FINANCIAL STATEMENT ANALYSIS AND VALUATION

Fall, 2013

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REQUIRED COURSE MATERIAL

The text is *FINANCIAL STATEMENT ANALYSIS AND SECURITY VALUATION*, 5th edition, by Stephen H. Penman, published by Irwin/McGraw-Hill, copyright 2013. This text is available from the Columbia University Bookstore, 2922 Broadway, New York, NY, 10027 and on Amazon and similar sites. The soft-cover international version is the same material (but different cover), and much cheaper.

REQUIRED PREREQUISITES AND CONNECTION TO THE CORE

This course builds on material in *Financial Accounting* and *Corporate Finance*, along with a basic knowledge of statistics from *Managerial Statistics*. Indeed, the course can be characterized as bringing accounting and finance together for business valuation. Students should have a good understanding of financial accounting principles, the balance sheet, income statement, and cash flow statement, the difference between cash accounting and accrual accounting, revenue recognition, and the calculation of basic accounting ratios. While the Financial Accounting core course provided an understanding of the principles and methods for the preparation of financial statements, this course focuses on the use of the financial statements, particularly for valuation. Students will see the accounting “come to life” as they apply it to valuation issues. From the *Corporate Finance* course, the student will bring an understanding of the time value of money.
and basic valuation models into this course, along with Modigliani and Miller valuation principles, the notion of risk and the required return, and the Capital Asset Pricing Model (CAPM).

**COURSE DESCRIPTION AND OBJECTIVES**

With a stock market bubble and a financial crisis in our recent history, there have been increasing calls to “return to fundamentals.” This is a course on fundamental analysis. The primary emphasis is on equity (share) valuation, with a focus on developing and applying methods for valuing firms using financial statement analysis.

The course has the very practical emphasis. We adopt the view of an active investor who not only wants to “return to fundamentals” but to earn returns from the analysis of fundamentals. We will apply methods of fundamental analysis in a series of class exercises, cases, and an assignment involving listed companies. We examine models of shareholder value—residual earnings, abnormal earnings growth, and discounted cash flow approaches to valuation, among others—and ask which one will give us an edge. We deal with the analysis of growth and valuation generation in a firm, the diagnosis of accounting quality, earnings and cash flows forecasting, pro-forma analysis for strategy and planning, and the determination of price/earnings and market-to-book ratios. We do all this under the strict discipline on the fundamentalist: separate what you know from speculation and anchor in what you know. Following that principle, the investor is on a position to challenge the speculation in stock prices.

Most importantly, we learn how to handle accounting and financial reports in valuation. We see that valuation is really a matter of accounting for value. The course combines accounting principles and investment principles to answer the question: How do I account for value so that I can challenge stock prices with some confidence?

The course will be taught with a view to designing techniques to be used in an equity research department of a bank or independent research firm, a long/short equity hedge fund, or individual investing. Accordingly, the material is pertinent to equity analysts, both buy and sell side, who issue buy and sell recommendations on stocks. However, much of the material covered in the course is also relevant to the corporate financial analyst and for private equity analysis, for evaluating acquisitions, restructurings and other investments, and for calculating the value generated by strategic scenarios.

By the end of the course, the student will feel competent in writing a thorough, credible equity research report or investment analysis that meets the highest standards. More importantly, the student will gain a sense of security in equity investing, for he or she will be “grounded in the fundamentals.” The course is of interest to those contemplating careers in investment banking (particularly in equities), security analysis, equity hedge funds, private equity, consulting, public accounting, and corporate finance. And it will also help with personal investing.

By the end of the course students should have answers to the following questions:

- How are fundamental values (or “intrinsic values”) estimated?
- How does one pull apart the financial statements to get at the relevant information for valuing equities?
- What is the relevance of cash-flows? Of dividends? Of earnings? Of book values? How are these measures treated in a valuation?
- What is growth? How does one analyze growth? How does one value a growth firm?
What are the pitfalls in buying growth?
How does one challenge the growth expectations implicit in stock prices?
How does ratio analysis help in valuation?
How does profitability tie into valuation?
How does one analyze the quality of financial reports? How can the accounting trip you up?
How does one deal with the accounting methods used in financial statements?
How is financial analysis developed for strategy and planning?
What determines a firm’s P/E ratio? How does one calculate what the P/E should be?
What determines a firm’s market-to-book (P/B) ratio? How does one calculate what the P/B should be?
How does one evaluate risk? For equity? For debt?
How does one evaluate an equity research report? What does a good one look like?
How does one trade on fundamental information?

Preliminary Reading for the Course


Read Penman, S., Accounting for Value (Columbia University Press, 2011). This book also is supplementary reading for the course that can be read as the course proceeds.

Other Reading

The following books provide useful reference for the course.

A good introduction is:


Other books on financial statement analysis and valuation are:
ASSIGNMENTS

There will be three exercise sets during the semester and a course project. Review sessions, conducted by the course T.A., will help students prepare for the exercise sets. There will also be a hands-on session to help students develop spreadsheet models for the course project.

Course Project

The course project may be done individually or in groups of up to five people. Students organize groups on their own. The project must contain only original work. It has the Columbia Business School assignment designation, A, meaning that the project is submitted by the group and each member of the group gets the same grade. Students are best advised to develop the project as they proceed through the course. The project should involve equity analysis and in most cases is presented as an equity research report. The following are some suggestions:

- An equity research report on a company or set of comparison companies.
- Applying trading strategies based on fundamental information.
- Evaluation of an acquisition from the point of view of the acquiring firm or the target firm.
- An analysis of accounting issues in a valuation for a particular industry sector.
- Evaluation of a restructuring.
- Evaluation of a firm's strategic choices with the goal of creating shareholder value.
- Discovery of mispriced firms.
- Evaluation of a privatization or an IPO.

The submission will be graded on its creativity, demonstration of depth of knowledge, rigor, and clarity in communication. It must be original work. You may choose firms or industry sectors in any country, or make comparisons between countries.

The project is due on January 21, 2014 at 5:00pm. It must be a hard copy, delivered to Professor Penman's office, his Uris Hall Mailbox, or by mail. Mailing address: Professor Stephen Penman, 612 Uris Hall, Columbia Business School, 3022 Broadway, New York, NY 10027.

The Project is Type A (with the group self-selected) in the table below:
<table>
<thead>
<tr>
<th>Type</th>
<th>Designation</th>
<th>Discussion of concepts</th>
<th>Preparation of submission</th>
<th>Grade</th>
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<tbody>
<tr>
<td>A</td>
<td>group / group</td>
<td>Permitted with designated group*</td>
<td>By the group</td>
<td>Same grade for each member of the group</td>
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<tr>
<td>B</td>
<td>group / individual</td>
<td>Permitted</td>
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<td>Individual</td>
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<td>(No sharing of any portion of the submission)</td>
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<tr>
<td>C</td>
<td>individual / individual</td>
<td>None of any kind</td>
<td>Individually</td>
<td>Individual</td>
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<td>D</td>
<td>(An optional category to be defined in detail by the individual faculty member)</td>
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* The designated group can be either an assigned study group or a self-selected one.

**METHOD OF EVALUATION**

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<tr>
<td>Problem Sets</td>
<td>15%</td>
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<tr>
<td>Project</td>
<td>45%</td>
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<tr>
<td>Final Exam</td>
<td>40%</td>
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The final exam will be for 90 minutes, open book, in the final class for the semester.

**CLASSROOM NORMS AND EXPECTATIONS**

Laptops are permitted in class, but only if open to course material. Prompt arrival at class is expected. The class style is conversational, with students expected to participate in discussion and actively engage with the case material.