# Anti-Granular Comparative Advantage *


Jianwei Ai† — Renmin University

Haoran Li‡ — Renmin University

Gary Lyn§ — Iowa State University

Anton Yang¶ — Yale University

Wendong Zhang‖ — Cornell University



**Abstract**

There is growing evidence that a small set of large firms play a crucial role in international trade, shaping the origin countries' comparative advantage, specialization and export patterns. Unlike this "granular comparative advantage" pattern found in previous studies, we find instead an anti-granular comparative advantage pattern holds generally for firms operating in a global manufacturing powerhouse, China. Breaking down by firm ownership-type reveals that this anti-granular comparative advantage pattern is largely driven by state-owned firms and Chinese-owned private firms. In contrast, we find that a strong granular comparative advantage pattern holds for foreign-owned firms. Building on this insight, we develop a multi-sector trade model with heterogeneous firm ownership type and employ a SSM-based estimation procedure to quantify the role of granular comparative advantage embodied in leading large foreign-owned firms in shaping fundamental comparative advantage across sectors. Finally, we quantify the welfare implications of increased privatization on the Chinese economy.



**Keywords**: granularity, comparative advantage, trade

**JEL Classification**: F11, F12, F16



*We thank Costas Arkolakis, Kerem Cosar, Désiré Kédgani, Sam Kortum, Fernando Parro and Steve Yeaple for valuable discussions. All errors are our own.



†59 Zhongguancun Street, Haidian District Beijing, 100872, China. Email: aijianwei@ruc.edu.cn

‡59 Zhongguancun Street, Haidian District Beijing, 100872, China. Email: haoranl@ruc.edu.cn

§477 Heady Hall, 518 Farm House Lane, Ames, IA 50011-1054. Email: glyn@iastate.edu

¶A307, 28 Hillhouse Ave., New Haven, CT 06511. Email: anton.yang@yale.edu

‖478C Heady Hall, 518 Farm House Lane, Ames, IA 50011-1054. Email: wdzhang@iastate.edu