

The Local Multiplier Effects of Trade: A Quantitative Analysis of China*

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Abstract

This paper studies how export shocks propagate through local economies in China and what determines the heterogeneity of local multipliers. Using an instrumental-variable strategy exploiting variation in trade partner tariffs, we estimate an export-GDP multiplier of 0.92 for a panel of Chinese cities from 1999 to 2014; a one-million-yuan export increase generates approximately 5.8 additional local jobs. Cross-city heterogeneity in these estimates is large and is not explained by direct export exposure. To interpret this variation, we develop a multi-sector quantitative spatial model with inter-regional input-output linkages, a non-tradable service sector, and endogenous labor mobility. Calibrated to China's 2017 Multi-Regional Input-Output table, the model yields provincial export-GDP multipliers ranging from 0.30 to 1.02 in counterfactual simulations. Multiplier heterogeneity is driven primarily by the intra-regional manufacturing trade share (home share). Provinces with high home shares experience strong amplification as income shocks circulate within the local production network. Outward-oriented provinces exhibit attenuated multipliers because expenditure leakage dissipates the initial shock.

Keywords: Local Multipliers; Quantitative Spatial Models; Input–Output Linkages; Spatial Incidence; China.

JEL Classification: F12, R12, R13, L60

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