

Finance 207/728: Corporate Valuation

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Overview

This course takes a systematic approach to corporate valuation, taking you through the main issues:

- Review of capital budgeting principles
- Pro-forma financial statements and related accounting tools
- Industry and sales analysis
- Cost of capital estimation
- Valuation with multiples
- Valuation of debt and convertible securities
- EVA

This course differs from previous courses where these topics are discussed in its emphasis on the nitty-gritty of the valuation process: we discuss data generation and not just data usage. We insist on getting answers even in the absence of full information. For the student, the primary focus of the course is a detailed valuation project that requires students to value **Kroger Co. (KR)**.

Assumed knowledge

We assume a healthy acquaintance with the following topics:

- Financial accounting
- Introductory finance
- Introductory statistics or econometrics
- Excel

Course Texts

The course is based on the following textbooks:

- Simon Benninga and Oded Sarig, *Corporate Finance: A Valuation Approach*, McGraw-Hill, 1997 (BS). This is the primary text reference for the course. Chapters from this book are marked BS in the course schedule.
- Tim Koller, Marc Goedhart, and David Wessels, *Valuation: Measuring and Managing the Value of Companies*, Fourth Edition, Wiley, 2005. This book is a good reference for some of the topics discussed in the class.
- Selected chapters from *Financial Modeling*, Third edition, MIT Press, by Simon Benninga will be part of the course bulk pack. These chapters are marked FM below.

Grading

Grading in the course is based on six valuation assignments, a case report, and class participation. All assignments and the case are graded on a scale of 100 points. The final grade is a weighted average of the grades on the case report (10%), the first five valuation assignment (50%), the last valuation report (25%), and class participation (15%). The teaching assistants will be present in the meetings in which assignments are discussed and will grade student participation. 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) Turn the Kroger consolidated statement of cash flows into free cash flows (FCF). The basic output should be a spreadsheet printout with explanations of why you left in or deleted items. Differentiate between items which might have been part of the historic FCF and those that are part of the ongoing (forward-looking) FCF.
- (B) 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 pro forma model. In your valuation assume that revenues will grow by 2% each year.
- (C) Analyze KR's environment – macro economic and industry conditions and trends. Your report should explain the main ingredients of your view of KR's environment, competition, and strategy. Based on this analysis, forecast KR's revenues in the period 2009-2018 and incorporate these forecasts into the pro-forma model of KR. Use the full pro-forma model to convert the revenue forecasts to FCF forecasts.
- (D) Analyze the capital structure of KR and estimate KR's cost of capital. Use the pro-forma model and the estimated cost of capital to estimate the enterprise value of KR, including the potential impact of KR's financing on its enterprise value. Compare the estimated enterprise value to the actual one.
- (E) Use price multiples to estimate the enterprise value of KR. Discuss and explain differences between value estimates that are based on different multiples, on DCF, and the actual enterprise value of KR.
- (F) Final valuation report, including a valuation of KR's equity. The final report should be in the form of an analyst report on KR with a definite target stock price and a clear recommendation – Buy, Hold, or Sell. All groups should prepare a written report as well as a PPT presentation that highlights their main investment thesis. Both reports should be handed in and all teams should be prepared to present their PPT during the class on December 8.

Requirements for Written Reports

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. Student names should appear on the cover page.

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.

Each of the first five valuation reports should not exceed four double-spaced pages. The last report should not exceed six double-spaced pages. 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.

One group will present its analysis of the Energy Gel case and five groups will present their partial (i.e., A - E) 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 8, 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.

Class Schedule (minor changes possible)

Thu, 10 Sep	Course overview	FM, Chap. 30, Data tables Adding getformula to spreadsheets	Simon
Tue, 15 Sep Thu, 17 Sep	Review of capital budgeting and valuation	BS, Chapter 1 UST case	Simon
Tue, 22 Sep	Energy Gel case due and presentations		Simon
Thu, 24 Sep Tue, 29 Sep	UST case Review of accounting and derivation of FCF	UST PPT and spreadsheet	Simon
Thu, 1 Oct	Assignment A due and presentations		Simon
Tue, 6 Oct Thu, 8 Oct	Building pro forma models for valuation	FM, Chapter 3 and spreadsheet	Simon
Tue, 13 Oct	Assignment B due and presentations		Oded
Thu, 15 Oct Tue, 20 Oct	Industry analysis and revenue forecasts	BS, Chapter 5	Oded

Thu, 22 Oct	Assignment C due and presentations		Oded
Tue, 27 Oct	Estimating the impact of	BS, Chapters 8, 9	Oded
Thu, 29 Oct	leverage and cost of capital		
Tue, 3 Nov	Assignment D due and presentations		Oded
Thu, 5 Nov	Valuation with multiples	BS, Chapter 10	Oded
Tue, 10 Nov	Assignment E due and presentations		Oded
Thu, 12 Nov	Valuation of debt	BS, Chapters 11	Oded
Tue, 17 Nov			
Thu, 19 Nov	Valuation of convertible securities	BS, Chapter 12	Oded
Tue, 24 Nov	Review of quantitative aspects of a valuation process		Oded
Thu, 26 Nov	Thanksgiving		Oded
Tue, 1 Dec	EVA and soft information in		Simon
Thu, 3 Dec	valuations		
Tue, 8 Dec	Assignment G due and presentations		Simon
Thu, 10 Dec	Course summary and review		Simon