FIRM INNOVATION UNDER IMPORT COMPETITION FROM LOW-WAGE COUNTRIES

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ABSTRACT

In recent years, manufacturing firms in the United States have faced increasing import competition from low-wage countries, especially China. Does this competition hurt or help firm innovation? This paper studies the effect of the surge in imports from China on innovation by US manufacturing firms. We first propose a theoretical framework that generates an inverted-U-shaped curve of innovation on imitation, which is based on the endogenous price elasticity of demand for the product in a Cournot model. We then take the theoretical prediction to data on publicly listed firms in the Compustat data set from 1990 to 2010. We find consistent evidence that Chinese import competition had an inverted-U effect on firm innovation, as measured by patent counts and citation-weighted patents. Our result suggests that when import penetration is less than 60% it positively affects firm innovation, but when it is more than 60%, this positive effect is inverted. This inverted-U relation persists when we instrument import competition in the United States by using Chinese import penetration in the United Kingdom and when we test the robustness of the results by including sector-specific trends. We find that the inverted-U relationship is steeper for firms in high-tech industries.