

# Preface

This book describes in detail the modern theory of corporate finance, investment, and taxation, created by Brusov, Filatova, and Orekhova (BFO theory), which has replaced the famous theory of capital cost and capital structure by Nobel laureates Modigliani and Miller. The authors have moved from the assumption of Modigliani–Miller concerning the perpetuity (infinite time of life) of companies and further elaborated quantitative theory of valuation of key parameters of financial activities of companies with arbitrary time of life (of arbitrary age).

Results of modern BFO theory turn out to be quite different from those of Modigliani–Miller theory. They show that the latter, via its perpetuity, underestimates the assessment of weighted average cost of capital, WACC, and the equity cost of the company and substantially overestimates the assessment of the capitalization of the company.

Such an incorrect assessment of key performance indicators of financial activities of companies has led to an underestimation of risks involved, and impossibility, or serious difficulties in adequate managerial decision-making, which was one of the implicit reasons of global financial crisis in 2008.

Within new modern theory of capital cost and capital structure (BFO theory), a lot of qualitatively new results have been obtained, among them:

1. The qualitatively new effect in corporate finance, discovered by authors: abnormal dependence of equity cost on leverage, which alters the main principles of the company's dividend policy significantly.
2. Bankruptcy of the famous trade-off theory has been proven.
3. A very important discovery has been done recently: the valuation of WACC in the Modigliani–Miller theory (perpetuity limit) is not minimal and valuation of the company capitalization is not maximal, as all financiers supposed up to now: at some age of the company (“golden age”) its WACC value turns out to be lower than in perpetuity limit and company capitalization  $V$  turns out to be greater than perpetuity limit of  $V$ .

4. Mechanism of formation of the company optimal capital structure, different from the one suggested by trade-off theory, has been suggested.
5. The inflation in both Modigliani–Miller as well as in Brusov–Filatova–Orekhova theories has been taken into account in explicit form, which has a nontrivial impact on the dependence of equity cost on leverage.
6. Study of the role of taxes and leverage has been done, which allows the Regulator to set up the tax on profits rate and allows businessmen to choose the optimal level of debt financing.
7. Investigation of the influence of tax on profit rate on the effectiveness of investment projects at different debt levels has showed that increase of tax on profit rate from one side leads to decrease of project NPV, but from other side it leads to decrease of sensitivity of NPV with respect to leverage level. At high leverage level  $L$ , the influence of tax on profit rate change on effectiveness of investment projects becomes significantly less.
8. Studying the influence of growth of tax on profit rate on the efficiency of the investment as well has led to two qualitatively new effects in investments:
  - the growth of tax on profit rate changes the nature of the NPV dependence on leverage  $L$ : at some value  $t^*$ , there is a transition from diminishing function  $NPV(L)$  at  $t < t^*$ , to growing function  $NPV(L)$  at  $t > t^*$ .
  - at high leverage levels, the growth of tax on profit rate leads to the growth of the efficiency of the investments.

Discovered effects in investments can be applied in a real economic practice for optimizing of the management of investments.

Established BFO theory allows us conduct a valid assessment of the core parameters of financial activities of companies, such as weighted average cost of capital, equity capital cost of the company, and company's capitalization. It allows the management of a company to make adequate decisions, which improves the effectiveness of the company management. More generally, the introduction of the new system of evaluation of the core parameters of financial activities of companies into the systems of financial reporting (IFRS, GAAP, etc.) would lead to a lower risk of global financial crisis.

The second part of this book is devoted to the assessment of effectiveness of investment projects created by the authors within the modern investment models. The determination of the optimal leverage level for investments is studied in this book from two points of view: from the point of view of owners of equity capital, as well as from the point of view of owners of both equity and debt capital.

Corporate management in the modern world is the management of financial flows. The proposed Brusov–Filatova–Orekhova theory allows to correctly identify discount rates—basic parameters for discounting of financial flows to arbitrary time moment, compare financial flows with a view to adopt literate managerial decisions. The discount rate is a key link to the existing financial system, on which the modern finance can be adequately built, and this proposed book can be of substantial assistance.

This book is intended for students, postgraduate students, teachers of economic and financial institutions, students of MBA program, scientists, financial analysts, financial directors of company, managers of insurance companies and rating agencies, officials of regional and federal ministries and departments, and ministers responsible for economic and financial management.

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4 February 2014

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Modern Corporate Finance, Investments and Taxation  
Brusov, P.; Filatova, T.; Orekhova, N.; Eskindarov, M.  
2015, XVI, 368 p. 44 illus., 24 illus. in color., Hardcover  
ISBN: 978-3-319-14731-4