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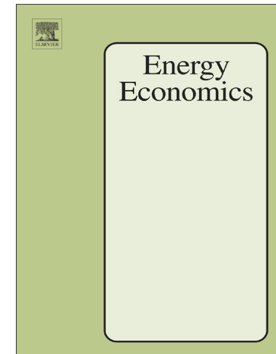

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Carbon Pricing and System Linking: Lessons from the New Zealand Emissions Trading Scheme

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Abstract

Textbook theory of linking carbon systems suggests linking reduces marginal abatement costs. Contrasting theoretical work and policy analyses suggests that linking, or at least unfettered linking, may not always be beneficial. The New Zealand Emissions Trading Scheme (NZ ETS) is unique in that, until 2013, it allowed unlimited use of Kyoto allowances. NZ ETS, thus provides an ideal context to explore the effect of linking and linking restrictions on carbon pricing of small systems. Using data on importation and exportation of allowances, we provide the first empirical analysis of the determinants of allowance prices in the early phase of the NZ ETS. Our results indicate that imports of offsets rather than fundamentals have been the major price determinant. Moreover, the pricing of New Zealand units (NZUs) can be placed into three distinct periods, delineated by two structural breaks. In the first period, the system is largely autarkic; in the second period, as international offset prices drop below the NZU price, the system becomes a 'price taker'; in the final period, following policy interventions, the system regains some independence. The case of the NZ ETS shows that small trading systems need to impose, or have the *option* to impose, quantitative import restriction so as to reap the benefits (lower abatement cost), but not the drawbacks ('importation' of distortions and market integrity issues), of linking.

JEL Classification: G12; G14; Q51; Q52; Q54; Q58

KEYWORDS: Linking; Carbon Finance; Carbon Markets; Emissions permit markets; Emissions trading; New Zealand Emissions Trading Scheme.

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