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The Effect of Environmental Provisions in Trade Agreements on International Trade

Is there a trade-off between achieving the SDGs and economic development?

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Florence, 28 September 2018

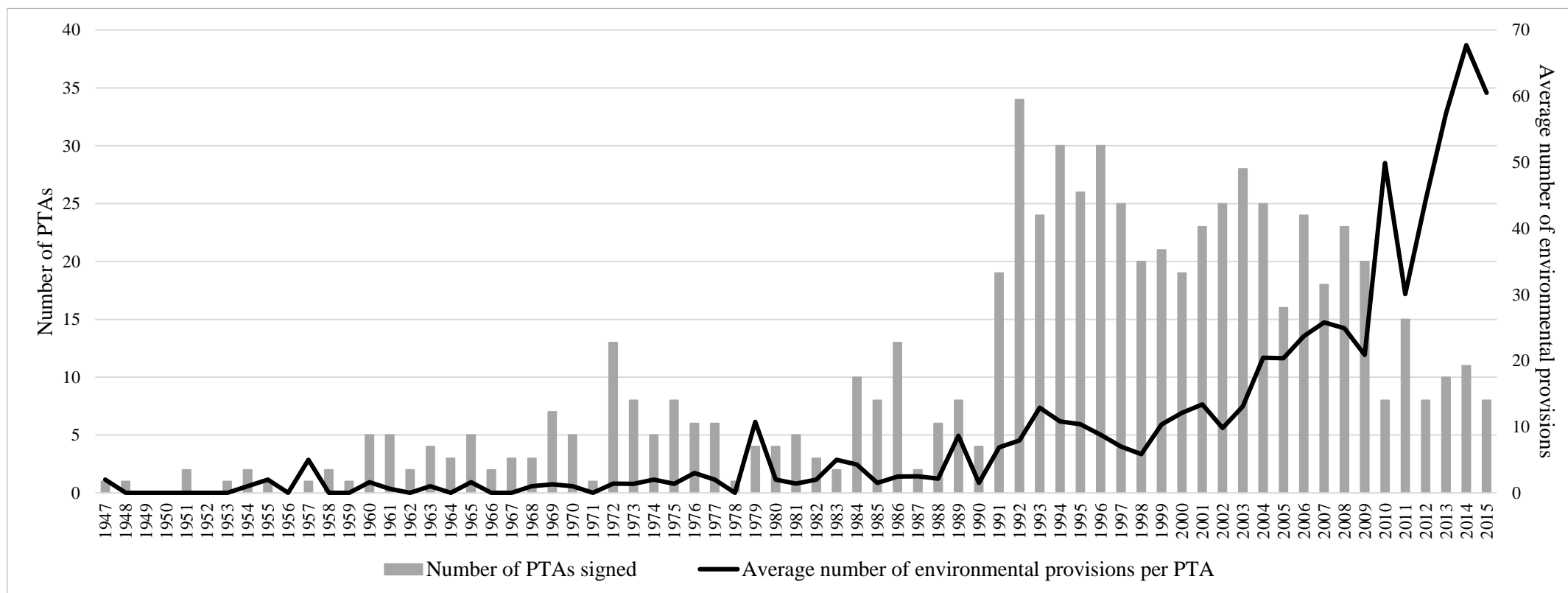


- International trade be an effective means of helping developing countries to achieve a number of the Sustainable Development Goals (SDGs) by promoting lower prices, higher productivity, more competitiveness and consumer choice (e.g. SDG on no hunger (SDG 1), clean energy (SDG 7), industry (SDG 9) and means of implementation (SDG 17)).
- At the same time, increased trade can have harmful environmental effects, thus preventing the achievement of SDGs related to water (SDG 6), climate (SDG 13), oceans (SDG 14) and life on land (SDG 15).
- In view of this alleged trade-off, we need better untangle the interplay between trade and sustainable development.
- To do so, we investigate the impact of the increasing inclusion of environmental provisions in preferential trade agreements (PTAs) on trade flows.
- **Research question: What are the effects of environmental provisions in PTAs on trade flows between the contracting parties?**

Environmental provisions in PTAs



Preferential Trade Agreements (PTAs) include ever more environmental provisions...

