Carbon taxation and precautionary savings*

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Abstract

This paper asks how precautionary savings affect the level of the optimal carbon tax. I augment a heterogeneous-agent incomplete-markets model with a climate sector and estimate its structural parameters with indirect inference. As households in the model engage in precautionary saving behavior, it replicates a stylized fact from the data that the marginal propensity to consume pollution-intensive goods decreases with income. Therefore, the carbon tax and the redistribution of its revenue have distributional consequences. When recycling the revenue lump-sum, the optimal carbon tax also serves as an insurance device for the uninsurable idiosyncratic productivity shocks. As a consequence, the optimal tax is higher than what is required to internalize the negative climate externality.

Full draft available soon

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