LISBON SCHOOL OF ECONOMICS & MANAGEMENT
UNIVERSIDADE DE LISBOA

GROUP WORK ASSIGNMENT

CORPORATE INVESTMENT ANALYSIS

MASTERS IN FINANCE

1ST SEMESTER 2016-2017

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 7th.** The assignment should be handed in to Prof. Clara Raposo during the CIA class, or delivered in the lobby of ISEG's building in Rua Miguel Lupi, No. 20;

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

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

Disclaimer

Although based on a truly existing company and on what could be a real new project, the information that follows is purely fictional – nothing more appropriate for the Christmas Season!?

CASE DESCRIPTION: TIFFANY & Co.

The famous jewelers Tiffany & Co. are launching a new highly innovative ring to be launched in November 2017 – all gold and blink, to reflect a new era of opulence. Designed by the First-Lady-Elect, Mrs. Melania Trump, the new flashy ring (to be known as *The Mel T.*) promises to boost Tiffany & Co.'s sales. The CEO mentioned recently, during a Board meeting, "half of America will want it". For this project to materialize, the company will make an immediate investment in fixed assets with a useful life of 30 years. This investment should be approximately twice as much as the company invested (capital expenditure) during the last fiscal year. The new ring alone is expected to generate revenues in November 2017 of approximately 25% of the company's total revenues in 2016 (note: in principle the new accounting data will be released on November 29th, 2016. If this not available to you, you can base your estimates on the revenues of 2015.) Over time, sales of this ring are expected to decrease at a rate of 3% per year, for the 30 years of production that Tiffany & Co. has in mind. The structure of operating costs (as a percentage of total revenues) is expected to be similar to what it has been for the last 3 fiscal years. Additionally, the designer of *The Mel T.* will receive an annual royalty of 5% of the product's sales. As a newly hired expert in the capital budgeting division you have been asked to evaluate the new 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 "30 Yr Bond (%)." Collect this number as your risk-free rate. Comment. Note: You are free to get this information from a different source (such as Bloomberg, for example) and justify it. Identify your sources always.

2. In the search box "Quotes Lookup", type TIFFANY & Co.'s ticker symbol (TIF) and press enter. Once you see the basic information for Tiffany & Co, find "Key Statistics" and click on the left side of the screen. From section "statistics" collect Tiffany & Co.'s market capitalization (its market value of equity), enterprise value and beta. Comment. Note: You are free to get this information from a different source (such as Morningstar, for example) and justify it. Identify your sources always.

3. Use the information from point 2. above to compute the weights for Tiffany & Co.'s equity and debt for the WACC rate.

4. Calculate Tiffany & Co.'s equity cost of capital using the CAPM, and a market risk premium of your choice. Justify your choice and comment.

5. To get Tiffany & Co.'s cost of debt and the market value of its long-term debt, you will need the yield to maturity of the firm's existing long-term bonds. Go to http://finra-markets.morningstar.com/BondCenter/Default.jsp.

6. Under "Bonds", search for "Corporate" and type Tiffany as the bond issuer (or use "TIF"in the symbol/cusip). A list of Tiffany's outstanding bond issues will appear. Assume that Tiffany's policy is to use the expected return on thirty-year obligations as its cost of debt. Try to identify a bond issue that is as close to 30 years from maturity as possible. (Sometimes you have insufficient information about some bonds – in this case, simply ignore those for which you have no data; it might be the case that the company already called those bonds.) (*Note: if possible select a bond that is not "Callable" – if you can't find one, just use the callable bond information).* Find the credit rating and yield to maturity for your chosen bond issue (it is in the column with the heading "Yield"). You can get detailed information about your bond by selecting it with a tick and then opening the information in a new window.

7. Based on the bond you selected in 5., estimate Tiffany &Co.'s cost of debt (based on the yield to maturity).

8. Get the Income Statement and the Balance sheet from Yahoo Finance (or another source, such as the company's website and selecting section "Investors", etc.) Place your cursor in the Income Statement or the Balance sheet and right-click. Select "Export to Microsoft Excel" (the last few years available, maybe 3-4 years).

9. Compare Tiffany & Co.'s market value to its book vale and make a short comment.

10. Calculate the average corporate tax rate for Starbucks over the last three years, by dividing "Income Tax Expense" by "Income Before Tax". Use the average corporate tax rate for your project.

11. Calculate Tiffany & Co.'s WACC rate based on its current market value and the costs of equity and debt that you computed above. Note: Do not forget the tax effect in that rate. Justify your choice.

12. Create a timeline in Excel with the free cash flows for the 30 years of the project.

13. Compute the NPV of the new project given the free cash flows you calculated, using the WACC method of valuation, assuming the company will keep a target ratio of capital structure similar to the current one. Comment.

14. Make an investment recommendation regarding this project. Justify your choice.

15. Perform some robustness analysis on your valuation. Clearly explain all your steps and assumptions.

16. Determine the NPV of the project using the Adjusted Present Value method, and also using the Flow to Equity method. In both cases assume that Tiffany & Co.'s maintains the target leverage ratio you computed before. Comment.

17. Compare the results under the three methods.

18. What is your opinion about this company's capital structure? Would you choose to increase or reduce its leverage, and by how much? How would the value of your project change? Explain.

19. Surprisingly, Tiffany & Co.'s Chairman persuades the board to abandon the new ring project and instead propose a different joint venture to Mrs. Trump: the **NY MEL T. TIFFANY HOTEL**, which would constitute a dramatic diversification strategy for the Tiffany Corporation. To keep things simple, assume that the free cash flows estimated for this new project would be the same that you estimated for the previous questions. How much would this project be worth? Explain, stating all assumptions and showing all the steps in your computations.