

Quiz 3: Valuation

Answer all questions and show necessary work. Please be brief. This is an open books, open notes exam.

1. You are trying to value CommerzBank, a small, privately owned bank, for an IPO, and are using the information that you have on SunClaims Bank, a publicly traded bank that you believe is fairly valued by the market, given its fundamentals. You have the following information on the two banks:

	<i>CommerzBank</i>	<i>SunClaims</i>
Net Income (in millions)	\$80	\$120
Book Value of Equity (in millions)	\$500	\$1,000
Price/Book Value	NA	1.25

Assuming that both banks are in stable growth, growing 2% a year, and have the same cost of equity, estimate a fair value for the equity of CommerzBank. (2.5 point)

2. You are trying to price SpeedApp Inc., a young software company and have the following numbers on the company:

	<i>Most Recent year</i>	<i>In Year 5</i>
Revenues	\$50	\$1,000
EBITDA	\$(30)	\$80
Debt Outstanding	\$0	\$500
Expected growth rate in revenues	80.00%	15.00%

You have a regression of EV/EBITDA ratios against expected growth rates across software companies (with growth rates entered in decimals, i.e., 10% is .10):

$$\text{EV/EBITDA} = 13.00 + 80.00 (\text{Expected growth rate in revenues})$$

Using this regression, estimate the value of equity for SpeedApp today, assuming that the company is expected to have a cost of equity of 20% for the next 5 years. (2.5 points)

3. You are trying to value/price Velcomm Inc., a company that operates in two businesses, telecom and hotels, and are trying to do a sum of the parts pricing/valuation. You have the following information on the company and its businesses:

	<i>Steel</i>	<i>Hotels</i>	<i>Corporate G&A</i>
Revenues (in millions)	\$1,000	\$1,500	\$-
EBITDA (in millions)	\$150	\$300	\$(50)
EBIT (1-t) (in millions)	\$75	\$150	\$(30)

The company is in stable growth, with all businesses growing 2% a year and has an overall cost of capital of 8%, but you don't have access to the information on returns on capital at the steel and hotel businesses. However, you have estimated that mature steel companies trade at 6 times EBITDA and mature hotel companies at 8 times EBITDA. Estimate how much you would be willing to pay for the company's operations today, making reasonable assumptions about corporate expenses. (2.5 points)

4. You are trying to value the Somerset Patriots, a semi-professional baseball team, for sale. The company is expected to generate after-tax operating income of \$10 million next year on invested capital of \$50 million and is expected to grow 2% a year in perpetuity. Estimate the value of the team to a buyer who is totally undiversified, fully equity funded and applies a 20% illiquidity discount to value. (You can assume a risk free rate of 2%, an equity risk premium of 6%, and that the sports business has an unlevered beta of 1.20 and a correlation with the market of 60%). (2.5 points)