

UNIVERSITY OF PENNSYLVANIA
The Wharton School

Corporate Valuation
FNCE 207 / 728

Simon Benninga / Oded Sarig
Fall 2008

COURSE OUTLINE

Course Overview

The course deals with several topics related to corporate and security valuation.

We rely on tools typically discussed in Corporate Finance courses. In a typical corporate finance discussion, however, a lot of the data are assumed known while here the methods of estimating these data are discussed and illustrated. Additionally, 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 a case and a detailed valuation project that requires students to value **Kroger Co. (KR)**.

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:

Tim Koller, Marc Goedhart, and David Wessels, Valuation: Measuring and Managing the Value of Companies, Fourth Edition, Wiley, 2005

Grading

Grading in the course will be based on seven valuation assignments, a case report, and class participation. 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: the first six valuation assignment and the case report - 10% each, the last valuation report - 20%, and class participation - 10%. The TA will be present in the meetings in which assignments are discussed and grade the participation of students. Thus, students are requested to attend every meeting in which an assignment is discussed and bring name plates.

Valuation Assignments

All valuation assignments involve valuing KR in stages. The assignments are:

- (A) Analyze the background of KR and derive its FCF from its financial statements for 2005-2007; use an integrated work sheet to reflect the accounting relations among the items in the income statement, balance sheet, and cash flow statement.
- (B) Analyze KR's market and industry and forecast KR's sales in the period 2008-2017.
- (C) Analyze KR's operating performance and forecast its complete financial statements and free cash flows for ten years; incorporate these forecasts into a fully integrated worksheet model.
- (D) Analyze the capital structure of KR and estimate KR's cost of capital; estimate the enterprise value of KR.
- (E) Use price multiples to value KR.
- (F) Analyze the default risk of KR's debt and value its different debt instruments.
- (G) Final valuation report, including the valuation of KR's equity.

Requirements for Written Reports

- (1) Student names should appear on the cover page.
- (2) Each of the first six valuation reports should not exceed four double-spaced pages
- (3) There can be an unlimited number of supporting tables and figures; all tables of figures should be pertinent to the discussion in the body of the assignment

All reports are group assignments. Students should work in groups of four students from the sections to which they are registered. Students are responsible for making up the groups in the first week of class. All members of the group receive the same grades on all written assignments.

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.

One group will present its analysis of the Super case and six groups will present their partial (i.e., A - F) valuation assignments. These presentations will 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).

In addition to the written reports, for the class of December 2, all groups should prepare a 10 minute PPT summarizing their whole valuation project. Two groups will be asked to present their valuation and handle questions from the class. No point credit will be given for these short presentations.

Important note: there will be no classes on September 30 and on October 9.

Course Outline and Schedule

September 4

Lecture: Organization; Introduction

September 9, 11

Lectures: Review of capital budgeting

Readings:

BS, chapters 1, 3

September 16

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

September 18, 23

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

Readings:

BS, chapters 2, 4

September 25, September 30 - no class, October 2

**Assignment A: Analyze the background of KR and compute its historical
FCF**

Lectures: Industry analysis and Sales forecast

Readings:

BS, chapters 5

October 7, October 9 - no class, October 14 - Fall break, October 16

Assignment B: Analyze KR's market and industry and forecast its sales for fiscal years 2008-2017

Lectures: Analyzing firm operations & forecasting operating performance

Readings:

BS, chapters 6, 7

October 21, 23

Assignment C: Forecast KR's financial statements and FCF for the period 2008-2017

Lectures: Estimating the cost of capital and the impact of leverage

Readings:

BS, chapters 8, 9

October 28, October 30

Assignment D: Estimate KR's cost of capital and enterprise value

Lectures: Valuation with multiples

Readings:

BS, chapters 10

November 4, 6

Assignment E: Use price multiples to value KR

Lectures: Valuation of debt securities

Readings:

BS, chapters 11

November 11, 13, 18

Assignment F: Estimate KR's default risk and value its debt

Lectures: Valuation of convertible securities

Readings:

BS, chapters 12

November 20, 25

Lectures: Qualitative value information and EVA based valuation

November 27

Thanksgiving

December 2

Assignment G: Complete valuation report of KR's equity

(Two presenting groups will be selected in class)

Readings:

BS, chapters 13

December 4

Course summary and recap

Suggested Questions for the Super Project Case Analysis

The Super Project case is a tested vintage case. Nonetheless, it may not provide all the necessary data. In your analysis, you can augment the data provided in the case 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.

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.
3. 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?