Value Enhancement: Back to Basics

Milan, Italy

July 9, 2004
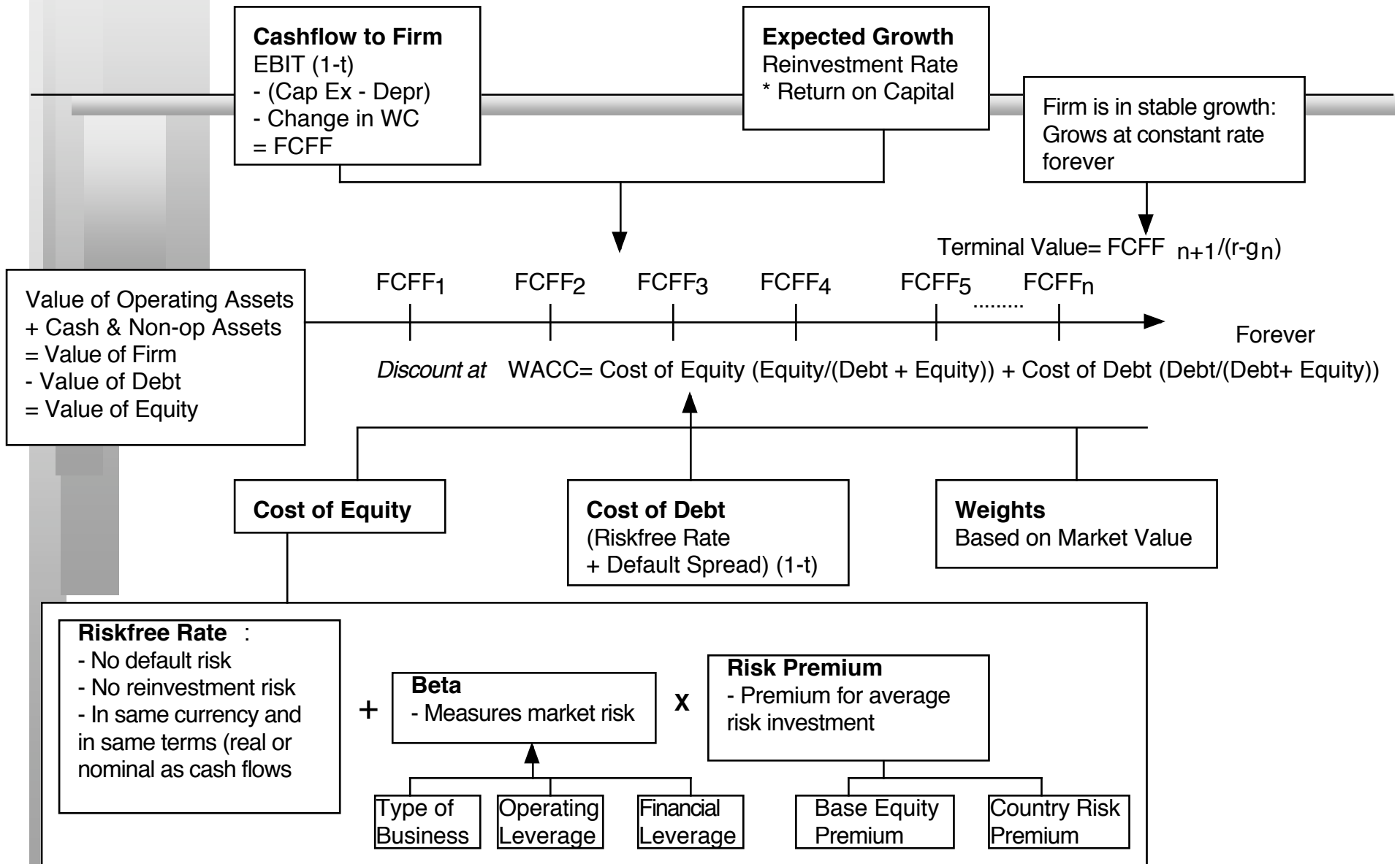
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Price Enhancement versus Value Enhancement

Stock price performance of companies that changed their names to include Web-oriented designations like ".com," from 30 trading days before the name-change announcement to 30 days after. The study looked at stocks of companies that changed their names from January 1998 through March 26, 1999.

Source: "A Rose.com by Any Other Name," by Michael J. Cooper, P. Raghavendra Rau and Orlin Dimitrov of Purdue University

NAME THAT STOCK

New Markets, New Names
In the bull market, adding dot-com to a company name made a stock soar. Lately those zippy new monikers are disappearing.

New Name, Higher Price
But the stocks still get a bounce when dot-com goes away. Chart shows returns in the days before and after the name change.

Sources: Thomson Datastream; P. Raghavendra Rau, Michael J. Cooper, Igor Osobov, Purdue Univ.; Ajay Khorana, Virginia Univ.; Ajay Patel, Wake Forest Univ.

DISCOUNTED CASHFLOW VALUATION

Cashflow to Firm
EBIT (1-t)
- (Cap Ex - Depr)
- Change in WC
= FCFF

Expected Growth
Reinvestment Rate
* Return on Capital

Firm is in stable growth:
Grows at constant rate
forever

Terminal Value= $FCFF_{n+1}/(r-g_n)$

Value of Operating Assets
+ Cash & Non-op Assets
= Value of Firm
- Value of Debt
= Value of Equity

$FCFF_1$ $FCFF_2$ $FCFF_3$ $FCFF_4$ $FCFF_5$ $FCFF_n$ ....

Forever

Discount at WACC= Cost of Equity (Equity/(Debt + Equity)) + Cost of Debt (Debt/(Debt+ Equity))

Cost of Equity

Cost of Debt
(Riskfree Rate
+ Default Spread) (1-t)

Weights
Based on Market Value

Riskfree Rate :
- No default risk
- No reinvestment risk
- In same currency and
in same terms (real or
nominal as cash flows

+

Beta
- Measures market risk

X

Risk Premium
- Premium for average
risk investment

Type of Business	Operating Leverage	Financial Leverage	Base Equity Premium	Country Risk Premium

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Ducati: Status Quo

Average Reinvestment Rate (1999-2003) = 30%

Actual Operating income in 2003 = € 6.30 million
Average Operating income over last 5 years = € 22.63 million
Return on capital based upon average income = 4.54%
Tax Rate = 38%

Reinvestment Rate 30%

Return on Capital 4.54%

Expected Growth in EBIT (1-t)
.30*.0454=.0136
1.36%

Stable Growth
g = 4%; Beta = 1.0;
Debt Ratio = 46%
Cost of capital = 7.02%
ROC= 7.02%; Tax rate=34%
Reinvestment Rate=g/ROC
=4/7.02 = 55.78%

Terminal Value$_5$= 7.35/(.0702-.04) = 231.69

	1	2	3	4	5	Term Yr
EBIT(1-t)	€ 14.22	€ 14.41	€ 14.61	€ 14.81	€ 15.01	16.62
- Reinvestment	€ 4.27	€ 4.32	€ 4.38	€ 4.44	€ 4.50	- 9.27
FCFF	€ 9.95	€ 10.09	€ 10.23	€ 10.37	€ 10.51	= 7.35

