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SYNTHESIS

# Facilitating linkage of climate policies through the Paris outcome

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## Abstract

The Durban Platform for Enhanced Action negotiations are likely to lead to a Paris outcome that embodies a hybrid climate policy architecture, combining top-down elements, such as for monitoring, reporting, and verification, with bottom-up elements, including 'Intended Nationally Determined Contributions' from participating countries, detailing plans to reduce emissions, based on national circumstances. For such a system to be cost-effective – and thus more likely to embody greater ambition – a key feature will be linkages among regional, national, and sub-national climate policies. By linkage, we mean formal recognition by a mitigation programme in one jurisdiction of emission reductions undertaken in another jurisdiction for the purposes of complying with the first jurisdiction's requirements. The Paris outcome could play at least four different roles with respect to linkage of heterogeneous policy instruments. First, it

could discourage linkage, either by not allowing countries to count international transfers toward their mitigation contributions, or by limiting the number or types of transferred units that can be counted for compliance purposes. Second, it could be silent on the topic of linkage, creating legal and regulatory uncertainty about whether international transfers are allowed. Third, it could expressly authorize linkage but not provide any further details about how linkage should occur, leaving it to future United Nations Framework Convention on Climate Change negotiating sessions to work out the details or to national governments to develop bilateral or multilateral linkage arrangements. Finally, the Paris outcome could establish institutional arrangements and rules that facilitate and promote linkage. We examine how a future international policy architecture could help facilitate the growth and operation of a robust system of international linkages. Several design elements merit serious consideration for inclusion in the Paris outcome, either in the core agreement or by establishing a process for subsequent international elaboration. At the same time, including detailed linkage rules in the core agreement is not desirable because this could make it difficult for rules to evolve in light of experience.

## Policy relevance

These findings have implications for the efficient and effective design of an international climate policy architecture by detailing the role that linkage can play in supporting heterogeneous climate policies at the regional, national, and sub-national levels.

## Keywords:

climate policy architecture

international climate policy

linkage

market mechanisms

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No potential conflict of interest was reported by the authors.

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## Notes

1. Linkage is defined and examined in considerable detail in Jaffe, Ranson, and Stavins ([2009](#)), Metcalf and Weisbach ([2012](#)), and Ranson and Stavins ([2013](#), [2015](#)). We refer the reader to those articles for details on linkage design. Here, we briefly highlight some of the significant benefits and costs of linkage, again referring the reader to the articles above for a more extensive discussion of the issues.
2. Linkage in the context of cap-and-trade systems generally involves allowance and financial transfers among private parties facilitated by the linkage rules. This might occur in more heterogeneous linked systems as discussed in Metcalf and Weisbach ([2012](#)), but also might entail systems in which jurisdictions trade emission reduction obligations and alter their tax or regulatory rules to reflect the adjusted INDCs.
3. Although this is an economic merit of linkage, for political reasons price equalization may not be a near-term goal (Ranson & Stavins, [2015](#)), as we discuss later.
4. The flip side of regulatory stability is policy inflexibility; altering rules in linked systems requires coordination among all formally linked systems.
5. In a closely related game-theoretic analysis, Holtsmark and Sommervoll ([2012](#)) examine the incentives that nations face when they set their national emissions reduction targets under a bottom-up pledge-and-review system. They find that if countries anticipate that international emissions trading will be implemented, they have incentives to establish less ambitious reduction targets than if trading were not anticipated.

6. Within-jurisdiction distributional issues also abound, as discussed by Somanathan ([2010](#)) and Ranson and Stavins ([2015](#)).
7. In most cases, however, systems were delinked before linkage came into effect. New Jersey's exit from the Regional Greenhouse Gas Initiative (RGGI) was a notable exception.
8. Article 6.1 of the Kyoto Protocol states that 'The acquisition of emission reduction units [through trading] shall be supplemental to domestic actions for the purposes of meeting commitments under Article 3.' Likewise, Article 17 states that 'Any such trading shall be supplemental to domestic actions for the purpose of meeting quantified emission limitation and reduction commitments under that article.' Article 12.3.b states that 'Parties included in Annex I may use the certified emission reductions accruing from such project activities [under the Clean Development Mechanism] to contribute to compliance with part of their quantified emission limitation and reduction commitments under Article 3 ...' (UNFCCC, [1998](#)).
9. Variations on these two approaches could build on the flexibility mechanisms described in Bodansky and Diringier ([2014](#)). These include offering alternatives under which different states may operate to comply with overarching rules, offering default and opt-out clauses, offering opt-in procedures, providing contextual standards to provide flexibility where needed, and using guidelines that serve to set expectations (but not requirements) for behaviour and mechanism design.
10. In regard to market coverage, even a (homogeneous) set of national cap-and-trade systems will differ in many design elements, but not all of these elements will require coordination or harmonization. For example, systems may differ in their scope - i.e. in the sectors of their respective economies that are included under an emissions cap - but this difference need not create a barrier to linkage and trading.
11. This could be particularly important to avoid double counting in overlapping jurisdictions.
12. Prag et al. ([2013](#)) argue that mandating a standard type of international compliance unit type may not improve accountability and could add complexity as domestic mitigation schemes evolve over time.
13. Although allowing linkages with non-parties would enhance cost-effectiveness, it would diminish the incentive of non-parties to join the core agreement.

14. The Convention on Contracts for the International Sale of Goods (CISG) and the OECD Model Tax Convention (OECDMTC) illustrate the role of default rules in lowering transaction costs. The CISG provides a set of substantive rules that parties can use to prepare contracts; these have become a lingua franca of international commerce (Kröll et al., [2011](#)) and are enforceable in domestic courts. The OECDMTC serves as a basis for over 225 bilateral tax treaties (Miller & Oats, [2014](#)). Although the OECDMTC is not binding on any nation, the terms of the convention are so commonly adopted as part of bilateral treaties that they represent, in effect, default rules for bilateral linkages between tax systems.

15. In the US context, the Clean Air Task Force has proposed that the US Environmental Protection Agency issue a model rule for interstate emissions trading, under its proposed power plant rule under section 111(d) of the Clean Air Act (Clean Air Task Force, [2014](#)).

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