UNIVERSITY OF PENNSYLVANIA
The Wharton School

Security Analysis **Shmuel Kandel / Oded Sarig**
FNCE 207 / 728 **Fall 2004**

COURSE OUTLINE

Course Overview

The course deals with several topics related to corporate valuation. Generally speaking, there are two key differences between this course and a typical Corporate Finance course. First, in a typical corporate finance discussion, a lot of the data are assumed known while here the methods of estimating these data are discussed and illustrated. Second, in many corporate finance decisions a "go/no go" type of decision suffices (even if based on qualitative arguments), while here the value of each alternative must be estimated. Nonetheless, since we will elaborate on some of the issues discussed in Corporate Finance, there will be some overlap between the two courses. The course utilizes cases and a detailed valuation project that requires students to value **Pathmark Stores Inc.** (PTMK).

Assumed knowledge

- Financial Accounting
- Introductory Finance
- Introductory Statistics or Econometrics
- Excel or some other spreadsheet software

Course Texts

The course is based on the following textbook:

Simon Benninga and Oded Sarig, Corporate Finance: A Valuation Approach, McGraw-Hill, 1997 (BS).

A related book on valuation:

Tom Copeland, Tim Koller, and Jack Murrin, Valuation: Measuring and Managing the Value of Companies, John Wiley & Sons, 3rd edition, 2000.

Grading

Grading in the course will be based on seven valuation assignments and two case reports. All assignments and cases will be graded on a scale of 100 points. The final grade will be a weighted average of the individual grades: each valuation assignment will weigh 10% of the final grade and each case report will be 15%.

Valuation Assignments

All valuation assignments involve valuing PTMK. The assignments are:

- (A) Derive the historical free cash flows of PTMK from its financial statements
- (B) Analyze PTMK's market and industry and forecast PTMK's sales in the period 2004-2013
- (C) Forecast PTMK's financial statements and free cash flows for ten years.
- (D) Estimate PTMK's cost of capital
- (E) Use price multiples to value PTMK
- (F) Value PTMK's debt
- (G) Value PTMK's equity

Requirements for Written Reports

(1) Student names should appear on the cover page.
(2) An executive summary should appear before the detailed analysis.
(3) Valuation reports should not exceed three double-spaced pages plus supporting tables and figures. Unnecessary tables and figures should not be presented.
(4) Late reports will not be accepted.

All reports are group assignments. Students should work in groups of four students. Students are responsible for making up the groups in the first week of class. Group membership can change during the semester. Each project is judged on its own merits. All members of the group receive the same grade.

All reports are due at the beginning of class. Late reports will not be accepted. Please bring extra copies of your reports to class to facilitate discussion of the assignments.

Six groups will present their partial (i.e., A - F) valuation assignments, to be followed by class discussion and lecturer's comments. Presenting groups will be given a bonus of 10 points on the presented assignment (on top of the points they receive on the assignment itself).

For the class of December 7, all groups should prepare a 10 minute PPT summarizing their whole valuation project. Two groups will be asked present their valuation and handle questions from the class.

Course Outline and Schedule

September 9

Lecture: Organization; Introduction

September 14, 16

Lectures: Review of capital budgeting

Readings:

BS, chapters 1, 3

September 21

Case: "The Super Project" (HBS # 112-034)

September 23

Lectures: Review of accounting tools and pro-forma financial statements

Readings:

BS, chapters 2, 4

September 28, 30

Assignment (A): Financial model of PTMK for the fiscal years 2001-2003, including computation of FCF

Lectures: Industry analysis and Sales forecast

Readings:

BS, chapters 5

October 5, 7

Assignment (B): Analyze PTMK's market and industry and forecast PTMK's sales for fiscal years 2004-2013

Lectures: Analyzing firm operations & forecasting operating performance

Readings:

BS, chapters 6, 7

October 12, 14, 19

Assignment (C): Forecast PTMK's financial statements and FCF for the period 2004-2013

Lectures: Estimating the cost of capital

Readings:

BS, chapters 8, 9

October 21, 28

Assignment (D): Estimate PTMK's cost of capital

Lectures: Valuation with multiples

Readings:

BS, chapters 10

November 2, 4, 9

Assignment (E): Use price multiples to value PTMK

Lectures: Valuation of debt securities

Readings:

BS, chapters 11

November 11, 16, 18

Assignment (F): Estimate PTMK's appropriate ratings and value its debt

Lectures: Valuation of convertible securities

Readings:

BS, chapters 12

November 23

Case: "Corning Inc." (UVA-F-1339 v. 2.6)

November 30, December 2

Lectures: Qualitative value information and EVA based valuation

December 7

Assignment (G): Complete valuation report of PTMK's equity

(Two presenting groups will be selected in class)

Readings:

BS, chapters 13

December 9

Course summary and recap

Suggested Questions for Case Analysis

Throughout your analysis of the case, always refer to the alternatives suggested in the case as the basic set of alternatives to be analyzed. Nonetheless, you should always ask yourself whether these are truly the only alternatives available. In your discussion you may suggest alternative courses of action not explicitly considered in the case.

The cases may not provide all the necessary data. In your analysis, you can augment the data provided by data from other sources or by assumptions *that are consistent with the case information* and perform sensitivity analysis on the assumed parameters. Similarly, while your basic analysis should rely on the case data, in your discussion you may replace some data from the case by what you consider to be more reasonable or more consistent numbers.

The Super Project

1. What are the relevant cash flows for GF to use in the valuation of the Super Project?
2. Estimate the appropriate risk-adjusted discount rate for these cash flows, assuming that the marginal financing source for the Super Project will be equity.
3. Assuming the marginal investment in Super is financed by equity alone, calculate Super's NPV.
4. Should GF invest in Super? What are the main parameters in your analysis that may affect GF's investment decision?

Corning Inc.: Zero Coupon Convertible Debentures

1. Value the convertible bond.
2. In valuing the call option, does Coopers need to adjust the stock price for dividends? Why?
3. What should Coopers use as her assumption for volatility? Is the call-option value highly sensitive to volatility? If yes, why? If not, why not?
4. Under what circumstances would Corning attempt to force conversion?
5. Should Coopers invest in this bond offering?