Abstract

This paper proposes a general framework to account for the divergent results in the empirical literature on the relation between firm sizes and growth rates, and on many results on growth autocorrelation. In particular, we provide an explanation for why traces of the LPE sometimes occur in conditional mean (i.e. OLS) autoregressions of firm size or firm growth, and in conditional median (i.e. least absolute deviation) autoregressions, but never in high or low quantile autoregressions. Based on an original empirical analysis of the population of manufacturing firms in the Netherlands between 1994 and 2004, we find that there is no peculiar role played by the median of the growth distribution, which is approximately equal to zero independent of firm size. In economic terms, this is equivalent to saying that most of the phenomena of interest for industrial dynamics can be studied without reference to the behaviour of the median firm, and many 'average' relations retrieved in the literature, starting from the negative relation between average size and average growth, are driven by the few dynamic firms in the sample rather than the many stable ones. Moreover, we observe the tent shape of the empirical firm growth rate distribution and confirm the skewness-size and the variance-size relations. The identified quantile regression patterns - autoregressive coefficients above 1 for fast decliners, and below 1 for fast growers - can be obtained by assuming negative variance-size scaling and Laplace growth rate distributions, and are robust to a mild positive relationship between skewness and size. A relationship between quantile regression patterns and previous findings is therefore uncovered.