Financial Analysis and Valuation

Course Objectives: The purpose of this course is to develop students’ financial analysis and valuation skills through extensive hands-on analysis of Harvard cases and additional examples, e.g., the phenomenal growth of Starbucks Corporation, the recent expansion of Peet’s Coffee & Tea, Inc., the financial difficulties of L.A. Gear, and equity valuation lessons from the Internet bubble. The course covers various approaches for performance evaluation and equity valuation. It stresses applied issues such as the relative advantages of cash flow- and earnings-based performance measures, the relation between expected growth and firm value, assessing leverage in the presence of off-balance sheet financing, and evaluating the reasonableness of discounted cash flow and comparables-based valuations. The applications we cover include equity valuation in mergers and acquisitions, corporate restructurings, bankruptcy, and initial public offerings of common stock, and the use of financial analysis to predict and analyze financial distress, dividend policy shifts, liquidity, and the future financing requirements of growing firms.

Course Materials:

1. Coursepacket (cases and readings), available at the University Bookstore.
2. Supplemental readings (various) to be handed out in class.
3. The Wall Street Journal. You should read the WSJ every day to reinforce the applicability of the issues we study to the business world. Student subscriptions to the WSJ may be obtained at http://subscribe.wsj.com/semester. For the zip code, type in 900. For school, highlight U STHRN CAL LS ANG. For professor, highlight DEANGELO, LINDA.

Grading:

Six written case analyses (to be done in groups) 42%
Term project (group) 35%
Two problem sets (individual) 14%
Class participation (individual) 9%
Teamwork group evaluation (individual) see details on p. 5 of syllabus
**General Course Conduct:**

While this course uses both lectures and cases, its case component is substantial. As you may already know, cases provide a somewhat unstructured and open-ended experience, and one that is characterized by relatively great uncertainty about what the instructor “wants,” what the “right” answer might be, even how to approach the case.

Cases provide an environment in which students learn by grappling with difficult and apparently unique circumstances. This process is inherently uncomfortable, and more so for some individuals than others. As a result, it is tempting to look to the instructor for “cookbook” approaches that reduce the uncertainty inherent in cases. It is inappropriate, however, for the instructor to give extensive guidance on how to proceed, as that would destroy students’ learning experiences. Therefore I will not discuss individual cases with students prior to the class meeting in which the case is discussed. I do provide some structure for each case analysis (see below). Beyond that, it is up to you to identify the salient issues and analyze them. Moreover, you should not look for the “right” answer to a case. Usually, I will present my ideas about how a given case should be approached; alternative approaches, based on somewhat different assumptions, may be equally valid.

Students sometimes ask for copies of my case notes after we have discussed a given case in class. My policy (and that of all other FBE instructors who teach cases) is not to distribute these notes. The best cases are deliberately written to be ambiguous. While there are no right answers, there are good arguments and bad arguments. This course is designed to help you learn to distinguish between sensible and not-so-sensible approaches. Handing out my analyses would reduce the ambiguity in the cases and therefore partially defeat the purpose of doing cases. Moreover, distribution of case notes effectively renders that case unusable in the future, since it reduces the incentives for future students to expend time and effort in case preparation. In sum, ambiguity in dealing with case problems is an essential part of the learning experience in this class. Consequently, if you are uncomfortable with this level of ambiguity, you should not take this class.

**Two-Page Written Case Analyses:**

During the term, 6 Harvard cases will be discussed in class. The class schedule below enumerates the class meetings in which each of the 6 cases will be discussed. A specific assignment and suggested questions for the 6 cases follow the class schedule. At the third class meeting we will form groups that will remain the same throughout the semester, and that will be responsible for all written casework and for the group project at the end of the term. These groups are required to prepare a two-page (text) case analysis for each of the 6 cases. If necessary, I will assign students to groups already formed, starting with the smallest size groups, and I expect the receiving group to welcome the additional student(s) unconditionally. In other words, there is no guarantee that you can preserve your first-choice group intact.
Written case analyses should contain a discussion of the issues, financial analysis and recommendations. They should be directed to the designated audience. Text is limited to at most two double-spaced pages of 12-pitch font or larger (the font used here) with at most four easily-readable 8 1/2 x 11” pages of exhibits, graphs, and/or figures. You must use a memo format, i.e., no cover page is permitted. The final page of this syllabus illustrates acceptable font size and formatting.