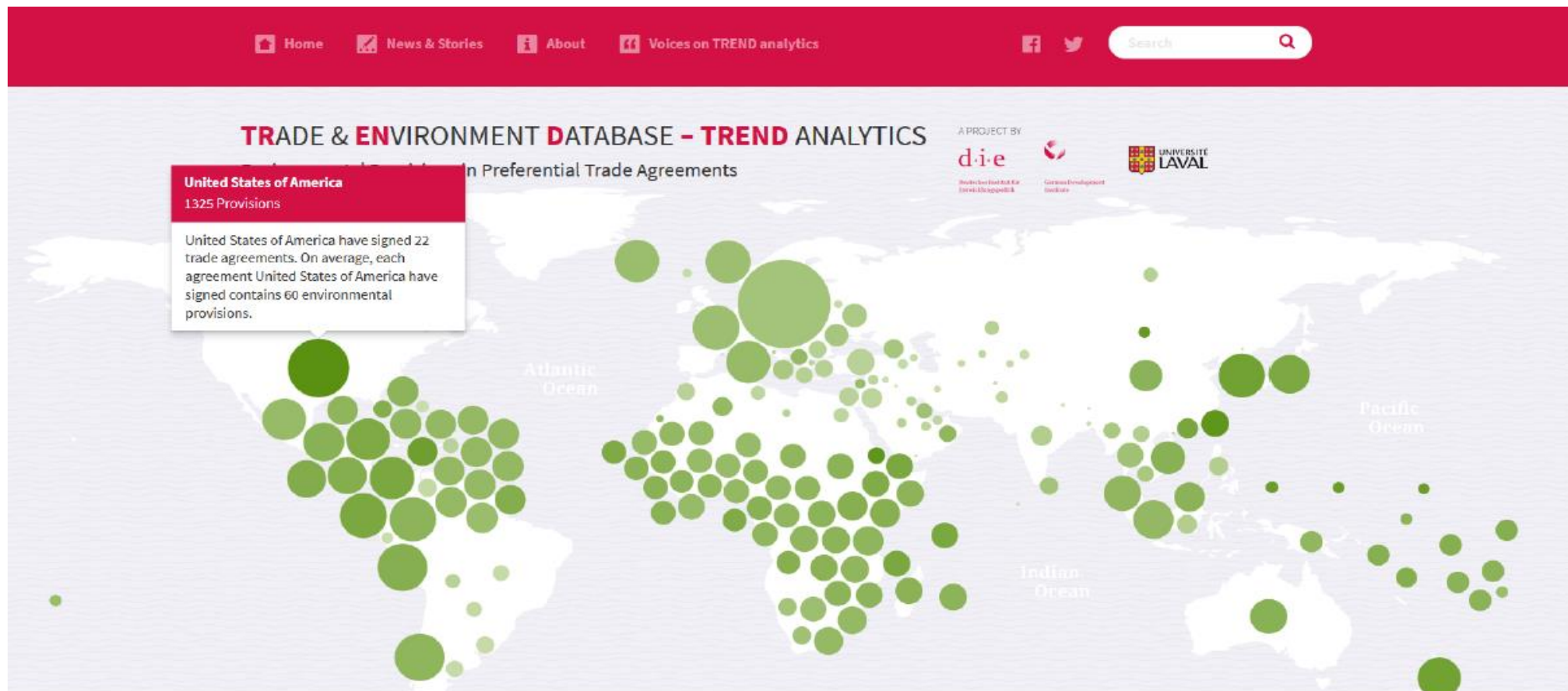


... but their trade effects remain unknown

Environmental provisions in PTAs



In particular, developed countries are driving the inclusion of environmental provisions in PTAs



