# HUMBOLDT UNIVERSITÄT ZU BERLIN

## Case Seminar – Corporate Finance

Tuesday 10:00-12:00, Room 23

Prof. Tim Adam, Ph.D.

This case seminar discusses real world cases that relate to the materials covered in *Introduction to Finance II*, and *Advanced Corporate Finance I*. The main topics are company valuation, capital structure, bankruptcy, corporate governance, and the financing of large projects. There will be additional bi-weekly tutorial meetings, Wednesdays 8:30-10, Dorotheenstr. 1 Room 07. The purpose of the tutorials is to provide students the opportunity to ask case-related questions ahead of the scheduled case discussions in class.

### Prerequisites

Introduction to Finance II. Participants should take *Advanced Corporate Finance I* parallel to the case seminar.

### Registration

Please submit your CV and current transcript to the secretary, Mrs. Haberzettel, in hard copy (copies only, no originals, no plastic binders) by 9. April 2010. Preference will be given to those students with the strongest background in finance.

### Evaluation

Class participation and presentations (20%), four case reports (80%). Seminar attendance is obligatory.

### Course materials

Cases can be purchased from HBSP at http://cb.hbsp.harvard.edu/cb/access/5963555
for US$ 31.60 using a credit card. Additional reading materials are available from Moodle.

### Case teams

All seminar participants should form teams consisting of 4 members, not more, not less. You can make use of the bulletin board on Moodle to find team mates. Students who are not part of a complete team by the first day of class will be allocated randomly to other incomplete teams.

Each team needs to submit four case reports. Cases will be allocated on a first-come-first-serve basis from complete teams (4 people). However, *Iridium* is obligatory for all teams and no reports can be submitted for *Bidding for Antamina*. A team submitting a case report should be prepared to present any part of its analysis to the class. The team is expected to answer questions from other students and the instructor.

Both a hardcopy of your report and a computer file containing the report are due at the beginning of the class the case is scheduled for discussion. The computer file that contains the report should be sent as an e-mail attachment. Since we discuss the case solutions in class, late reports cannot be accepted. Case reports that include plagiarism will earn a zero grade.

The workload should be shared equally among all members of a team. If you experience any free-rider problems you should inform me as soon as possible. I will handle any complaints absolutely confidentially. At the end of the semester there will be a confidential peer evaluation, which may affect your overall grade.

**Class participation and presentations**

Teams that do not submit a case report should still come prepared with a preliminary analysis. All teams are expected to have tackled the study questions and are prepared to present their analyses in class. This will not only help you better understand the main issues, but will also allow us to spend the limited class time on more advanced issues. I urge you, and expect you, to take this responsibility seriously.

Your class participation grade will depend on your presentations and the quality (not the quantity) of your comments/remarks in class, which are a function of the depth of your preparation. Quality includes sound, rigorous, and insightful diagnoses, sharpening of key issues under discussion, relating theory to a particular case, asking relevant questions, etc. To make sure you receive credit for your class participation, you should display your name card at all times during the class. Given that there is no exam in this course, class participation is the main way of individual evaluation.

**Preliminary Outline**

| # | Date | Topic | HBS Case No. |
|---|---|---|---|
| 1 | April 13 | Introduction | |
| 2 | April 20 | Learning with cases | |
| 3 | April 27 | Vodafone Airtouch’s Bid for Mannesmann | 9-201-096 |
| 4 | May 4 | TBA | |
| 5 | May 11 | Bidding for Antamina (no case reports) | 9-297-054 |
| 6 | May 18 | American Home Products Corp. | 9-283-065 |
| 7 | May 25 | MCI Communications Corp. 1983 | 9-284-057 |
| 8 | June 1 | Bankruptcy and Restructuring at Marvel Entertainment Group | 9-298-059 |
| 9 | June 8 | Kennecott Copper Corp. | 9-278-143 |
| 10 | June 15 | Stone Container Corp. (A) | 9-297-047 |
| 11 | June 22 | TBA | |
| 12 | June 29 | Iridium LLC (obligatory for all teams) | 9-200-039 |
| 13 | July 6 | Iridium LLC (obligatory for all teams) | 9-200-039 |
| 14 | July 13 | Review of course | |

**Case Reports**

The purpose of the cases is to apply the financial concepts covered in *Introduction to Finance II,* and *Advanced Corporate Finance I*. You need not explain these concepts in your case reports, but can assume that the reader is familiar with the relevant theory.

Case reports consist of answers to the case questions. Good case reports are concise, brief, and to the point. The maximum number of pages for a case report is 6-8 pages, using a 12-point font. Make sure you adequately address all case questions.

Support any claims you make by references to the information given in a case, graphs, or figures. Good case reports do not contain vague statements or guesses. It is possible that the information in a case does not provide enough information to make a clear judgment. In this case you should say so rather than make a guess.

