

# Corporate Finance

## Module 5, Academic Year 2019-2020

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### Course information

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**Course Website:** [my.nes.ru](http://my.nes.ru)

**Instructor's Office Hours:** by appointment only

**Class Time:** Thursdays 15:30 – 18:45

**Room Number:** 3.06

**TAs:** Vladislav Baibakov

### Course description

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The goal of this course is to familiarize you with the fundamentals of 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 and valuation. The capital budgeting topics will cover various techniques of evaluating and comparing projects, including the real option analysis. The capital structure topics will examine the choice of sources of finance for a firm; in particular, the choice between debt and equity financing. We will then discuss valuation of a firm, taking into account its choice of the capital structure.

In addition, the course will also discuss some advanced topics in Corporate Finance. This component will cover: financial contracting (rationalizing debt and equity securities), market for corporate control, entrepreneurial finance (with emphasis on VC contracting), ownership structure and internal governance mechanisms. The textbook treatment of these topics lacks depth, so research papers will be assigned for reading.

### Course requirements, grading, and attendance policies

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Course prerequisites: Microeconomics-2, Financial Markets and Instruments

Attendance policy: There is no formal attendance policy, however, the attendance of each class is strongly recommended.

Grading policy: The grade for the course will be based on two individual problem sets (10% each), individual report based on assigned reading (25%), a final exam (55%). Note that in order to pass the course you must get at least 40 (out of 100) points on the exam.

The problem sets are due at specified times (uploaded electronically to my.nes.ru or sent to the TA by email (cc me)) 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.

Individual report based on assigned reading is to be completed individually. Further details will be provided in class.

## **Course contents**

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The course schedule (both in content and in order), with an approximate number of lectures for each topic in brackets is given below; a star indicates time-permitting or to be covered at the seminar.

- (1) Introduction to corporate finance: overview of financial decisions, the notion of corporation BD 1, W 1, RWJ 1, BMA 2
- (0.5) Introduction to financial statements  
BD 2, W 13, RWJ 2
- (0.5) Introduction to financial analysis: financial ratios  
BD 26, W 14
- (0.5) 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, 8, 9.2, W 2, 3, 5, RWJ 4, 5, BMA 3, 4, HGT 9
- (1) 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 (R) to be specified
- (0.5) Computing cash flows from the accounting statements. Valuing firms with discounted cash flow model.  
BD 7, 9.3, W 12.4, 12.5, 13, 20, RWJ 7.1, 7.2, 8.3, BMA 10
- (1) 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
- (1) Uncertainty, default, and risk. Risk and return. Estimating the cost of capital. BD 10-12, W 6-9, RWJ 9-12, BMA 7-9, HGT 11 (R) to be specified

(1) Introduction to capital structure. Modigliani-Miller propositions. Capital Structure anomalies.  
BD 14, W 16, 17, RWJ 15.1-15.4, BMA 17, HGT 14.1-14.3 (R) to be specified

(2) Costs and benefits of debt finance. Taxes and costs of financial distress. Valuation of the leveraged firm.

BD 15, 16, 18, 19, W 17, 18, 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 (R) to be specified and will be and posted on mynes

(1) Financial Contracting: Agency costs of equity and debt; Information Asymmetries.

BD 16.5-16.9, W 18.3-18.5, RWJ 16.5-16.7, BMA 18.4, HGT 16 plus assigned papers (R)

(2) Ownership structure: Entrepreneurial Finance and Controlling Shareholders  
(R) Readings will be assigned and posted on mynes

(2) Corporate Governance Mechanisms: Monitoring, compensation, market for corporate control  
(R) Readings will be assigned and posted on mynes

## **Course materials**

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### **Required textbooks and materials**

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

(R) Research Papers will be assigned for each week and posted on mynes. This will be a mix of theory, both in discrete and continuous time, as well as empirical research.

(W) Welch, *Corporate Finance: 3rd Edition*, 2014. The book is freely available in electronic form (but not for download) at <http://book.ivo-welch.info/ed3/> – this is a relatively new textbook, which has very good intuition on some fundamental issues in Corporate Finance, but some more advanced topics (which we will cover in this class) are not covered.

### **Additional materials**

(RWJ) A recent edition of Ross-Westerfield-Jaffe *Corporate Finance* (e.g. the 6<sup>th</sup> edition, 2002, or Ross-Westerfield-Jordan-Jaffe *Core Principles and Applications*, 3<sup>rd</sup> 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* 8<sup>th</sup> edition is available in the library).

Books especially helpful for specific topics:

**NEW ECONOMIC SCHOOL**

**Master of Arts in Economics**

(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>

### **Academic integrity policy**

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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.