Capital Budgeting
Finance 4480
Department of Finance
Albers School of Business and Economics
Seattle University

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                                                            or by appointment

Course Description: This course is focused on the critical examination of the best practices associated with evaluating corporate investment opportunities (Capital Budgeting). Our examination will cover the following topics: key performance indicators (NPV, IRR, Payback, ROI, etc.), cash flow estimation, appropriate methods for adjusting for risk, application of Monte Carlo analysis to assess risk, the effect of capital constraints, the effect of debt financing, acquisition analysis, and investing overseas. The hottest topic in the capital budgeting area is real option analysis (ROA). ROA applies stock option pricing models to value the flexibility associated with corporate investment opportunities as an extension to NPV analysis. We will spend the last week of the course discussing this topic. Besides learning the tools and models applied in the area of capital budgeting, this course is designed to improve your financial analysis skills. We will focus on how to create and present professional quality financial analysis. You will be required to present your analysis in a written report, in Excel, and in a small group setting.

Course Objectives:

Provide you with an understanding of how capital budgeting is currently practiced.

Provide you with the information and skills to effectively research the internet for various financial data necessary for the application of the various tools to be applied.

To improve on your abilities to present your analysis clearly orally, in writing, and in exhibits (spreadsheets).

To create a comfort level with the various models (tools) such that you are able to adopt the financial models (tools) presented in class to suit a unique real world application.

To help you advance your long-term professional career.

Course Requirements: You are expected to actively participate in the learning process, you are also expected to hand in a short write-up accompanying your quantitative analysis for the first four cases assigned and a small meeting presentation for your fifth case, you are expected to take an in-class midterm exam, and you are expected to take an in-class comprehensive final exam.

Course Participation: Course participation refers to your contribution to the learning process and can occur in class, in groups, and **through communications with me outside of class**. The more we participate, the more we will learn. Therefore, you are expected to participate in the learning process by reading the provided material, by actively participating in class discussions, by working effectively in the group case assignments, and discussing the course material with other students and myself outside of class. The level and quality of your participation would make up 10% of your grade and the grading criterion is presented on page 5 of this syllabus.

Assigned Cases: There will five assigned cases during the quarter. The first four cases require a short write-up (maximum of 2 or 3 typed pages, double spaced, font size 12, one inch margins all around) accompanied by your quantitative analysis. For the fifth case, a small group presentation of your analysis, is required. **For the first four cases I am expecting students to hand in a hard copy of their case analysis (write up and quantitative analysis) at the beginning of class and submit via email their Excel spreadsheets.** Note: You will be required to use @Risk software on the last three cases and the software is easily accessible three different ways. A one-year subscription to the @Risk software can be acquired at a student discount for $50 (www.palisade.com/academic/students.asp), Albers' computer labs, or via VMware (desktop.seattleu.edu). In total the five case assignments will make up 40% of your grade and the grading criterion is presented on pages 6 & 7 of this syllabus.

Midterm Exam: There will be an in-class midterm exam on Thursday, May 2rd that will focus on the conceptual issues discussed during the first half of the course. The midterm will make up 20% of your grade.

Final Exam: There will be an in-class comprehensive exam on Thursday, June 13th that will focus on the conceptual issues discussed during the course. The final exam will make up 30% of your grade.

Grading: 10% is based on the class participation,
              40% is based on the cases,
              20% is based on the midterm exam, and
              30% is based on the final exam.

Required Readings: Various articles that are listed in the Course Schedule (pages 3 & 4) and are available from the course website found on Canvas under the Module tab.

Optional Readings: Titman and Martin, *Valuation: The Art & Science of Corporate Investment Decisions*, 3rd Edition, 2016, Pearson Education, Inc. (Earlier editions are significantly cheaper and not significantly different).

Academic Honesty

Seattle University is committed to the principle that academic honesty and integrity are important values in the educational process. Academic dishonesty in any form is a serious offense against the academic community. Acts of academic dishonesty will be addressed according to the Seattle University Academic Honesty Policy. The policy can be found at the address: http://www.seattleu.edu/regis/Policies/Policy_2004-01.htm

If you are not sure whether a particular action is acceptable according to the Academic Honesty Policy, you should check with your instructor before engaging in it.

COURSE SCHEDULE & ASSIGNMENTS

<u>Date</u>	<u>Topic</u>

4/2, 4/4 & 4/9   **I. Basics of Capital Budgeting**

Readings: **"How Do CFOs Make Capital Budgeting and
Capital Structure Decisions?" (pages 8-13)
"Internal Rate of Return: A Cautionary Tale"**
Titman & Martin – Chapters 1 and 2

Case 1: Due 4/16

4/11 & 4/16   **II. Estimating the Appropriate Hurdle Rate**

Readings: **"Best Practices in Estimating the Cost of Capital:
Update"
"Single vs. Multiple Discount Rates"**
"How High a Hurdle Rate?"
Titman & Martin – Chapters 4 and 5

