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How will energy-saving technology change the impacts of carbon border adjustments on China: an estimation based on a dynamic recursive computable general equilibrium model.

(Chinese. English summary) [Zbl 1249.91092](#)

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Summary: A recursive dynamic general equilibrium model is built to study the impacts of US' motivated carbon border adjustments on China's economy and environment under different scenarios of energy-saving technology improvement. 37 production sectors and 7 accounts are contained in the model. Based on the data of the year 2007, 13 policy scenarios with border tax rate from 20 dollars per ton carbon emissions to 80 dollars per ton carbon emissions are simulated from the year 2020 up to 2030 to estimate the impacts on China's carbon emissions and economic development. Three different energy-saving technology scenarios are set to capture changes of these impacts when there is improvement in energy-saving technology.

MSC:

91B64 Macroeconomic theory (monetary models, models of taxation)

91B50 General equilibrium theory

Keywords:

carbon border motivated adjustments; technology improvement; general equilibrium model; carbon emissions; economic development