

Session 20: Post class test solutions

1. **a. True.** If you use just market capital (equity) in the numerator, companies that fund themselves more with debt and generate the same revenues will look cheaper on a price to sales ratio basis.
2. **a. Net Profit margin.** Since the multiple that you are using uses equity value in the numerator, you should use the net profits (the profits to equity investors) in the margin computation.
3. **c. Lower margin, lower EV/Sales ratio.** The margin will drop if prices drop and the lower margins will translate into a lower multiple of revenues. However, the company can still emerge as a more valuable company, if its sales go up more than proportionately.
4. **b. \$1 billion.** If you apply the EV/Sales ratio of the generic company to the brand name company's revenues, you get \$1.5 billion as enterprise value. Subtracting this from the total enterprise value of \$2.5 billion yields a value of \$ 1 billion.
5. **b. \$946.8 million.** Start by estimating the expected EV at the end of year 3 and discounting back to today at the cost of capital for 15%:
 - Expected EV = $3 * 600 = \$1800$ million
Discount back at the cost of capital
 - EV value today = $1800/1.15^3 = \$1183.5$ million
Adjust for survival
 - Value of equity today = $1183.5 * .8 = \$946.8$ million