See: www.TRENDanalytics.info



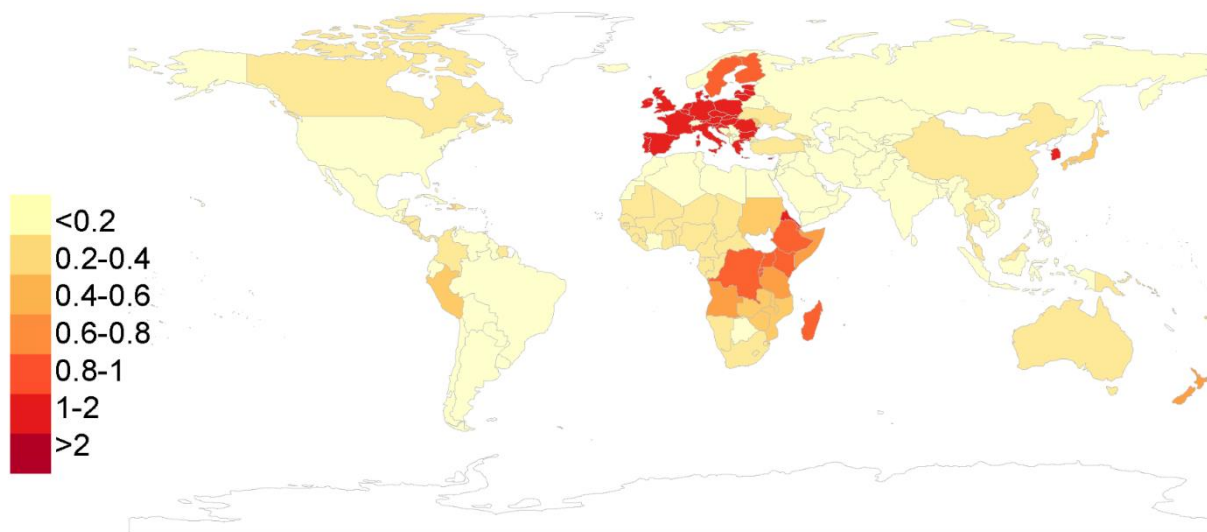
There are more than 300 types of environmental provisions in PTAs

- Reaffirming environmental law principles
- Ensuring a high level of environmental protection
- Favoring transparency and public participation in policymaking
- Safeguarding regulatory space
- Developing environmental cooperation
- Detailing specific environmental commitments
- Ensuring policy coherence
- Promoting development and capacity building
- Reinforcing MEAs
- Dispute resolution

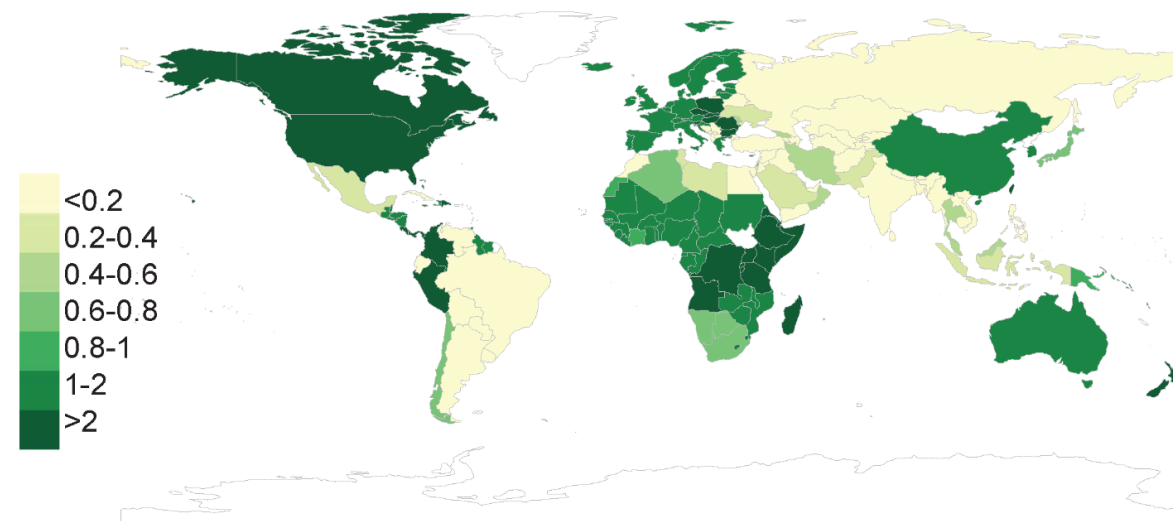
Environmental provisions in PTAs: Examples...



