

Tracing CO2 Emissions Transfer in China's Domestic Value Chains

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This paper aims to investigate the creation and distribution pattern of CO2 emissions in China's domestic-interregional value chains. We borrow the idea presented in the recent innovative works by Meng, Peters and Wang (2014) and MRIO model to measure how regional CO2 emissions are transferred and outsourced across China's domestic regions by various value chain routes from both upstream and downstream perspectives. The main findings of this study based on the downstream oriented decomposition of value chains: 1) For all regions, the CO2 emissions generated by inner-regional final goods and services account for the majority of the total emissions. and the share of CO2 emissions generated by the production of intermediate outflow absorbed by the direct 'import' region contribute the largest share of CO2 emissions for extra-regional final demands. 2) The Electricity, supply, metal products, and Non-metallic mineral products and the chemical products accounts for the majority of CO2 emissions as intermediate inputs. The main findings based on the upstream oriented decomposition of value chains: 1) in most regions, CO2 emissions generated in inner-regional segment is the main contributor for total induced CO2 emissions. 2) The majority of induced CO2 emissions in producing inter-regional exports come from the inner-regional side for all regions except the North municipalities. 3) The environmental cost of value-added outflows for island regions are relatively higher than coastal regions, and the cost is decreasing.