

Option Values and Global Warming Irreversibilities

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Abstract

The possibility of an option value gained from delaying irreversible additions to atmospheric concentrations of greenhouse gases, till more information is known about the possible consequences, is examined. When the ultimate (economic or ecological) damages are linear in atmospheric greenhouse gas concentrations, there is shown to be no option value. Under convex damages, irreversibility and the potential for future learning could justify more or less action to reduce current emissions. The former is only likely to dominate under extreme scenarios for climate change.