

The Chinese University of Hong Kong
ACY6070A Business Valuation and Analysis
Summer Term 2 2004-2005

Instructor and class information

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Lecture times Monday and Wednesday 6:45-9:45
Meeting places Emerald room
Office Hours: by appointment

Course Description and Scope

This course provides students with the conceptual background and analytical skills that are necessary to identify, assess and apply information for purposes of analyzing and valuing business activities and entities. The course allows students to appreciate critical issues of determining the specific types of information, including accounting information, which are significant in *ex ante* valuation and *ex post* analysis of business activities and entities. Students are also expected to appreciate the limitations and costs of acquiring and using such information. Emphasis is placed on integrating the use of financial and non-financial information in business valuation and analysis with the application of the concepts of valuation, business policy and financial analysis.

Course Objectives

- To learn a framework for making business decisions using financial statement information
- To learn how to evaluate Financial Statements using an industry and country specific framework.
- To practice applying the framework in specific decision contexts (e.g., security valuation, credit analysis)
- To practice written and oral communication skills

Course Structure and Teaching Methods

This course will emphasize the understanding of how accounting and financial statement analysis is used in decision making and problem solving through the use of *analytical, creative and critical thinking*. Therefore, students will be expected to demonstrate their knowledge of accounting and financial reporting issues through written and oral analysis and presentations. Since the course objectives are practical and technical in nature, computer assisted analysis will also be used, therefore students will need good quantitative skills as well as strong analytical skills for their class participation, projects and presentations.

The course will proceed in two parts. In Part 1 of the course we will develop a framework for business analysis and valuation. The steps in the framework include: (1) business strategy analysis (2) accounting analysis (3) financial analysis and (4) valuation, or prospective analysis.

The purpose of business strategy analysis is to assess the profit potential of the firm at a qualitative level. This involves industry and competitive analysis. The purpose of accounting analysis is to develop an understanding of whether a firm's accounting captures its true underlying economic condition. This involves identifying accounting flexibility and evaluating the appropriateness of accounting policies and estimates. The purpose of financial analysis is to form an assessment of the firm's performance in the context of its stated goals and strategy. Tools used for financial analysis include ratio analysis, cash flow analysis, and common size financial statements. The purpose of prospective analysis is to forecast the firm's future. Tools used for prospective analysis include forecasts of financial statements and valuation models.

In Part 2 of the course we will look at specific applications of the tools developed in the course with a focus on valuation.

The course will be taught using a combination of the lecture and case methods. The lecture method is well suited for helping you grasp new theories and concepts while the case method allows you to practice making decisions in less structured environments. This approach will be very useful to you since many of the decisions you will make in your careers will be in unstructured environments. Therefore, the case method can add greatly to your development. But class participation is essential for this class to be successful. I believe discussion is a vital component to any learning experience and I hope we will have lively discussions, even during the lecture sessions.

Course Materials

Required Material: *Business Analysis and Valuation: Using Financial Statements 2nd Edition*, by Palepu, Bernard and Healy (PBH), South Western.

Regular Readings: *The Wall Street Journal*,
The South China Morning Post Business Section
Assigned newspaper and journal articles

Suggested Book : *Valuation Methods and Shareholder Value Creation*, by Pablo Frenarndez, Academic Press
Investment Valuation Tools and Techniques for Determining the Value of Any Asset 2nd Edition, by Aswath Damodaran, Wiley Finance 2002.

Evaluation and Grading

| | |
|------------------------------|------------------|
| Group project | 40 |
| Group presentation | 20 |
| Class participation | 10 |
| Individual Assessment | <u>30</u> |
| | 100 |

Assignments and Class Participation

The assignment for each class meeting consists of some reading and cases. Class participation is 10% of your final grade. Class participation and intelligent and relevant discussion **is expected** of each student and will be an important part component of the general evaluation of

the course.

Group Projects

The project is an opportunity for you to raise questions and attempt to provide some answers with your own research capabilities. Therefore, you should make every attempt to address the project using arguments that have been discussed in class and related to the course work.

