

R&D Spillovers and Merger Decisions: Evidence from a Panel of U.S. Firms

Mahdiyeh Entezarkheir* Saeed Moshiri†

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Abstract

The large number of mergers in innovative industries points to a relation between mergers and innovation. Firms' innovative ideas may spillover to other firms disincentivizing innovation activities, and merger may be seen as a way to capture innovation spillover. The merger-innovation nexus has been well studied in the theoretical literature and recently in the empirical papers, but empirical evidence on merger and innovation spillover is rare. In this paper, we construct a panel data set of mergers among publicly traded U.S. manufacturing firms from 1980 to 2003 and investigate the impact of innovation spillovers on firms' merger likelihood controlling for business cycles and proxies of neoclassical, behavioural and Q theories of mergers. Innovation is measured using R&D investments as well as citation-weighted patents and innovation spillover is proxied using the proximity of firms in their technological field. As a source of R&D (outward spillover), a firm can internalize its spillover effects by acquiring the targets that benefit from the spillover. Also, as a receiver of an R&D spillover (inward spillover), a firm may want to merge because of controlling the negative impact of other's innovation on their competitive edge. We find that the firms with innovative activities are on average more likely to merge and that innovation spillover is an important driver of merger decisions. Our results also show that within industry inward R&D spillovers increase the likelihood of mergers but between industry inward R&D spillovers do not influence the merger decisions significantly. Our main results are robust to alternative measures of spillovers and different estimation methods.

Keywords: Merger, Innovation, R&D, Spillovers, Competition, Patent

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*Corresponding Author: Assistant Professor, Department of Economics, Huron at University of Western Ontario, London, Canada. Email: menteza@uwo.ca.

†Associate Professor, Department of Economics, STM College, University of Saskatchewan, Saskatoon, Canada. Email: smoshiri@stmcollege.ca.