Each written case analysis will be graded on a 1-7 point basis, and is worth 7% of the course grade (total, 42%). Each violation of the rules, e.g., each page over the limit, the use of a cover page, less than double spacing, font size smaller than permitted, will cost your group one point (limited liability does not apply!). The point loss from rules violations will be charged against your class participation grade (see below).

Written case analyses are due at the beginning of the class scheduled for the case discussion (you should also retain a copy for yourself for the class discussion). No late case analyses will be accepted, nor will emailed or faxed cases. Finally, written case analyses will be graded for presentation as well as content.

Term Project:

A term project is due at the beginning of class on Thursday, November 30 (the last class meeting). We will discuss these projects on that day. You should retain a copy of your project for this discussion and for your records, as term projects will not be returned. The assignment is to provide an opinion as to whether the common stock of Peet’s Coffee & Tea, Inc. is over-, under-, or fairly valued at the current market price. The report is limited to 15 pages total, including all figures, graphs, tables, references, etc. (but not including a title page, which may also contain a table of contents). The font and margin requirements are the same as for the written case assignments, as are all the other rules, e.g., the assignment is due at the beginning of class, and no late or emailed projects will be accepted.

The term project must include an equity valuation, using both some variant of discounted cash flow analysis and a comparables analysis, and a presentation and discussion of economic and market value added. Your valuation should adjust for Peet’s off-balance sheet financing and stock options (if material). You should also provide a quantitatively-based discussion of the reasonableness of your valuation (along the lines of the one I do in class for Starbucks) and provide sensitivity checks on your valuation.

Appropriate data sources (which must all be referenced) are financial statements for Peet’s, any sources you can access for beta estimates and market parameters, and data banks such as OneSource for P/E ratios and other ratios that combine market and accounting data. Inappropriate sources are brokerage house reports and other published sources that make investment recommendations, and their use will be very heavily penalized. For example, it is inappropriate to extract tables or portions of tables from the latter sources, or to paraphrase their texts. It is also inappropriate to use or
paraphrase business descriptions for Peet’s or for comparable firms from any source. Term projects will be graded for presentation as well as content, and will count for 35% of the course grade. Discussion on the last day of class will count as part of your class participation grade.

**Financial Analysis and Equity Valuation Problem Sets:**

The financial analysis problem set in your coursepacket is **due at the beginning of class on Tuesday, October 10.** The equity valuation problem set in your coursepacket is **due at the beginning of class on Tuesday, November 14.** The problem sets are to be an individual effort, and will be graded on a pass/fail basis (pass = 7% of your grade, fail = 0). **No late problem sets will be accepted, nor will emailed or faxed assignments.** The purpose of the problem sets is to help you consolidate your understanding of the financial analysis and equity valuation portions of the course when we finish them. I have also provided an electronic copy of the problem sets on Blackboard. **You must hand in a hard copy in the format of your coursepacket problem sets with the details of all calculations (and not simply attach Excel spreadsheets) to receive credit for this assignment.**

**Class Participation:**

The final 9% of the course grade is awarded for class participation. This grade will reflect my assessment of both the quantity and quality of an individual’s contribution to the classroom learning environment. To facilitate grading for class participation you should choose a seat for the entire term early in the semester, when I will pass around a seating chart. You should also use your name cards for the first six weeks of the course. You should be prepared for cold-calling in all class meetings, especially in those devoted to discussion of the six cases and of the term project.

Any points lost from rules violations on your written assignments will be deducted from your class participation score. The bad news is that, in principle, your class participation score may therefore be negative. The good news is that you can make up for the points lost to rules violations by more active class participation.