Op. Assets   203.14
+ Cash: 48.60
- Debt   166.10
=Equity   85.64

Value/Sh € 0.54/sh

Discount at Eu Cost of Capital (WACC) = 9.30% (.54) + 5.27% (0.46) =7.45 %

Cost of Equity 9.30%

Cost of Debt
8.50%(1-.38) = 5.27%

Weights
E = 54% D = 46%

On June 23 2004 Ducati was trading at €1.23 per share

Riskfree Rate:
€ Riskfree Rate= 4.50%

+

Beta 1.20

X

Mature market premium 4 %

Unlevered Beta for Sectors: 0.785

Firm's D/E Ratio: 85%

The four drivers of value

DISCOUNTED CASHFLOW VALUATION

Cash flows
Firm: Pre-debt cash flow
Equity: After debt cash flows

Expected Growth
Firm: Growth in Operating Earnings
Equity: Growth in Net Income/EPS

Firm is in stable growth: Grows at constant rate forever

Terminal Value

CF_1 CF_2 CF_3 CF_4 CF_5 ....CF_n

Value
Firm: Value of Firm

Equity: Value of Equity

Forever

Length of Period of High Growth

Discount Rate
Firm: Cost of Capital

Equity: Cost of Equity

The Paths to Value Creation

■ Using the DCF framework, there are four basic ways in which the value of a firm can be enhanced:

- The cash flows from existing assets to the firm can be increased, by either
    - increasing after-tax earnings from assets in place or
    - reducing reinvestment needs (net capital expenditures or working capital)
- The expected growth rate in these cash flows can be increased by either
    - Increasing the rate of reinvestment in the firm
    - Improving the return on capital on those reinvestments
- The length of the high growth period can be extended to allow for more years of high growth.
- The cost of capital can be reduced by
    - Reducing the operating risk in investments/assets
    - Changing the financial mix
    - Changing the financing composition

A Basic Proposition

■ For an action to affect the value of the firm, it has to

  • Affect current cash flows (or)

  • Affect future growth (or)

  • Affect the length of the high growth period (or)

  • Affect the discount rate (cost of capital)

■ **Proposition 1: Actions that do not affect current cash flows, future growth, the length of the high growth period or the discount rate cannot affect value.**

Value-Neutral Actions

■ <u>Stock splits and stock dividends</u> change the number of units of equity in a firm, but cannot affect firm value since they do not affect cash flows, growth or risk.

■ <u>Accounting decisions</u> that affect reported earnings but not cash flows should have no effect on value.

- <u>Changing inventory valuation methods</u> from FIFO to LIFO or vice versa in financial reports but not for tax purposes
- <u>Changing the depreciation method</u> used in financial reports (but not the tax books) from accelerated to straight line depreciation
- <u>Major non-cash restructuring charges</u> that reduce reported earnings but are not tax deductible
- <u>Using pooling instead of purchase</u> in acquisitions cannot change the value of a target firm.

■ Decisions that create new securities on the existing assets of the firm (without altering the financial mix) such as <u>tracking stock</u>.

Value Creation 1: Increase Cash Flows from Assets in Place

Divest the businesses where divestiture value>continuing operations value?

More efficient operations and cost cuttting: Higher Margins

Divest assets that have negative EBIT

Reduce tax rate
- moving income to lower tax locales
- transfer pricing
- risk management

Revenues

* Operating Margin

= EBIT

- Tax Rate * EBIT

= EBIT (1-t)

+ Depreciation
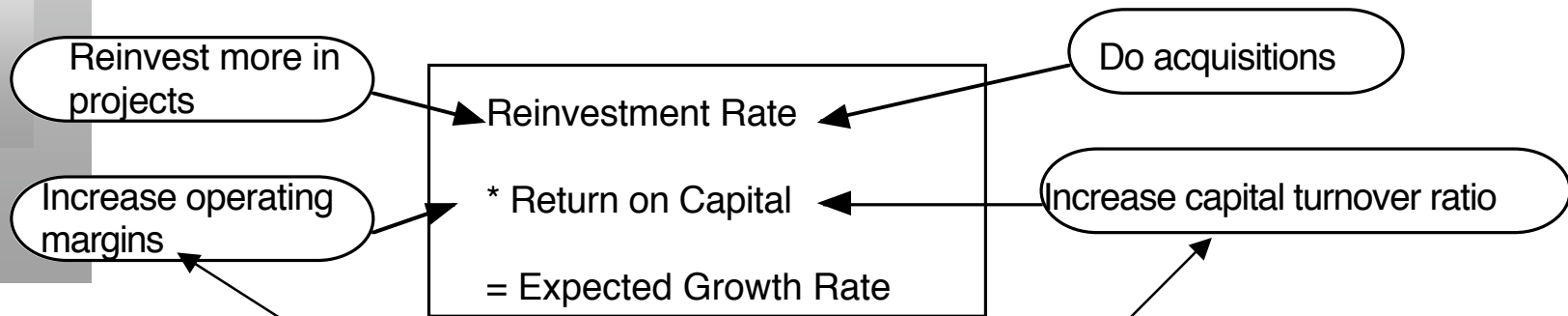- Capital Expenditures
- Chg in Working Capital
= FCFF

Live off past over-investment

Better inventory management and tighter credit policies

Ducati: Potential for operating efficiencies?
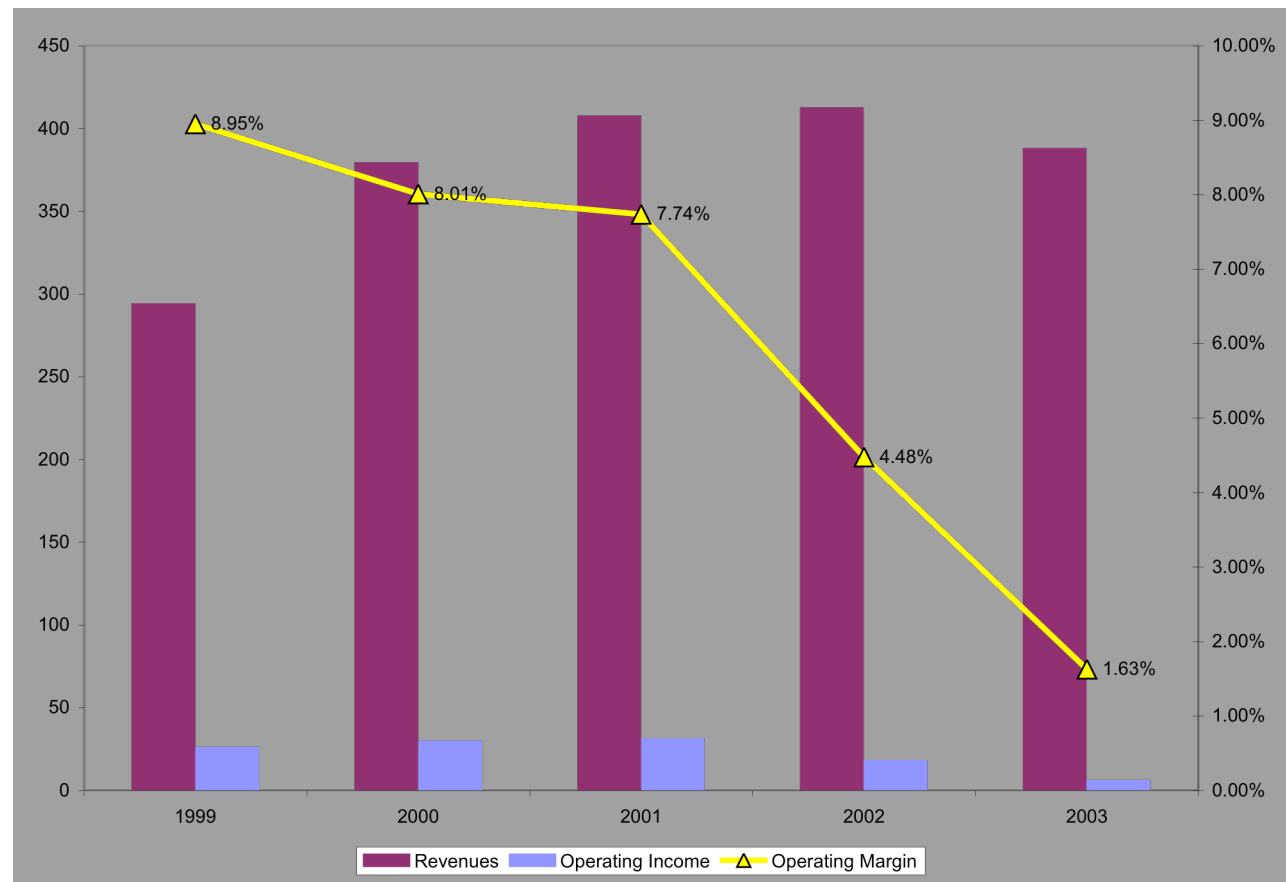
Value Creation 2: Increase Expected Growth

