

**Finance 551**  
**Problems in Business Finance**  
**Autumn 2020**

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**Office Hours: Mondays 4:00-5:00 p.m. and by appt.**  
**Course materials available on Canvas**

**DESCRIPTION:**

This class is a case course examining the corporate financing and investment decisions and related issues in financial strategy. The course is organized into four sections:

1. Short-Term Financial Management
2. Capital Structure
3. Capital Budgeting
4. Firm Valuation and Corporate Restructuring

In the first two sections of the course, we deal with two important problems relating to raising capital: managing the cash flowing through the business and financing company operations. In the last two sections, we turn our attention to evaluating investment opportunities, estimating discount rates, valuing firms, and analyzing bankruptcy, corporate restructuring, and mergers.

When you complete this course, you should be able to:

- Analyze a company's financial statements and draw inferences about the firm's strengths and weaknesses.
- Use a computer spreadsheet to create pro forma financial forecasts.
- Evaluate the appropriate balance between debt and equity capital.
- Identify an investment's relevant costs and benefits to calculate free cash flows.
- Estimate a company's weighted-average cost of capital and understand its role in investment decision making.
- Use a variety of valuation techniques to evaluate capital expenditures and to value firms.
- Use valuation models to analyze strategic business alternatives.
- Enhance group collaboration skills by working together to analyze corporate financial decisions.

## PREPARATION:

Most of our class time will be devoted to discussion of assigned cases. To get the most out of class you must prepare conscientiously and participate actively in study group and class discussions. Failure to participate robs others of your perspective and increases the chances that the discussion will not be relevant to your interests and abilities. Please participate actively.

So what is conscientious case preparation? Read the case thoroughly; identify principal issues to be addressed in the case; attempt to analyze these issues using your common sense and any appropriate tools or techniques and note any action recommendations implied by your analysis. Alternatively, if you find yourself hitting a roadblock, try to articulate what the problem is. Oftentimes, identifying roadblocks is as valuable as a complete analysis. You should expect to spend between two and three hours preparing each case for class discussion.

For each case assigned you will note below that I have posed one or more preparation questions. The questions play several roles depending on the case. Usually the questions are simply guidelines to help you get started on your analysis. In some instances, I may give you additional information in the questions, or I may ask you to perform specific calculations. You should not assume that answering all of the preparation questions necessarily constitutes a complete analysis. My general advice is always to read the preparation questions, but do not feel overly constrained by them.

Do not be surprised if after conscientious preparation you still feel there are some loose ends in the case about which you are uncertain. Your test of whether you are learning the material and progressing adequately should be how you feel after the class discussion, not before. You are doing fine if after a class discussion you believe you could adequately handle a similar situation in the future.

I will alternate between asking for volunteers and calling on individuals. **If you are not prepared, please notify me before class, and we can both avoid the embarrassment.** If you have spent appropriate time on the case but still feel unsure of your opinions, consider yourself prepared.

## COURSE RESPONSIBILITIES:

Your grade will be based on the following:

Participation	30%
Group Assignments (3)	30%
Individual Assignments (4)	40%

Participation. Your participation grade will be based on your presence in Zoom class, my assessment of the extent to which you helped make the class a productive learning experience, and my assessment of the depth of your command of the material. I will be forming students into subsets which I'll call Panels. The Panels will be different from your Groups for group assignments. For each class session, one Panel will be "on call." I will cold call from the list of students on this Panel for that session and will not cold call anyone else. All students are expected to be prepared for each class session, and everyone is encouraged to join in the discussion. Lists of students on each Panel for each class session will be posted on Canvas.

The assignments are as follows:

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Assignment	Due Date
I. Ceres Gardening (Individual)	Monday, Oct. 12
II. National Gypsum Products (Group)	Monday, Oct. 19
III. Payout Policy at Alphabet (Group)	Wednesday, Oct. 28
IV. Intel WACC (Individual)	Wednesday, Nov. 4
V. Current Event Valuation (Individual)	Wednesday, Nov. 18
VI. RJR Nabisco (Group)	Monday, Nov. 30
VII. Dow's Bid for Rohm and Haas (Individual)	Monday, Dec. 7

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More details about the assignments are in the syllabus. Please note that the specific deliverable for each case may differ from the study questions (provided as a basis for class discussion) also included in the syllabus. Assignments for the graded deliverables are outlined in boxes.

