UNIVERSITY OF BRADFORD

MAN4269M

MSc Financial Modelling

Monday 13th January 2014   **16:00 – 17:30 hours**

Main

This is a **CLOSED BOOK** examination

Answer ALL questions in Section A and TWO (2) questions in Section B

Section A carries 50 marks and Section B carries 50 marks

Answer ALL questions in Section A

Section A

You have been asked to estimate the beta for a large South Korean company, with large holdings in steel and financial services. A regression of stock returns against the local market index yields a beta of 1.10, but the firm is 15% of the index. You have collected the average betas for global companies in each of the sectors, as well as the average debt equity ratios in each sector:

Sector Average Beta and Average D/E, debt-to-equity, ratio:

Steel 1.18 30%
Financial Services 1.14 70%
(The average tax rate for these firms is 40%)

In the most recent period, the company you are analyzing earned 70% of its operating income from steel and 30% from financial services. The firm also had a debt/equity ratio of 150%, and a tax rate of 30%.

Required:

1. Estimate the beta for the company

(20 marks)

2. Assuming that the answer above is 2, answer the following: If the Korean government bond rate in nominal Won is 12%, Korea's rating is BBB (Country bonds with this rating earn a spread of 2% over the U.S. long bond rate) and Korean equities are twice as volatile as Korean bonds, estimate the cost of equity for this company.

(20 marks)

3. Describe another possible measure of relative risk that could be used instead of the CAPM beta.

(10 marks)

Answer TWO (2) questions in Section B

Section B

4. Explain the two possible adjustments that you can adopt to obtain a risk adjusted value of the firm. Consider adjustments on the cash flows and adjustments on the discount rate.

(25 marks)

5. What is the effect of capitalizing operating leases considering the capital employed by the firm?

(25 marks)

6. Compare the location based approach with the operation based approach to estimate the country risk premium.

(25 marks)

7. Explain how you obtained the terminal growth rate for your company in your coursework. Specify which growth rate you modelled (depending on whether you used cash flows to the firm or cash flows to equity holders) and explain the drivers of the growth rate in terms of the fundamental measures (e.g., profitability).

(25 marks)