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Climate change and inequalities in the economic growth between regions:
the role of trade patterns adjustments and trade regulations in explaining
the developed-developing divide

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AXA Research Fund – Paris, November 22, 2022

The project

Focus: nexus climate change–trade–development

Aim: evaluating how trade and regulations allow regions to adapt to climate change

Research objectives (and *methodological approach*):

1. Understand how climate change affects export capacity of regions (*Climate Ricardian model*)
2. Explore how regions adapt to climate change by reshaping trade patterns (*Gravity model*)
3. Investigate co-benefits and side-effects of trade and climate regulations (*Gravity model*)

State of the art of the project

	Months																							
Task	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	21	22	23	24
T1.1	■	■	■	V ₁																				
T1.2			■	■	S ₁	O ₁																		
T2.1						■	■																	
T2.2							■	D																
T2.3								■	■	S ₂														
T3.1										■	■	S ₃	V ₂											
T3.2											■	■	S ₄	V ₃										
T3.3																■	O ₂							
T4.1																	■	■	■	V ₄				
T4.2																					■	■	S ₅	O ₃

T1.1–T1.2: Literature review on climate change–trade–development (w/Santeramo & Miljkovic, O₁ published)

T2.1–T2.3: Data-wrangling (D completed, S₁ & S₂ internal seminars)

T3.1–T3.2: Impacts of CC on export capacity and trade patterns (w/Santeramo & Bozzola, O₂ submitted; S₃ seminar at U. Milan; V₁ collaboration w/scholars of ETH Zürich & V₂ visiting at EUI)

T3.3: Impact of regulations on trade (w/Santeramo & Emlinger, S₄ SIE Conference, V₃ visiting at CEPII)

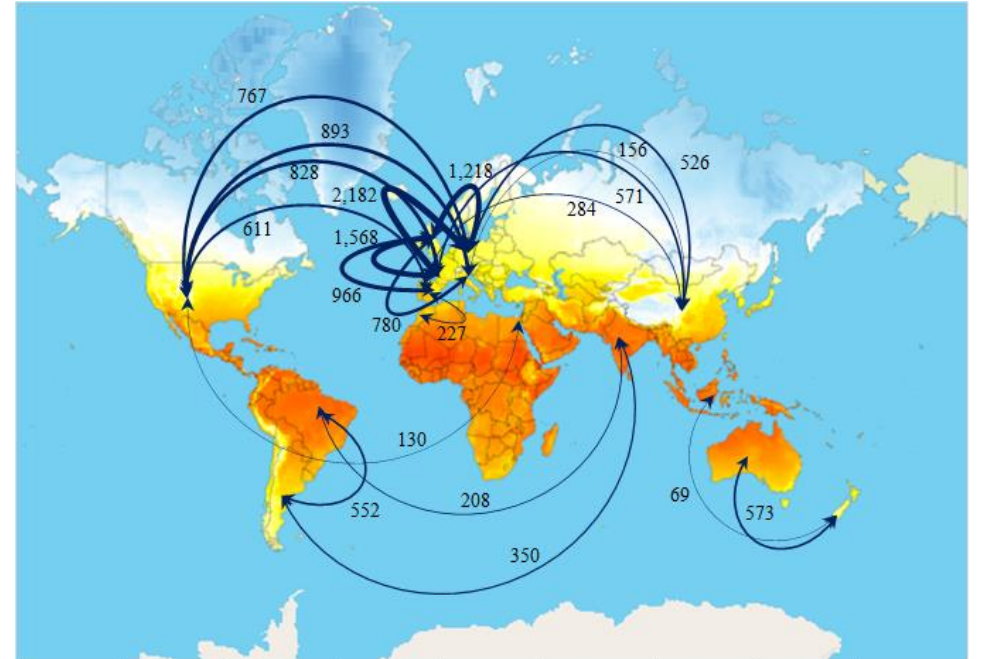
Effects of climate change on export capacity of regions and on trade patterns

Evidence:

- Higher temperatures increase exports
- Larger differences in climate are beneficial for trade
- Developed regions favoured

Collaborations:

- Martina Bozzola - *Queens University Belfast (UK) & ZHAW Zurich (CH)*
- Dragan Miljkovic - *North Dakota State University (US)*
- Fabio G. Santeramo - *European University Institute & University of Foggia (IT)*



Effects of climate change on export capacity of regions and on trade patterns

Outputs:

- Santeramo, F.G., Lamonaca, E., Miljkovic, D. (2021). Agri-food trade and climate change. *Economia agro-alimentare/Food Economy*, 23(1), 1-18.
- Bozzola, M., Lamonaca, E., Santeramo, F.G. (2022). Impacts of climate change on global agri-food trade. *Working Paper. [Under review in World Development]*



