

Bank Failure Prediction: A Two-Step Survival Time Approach

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Abstract

In this paper we develop a two-step survival time approach – a discrete logit model with survival time dummies – that allows for time-varying explanatory variables and interval censored data. Our empirical analysis reveals that the two-step approach outperforms the benchmark logit model with respect to out-of-sample prediction accuracy. Survival time, however, does not play an important role. The increase in the out-of-sample predictability is mainly driven by the fact that individual predictive models are estimated for at-risk banks. These models partly contain the same variables (capturing credit risk) as the benchmark logit model and partly different variables (e.g. capturing management quality and bank size). This finding supports the argument that in comparison to the entire population of banks different variables are required to predict failure for banks that face financial problems.

JEL Classification: G33, G21, G28, C41

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