Financial Statement Analysis and Valuation MBA 633 Bryan School of Business and Economics University of North Carolina at Greensboro

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### **Course Overview:**

# Financial analysis is a question of what drives financial statements, what drives earnings and book values.

### Stephen H. Penman

This course is about the analysis of financial information—particularly firms' financial reports—for making decisions to invest in the business. The primary focus in this module is on equity (share) valuation. Advanced Financial Statement Analysis and Security Valuation taught in the second module will give attention to credit analysis and the valuation of debt.

The methods of fundamental analysis will be examined in detail and applied in cases and projects involving publicly-traded companies. Topics include models of shareholder value; comparison of accounting and cash flow approaches to valuation; and the analysis of profitability, growth and value generation in firms.

The course will be taught from the perspective of a security analyst---particularly the equity analyst---but much of the material covered in the course will be relevant to the corporate financial analyst for evaluating acquisitions, restructurings and other investments, and for calculating the value generated by strategy scenarios. By the end of the module, you should feel competent in writing a thorough, convincing equity research report.

The course format will be: lectures, discussions, exercises and cases, and will involve a course project encompassing what we have studied. You should visit the course website

and examine the spreadsheet titled BYOAP.xls for an overview of the course project. Early on, the contents of BYOAP.xls may seem daunting but we build understanding in a systematic fashion through a series of homework assignments, To Do, as we call them which enables the project to be performed in steps.

### By the end of the module you should have answers to the following questions:

- How are "intrinsic values" calculated?
- What are the relevant firm attributes that determine value?
- What is the role of financial statements in determining equity values?
- Are some aspects of financial statements more important than others?
- How does one pull apart the financial statements to get at the relevant information?
- What is the relevance of cash-flow information? What is the relevance of accruals in accounting?
- How does one analyze the quality of financial reports?
- How does one measure value added?
- What determines a firm's P/E ratio?
- What determines a firm's market-to-book (P/B) ratio?

### **Required Course Material:**

The required text is *Financial Statement Analysis and Security Valuation*, 2<sup>nd</sup> Edition by Stephen Penman, published by Irwin/McGraw-Hill (2004). The first fourteen chapters of the Penman text are covered in this module. We use the Penman text extensively and each student should have a copy for reading and study.

### Additional Study Aids:

My website contains PowerPoint slides used in lectures/discussions. Please understand that viewing these slides is in a no way a substitute for reading and study of the text---no techno shortcuts to learning, only good supplements to the process. The website also provides Accounting Clinics, which are designed to bring you up to speed on the accounting aspects of issues.

### Varied Student Backgrounds

The enrollment in this module is most gratifying and I will work hard to meet your expectations. Your backgrounds are varied and for that reason the coverage here will likely present more of a challenge to some of you than others. The important thing is the desire to learn and the willingness to apply oneself to that objective.

### **Student Groups**

All assigned work---homework and final project---will be done in groups of three. Early on in the course you should group yourself with two classmates. Once you have formed your group, begin to seriously think about a firm your group would like to analyze in some detail.

#### Grading

The course grade will be determined as follows:

Homework assignments	40%
Class involvement and participation	10%
Firm analysis project	50%
	100%

#### **Class Involvement and Participation**

Class involvement and participation does not mean you are expected to speak X times a class. Instead, your are expected to be involved in our discussions of text material, end-of-chapter exercises and cases as you have comments, questions and perspectives to offer. This means you generally show evidence of preparation and involvement. People have different attitudes about class participation. Nevertheless, it is a central part of graduate professional education for very valid reasons.

Your evaluation on the class involvement and participation portion of the course grade will be determined by evaluations of your fellow group member and me. You will be asked to complete an evaluation form for your group member at two points in the course as indicated on the syllabus. This form of evaluation is notorious for its halo effect---you're great; I'm great; we're all great. Please keep your instructor out of this part of the evaluation by providing considered and realistic assessments of the contributions of your group member. See evaluation form for more details.

### **Class Attendance**

You lead buy lives, many of you hold full time jobs and I'm impressed by the quality of work our students do under major time constraints. I will work with you on professional conflicts as best we can. However, in an eight-week course structured as this one absences can quickly become a problem. Please understand that 2-3 absences, or leaving class at the break, indicates, that for whatever reasons, you are unable to devote the time required for quality graduate study. As I will be understanding of your situations, I ask

your understanding of my responsibility for maintaining the integrity of the academic process. Excessive absences will result in a one-letter reduction in course grade at best.

### Course Format

We focus on understanding the conceptual basis for widely used stock valuation models and the application of our understanding to develop systematic valuations of the firm and its equity. The focus is strongly on learning by doing. To facilitate the process, the groups will conduct analyses of the various components of your firm's financial statements as steps to developing a valuation analysis. These assignment (see syllabus for due dates) are termed To Do (s) and are described in the document titled Project1FSA.doc on the course website.

# **Course Outline**

# Session 1

### Chapter 1 in Penman---Introduction to Investing and Valuation

No assignments

### **Chapter 2 in Penman—Introduction to Financial Statements**

Accounting Clinic I on the web, review as required

Web exercises are short problems, with solutions, which demonstrate main points. You can access the exercise for each chapter from my website. Use the web exercises as you judge appropriate, an exercise is suggested for most chapters. Check out the web exercise for Chapter 2.

