

# **A study on Economic Effects of Market Foreclosure under Competition Law**

## **Abstract**

**Key Words :** market foreclosure, exclusive dealing, tying, resale price maintenance, vertical integration, territorial restriction, standard essential patents, two-sided market.

This project systematically discusses recent developments in economic theory of market foreclosure, derives insights about competition policy, and compares competition policy and cases in Chinese Taipei, U.S.A, and European Union. The project also discusses related issues in standard essential patents and two-sided markets.

The second chapter of the project discusses theoretical developments of market foreclosure based on game theory. On exclusive dealing, economic theory demonstrates that a monopolist can use liquidated damages in an exclusive dealing contract to extract surplus from a potential entrant. These damages are actually paid by the entrant to seduce the buyer, hence reduce the entrant's payoff and discourage entry. Partial exclusion occurs when the entrant's cost is uncertain *ex ante*.

When there are several buyers, and scale economy prevents the potential entrant from entering without a sufficient number of free buyers, the monopolist can exploit coordination failure among buyers to successfully sign the exclusive dealing contracts and exclude the potential entrant. With a clever design of bargaining protocol, *i.e.*, by making public, sequential, and discriminatory offers, the monopolist can secure exclusivity at (almost) no cost.

The competitive effect of exclusive dealing at the wholesale market, where buyers are competing retailers, has not yet been fully understood. It depends on both factors of the retail market, such as whether a retailer needs to pay a fixed operation cost to remain active, and wholesale market, such as whether there are multiple potential entrants. If a retailer does not need to incur a fixed operation cost, then fierce retail competition implies that a retailer obtains nil profit for not signing exclusive dealing and serving the entrant. The monopolist can use exclusive dealing to foreclose the potential entrant. By contrast, if a retailer needs to incur a fixed cost to remain active and compete in the retail market, or if there are several potential entrants at the wholesale market, then the monopolist is less

likely to use exclusive dealing to deter entry.

On tying, when two products are independent, and when a potential entrant can only enter into one (the peripheral) market, tying or bundling can deter entry by helping the monopolist commit to a more aggressive stance should the entrant enter into the peripheral market. This commitment can extend to the innovation market and discourage the potential entrant from engaging in innovation, which is necessary for product market entry.

When the two products are perfect complements, and the potential entrant can only enter into one market, a monopolist can use tying to exclude the entrant in order to reap future benefits of upgrades. And when the potential entrant can enter into both markets, the dynamic leverage theory indicates that the monopolist has incentives to use tying or bundling to protect the primary market. Tying reduces the potential entrant's profit when it has not fully developed the whole product line, which may severely undermine the incentive of entry when the entrant needs to engage in innovation, or when there is scale or scope economy of entering.

On vertical foreclosure, the commitment problem of the monopolist vis-à-vis retailers prevents the monopolist from obtaining the monopoly profit. To alleviate the commitment problem and restore the monopoly profit, the monopolist can engage in vertical integration, (industry-wide) resale price maintenance, or exclusive dealing.

A dominant firm may also engage in backward integration by purchasing more capacity, thus raise the price of capacity and increase the cost of other competitors. The competitive effect of this strategy of "raising the rival's costs," however, depends on the degree of downstream competition. If there is considerable concentration at the downstream market, then in order to push up the market price competing firms will refrain from fully using their capacity to reduce output. In this case, "raising the rival's cost" will force competitors to buy less capacity, thus better utilize existing capacity and improve production efficiency.

An upstream monopolist can also use resale price maintenance or other vertical restrictions to share monopoly profit with downstream firms. In order to protect the share of monopoly profit they obtain, down-streams firms have incentives to foreclose upstream potential entrant, whose entry intensifies competition and reduces total industry profit.

The third chapter summarizes and compares competition policy regarding market foreclosure among the United States, European Union, and Chinese Taipei. It also discusses important recent cases in this area. Overall, the general trend heads toward the "rule of reason" approach in the United States, while the European Commission has

adopted a “safe harbor” approach by instituting the “block exemption,” in order to provide some legal certainty to the business community. Competition policy in Chinese Taipei in this area is also broadly consistent with the global trend.

The fourth chapter describes the summary statistics of foreclosure cases, including resale price maintenance, abuse of dominant position, territorial restriction, and other practices, in Chinese Taipei, from January 2012 to August 2017. Within this period, resale price maintenance accounts for 71% of total cases, and contains quite a few cases originated from complaints by online retailers. Excluding outliers, on average, there seems no difference in the average fine across different types of vertical restraints.

The fifth chapter discusses issues related to standard essential patents and two-sided market, respectively. For standard essential patents, it is important to acknowledge and preserve the policy objective of the patent system, namely, to encourage innovation, and consider a number of case-specific factors, such as whether it is a de facto or de jure standard, the business model of the right-holder, and licensing terms.

For two-sided markets, the defining feature of “cross-group externalities” has a number of important implications. High profit margin on one side may not indicate market power; and pricing below costs may not be predatory. Competition may not push the platform toward a more efficient price structure; and the platform is concerned with the trading volume and may assume the role of the competition policy authority. These features may render conventional competition policy insights or analytical tools inadequate.

The sixth chapter of the project summarizes the finding and put forward policy recommendations.