Border carbon adjustment: Implications for trade and national emissions

Xin Zhou, Ph.D.
Leader of Green Economy Area
Institute for Global Environmental Strategies (IGES)
Introduction

- ASEAN Economic Community (AEC) planned to be established in 2015;
- Regional Comprehensive Economic Partnership (RCEP) launched in May 2013 among ASEAN+6;
- Achieving SD should be the overarching goal guiding the regional integration process;
- Concerns from developing countries: green protectionism
- Concerns from developed countries: differences in national environmental policies and potential free riding;
- Regional integration: more trade opportunities, equity, social and environmental inclusiveness.
Introduction

- Kyoto Protocol and asymmetric domestic climate policies;
- Carbon pricing policy in developed countries (carbon tax or emissions trading system) and the impacts on domestic production costs and on the terms of trade;
- Two concerns: industrial competitiveness and carbon leakage (production channel, investment channel and energy channel);
- Energy intensive and trade exposed (EITE) sectors: ferrous metals (iron and steel), non metallic mineral products (in particular cement), non-ferrous metals (in particular aluminium), pulp and paper, and chemicals.
Introduction

Border carbon adjustment (BCA): border tax adjustment (import tariffs and export rebate, etc.)

Terms of trade before border adjustment

Terms of trade after border adjustment
Inequality issue

- Current national inventory approach of the Kyoto Protocol requires countries to report “emissions and removals taking place within national territories…” (UNFCCC, 1998).
- Emissions related to exports are reported in the national inventory of the exporting countries.

**UNFCCC National Inventory Reporting**

**Importing country A** (with a climate policy)
- Reporting 10 Kt-CO$_2$
- Pay for the carbon costs
- Receive the right to emit

**Exporting country B** (without a climate policy)
- Reporting 20 Kt-CO$_2$
- Pay for the carbon costs of 20 Kt-CO$_2$ for the exports

**Export**
- 20 Kt-CO$_2$

**Import**
- 10 Kt-CO$_2$
Proposal for exemption

- Country B with a compatible climate policy in place should be exempted from the BCA of Country A

UNFCCC National Inventory Reporting

Importing country A (with a climate policy)
- Reporting 10 Kt-CO$_2$
- Pay for the carbon costs 10 Kt-CO$_2$
- Receive the right to emit

Exporting country B (with a climate policy)
- Reporting 20 Kt-CO$_2$
- Pay for the carbon costs 20 Kt-CO$_2$
- Receive the right to emit

Exports
Proposal for NIAfT

- National inventory adjustment for trade (NIAfT) for Country B without a compatible climate policy but paying the carbon costs at the border (similar to receiving the emissions credits).
Implications for trade and emissions

- GTAPinGAMS, a multi-region computable general equilibrium (CGE) model, to assess the impacts of carbon tax policy in Japan, the introduction of BCA and the NIAfT.

- Carbon tax implemented in Japan can reduce domestic emissions and at the same time trigger the carbon leakage mechanism. However both effects are very small.

- BCA can be an effective measure to address the emissions out of the border and therefore effective to address carbon leakage;

- However when NIAfT is introduced, there is a strong negative carbon leakage, i.e. great increase in domestic emissions and great decrease in other countries out of the border.
Implications for trade and emissions

- WTO compatibility: Ensure GATT Articles I, II and III on national treatment and the most-favoured-nation treatment and GATT Article XX requiring to prove substantial link between the trade measure and the stated climate change policy objectives.
- The inequality hidden behind a BCA by creating an playing field in favour of domestic producers cannot pass the national treatment clause.
- The strong negative carbon leakage can be contradictory to the stated objective of domestic climate policy which to address domestic emissions and be challenged by GATT Article XX.
- Other issues to address: Embodied emissions, hidden flow of resource use, biodiversity loss and eco-tax, etc.
Thank you very much!

Contact: zhou@iges.or.jp