Any spreadsheet printouts provided should be *self-contained*, i.e., one should be able to understand the information given in a table without relying on the main text of the analysis. Tables should include all your assumptions as well as the formulas that are not immediately transparent.

You should start working on a case report several weeks prior to the due date. The assigned cases are challenging, and you are unlikely to grasp the main ideas/problems within a few days. Furthermore, the discussion of the case questions within your team is crucial to understanding and “solving” a case. Therefore, it is not advisable to assign different questions to different team members, but to work on all questions together.

## Case Questions

**Vodafone AirTouch’s Bid for Mannesmann**

1. What was the strategic and economic rationale for Mannesmann’s acquisition of Orange? Did Mannesmann overpay for Orange?
2. Vodafone AirTouch proposed that each Mannesmann share would receive 53.7 Vodafone AirTouch share, so that in aggregate Mannesmann shareholders would own 47.2% of the equity of the new combined firm.
   a) Describe the stock swap. As of December 17, what was the market value of Mannesmann’s contribution to the combined firm value? What was Vodafone’s contribution to the combined firm value? As a Mannesmann shareholder, would you accept the current offer? As a Vodafone shareholder, would you support the proposed transaction?
   b) On December 17, 1999, based on real stock prices of the two firms, it seemed that the market estimated the probability of Vodafone AirTouch successfully acquiring Mannesmann at around 0.6 (Show how to get the 0.6 for extra credit). Under the assumption that if the bid fails both firms would trade at prices prevailing on Oct 21, 1999, and the above probability, what is the market’s estimate of implied synergies

from the deal? Given this value would the takeover of Mannesmann be beneficial for Vodafone's shareholders?

c) What is the present value of the expected synergies (in pounds) as shown in Exhibit 10 as of March 2000? (You may want to assume that the synergies related to revenues and costs would grow at 4% annually past 2006, but savings from capital expenditures would not extend beyond 2006, and that the merger will not affect the firm's level of working capital.) Use the average exchange rate of 1£ = 1.578€ to convert pound synergies into Euros.

**Bidding for Antamina**

1. In what way is the development of a copper mine like Antamina a real option? What is the correspondence between the real option and a financial option? What other real options does the owner of Antamina have?
2. The spreadsheet, *bid.xls*, implements one model of the real options in Antamina. You should try to "figure out" how it works through reverse engineering. How is the Antamina project valued? Explain the main steps in the valuation procedure. What are the key assumptions and limitations of the valuation? How could it be improved?
3. Analyze the bidding structure of the auction. How is the winning bidder determined, and what is the payoff of the winning bidder? In what way is the bidding structure put in place by the Peruvian government an option?

   Using the spreadsheet, *bid.xls*, calculate values for the project, and then submit a bid representing how much you will pay for the property. Submit three different bids, each one under a different set of auction procedures.
   - If the winning bidder was legally *forced* to develop Antamina after completing the exploration phase, and was required to pay the Peruvian government up-front for this project, what is the most they would be willing to pay?
   - If the winning bidder could *choose* to whether or not to develop Antamina at the end of two years, but was required to pay the Peruvian government a single fee *up-front* for the right to develop the project, what is the most they would be willing to pay? Under this alternative, there is no investment commitment or penalty; the firm merely pays the government up front, and has the right to develop at the end of two years. If they don't develop at year two, they lose the right to develop the field.
   - Under the current bidding rules, the winning bidder states both an **initial cash payment** as well as an **investment commitment** that is paid only if they choose to develop the field. Bids are evaluated by summing up-front amount and 30% of the investment commitment. If you proceed with development, but fail to spend the full investment commitment, the Peruvian government will fine you 30% of the difference. What is the most that you would be willing to bid under these rules? How would you trade off these two components of the bid?
4. What are the incentives brought about by the different auction rules? Do these rules seem to meet the goals of the Peruvian government?

**American Home Products**

1. How much business risk does American Home Products (AHP) face? How much financial risk would AHP face at each of the proposed levels of debt shown in Exhibit 3?
2. What are the advantages of leveraging this company? The disadvantages? How would leveraging up affect the company's taxes? How much potential value, if any, can AHP create for its shareholders at each of the proposed levels of debt?
3. What capital structure would you recommend as appropriate for AHP?
4. In view of AHP's unique culture, what arguments would you advance to persuade Mr. Laporte or his successor to adopt your recommendation?

**MCI**

1. How has MCI raised external funds in the past? Critique MCI's past financial strategy, giving attention to the types of securities on which it has relied. Why did MCI finance itself in the manner it did?
2. What are MCI's funding needs for the next several years (assume that financing needs for 1983 are already met)? By how much could they reasonable be expected to vary? Why?
3. Based upon your analysis of the outlook for MCI and the competitive and regulatory evolution of the industry, recommend a capital structure policy for MCI.
4. What should MCI do now? Assume that Mr. English, the MCI chief financial officer, has he following financial alternatives available to him as of April 1983:

    a. $500 million of 12½, 20-year subordinated debentures.
    b. $400 million of common stock.
    c. $600 million of 7 5/8, 20-year convertible subordinated debentures with conversion price of $54 per share (i.e., each $1,000 bond would be converted into 18.52 common shares).
    d. $1 billion of a unit package consisting of a $1,000 7 ½, 10-year subordinated debenture and 18.18 warrants, each entitling the holder to purchase one share of MCI common stock for $ 55. The warrants would be exercisable until 1988 and are callable. The exercise price of the warrants would be payable either in cash or by surrender of the debentures valued at their principal amount.

