Corporate Finance

Module 3, Academic Year 2018-2019

Pavle Radicevic
New Economic School
pradicevic@nes.ru

Course information

Course Website: my.nes.ru

Instructor's Office Hours: by appointment

TAs: TBD

Course description

The goal of this course is to familiarize you with the introductory-level topics in corporate finance and to discuss the most important financial decisions of a firm. The core of the course is the analysis of capital budgeting, capital structure decisions and risk management. The capital budgeting topics will cover various techniques of evaluating and comparing projects. The capital structure topics will examine the choice of sources of finance for a firm; in particular, the choice between debt and equity financing and how does this relate to the firm's investment evaluation. We will then discuss corporate risk management, with application in hedging of foreign exchange risks.

Course requirements, grading, and attendance policies

Course prerequisite: Financial Markets and Instruments

There is no formal attendance policy, however, the attendance of each class is expected.

The grade for the course will be based on two individual problem sets (10% each), two group case analyses (12.5% each), and closed-book final exam (55%). Note that in order to pass the course you must get at least 40% of the total score.

The problem sets are due at the beginning of the class (uploaded electronically to my.nes.ru) and will not be accepted after the deadline (unless in exceptional circumstances, provided that you have arranged with me in advance). For your own understanding it may also be helpful to try solving problems at the end of the relevant chapter of the book.

Case write-ups are to be done in groups of 4-5 people and have to be turned in at the beginning of each class at the due dates – late submissions cannot be accepted because we discuss the solution in class.

Course contents

Class	Topic	Reading
1	Introduction to corporate finance: overview of financial decisions, the notion of corporation	BD 1, W 1, RWJ 1, BMA 2
	Introduction to financial analysis: financial statements and ratios	BD 2, W 13, RWJ 2, BD 26, W 14
2	Time value of money. Introduction into the discounted cash flow (DCF) method. Valuation of Riskless Cash Flows. Bonds. Valuing Stocks with Dividend Discount Model.	BD 4, 5, 7, 8, 9.2, 9.3 W 2, 3, 5, RWJ 4, 5, BMA 3, 4, HGT 9
	Project evaluation under certainty using alternative investment rules: NPV, IRR, payback period, profitability index. Independent and mutually exclusive projects. Capital rationing. Projects with unequal lives: matching cycle, equivalent annual cost (benefit) method, replacement problem.	BD 6, 22.6, W 4, RWJ 6, 7.4, BMA 8, HGT 10
3	Risky projects: CE vs RADR. Introduction to real options: types and examples, binomial model. (*) Real options: Black and Scholes, Monte-Carlo simulations	BD 7.3, 20-22, W 12.6, RWJ 8.4, 22-23, BMA 10.4, 20-22, CWS 9, Megginson 6.6, 6.9
4	Uncertainty, default, and risk. Risk and return. Estimating the cost of capital. Case 1 discussion. Target Corporation	BD 10-12, W 6-9, RWJ 9-12, BMA 7-9, HGT 11
	Introduction to capital structure. The case of perfect markets. Modigliani-Miller propositions.	BD 14, W 16, 17, RWJ 15.1-15.4, BMA 17, HGT 14.1-14.3
5	Costs and benefits of debt finance. Taxes and costs of financial distress.	BD 15-16.4, W 17, 18.1-18.2, RWJ 15.5, 16.1-16.4, BMA 18.3, HGT 14.4, 14.5, 16.1, 17.1-17.3
	(*) Agency costs of equity and debt. Informational asymmetries.	BD 16.5-16.9, W 18.3-18.5, RWJ 16.5-16.7, BMA 18.4, HGT 16
6	Valuation of the leveraged firm.	BD 15, 16, 18, 19, W 17, 18, RWJ 17, BMA 19, HGT 13
7	Risk Management – Principles of Corporate Hedging and application to Foreign Exchange Risks Case 2 discussion. FX hedging at EADS	TBD

Note: a star indicates that the respective topic will be covered if time permits.

Description of course methodology

Lectures + Case analysis sessions + TA sessions

Sample tasks for course evaluation

Suppose ABC Technologies has an equity cost of capital of 10%, market capitalization of $10.8 billion, and an enterprise value of $14.4 billion. Suppose ABC's debt cost of capital is 6.1% and its marginal tax rate is 35%.

(a) What is ABC's WACC?

(b) Suppose ABC maintains a constant debt-to-equity ratio. Calculate the value of a project that has average risk and the following expected free cash flows:

Year	0	1	2	3
FCF	-100	50	100	70

(c) If ABC maintains its debt-to-equity ratio, what is the debt capacity of the above project?

(d) What are the interest tax shields from the project? What is their present value?

(e) Show that the APV of ABC's project matches the value computed using WACC method.

Course materials

Required textbooks and materials

(BD) Berk and DeMarzo, *Corporate Finance*, Pearson International Edition, First Edition, 2007.

(W) Welch, *Corporate Finance: 4th Edition*, 2017. The book is freely available in electronic form (but not for download) at http://book.ivo-welch.info – this is a relatively new textbook, which has very good intuition on some fundamental issues in Corporate Finance, but some more advanced topics (which mostly go beyond the scope of this class) are not covered.

Additional materials

(RWJ) A recent edition of Ross-Westerfield-Jaffe *Corporate Finance* (e.g. the 6th edition, 2002, or Ross-Westerfield-Jordan-Jaffe *Core Principles and Applications*, 3rd edition Global, 2011, available in the library).

(BMA) A recent edition of Brealey-Myers *Principles of Corporate Finance* would be a nice complement to the main textbook (e.g. Brealey-Myers-Allen Principles 8th edition is available in the library).

Books especially helpful for specific topics:

(HGT) A recent edition of Grinblatt-Titman Financial Markets and Corporate Strategy (e.g. the European edition, 2008, by Hillier-Grinblatt-Titman, is available in the library). This is a more advanced textbook and treats some issues that we cannot discuss in detail in class.

(Megginson), Megginson, Corporate Finance Theory, Addison and Wiley, 2001.

(CWS) Copeland, Weston, Shastri, Financial Theory and Corporate Policy, 4th edition, 2004.

Graham, John R. and Leary, Mark T., A Review of Empirical Capital Structure Research and Directions for the Future (April 7, 2011). Annual Review of Financial Economics, Vol. 3, 2011. Available at SSRN: http://ssrn.com/abstract=1729388

I may also post additional papers on my.nes.ru for you to read before or after the class.

Academic integrity policy

Read the NES Honor Code. You must not cheat on the problem sets and final and must report any violations to me. We may also make random copies of exams.