

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

- 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		
<b>FCFE before debt cash flow</b>	<b>FCFE before debt cash flow</b>	
+ New Debt Issued	<b>Net CF from Debt</b> + (New Debt Issued - Debt Repaid)	
- Debt Repaid		
<b>FCFE</b>	<b>FCFE</b>	<b>FCFE</b>

# 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 €

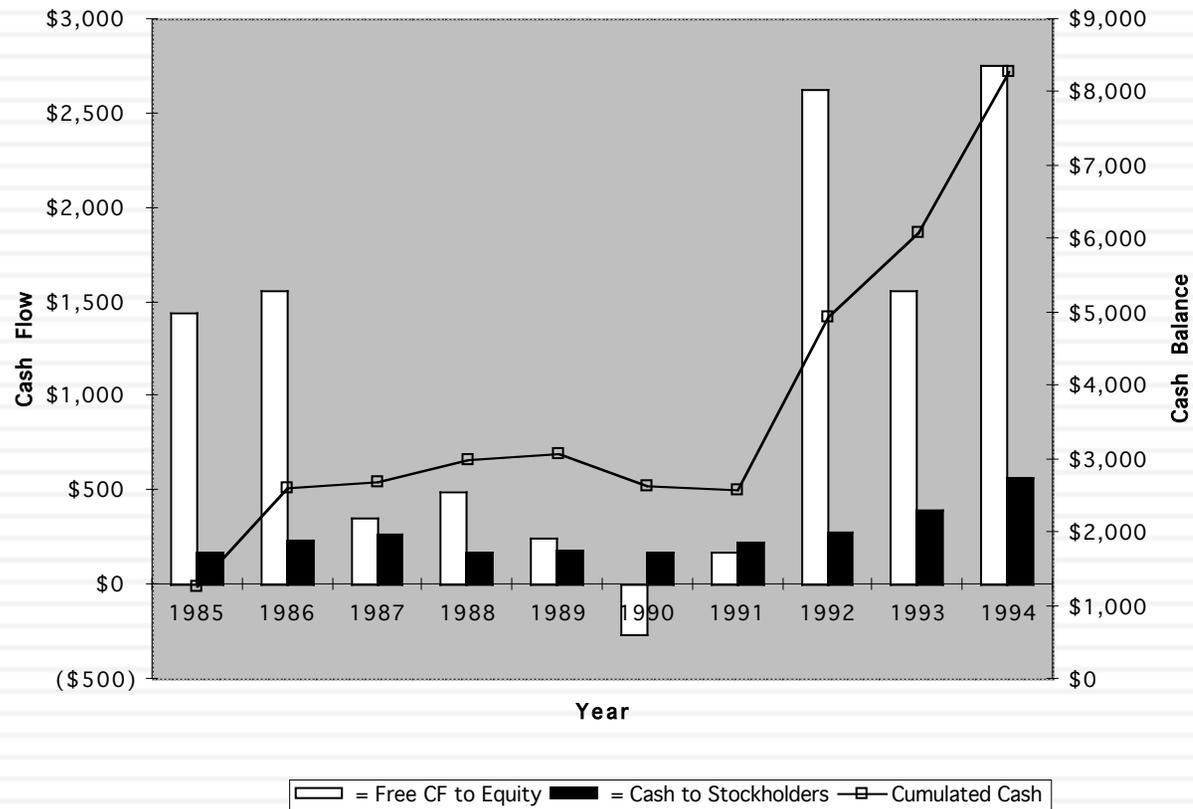
# Dividends versus FCFE: Across the globe

