

Production Sharing, Demand Spillovers and CO2 Emissions: The Case of Chinese Regions in GVCs

Topic: Tracing Carbon Emissions in Global Value Chains I

Author: Jiansuo PEI

Co-Authors: Jinjun XUE

This study adopts the perspective of demand spillovers to provide new insights regarding Chinese domestic-regions' production position in global value chains and their associated CO2 emissions. To this end, we constructed a new type of World Input-Output Database in which China's domestic interregional input-output table for 2007 is endogenously embedded. Then, the pattern of China's regional demand spillovers across both domestic regions and countries are revealed by employing this new database. These results were further connected to endowments theory, which help to make sense of the empirical results. It is found that China's regions locate relatively upstream in GVCs, and had CO2 emissions in net exports, which were entirely predicted by the environmental extended HOV model. Our study points to micro policy instruments to combat climate change, for example, the tax reform for energy inputs that helps to change the production pattern thus has impact on trade pattern and so forth.