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Albert G.Z. Hu, Zhang Peng, Zhao Lijing

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China As Number One? Evidence from China’s most recent patenting surge *

Albert G.Z. Hu†
Department of Economics,
National University of Singapore

Zhang Peng and Zhao Lijing
National Bureau of Statistics of China

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Abstract

China overtook the U.S. in 2011 to become the country filing the largest number of patent applications. Has China’s patenting ascendency been propelled by Chinese firms’ increasing technological sophistication or their much greater propensity to seek patents? Using a unique and never before used data set, where the State Intellectual Property Office (SIPO) patent records have been matched to their applicant firms by SIPO, we differentiate the two potential explanations by estimating a patent production function and by relating a firm’s patents in force to its labor productivity. Our main findings are: 1) while the patenting surge has been an across-the-board phenomenon, most of the growth has come from the extensive margin of growth - firms that were not actively applying for patents in the past; 2) the correlation between patents and R&D and that between patents and labor productivity have become weaker, particularly for utility models and for the extensive margin of growth. These results suggest that non-innovation related motives for acquiring patents may have played an important role in the patenting surge.

Keywords: Patents, technology innovation, intellectual property rights, economic development, China

JEL classification codes: O31, O34, O38

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†Corresponding author: Department of Economics, National University of Singapore, 1 Arts Link, Singapore 117578; albertghu@gmail.com
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