The student must access general information about the companies as well as the Financial Statements for 2000, 2001, 2002, 2003 and 2004 (if available). You can access this information via Internet or through the company's web-site. Financial Statements for most companies that trade in the NYSE are also available through EDGAR, which is the internet site maintained by the Securities Exchange Commission (SEC). The Corporate Financial Statements are included in the "Form 10-K". Another good source for company data is LEXIS-NEXIS, which is available at the Library. The finance lab on the second floor of Hung Key Hey Building is another useful resource. Of course, you will be responsible of keeping track of what is happening in your industry (Stock price, recent developments, preliminary earnings, management changes, product developments, etc). General reading of **at least the Business and Market section of the South China Morning Post** is essential as well as general reading in other newspapers and a quick glance at the **Asia Wall Street Journal** should provide you with the necessary knowledge.

Project Guide lines

- Prior to reading the Financial Statements, review the background information about the companies. You should research the market environment; study the annual reports, and general press releases to understand the industry, strategy and economic environment of the firm.
 - On the basis of this analysis what differences in the financial statements of the companies would you expect? That is, as a result of each company's strategic operating, investing and financing decisions, how would you expect major financial statement relationships to differ?
 - What is the management compensation model?
 - How would you evaluate their corporate governance?
 - How would you evaluate their management?
- Prepare both standardized and common size financial statements for the companies.
 - What trends do you notice for each firm over time?
 - What comparisons can you make?
 - Are the differences that you expected apparent?
- Assess the accounting policies of each company.
 - Are there any unusual or non-recurring items that need to be considered in your analysis?
 - Are the earnings high quality?
 - How would you evaluate the quality of disclosures?
 - Are the earnings persistent?
 - Any red-flags?
- Evaluate the profitability of each company. Calculate ROE (and decompose it), ROA, and various margins.

- What are the trends?
- How do you interpret the trends?
- Do you think that the inter-company similarities and differences make sense considering your knowledge of the companies' strategies?
- Assess the cash flow and quality of earnings.
 - Are cash flows from operations a source or a use of cash?
 - How are operations and investments being financed?
 - Are there any differences?
- Measure how each company is utilizing assets. Calculate turnover ratios. Compare and contrast the firms by determining whether they use their assets efficiently.
 - Are turnovers improving or deteriorating over time?
 - Do the inter-company differences make sense considering your knowledge of the companies' strategies?
- Evaluate leverage, debt utilization and servicing, liquidity and solvency.
 - Are the companies likely to meet their debts as they come due?
 - Is there any "off-balance sheet" financing that will constrain future cash flow?
- Forecast financials for all companies.
- Consider the current stock price of each company.
 - What must the market have in mind for both companies?
 - Using a valuation model – based on Asset Valuation, DCF or Discounted abnormal earnings, analyze the markets' valuation. What is the market thinking?
 - What possible combinations of profitability, growth and cost of capital would be necessary to justify such a price?
- Consider the future prospects of both companies and evaluate the risks that they face in the current economic environment.
- Which company demonstrates the most potential to increase shareholder's value through operations?

Each group will use the PHB framework to write a report. The primary objective of your written report should be to provide sufficient analysis to convince a sophisticated investor to act on your recommendation. Note that while the written reports should demonstrate an understanding of all four steps of the framework Both reports will be evaluated based on clarity, quality of analysis, organization, and persuasiveness.

More details about the individual project will be provided during the semester.

My teaching philosophy:

FARE approach consists of four aspects listed below.

(1) F is for Fundamentals, the basis information the student needs to understand a new topic, and put it into it's right place in their framework of knowledge. At this stage, there may be a lot of intellectual discomfort, depending on the topic.

(2) A is for Application. This is where the student “gets his/her hands dirty,” and more. It means gaining some skill and comfort by applying what the student has learned. During this stage, the student’s intellectual discomfort should build but later begin to dissipate.

