

## SCIENTIFIC ADVISOR'S REFERENCE

<b>Program:</b>	Master in Corporate Finance
<b>Student:</b>	Pavel D. Muzyka
<b>Title of thesis:</b>	Model of identification of optimal capital and debt structure: Wal-Mart and Lufthansa cases

**Justification of the topic choice. Accuracy in defining the aim and objectives of the thesis.** Justification of the topic choice; accuracy in defining the aim and tasks of the thesis; originality of the topic and the extent to which it was covered; alignment of the thesis' topic, aim and objectives.

The thesis is a practice-oriented paper in the form of a consultant project. It is devoted to extremely difficult and controversial area of optimal choice of capital structure, in particular in the terms suggested by Hamada in his famous article of 1972 in the Journal of Finance and mentioned almost in any corporate finance text. The aim is twofold. Firstly, to apply a recent improvement of the Hamada's formula (Cohen, 2007), which includes default risk, to the cases of two large global companies. Secondly, to derive a refinement of this formula, which takes into account the debt structure, and to apply it to the cases. The latter is a new area of research devoted to finding fixed-to-floating ratio. These aim and purposes declared in Introduction are completely covered in the paper.

**Structure and logic of the text flow.** Logic of research; full scope of the thesis; alignment of thesis' structural parts, i.e. theoretical and empirical parts.

Chapter 1 is devoted to the use of Hamada's equation and its recent refinements. Original presentation of debt structure is provided. Chapter 2 provides in parallel author's methodology and a stylized case to illustrate it. New academic results devoted to debt structure are incorporated as a part of methodology (subsection 2.3). Chapter 3 is devoted to the use of the methodology to the cases of Wal-Mart and Lufthansa companies. As a consultant the author finds that their real capital/debt structures are far from being optimal. He gives some hints for explanation of this fact in subsection 3.4 though this is beyond of what can be expected from a consultant without insider information.

**Quality of analytical approach and quality of offered solution to the research objectives.** Adequacy of objectives coverage; ability to formulate and convey the research problem; ability to offer options for its solution; application of the latest trends in relevant research are for the set objectives.

This is quite balanced paper, which combines theory with immediate applications. The solution is based on recent trends (after 2005) in analysis of capital and debt structures. Analytic approach has proved its strength in elaboration of case studies. New research model for debt structure has been developed (see below).

**Quality of data gathering and description.** Quality of selecting research tools and methods; data validity adequacy; adequacy of used data for chosen research tools and methods; completeness and relevance of the list of references.

The cases are based on financial data from annual and quarterly reports of the companies (2006-2011) and on LIBOR data (see Appendices 1 and 2). Unfortunately no exact reference to the sources is formally provided (the data in Appendices are transformed by the author in accordance to his methodology).

**Scientific aspect of the thesis.** Independent scientific thinking in solving the set problem/objectives; the extent to which the student contributed to selecting and justifying the research model (conceptual and/or quantitative), developing methodology/approach to set objectives.

The thesis makes important contribution to the studies in debt structure. Subsection 2.3 provides all necessary details. For the first time the author introduces interest rate sensitivity of debt as a tool to analyse fix-to-floating ratio. He also provides the approach based of linear regression model for its estimation. This was successfully used for the cases (see Appendix 3). This approach shows that it is necessary to refine even recent versions of Hamada's equation taking into account debt sensitivity. This is a contribution to a classical topic in finance.

**Practical/applied nature of research.** Extent to which the theoretical background is related to the international or Russian managerial practice; development of applied recommendations; justification and interpretation of the empirical/applied results.

This a rare example when new academic results are implemented immediately as two adequate consulting projects for large, really existing, companies.

**Quality of thesis layout.** Layout fulfils the requirements of the Regulations for master thesis preparation and defence, correct layout of tables, figures, references.

Layout (and English quality) has some drawbacks but still of satisfactory quality.

The Master thesis of Pavel D. Muzyka meets the requirements for master thesis of MCF program thus the author of the thesis can be awarded the required degree.

Date: September 20, 2012

Scientific Advisor:  
Professor of Finance



Alexander Bukhvalov