Case 2: Due 4/23

4/18 & 4/23   **III. Risk Assessment Tools**

Readings: **"What's Wrong with Modern Capital Budgeting?"
"Risk Management and Monte Carlo Simulation"**
Titman & Martin – Chapter 3

Case 3: Due 4/30

4/25 & 4/30   **IV. Debt Financing and NPV Calculations**

Readings: **"Using APV: A Better Tool for Valuing Operations"**
"How Much Cash Does Your Company Need?"
Titman & Martin – Chapter 7

5/2   **Midterm Exam**

5/7, 5/14 & 5/16 **(5/9 no class)**	**V. Merger & Acquisition Analysis** Readings: **"Company Valuation in Mergers and Acquisitions: How is Discounted Cash Flow Applied by Leading Practitioners?"** **"Creating Wealth with Mergers and Acquisitions"** Titman & Martin – pages 350-352 Case 4: Due 5/23
5/21	**VI. Special Problems in Capital Budgeting** Readings: **"Capital-Rationing Decisions of Fortune 500 Firms: a Survey"**
5/23 & 5/28	**VII. Evaluating International Investments** Readings: **"Incorporating Country Risk in the Valuation of Offshore Projects"** **"Accounting for Sovereign Risk When Investing in Emerging Markets"** **"Emerging Markets Aren't as Risky as You Think"** Case 5: Due 6/5, 6/6, or 6/7
5/30 & 6/4	**VIII. Introduction to Real Option Analysis** Readings: **"Exploiting Uncertainty"** "**Real Options: State of the Practice"** Titman & Martin – sections 11.1 to 11.4
6/5, 6/6, or 6/7	No Class: Case 5 Presentations
6/13	**Final Exam: 4:00 to 6:00 pm**

Important Due Dates: Case 1: Due **Tuesday, April 16th**

Case 2: Due **Tuesday, April 23th**

Case 3: Due **Tuesday, April 30th**

Midterm Exam: **Thursday, May 2nd**

Case 4: Due **Thursday, May 23th**

Case 5: Due **Wednesday - Friday, June 5th, June 6th, or June 7th**

Final Exam: **Thursday, June 13th**

Grading Criterion for Course Participation:

90% or more   Actively involved in almost all class discussions
Was an effective leader in the group process regarding the cases
Occasionally provided relevant outside reading material with interesting insights
Often talked with professor outside of class regarding course material

80% or more   Involved in most class discussions
Was a significant contributor in the group process regarding the cases
Once provided relevant outside reading material with some comments
Occasionally talked with professor outside of class regarding course material

70% or more   Sometimes involved in class discussions
Was involved in the group process regarding the cases
Thought about providing some relevant outside reading material
Rarely talked with professor outside of class regarding course material

Grading Criteria for Assigned Cases

Each case will be graded based on the written report (1/2) and the presentation of the quantitative analysis (1/2).

<u>Written Report</u>

90% or more   Easy to read and is targeted to the appropriate audience
Purpose of the analysis is clearly stated in the introduction
Almost all sentences are well structured
All paragraphs are well structured
Methods used and key assumptions are stated clearly
All relevant results are reported clearly with a discussion of the relevant
       implication for each result reported
A concluding paragraph that clearly summarizes the implication(s) of the analysis
       and provides a recommendation supported by the analysis

80% to 89%   Mostly easy to read with some rough spots and an attempt was made to target
       the report to the appropriate audience
Some reference to the purpose of write-up is stated in the beginning
Most sentences are well structured
Most paragraphs are well structured
Some reference to methods used and key assumptions applied
Most relevant results are reported in a reasonable fashion with a
       discussion of the relevant implication for most of the results reported
A concluding paragraph that mentions key implication(s) of the analysis and
       mentions a recommendation related to the analysis

70% to 79%   Hard to read
No reference to the purpose of write-up is stated in the beginning
Many sentences are poorly structured
Many paragraphs are poorly structured
Brief to no mention of methods used and key assumptions applied
Most of relevant results are not reported or are not reported clearly
No concluding paragraph exists or one that does not mention the
       implication(s) of the analysis nor provides a clear recommendation

Presentation of Quantitative Analysis

90% or more   Exhibits have informative titles that suggest the contents of the exhibit
An assumption box was used containing all of the necessary assumptions
It is easy for the reader to understand the structure of the exhibits
All equations and sources are provided
All relevant results are clearly presented
The relevant financial tools or techniques are applied correctly and completely.

80% to 89%   Exhibits have titles
An assumption box was used containing some of the necessary assumptions
It is not difficult for the reader to understand the structure of the exhibits
Most equations and sources are provided
Most relevant results are presented in a reasonable fashion
The relevant financial tools or techniques are mostly applied correctly

70% to 79%   Exhibits do not have titles
No assumption box used
It is difficult for the reader to understand the structure of the exhibits
Few or no equations and sources are provided
Some relevant results are not reported or results are reported in an unclear
manner
There was a good attempt to apply the relevant tools or techniques correctly