OPTIMIZATION OF CAPITAL STRUCTURE OF RUSSIAN COMPANIES

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Abstract

The main aim of this article is to estimate optimal capital structure for Russian companies that represent different industries, and determine whether companies adhere to this structure. The study employs net income operating approach. This method implies that possible each share of debt in the capital structure is put into correspondence with relevant probabilities of default. So, target level of leverage is determined in the point where the probability of default equals to the given threshold value. The study is based on Van der Wijst's model of estimating probability of bankruptcy (1989). The sample for analysis consists of 1457 Russian companies that represent 12 industries. Financial statements of the companies are obtained from Ruslana database over 2000-2010. Optimal capital structures that were determined during the modelling are then compared with actual capital structures that have formed in companies. As a result, we show that oil & gas chemical industries follow optimal capital structure, while companies representing mining, woodworking, food, textile, construction and agricultural industries tend to be overleveraged. So, these companies lack financial stability, and their financial policies need to be revised. Furthermore, the article also describes four main parameters of the model: bankruptcy costs, income flow, standard deviation of income, and income tax rate, and examine how deviations of these factors influence the choice of the optimal capital structure. Capital structure of telecommunications industry shows the highest sensitivity to changes in all the factors. Bankruptcy costs and income tax rate influence all the industries significantly.

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Key words: optimal capital structure, financial leverage ratio, probability of bankruptcy, bankruptcy costs, income flow, income tax ratio.

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