

Corporate liquidity and the value of the firm

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Abstract

In this paper, we study a discrete-time model in which default arises when the firm is not able to pay its debt obligation using the current cash-flow plus the corporate liquidity. An important distinction is made between liquidity and solvency of the firm. The corporate financial policy is simultaneously defined by the dividend rate (or policy), the coupon and the principal of the bond. In our model, the dividend rate both affects the default probability and the bondholders' recovery rate. When the corporate financial policy implies no credit risk, we find the famous Modigliani-Miller propositions. In the no-tax case, we offer a computational proof of the irrelevance of the corporate financial policy. When the corporate financial policy implies credit risk, we show that the value of the firm is a decreasing piecewise function of the dividend rate. As a consequence, zero is an optimal dividend rate: the value of the firm is not invariant with respect to the dividend rate, as suggested by Modigliani-Miller (1961). However, shareholders may not always have the incentives to implement this optimal dividend rate. We show that when the value of the assets is low, shareholders have an incentive to deviate from this optimal dividend rate, and we also study the resulting agency costs of dividend rate. We finally compare the resulting quantities of our model to the base case suggested by Huang and Huang (2003).