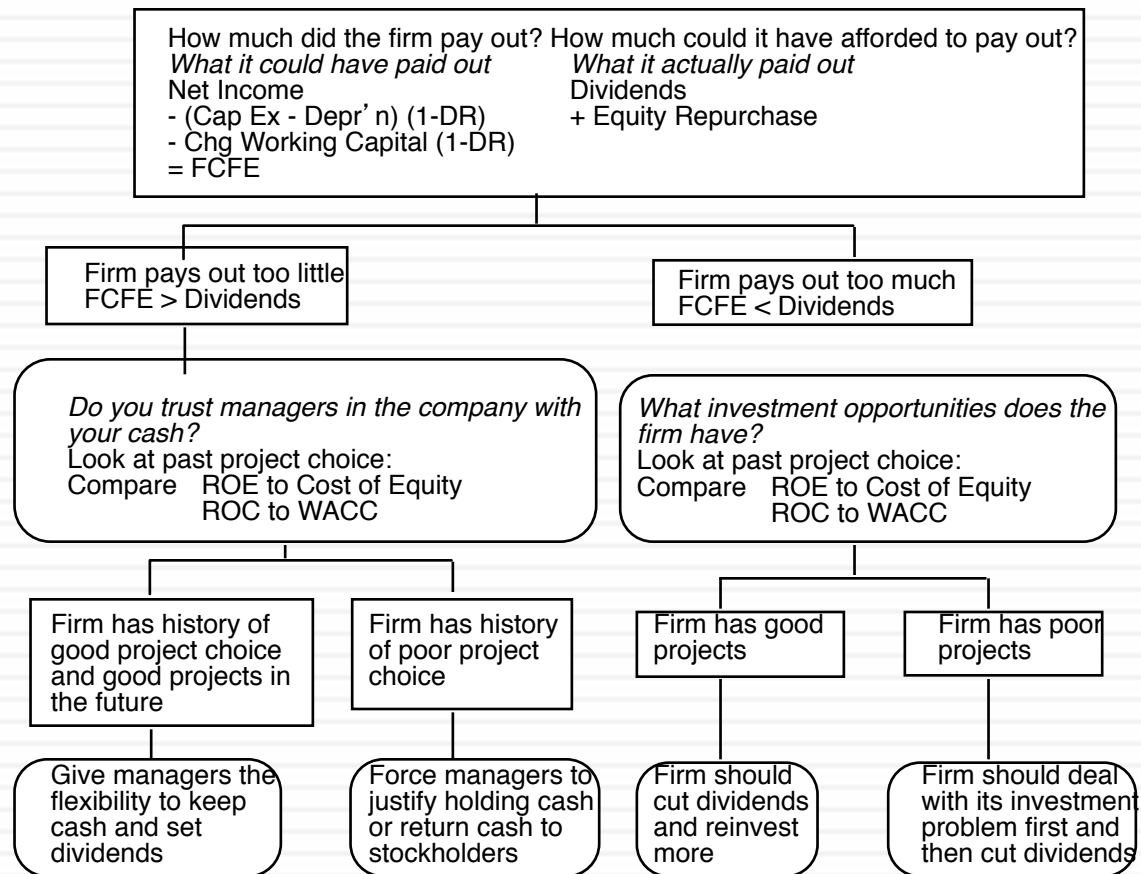
□ Compare to  
Dividends (Common)  
+ Stock Buybacks

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



# A Dividend Matrix

Quality of projects taken: ROE versus Cost of Equity

Poor projects

Good projects

Dividends paid out relative to FCFE  
Cash Surplus  
Cash Deficit

<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>
<p><i>Cash Deficit + Poor Projects</i> Cut out dividends 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 2003 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
  - ▣ 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

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- 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.
  - It's stock price performance improved (positive Jensen's alpha)
  - It's 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

# Case 2: Aracruz Celulose - Assessment of dividends paid in 2003

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## □ FCFE versus Dividends

- Between 1999 and 2003, Aracruz generated \$37 million in FCFE each year.
- Between 1999 and 2003, Aracruz paid out \$80 million in dividends and stock buybacks each year.

## □ Performance measures

- Between 1999 and 2003, Aracruz has generated a return on equity, on its projects, about 1.5% more than the cost of equity, on average each year.
- Between 1999 and 2003, Aracruz's stock has delivered about 2% more than the cost of equity, on average each year.



