Merger Analysis in Multiproduct-Firm Oligopoly with Network Effects*

Susumu Sato†

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Using an aggregative-games approach, I analyze the impacts of firm-level network effects on the merger policy in a multiproduct-firm oligopoly. First, I find that in the presence of network effects, any acquisition of a sufficiently small firm is CS-increasing without technological synergies. Next, I find that a merger between two firms in a symmetric oligopoly is CS-increasing without technological synergies if and only if the strength of the network effects is above certain threshold, which decreases with the number of firms. Finally, I examine how network effects influence the technological synergies required for mergers between two firms to be CS-increasing and find that (1) the required synergies for mergers between minor firms decrease with the strength of network effects, (2) the synergies required for acquisitions of minor firm by major firms decrease with the strength of network effects as long as their joint market shares are not too large, and (3) the synergies required for mergers between two major firms that leads to an extreme concentration increase with the strength of network effects. These results give some theoretical guidance to merger policy in the era of digital economy.

Keywords: Aggregative games; network effects; merger policy

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[†]Graduate School of Economics, The University of Tokyo, 7-3-1, Hongo, Bunkyo-ku, Tokyo 113-0033, Japan. E-mail: susumusato@live.jp