

# Linking Trading Systems

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# Definitions

**Unilateral link** – One scheme accepts allowances / credits of other scheme for compliance. Other scheme sets **price cap**. May not need cooperation of other scheme. Also called an **open scheme**.

**Bilateral link** – Each scheme accepts allowances / credits of the other scheme for compliance. **Prices converge**. Needs agreement of both schemes.

Linking to a scheme creates an **indirect link** to every scheme with which it is linked

# Advantages of Linking

Unilateral link creates a price cap. If price cap is binding, same as a bilateral link.

Bilateral link improves cost-effectiveness of meeting the combined cap and improves market liquidity

Risk of bilateral link is that differences in design may lead to higher aggregate emissions if schemes are linked; schemes need to be “compatible”

# How to Implement a Link

If registries are not linked electronically, administrator establishes an account in the other scheme's registry to receive units. Issues equivalent allowances in its own registry to entity that provides the units. Administrator retires units received. Entity uses or sells allowances received.

If registries are linked electronically, entities can hold other scheme's units in their accounts and transfer them to the administrator for compliance. Units are retired by the administrator.

# Linking Experience

EU ETS, Norway ETS, Chicago Climate Exchange (CCX) and Japanese voluntary ETS all have a unilateral link with the CDM, usually with type and quantity restrictions. CERs have not been used in any of those schemes

CCX and Norway had unilateral links with the EU ETS. Both used the link for one transaction. Norway is now part of EU ETS. CCX terminated its link with Phase I EU allowances when their price fell below the price of CCX allowances

# Kyoto Protocol Implications

An Annex B country will want transferred units to be Kyoto units, so:

- Links with schemes outside Annex B countries are unlikely
- Unilateral links with Annex B schemes require the cooperation of the host government to transfer Kyoto units

NZ could establish unilateral link with EU where EUAs are retired, hurts NZ and helps EU with Kyoto compliance. NZ needs to get AAUs, which requires EU cooperation

# Proposed Links

Switzerland, New Zealand, Canada, Australia plan unilateral links with the CDM, and sometimes other Kyoto units, with type and/or quantity limits

Proposed US schemes include links with approved schemes of equivalent stringency constrained by a price trigger or quantity limit

Explicit interest in bilateral links is limited to the EU, New Zealand and Australia



# Linking Prospects

More schemes are being implemented. Almost all express interest in unilateral links with CDM. Some interested in bilateral links

Bilateral links are complicated because they need to be compatible and to maintain compatibility over time. Needs an agreement between governments in different countries

No bilateral links before post-2012 agreement has entered into force. Pressure to adjust caps so that CDM is used in each scheme

# Possible Aviation Schemes

Emissions from international aviation could be covered by:

- A new scheme covering international aviation emissions; or
- National schemes, such as the EU ETS, that each cover specified international aviation emissions

First approach could be universal or exempt some airlines, routes, countries

Second approach probably not universal and could double count some emissions

# Linking - National Schemes

If international aviation emissions are in national schemes:

- aviation sector is fully (bilateral) linked to all sectors in the scheme
- allowance prices could differ across schemes if they are not linked
- aviation emissions covered by each scheme would face the allowance price for the relevant scheme
- fragmented administration, compliance for many airlines
- rules governing the aviation emissions could affect a scheme's compatibility for bilateral links

# Linking – Aviation Scheme

Bilateral link of aviation scheme with other schemes requires compatibility of provisions:

- allowance lifetime
- non-compliance penalty
- “safety valve” price
- banking
- borrowing
- absolute and relative caps
- CO<sub>2</sub> emissions only or non-CO<sub>2</sub> effects as well

Compatibility needs to be maintained as long as schemes are linked

# Linking – Aviation Scheme

A unilateral link (open system) is easy to implement, but requires decisions on:

- the units to accept
  - Kyoto units (CERs, ERUs, AAUs, RMUs, etc)
  - Other units (CCX, NSW, RGGI, etc)
  - Own offset system
- whether to impose type or quantity restrictions
- rules for terminating eligibility of units
- whether, how to prevent unilateral links to the aviation scheme

Price will be equal to other schemes linked to the same units. Will be affected by developments in other schemes that impact the price of these units.

# Summary

Unilateral links are easy to implement. Most schemes will be unilaterally linked with the CDM. If CDM is the marginal supply, prices will converge.

Different options and linking possibilities for covering international aviation emissions.

An international aviation scheme with unilateral links, an open system, requires several decisions related to those links