Parallel Trade of Pharmaceuticals: The Danish Market for Statins*

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Abstract

Parallel trade refers to the practice where products are legally marketed in one country but distributed in another country without authorization of the property rights holder. Politicians and regulatory agencies alike typically propose parallel trade to promote (price) competition. In an attempt to reduce high prices for pharmaceutical products, the European Union has allowed parallel imports within its area. The goal of this project is to investigate and quantify the impact of parallel trade in markets for pharmaceuticals. The paper develops a structural model of demand and supply using data on prices, sales and characteristics of medicines used in the treatment for high cholesterol in Denmark. The model provides a framework to simulate outcomes under a complete ban of parallel imports, keeping other regulatory schemes unchanged. There are two sets of key results from prohibiting parallel imports. The first set focuses on price effects, which differ substantially along two dimensions: the patent protection status of the molecule and the type of the firm. On average, prices increase more in markets where the molecule has lost patent protection. On the other dimension, both generic firms and original producers increase their pharmacy purchase prices when competition from parallel importers is removed. Given the prevailing reimbursement rules, most changes in pharmacy purchase prices are absorbed by the government. The final price paid by consumers after reimbursement increases more for original firms than for generic producers. The second set of empirical results reports the effects on market participants. My model takes into consideration consumers' preferences allowing them to substitute between products. Prohibiting parallel imports induces consumers to substitute towards original products for which they have stronger preferences. In sum, banning parallel imports leads to (i) an increase in variable profits for original producers and a decrease for generic firms, (ii) an increase in governmental health care expenditures, and (iii) to a decrease in consumers' welfare.

Keywords: pharmaceutical markets, parallel trade, regulation, welfare analysis.
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