The Effects of Unilateral or Bilateral GHG Policy of USA and EU on Agricultural Trade

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INTRODUCTION

Both EU and USA have policies that target GHG emissions reduction, but the exact instruments differ. Such policies could reduce GHG emissions from agriculture. Policies are unilateral but could become multilateral, at least in theory, with market implications depending on border adjustments.

Objective: to simulate the agricultural commodity market effects of hypothetical EU and USA GHG policies that are unilateral or bilateral and with or without export offsets.

METHODS

This study conducted scenario analysis by using the Aglink-Cosimo* model.

* Aglink-Cosimo is a recursive-dynamic, partial equilibrium model used to estimate the impacts of policies and other events on agricultural commodity markets worldwide (OECD-FAO 2022).

Scenario 1 (*hereafter* S1): Unilateral GHG Policy

The USA and the EU impose from 2025 to 2040 carbon value of \$60 per ton of CO_2 equivalent (TCE) on domestic and imported supply, with the option of an export offset. S1a represents the scenario where no export rebate is granted, while S1b corresponds to the case where this subsidy is applied.

Scenario 2 (*hereafter* S2): Bilateral GHG Policy

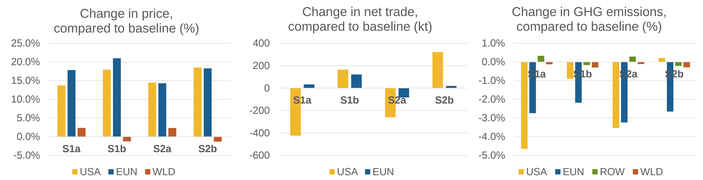
The USA and the EU have a combined GHG policy that places no GHG-related trade barrier with each other yet maintains border policies for imports from other countries. Other conditions are the same as the S1.

Details of GHG Policies by Scenario

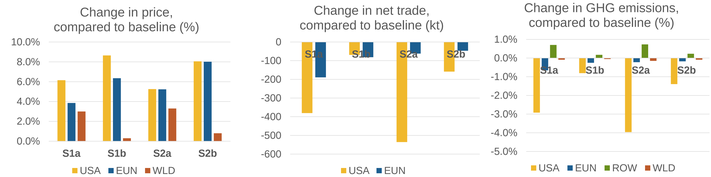
The USA and the EU implement the following policies:	S1a	S1b	S2a	S2b
- Carbon value on domestic production (\$60 per TCE)	O	O	O	O
- Import tariff (\$60 per TCE)	O	O	O	O
- Export subsidy (\$60 per TCE)	X	O	X	O
- Removal of GHG-related trade barrier with each other	X	X	O	O

RESULTS

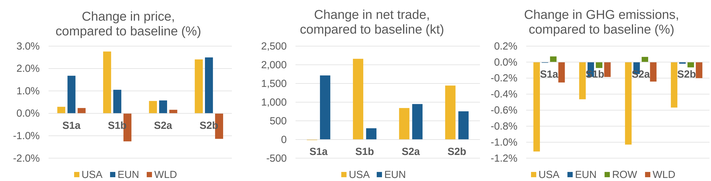
Beef and Veal market



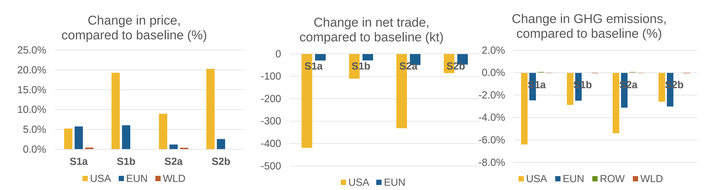
Pork market



Maize market



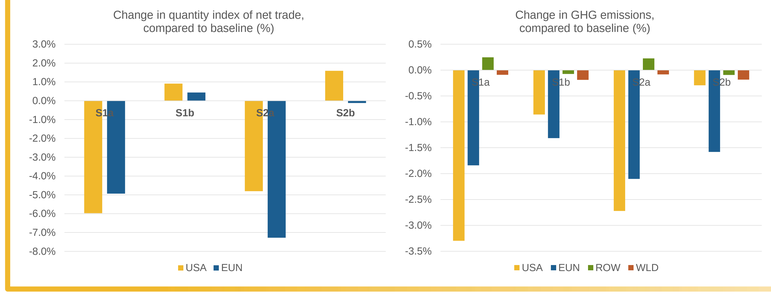
Rice market



* ROW indicates all countries other than the USA and the EU.

END RESULTS

Total Agriculture



CONCLUSION

Unilateral or bilateral GHG policies create price differentials that affect production, use, and trade, depending on how exports are treated. Preliminary findings are as follows.

1) GHG policies' domestic market impacts are fairly similar if unilateral (S1) or bilateral (S2).
2) Moving from unilateral to bilateral policy can cause significant trade diversion.
3) Export subsidy could play a crucial role in restoring exports and mitigating carbon leakage.

Reference

OECD-FAO (2022), The Aglink-Cosimo Model: A Partial Equilibrium Model of World Agricultural Markets, OECD Publishing, Paris.

Acknowledgement

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