

COLUMBIA UNIVERSITY  
Graduate School of Business

B8303 – Autumn 2006

Prof. E. Arzac, 623 Uris  
email: [eral@columbia.edu](mailto:eral@columbia.edu)

### **Advanced Corporate Finance**

This is a course on applied corporate 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 prospective estimates, small cap premia, and allowances for country risk.

We develop the concept of financial contract or "deal" and apply it to 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. Students acquire expertise in applying core finance concepts and techniques and master the most creative aspects of finance.

We examine the estimation and use of debt capacity, financing with convertibles and tax favored securities. The final part of the course is devoted to recapitalization of troubled companies and asset restructuring decisions.

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

- I. Valuation
- II. Deal making
- III. Debt capacity and private equity
- IV. Financing with convertibles and tax favored securities
- V. Recapitalizations and restructuring

**Grading:** Grades will be based upon class participation (10%), written assignments (15%), an in-class midterm examination (30%) and a take-home final examination (45%). Students are expected to prepare in advance for each class and participate in class discussion.

#### **Readings:**

**Text:** Arzac, E.R., *Valuation for Mergers, Buyouts and Restructuring*, John Wiley & Sons, 2005 (University Edition). (Assigned chapters and problems are from this book. Copies are available on reserve in the library.)

**Cases and session guides:** *Casebook*.

**Assignments:** There will be four assignments to be prepared by teams of 3 (minimum) to 5 (maximum) members. Each assignment will be graded  $\sqrt{-}$ ,  $\sqrt{}$  or  $\sqrt{+}$ .

**Review problems:** Review problems with hints and answers will be posted on Bold.

**Review session on option pricing:** There will be one review session on basic option pricing at the level covered in B6302 for those students who need it.

### Class Schedule and Assignments

#### Session

#### Topic

#### I – Valuation

##### Sessions 1-2. **Free cash flow valuation and the cost of capital**

In these sessions we review the basic enterprise valuation model; examine the evidence on the nature and magnitude of the equity premium; and learn how to estimate the prospective equity premium in practice.

Case: Morehouse Industries Inc. (A).

Readings: (Omit \* marked sections) Chapters 2, pp. 9-17, 21-25, 27-30 (up to Section 2.7), Ch. 3, pp. 35-50, 54-62 (start at Section 3.5.4), and Ch. 4, pp. 63-70 (up to Section 4.5).

##### Sessions 3-4. **Accessing the global capital market**

We examine how to access the global capital market, how to attain liquidity events in private equity, and the valuation of private placements and emerging market companies.

Case: Petöfi Printing Company.

Reading: Ch. 12, pp. 205-219.

#### II – Deal Making

##### Sessions 5-6. **Transaction analysis**

We examine the role acquisitions within the competitive strategy of a company. We discuss the options open to a potential acquirer, including the possibility of acquiring its main competitor. Valuation issues related to the acquisition of the target, including the premium to offer and its possible recovery via synergies are examined in detail.

Cases: For the first session: Borland-Ashton Tate – Part I: The Target.

For the second session: Borland-Ashton Tate – Part II: The Offer.

Readings: Ch. 9, pp. 143-144 and 147-177.

**Assignment No. 1 (due on Sept. 20 (W)):** On Borland case Parts I. Instructions and hints posted on Bold's Outline page.

**Session** **Topic****Sessions 7. Transaction analysis (continued)**

Shareholder value issues are examined from the point of view of bidders, the target and its shareholders.

Cases: Bidding for MCI – Part I

**Assignment No. 2 (due on Sep 27 (W))**: MCI – Part I. Instructions posted on Bold's Outline page.

**Sessions 8-10. Risk management in deal making**

We review the role and purpose of “deals” in corporate finance and examine the design and valuation of earnouts, contingent value rights and collars.

Reading: Ch. 10, pp. 179-188 (up to Section 10.6.3), Note 10.1 (pp. TN-26-28), and Ch. 11, pp. 195-203.

**Sessions 11-12. Real options in deal making**

We examine the terms of a complex acquisition and value them using DCF and option pricing.

Cases: For first session: MW Petroleum (A)  
For second session: MW Petroleum (B)

Reading: Ch. 6, pp. 89-95.

Session 13 (October 25): **Midterm examination**: In-class, open book, on material covered through session 12.

**III – Debt Capacity and Private Equity****Session 14. 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. 107-120.

**Session 15. Private Equity: Design and valuation of LBOs**

We study how to structure a leveraged buyout and estimate the return to the suppliers of capital.

Case: Sirona.

Reading: Chapter 13, pp. 221-240.

**Assignment No. 3 (due Nov. 1 (W))**: Modeling Sirona financials from the point of view of the acquirer. Instructions posted on Bold's Outline page.

<b>Session</b>	<b>Topic</b>
----------------	--------------

<b>IV – Financing with Convertibles and Tax Favored Securities</b>	
--------------------------------------------------------------------	--

Sessions 16-17. <b>Equity-linked securities in corporate financing</b>	
------------------------------------------------------------------------	--

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. A4-A6 (start at Section A.7), skim the rest.

**Assignment No. 4 (due on November 20 (M))**: Problems 13.1 and A.6 from text (problems and hints posted on Bold's Outline session).

Session 18-20. <b>Mandatory convertibles and tax favored securities</b>	
-------------------------------------------------------------------------	--

Financial innovation as response to market conditions and taxation. Design and pricing of mandatory convertibles. Attaining flexible financing with tax deductibility. Credit agency equity credit and accounting treatment.

Reading: Article on "Percs, Decs and Other Mandatory Convertibles".

<b>V – Recapitalizations and Restructuring</b>	
------------------------------------------------	--

Sessions 21-22. <b>Dealing with financial distress</b>	
--------------------------------------------------------	--

We study how to reduce the burden of debt on the cash flows of the company to make it consistent with its debt capacity, and to maximize the recovery to the claimants.

Reading: Ch. 14, pp. 243-263 (skim Section 14.7)

Case: EuroDisney

Session 23. <b>Asset restructuring</b>	
----------------------------------------	--

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

Reading: Ch. 15, pp. 265-281.

Session 24. <b>Review and conclusion</b>	
------------------------------------------	--

**Take-home final due Monday December 11.**