(3) R is for Reinforcement. This means reviewing and taking stock of learning, in view of the results of the student’s applications. By this point, he/she will start to get a feeling that “I’ve got it,” or at least “I see the main idea.” Problem solving is very useful here.

(4) E is for Extension. This is where the student applies learning to an out-of-context situation, or tries to build on its foundation. In this stage, the student is leveraging his/her learning to do something beyond its boundaries

The tentative schedule (subject to change)

| <u>Week</u> | <u>Date</u> | <u>Topic</u> | <u>Chapter</u> | <u>Case</u> | <u>Group Presentation</u> |
|-------------|-------------|--|----------------|--|-------------------------------|
| 1 | July 25 | A framework for business analysis and valuation using financial statements | PBH 1 | The role of capital market intermediaries in the dot-com crash of 2000 | |
| 2 | July 27 | Strategy analysis | PBH 2 | Boston Chicken, Inc | |
| 3 | August 1 | Accounting analysis | PBH 3, 4 | Harnischfeger | |
| 4 | August 3 | Financial analysis | PBH 5 | Pre-Paid Legal Services | |
| 5 | August 15 | Prospective analysis: forecasting | PBH 6 | Home Depot (I) | |
| 6 | August 17 | DCF valuation | PBH 7, 8 | Krispy Kreme Doughnuts | Team 1 |
| 7 | August 23 | Relative valuation | PBH 7, 8 | Airline industry | Team 2 |
| 8 | August 24 | Residual income valuation | PBH 7, 8 | Home Depot (II) | Team 3 |
| 9 | August 29 | Equity security analysis | PBH 9 | UPS | Team 4 |
| 10 | August 31 | Exam | | | Team 5 |

A final word on class participation

I view class participation as both an opportunity and a responsibility. Class participation provides an opportunity for students to practice important career skills in a low cost environment. Among other skills, these include the ability to express and defend one’s ideas. The cost of not having developed these skills will increase as you progress in your career (e.g., lost promotions). Class participation is also a responsibility because students who attend expect to learn from the viewpoints of their classmates. Non-participating students do not provide

their classmates with this important benefit. I therefore reserve the right to “cold call” students who are not participating in class discussions. My intent is not to embarrass you rather it is to help you get involved in the discussion where both you and your classmates can benefit from your comments.

Academic Dishonesty

The responsibilities for students should adhere to an Honor Code. If the application of the Honor Code to this class and its assignments is unclear in any way, it is your responsibility to ask me for clarification.

About the Instructor:

Dr. Oliver M. Rui is an Associate Professor at the school of accountancy of the Chinese University of Hong Kong. He holds a B.S. degree in international economics (1990) from the Institute of International Relations in Beijing, a Msc. degree in Economics (1993) from Oklahoma State University and an MBA in Statistics (1995) and a Ph.D. in Finance (1997), both from the University of Houston in the USA. Prior to joining the CUHK, he taught at the University of Houston and was an associate director of China Accounting and Finance Research Center and an associate professor at the School of Accounting and Finance of the Hong Kong Polytechnic University. Dr. Rui has published more than 20 papers in international reputable journals including *Journal of Banking and Finance*, *Journal of Corporate Finance*, *Journal of Accounting and Public Policy*, *Journal of Management Studies*, *Emerging Markets Review*, *Journal of International Money and Finance*, *Financial Review*, *Journal of Financial Research*, *Pacific Basin Finance Journal*, *Review of Quantitative Finance and Accounting*, and *Journal of Multinational Financial Management*. He has also published in top domestic refereed journals including *Economics Research Journal*, *Management World*, *Management Study Forum*, *Statistics Research*, *Journal of World Economy*, *Journal of System Engineering*, *System Engineering-Theory & Practice* and *Financial Theory & Practice*. He has published two textbooks in Chinese. Dr. Rui is a Chartered Financial Analyst. He serves as a member of the Panel of Examiners of the Securities Industry Examination of the Hong Kong Stock Exchange, a Member of Hong Kong Securities Institute. He is member of American Accounting Association and American Finance Association. He is a member of the Advisory Board of the Business Valuation Forum in Hong Kong. He works as a consultant for Ericsson.