    Which, if any, of these alternatives, would you recommend that Mr. English take? Why? In broad outline, what financing steps would you recommend he take over the next several years?

**Marvel Entertainment Group**

1. Why did Marvel file for Chapter 11? Were the problems caused by bad luck, bad strategy (flawed business model), or bad execution?
2. Evaluate the proposed restructuring plan (the one proposed in Jan. 1997). What are the details of the plan? Will the plan solve Marvel's problems? As Carl Icahn, the largest unsecured debt holder, would you vote for or against the proposed restructuring plan? Why, or why not? [Hint: What options do public debt holders have, and how much would they gain under each alternative?] How would you expect the other secured and unsecured creditors of Marvel to vote?

3. How much is Marvel's equity worth (in $ per share) under the proposed restructuring plan, assuming it acquires Toy Biz as planned? (Assume a long-term risk premium of 7.5%.) Consider performing a sensitivity analysis of your assumptions. How does your valuation compare with Perelman's investment at $0.85/share? What is your assessment of the pro-forma financial projections and liquidation assumptions? Are the cash flow forecasts that Perelman provided reasonable or likely to be biased?
4. Why did the price of Marvel's zero-coupon bonds drop on Tuesday, November 12, 1996? Why did portfolio managers at Fidelity and Putnam sell their bonds on Friday, November 8, 1996? Did they break any rules/laws?

**Kennecott Copper Corp.**

1. Analyze the economic rationale of the Carborundum acquisition. Under what conditions would an acquisition be expected to add to shareholder value in general? Do any of these reasons apply to the Carborundum acquisition?
2. Kennecott's management team determined that the value of Carborundum to Kennecott would be about $70-$85 per share (page 7). Critically evaluate the methodology used to determine this value.
3. Use the information given in Exhibit 7 to determine the value of Carborundum to Kennecott. Is Carborundum worth $66 per share? As an outside director of the board, how would you argue and vote on the resolution to tender for Carborundum?
4. Review management's decisions over the 10 years covered by the case, including the acquisition of Peabody, its divestiture, the proposed use of the proceeds of the Peabody sale and the selection of Carborundum as an acquisition target. What were the motivations underlying these decisions? Were they in the best interest of shareholders?
5. Critically evaluate the motivations, performance, and role played by Kennecott's outside financial and legal advisors.

**Stone Container**

1. What was the basis of Stone Container's successful growth during its first fifty years? What was the product market strategy? What was its financial strategy? How did Roger Stone's management of the company compare to that of his predecessors?
2. How sensitive are Stone Container's earnings to the paper and linerboard pricing cycle? Estimate the effect on earnings and cash flows of a <u>$50</u> per ton industry-wide increase in prices. What if there were a <u>$100</u> per ton industry-wide increase? In each case, assume Stone Container's sales volume approximates its1992 production level of 7.5 million tones per year -- while costs remain the same. Also assume a 35% tax rate.
3. What would be the effect under both these pricing scenarios if production and sales volume increased to full capacity of 8.3 million tons per year? For simplicity, assume costs per ton remain constant.
4. What should be Stone Container's long-term financial strategy? What capital structure do you recommend?
5. Develop a financial plan for 1993 that relieves Stone of its immediate financial pressures, and puts it on a financially healthy path again. What are Stone's financing needs for 1993? How should these needs be met, i.e., how much debt should be issued, if any, how much equity should be issued, if any? You do not necessarily have to restrict yourself to the five financing alternatives described at the end of the case.

**Iridium LLC**

1. Assuming the market was rational at the time (i.e. market prices reflect fundamental values), how much was Iridium worth on a per share basis at the end of 1998 according to the projections in Exhibit 5? What are the important determinants of value? How confident are you in your answer? (Please assume the long-term market risk premium equals 7.5%)
2. What caused Iridium to fail: was it a bad strategy, bad execution, or bad luck? Was Iridium’s financial structure to blame for its ultimate failure? Why, or why not?

3. With regard to Iridium’s financial strategy, did it have the wrong target capital structure, issue the wrong kinds of capital, or issue capital in the wrong sequence? Which capital structure theory justifies its target debt-to-total book capitalization ratio of 60%?
4. Why did Motorola finance Iridium with project debt instead of corporate debt?
5. What lessons regarding the financing of large, Greenfield projects do you draw from this case study?