Reinvest more in projects

Do acquisitions

Reinvestment Rate

Increase operating margins

* Return on Capital

Increase capital turnover ratio

= Expected Growth Rate

Price Leader versus Volume Leader Strategies
*Return on Capital = Operating Margin * Capital Turnover Ratio*

2.1: Increase the Reinvestment Rate

- Holding all else constant, increasing the reinvestment rate will increase the expected growth in earnings of a firm. Increasing the reinvestment rate will, however, reduce the cash flows of the firms. The net effect will determine whether value increases or decreases.

- As a general rule,
  - Increasing the reinvestment rate when the ROC is less than the cost of capital will reduce the value of the firm
  - Increasing the reinvestment rate when the ROC is greater than the cost of capital will increase the value of the firm

The Return Effect: Reinvestment Rate

Ducati: Reinvestment Rate and Value per share

Assumed reinvestment rate = 30%

Increasing reinvestment rate reduces value per share even though it increases the growth rate

Value per share — % Change in Value

Reinvestment rate - next 5 years
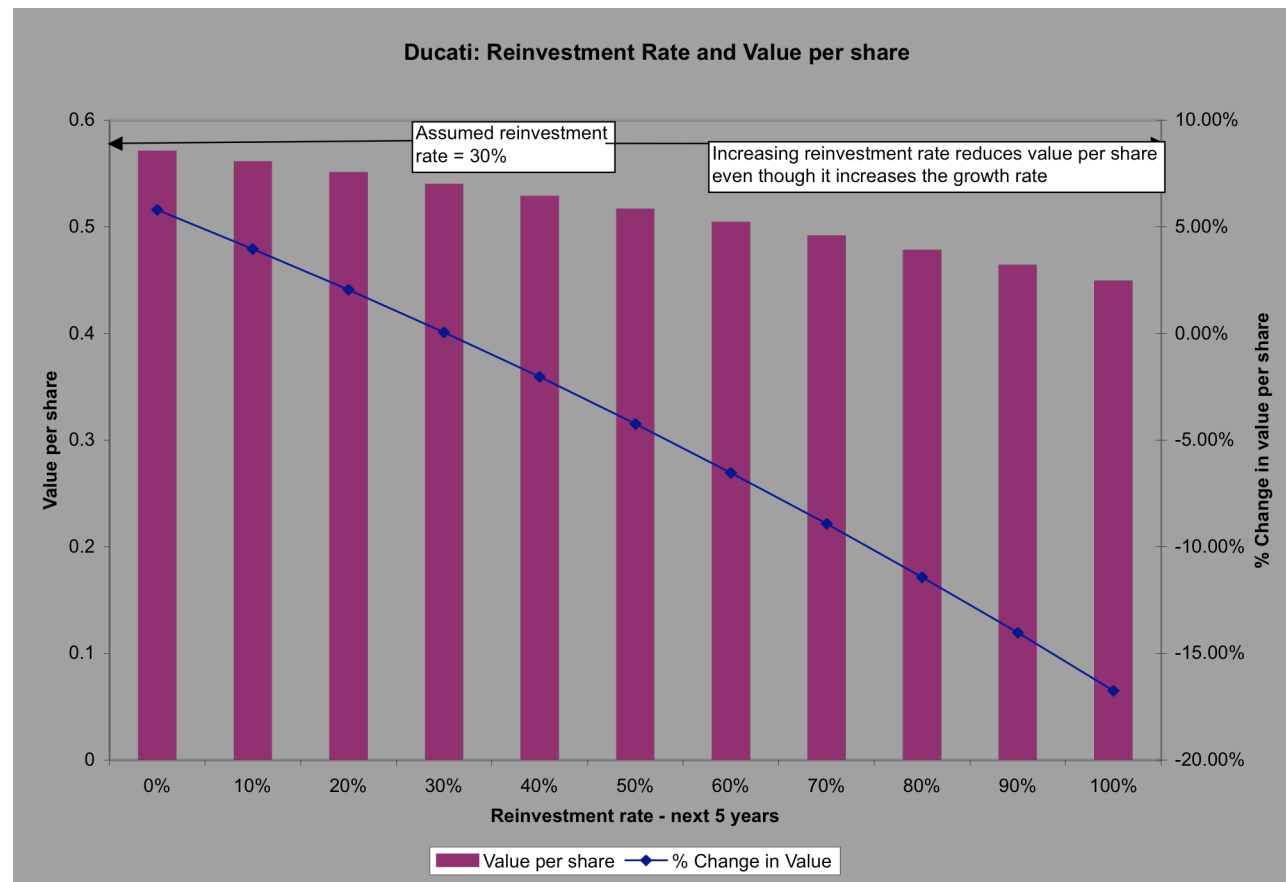
2.2: Improve Quality of Investments

■ If a firm can increase its return on capital on new projects, while holding the reinvestment rate constant, it will increase its firm value.

- The firm's cost of capital still acts as a floor on the return on capital. If the return on capital is lower than the cost of capital, increasing the return on capital will reduce the amount of value destroyed but will not create value. The firm would be better off under those circumstances returning the cash to the owners of the business.

- It is only when the return on capital exceeds the cost of capital, that the increase in value generated by the higher growth will more than offset the decrease in cash flows caused by reinvesting.

■ This proposition might not hold, however, if the investments are in riskier projects, because the cost of capital will then increase.

