Empirical Analysis of Vertical Contracting in Intermediate Goods Markets

Most firms sell intermediate, rather than final, products: their customers are downstream firms, rather than final consumers. It is important to understand contracts between vertically-related firms. They impact on the efficiency of the supply chain, the distribution of rents along the chain, and the effectiveness of competition at any stage in the chain.

Economic theory recognises that intermediate product markets are different from final product markets (for a survey, see Smith (2016)). Differences include the large size of some of the buyers, the fact that the buyers often compete with each other in the final product market, and the fact that the downstream buyer may engage in bargaining, rather than price-taking, resulting in prices that are individual to the buyer.

Competition authorities are often asked to rule on intermediate goods markets. For example, the motivating factor behind the famous Robinson-Patman Amendments (to the US Clayton Act), which prohibit price discrimination in intermediate goods markets, was to ensure that small downstream firms did not suffer relative to larger downstream rivals. Similarly, in the EU, arguments concerning buyer power (the ability of large buyers to secure lower prices), have featured in many competition cases.

Despite its importance for competition policy, and the development of much theoretical work, there has been very little empirical analysis of pricing between vertically related firms. This lack of empirical analysis is because vertical relationships are typically private: out of bounds to the academic community, if not to antitrust authorities.

Howard Smith, and co-investigator Walter Beckert, have been awarded an Economic and Social Research Council project grant (in the period 2015-2018) with two main objectives. First, to develop the tools and techniques of empirical Industrial Organization for the analysis of pricing in intermediate goods markets. Second, to build up the (hitherto scant) evidence base on such markets. The project uses a detailed dataset of intermediate pricing relationships in a specific UK manufacturing industry. The data was released by agreement with the relevant firms, under confidentiality restrictions.

In Beckert, Smith and Takahashi (2017a) we develop a framework for empirical analysis of buyer-seller relations when prices are individual to the buyer, a typical feature of intermediate goods pricing. This requires development of the existing tools of demand analysis in empirical IO, which have largely been concerned with final goods markets and price-taking consumers.

In Beckert, Smith and Takahashi (2017b), and Beckert and Smith (2017), we apply the new framework to a number of counterfactual questions which competition authorities are often asked to consider. These include the effect of banning intermediate price discrimination on the intensity of competition, the impact of vertical integration, and the impact on final prices of horizontal mergers for firms selling intermediate goods.

Research papers (all still under development):


Other outputs (survey article):


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