

Quiz 2: Corporate Finance

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

1. In an attempt to globalize and diversify its businesses, Heinz is considering opening restaurants in India. You have been asked to estimate a cost of capital to use in assessing these investments and have collected the following information:
 - The beta for Heinz, as a company, is 0.85. The company has a market capitalization of \$20 billion and debt outstanding (in market value terms) of \$ 5 billion. Heinz's debt is rated A1 by Moody's and the default spread for A1 rated bonds is 1%. The marginal tax rate for the company is 35%.
 - The average unlevered beta for restaurant companies in emerging markets is 1.10.
 - The US treasury bond rate is 3%, the equity risk premium for mature markets is 6% and the additional country risk premium for India is 2.5%.
 - The inflation rate for US dollars is 2% and the inflation rate in Rupees is 6%.Assuming that Heinz will be funding this project using its current debt ratio, estimate the cost of capital for the Indian restaurant venture in Indian rupees. (3 points)

2. Desdemona Media is a movie company that is considering entering the toy business in a short-term (3-year) venture. The venture will have an initial capital investment of \$45 million and you have been provided with the following projections on the venture (in millions):

	1	2	3
Revenues	\$50	\$65	\$70
- Depreciation	\$15	\$12	\$8
- Allocated G&A	\$10	\$10	\$10
- Other Operating Expenses	\$20	\$22	\$26
Operating Income	\$5	\$21	\$26

- You have been told that 75% of the G&A expenses are fixed (i.e., they have nothing to do with this project) and non-cash working capital is expected to be 10% of revenues, with the investment being made at the end of each year.
 - At the end of year 3, you can expect to sell all of the project's remaining assets at book value. The cost of capital for the toy project is 9% and the cost of capital for the movie business is 12%. The marginal tax rate is 40%.
- a. Estimate the incremental after-tax operating cash flows each year for the life of the project. (2 points)

b. What is the NPV of this investment? (1 point)

c. Assume that the toy business will generate side benefits for the movie business, increasing after-tax cash flows from that business by \$7.5 million/year, each year for the next 3 years. What effect does this have on your NPV? (1 point)

3. Assume that you have just started business as a technology consultant (your expertise is writing apps for social media site) and are faced with two choices in terms of long term, full-time contracts. (If you take one, you cannot take the other).
- a. The US government has offered you a 3-year fixed contract, where you will receive \$60,000 next year, \$70,000 the year after and \$75,000 in the third year.
 - b. You can work with a software company and write apps that they will then package with their existing products. The contract will last 5 years and you will get 20% of the after-tax net profits on sales. The net profits are expected to be \$200,000 next year and grow \$50,000 each year for the following four years.

The US Treasury Bond rate is 3%, the beta for software companies is 1.20 and equity risk premium is 5%. Which contract would you take? (3 points)