The Interplay between ROC and Reinvestment Rates
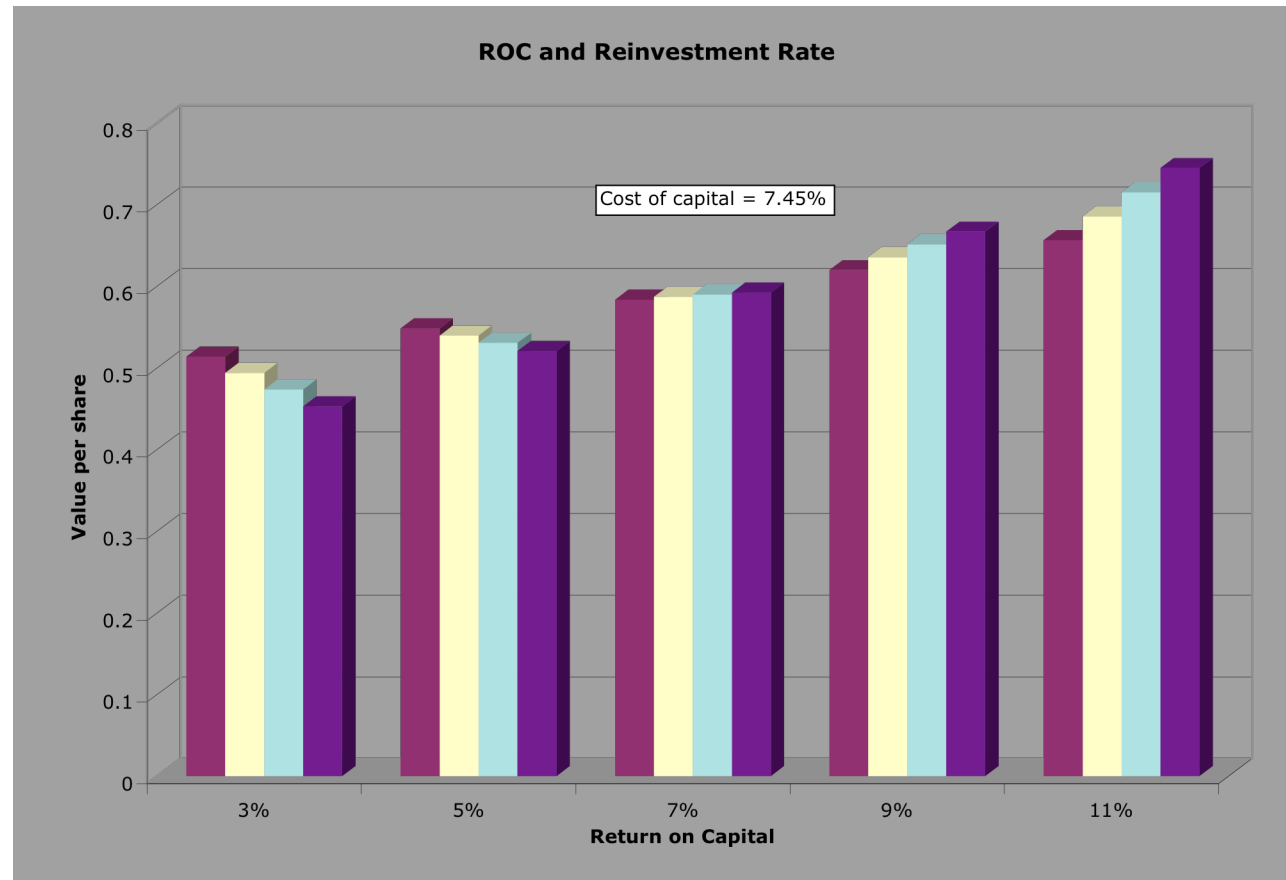
Value Creation 3: Increase Length of High Growth Period

- Every firm, at some point in the future, will become a stable growth firm, growing at a rate equal to or less than the economy in which it operates.

- The high growth period refers to the period over which a firm is able to sustain a growth rate greater than this "stable" growth rate. If a firm is able to increase the length of its high growth period, other things remaining equal, it will increase value.

- For firms to maintain high growth over a period, they have to earn excess returns. In a competitive market place, these excess returns should attract competitors who will erase these excess returns over time.

- Thus, for a firm to maintain high growth and excess returns over time, it has to create barriers to entry that allow it to maintain these excess returns.

3.1: The Brand Name Advantage

■ Some firms are able to sustain above-normal returns and growth because they have well-recognized brand names that allow them to charge higher prices than their competitors and/or sell more than their competitors.

■ Firms that are able to improve their brand name value over time can increase both their growth rate and the period over which they can expect to grow at rates above the stable growth rate, thus increasing value.

Illustration: Valuing a brand name: Coca Cola

	Coca Cola	Generic Cola Company
AT Operating Margin	**18.56%**	**7.50%**
Sales/BV of Capital	1.67	1.67
ROC	31.02%	12.53%
Reinvestment Rate	65.00% (19.35%)	65.00% (47.90%)
Expected Growth	20.16%	8.15%
Length	10 years	10 yea
Cost of Equity	12.33%	12.33%
E/(D+E)	97.65%	97.65%
AT Cost of Debt	4.16%	4.16%
D/(D+E)	2.35%	2.35%
Cost of Capital	12.13%	12.13%
Value	**$115**	**$13**

3.2: Patents and Legal Protection

■ The most complete protection that a firm can have from competitive pressure is to own a patent, copyright or some other kind of legal protection allowing it to be the sole producer for an extended period.

■ Note that patents only provide partial protection, since they cannot protect a firm against a competitive product that meets the same need but is not covered by the patent protection.

■ Licenses and government-sanctioned monopolies also provide protection against competition. They may, however, come with restrictions on excess returns; utilities in the United States, for instance, are monopolies but are regulated when it comes to price increases and returns.

3.3: Switching Costs

- Another potential barrier to entry is the cost associated with switching from one firm's products to another.

- The greater the switching costs, the more difficult it is for competitors to come in and compete away excess returns.

- Firms that devise ways to increase the cost of switching from their products to competitors' products, while reducing the costs of switching from competitor products to their own will be able to increase their expected length of growth.

3.4: Cost Advantages

■ There are a number of ways in which firms can establish a cost advantage over their competitors, and use this cost advantage as a barrier to entry:

- In businesses, where scale can be used to reduce costs, economies of scale can give bigger firms advantages over smaller firms

- Owning or having exclusive rights to a distribution system can provide firms with a cost advantage over its competitors.

- Owning or having the rights to extract a natural resource which is in restricted supply (The undeveloped reserves of an oil or mining company, for instance)

■ These cost advantages will show up in valuation in one of two ways:

- The firm may charge the same price as its competitors, but have a much higher operating margin.

