Valuing firm's financial flexibility under default risk and bankruptcy costs: a WACC based approach

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Abstract

Purpose

The purpose of this paper is to present a model to value leveraged firms in the presence of default risk and bankruptcy costs under a flexible firm's debt structure.

Design/methodology/approach

The authors assume that the total debt of the firm is a combination of two debt components. The first component is an active debt component which is assumed to be proportional to the firm's value. The second one is a passive predetermined risk-free debt component. The combination of the two debt categories makes the firm's capital structure more realistic and allows us to include flexibility into the firm's debt structure management. The firm's valuation is performed using the discounted cash flow technique based on the weighted average cost of capital (WACC) method.

Findings

The model can be used to define active debt management strategies that can induce the firm to deviate from its capital structure target in order to preserve debt capacity for future funding needs. The firm's valuation is performed by using the WACC method and a closed form valuation formula is provided. Such a formula can be used to value

The proposed approach provides a good compromise between mathematical complexity and model capability of interpreting the various economic and financial aspects involved in the firm's debt structure puzzle.

Practical implications

This model offers a realistic approach to practical applications where real financing decisions are characterized by a simultaneous use of these two debt categories. By comparing costs and benefits deriving from using unused debt capacity for future funding needs, the model provides a quantitative support to investigate if financial flexibility can add value to firms.

Originality/value

To the authors knowledge, the approach the authors propose is the first attempt to build a valuation scheme that accounts for firm's financial flexibility under default risky debt and bankruptcy costs. Including financial flexibility, this model fills an important gap in the literature on this topic.

Keywords

Bankruptcy costs | WACC | Financial flexibility | Debt management | Risky debt | Tax shield | G30 | G31 | G32 | G33

Citation

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