

# Acquisition, Innovation and Firm Dynamics

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## Abstract

In this paper, I construct a new dataset on the dynamic ownership of firms by tracking the merger and acquisition (M&A) transactions among public and private acquirers and targets. I then match the dynamic ownership of firms to the firm-level patent data from USPTO to obtain novel data on the dynamic ownership of patents by firms. Using this data, I document the rising importance of acquisitions of private target firms in contributing to the growth of the acquirers. My empirical analyses reveal three channels through which firms grow via acquisition: (i) acquirers develop more innovations based on the patents of their target firms after acquisition; (ii) acquirers produce more patents after making their first acquisition in a technology class – the expansion is larger if the acquirers have low initial patenting activities in that technology class (iii) acquisitions can shield acquirers’ innovation from becoming technologically obsolete. I then examine the implications of these innovation mechanisms on the dynamics of firms at the upper tail of firm size distribution using a range of firm random growth models. I find that acquisitions give rise to higher inequality among top firms (i.e., superstar firms are even bigger) in the stationary firm size distribution. In terms of the transition dynamics, when faced with negative creative destruction shocks, acquisitions by the top firms can lead to a faster rise of inequality in the upper tail of the firm size distribution.

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