

International transfers of green technology and carbon mitigation outcome

Haitao Cheng

Hitotsubashi Institute for Advanced Study, Hitotsubashi University

Abstract

We study the international transfers of green technology and carbon mitigation outcome under the Paris Agreement. We find that when emission permits are exogenously given, the transfers always improve global welfare. We also investigate how countries decide on their emission permits non-cooperatively and cooperatively with and without the transfers. In the non-cooperative game, the transfers always decrease global emissions. However, in the cooperative game, the implementation of transfers does not affect global emissions. Furthermore, in the absence of transfers, the cooperative levels of global emissions are lower than the non-cooperative ones. Nevertheless, when transfers are introduced, the cooperative choices of global emissions can be lower or higher than the non-cooperative counterparts.

Keywords: Green technology transfer; Internationally transferred mitigation outcomes; Permit markets; International coordination; Paris Agreement

JEL classification: F12; F18; H23; Q54