- The firm may charge lower prices than its competitors and have a much higher capital turnover ratio.
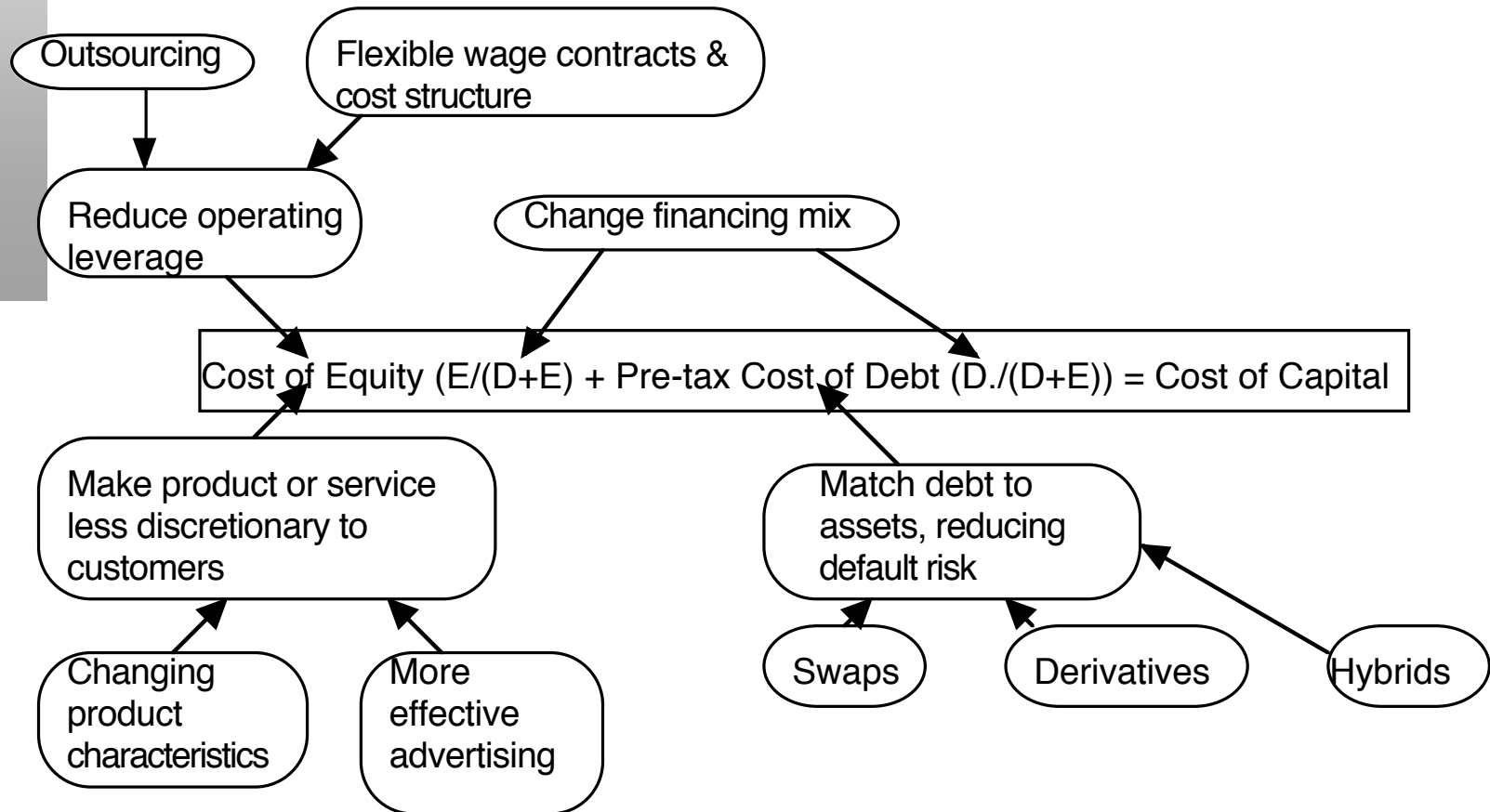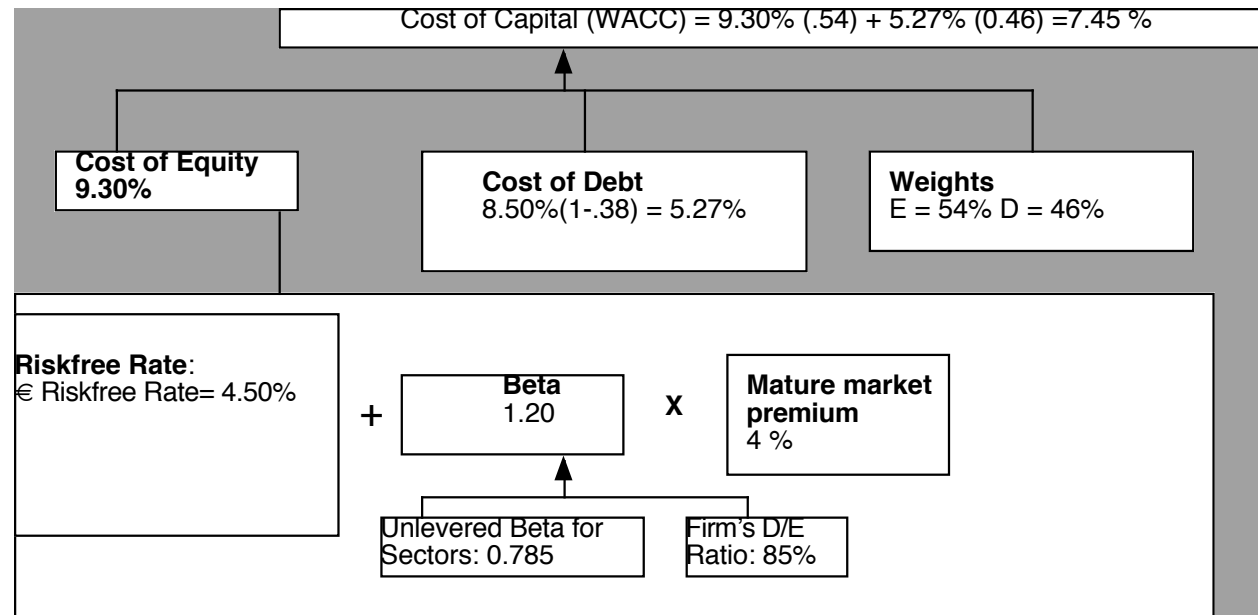
Gauging Barriers to Entry

■ Which of the following barriers to entry are most likely to work for Ducati?

❑ Brand Name

❑ Patents and Legal Protection

❑ Switching Costs

❑ Cost Advantages

How would you go about building up this barrier to entry?

Value Creation 4: Reduce Cost of Capital

Outsourcing

Flexible wage contracts & cost structure

Reduce operating leverage

Change financing mix

Cost of Equity (E/(D+E) + Pre-tax Cost of Debt (D./(D+E)) = Cost of Capital

Make product or service less discretionary to customers

Match debt to assets, reducing default risk

Changing product characteristics

More effective advertising

Swaps

Derivatives

Hybrids

Ducati: Optimal Debt Ratio

Cost of Capital (WACC) = 9.30% (.54) + 5.27% (0.46) =7.45 %

Cost of Equity
9.30%

Cost of Debt
8.50%(1-.38) = 5.27%

Weights
E = 54% D = 46%

Riskfree Rate:
€ Riskfree Rate= 4.50%

+

Beta
1.20

X

Mature market premium
4 %

Unlevered Beta for Sectors: 0.785

Firm's D/E Ratio: 85%

Debt Ratio	Beta	Cost of Equity	Bond Rating	Interest rate on debt	Tax Rate	Cost of Debt (after-tax)	WACC	Firm Value (G)
0%	0.79	7.64%	AAA	4.85%	38.00%	3.01%	7.64%	$349
10%	0.84	7.86%	AAA	4.85%	38.00%	3.01%	7.37%	$366
20%	0.91	8.13%	A-	5.50%	38.00%	3.41%	7.19%	$380
30%	0.99	8.48%	B+	7.75%	38.00%	4.81%	7.38%	$366
40%	1.11	8.94%	CCC	12.50%	38.00%	7.75%	8.46%	$303
50%	1.31	9.75%	CC	14.50%	32.82%	9.74%	9.75%	$251
60%	1.68	11.22%	C	16.50%	24.03%	12.53%	12.01%	$193
70%	2.24	13.46%	C	16.50%	20.60%	13.10%	13.21%	$171
80%	3.55	18.69%	D	24.50%	12.14%	21.53%	20.96%	$98
90%	7.09	32.87%	D	24.50%	10.79%	21.86%	22.96%	$88

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Financing Details

- What would the cash flows on a project for Ducatti look like in terms of
  - ❏ Project life?:
  - ❏ Cash Flow Patterns?:
  - ❏ Growth?:
  - ❏ Currency?:
- Now what kind of debt would be best to finance such a project?
- If I told you that Ducati has only short to medium term debt on its books, what action could you take to enhance value?