# Aracruz: Its your call..

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- Aracruz's managers have asked you for permission to cut dividends (to more manageable levels). Are you likely to go along?
  - a. Yes
  - b. No
  
- The reasons for Aracruz's dividend problem lie in its equity structure. Like most Brazilian companies, Aracruz has two classes of shares - common shares with voting rights and preferred shares without voting rights. However, Aracruz has committed to paying out 35% of its earnings as dividends to the preferred stockholders. If they fail to meet this threshold, the preferred shares get voting rights. If you own the preferred shares, would your answer to the question above change?
  - a. Yes
  - b. No

# Mandated Dividend Payouts

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- Assume now that the government decides to mandate a minimum dividend payout for all companies. Given our discussion of FCFE, what types of companies will be hurt the most by such a mandate?
  - a. Large companies making huge profits
  - b. Small companies losing money
  - c. High growth companies that are losing money
  - d. High growth companies that are making money
- What if the government mandates a cap on the dividend payout ratio (and a requirement that all companies reinvest a portion of their profits)?

# Aracruz: Ready to reassess?

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- In 2008, Aracruz had a catastrophic year, with losses in excess of a billion. The reason for the losses, though, was speculation on the part of the company's managers on currency derivatives. The FCFE in 2008 was -\$1.226 billion but the company still had to pay out \$448 million in dividends. As owners of the non-voting, dividend receiving shares, would you reassess your unwillingness to accept dividend cuts now?
  - a. Yes
  - b. No

# Case 3: BP: Summary of Dividend Policy: 1982-1991

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	<i>Summary of calculations</i>			
	<i>Average</i>	<i>Standard Deviation</i>	<i>Maximum</i>	<i>Minimum</i>
<i>Free CF to Equity</i>	\$571.10	\$1,382.29	\$3,764.00	(\$612.50)
<i>Dividends</i>	\$1,496.30	\$448.77	\$2,112.00	\$831.00
<i>Dividends+Repurchases</i>	\$1,496.30	\$448.77	\$2,112.00	\$831.00
<i>Dividend Payout Ratio</i>	84.77%			
<i>Cash Paid as % of FCFE</i>	262.00%			
<i>ROE - Required return</i>	-1.67%	11.49%	20.90%	-21.59%

# BP: Just Desserts!

## B.P.'s Shares Plummet After Dividend Is Slashed

By MATTHEW L. WALD

British Petroleum said yesterday that it would cut its dividend by 55 percent, take a pretax restructuring charge of \$1.82 billion for the second quarter and lay off 11,500 employees, or 10 percent of its worldwide work force. The moves came five weeks after Robert B. Horton, B.P.'s chairman, resigned under pressure from the company's outside directors.

Analysts anticipated a dividend cut by the oil company, the world's third largest, but the one announced was at the low end of their expectations. In response, shares of the company's American depository rights, each of which represents 12 shares of the London-based company, dropped \$3.625, or 7.36 percent, to \$45.375. It was the most active issue on the New York Stock Exchange, with 5.89 million shares traded.

The Royal Dutch/Shell group also reported a disappointing quarter yesterday, with earnings on a replacement cost basis — excluding gains or losses on inventory holdings — of \$868 million, down 22 percent.

### Quick: Recovery Seems Unlikely

Adding to the gloom at B.P., the new chief executive, David A. G. Simon, said the prospects for a quick recovery were poor. "External trading conditions are expected to remain difficult, particularly for the downstream oil and chemicals businesses, with growth prospects for the world's economies remaining uncertain," he said in a statement. Downstream oil is an industry term for refining and marketing operations, as distinct from oil production.

Downstream margins in the United States would be hurt later this year, he predicted, when clean air rules

take effect and gasoline must be reformulated to reduce pollution. "In Europe, recovery will depend upon seasonal heating oil demand," Mr. Simon said.

The crude oil market, he predicted, would remain balanced unless Iraqi oil was allowed to re-enter the market. The company said it was well positioned to take advantage of any

### The giant British oil company bet on rising oil prices.

Increase in oil prices, but the company's oil production in the United States is declining. B.P. is the largest producer in Alaska.

The market for petrochemicals in Europe remains weak.

