Instituto Superior de Economia e Gestão
UNIVERSIDADE TÉCNICA DE LISBOA

GROUP WORK ASSIGNMENT

CORPORATE INVESTMENT APPRAISAL

MSc FINANCE

1st semester 2012-2013

The group work assignment of CIA is a practical case of determining the cost of capital and the capital structure of an international corporation, after digging for relevant information. The case description follows, but you are advised to read first the rules of the game.

Rules of the Game:

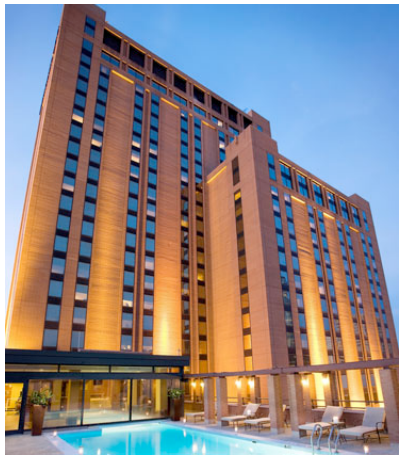
1) **Important Dates: The Deadline for delivery of the assignment is December 11th.** The assignment should be handed in to Prof. Clara Raposo during the CIA class, or delivered at the reception of ISEG's building in Rua Miguel Lupi, No. 20;

2) **Each group has a maximum number of 5 students.**

3) **The assignment envolves delivery of 3 elements:**
   a. A brief printed Report written in Microsoft Office **word**, describing the situation, the procedure followed and the outcome. (MAXIUM 10 pages A4);
   b. A Spreadsheet in Microsoft Office **excel**, in a cd-rom, supporting the analysis of the written report;
   c. A Presentation in Microsoft Office **powerpoint** summarizing the case, included in the CD-rom.

CASE DESCRIPTION: MARRIOTT INTERNATIONAL

Marriott International is renovating a hotel in Houston, Texas. For this renovation, they are contemplating investing $12 million in fixed assets, with a life of 15 years. The expected annual free cash flows from the renovated hotel would be $2 million in the first 5 years, and $1.2 million in the remaining 10 years, after which the company expects to sell the hotel. If the company decides not to go ahead with the renewal, it will generate more modest annual free cash flows of $0.7 million, and it also plans to sell the hotel at the end of the 15 years, but for a value $5 million lower. As a newly hired expert in the capital budgeting division you have been asked to evaluate the new renewal project. You will compute the appropriate costs of capital and the net present value using different valuation methods. You must seek out the information necessary to value the free cash flows. But you'll be given some direction to follow!



1. Go to http://finance.yahoo.com. Under "Market Data", you will find the yield to maturity for ten-year Treasury bonds listed as "10 Yr Bond (%)." Collect this number as your risk-free rate.

2. In the box next to "Get Quotes" button, type Marriott's ticker symbol (MAR) and press enter. Once you see the basic information for Marriott, find and click "Key Statistics" on the left side of the screen. From the key statistics collect Marriott's market capitalization (its market value of equity), enterprise value (its market-value equity + net debt), cash, and beta.

3. Calculate Marriott's equity cost of capital using the CAPM, and a market risk premium of 5%.

4. To get Marriott's cost of debt and the market value of its long-term debt, you will need the price and yield to maturity on the firm's existing long-term bonds. Go to http://cxa.marketwatch.com/finra/BondCenter. Under "Quick Bond Search", click "Corporate" and type Marriott's ticker symbol. A list of Marriott's outstanding bond issues will appear. Assume that Marriott's policy is to use the

expected return on ten-year obligations as its cost of debt. Find the bond issue that is as close to 10 years from maturity as possible. (*Hint: you will see a column titled "Callable"; make sure the issue you choose has "No" in this column. If that's not possible, take what you have, but callable bonds are worth less than noncallable bonds)* Find the credit rating and yield to maturity for your chosen bond issue (it is in the column titled "Yield"). Hold the mouse over the table of Marriott's bonds and right-click. Select "Export to Microsoft Excel." (*Note that this option is available in IE, but may not be in other browsers.)* An Excel spreadsheet with all of the data in the table will appear.

5. You now have the price of each bond issue, but you need to know the size of the issues. Returning to the web page, click "Marriott International" in the first row. This brings up a Web page with all of the information about the bond issue. Scroll down until you find "Amount Outstanding" on the right side. Noting that this amount is quoted in thousands of dollars, record the issue amount in the appropriate row of your spreadsheet. Repeat this step for all of the bond issues.

6. The price for each bond issue in your spreadsheet is reported as a percentage of the bond's par value. (*For example, 104.50 means that the bond issue is trading at 104.5% of its par value).* You can calculate the market value of each bond issue by multiplying the amount outstanding by (price: 100). Do so for each issue and then calculate the total of all the bond issues. This is the market value of Marriott's debt.

7. Compute the weights for Marriott's equity and debt, based on the market values computed in steps 2 and 6.

8. Calculate Marriott's net debt by subtracting its cash (collected in step 2) form its debt. Recalculate the weights for the WACC using the market value of equity, (market value) net debt, and enterprise value. Compare the results.

9. Get the Income Statement and the Balance sheet. Place your cursor in the Income Statement or the Balance sheet and right-click. Select "Export to Microsoft Excel" (3-4 years).

10. To compute the (book value) net debt for Marriott, add the long-term debt and the short-term debt and subtract cash and cash equivalents for each year on the balance sheet.

11. Get Marriott's market capitalization at the end of the fiscal year for the last three years.

12. Divide the net debt computed in step 10 by the market capitalization computed in step 11, for each year. Then, compute the average ratio. Compare it to the values found in step 8.

13. Calculate the average corporate tax rate for Marriott over the last three years by dividing “Income Tax Expense” by “Income Before Tax”. Use the average corporate tax rate.

14. Compute the WACC rate for Marriott using the weight in step 12, the cost of debt from step 4, and the cost of equity from step 3.

15. Create a timeline in Excel with the free cash flows for the 15 years of the project.

16. Compute the NPV of the renovation project given the free cash flows you calculated, using the WACC method of valuation.

17. Determine the NPV using the Adjusted Present Value method, and also using the Flow to Equity method. In both cases assume that Marriott maintains the target leverage ratio you computed before.

18. Compare the results under the three methods.

19. How good would the project be if it were unlevered? Explain

20. Suppose the company, after all, plans to use a target ratio of debt-to-equity of 1.5, in which case the operating cash fows of the renovation project would be more modest by 20%. How would you assess the value of the project in this case?

21. In the end, the new CEO Arne Sorensen explains to us that the project’s free cash flows are all about renovating restaurants, and not the lodging business. How would you value the project in this case?