All assignments are due at 10:00 a.m. on the day we will be discussing the case. Assignments should be submitted electronically on Canvas. If you submit an Excel file, all of your work should be in one worksheet which is clearly labeled as containing your solutions. Please spend time formatting your assignments; you will be evaluated on the clarity of your work.

There are two types of written assignments, Group and Individual:

Group Assignments. During the quarter, you will be responsible for completing three group assignments. Each group should consist of from 3-5 students, and you should retain the same group for each group assignment. Please email me a list of names of students in your group. Please also let me know if you would like my assistance with group formation.

Individual Assignments. You are also responsible for completing four individual written assignments. Although you are allowed to discuss the assignment with others as described below, you must each prepare and turn in your own work.

You are encouraged to discuss any of the written assignments with other students in the class or with me. You are also welcome to use the internet or any other written resources to research background on the case, although (except as otherwise noted) I don't anticipate that you will need to do any outside research. Please DO NOT use sample solutions or notes from the internet, from students in prior years, or from any other source for any of the case assignments.

Final Exam. There is no final exam for this class. You will have completed your course responsibilities by the end of the last class session on Wednesday, Dec. 9.

## **MATERIALS:**

The following materials are required for this course:

- A required packet of cases is available to purchase for electronic download or hard copy from the HBS website at the following link: <https://hbsp.harvard.edu/import/760839>
- **Robert C. Higgins, Jennifer L. Koski, and Todd Mitton**, *Analysis for Financial Management*, (Twelfth Edition), Irwin/McGraw-Hill, 2019. (Older editions of this textbook will work fine.)

## **SUPPLEMENTAL ACTIVITIES (OPTIONAL):**

**Optional Review Sessions.** Each week I will host an optional review session on Thursday from 12:30-1:30 pm on Zoom. During these sessions, we will review the cases discussed that week and address any other questions you may have.

**Optional Friday Current Event Discussions.** Approximately every other week on Friday from 3:00-4:00 pm, I will host an optional discussion of a specific current event. Topic and scheduling details are available on Canvas.

## **TECHNOLOGY POLICY:**

I encourage the use of laptops in class for class-related purposes such as note taking and accessing your financial models. Learning how to prepare financial models in Excel is an important objective of the class. However, I support the School's policy against accessing email, surfing the Internet, etc. during class. Please constrain the use of your laptop during class to class-related purposes.

## **MBA HONOR CODE:**

I employ the policies and procedures espoused by the Foster School of Business Honor Code to maintain academic integrity in the course.

## **ACCOMMODATIONS:**

If you have already established accommodations with Disability Resources for Students (DRS), please communicate your approved accommodations to me at your earliest convenience. To request academic accommodations due to disability, please contact Disability Resources for Students (DRS), [uwdrs@uw.edu](mailto:uwdrs@uw.edu) or (206) 543-8924.

Washington state law requires that UW develop a policy for accommodation of student absences or significant hardship due to reasons of faith or conscience, or for organized religious activities. The UW's policy, including more information about how to request an accommodation, is available at Faculty Syllabus Guidelines and Resources. Accommodations must be requested within the first two weeks of this course using the Religious Accommodations Request form available at <https://registrar.washington.edu/students/religious-accommodations-request/>.

# Course Schedule

## SHORT-TERM FINANCIAL MANAGEMENT

### **Class 1 (Wednesday, Sept. 30):** Determinants of Financial Structure

**Prepare (in class):** Financial Ratios Exercise (Case Available on Canvas)

**Read:** Higgins, Chapter 2.

- a.) Match company financial data to differing industries. (There will be time during the class session to work together on this exercise.)

