Global Warming Catastrophes and the Costs of Delaying Action to Reduce Carbon Dioxide Emissions

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Abstract

The extent to which the costs of rapidly stabilizing atmospheric concentrations of greenhouse gases in the future (if the problem of global warming turns out to be serious), are exacerbated by delaying action to reduce current greenhouse gas emissions, is examined. A formula for the future welfare cost from stabilizing concentrations below a possible critical threshold level is derived. Despite concave utility, concave production, and adjustment costs from shifting capital away from CO2-intensive sectors, simulations show this welfare cost is not greatly affected by proposed alternative emissions reduction policies over the next 15 years.