Average number of climate-related provisions



Average number of biodiversity-related provisions

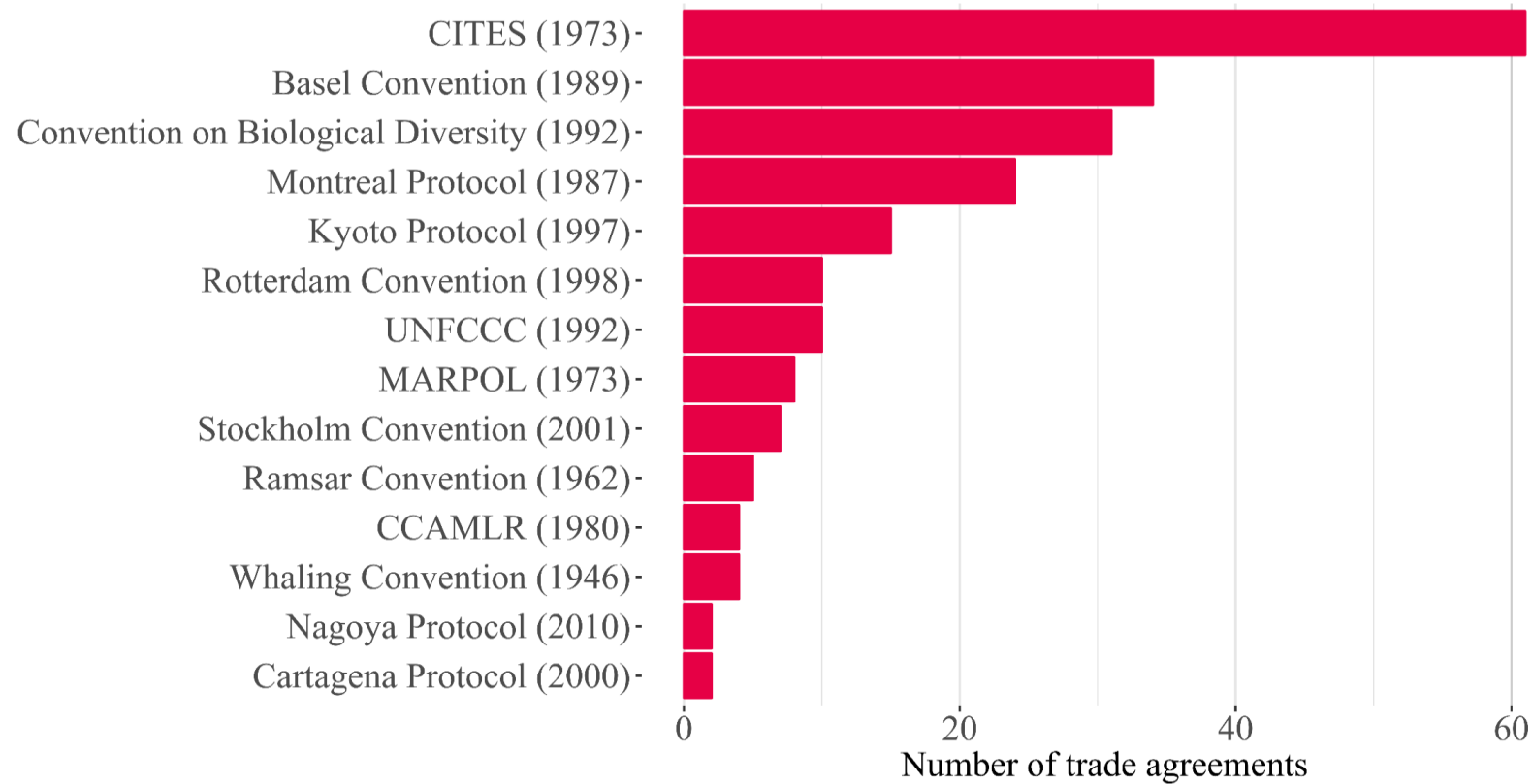


Morin, Jean-Frédéric and Sikina Jinnah (2018) "The Emergence of Climate Change Norms in the International Trade Complex" *Environmental Politics*, 27(3): 541-565.

