

**UNIVERSITY OF PENNSYLVANIA  
The Wharton School**

**Security Analysis  
FNCE 207 / 728**

**Simon Benninga / Oded Sarig  
Fall 2007**

**COURSE OUTLINE**

**Course Overview**

The course deals with several topics related to corporate and security 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 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

discusses 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 the historical FCF of KR from its financial statements for 2004-2006.
- (B) Analyze KR's market and industry and forecast KR's sales in the period 2007-2016.
- (C) Analyze KR's operating performance and forecast its complete financial statements and free cash flows for ten years; integrate 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).

For the class of December 4, 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 class on September 13.**

## **Course Outline and Schedule**

September 6

**Lecture: Organization; Introduction**

September 11, 18

**Lectures: Review of capital budgeting**

Readings:

BS, chapters 1, 3

September 20

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

September 25, 27

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

Readings:

BS, chapters 2, 4

October 2, 4

**Assignment A: Background of KR, including computation of FCF**

**Lectures: Industry analysis and Sales forecast**

Readings:

BS, chapters 5

October 9, 11

**Assignment B: Analyze KR's market and industry and forecast KR's sales  
for fiscal years 2006-2015**

**Lectures: Analyzing firm operations & forecasting operating performance**

Readings:

BS, chapters 6, 7

October 16

**Fall break**

October 18, 23, 25

**Assignment C: Forecast KR's financial statements and FCF for the period  
2006-2015**

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

Readings:

BS, chapters 8, 9

October 30, November 1

**Assignment D: Estimate KR's cost of capital**

**Lectures: Valuation with multiples**

Readings:

BS, chapters 10

November 6, 8

**Assignment E: Use price multiples to value KR**

**Lectures: Valuation of debt securities**

Readings:

BS, chapters 11

November 13, 15, 20

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

**Lectures: Valuation of convertible securities**

Readings:

BS, chapters 12

November 22

**Thanksgiving**

November 27, 29

**Lectures: Qualitative value information and EVA based valuation**

December 4

**Assignment G: Complete valuation report of KR's equity**

**(Two presenting groups will be selected in class)**

Readings:

BS, chapters 13

December 6

**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?