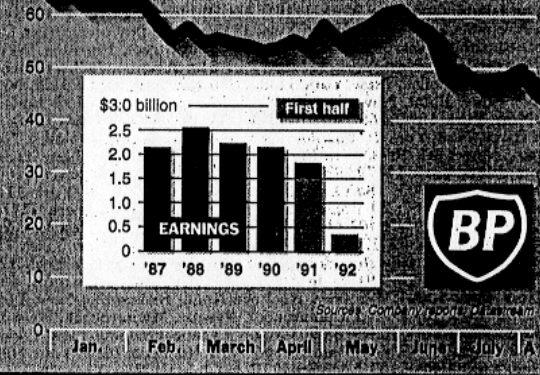
B.P.'s second quarter profits, before one-time transactions, declined to \$193 million from \$515 million, valuing inventories on a replacement-cost basis. James J. Murchie, an analyst at Stanford C. Bernstein, estimated that after exceptional items, earnings per share fell to 30 cents in the second quarter, compared with 62 cents a year earlier.

Analysts attributed B.P.'s problems to the company's acquisitions in the last few years, and heavy capital expenditures. Summing up the company's recent history, Frank P. Kneutzel of Prudential Securities Research said, "Debt rose, interest expense rose, and profits have gone to hell."

Mr. Murchie, who worked for Standard Oil of Ohio and then B.P.

### Britain's Oil Colossus

British Petroleum's 1992 stock price, weekly closings as traded on the New York Stock Exchange through August, and earnings, excluding extraordinary items and gains and losses on inventory, in dollars.



after B.P. acquired Sohio, said, "What you've got is a company that thought oil prices were going to go to \$25 and spent like it, in terms of capital." If B.P.'s costs of finding oil are the same as the industry average, he said, then the company has been spending enough to replace 120 percent to 130 percent of its annual production, which is not a successful strategy if prices do not rise.

In addition, he said, the company had been spending twice as much on its refining and marketing operation

as it was recording in depreciation. Another analyst at a large stock brokerage house, who spoke on the condition of anonymity, said, "They took all the old Sohio stations and turned them into modern B.P. stations; they took all the B.P. stations and turned them into ultramodern stations."

The analyst said that while some of the cuts were obvious, some came

Continued on Page D2

# Managing changes in dividend policy

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<i>Category</i>	<i>Periods Around Announcement Date</i>		
	<i>Prior Quarter</i>	<i>Announcement Period</i>	<i>Quarter After</i>
Simultaneous announcement of earnings decline/loss ( <i>N</i> = 176)	-7.23%	-8.17%	+1.80%
Prior announcement of earnings decline or loss ( <i>N</i> = 208)	-7.58%	-5.52%	+1.07%
Simultaneous announcement of investment or growth opportunities ( <i>N</i> = 16)	-7.69%	-5.16%	+8.79%

# Case 4: The Limited: Summary of Dividend Policy: 1983-1992

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<i>Summary of calculations</i>				
	<i>Average</i>	<i>Standard Deviation</i>	<i>Maximum</i>	<i>Minimum</i>
<i>Free CF to Equity</i>	(\$34.20)	\$109.74	\$96.89	(\$242.17)
<i>Dividends</i>	\$40.87	\$32.79	\$101.36	\$5.97
<i>Dividends+Repurchases</i>	\$40.87	\$32.79	\$101.36	\$5.97
<i>Dividend Payout Ratio</i>	18.59%			
<i>Cash Paid as % of FCFE</i>	-119.52%			
<i>ROE - Required return</i>	1.69%	19.07%	29.26%	-19.84%

# Growth Firms and Dividends

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- High growth firms are sometimes advised to initiate dividends because it increases the potential stockholder base for the company (since there are some investors - like pension funds - that cannot buy stocks that do not pay dividends) and, by extension, the stock price. Do you agree with this argument?
  - a. Yes
  - b. No
- Why?



