

GREENHOUSE GAS PROPERTY: AN ADAPTABLE CLIMATE POLICY FOR AN UNCERTAIN WORLD

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Overview

I propose a new climate policy whereby we treat greenhouse gases (GHGs) from fossil fuel combustion as private property. A GHG property scheme provides an adaptable, long-term framework for climate policy that better matches the science and economics of climate change. The initial extractor or importer of the fuel would own carbon property that would become carbon dioxide (CO₂) property upon combustion. This property could be bought and sold, and the CO₂ property would be taxed for as long as it affects the atmosphere. The prices of fossil fuels would rise to account for the expected tax liability, leading to emissions reductions as with a carbon emission tax, and the ongoing property taxation would provide an incentive to develop and deploy air capture technologies that could remove CO₂ from the atmosphere. Because the government could adjust the tax rate on previously and contemporarily emitted property from year to year, this property policy uses new information about climate change in ways that other climate policies cannot. Finally, to avoid a property policy being undermined by firms insufficiently valuing future taxes, we could combine a property scheme with a cap-and-trade program to create a capped property policy.

Methods

Analysis of incentives produced by various climate policies along with the information required by the regulator to implement the policies.

Results

A GHG property policy better matches the science of climate change, better provides incentives to develop technologies to remove previously emitted greenhouse gases from the atmosphere, and better uses future learning about marginal damages from emissions. On the other hand, it may suffer from firms' insufficiently valuing future taxes and from governmental commitment problems and may incur additional institutional costs. A capped property policy can solve the first problem. Future work could consider whether the advantages justify the risks and costs.

Conclusions

A greenhouse gas property policy provides an adaptable long-term framework for climate policy that can guide energy sector investments and spur technologies that can both reduce future emissions and compensate for past and present emissions from sunk investments.

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