EVOLUTION OF THE NZ ETS: LINKING

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Catherine Leining, Judd Ormsby and Suzi Kerr

Motu Economic and Public Policy Research,
catherine.leining@motu.org.nz, judd.ormsby@gmail.com, suzi.kerr@motu.org.nz

Cooperation
lowers mitigation costs,
but linking is hard.

This is one of a series of research papers by Motu analysing the key design features of the New Zealand Emissions Trading Scheme (NZ ETS). It focuses on the history of the linkages between the NZ ETS and the international carbon market. From 2008 to mid-2015, the NZ ETS relied on the international Kyoto market to serve as the predominant source of units and set the domestic emission price without any government-imposed constraint on domestic emissions. This has proven to be one of the most uniquely defining and contentious aspects of the NZ ETS – and one that was forced to change after the government chose not to proceed with a second Kyoto commitment period over 2013–20. Since mid-2015, the NZ ETS has operated as a domestic-only system. New Zealand's past experience with linking offers important lessons that should be heeded carefully as the system's future is charted in the evolving context of the 2015 Paris Agreement.

ABOUT LINKING

An ETS becomes 'linked' when emission units originating in one or more external systems can be used for compliance. Linking can occur directly between two systems through mutual recognition of units (with units flowing in one or both directions), or indirectly when two systems recognise units from a third system (Figure 1). In this paper, the definition of linking applies to unit transfers between systems for ETS operation, and not to unit transfers across system registries for other reasons.

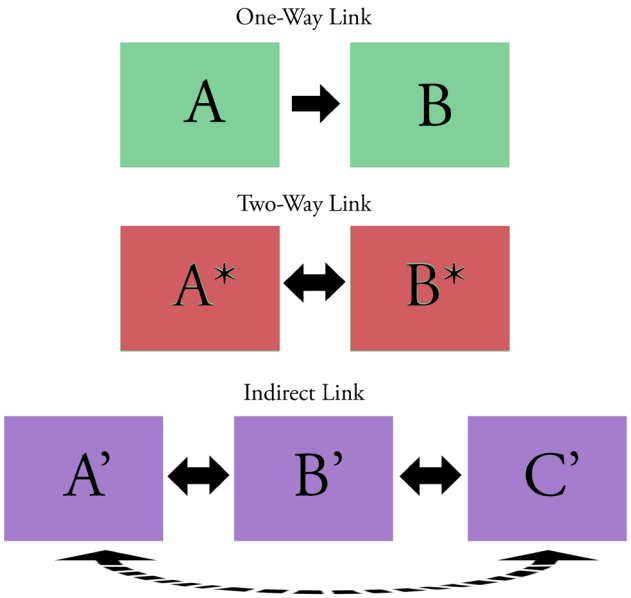
When designed and managed effectively, ETS linkages can:

- support least-cost mitigation across combined systems,
- reduce price volatility,
- increase market liquidity and depth,
- prevent market manipulation,
- reduce emissions leakage, and
- increase administrative efficiency.

However, linking ETS can also introduce many challenges which pose risks across linked systems, such as:

- managing the distribution of winners and losers,
- reconciling different levels of mitigation ambition,
- harmonising key design features affecting unit supply, price and integrity,
- increasing exposure to risk, and
- managing policy risk and sovereignty.

Figure 1: Different types of linking



It is important to distinguish between linking ETS participants to external markets, and conducting government-to-government transfers of emission reductions (e.g. to help with meeting international targets). This paper focuses on the former.

LINKING THE NZ ETS TO KYOTO MARKETS

The NZ ETS was fundamentally conceived as an internationally linked system in order to:

- align domestic prices with international prices to support globally economically efficient mitigation,
- ensure liquidity and guard against manipulation in a small domestic market, and
- enhance international cooperation on climate change mitigation.

From commencement in 2008, the NZ ETS allowed participants to surrender imported Kyoto units (Emission Reduction Units, Certified Emission Reductions, and Removal Units) to meet their obligations without a quantitative limit. Because of concerns about the environmental integrity of Assigned Amount Units (AAUs) from countries with "hot air" targets and the desire to retain future bilateral linking opportunities, imported AAUs were prohibited subject to change by future regulations (which never occurred). Initially, participants could also convert New Zealand Units (NZUs) to New Zealand Assigned Amount Units (NZ AAUs) for sale overseas. The government issued NZUs for free allocation and removals but did not implement auctioning. As a result of these design features, it was left it to the market to decide how much of New Zealand's mitigation investment would be directed domestically.

