

McDaniel Europe, Campus in Budapest

BUA 4323– Corporate Finance & Financial Management

Professors: Balazs Laki

Contact information

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Availability

Balazs Laki is available by appointment, preferably before and after classes or via email.

Course description

This course examines important issues in corporate finance from the perspective of financial managers who are responsible for making significant investment and financing decisions. The concept of net present value, suitably adapted to account for taxes, uncertainty, and strategic concerns, is used to analyze how investment and financing decisions interact to affect the value of the firm. The course covers topics that are important to decision-making in marketing, operations management, and corporate strategy.

A large portion of the course covers capital budgeting, first without uncertainty, and then in the presence of uncertainty. Throughout, emphasis is placed on the interaction between (corporate and personal) taxes and the cost of capital. Topics covered in this context will include leasing and leveraged buyouts. The course also includes a treatment of dividend policy and capital market efficiency, as they relate to the value-maximization objective of the firm.

While the course is not designed to dwell on abstraction, the basic theoretical underpinnings of the various topics are a prerequisite to competent analysis and intellectual discussion. We emphasize the development of problem-solving skills based on a good understanding of the business environment as opposed to pure theorizing or mindless numbers exercises. Because of the practical importance of the material and as an illustration of the relevant theory, we will discuss examples and cases.

Course objectives:

The course provides fundamental techniques for simulation-based quantitative corporate finance and intuition regarding model-design best practices. We will develop a variety of tools for optimal corporate financial policy in the following areas: cost-of-capital; debt level and structure; interest rate, exchange rate and commodity risk management; and shareholder distribution policy.

Computation-intensive techniques have expanded the field of funding design in new directions, providing better insights about how operating and market risks flow through a firm. Coupled with recent advances in credit strength measurement and constraint-based optimization, we can now tune a capital structure while quantitatively trading off the concerns of debt lenders, equity investors, and management.

Students will produce fully functional simulation models in Excel, allowing Monte Carlo-based company modeling and risk management. The limitations of quantitative approaches and their relationship to classical methods will also be discussed.

Learning outcomes:

At the end of this course students will be able to:

- Develop a quantitative framework for evaluating capital structure and corporate financial policy changes
- Integrate diverse and competing stakeholder perspectives into a unified decision model
- Build basic Monte-Carlo simulation models
- Critically evaluate the output of quantitative simulation models
- Make judgments about what assumptions to make when building or evaluating a model

Required texts

- Class readers.

Recommended texts

- Berk, Jonathan, and Peter DeMarzo, Corporate Finance, 2nd edition, Pearson, Boston, 2010.
- Jonathan Berk and Peter DeMarzo, Corporate Finance, Prentice Hall, 4th Edition.
- Hillier, Grinblatt and Titman, Financial Markets and Corporate Strategy, 2nd ed., McGraw-Hill, 2011.

Assignments & grading

Grading system -- 100 points total

- *mid-term exam (40 points)
- *final project (30 points for in-class presentation and 20 points for written report)
- *class participation (10 points)

Standard scale: 100+ A+
93-100 A
90-92 A-
88-89 B+
83-87 B
80-82 B-
78-79 C+
73-78 C
70-72 C-
68-69 D+
63-67 D
60-62 D-
< 60 F

Project Paper

For the Spring BUA 4323 term paper (2,500-3,000 words), (1) Students will work on final project individually. (2) Students will submit a proposal on their dataset and analysis plan by the fourth class period. (3) Students will analyze their own dataset. (4) Students will present their final projects in class and write a comprehensive report of the data analysis.

Honor Code

You are expected without question to adhere completely to the McDaniel College academic honor code. Any violation will result in a zero for the given assignment and other possible sanctions.

Course Policies

Informed, critical exchange of ideas forms the core of the McDaniel College learning experience. It should occur in every classroom. This is why in-class participation determines part of your grade. You are expected to share ideas during discussions; you are wholeheartedly encouraged to ask questions when you do not understand something; you will have chances to speak one-on-one with your fellow students as well as to speak before the entire class.

Creation of a proper classroom environment requires above all else respect for fellow students. We all ask that you don't be late; that you don't read newspapers, magazines, or otherwise distract everyone else during class; that you don't browse the Internet; that you turn off your cell phone and that you do not check for messages during class; that you don't pack up with five minutes left. Likewise, you can expect me to end class on time, to engage you in discussion and debate (that is, not to do all of the talking), and to be respectful of all points of view.

Participation implies attendance; absences will be noted and will adversely affect your final participation grade. In addition, in accordance with McDaniel Budapest's attendance policy, there will be an automatic deduction of one letter grade for every unexcused absence following your third unexcused absence.

Semester schedule/topics covered

Week 1 Introduction

Review of classical, analytic and quantitative corporate finance. "Quant-light" methods including peer analysis and regression. Common metrics including EPS and P/E

Week 2 Math and probability refresher

Convexity. Jensen's inequality. Simulating random numbers by CDF inversion. Historical simulation.

Week 3 Modern risk measures

Review of different risk measures: variance, value-at-risk and expected shortfall. Desirable properties of risk measures.

Week 4 WACC and discounting

Different discounting methods. Estimating WACC. Unlevering and relevering formulas. WACC approaches to capital structure.

Week 5 Modeling business risks

Uni- and multi-variable regression. Connection to maximum likelihood estimators
Modeling business risks including cash flow waterfalls, capex (and impact of failing to make capex) and debt maturities. Modeling firm operations such as sales and EBITDA and handling seasonality.

Week 6 Raising, allocating and returning capital

Required capital Returns on capital. Cost of capital. Optimal leverage.

Week 7 Examples and Exercises.

Core theorems in corporate finance. Modigliani and Miller. No arbitrage arguments.

Week 8 MIDTERM TEST

Week 9 Sustainable modeling

Sustainable growth. Sustainable capital structure.

Week 10 Easter Holiday

Week 11 Data visualization techniques

Presenting data visually. Common mistakes.

Week 12 Debt capacity & distress

Impact of leverage on the firm. Business disruption costs.

Week 13 Dividends and share repurchases

Pros and cons of dividends versus share repurchases. Technical impact on EPS, volume and price. Signaling effects.

Week 14 Fundamental econometrics techniques

Calibrating and simulating AR(1) processes. Multiple processes and correlations. Advantages and disadvantages of debt at different maturities. Changing credit spreads, market depth.

Week 15 Credit spreads

The term and credit quality structure of credit spreads. Evolution of spreads over time.

Week 16 Interest rate risk & FX rate risk

Theories of the term structure. The fixed-floating debt decision. Approaches to forecasting FX rates, including various parity arguments. Fitting and simulating FX rate models.

Week 17 FINAL PROJECT PRESENTATION