Columbia Business School

B7307-001-Autumn 2014

COLUMBIA UNIVERSITY
Graduate School of Business

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Advanced Corporate Finance

This is a course on applied corporate finance and entrepreneurial finance dealing with the design and valuation of transactions and their financial instruments.

We review the basic enterprise valuation model based upon discounted free cash flows and multiples, and recent advances in the estimation of the cost of capital, including estimates of the equity and liquidity premiums.

We study financial contracts or "deals" and their role in public and private transactions and financing decisions. The focus is on how deals are made in the real world, and how contract design can allow parties to agree to disagree in a transaction.

We examine the estimation and use of debt capacity, structuring and financing of leveraged transactions, and financing with convertibles and tax favored securities.

The final part of the course is devoted to asset restructuring actions for closing the value gap.

Specifically, the course coverage is organized along the following main themes:

I. Valuation
II. Transaction analysis
III. Debt capacity and private equity
IV. Risk management in deal making and financing
V. Financing with convertibles and tax favored securities
VI. Restructuring

Core Course	Connection with Core
Corporate Finance	From a to z, that is from arbitrage pricing to firm valuation, including asset pricing, risk, diversification and the cost of capital.
Financial Accounting	Cash vs. accrual accounting. Detail understanding of financial statements: BS, IS, CF.
Statistics	Modeling uncertainty, normal distribution, and conditional probability are fundamental concepts for option pricing.
Decision Models	Sensitivity analysis and simulation.
Global Economic Environment I	Inflation. Real and nominal GDP and exchange rates. Business cycles. Effects of monetary and fiscal policy.
Managerial Economics	Market competition, market power and strategic interaction
Marketing Strategy	Company and competitive analysis.
Leadership Development	Negotiation.
Operation Management	Production function: input-output and value creation.

Prerequisite: B7306-200, Capital Markets and Investments.

Prerequisites: Students lacking the required course prerequisite who are interested in enrolling in the course should send their cv to Prof. Arzac with a brief explanation of their previous experience in finance and their reason for enrolling in the course at the present time.

Grading: Grades will be based upon group written assignments and presentations graded√–, √, √+ (40%), and the option of a term paper or final take-home exam (60%). Students are expected to prepare in advance for each class and participate in class discussion.

Class Guides and Assignments: See Canvas "Course", "Assignments" and "Files" for complete details.

Readings:

Text: Arzac, E.R., *Valuation for Mergers, Buyouts and Restructuring*, John Wiley & Sons, 2nd edition, 2008. (Assigned chapters are from this book).

Cases: *Casebook*.

Problems: The syllabus includes review problems from the text. Answers will be posted on Canvas.

Pre-course review: We are going to use discounted cash flow (DCF) valuation throughout the course. This is material covered in the core Corporate Finance course and you are expected to review it before the first day of class. The basic valuation model and some of the extensions needed for more advanced work is contained in the following readings from the textbook:

1. Introduction to free cash flow valuation: Ch. 2, Sections 2.1-2.3 on pp. 8-16.

2. Estimating the cost of capital: Ch. 3, Sections 3.1-3.4, 3.5.4 and 3.6-3.7 on pp. 36-50, 55-58. Skim: p. 38, 41, 49-50 and 57.

Review problems: 2.4 and 2.8 (answers will be posted on Angel.)

The main concepts and evidence examined in these readings are:

- The working of the enterprise valuation model
- The evidence on the magnitude of the equity premium
- The case for using a prospective equity premium for estimating the cost of equity.
- The role of liquidity in asset pricing and the case for adding a size premium to the cost of equity of small-cap companies.

Class Schedule and Assignments

I – Valuation

Sessions 1-4 Sep 19-20. **Enterprise and equity values**

We review enterprise and equity values and use sum-of-the parts valuation to estimate the effect of a divestiture decision.

Cases: Daimler ex-Chrysler and The Spin-off of Fiat Auto Business

Reading: Ch. 2, pp. 8-16. Ch. 4, pp. 66-71.

Review Problems: Ch. 2, 2.1, 2.4, 2.5 and 2.7. Ch. 3, 3.6 and 3.7. Ch. 4, 4.6, 4.7 and 4.8a.

II- Transaction Analysis

Sessions 5-7 Sep 26. T**ransaction analysis I**

We study complex transactions and apply strategy and valuation concepts developed to date. Understanding the mechanics and role of merger arbitrage.

Case for sessions 2.2-3.1: Who's Afraid of Vodafone AirTouch?

Case for session 3.2: Summing the Parts of Vodafone.

Reading: Technical Note N11.3, pp. 424-426.

Sessions 8-10 Sep 27. **Transaction analysis II**

Shareholder value issues are examined from the point of view of bidders, the target, and its shareholders, including active investors. The use of options in deal making.

Case: The Battle for MCI

Readings: Ch. 9, pp. 153-155 and 158-191, Ch. 11, pp. 223-235.

Review Problems: Ch. 9, 9.5, 9.7 and 9.15.

III – Debt Capacity and Private Equity

Sessions 11-12 Oct 10. **Private Equity: Design and valuation of LBOs**

We study how to structure a leveraged buyout and estimate the return to the investors.

Case: Sirona.

Reading: Ch. 13, pp. 262-279.

Review problems: 13.1.

Session 13 Oct 10. **Debt capacity**

We study how to finance a leverage buyout and how sponsors and lenders estimate the debt capacity of a buyout target.

Reading: Ch. 7, pp. 121-127.

Review problems: Ch. 7, 7.3 and 7.5.

Sessions 14-17 Oct 24-25. **Risk Management in Deal Making and Financing**

We examine the terms of a complex acquisition and value them using DCF and option pricing. In particular, we discuss how financial contracts can let parties to agree to disagree and can permit lender financing.

Cases: MW Petroleum (B)
Reading: Ch. 10, pp. 198-204, and Ch. 11, pp. 223-228..

IV – Financing with Convertibles and Tax Favored Securities

Sessions 18-19 Oct 15-Nov7. **Financing with convertibles**

Examination of the role of equity-linked securities in corporate finance as an alternative to debt and equity financing, and the role of signaling and pre-commitment in capital markets.

Case: Citicorp's Convertible Preferred Issue.

Reading: Appendix A, pp. 350-351, 355.

Review Problems: Ch. 13, 13.7, Appendix A, A.1, A.3 and A.6.

Session 20 Nov 7. **Financing with tax favored securities.**

Attaining flexible financing with tax deductibility. Credit agency equity credit and accounting treatment.

Case: The Abu Dhabi Deal: Citigroup's $7.5 Billion Mandatory Convertible Issue.

Reading: Articles on "Percs, Decs and Other Mandatory Convertibles" and " Back-Door Equity Financing."

V –Restructuring

Sessions 21-23 Nov 8-Nov 21. **Asset restructuring**

Review of asset disposition and other measures taken to reduce the value gap of a company (share repurchases, asset sales, IPOs, carve-outs, spin-offs, and tracking stock).

Case: Restructuring Kraft

Reading: Ch. 15, pp. 318-342.

Review problems: Ch. 15, 15.2, 15.3, and 15.4.

Session 24 Nov 21. **Review and conclusion**