Regular and consistent class participation is necessary, but not sufficient for a student to receive one of the higher letter grades in this class. You should realize that **the points awarded for class participation are sufficient to cost you a letter grade or more should you choose not to participate fully and regularly in classroom discussions.** Almost invariably students disappointed with their final course grade have fallen short on class participation, and seem surprised to learn (when it is too late!) that their admitted lack of participation has cost them a full letter grade or more relative to the grades awarded to other members of their groups. Please do not allow yourself to get into this position, as class participation is a relatively easy way to earn points in this class.
Group Performance Evaluation:

As the teamwork component of an individual’s final course grade is substantial (77% of the total course points) and given the incentive problems that characterize all collective efforts, it is necessary that each group provide me with two one-page performance evaluation memos. The first will evaluate individual performance within the group for the first three cases (the “midterm performance evaluation memo”), and is due at the beginning of class on Tuesday, October 10, the same day the financial analysis problem set is due. The second, the “final performance evaluation memo,” is due at the beginning of class on Thursday, November 30, the last class meeting and the day the Peet’s term project is due.

All groups must submit both a midterm and a final one-page memo at the dates specified above for the group members to receive credit for their teamwork in FBE 529. Each memo must state that the group has collectively discussed each individual’s contribution. Each must also state either that (i) the consensus evaluation is that all members should receive full credit for group work, or that (ii) one or more members should receive less than full credit. In the latter case, the group should make a recommendation about how much less credit is appropriate. Examples of the two memos appear below. Each of the two memos must be a hard copy signed by all group members.

Any individual performance shortfall MUST have been discussed in advance with the relevant individuals, whose signatures (as well as those of all remaining group members) must appear on both memos. [By signing the memo, those individuals whom the group determines to have performance problems are not necessarily agreeing with that determination, they are simply acknowledging that the remaining group members discussed these problems with them in advance of turning in the memo.] In case disagreements arise as to whether a given individual was warned about an impending performance evaluation shortfall, group members should inform that individual in writing as well as in person, and keep copies of all relevant emails. I will take these memos into account when awarding individuals’ final course grades. Do not ask me to become personally involved in any performance disputes. This is your group’s responsibility, and I will take the group consensus, properly documented, as definitive evidence of a performance shortfall.

Examples of a midterm performance evaluation memo:

Our group has met and has discussed individual performance within the group. At this time we have concluded that all team members are fully bearing their weight. Therefore it is the consensus of the group that all team members receive full credit for all group work performed to date for credit in FBE 529.

Our group has met and has discussed individual performance within the group. The consensus of the group is that there are performance issues with an individual team member. We have discussed these issues collectively, and made suggestions for
improvement to the individual with performance issues, John Doe. These issues are not yet sufficiently serious to merit docking John’s group work score in FBE 529, but they may be in the future and he was so warned. If John’s performance has not improved sufficiently to merit full credit for his group work in FBE 529 by the end of the term, we will indicate so in the final teamwork evaluation memo and make a recommendation at that time as to what percent of our group work he should be credited with.

**Examples of a final performance evaluation memo:**

Our group has met and has discussed individual performance within the group since our midterm performance evaluation memo. We have concluded that all team members have fully borne their weight over the term and all should therefore receive full credit for their teamwork in FBE 529.

Our group has met and has discussed individual performance within the group since our midterm performance evaluation memo. It is the consensus of the group that John Doe has failed to carry his share of the load in preparing our written course work for FBE 529, and that he therefore should not receive full credit for that work. Further, it is the consensus of the remaining group members that John should receive a 50% discount against his point total from teamwork in this group. We have repeatedly warned John that his team performance was below par, but he has still failed to live up to his group responsibilities, according to the consensus opinion of the remaining group members (DO NOT TURN IN A MEMO OF THIS TYPE UNLESS THE REMAINING GROUP MEMBERS CAN DOCUMENT THAT THEY HAVE RESPECTFULLY AND REPEATEDLY CONFRONTED JOHN WITH HIS PERFORMANCE SHORTFALLS.)
# Class Schedule

