Two-Way Complementarity: Measurements and Welfare Implications*

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Abstract

Firms' export and import participation are positively correlated, a pattern known as two-way complementarity. In this paper, we refine its concept, develop empirical measures, identify its micro-foundations, and explore associated welfare implications. In a general equilibrium trade model with heterogeneous firms, we show that two-way complementarity emerges endogenously from the way trade costs align firms' joint import and export decisions. We then derive an ACR-style gains-from-trade formula that incorporates this channel. Two-way complementarity amplifies aggregate trade elasticities, leading to smaller inferred welfare gains from a given decline in domestic trade shares after a trade reform. Using Chinese micro data, we document empirical support for the model predictions and find that failing to account for the complementarity overstates China's gains from WTO accession by around 40%.

Keywords: Two-way complementarity, welfare gains from trade, global firms, trade elasticities, input trade, trade liberalization effects.
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