

# **Impact of the New Zealand Emissions Trading Scheme on forest valuation**

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The New Zealand ETS poses challenges for forest valuation. A Faustmann LEV can be calculated for the two recurring cashflow streams – one associated with forestry operations and the other associated with annual carbon trading. However the requirement to surrender carbon units (a) for removals at the time of harvest; and (b) for the subsequent decay of residues, means that the carbon component of crop value is negative from about mid-rotation. This negative value persists after harvesting when there is no forestry crop value to offset it.

The risk of catastrophic events, particularly wind storms, reduces the profitability of forestry under the ETS because of the loss of forest crop and the need to surrender carbon units prematurely. Both the forestry and carbon components of LEV and crop value decrease as the probability of a catastrophic event increases.

An alternative “trade to the long-term average” approach to carbon trading calls for a different approach to forest valuation. The non-recurring nature of the carbon cashflows suggests that they should not be included in the calculation of LEV. Rather it may be better to treat the carbon trading opportunity as a separate asset or liability.

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