Lecture 1

Case: The Role of Capital Market Intermediaries in the Dot-Com Crash of 2000

Assignment Questions

1. List all the major players that play an intermediation role between individual investors and entrepreneurs/managers. What is the intended function of each of the intermediaries?
2. How is each of the intermediaries you identified compensated for performing its respective function? Is the compensation arrangement likely to lead to any dysfunctional incentives?
3. Identify the role each intermediary might have played in the creation of the dot-com bubble. Was this behavior related to the potential dysfunctional behavior identified in question 2?
4. How do you fix these problems?

Lecture 2

Case: Boston Chicken, Inc.

Assignment Questions

1. Evaluate the structure of the restaurant industry and its ability to generate profits over the long run. As a starting point, consider the five forces of competition:

- ⌚ Competition from substitutes,
- ⌚ Rivalry between established competitors,
- ⌚ Threat of entry,
- ⌚ Bargaining power of customers, and
- ⌚ Bargaining power of suppliers.

2. Some analysts argue that Boston Chicken (BOST) is primarily in the business of operating restaurants. Other analysts argue that BOST is primarily a franchiser, as opposed to an operator of restaurants. Still others argue that BOST is primarily a financial institution that lends money to operators of restaurants. Based on the information provided in the case, what do you view as BOST's primary business and why?
3. Evaluate BOST's strategy for creating competitive advantage. What are the key success factors and risks associated with this strategy?

Lecture 3

Case: Harnischfeger Corporation

Assignment Questions

1. Identify all the accounting policy changes and accounting estimates that Harnischfeger made during 1984. Estimate, as accurately as possible, the effect of these changes on the company's 1984 reported profits.
2. What do you think are the motives of Harnischfeger's management in making the changes in its financial reporting policies? Do you think investors will see through these changes?
3. Assess the company's future prospects given your insights from questions (1) and (2) and the information in the case on the company's turnaround strategy.

Lecture 4

Case: Pre -Paid Legal Service, Inc.

Assignment Questions

1. How does PPLS create value for its customers? What are the critical risks that it has to manage well?

2. How did the pre-1995 commission formula work? Why do you think the company changed its policy?
3. Based on the post-1995 commission formula and information in the case on pricing and commission rates, calculate the cash inflows for premiums and cash outflows for commissions for years 1 to 3 that would arise from the sign-up of 1000 new members at the beginning of year 1. Assume that: (a) actual member renewal rates are 75% for both years 2 and 3, and (b) 25% of recoverable commission advances in each of years 2 and 3 are expected to prove uncollectible.
4. How does Pre-Paid Legal account for the transactions described in question 3? Set up Commission Advance (gross), Commission Expense, Allowance, and Cash T Accounts, and trace the flows in and out of these accounts for years 1 to 3.
5. Do you agree with Fortune's criticism of PPLS's method of reporting for commissions? Why or why not?
6. What actions could PPLS's management take to reduce the unease among key investors about the firm's accounting and its business model?

Lecture 5
Case: The Home Depot, Inc.
Assignment Questions

1. Evaluate Home Depot's business strategy. Do you think it is a viable strategy in the long run?
2. Analyze Home Depot's financial performance during the fiscal years 1983-1985. Compare Home Depot's performance in this period with Hechinger's performance. (You may use the ratios and the cash flow analysis in Exhibit 3 in this summary.)
3. How productive were Home Depot's stores in the fiscal years 1983-1985? (You may use the statistics in Exhibit 1 in this analysis.)
4. Home Depot's stock price dropped by 23 percent between January 1985 and February 1986, making it difficult for the company to rely on equity capital to finance its growth. Covenants on existing debt (discussed in Note 3 of Exhibit 4) restrict the magnitude of the company's future borrowing. Given these constraints, what specific actions should Home Depot take with respect to its current operations and growth strategy? How can the company improve its operating performance? Should the company change its strategy? If so, how?

