

A Survival Analysis of Bank Failures in Turkey: Incorporating Unobserved Heterogeneity

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Abstract

The collapse and failure of a bank could have consequences both to the entire banking system and widespread repercussion effect on other banks as well as the whole economy. This study aims to predict the likelihood of a bank's failure and timing of its failure in Turkey between years 1988 and 2013. In order to examine the determinants of a bank failure, a range of explanatory variables from both the micro- and macro-level are included. The study uses cross-section time-series data obtained from publicly available unconsolidated balance sheet and income statements of 89 banks over the period to calculate the financial ratios along with some macroeconomic factors. Nonparametric, parametric and Cox Proportional Hazards model estimations are employed. To the best of our knowledge, no study has investigated the implications of unobserved heterogeneity in a survival analysis when predicting bank failures in Turkey. Therefore, in addition to predicting bank failures by conventional survival analysis approach, the study aims to estimate the impact of unobserved heterogeneity.

Keywords: Bank Failure, Survival Analysis, Heterogeneity

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