The recurrence of financial distress

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Abstract

Companies often suffer financial distress before filing bankruptcy, both of which are typical events of interest in corporate credit management. However in many occasions companies of financial difficulties do not always fail but can recover from distress and keep healthy for a while, and may go back to distress again. Unlike one-off bankruptcy, financial distress can take places several times on individual companies and we found the ones of previous distress experience have higher chances to be distressed repeatedly. In this paper, we focus on the recurrence of financial distress but not the first time of distress as in most corporate credit literature. We take the recurrence of financial distress similar to the recurrence of diseases and use survival analysis to predict the recurrence risk given the survival time and additional factors observed since the first distress. We analyse the Chinese securities market where Special Treatment – an official indicator of financial distress – can be applied several times to a listed company. Using data from 1998 to 2019, we employ nonparametric Life Table and Kaplan-Meier methods to understand the post distress behaviours of listed companies and build semiparametric Cox proportional hazard models to predict the probability of second and third distress. We identify some characteristics in ownership structure, management compensation and financial ratios which significantly affect the survival time and the recurrent risk. Tested on hold-out samples, our Cox proportional hazard models with macroeconomic factors show robust performance in predicting the recurrent risk over time. Implications are suggested to managers, investors, creditors and regulatory bodies.