

## 4311 Finance Lab

### Project 4

#### Weighted Average Cost of Capital

**Comment:** Project overviews are meant to layout the minimum requirements for a given project and to explain the motivation for a given project. Meeting the minimum requirements does not guarantee an A or even a passing grade. These projects are very rich, with many possible extensions to the analysis, various interpretations and recommendations from the results, and alternative methods of analysis that can be applied or discussed relative to the primary method introduced in the project. The finance faculty wishes to give students a chance to differentiate themselves to potential employers in the interview process and have left “meet on the bone” for the students to explore.

In industry, project overviews are rarely, if ever, created. Your boss will simply say “do this” and expect you to formulate the required aspects of the project. In addition, detailed written reports, as are required for this class, are also rarely done in industry. However, employers want to know that potential employees are not only technically capable, but also can communicate their findings effectively in written form. Proof read your papers. DO NOT write sentences that you do not understand but think that the professor will. Use proper grammar, spelling, and effective organization of the material presented. Do not think “what does the professor want”, rather think “what would impress my boss” or “what would get the customer to choose my company”. Bosses and customers are busy. They hate too much information more than to little information. Be clear and to the point. Look for ways to table or plot critical information so that readers can understand the results at a glance. Good Luck.

**Motivation:** Perhaps one of the most difficult aspects of evaluating a capital project is using the correct discount rate. In this project we calculate the Weighted Average Cost of Capital. Our calculations will be based on the debt and equity position of public firms. For private firms, the required return on equity is provided by the firm owner or management.

While the evaluation of a WACC is fairly straight forward, though tedious, it is an important skill to acquire. Pay particular attention to the standard error of the estimate for the required rate of return equity. While the cost of debt can be estimated from market data, the cost of equity is estimated with error and sometimes substantial error.

#### Basic requirements of the report:

1) A short description of the company assigned to the student is required. The description should be no longer than one page, double spaced, 11 point type, Garamond font. Give the reader key details of what the company does and how it performs, without boring them with details about the founding date, the address, and other needless information that can be quickly referenced but has no bearing on the sales forecast. You may copy this from the prior report, incorporating any feedback from the professor.

2) If your company has 10 outstanding bonds or less, the cost of debt must be estimated with all bonds. If your company has more than 10 outstanding bonds, select 10 sample bonds to estimate the cost of debt. Discuss the selection of these bonds. Table the key bond characteristics and discuss. It is possible that your company has no long term debt. Note this in your report if it occurs.

3) Estimate the cost of equity using the market model based on 5 years of monthly data. Table and discuss the result of the regression. Compare the beta of the estimate to the beta from Yahoo Finance.

4) Calculate the WACC. Table and discuss the results.

5) All tables and plots, except the working tables, must be integrated in the text and labeled as Table 1, Table 2, or Figure 1, Figure 2 ect.

6) Working tables should be labeled and included in the appendix as indicated in the videos.

**Remember, you are building a portfolio of projects and work examples that can be used in the interview process, not just creating a report for a grade. While the projects will give you many marketable skills in Excel, the ability to clearly communicate your findings is another marketable skill that can only be demonstrated through the writing of your report.**