<table>
<thead>
<tr>
<th>Date</th>
<th>Topic and Readings</th>
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<tbody>
<tr>
<td>Tues, Aug 22</td>
<td>Introduction and Course Overview</td>
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<tr>
<td>Thurs, Aug 24</td>
<td>Basic Framework and Techniques of Financial Analysis</td>
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<td>Tues, Aug 29</td>
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<td>Thurs, Aug 31</td>
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<td>“Statements of Cash Flows: Three Examples,” Harvard Business School #9-193-103. You should prepare answers to the questions at the end of this reading for the fifth class meeting.</td>
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<td>Starbucks Corporation 2004 annual report.</td>
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<td>Tues, Sept 12</td>
<td></td>
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<tr>
<td>Thurs, Sept 14</td>
<td>Forecasting Future Cash Flow</td>
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<td>Thurs, Sept 21</td>
<td>Corporate Performance Evaluation: Assessing Earnings Quality</td>
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Thurs, Sept 28  Assessing Leverage with Off-Balance Sheet Financing


Tues, Oct 3  Corporate Performance Evaluation: Economic and Market Value Added

Thurs, Oct 5  


Tues Oct 10  Corporate Performance Evaluation: Wrap-up

**Financial Analysis Problem Set** is due at the beginning of class, as is the **Midterm Teamwork Performance Evaluation Memo**.

Thurs, Oct 12  Equity Valuation Using Discounted Cash Flow Analysis (WACC Approach)

Tues, Oct 17  

**Reading:**  “Note on Alternative Methods for Estimating Terminal Value,” Harvard Business School #9-298-166.

“Leveraged Betas and the Cost of Equity,” Harvard Business School #9-288-036. Skip the appendix. This reading uses different formulas from those we will employ in this class. You should read it for content, and not attempt to memorize specific formulas.

Thurs, Oct 19  **Case #4: Pinkerton (A).**  Harvard Business School #9-291-051

Tues, Oct 24  Assessing the Reasonableness of a Discounted Cash Flow Valuation


Thurs, Oct 26  DCF Valuation Using the Adjusted Present Value Technique

**Reading:**  “Note on Adjusted Present Value,”  Harvard Business School #9-293-092.

Tues, Oct 31  Comparables-Based Valuation Methods #1


Tues, Nov 7  Comparables-Based Valuation Methods #2


Thurs, Nov 9  Valuation Lessons from the Internet Bubble

**Reading:**  Tully, Shawn, “Has the Market Gone Mad?”  *Fortune*, January 24, 2000, pp. 80-86.

Tues, Nov 14  Equity Valuation: Wrap-up

**Equity Valuation Problem Set** is due at the beginning of class.

Thurs, Nov 16  Financial Distress, Insolvency, and Bankruptcy #1


Thurs, Nov 23  THANKSGIVING

Tues, Nov 28  Financial Distress, Insolvency, and Bankruptcy #2


L.A. Gear 1996 annual report.

Thurs, Nov 30  Peet’s Coffee & Tea: Discussion of Term Projects

**Peet’s Term Project** is due at the beginning of class, as is the **Final Teamwork Performance Evaluation Memo**.
Case #1: The Home Depot, Inc.

Case Writeup Assignment:

Your company, Financial Consulting Group, Inc., has been hired by the management of The Home Depot, Inc. as an independent consultant to evaluate the firm’s growth strategy, financial performance, and future external financing requirements. Your boss, Ashley Ellison, has asked you to provide her with a report that, subject to her review, will be presented to the Board of Directors of Home Depot. Management’s intent in hiring your firm was to obtain independent advice at a crucial juncture in the firm’s history, when it has just reported its first earnings decline as a publicly-traded company. Management is concerned that the firm not lose its growth momentum, but rather that the factors underlying the earnings decline be identified and corrected as soon as possible.

Discussion Questions:

1. Evaluate The Home Depot’s growth strategy.

2. How well has the company implemented its strategy?

3. Analyze Home Depot’s financial performance and cash flow during the fiscal year 1985. How well did the company perform in 1985, measured relative to its performance in prior years?

4. How does Home Depot’s performance compare to that of Hechinger? (You may use the analysis in case exhibit 3 as a guide to your analysis.)