To protect against upside price risks during a time of recession, in 2009 the government added a price ceiling of NZ$25 per tonne of CO_2eq, halved the unit obligation for non-forestry sectors, and removed the quantity limit on industrial free allocation. The government continued to rely on the international market to set the domestic price but moderated participants' exposure to that price. As a consequential change, NZU exports were restricted to those from the forestry sector.

In 2011, an independent panel conducting a statutory review of the NZ ETS recommended, among other things, phasing out the "one-for-two" unit obligation by 2015, raising the price cap by $5 per year starting in 2013 and reviewing the price cap in 2017, enabling non-forestry sectors to export NZUs once the price ceiling was removed (or if the arbitrage risk was low), and urgently considering whether to restrict CERs from hydrofluorocarbon (HFC) destruction projects. Only the final of these recommendations was adopted by the government. In 2012, the government amended the system to explicitly enable auctioning under a cap (an option which has not been implemented as of 2017). The government also removed the longstanding requirement to back each NZU with a Kyoto unit held in a Crown account. Despite pressure from opposing parties and many submitters, the government declined to set a quantity limit on imported Kyoto units or to remove the price moderation measures. Imported Kyoto units remained eligible for compliance through May 2015, at which point the NZ ETS de-linked from the Kyoto market. In May 2016, the government announced that the "one-for-two" unit obligation would transition to a full obligation by 1 January 2019.

EXPLORATION OF BILATERAL LINKAGES FOR THE NZ ETS

Starting from the earliest stages of design, enabling bilateral linkages between the NZ ETS and other systems was identified as a desirable long-term outcome for both New Zealand's international positioning as a supporter of multilateral cooperation on mitigation and for efficient operation of the NZ ETS. Key decisions were made at each stage of legislation to preserve future linking options and encourage harmonisation of design features where desirable.

During the initial development and operation of the NZ ETS, the most obvious candidates for bilateral linking were the EU ETS and a national system in Australia. However, those governments did not share New Zealand's commitment to least-cost compliance and ultimately proved unwilling to accept New Zealand's settings for design features. Although the European Union and Australia achieved a linking agreement of their own, it proved fruitless when the change of government in Australia led to repeal of its Carbon Pricing Mechanism. This experience highlights that achieving the conditions required for successful ETS linking can be fraught with technical, economic, and political challenges.

PRACTICAL OUTCOMES FROM LINKING THE NZ ETS

With limited NZU export opportunities starting in 2009, New Zealand's domestic market initially priced NZUs at about NZ$20. This was below prevailing prices for secondary-market CERs, which were influenced by demand in the higher-priced EU ETS market. From 2009 through mid-2011, NZ ETS compliance trading focused primarily on domestic units. However, as international Kyoto unit prices declined from mid-2011 under global oversupply exacerbated by the global financial crisis, NZU prices declined alongside. After it became apparent in late 2012 that delinking was likely due to the government's decision not to proceed with a second Kyoto commitment period, NZUs began to command a significant price premium and NZ ETS participants took advantage of the arbitrage opportunities, banking NZUs and buying and surrendering lower-value Kyoto units in their place. Government accounts bore the difference in prices between NZUs issued by the government and Kyoto units surrendered by participants.

By the time of de-linking in mid-2015, the government had accumulated a large surplus of imported Kyoto units and NZ ETS participants had accumulated a large bank of NZUs (nearly five times the annual surrender volume). The government intends to apply some of its Kyoto surplus toward its 2013–20 target, although that target sits outside the Kyoto Protocol. However, the long-term value of the remaining Kyoto surplus is unclear under the Paris Agreement as of early 2017.

To the extent that banked NZUs are not backed by government-held units which can be used for compliance with New Zealand's international obligations, the banked NZUs represent an emission liability to the government and a cost to taxpayers under New Zealand's future targets. Ironically, New Zealand ultimately did not require any imported Kyoto units to meet its target for the first commitment period.

LOOKING TO THE FUTURE

The Paris Agreement has placed the challenges of international emissions trading (now under the framework of internationally transferred mitigation outcomes) in a new context: achieving global decarbonisation in a system where all countries are making mitigation contributions. If New Zealand aspires to link to overseas mitigation in the future, whether through the NZ ETS or through government-to-government agreements, it will require careful management of the risks to ensure positive outcomes for New Zealand's domestic decarbonisation and contribution to global mitigation.

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