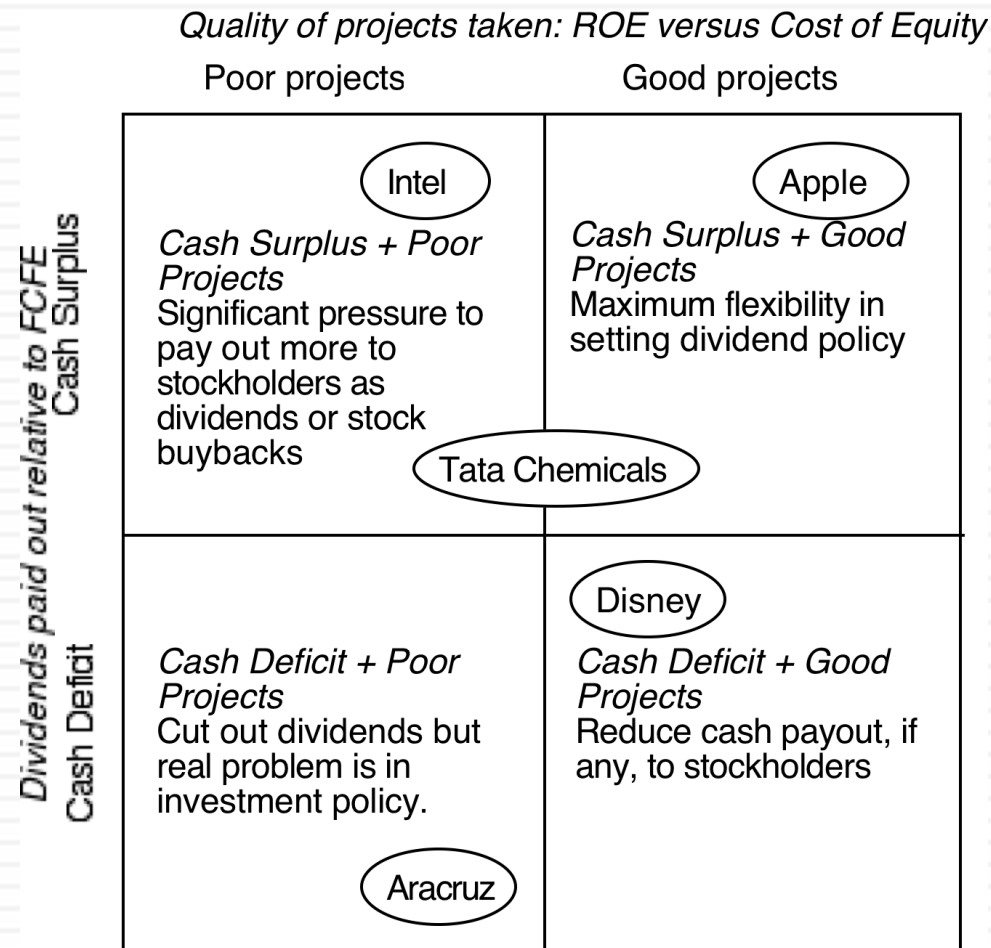
# 5. Tata Chemicals: The Cross Holding Effect: 2009

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	Average	Standard Deviation	Maximum	Minimum
Free CF to Equity	INR 2,258	INR 6,557	INR 11,176	(INR 7,141)
Dividends	INR 1,592	INR 290	INR 2,010	INR 1,307
Dividends+Repurchases	INR 1,592	INR 290	INR 2,010	INR 1,307
Dividend Payout Ratio	25.65%			
Cash Paid as % of FCFE	70.50%			
ROE	17.34%			
Return on Stock	17.97%			
Required Return	19.89%			
ROE - Required return	-2.55%			
Actual - Required Return	-1.91%			

Much of the cash held back was invested in other Tata companies.

# Summing up...



# Application Test: Assessing your firm's dividend policy

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- Compare your firm's dividends to its FCFE, looking at the last 5 years of information.
- Based upon your earlier analysis of your firm's project choices, would you encourage the firm to return more cash or less cash to its owners?
- If you would encourage it to return more cash, what form should it take (dividends versus stock buybacks)?

## II. The Peer Group Approach - Disney

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<i>Company Name</i>	<i>Market Cap</i>	<i>Payout Ratio</i>	<i>Dividend Yield</i>
Astral Media Inc. 'A'	\$1,221.70	0.00%	0.00%
CBS Corp. 'B'	\$5,103.70	53.52%	14.22%
Central European Media Enterps	\$827.70	0.00%	0.00%
Corus Entertainment Inc	\$806.50	0.00%	0.00%
CTC Media Inc	\$715.10	0.00%	0.00%
Discovery Communications Inc	\$3,860.60	NA	0.00%
Disney (Walt)	\$41,114.70	17.11%	1.67%
DreamWorks Animation	\$2,074.30	0.00%	0.00%
Hearst-Argyle Television Inc	\$589.10	40.59%	4.46%
IAC/InterActiveCorp	\$2,215.30	NA	0.00%
Lions Gate Entertainment Corp	\$705.60	NA	0.00%
News Corp.	\$23,245.30	9.07%	1.35%
Regal Entertainment Group	\$1,447.60	176.09%	12.70%
Scripps Networks	\$3,422.30	NA	0.00%
Time Warner	\$34,112.40	22.17%	2.63%
Viacom Inc. 'B'	\$10,669.30	0.00%	0.00%
World Wrestling Ent.	\$749.50	198.45%	13.79%
Average		39.77%	2.99%

