Product Differentiation, Oligopoly, and Resource Allocation

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Abstract

Industry concentration and profit rates have increased significantly in the United States over the past two decades. There is growing concern that oligopolies are coming to dominate the American economy. I investigate the welfare implications of the consolidation in U.S. industries, introducing a general equilibrium model with oligopolistic competition, differentiated products, and hedonic demand. I take the model to the data for every year between 1997 and 2017, using a data set of bilateral measures of product similarity that covers all publicly traded firms in the United States. The model yields a new metric of concentration—based on network centrality—that varies by firm. This measure strongly predicts markups, even after narrow industry controls are applied. I estimate that oligopolistic behavior causes a deadweight loss of about 13% of the surplus produced by publicly traded corporations. This loss has increased by over one-third since 1997, as has the share of surplus that accrues to producers. I also show that these trends can be accounted for by the secular decline of IPOs and the dramatic rise in the number of takeovers of venture-capital-backed startups. My findings provide empirical support for the hypothesis that increased consolidation in U.S. industries, particularly in innovative sectors, has resulted in sizable welfare losses to the consumer.

JEL Codes: D2, D4, D6, E2, L1, O4

Keywords: Competition, Concentration, Entrepreneurship, IPO, Market Power, Mergers, Misallocation, Monopoly, Networks, Oligopoly, Startups, Text Analysis, Venture Capital, Welfare

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