A Brief Survival Analysis Framework For Portuguese Firms

Alcina Nunes, Instituto Politécnico de Bragança, Portugal
Elsa de Morais Sarmento, Universidade de Aveiro, Portugal

Abstract

We address the post-entry performance of new Portuguese firms by investigating the structural characteristics of the hazard and survival functions, using non-parametric and semi-parametric survival analysis for the total economy and its broad sectors. In order to approach the prevalence of some stylized facts and determinants of new firm survival, a new entrepreneurship database was produced, using the administrative data of Quadros de Pessoal, following the Eurostat/OECD’s internationally comparable business demography methodology. In line with the literature, we find that firms that start small and experience faster post-entry growth, face a higher probability of survival. Firm’s current size dimension matters particularly for the services sector probability of survival. In industries characterized by high entry rates, post-entry survival is more difficult. This happens mostly in Agriculture and the Construction sectors in Portugal. We find a different result from the literature, for the effect of industry growth in survival rates. Firms operating in industries which are growing faster, seem to suffer from a higher probability of failure. The combined effect of turbulence and entry and growth variables help explaining this unexpected effect of industry growth on survival probabilities.

Keywords: Survival Analysis, Firm dynamics, Entrepreneurship

JEL Classification Codes: C14, C41, L25, L26