5. What factors caused Home Depot’s earnings decline in 1985?

6. Recommend a plan of action to Home Depot’s directors based on your analysis of the company’s current performance and future growth plans. Your recommendation should include a thorough analysis of the company’s operating performance, growth strategy, and external financing requirements.
Case #2: The Murray Ohio Manufacturing Co.

Case Writeup Assignment:

Write a report from David McIntosh to Diane Simmons that recommends whether or not the Commonwealth Investment Group should continue to hold the common stock of the Murray Ohio Manufacturing Company in its equity income fund. This fund is marketed to dividend-oriented investors, and Murray Ohio has followed a consistent policy of increasing cash dividends (from $0.67 in 1975 to $1.20 in 1984).

Discussion Questions:

1. Analyze Murray Ohio’s recent financial performance, especially its cash flow and the “quality” (composition) of its earnings. Can the company afford to maintain or increase its current dividend if operating conditions remain about the same?

2. Evaluate management’s business strategy for the future. What does this strategy imply for the company’s future cash requirements? Given this new strategy, is the company more or less likely to maintain or increase its current dividend?

3. What other potential sources of value (other than cash dividends) to the Commonwealth Investment Group do you see from holding the common stock of Murray Ohio? Are there alternative managerial strategies that might make more sense than the one currently on the table? Additional information that you may find useful is that the estimated current value of Murray’s inventory is $130,210,000 and the estimated current value of its net property, plant, and equipment is $82,472,000.

4. What are the implications of your analysis for the current holders of Murray Ohio’s common stock? What should the Commonwealth Investment Group do? What strategies are available, and which of these strategies do you recommend?
**Case #3: Harnischfeger Corporation**

**Case Writeup Assignment:**

Write a research report from Peter Roberts to the President of the Exeter Group that makes a recommendation on the investment potential of Harnischfeger’s common stock. Your report should include an examination of the firm’s earnings, cash flows, operating results, and corporate strategy.

**Discussion Questions:**

1. Identify all the accounting policy changes, estimate changes, and other questionable accounting decisions that Harnischfeger management made during 1984. Estimate, as accurately as possible, the effect of these items on the company’s 1984 reported profits.

2. Identify which of these accounting items are “cosmetic” -- that is, have no cash flow effect -- and which have an effect on cash flow.

3. What do you think are the motives of Harnischfeger’s management in making “cosmetic” changes in its accounting decisions? How does your assessment of management’s motives impact your view of the desirability of investing in Harnischfeger’s common stock?

4. Do you feel you are able to adequately assess the company’s current and future performance, given management’s changes in the firm’s financial reporting strategy?

5. Should the Exeter Group invest in Harnischfeger’s common stock at this time, given the firm’s progress to date in executing management’s turnaround strategy?
Case #4: Pinkerton (A)

Case Writeup Assignment:

Write a memo from CPP’s valuation task force to the CPP board, proposing a $100 million bid for the net assets of Pinkerton, and ignoring the proposed strategies for financing the acquisition. [Carry out a DCF analysis using the WACC approach. You should use five years as the relevant forecast horizon, and estimate terminal value using your estimate of WACC and the 5% growth rate given in the case. The formula for the present value of a growing free cash flow perpetuity appears on p. 2 of the Harvard reading on estimating terminal values. Additionally, assume that depreciation expense = zero and that all income taxes are paid currently in cash at the 34% statutory rate.]

Discussion Questions:

1. Based on your DCF analysis, how much should Tom Wathen be willing to pay for the net assets of Pinkerton? Did the $85 million bid two weeks earlier make sense, given your analysis? Specifically, how will Wathen create value from this acquisition? Develop and value the free cash flows from Pinkerton and also from the CPP margin improvements.

2. What additional assumptions, if any, are necessary for Wathen to justify a $100 million bid to the CPP board? Are these assumptions reasonable, given the two firms’ historical performance?

3. What issues are involved in the bidding strategy for buying Pinkerton from American Brands? How much less than $100 million can Wathen offer, and still have a reasonable chance of prevailing in the bidding?