Lecture 6
Case: Krispy Kreme Doughnuts
Assignment Questions

1. Analysts are predicting that Krispy Kreme will be able to perform highly effectively and continue to grow rapidly in the coming two years. Do you agree with their analysis? If so, why? If not, why not?
2. What factors did the CIBC analysts examine to forecast sales growth for KKD in the years ended January 2003 and 2004? What assumptions did they implicitly make about number of new stores and weekly sales per store (for both company and franchise stores)? What are their implicit assumptions about revenue growth from franchise operations and KKM&D? Do you agree with these forecasts?
3. What are the NOPAT margins that the CIBC analysts have forecasted for KKD for the years ended January 2003 and 2004? What assumptions were made about specific expense items (e.g. margins, G&A, D&A, taxes)? Do you agree with these forecasts?

- The CIBC analysts do not forecast KKD's balance sheet for the following year (ended January 2003). Make your own balance sheet forecasts.
- In general, do you expect analysts' forecasts for a company like KKD to be optimistic, pessimistic or unbiased? Why?

Lecture 7
Case: Valuation Ratios in the Airline Industry
Assignment Questions

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Lecture 8
Case: Home Depot, Inc. in the New Millennium
Assignment Questions

- Assess Home Depot's financial performance from 1986 to 1999. How did the company achieve such a spectacular performance? What explains the decline in performance in 2000? The following data might be helpful in your analysis.

| Sales Growth and Profitability Ratios | Average for fiscal years 1986 to 1999 | Fiscal year 1999 | Fiscal year 2000 |
|--|--|-------------------------|-------------------------|
| Sales Growth Rate | | 27.2% | 19% |
| Return on Equity (ROE) | 25.2% | 26.5% | 20.9% |
| NOPAT/Sales | 4.7% | 6.0% | 5.6% |
| Sales/Net Assets | 4.34 | 3.75 | 3.53 |
| Operating ROA | 19.6% | 22.6% | 19.8% |
| Spread | 18.4% | 22.9% | 22.4% |
| Net Financial Leverage | 0.37 | 0.17 | 0.05 |
| Financial Leverage Gain | 5.7% | 4.0% | 1.1% |

- What is your estimate of the intrinsic value of Home Depot's stock as of February 1, 2001, assuming that it will have: (a) the same sales growth rate as in fiscal 2000 for the next fifteen years, (b) a growth rate of 11% beyond year 15, (c) maintain its fiscal 2000 NOPAT margin for the next 15 years and beyond, (d) maintain its fiscal 2002 net working capital to sales ratio, net operating assets to sales ratio for the next 14 years and beyond, (e) maintain its fiscal 2002 book net debt to net capital ratio for the next fourteen years and beyond, (f) a risk free rate of 5.8%, cost of debt of 6%, common equity beta of 1.09, and a market risk premium of 7%.
- What set of assumptions regarding Home Depot's future growth rate, NOPAT margin, are consistent with its observed stock price of \$48.20 on February 1, 2001? Assume that all the other assumptions remain the same as in question 2, except for the market risk premium, which is now assumed to be only 4%.
- Do you think Home Depot can achieve the performance assumptions in question 2, based on its growth strategy?

Lecture 9
Case: United Parcel Service's IPO
Assignment Question

- What are the key success factors and risks for UPS given its business strategy?
- How is UPS performing? What factors are driving this performance? Is the current performance likely to be sustained? Why or why not?

3. How is FedEx performing? How, if at all, does its performance and plans affect your assessment of the sustainability of UPS's current performance?
4. Given your assessment of the company's strategy and the sustainability of its performance, forecast the key factors for UPS's stock value.
5. What is your estimate of UPS's value and its multiples?
6. How do your estimates of UPS's PE and PB multiples compare with those for FedEx? How do they compare with those for the "best in breed" companies multiples?