Vertical and Horizontal Integration in the U.S. Cable Industry

Ayako Suzuki

In recent years, the cable industry has experienced considerable vertical and horizontal integration. This has raised serious antitrust concerns related to the size of programming discounts offered to large multiple-system operators (MSOs) and the extent of price and carriage discrimination conducted by vertically integrated programming networks. This dissertation investigates these issues.

The first essay empirically examines the effect of vertical integration on downstream market outcomes. Theory shows that vertical integration can promote efficient trade by mitigating contractual problems between firms. It can also facilitate the strategic practice of market foreclosure, by which an integrated firm denies a rival access to downstream markets for the purpose of gaining market power. The first effect results in lower prices, better product quality, and higher consumer welfare, while the second effect raises the prices of both intermediate and final goods and thereby harms consumer welfare. This essay empirically estimates the relative size of these two effects towards understanding the welfare implications of vertical integration in the cable industry.

I focus on a single important vertical merger - Turner Broadcasting and Time Warner - and compare outcomes before and after the merger. This is opposed to previous studies that compare merged and non-merged cable systems at a point in time; here I examine the same systems before and after the merger. Differentiating outcomes across these two time periods eliminate a selection bias problem in terms of unobservables when they are time constant. Since participation in a merger is nonrandom, I adopt a non-experimental matching strategy to estimate the average treatment effect of the merger. Specifically, the recently developed bias-adjusted matching method is employed. I modify the method by incorporating the feature of difference-in-differences.

The analysis shows there is an efficiency gain from the merger of Turner Broadcasting and Time Warner. The merged systems carried affiliated networks more frequently than the non-merged systems. Such efficiency gains, however, were not passed to consumers; there is no evidence that price is lower nor of increased subscriptions. There is also evidence of foreclosure. For example, the increase in the market share of the Disney Channel, which is a direct rival to Turner’s Cartoon Network, was about 10 percent lower in the merged markets than in the non-merged markets. Foreclosure appears to be conducted to protect the merged firms’ own networks - that previously did not have large market share - from rival networks that had similar characteristics in terms of contents and market share. Furthermore, foreclosure is focused on networks that are not vertically integrated with other downstream firms.

The second essay estimates the marginal cost of carrying a cable network by using the theory of bundling. With a model of a multi-product monopolist, the strategy is to infer the level of marginal cost required to produce the number of networks in observed bundles and also the observed price for cable services. Once the marginal cost in each market is obtained, programming discounts in each market can be calculated using data for the average program license fee. I expect to see that markets owned by large MSOs have systematically larger programming discounts. From such a result, we can assess the significance of horizontal market power in the downstream market. Such a finding would be of use in evaluating the welfare effects of proposed mergers.