Review Mini-case 2.1 (M2.1) solution on the web and demonstrates various points from the text reading.

### **Chapter 3 in Penman---How Financial Statements are Used in Valuation.**

Only pp. 107-108 in this chapter are assigned. You should recall the CAPM from your finance course.

### <u>Chapter 4 in Penman---Cash Accounting, Accrual Accounting, and Discounted</u> <u>Cash Flow Valuation.</u>

- Accounting Clinic II on the web, review as required
- Web exercise for Chapter 4, if you choose

Solutions on the web: M4.1 M4.2

Time constraints will preclude coverage of both mini-cases (M4.1 and M4.2) in class. A detailed solution to both is provided on the website for your study.

### Session 2

### Chapter 5 in Penman---Accrual Accounting and Valuation: Pricing Book Values

Web exercise for Chapter 5, if you choose

Solutions on website

Exercise 5.1 Exercise 5.2

Mini-case: M5.2 (discussion case)

### Chapter 6 in Penman--- Accrual Accounting and Valuation: Pricing Earnings

Web exercise for Chapter 6, if you choose

Solutions on website:

E6.2 E6.8 E6.14

Mini-case (M6.3)

### **Recap To This Point**

Chapters 2,4,5 and 6 develop the thinking that is necessary to do fundamental analysis. They integrate finance concepts with accounting concepts and shows how the structure of accounting can be exploited for valuation analysis. Good thinking about valuation is captured in a valuation model. Chapters 7-12 lay out the financial statement analysis that guided by the valuation model, identifies value generation in a business and provides information for forecasting.

# Session Three

# To Do #1 due this week, see website for description.

We may need some catch-up time for Chapter 6 here

### **Chapter 7 in Penman---Business Activities and Financial Statements**

Chapter 7 is key to understanding much of what we do in Chapters 8,9,and 10, as well as subsequent coverage. The chapter presents the logic and relationships we use in BYOAP to value firms.

Web exercise for Chapter 7, if you choose

Solutions on website

E7.1 E7.2 E7.3

M7.1

### Chapter 8 in Penman--- The Analysis of the Statement of Shareholders' Equity

Although it is frequently viewed as somewhat of an after thought, the statement of shareholders' equity is very important. The statement presents Comprehensive Income, which is the measure we use to determine ROCE.

- Accounting Clinic III on web, review as required
- Accounting Clinic IV on web, review as required
- See BYOP's reformulation of Nike's Statement of Shareholders' Equity for an example
- Web exercise for Chapter 8, if you choose

Check web solutions:

E8.2 E8.3 E8.9

M8.1

# Session Four

# To Do #2 Due this session, see website

Carryover of Chapter 8 discussion as necessary

### **Chapter 9 in Penman--- The Analysis of Balance Sheet and Income Statement**

- Accounting Clinic V on web, as appropriate
- Accounting Clinic VI on web, as appropriate
- See BYOP's reformulation on Nike's Balance Sheet and Income Statement as an example of what you're asked to do for your firm.
- Web exercise for Chapter 9, if you choose

Check web solutions for:

E9.1 E9.3 E9.9

### Chapter 10 in Penman--- The Analysis of Cash Flow Statements

The main message of this chapter is that reformulated income statements and balance sheets provide for simple and direct calculations of cash flows. This enables us to avoid the messy process of reformulating GAAP cash flow statements presented at the end of Chapter 4. There are cases where our "shot-cut" method does not produce the same cash flow numbers as that shown in the GAAP statement of cash flow. The reason for this discrepancy stems mainly from the fact that GAAP cash flow statements misclassify certain financing cash flows as operating cash flows.

- See BYOP's reformulation of Nike's Cash Flow Statement as an example of what you're asked to do.
- Web exercise for Chapter 10, if you choose

Check website for:

E10.1 E10.6 E10.8 E10.10

# Session 5

# To Do #3 due this session

# Chapter 11 in Penman—The Analysis of Profitability

Web exercise for Chapter 11, if you choose

Check website for:

E11.1 E11.8 M11.2

## Chapter 12 in Penman---The Analysis of Growth and Sustainable Earnings

### Accounting Clinic VII, as you require

See BYOP's analysis of Profitability and Growth for Nike. This is an example of what BYOP does with your reformulated data.

Web exercise for Chapter 12, as you choose

Check website for:

E12.1 E12.10

### **Recap To This Point**

Chapters 7-12 lay out the financial statement analysis that, guided by the valuation model, identifies value generation in a business and provides information for forecasting.

### Session 6

# To Do # 4 due this session, see web for description

Catch-up time as necessary

### <u>Chapter 13 in Penman---Valuation of Operations and the Analysis of Price-to-Book</u> <u>Ratios</u>

Web exercise for Chapter 13, if you choose

Check website for solutions:

E13.3 E13.4 E13.5 E13.8

### Session 7

To Do # 5 Due this session, see description on web

Submit evaluation of group members

To Do # 6, relating to Chapter 14, will not be a separate assignment, include its questions in your final paper.

Chapter 14 in Penman---Simple Forecasting and Simple Valuation

Web exercise for Chapter 14, if you choose

See BYOP's simple forecasts and valuations for Nike as an example of what the software does with your data.

Check website for:

M14.1 (Home Depot case, good in demonstrating key points)

# Session Eight

Submit second evaluation of group members.

Submit final paper and wrap up the module.