Notching R&D Investment with
Corporate Income Tax Cuts in China[*]

Zhao Chen
Fudan University

Zhikuo Liu
Shanghai University of
Finance and Economics

Juan Carlos Suárez Serrato
Duke University
& NBER

Daniel Yi Xu
Duke University
& NBER

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Abstract

We analyze the effects of a large fiscal incentive for R&D investment in China that awards a lower *average* corporate income tax rate to qualifying firms. The sharp incentives of the program generate notches, or jumps, in firm values, and vary over time and across firm characteristics. We exploit a novel link between survey and administrative tax data of Chinese firms to estimate investment responses, the potential for evasion, as well as effects on productivity and tax payments. We find large responses of reported R&D using a cross-sectional "bunching" estimators that is new in the R&D literature. We also find evidence that firms relabel administrative expenses as R&D to qualify for the program, and that up to 45% of the response may be due to relabeling. These effects imply user-cost-elasticities of 2 for the reported response, and 1.14 for the real response. Using the panel structure of the data, we estimate that the program increased firm productivity by 2.3% for targeted firms. Compared to the loss in tax revenue, it cost the government 4.8% of corporate tax revenue to raise productivity by 1%. These estimates are crucial ingredients for designing policies that trade-off corporate tax revenue with productivity growth.
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