

Texas Southern University
School of Business
Department of Accounting and Finance

Fin 403-01: Corporate Financial Management

Individual Project & Presentation (100 points)

Due date: 05:00 PM, 05/08/20 via blackboard

Cost of Capital, Capital Structure, and Capital Budgeting Analysis

I. Purpose of the project:

In this project, you are supposed to be a financial manager working for a big corporation and you have to apply the knowledge obtained from Fin 403 course to determine the cost of debt, cost of preferred stock, cost of common equity, capital structure, and the weighted average cost of capital (WACC) for a publicly-traded company (**NOT a 100% equity financed company**). You will use the WACC as the discount rate to conduct capital budgeting analysis for a project that the firm is considering and then decide whether it should be accepted or not. Assume the project under consideration has similar risk as your chosen public company so that you can use the cost of capital as the discount rate for this project.

II. Outline for the project:

(1) Executive Summary (3 pts)

Summarize the results and analysis of the report.

(2) Component cost of capital estimation: (17 pts)

A: Estimate your firm's approximate cost of debt. (2 pts)

B: Estimate your firm's approximate Cost of equity (15 pts)

Use all of the three methods [CAPM (10 pts), DCF (4 pts), and bond-yield-plus-risk-premium (1 pt)] you have learned in class and take a weighted average of the three methods. Weights are subjective.

Beta estimate for CAPM method (**DONOT use any published beta estimates from the website**): Please download 5-year monthly historical adjusted closing stock prices (dividends included) of your selected publicly-traded U.S. company and the adjusted closing index prices (also dividends included) of S&P 500 index (a proxy for market index) from (<http://finance.yahoo.com/>) and then run a regression in Excel (required; if you just use SLOPE function to obtain the beta, you will not receive any credit for CAPM method) to obtain your beta estimate as discussed in Chapter 8. (see an example in this YouTube link: <https://www.youtube.com/watch?v=zuK9lF77adE>)

(3) Estimate capital structure and WACC: (10 pts)

- A. Estimate the weights of debt, and common stock in the capital structure using your chosen company's balance sheet (book value) and calculate the firm's weighted average cost of capital (WACC) using book weights. (4 points)
- B. Estimate the firm's weights of debt and common stock using the market value of each capital component (such as market values of debt and equity), and calculate the firm's weighted average cost of capital (WACC) using market weights. (6 points)

(4) Cash Flow Estimation: (20 pts)

We assume that the company you selected is considering a new project. The project has 11 years' life. This project requires initial investment of \$160 million to purchase land, construct building, and purchase equipment, and \$15 million for shipping & installation fee. The fixed assets fall in the 10-year MACRS class (the depreciation rate schedule can be found on the website). The salvage value of fixed assets is \$60 million. The number of units of the new product expected to be sold in the first year is 1,000,000 and the expected annual growth rate is 7%. The sales price is \$220 per unit and the variable cost is \$140 per unit in the first year, but they should be adjusted accordingly based on the estimated annualized inflation rate of 3%. The required net operating working capital (NOWC) is 10% of sales. The company is in the 40% tax bracket. The project is assumed to have the same risk as the corporation.

- A: Compute the depreciation basis and annual depreciation of the new project. (3 pts)
- B: Estimate annual cash flows for the 11 years. (15 pts)
- C: Draw a time line of the cash flows. (2 pts)

(5) Capital Budgeting Analysis: (4 pts)

Using the WACC you obtained in (3) above for your chosen publicly-traded company as the discount rate for the project, apply capital budgeting analysis techniques (NPV, IRR,) to analyze the new project and discuss whether the project should be taken.

(6) References/Appendices (6 pts)

You will receive a **ZERO** for this project if your project does not include **(a) exact website links**
(b) actual website printouts with **highlighted data** used in **ALL your calculations in Excel.**)

IMPORTANT PROJECT SUBMISSION INFORMATION

- You should upload your [project analysis as a WORD file](#) and the [project calculations as an Excel document](#). You must complete all your calculations in Excel.
- You must upload my approval e-mail on the selection of company. A [screenshot](#) of the e-mail can be uploaded as a valid document. I will NOT accept the project if the companies do not have **my prior approval**. The **deadline** to e-mail me your selected company for approval is **5:00 PM, Friday, 4/24/20**. You will NOT be able to submit the project if you miss this deadline for company approval.
- A total of **four** documents must be uploaded to blackboard:
 - **My approval e-mail on company selection.**
 - **The project analysis as a WORD document (explain how the calculations are obtained in details with clear references in your Appendices (see sample written report below); NO Credit will be given if there are NO references to any numbers used in your Excel calculations and written in your WORD document).**

Sample written report for CAPM method (full credit):

I calculated average nominal risk-free rate of 2.5% based on US Treasury security data that I downloaded from Federal Reserve Bank website (see the website link in Appendix A and Excel calculation in worksheet labeled CAPM). The beta of the company is 1.25 and was obtained by estimating the slope of the characteristic line (see Excel worksheet labeled Characteristic Line). The 8% average required return on the market portfolio was calculated based on historical index price data that I downloaded from Yahoo.Finance (see the website link in Appendix A and Excel calculation in worksheet labeled CAPM). Therefore, my estimated required rate of return for the company based on CAPM is calculated as $r = 0.025 + (0.08 - 0.025) \times 1.25 = 0.09375 = 9.375\%$.

Sample written report for CAPM method (NO credit):

Risk free rate is 2.5%, required return on the market portfolio is 8%, and beta is 1.25. Thus, the required return for the firm is 9.375%.

- **The project calculations as an excel document (show all your calculations using Excel functions and cell links; NO "TYPING" in EXCEL calculations).**
 - **A self-recorded Blackboard Collaborate video presentation (see instructions below; 40 points).**
- You will receive a grade of "Zero" due to academic dishonesty if you copied ANY materials from previous projects or from the internet.
- You will receive a grade of "Zero" if you fail to upload the project documents **via blackboard** by the Due Date. I will ONLY accept your project [via Blackboard](#) and **NOT by mail**. Therefore, please **DON'T** e-mail me your project under any circumstances.

INDIVIDUAL PROJECT PRESENTATION (40 points)

Due Date: 05:00 PM, 05/08/20

You are required to make a Video Presentation of the Project via Blackboard Collaborate. The following are the requirements of the project presentation,

1. Your presentation of the project **MUST BE at least 30 minutes** duration.
2. You **MUST BE VISIBLE IN THE VIDEO** in presenting the project. I will grade the presentation on its **QUALITY, CONTENT, COMPLETENESS, CORRECTNESS,** and **STYLE OF PRESENTATION.**
3. The **EXCEL FILE** and/or the corresponding **WORD DOCUMENT MUST BE VISIBLE IN THE PRESENTATION.**
4. You should save the presentation as an ***.mp4 file** and upload the document to YOUTUBE.
5. You must **SET THE VIDEO PRIVACY SETTING AS "PUBLIC."** It must be available for public search for plagiarism-checking-software.
6. You **MUST UPLOAD THE YOUTUBE VIDEO** WITH THE FOLLOWING NAME FORMAT.
Spring-2020-Fin403-your full name
7. Once the YouTube Video of the presentation is available, share the link with the instructor for review under **"Individual Project" – "ASSIGNMENTS"** folder in Blackboard.
8. I will **NOT** accept an excuse that a wrong file is submitted. All student must make sure the correct file is submitted in the correct section in ASSIGNMENTS.