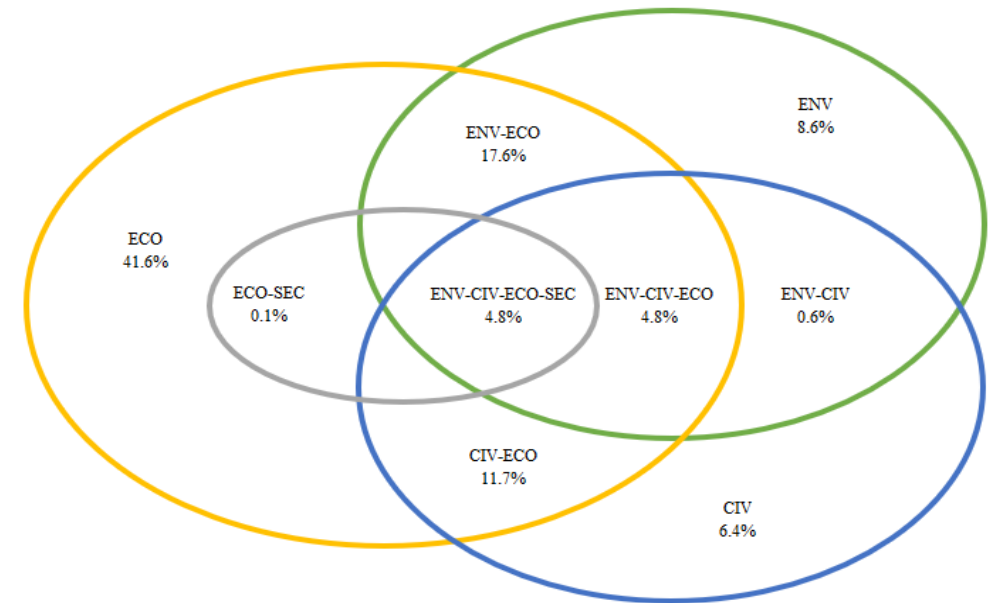
Agri-food trade and climate change
Fabio Gaetano Santeramo^a, Dragan Miljkovic^b, Emilia Lamonaca^{a,a}
^a University of Foggia, Italy
^b North Dakota State University, Usa



Co-benefits and side-effects of trade and climate regulations

Evidence:

- Environmental regulations are pro-trade
- Heterogeneous effects across groups of countries
- Developed regions favoured



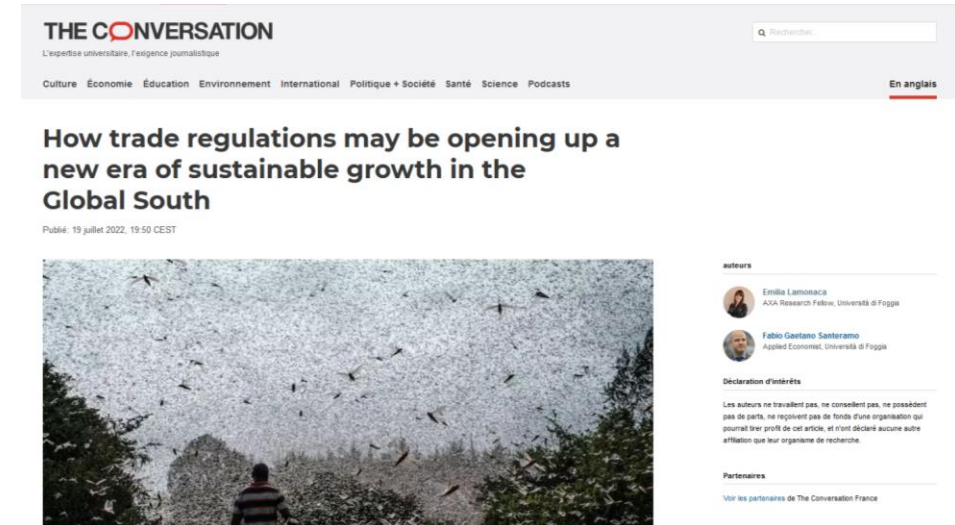
Collaborations:

- Charlotte Emlinger - *CEPII (FR) & Virginia Tech (US)*
- Fabio G. Santeramo - *European University Institute & University of Foggia (IT)*

Co-benefits and side-effects of trade and climate regulations

Outputs:

- Lamonaca, E., Santeramo, F.G. (2022). How trade regulations may be opening up a new era of sustainable growth in the Global South. *The Conversation*.
- Santeramo, F.G., Lamonaca, E., Emlinger, C. (2022). The trade effects of environmentally related technical measures. *Working Paper*. [Forthcoming in WP CEPII]



No 2022-11 – November

Working Paper 
CEPII

Impacts of the project

Research field:

- evidence on the nexus climate change–trade–development
- co-benefits and side-effects of climate-related policies

Society:

- insights to policymakers to promote sustainable development and combat climate change

Myself:

- follow and expand my research interests
- plan and develop a research agenda on a timely and priority topic
- expand my network

Thanks!