

Session 24: Post class test solutions

- f. The cost of capital of Konshu in Korean Won.** The cash flows are in Won, to Konshu (reflecting its business risk) and are before debt payments.
- a. A debt ratio of 10% and an after-tax cost of debt of 6%.** If you use the debt ratio of Generra (30%) or Generra's cost of debt, you will be subsidizing the stockholders of the target company by giving them a premium for something that they had no role in creating (the safe debt and debt capacity at Generra). If Mendocino had an optimal debt ratio of 20%, I would use the 20% optimal debt ratio, with the after-tax cost of debt of 6.5% at that optimal to compute the cost of capital.
- f. \$394.74 million.** It is the combined firm that gets these savings and since they are in operating income (not equity income), I would use the cost of capital of 9.6% for the combined firm:
Value of synergy = $30 / (.096 - .02) = \$394.74$ million
- c. 167%.** First, value the firm run by the existing management:
After-tax operating income = 25 million, ROC = 5%, Reinvestment rate = $2\% / 5\% = 40\%$
Value = $25 (1 - .4) / (.08 - .02) = \250 million
Second, value the firm with you running it.
After-tax operating income = 50 million, ROC = 10%, Reinvestment rate = $2\% / 10\% = 20\%$
Value = $25 (1 - .2) / (.08 - .02) = \666.67 million
Control premium = $666.67 / 250 - 1 = 166.67\%$
- b. The multiple for the peer group, adjusted for differences on risk, growth & cash flows between the target company and the peer group.** The peer group is a less biased sample than the group of companies that have been acquired in transactions, since the latter will generally include acquirers who overpaid on acquisitions. It is always better to adjust multiples for differences in fundamentals than to use just the median value.