Environmental provisions in PTAs: Examples...



References to MEAs



Morin, Jean-Frédéric and Corentin Bialais (2018) “Strengthening Multilateral Environmental Governance Through Bilateral Trade Deals”. *CIGI Policy Brief*.

Trade-restrictive vs. liberal environmental provisions



Environmental provisions can be categorised as:

- **Trade-liberalising:** Liberal provisions, for example, demand PTA partner countries to reduce trade barriers for environmental goods and services or increase the transparency of domestic legal systems.
- **Trade-restrictive:** Restrictive provisions, on the other hand, explicitly seek to limit trade flows. They include, for example, environmental exceptions, which allow countries to restrict trade in order to protect human, animal or plant life or health or conserve exhaustible natural resources (e.g. GATT Art. XX); or provisions allowing export restrictions on hazardous waste, which can benefit less competitive waste management firms and reduce the pertinent trade flows.



Economic effects of PTAs:

- PTAs tend to increase trade between their members (Baier and Bergstrand 2007, 2009; Egger et al. 2008, 2011; Freund and Ornelas 2010; Fugazza and Nicita 2013; Magee 2008).
- “Deep” PTAs additionally increase trade between their members (Dür/Baccini/Elsig 2014; Orifice/Rocha 2013)

Implications of non-trade issues, in particular environmental provisions, in PTAs:

- Environment provisions have positive implications for the environment (Baghdadi, Martinez-Zarzoso and Habib Zitouna 2013; Bastiaens and Postnikov 2017) and environmental policy-making (Brandi, Bruhn and Morin 2018).
- While non-trade issues in ever deeper PTAs are more prominent than ever, there is hardly any research on their economic consequences (Lechner 2018 studies US FDI).

Research gap: The trade effects of environmental provisions have not been studied yet. This, however, is key from the perspective of the SDGs.



- One prominent explanation for the inclusion of non-trade issues in PTAs is protectionism (Bhagwati and Hudec 1996, Krugman 1997, Bechtel et al. 2012).
- A number of studies provide evidence for the link between protectionist interests and environmental provisions in PTAs (Runge 1990; Subramanian 1992; Bhagwati 1995; Ederington and Minier 2003; Lechner 2016).

H1: The higher the number of environmental provisions included in PTAs the stronger the negative effect on trade flows between the partner countries will be.



- We need to account for the fact that environmental provisions in PTAs are diverse and can thus have different effects on trade.
- We expect the effect of the inclusion of environmental provisions to vary across different types of provisions.
- While we expect restrictive environmental provisions to reduce trade, we expect the inclusion of liberal ones to increase trade flows.

H2a: The higher the number of explicitly restrictive environmental provisions included in PTAs the stronger the negative effect on trade flows between the partner countries will be.

H2b: The higher the number of liberal environmental provisions included in PTAs the stronger the positive effect on trade flows between the partner countries will be.



- Developing countries often worry that environmental provisions in PTAs are abused by high-income countries for purposes of 'green protectionism'. According to a survey in OECD countries, a main objective of 'green' PTAs is to prevent the relaxation of environmental standards which may result in a race to the bottom as a side effect of competition for trade and investment (George 2014).
- We therefore expect environmental provisions to particularly impede developing countries' market access in developed countries as the competitive advantage of developing country exporters often depends, inter alia, on lower levels of environmental laws and regulations.

H3: Environmental provisions have stronger negative effects on the exports from developing countries to high-income countries compared to exports from high-income countries to developing countries.

H4: Trade-restrictive environmental provisions impede market access specifically for exports to developed countries.



- In light of the higher level of trade restrictions in developing than in high-income countries (Looi Kee et al. 2009), we expect liberal environmental provisions to have stronger positive effects in the former rather than in the latter.

H5: Liberal environmental provisions have stronger positive effects on the imports to developing countries than to high-income countries.