4. If Wathen proceeds with a $100 million bid for Pinkerton, which financing alternative should he choose? Why? Are you comfortable with the ability of the combined firm to service debt requirements under each of these financing alternatives? You should not prepare a quantitative answer to these questions, but you should spend some time thinking qualitatively about how to structure an approach to answer them.
Case #5: Tiffany & Company

Case Writeup Assignment:

You are a financial analyst working directly for Mr. Thomas Andruskevich, senior vice president for finance at Tiffany & Company. Mr. Andruskevich is concerned about the pricing of Tiffany’s upcoming IPO. Earlier, he asked you to perform a comprehensive DCF analysis as a check on the pricing recommendations of the firm’s investment bankers. Your analysis, which you delivered to him one week ago, supports the price range of $21 to $23 per share that was indicated in the preliminary documents filed with the SEC. It also suggests that, under more aggressive growth rate assumptions, a price of at least $25 per share is warranted. Mr. Andruskevich confronted the investment bankers with this information. Their reaction was that DCF analysis, while somewhat useful, is by itself unreliable for IPOs and, based on their analysis of the “comparables” in case exhibits 3-6 and current stock market conditions, a price of $22-$23 per share is more realistic. Mr. Andruskevich has asked you to perform an analysis of the data in case exhibits 3-6 before tomorrow’s pricing meeting. Write a memo to him that indicates whether or not Tiffany should agree to the $22-$23 per share price suggested by the underwriters and, if not, what evidence Mr. Andruskevich should cite that supports a higher price.

Discussion Questions:

1. Why do you think the underwriters will not rely on DCF analysis to price the Tiffany & Company IPO?

2. Review Tiffany’s operations since the LBO. Do you see difficulties here that might affect the offer price?

3. What characteristics of Tiffany’s business make the firm’s equity especially difficult to value?

4. Use the comparable firm data in case exhibits 3-6 to value Tiffany’s equity. What problems do you encounter? If you were to put together your own sample of comparable firms, what would you do differently? If your analysis supports a price in excess of $22-$23, what evidence should Mr. Andruskevich cite to convince the underwriters?
Case #6: National Convenience Stores

Case Writeup Assignment:

You are an independent financial consultant working for the law firm that represents the equityholders of National Convenience Stores (NCS). Prepare a valuation of NCS. You should use an APV approach on the cash flow projections provided in case exhibit 4, assume that debt capacity is 4.0 times projected 1993 EBITDA, or 4.0 times $34.5 million = $138 million, and that, upon emerging from bankruptcy, the firm will issue new perpetual debt of $138 million that pays 11% interest. You should also assume that creditors’ claims will be satisfied based on the rule of absolute priority. Once you have prepared your initial valuation, you may, if you wish, alter some of the assumptions underlying the cash flow projections in case exhibit 4. In any case, your case writeup should be a memo to the law firm, recommending how they might negotiate the highest-valued outcome for their clients, given your valuation and the other facts in the case.

Discussion Questions:

1. What claimant classes does NCS have, and how much (nominally) is each of those classes owed?

2. How will the NCS equityholders fare under your valuation based on case exhibit 4?

3. What avenues might you pursue to enable the law firm to negotiate a better outcome for the equityholders?

4. Can you make the case for a higher valuation? How much higher?

5. How much more value will the equityholders receive if the law firm can gain acceptance of this second valuation?

6. What ethical problems, if any, do you see with the valuation approach you have taken in this case?
To: FBE 529 students
From: Linda DeAngelo
Re: Rules for written case analyses
Date: Today’s

The purpose of this page is to illustrate acceptable font, spacing, and margin usage for written work for FBE 529. Font size must be at least 12, the size illustrated here. Double spacing is required. Acceptable side, top, and bottom margins are shown here, which are to provide 1” all around. Memo format is required, using single spacing for the information in the header and double spacing thereafter. Tabs are to be indented at least ½”, as they are on this page. Each violation of the rules, including more than two pages of text and more than four pages of exhibits, will be penalized by the deduction of one point.

Exhibit fonts can be smaller, but must be easily readable (in my judgment). Violations here will also be penalized by the deduction of one point.

The last acceptable line on this page is 1” from the bottom.