

Term structure of default risk: An empirical analysis of Japanese SMEs

Mariko Fujii* Ryota Takemoto**

Abstract

When estimating the default risk of private firms, it is important to utilize accounting-based variables effectively, while for public firms stock price and other market-based information are useful. We investigate the term structure of default probability of small-and-medium-sized enterprises (SMEs). Specifically, we examine empirical relationships between the bankruptcy of Japanese SMEs and firm-specific accounting and macroeconomic variables using the multi-period logit model. The results show that (1) the explanatory power of the default prediction model employed in this paper depends on the industry group; (2) financial ratios measuring liquidity and interest coverage have the greatest effects on the default probability of SMEs; (3) and current financial ratios are statistically significant for forecasting defaults for more than 1 year-ahead. The estimated results of the term structure of the default probability suggest that lower liquidity ratios increase the risk of near-future defaults, whereas higher leverage ratios increase the default risk in the distant future, such as in the second and third year.

Keyword: term structure of default risk, SMEs, multi-period logit model

* Research Center for Advanced Science and technology, University of Tokyo (Special Research Fellow, Financial Research and Training Center, Financial Services Agency).

** Research Center for Advanced Science and technology, University of Tokyo.

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