The narrowing gap in carbon emission intensities and its effect on global carbon emissions

Topic: How the rising of emerging economies can reshape the world? I (Chair: Jing Meng, University College London)
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International trade affects CO2 emissions by redistributing the production activities to places, where the emission intensities are different from the place of consumption. This study focuses on the net emission change, as the result of the gap in emission intensities between the exporter and importer. Here we show that the relocation of production activities from the global North to the South in the early 2000s led to an increase in global emissions due to the higher emission intensities in China and India. The net emissions related to is about one-third of the total emissions embodied in South-North trade. The narrowing emission intensities between South-North and the changing trade pattern result in declining net emissions. The comparable emission intensities in global South alleviate the concerns that the increasing South-South trade would lead to increased carbon leakage and carbon emissions. The mitigation opportunity to green the supply chain lies in the sector such as electricity, mineral products and chemical products, by approaches such as Carbon Border Adjustment Mechanism, but calls for a universal assessment of emission intensities.