Robots Steal Jobs from Heckscher-Ohlin: Automation and Comparative Advantage*

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Abstract

I study how automation affects comparative advantage. In the past centuries, the initial stages of economic development featured comparative advantage in low-skill-intensive sectors due to low-skill-labor abundance, as predicted by the Heckscher-Ohlin Theorem. I show, however, that this relationship has weakened—or even reversed—in the 21st century. This decoupling/reversal occurs because automation provides developed countries with endogenous comparative advantage in low-skill-intensive sectors. My counterfactual analysis shows that recent developing countries would have specialized in low-skill intensive sectors and enjoyed more gains from trade, as East Asian countries did, without automation in developed countries.

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