Ducati: Restructured

Operating margin will increase to 1999 level of 8.95%
Resulting operating income = € 34.76
Tax Rate = 38%

Reinvestment Rate 60%

Return on Capital 9%

Expected Growth in EBIT (1-t)
.60*.09=.054
5.40%

Stable Growth
g = 4%; Beta = 1.0;
Debt Ratio = 20%
Cost of capital = 7.48%
ROC= 7.48%; Tax rate=34%
Reinvestment Rate=g/ROC
=4/7.48 = 53.46%

Terminal Value$_5$= 7.35/(.0702-.04) = 231.69

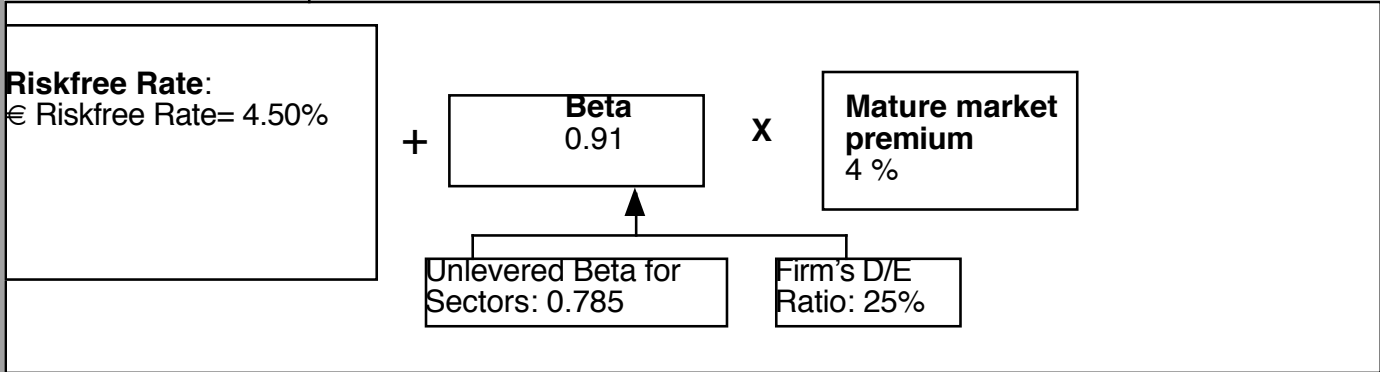|		1	2	3	4	5	Term Yr
Op. Assets	316.27						
+ Cash:	48.60						29.15
- Debt	166.10	EBIT (1-t)	$22.71	$23.94	$25.23	$26.59	$28.03
=Equity	198.77	- Reinvestment	$13.63	$14.36	$15.14	$15.96	$16.82	15.58
		FCFF	$9.09	$9.58	$10.09	$10.64	$11.21	13.57

Value/Sh € 1.25/sh

Discount at Eu Cost of Capital (WACC) = 8.14% (.80) + 3.41% (0.20) =7.19 %

Cost of Equity 8.14%

Cost of Debt
5.50%(1-.38) = 3.41%

Weights
E = 80% D = 20%

On June 23 2004 Ducati was trading at €1.23 per share

Riskfree Rate:
€ Riskfree Rate= 4.50%

+

Beta
0.91

X

Mature market premium
4 %

Unlevered Beta for Sectors: 0.785

Firm's D/E Ratio: 25%

The Value of Control?

■ If the value of a firm run optimally is significantly higher than the value of the firm with the status quo (or incumbent management), you can write the value that you should be willing to pay as:
  • Value of control = Value of firm optimally run - Value of firm with status quo
  • Value of control at Ducati = 1.25 - 0.54 = 0.71 per share or roughly 60%

■ Implications:
  • The value of control is greatest at poorly run firms.
  • As the likelihood of changing management at badly run firms increases (hostile acquisitions, proxy fights etc.), the value per share will move towards the optimal value.
  • Voting shares in poorly run firms should trade at a premium on non-voting shares if the votes associated with the shares will give you a chance to have a say in a hostile acquisition.

Alternative Approaches to Value Enhancement

- Assume that the market is right and maximize market prices.
- Assume that your accountants are right and maximize
  - Earnings or earnings growth
  - Accounting return on equity or capital
- Assume that both the market and accountants tend to be wrong and maximize
  - Revenue or revenue growth
  - Market Share
- Assume that management consultants are right and go with a customized measure such as
  - A percentage return measure based on cashflows like CFROI
  - A dollar (euro…) based excess return measure like EVA

Economic Value Added (EVA) and CFROI

■ The Economic Value Added (EVA) is a measure of surplus value created on an investment.

- Define the return on capital (ROC) to be the "true" return on capital earned on an investment.
- Define the cost of capital as the weighted average of the costs of the different financing instruments used to finance the investment.

  EVA = (Return on Capital - Cost of Capital) (Capital Invested in Project)

■ The CFROI is a measure of the cash flow return made on capital. It is different from EVA insofar as

- It is based upon cashflows and not earnings
- It is stated in real and not nominal terms
- It is a percentage rate of return rather than a absolute value

In Practice: Measuring EVA

■ *Capital Invested*: Many firms use the book value of capital invested as their measure of capital invested. To the degree that book value reflects accounting choices made over time, this may not be true. In addition, the book capital may not reflect the value of intangible assets such as research and development.

■ *Operating Income*: Operating income has to be cleansed of any expenses which are really capital expenses or financing expenses.

■ *Cost of capital*: The cost of capital for EVA purposes should be computed based on market values.

■ *Bottom line*: If you estimate return on capital and cost of capital correctly in DCF valuation, you can use those numbers to compute EVA.

Estimating Ducati's EVA and CFROI in 2003

- Economic Value Added in 2003
  - Return on invested capital in 2003 = 4.54%
  - Cost of capital in 2003 = 7.45%
  - Capital invested at the beginning of 2003 = Debt + Equity = 151.3+158 = 309.3
  - EVA in 2003 = (.0454 - .0745) (309.3) = - 9 million Euros
- CFROI in 2003
  - Gross investment in assets (adjusted for inflation) = 566.76 million Euros
  - Gross cashflow in 2003 = EBIT (1-t)+ Depreciation = 42.80 million Euros
  - Remaining life for the assets = 10 years
  - CFROI is 4.93% (IRR of cashflows above)
  - Real cost of capital = (1.0745/1.02) -1 = 5.34%

Things to Note about EVA and CFROI

■ EVA is a measure of dollar surplus value, not the percentage difference in returns. CFROI is a measure of the internal real rate of return on existing investments.