### **Class 2 (Monday, Oct. 5):** Assessing the Financial Health of the Firm

**Prepare:** J.C. Penney Company

**Read:** Higgins, Chapter 2.

- a.) Evaluate JCP's strategy. What are the company's strengths?
- b.) What went wrong? Is JCP's current position primarily the result of operating decisions, financial decisions, or bad luck?
- c.) Evaluate JCP's historical operating performance. What ratios will help you with this evaluation? What is JCP's ROE?
- d.) How has JCP managed its working capital in the recent past? Is there an opportunity to squeeze more cash from any of these accounts?
- e.) How serious is the situation? What are JCP's alternatives, and what should they do?

### **Class 3 (Wednesday, Oct. 7):** Financial Forecasting and Cash Budgeting

**Prepare:** NanoLabs (Case Available on Canvas)

**Read:** Higgins, Chapter 3

- a.) How has NanoLabs performed so far? What are the company's main strengths and weaknesses?
- b.) Why has NanoLabs borrowed increasing amounts despite its consistent profitability?
- c.) How much money will NanoLabs need? For how long, a few months or longer?
- d.) As a banker, would you approve NanoLabs' request for a larger loan? If so, what conditions would you put on the loan?

### **Class 4 (Monday, Oct. 12):** Managing Working Capital

**Prepare:** Ceres Gardening Company: Funding Growth in Organic Products

**Read:** Higgins, Chapter 4

- a.) Evaluate Ceres' historical operating performance and marketing efforts. What are the company's strengths?
- b.) How has the company grown? What is its basic marketing strategy, and how has this strategy evolved? What is GetCeres?
- c.) Prepare a financial forecast for 2007. What do you learn from this forecast?
- d.) Should the GetCeres program be expanded? Why or why not?

**Graded Assignment I (Individual Assignment)**

Please submit a spreadsheet with your 2007 forecast for Ceres. Clearly note any assumptions, either on your spreadsheet or in an attached memo. How much additional external debt funding (if any) do they need?

**Class 5 (Wednesday, Oct. 14):** Financing Seasonal Operations

**Prepare:** Polar Sports, Inc.

- a.) What factors should Weir consider in deciding whether or not to adopt the level production plan?
- b.) What effect will shifting to level production have on the company's need for a bank loan? Prepare a financial forecast to estimate the company's funding needs with level production.
- c.) As the banker, would you be willing to extend the line of credit to finance level production? Why or why not? What other sources could substitute in part for bank lending if the lender is not willing to extend the present line of credit? Do you think it is feasible for Polar Sports to switch to level production?
- d.) What are Weir's options, and what should he do?

**CAPITAL STRUCTURE**

**Class 6 (Monday, Oct. 19):** Long-Term Financing Alternatives

**Prepare:** National Gypsum Products Corporation (Case Available on Canvas)

**Read:** Higgins, pp. 199-206

- a.) What are the advantages and disadvantages of the three methods NGP might use to raise the needed external capital?
- b.) Estimate NGP's pro forma book value leverage ratio ( $D/D+E$ ) in early 2020 and their fiscal year 2020 coverage ratio and EPS under the three alternatives. Prepare a financial model to illustrate these effects.
- c.) Which of the financing methods do you recommend? Why?

**Graded Assignment II (Group Assignment)**

Please submit written responses to the three study questions, above. In your response to question (b), clearly state any assumptions and show your work

**Class 7 (Wednesday, Oct. 21):** Optimal Capital Structure- Interest Tax Shields

**Prepare:** California Pizza Kitchen

**Read:** Higgins, Chapter 6 Appendix (pp. 223-226)

- a.) Evaluate CPK's strategy and operating performance. How would you characterize CPK's business risk? Why is CPK considering this transaction now?
- b.) For each scenario in Exhibit 9, calculate the present value of the interest tax shield assuming the new debt is permanent. How will the interest tax shield affect the value of the firm? Clearly state any additional assumptions you need to make.
- c.) Calculate the coverage, EPS, and market value leverage ratios for the three scenarios in Exhibit 9. How many shares can they repurchase in each scenario, and at what price?
- d.) Is their line of credit a reasonable source of funding for this transaction? Why or why not?
- e.) What should CPK do, and why? Be specific