Dividend Class	US	Europe	Japan	Emerging Markets	Aus, NZ & Canada	Global
FCFE<0, No Dividends/Buybacks	28.31%	28.38%	10.90%	21.78%	59.49%	26.91%
FCFE >0, No Dividends/Buybacks	29.86%	19.56%	13.26%	23.01%	15.76%	22.05%
FCFE >0, FCFE>Dividends+Buybacks	14.52%	22.93%	35.04%	22.98%	9.02%	21.10%
<b>CASH ACCUMULATORS</b>	<b>44.38%</b>	<b>42.49%</b>	<b>48.30%</b>	<b>45.98%</b>	<b>24.77%</b>	<b>43.16%</b>
FCFE >0, FCFE<Dividends+Buybacks	8.80%	9.74%	8.40%	7.91%	4.62%	8.05%
FCFE<0, 've Dividends+Buybacks	18.51%	19.38%	32.40%	24.34%	11.11%	21.88%
<b>OVER PAYERS</b>	<b>27.31%</b>	<b>29.12%</b>	<b>40.80%</b>	<b>32.24%</b>	<b>15.73%</b>	<b>29.93%</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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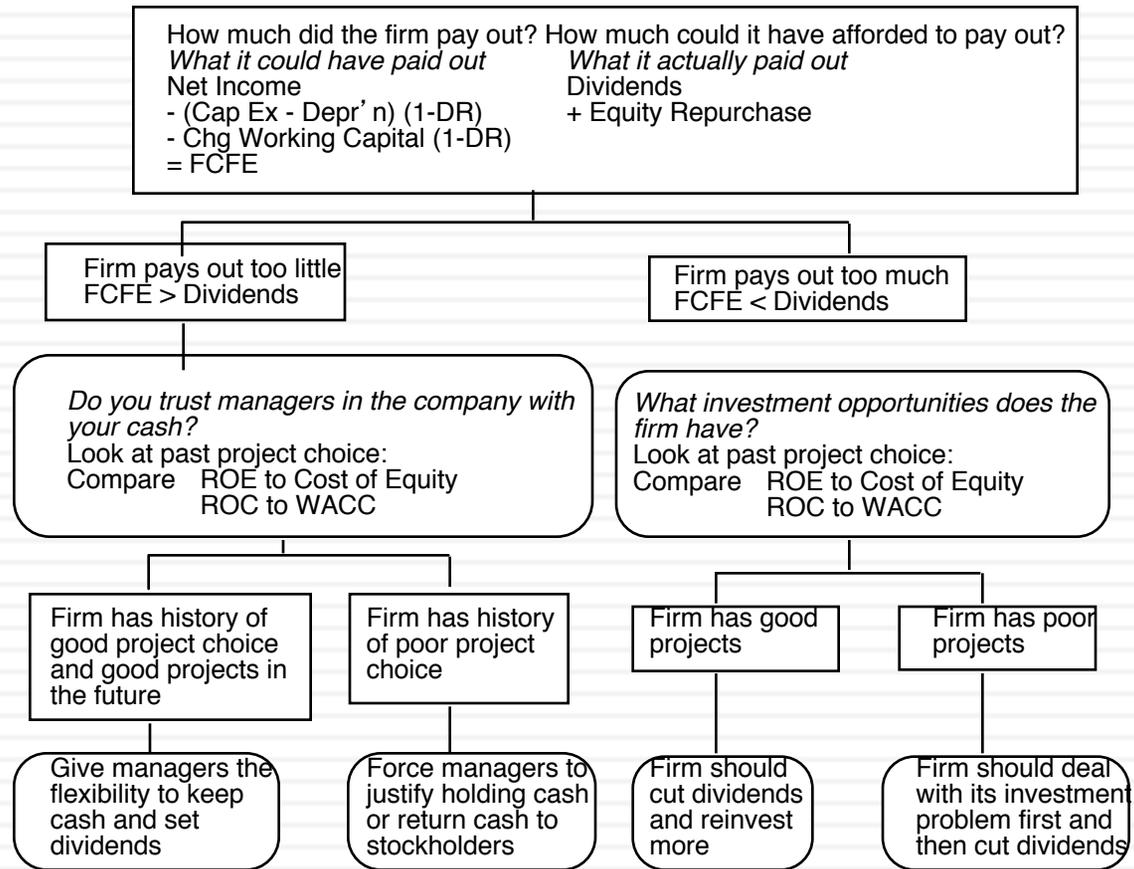
□ In General,  
Net Income  
+ Depreciation & Amortization  
- Capital Expenditures  
- Change in Non-Cash Working Capital  
- Preferred Dividend  
- Principal Repaid  
+ New Debt Issued  
  
= FCFE

□ 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



# A Dividend Matrix

		Quality of projects taken: Excess Returns	
		Poor projects	Good projects
Cash Returned, relative to Free Cash flow to Equity	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

## Case 2: Vale – Dividends versus FCFE

	Aggregate	Average
Net Income	\$57,404	\$5,740
Dividends	\$36,766	\$3,677
Dividend Payout Ratio	\$1	\$1
Stock Buybacks	\$6,032	\$603
Dividends + Buybacks	\$42,798	\$4,280
Cash Payout Ratio	\$1	
Free CF to Equity (pre-debt)	(\$1,903)	(\$190)
Free CF to Equity (actual debt)	\$1,036	\$104
Free CF to Equity (target debt ratio)	\$19,138	\$1,914
Cash payout as % of pre-debt FCFE	FCFE negative	
Cash payout as % of actual FCFE	4131.08%	
Cash payout as % of target FCFE	223.63%	

# Vale: Its your call..

- Vale'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 Vale's dividend problem lie in its equity structure. Like most Brazilian companies, Vale has two classes of shares - common shares with voting rights and preferred shares without voting rights. However, Vale 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)?