■ Both the EVA and CFROI, as computed, are measures of performance for a point in time.

■ The value of a firm can be written in terms of EVA or CFROI. <u>Done right, you should get the same value for your firm as you did using discounted cashflow valuation</u>.

A Simple Illustration

■ Assume that you have a firm with

- I_A = 100   In each year 1-5, assume that
- ROC_A = 15% ΔI = 10 (Investments are at beginning of each year)
- $WACC_A$ = 10% $ROC_{\text{New Projects}}$ = 15%
- $WACC_{\text{New Projects}}$ = 10%

■ Assume that all of these projects will have infinite lives.

■ After year 5, assume that

- Investments will grow at 5% a year forever
- ROC on projects will be equal to the cost of capital (10%)

Firm Value using EVA Approach

Capital Invested in Assets in Place   =$ 100

EVA from Assets in Place = (.15 – .10) (100)/.10   =$ 50

+ PV of EVA from New Investments in Year 1 = [(.15 -– .10)(10)/.10]   =$ 5

+ PV of EVA from New Investments in Year 2 = [(.15 -– .10)(10)/.10]/1.1   = $ 4.55

+ PV of EVA from New Investments in Year 3 = [(.15 -– .10)(10)/.10]/1.1^2 =$ 4.13

+ PV of EVA from New Investments in Year 4 = [(.15 -– .10)(10)/.10]/1.1^3 =$ 3.76

+ PV of EVA from New Investments in Year 5 = [(.15 -– .10)(10)/.10]/1.1^4 =$ 3.42

Value of Firm   **=$ 170.85**

Firm Value using DCF Valuation: Estimating FCFF

	Base Year	1	2	3	4	5	Term. Year
EBIT (1-t) : Assets in Place	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	$ 15.00	
EBIT(1-t) :Investments- Yr 1		$ 1.50	$ 1.50	$ 1.50	$ 1.50	$ 1.50	
EBIT(1-t) :Investments- Yr 2			$ 1.50	$ 1.50	$ 1.50	$ 1.50	
EBIT(1-t): Investments -Yr 3				$ 1.50	$ 1.50	$ 1.50	
EBIT(1-t): Investments -Yr 4					$ 1.50	$ 1.50	
EBIT(1-t): Investments- Yr 5						$ 1.50	
Total EBIT(1-t)		$ 16.50	$ 18.00	$ 19.50	$ 21.00	$ 22.50	$ 23.63
- Net Capital Expenditures	$10.00	$ 10.00	$ 10.00	$ 10.00	$ 10.00	$ 11.25	$ 11.81
FCFF		$ 6.50	$ 8.00	$ 9.50	$ 11.00	$ 11.25	$ 11.81

Firm Value: Present Value of FCFF

Year	0	1	2	3	4	5	Term Year
FCFF		$ 6.50	$ 8.00	$ 9.50	$ 11.00	$ 11.25	$ 11.81
PV of FCFF	($10)	$ 5.91	$ 6.61	$ 7.14	$ 7.51	$ 6.99	
Terminal Value						$ 236.25	
PV of Terminal Value						$ 146.69	
Value of Firm	$170.85						

Implications

- Growth, by itself, does not create value. It is growth, with investment in excess return projects, that creates value.
  - The growth of 5% a year after year 5 creates no additional value.
- The "market value added" (MVA), which is defined to be the excess of market value over capital invested is a function of tthe excess value created.
  - In the example above, the market value of $ 170.85 million exceeds the book value of $ 100 million, because the return on capital is 5% higher than the cost of capital.

The Perils of Short Cuts

DISCOUNTED CASHFLOW VALUATION

EVA and CFROI short change these drivers

Expected Growth
Firm: Growth in Operating Earnings
Equity: Growth in Net Income/EPS

Firm is in stable growth: Grows at constant rate forever

EVA and CFROI focus on these two drivers

Cash flows
Firm: Pre-debt cash flow
Equity: After debt cash flows

Terminal Value

CF_1 CF_2 CF_3 CF_4 CF_5 CF_n ....

Value
Firm: Value of Firm

Equity: Value of Equity

Forever

Length of Period of High Growth

Discount Rate
Firm:Cost of Capital

Equity: Cost of Equity

Aswath Damodaran

As a value enhancement measure, three Problems with EVA (and CFROI)

■ *The Capital Game:* Since the return on capital is based upon capital invested, firms can make their economic value added higher by taking actions that reduce capital invested. Examples would include stock buybacks, accelerated depreciation and one-time write offs of assets.

■ *The Growth Trade off*: Firms can trade off higher EVA in the near term for lower growth in the future. In the process, they can lower the value of the firm.

