Grant Application

The Impact of Trademarks on Competition: Evidence from Product-Level Data[1]

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Trademarks have been considered as perhaps the most uncontroversial form of intellectual property in the economics literature as "there are strong economic advantages in allowing market participants to voluntarily identify themselves" (Boldrin and Levine, 2008: 8). The literature on the economics of trademarks, however, is scant. Landes and Posner (1987) is the only comprehensive theoretical treatment of trademark law from an economics perspective. The literature on the economics of the trademark system has since focused on the primary roles of trademarks (Economides, 1998): to lower search costs, facilitate consumer choice for products with unobservable characteristics, and provide incentives for firms to invest and maintain a certain quality of their products in markets with adverse selection.

Despite the favorable view of the trademark system in economics and the important role that trademarks play in the marketplace in practice, there is no direct empirical evidence on the effect of trademarks on product-market outcomes. However, analyzing the effect of trademark protection empirically is important because it is theoretically possible that trademarks can be (ab)used to unduly limit competition. There is, in fact, a large literature on the anti-competitive effects of brand recognition that supports this view (Bain 1956; Demsetz 1982; Schmalensee 1982, 1983). The marketing literature also offers plenty of evidence that well-known brands often dominate markets (for a review Bronnenberg and Dube, 2017).

Landes and Posner (1987) alluded to this possibility by pointing to a distinction between inherently distinctive and non-distinctive trademarks. The former category consists of trademarks that are either made-up words that do not exist in any language or existing words that have no obvious relation to the product that they protect. These trademarks do not convey any direct information on the protected products other than through their association with the brand owner. The category of non-distinctive trademarks consists of marks that imply characteristics of the goods that they are used to name or outright describe them. It is the inherently non-distinctive type of trademarks that has the potential to be used anti-competitively. The reason is that trademark infringement occurs when consumers are likely to perceive a product sold by one party to be that by the owner of the trademark. Hence, infringement is contingent on the likely confusion of consumers, no actual confusion is required. In the case of descriptive and suggestive marks, consumer confusion may be a lot easier to claim since the trademark consists of words, symbols etc. that are directly associated with the characteristics of the protected product. This may allow owners of non-distinctive marks to occupy more (name) space in the product market and make it harder for other companies to market their products.

[1] This project will be carried out jointly with Christian Helmers (Assistant Professor of Economics, Santa Clara University)

The goal of this project is to empirically test this hypothesis by analyzing whether the competition that products face varies as a function of the distinctiveness of the trademarks that protect them. The analysis will be carried out at the product-level by combining barcode scanner data with trademark data. Our data sources for scanner data will be the Nielsen Consumer Panel Data and the Retail Scanner Data. The Consumer Panel Data contains product-level information scanned in from 40-60,000 households across 52 cities in the United States over the 2004-2015 period. The Retail Scanner Data provides price and quantity data for around 45,000 retail stores in the U.S. Both databases report the information on consumer products at the bar-code level (Universal Product Codes or UPC). The Nielsen data provide information on when consumers purchased a given product, which allows us to determine entry and exit of products as done in prior work by Broda and Weinstein (2010) and Jaravel (2017).

Using the combination of product, brand, and manufacturer names, the Nielsen scanner data can be matched to the USPTO trademark data. The trademark data is publicly available and documented extensively in Graham et al., 2013. Matching the trademark data to the Nielsen scanner data will be a major research effort that we hope can be useful to the research community beyond our project.

To estimate the causal effect of trademarks on product-level demand and mark-ups, we will rely on the random assignment of trademark examiners to incoming trademark applications. A similar examiner instrument has been used in the patent context (Sampat and Williams, 2018), but has come under criticism because patent examiners have been found to specialize in certain technologies (Righi and Simcoe, 2017; and Feng and Jaravel, 2018). As far we understand, this criticism does not apply to the assignment of trademark to examiners, which is truly random. We will conduct a comprehensive analysis of the validity of this trademark examiner instrument. We hope that other researchers will find it useful to pursue other projects on trademarks going forward. Thanks to this source of variation, we can estimate the impact of trademarks on product-level demand, markups and consumer target groups, as well as their impact on competitors ("business-stealing" effects). Although markups are not directly observed, we can infer them by using data on prices and quantities using standard demand models (e.g., Hottman et al. 2016).

Budget. This project would tremendously benefit from a grant ($20,000) to hire a research assistant. The research assistant would help with the data work, in particular with the match of the trademark data to the Nielsen data. As we are at the beginning of our careers, we currently do not have alternative sources of funding that would be sufficient to hire a research assistant (our institutions offer more substantial research funds only later on, for instance after tenure). Therefore, obtaining funding form the NBER would be extremely helpful; in particular, we would be able to implement this project much faster if we had funding to hire a research assistant to help with the matching work.