**Class 8 (Monday, Oct. 26):** Optimal Capital Structure- Tradeoff Theory

**Prepare:** Diageo plc

**Read:** Higgins, pp. 206-218

- a.) How has Diageo historically managed its capital structure? Is their target capital structure reasonable?
- b.) How would you apply the tradeoff theory of capital structure to Diageo's business? Is the present value of the interest tax shield likely to be large or small for Diageo? What about distress costs?
- c.) Based on the results of the model, what recommendation would you make for Diageo's future capital structure? Why doesn't Diageo have more debt? What are the disadvantages of more debt for them?
- d.) Should Diageo change its target capital structure?

**Class 9 (Wednesday, Oct. 28):** Payout Policy

**Prepare:** Payout Policy at Alphabet (case available on Canvas)

- a.) What are Alphabet's funding needs? Will it need the \$40 billion in cash to finance its operations?
- b.) Why do firms pay dividends? What are the disadvantages of paying dividends? How do these considerations change if the payout is a share repurchase?
- c.) If Alphabet were to pay \$40 billion as a special dividend, what would be the effect on market value? On the share price? On net income? On earnings per share? What if Alphabet used this money to repurchase shares instead? Assume a 1% rate of interest on any cash and

- short-term investments, and a 3% interest rate on the debt. Also assume that the deal takes place in early 2020. Estimate the impact on the Jan. 1, 2020 capitalization and the 2020 income statement. (HINT: *Solve this problem in the Modigliani-Miller setting, and think qualitatively about what would change in the real world.*)
- d.) Should Porat recommend a dividend to Alphabet's board?

**Graded Assignment III (Group Assignment)**

Please submit written responses to the four study questions, above. In your response to question (c), clearly state any assumptions and show your work

**CAPITAL BUDGETING**

**Class 10 (Monday, Nov. 2):** Lecture (Capital Budgeting and Valuation)

**Read:** Higgins Chapter 7 Appendix (pp. 269-276), pp. 337-351, and Chapter 8 Appendix (pp. 321-326)

**Class 11 (Wednesday, Nov. 4):** Cost of Capital

**Prepare:** Intel Build vs Buy: Weighted Average Cost of Capital (Case Available on Canvas)

**Read:** Higgins, pp. 294-306

- a.) How did Andrews calculate the WACC? Do you agree with the assumptions?
- b.) Calculate the cost of equity using at least three different techniques.
- c.) What is your estimate of the WACC for Intel?
- d.) Is the WACC for Intel appropriate to use as a discount rate for this part buy vs. build decision? Why or why not?

**Graded Assignment IV (Individual Assignment)**

Please submit a 1-2 page memo with your estimate of the cost of capital for Intel. In your memo, please explain your assumptions and provide a specific value for the WACC.

**Class 12 (Monday, Nov. 9):** Incremental Free Cash Flows

**Prepare:** Intel Build vs Buy: Incremental Cash Flows (Case Available on Canvas)

**Read:** Higgins, pp. 258-269

- a.) How would you define the "project"?
- b.) What are the incremental cash flows for the project?
- c.) What is the NPV of the project? Should Intel undertake this project?

**Wednesday, Nov. 11:** No class (Veteran's Day University Holiday)



**Class 13 (Monday, Nov. 16):** Incremental Cash Flows – Replacement Problem

**Prepare:** Fonderia del Piedmonte S.p.A.

- a.) What are the incremental cash flows associated with acquiring the machine?
- b.) What is the appropriate discount rate? Why? What is the NPV of the project at this discount rate?
- c.) Are you especially uncertain about any of the assumptions? What does a sensitivity analysis of these assumptions reveal?
- d.) What other factors might influence your recommendation? Are there any qualitative factors that you did not incorporate into the NPV? What would be the impact of an inflation rate of 2%?
- e.) Should Martina Bellucci proceed with the project?

