Land-Use Regulation and Economic Development: Evidence from the Farmland Red Line Policy in China∗

Yue Yu†

Columbia University

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Abstract

Land use is tightly regulated worldwide, yet there is limited empirical evidence on the consequences of land-use regulation on economic development. This paper studies a major policy restricting land use in China - the Farmland Red Line Policy - to provide causal evidence on the impact of urban land-use regulation on local development measured by GDP and population growth. The policy imposes a barrier on rural-to-urban land conversion, the strength of which depends on exogenous local geographical features. I show that a greater barrier significantly reduces urban land supply, lowers GDP, and decreases local population. To understand the aggregate impact of the policy, I develop a quantitative spatial equilibrium model that features endogenous land-use decisions. Through the lens of the model, the policy causes an excess supply of farmland and an under-supply of urban land and the extent of such land misallocation varies across locations due to the local geographical features. In the constrained equilibrium, the spatial and sectoral mobility of workers indicates that land misallocation leads to labor misallocation. I estimate that the welfare of workers would have been 6% higher in 2010 if the policy had not been implemented. Overall, this paper highlights that land-use regulations can distort economic activities across sectors and locations at a substantial cost of aggregate welfare in developing countries.

JEL: O1, O5, Q1, R1, R5

Keywords: Land-use regulation, economic development, urbanization, China

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†Department of Economics, 420 W. 118th St., New York, NY 10027. Email: yy2558@columbia.edu.