■ *The Risk Trade off*: Even though EVA is risk adjusted, the value of a firm is the present value of economic value added over time. Consequently, increasing EVA while increasing the cost of capital can lead to lower value.
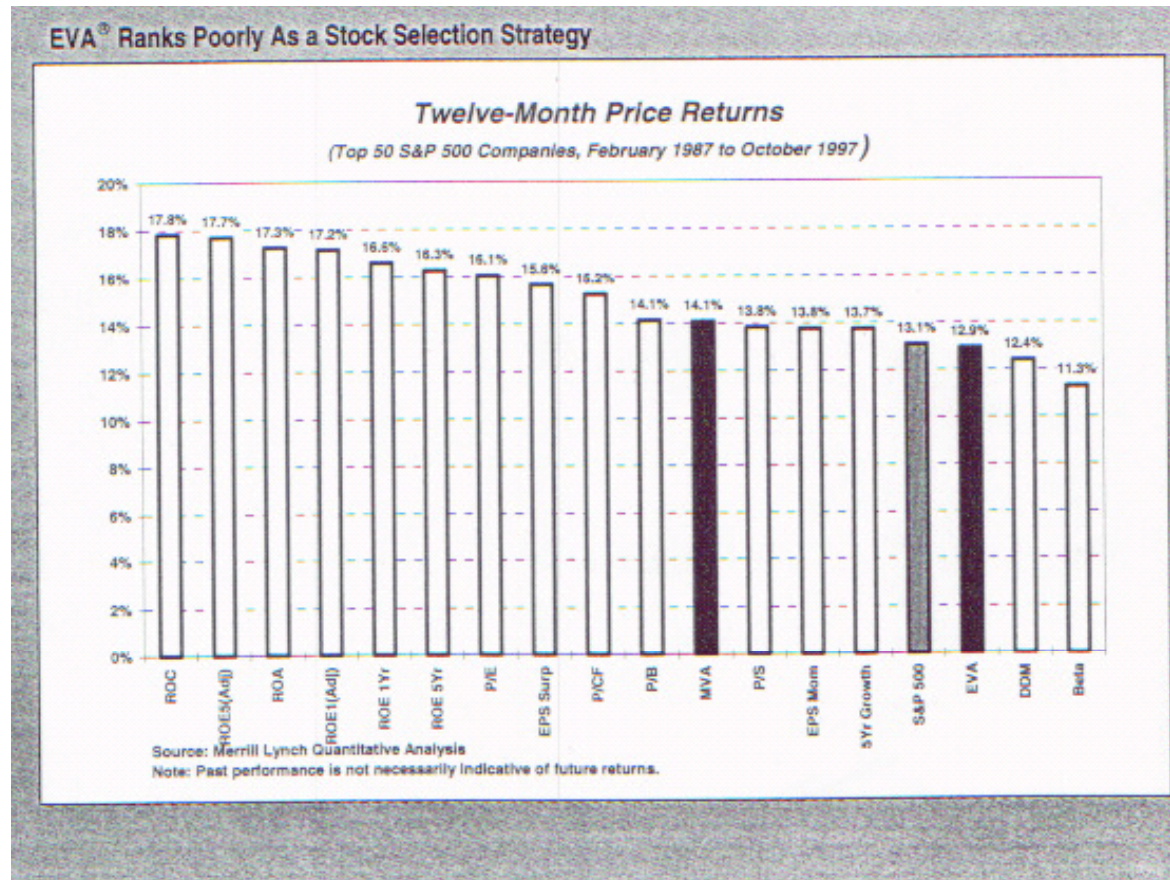
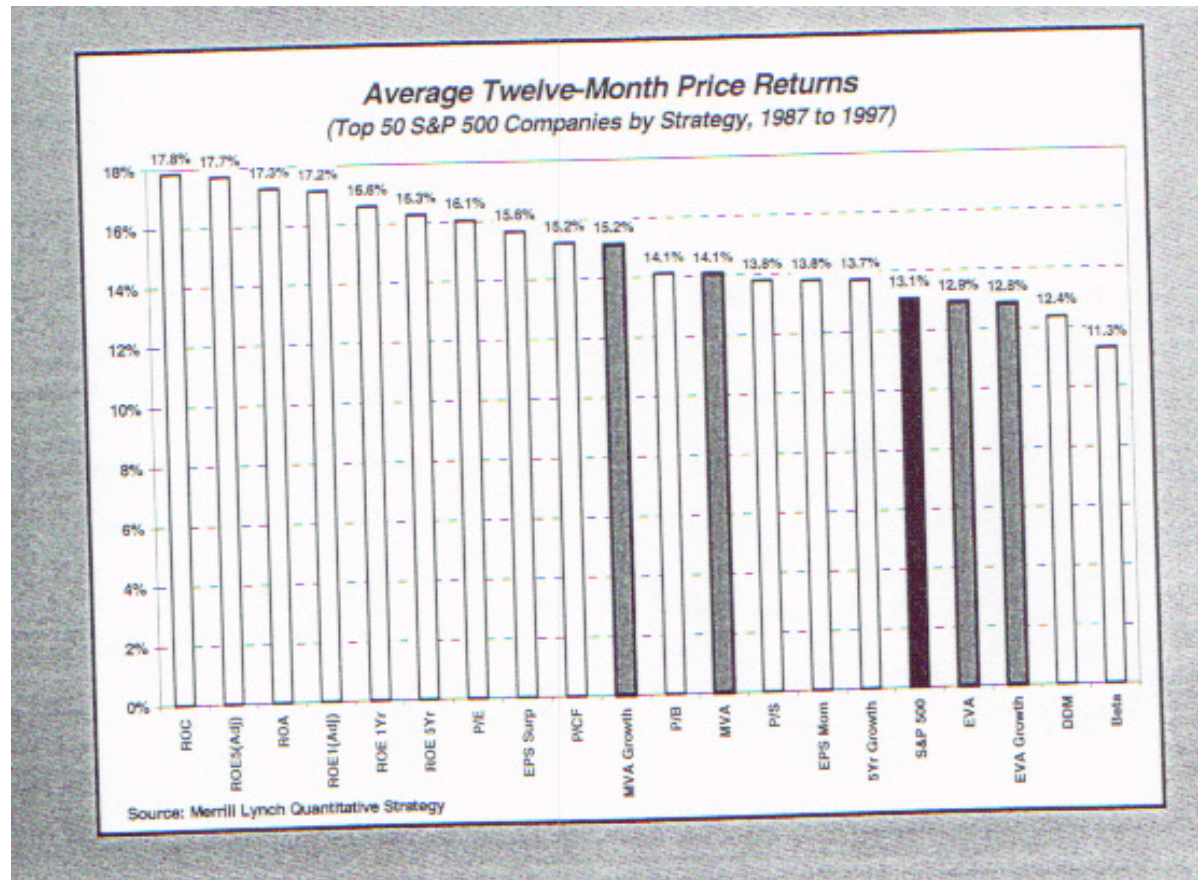# As an investment tool, there are perils with using EVA

■ The market value of a firm reflects not only the Expected EVA of Assets in Place but also the Expected EVA from Future Projects

■ To the extent that the actual economic value added is smaller than the expected EVA the market value can decrease even though the EVA is higher.

■ Thus, a firm can report a very high EVA and see its stock price go down (because the EVA did not measure up to expectation) and another firm can report a negative EVA and see its stock price go up (because the EVA was less negative than expected)

Proof: High EVA companies do not earn excess returns

EVA® Ranks Poorly As a Stock Selection Strategy

Twelve-Month Price Returns
(Top 50 S&P 500 Companies, February 1987 to October 1997)

Source: Merrill Lynch Quantitative Analysis
Note: Past performance is not necessarily indicative of future returns.

Increases in EVA do not create excess returns

Average Twelve-Month Price Returns
(Top 50 S&P 500 Companies by Strategy, 1987 to 1997)

Source: Merrill Lynch Quantitative Strategy

Implications of Findings

■ This does not imply that increasing EVA is bad from a corporate finance standpoint. In fact, given a choice between delivering a "below-expectation" EVA and no EVA at all, the firm should deliver the "below-expectation" EVA.

■ It does suggest that the correlation between increasing year-to-year EVA and market value will be weaker for firms with high anticipated growth (and excess returns) than for firms with low or no anticipated growth.

■ It does suggest also that "investment strategies"based upon EVA have to be carefully constructed, especially for firms where there is an expectation built into prices of "high" surplus returns.

When focusing on year-to-year EVA changes has least side effects

1. Most or all of the assets of the firm are already in place; i.e, very little or none of the value of the firm is expected to come from future growth.

    - [This minimizes the risk that increases in current EVA come at the expense of future EVA]

2. The leverage is stable and the cost of capital cannot be altered easily by the investment decisions made by the firm.

    - [This minimizes the risk that the higher EVA is accompanied by an increase in the cost of capital]

3. The firm is in a sector where investors anticipate little or not surplus returns; i.e., firms in this sector are expected to earn their cost of capital.

    - [This minimizes the risk that the increase in EVA is less than what the market expected it to be, leading to a drop in the market price.]

When focusing on year-to-year EVA changes can be dangerous

1. High growth firms, where the bulk of the value can be attributed to future growth.

2. Firms where neither the leverage not the risk profile of the firm is stable, and can be changed by actions taken by the firm.

3. Firms where the current market value has imputed in it expectations of significant surplus value or excess return projects in the future.

   Note that all of these problems can be avoided if we restate the objective as maximizing the present value of EVA over time. If we do so, however, some of the perceived advantages of EVA - its simplicity and observability - disappear.