- Dependent variable: Bilateral goods **trade volumes in logs**, from UN COMTRADE (Feenstra, 2017)
- Explanatory variables: Binary variable on **environmental provisions in PTA**, based on Trade and Environment Database (TREND) (Morin et al. 2018)
Number of (overall, liberal, and restrictive) provisions per PTA, max per country pair
- Estimation strategy: **Panel** with ≈ 150 countries and >30 years (1984-2016)
Control for: PTA in place, Depth of PTAs (max per country pair), country-pair fixed effects for selection into characteristic PTAs, exporter- and importer-year fixed effects for multilateral resistance

$$TRADEVOLUME_{eit} = \beta * NORMS_{eit} + \gamma * PTA_{eit} + \delta * DEPTH_{eit} + \alpha_{ei} + \alpha_{et} + \alpha_{it} + \varepsilon_{eit} \quad (1)$$



- In line with previous research, we find that a PTA increases trade flows.
- In contrast with H1, we find that **environmental provisions in general** included in PTAs between countries **increase trade**.

	TRADEVOLUME
NORMS	0.006*** -0.001
PTA	0.102*** -0.02
DEPTH	-0.071*** -0.017
Country-Pair FE	Yes
Exporter- and Importer-Year FE	Yes
Observations	773783
R ²	0.869



- In line with H2, we find that **liberal environmental provisions** included in PTAs between countries **increase trade**.
- **Restrictive environmental provisions** have a **negative effect** on trade flows, although this effect is less pronounced.

	TRADEVOLUME
NORMS	0.003*** -0.001
PTA	0.131*** -0.022
DEPTH	-0.060*** -0.018
LIBERAL	0.074*** -0.018
RESTRICTIVE	-0.010** -0.004
Country-Pair FE	Yes
Exporter- and Importer-Year FE	Yes
Observations	773783
R ²	0.869



- **We do not find support for H3:** Developing country exports to other developing countries (column 2) and to developed countries (3) benefit from the inclusion of environmental provisions.
- Developed country exports benefit only when they are exports towards developing countries (4) but not if they are exports to other developed countries (1).

	(1) North-North	(2) South-South	(3) South-North	(4) North-South
NORMS	0.002 -0.001	0.009*** -0.001	0.005*** -0.002	0.010*** -0.002
PTA	0.128*** -0.045	0.046 -0.036	0.138*** -0.053	0.100** -0.051
DEPTH	-0.084** -0.042	-0.016 -0.027	-0.023 -0.043	-0.278*** -0.044
Country-Pair FE	Yes	Yes	Yes	Yes
Exporter- and Importer-Year FE	Yes	Yes	Yes	Yes
Observations	95710	234819	165563	167251
R ²	0.927	0.806	0.865	0.88

Results



- We find support for H4 and H5:
- **Restrictive norms** impede market access **in developed economies** but not in developing countries (1)
- **Liberal norms** have particularly positive effects on imports to **developing countries** (2)

	(1)	(2)
	TRADEVOLUME	TRADEVOLUME
NORMS	0.004*** -0.001	0.003*** -0.001
PTA	0.144*** -0.022	0.138*** -0.022
DEPTH	-0.052*** -0.018	-0.053*** -0.018
LIBERAL	0.063*** -0.018	0.097*** -0.018
RESTRICTIVE	0.004 -0.004	-0.015*** -0.004
RESTRICTIVE*High Income Importer	-0.044*** -0.005	
LIBERAL*High Income Importer		-0.055*** -0.017
Country-Pair FE	YES	YES
Exporter- and Importer-Year FE	YES	YES
Observations	714718	714718
R ²	0.867	0.867



- To the best of our knowledge, the effects of environmental provisions in trade agreements on trade flows have not been assessed so far.
- Our main finding is that the inclusion of environmental provisions increases trade flows. From that perspective, there is hence no general trade-off between achieving the SDGs and economic development.
- Interestingly, we do not find empirical support for the fear that environmental provisions in PTAs lead to ‘green protectionism’ against developing countries relying on low levels of environmental laws and regulations as a basis of their competitive advantage. On the contrary, developing country exporters benefit from the inclusion of environmental provisions.
- At the same time, if we differentiate environmental provisions, we find that their liberal or restrictive nature affects their impact on trade. Trade negotiators mindful of achieving the SDGs should therefore pay attention to the specific design of environmental chapters in PTAs.



Thank you!



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