**FIRM VALUATION AND CORPORATE RESTRUCTURING**

**Class 14 (Wednesday, Nov. 18):** Current Event NPV Firm Valuation

**Prepare:** Current Event Valuation Case (Case and Study Questions Available on Canvas)

**Graded Assignment V (Individual Assignment)**

Please submit a spreadsheet with your NPV valuation of the company. Clearly note any assumptions either on your spreadsheet or in an attached memo.

**Class 15 (Monday, Nov. 23):** APV Valuation, Bankruptcy

**Prepare:** Infinity Carpets, Inc.

- a.) Why did Infinity Carpets get into financial difficulty? Was it bad luck, bad operating decisions, or bad financial decisions?
- b.) How pressing is the situation? Can Infinity get by without restructuring?
- c.) What do you think Infinity would fetch in liquidation? How would these proceeds be divided among the claimants?
- d.) What is a reasonable estimate of Infinity's firm value? Use the APV method to value the company.
- e.) As Benson, recommend an action plan to Infinity's controlling stockholder, SLP.

**Wednesday, Nov. 25:** Optional Class Session (Lecture and/or Current Event Discussion)

**Class 16 (Monday, Nov. 30):** Leveraged Buyouts

**Prepare:** RJR Nabisco

**Read:** Higgins, pp. 356-365

- a.) What is the value of RJR Nabisco under
  - i. The pre-bid operating strategy?
  - ii. The Management Group's operating strategy?
  - iii. KKR's operating strategy?
- b.) What accounts for any difference in the value among the three operating plans?
- c.) Evaluate the Special Committee's use of an auction of RJR Nabisco.
- d.) Which bid should the Special Committee select, if any? What other actions should the Special Committee take?

**Graded Assignment VI (Group Assignment)**

Please submit your responses to questions (a.i) and (b) above. For question (a), use the APV method to value RJR Nabisco. You only need to submit your valuation under the pre-bid scenario; please submit your spreadsheet for this valuation, along with a brief discussion of your assumptions. Express your valuation as a stock price per share. Your response to question (b) should be one or two paragraphs and should be based on the case discussion and the cash flow projections provided in the case. Please see Canvas for some additional assumptions to help you with your analysis.

**Class 17 (Wednesday, Dec. 2):** Mergers and Acquisitions

**Prepare:** Flinder Valves and Controls Inc.

**Read:** Appendix for Flinder Case (on Canvas)

- a.) Using the case and the supplementary information in the Appendix (posted on Canvas), what are the strengths and weaknesses of Flinder and RSE? Why should the two companies want to merge?
- b.) What is Flinder worth as a stand-alone company? Value Flinder using NPV and comparable trades.
- c.) What is the value of synergies that would potentially be created through a merger with RSE?
- d.) What opening price do you think Flinder should offer to sell the company to RSE? At what price should he walk away from the negotiation? How did you estimate these values?

**Class 18 (Monday, Dec. 7):** Mergers and Acquisitions

**Prepare:** Dow's Bid for Rohm and Haas

- a.) Why does Dow want to buy Rohm and Haas?
- b.) How much is Rohm worth per share on a standalone basis? How much is Rohm worth to Dow? Was the \$78 per share bid reasonable?
- c.) What are the major deal risks inherent in this merger transaction? How and to whom does the merger agreement allocate these key risks? (Hint: Analyze some of the

- provisions in case Exhibit 4. What risk does each provision address and which party ultimately bears the risk?)
- d.) As of early February 2009, what should Liveris do, and what should Gupta do?

**Graded Assignment VII (Individual Assignment)**

Please submit written responses to all four study questions, above. In responding to question (b), you should estimate the value of Rohm both when Dow originally announced the deal (July 2008) and based on the revised expectations as of early February 2009 (so you will have four valuations total: standalone and as an acquisition target, in July 2008 and February 2009). Please include the spreadsheet with these valuations in your response. Be sure to discuss clearly your main assumptions. On page 4, the case discusses the \$800 million in annual cost synergies, which can be achieved with a one-time cost of \$1.3 billion. Assume that both the \$800 million and the \$1.3 billion figures are pre-tax.

**Class 19 (Wednesday, Dec. 9):** Summary and Course Overview