

Value/Sales Ratio: An Example

- Consider, for example, the Value/Sales ratio of Coca Cola. The company had the following characteristics:

After-tax Operating Margin = 18.56% Sales/BV of Capital = 1.67

Return on Capital = 1.67 * 18.56% = 31.02%

Reinvestment Rate = 65.00% in high growth; 20% in stable growth;

Expected Growth = 31.02% * 0.65 = 20.16% (Stable Growth Rate = 6%)

Length of High Growth Period = 10 years

Cost of Equity = 12.33%

E/(D+E) = 97.65%

After-tax Cost of Debt = 4.16%

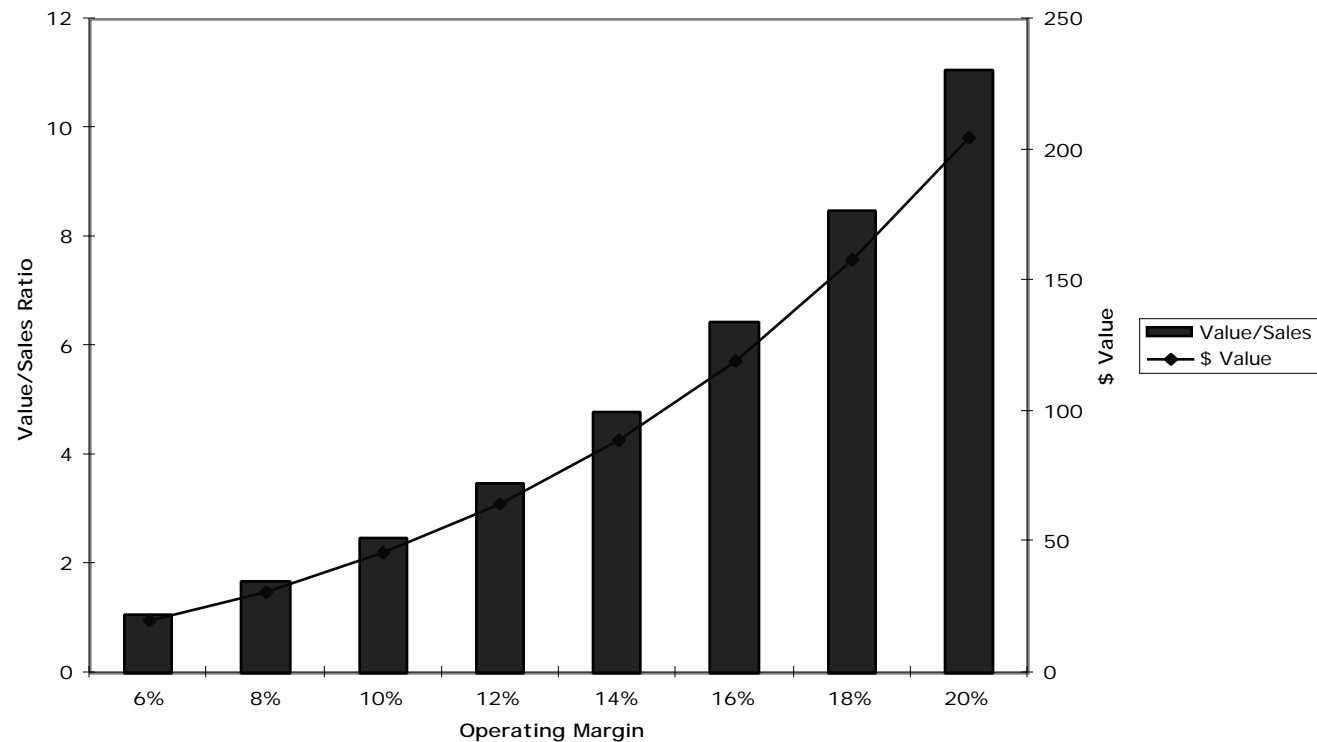
D/(D+E) = 2.35%

Cost of Capital = 12.33% (.9765) + 4.16% (.0235) = 12.13%

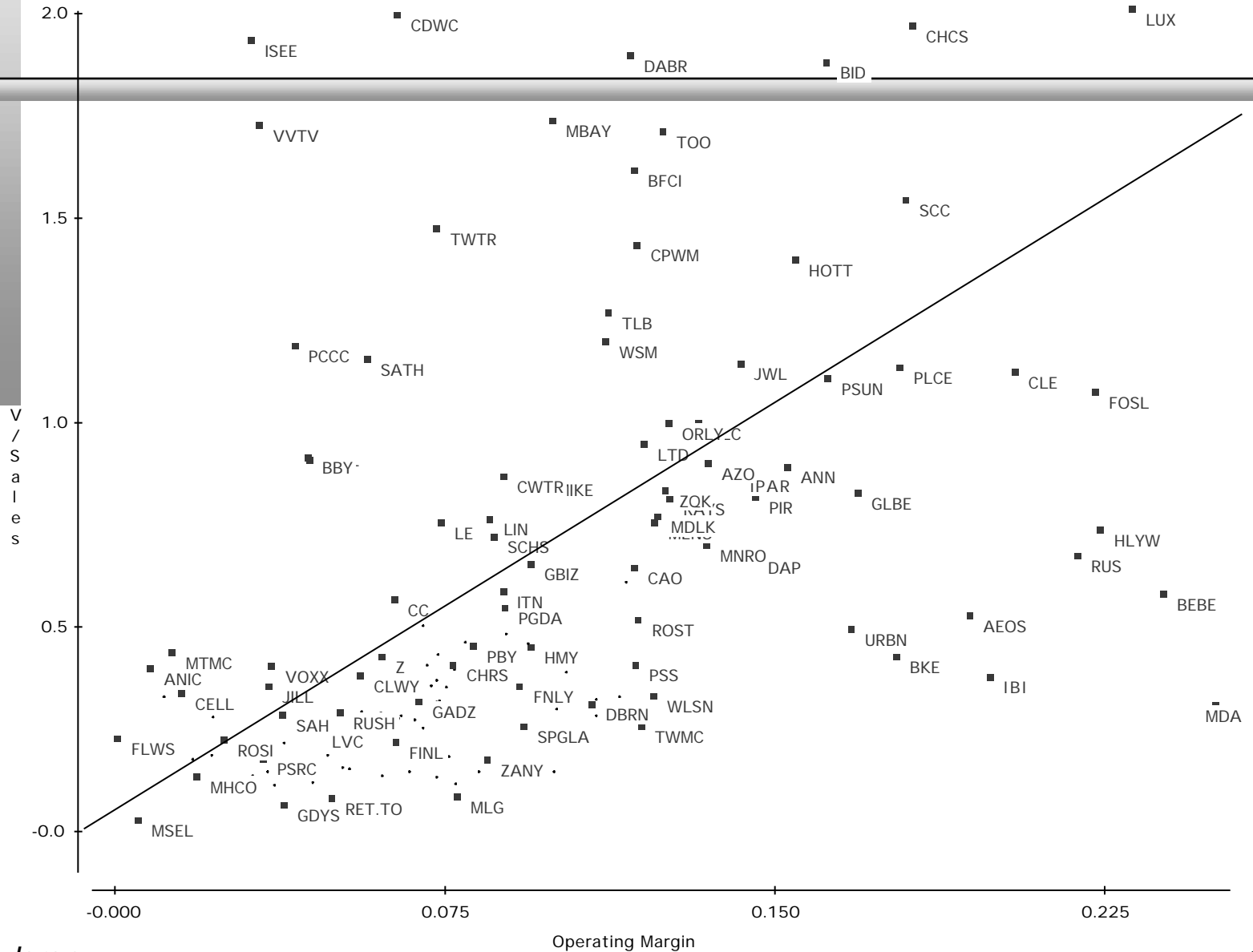
$$\frac{\text{Value of Firm}_0}{\text{Sales}_0} = .1856 * \frac{(1-.65)(1.2016)^* \left[1 - \frac{(1.2016)^{10}}{(1.1213)^{10}} \right]}{.1213 - .2016} + \frac{(1-.20)(1.2016)^{10} * (1.06)}{(.1213 - .06)(1.1213)^{10}} = 6.10$$

Value Sales Ratios and Operating Margins

Coca Cola: The Operating Margin Effect



U.S. Specialty Retailers: V/S vs Operating Margin



Brand Name Premiums in Valuation

- You have been hired to value Coca Cola for an analyst reports and you have valued the firm at 6.10 times revenues, using the model described in the last few pages. Another analyst is arguing that there should be a premium added on to reflect the value of the brand name. Do you agree?
 - Yes
 - No
 - Explain.

The value of a brand name

- One of the critiques of traditional valuation is that it fails to consider the value of brand names and other intangibles.
- The approaches used by analysts to value brand names are often ad-hoc and may significantly overstate or understate their value.
- One of the benefits of having a well-known and respected brand name is that firms can charge higher prices for the same products, leading to higher profit margins and hence to higher price-sales ratios and firm value. The larger the price premium that a firm can charge, the greater is the value of the brand name.
- In general, the value of a brand name can be written as:
Value of brand name = $\{(V/S)_b - (V/S)_g\} * \text{Sales}$
 $(V/S)_b$ = Value of Firm/Sales ratio with the benefit of the brand name
 $(V/S)_g$ = Value of Firm/Sales ratio of the firm with the generic product

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/Sales Ratio	6.10	0.69

Value of Coca Cola's Brand Name

- Value of Coke's Brand Name = $(6.10 - 0.69) (\$18,868 \text{ million}) = \102 billion
- Value of Coke as a company = $6.10 (\$18,546 \text{ million}) = \$ 115 \text{ Billion}$
- Approximately 88.69% of the value of the company can be traced to brand name value