# Peer Group Approach: Deutsche Bank

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<i>Company Name</i>	<i>Dividend Yield</i>	<i>Dividend Payout</i>
HSBC Holdings plc (LSE:HSBA)	0.00%	0.00%
Banco Santander, S.A. (CATS:SAN)	0.00%	0.00%
Intesa Sanpaolo SpA (CM:ISP)	0.00%	0.00%
Banco Bilbao Vizcaya Argentaria (CATS:BBVA)	0.00%	0.00%
BNP Paribas (ENXTPA:BNP)	0.00%	0.00%
UBS AG (VIRTX:UBSN)	0.00%	0.00%
UniCredito Italiano S.p.A. (CM:UCG)	0.00%	0.00%
Royal Bank of Scotland Group plc (LSE:RBS)	22.06%	98.61%
Credit Suisse Group (VIRTX:CSGN)	8.68%	0.00%
Societe Generale Group (ENXTPA:GLE)	0.00%	0.00%
Standard Chartered PLC (LSE:STAN)	2.84%	22.98%
Credit Agricole SA (ENXTPA:ACA)	0.00%	0.00%
Barclays plc (LSE:BARC)	0.00%	0.00%
Nordea Bank AB (OM:NDA SEK)	9.00%	45.03%
Deutsche Bank AG (DB:DBK)	15.80%	119.37%
Banca Monte dei Paschi di Siena SpA (CM:BMPS)	0.00%	0.00%
Lloyds TSB Group plc (LSE:LLOY)	35.76%	87.14%
Banco Popular Espanol SA (CATS:POP)	0.00%	0.00%
KBC Group NV (ENXTBR:KBC)	17.04%	152.94%
Svenska Handelsbanken AB (OM:SHB A)	11.54%	60.24%
National Bank of Greece SA (ATSE:ETE)	2.64%	12.49%
Unione di Banche Italiane Scpa (CM:UBI)	8.89%	64.61%
Average	6.10%	30.16%

# Peer Group Approach: Aracruz and Tata Chemicals

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	<i>Aracruz</i>	<i>Paper &amp; Pulp</i>			<i>Tata Chemicals</i>	<i>Diversified Chemicals</i>		
		<i>Emerging</i>	<i>US</i>	<i>Global</i>		<i>Emerging</i>	<i>US</i>	<i>Global</i>
Dividend Yield	8.19%	3.15%	2.08%	2.81%	5.45%	3.87%	2.54%	3.18%
Payout	NA	43.93%	28.92%	35.55%	43.58%	34.33%	19.75%	26.20%

# Going beyond averages... Looking at the market

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- Regressing dividend yield and payout against expected growth across all US companies in January 2009 yields:

$$\text{PYT} = 0.683 - 0.185 \text{ ROE} - 1.07 \text{ STD} - 0.313 \text{ EGR}$$

(27.41) (3.06) (10.85) (2.60)

$R^2 = 13.3\%$

$$\text{YLD} = 0.039 - 0.039 \text{ STD} - 0.010 \text{ INS} - 0.093 \text{ EGR}$$

(37.38) (9.39) (2.62) (16.23)

$R^2 = 32.2\%$

PYT = Dividend Payout Ratio = Dividends/Net Income

YLD = Dividend Yield = Dividends/Current Price

ROE – Return on Equity

EGR = Expected growth rate in earnings over next 5 years (analyst estimates)

STD = Standard deviation in equity values

INS = Insider holdings as a percent of outstanding stock

# Using the market regression on Disney

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- To illustrate the applicability of the market regression in analyzing the dividend policy of Disney, we estimate the values of the independent variables in the regressions for the firm.
  - ▣ Insider holdings at Disney (as % of outstanding stock) = 7.70%
  - ▣ Standard Deviation in Disney stock prices = 19.30%
  - ▣ Disney's ROE = 13.05%
  - ▣ Expected growth in earnings per share (Analyst estimates) = 14.50%
- Substituting into the regression equations for the dividend payout ratio and dividend yield, we estimate a predicted payout ratio:
  - ▣ Predicted Payout =  $0.683 - 0.185 (.1305) - 1.07 (.1930) - 0.313 (.145) = 0.4069$
  - ▣ Predicted Yield =  $0.039 - 0.039 (.1930) - 0.010 (.077) - 0.093 (.145) = .0172$
- Based on this analysis, Disney with its dividend yield of 1.67% and a payout ratio of approximately 20% is paying too little in dividends. This analysis, however, fails to factor in the huge stock buybacks made by Disney over the last few years.