## Mergers and Acquisitions - II

Spring 2018, 2<sup>nd</sup> half-semester (March 19 to May 10) Prof. Vijay Yerramilli

Class Time/ Venue: Wednesday 6:00–9:00pm, CEMO109

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Office Hours: Friday 4:00-5:00pm, or by appointment

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#### Course Overview

Mergers and acquisitions (M&As) are an important form of corporate restructuring, that have the potential to both create and destroy shareholder value on a large scale. A thorough understanding of M&As is important for corporate finance professionals. It lays the foundation for effective work in a wide range of fields, such as, investment banking, corporate finance, and financial consulting.

This course is the second part of a semester-long sequence of two 1.5-credit courses (M&A-I and M&A-II) aimed to provide you with an in-depth understanding of the most important aspects of M&As. Appendix A lists the topics covered in M&A-II. As you can see, a large part of this module will focus on financial engineering in M&A deals, and the valuation of option-like deal features, such as caps, floors, and collars. This requires a basic understanding of financial options and knowledge of the Black-Scholes/Merton formula. I will provide a brief coverage of these concepts in class for the benefit of those who may not have encountered them already.

M&A-I (or equivalently, FINA7A33) is a necessary prerequisite for this course. You must also be comfortable with quantitative analysis, and must possess the skills to build and analyze complex spreadsheets in Microsoft Excel.

### Course Material

I will post all my lecture slides, Excel files, and other material on the course page on Blackboard (http://www.uh.edu/blackboard). All important announcements will also be made on Blackboard. So please make sure to check this page regularly.

The cases studies can be downloaded directly from Harvard Business School Publishing (HBSP: http://hbsp.harvard.edu) at a reasonable price. I have prepared a case packet,

which is available at http://cb.hbsp.harvard.edu/cbmp/access/77136471. Once you log in to HBSP, click on "My Courses" and select the course name "M&A-II". (Note: You may have to login with your UH email id for HBSP to recognize you as a UH student.)

There is no required textbook for this class. I have included an **optional** reading on "Financial options and their application to corporate finance" (by E. Scott Mayfield) in the HBSP course packet. This reading provides a detailed overview of options theory from a corporate finance perspective. It is a web-based HTML product that costs \$7.95, and comes with many interactive features including practice questions.

## Grading

Your final letter grade for this class will depend on your performance on the case studies (done in teams), quizzes, and the final exam. I will weigh these components as follows to determine your final letter grade: case studies (40%), final exam (40%), and quizzes (20%). In order to obtain an 'A' grade in this class, you must do well on both the teambased case study assignments and the tests.

There are no fixed cutoffs for determining the letter grades because I grade on a curve. Class participation is encouraged and will be rewarded at the margin. On the other hand, free-riding will be penalized: I could downgrade your grade by several notches if you receive poor grades on your peer evaluation (more on this below). There is no pre-specified grade distribution for this course. I am prepared to assign a high proportion of 'A' grades if performance is excellent, and will not hesitate to assign lower grades if performance is not up to the mark. Below is a detailed description of the individual components in the grading schedule.

#### Case Studies

You will be required to submit written case reports for the **three** cases below whose names are listed in bold font. I will also discuss the fourth case – "Humana Inc.: Managing in a Changing Industry" – when we study corporate spin-offs but you will not be required to submit a report for this case.

- The MCI Takeover Battle: Verizon versus Qwest
- Canadian Pacific's Bid for Norfolk Southern
- Roche's Acquisition of Genentech
- Humana Inc.: Managing in a Changing Industry

You will work on case studies in teams of up to 4 students. Given the importance of teamwork in this class, it is imperative that you form teams by the end of the first week of classes. Once you form a team, you should designate one team member to send me an email containing the names of all team members. The deadline for sending me this email is 5:00pm on Friday, March 23. If you are unable to find teammates by this date, please let me know so that I can assist you in forming/joining a team.

All case reports are equally weighted. The specific questions pertaining to each case will be provided to you well in advance of the due date. Detailed guidelines for preparing case reports are in Appendix B. Case reports must be submitted electronically on BlackBoard. Please designate a team member to submit the case report in PDF format by 5:00pm on the day on which the case is due for discussion in class. You will receive the team score on your case report within a week of submission. I do not allow any resubmissions after the case has been discussed in class.

Your individual score on case reports will depend on your team score and a confidential peer evaluation submitted by your teammates at the end of the course. The integrity of the peer-evaluation is essential to avoid free-riding within teams. *Peer evaluations are mandatory and must be turned in by the day of the final exam.* I will post the peer evaluation form on Blackboard closer to the due date. I reiterate that these evaluations are confidential. I will not share individual evaluations with your teammates under any circumstances.

#### Quizzes and Final Exam

I will hold quizzes periodically to assess your understanding of the topics covered in class, and to provide you timely feedback regarding your individual performance. These will be online quizzes administered through Blackboard so that you may take them at your convenience within a stipulated time frame.

A comprehensive final exam will be held from 6:00–9:00pm on May 9 (Wednesday). I will assign homework assignments periodically to prepare you for the tests. These assignments do not have to be turned in, and will not be graded.

# Appendix A: Course Schedule

The course schedule is only tentative, and may change depending on the progress that we make.

- Week 1 (March 21):
  - Financial Engineering in M&A Deals: Floors, Caps, and Collars
  - Review of Financial Options, and the Black-Scholes Model
- Week 2 (March 28):
  - Review of Financial Options, and the Black-Scholes Model
  - Valuation of Floors, Caps, and Collars
- Week 3 (April 4):
  - Valuation of other option-like features in M&A deals
  - (CASE STUDY) The MCI Takeover Battle: Verizon versus Qwest
- Week 4 (April 11): Evaluating "real" options
- Week 5 (April 18):
  - (CASE STUDY) Canadian Pacific's Bid for Norfolk Southern
  - De-merger transactions: Divestitures, spin-offs, and equity carve-outs
- Week 6 (April 25):
  - De-merger transactions...
  - I will present the "Humana Inc.: Managing in a Changing Industry" case.
- Week 7 (May 2):
  - (CASE STUDY) Roche's Acquisition of Genentech

## Appendix B: Guidelines for Preparing Case Reports

I will provide you with a list of questions for each case, to help guide and focus your analysis of the case. Your case report MUST be structured in the form of answers to these questions. Follow these suggestions when preparing your case reports:

- Read the case thoroughly to identify the main issues and problems. Critically evaluate the information provided to you. As in real life, you will never have all the information you require to make a decision. You will, therefore, have to make reasonable assumptions regarding the missing data/links. Describe these assumptions in the case report, and provide a short justification.
- Your analysis must be based ONLY on the information provided to you in the case (plus, a few additional assumptions if necessary). Do not make up your own forecasts/numbers.
- The case report must contain all the exhibits (tables, figures, etc.) that are necessary to support your written analysis, so that the reader can understand your analysis without having to go through your Excel spreadsheet. For example, (at a minimum) provide a table presenting your forecasts of future earnings and free cash flow, so that the reader can figure out how you arrived at your value estimate.
- Be brief. Your report should include a write up not exceeding 4 pages in length, plus supporting exhibits. Do not waste space rehashing the facts of the case. Use font size of 11 or higher. Make sure that the tables are readable.

Please designate a team member to submit your report (in PDF format) electronically on Blackboard by 5:00pm on the day the case is due for discussion in the class. DO NOT email the report/ spreadsheet to me. You DO NOT NEED TO submit the Excel spreadsheet unless I ask for it.