

Title: Pricing Climate Risk.

Authors: Sverre Jensen (Oslo Metropolitan University) & Christian Traeger (University of Oslo)

Abstract: Climatic feedbacks imply that the warming from anthropogenic greenhouse gas emissions is highly uncertain. We derive a general analytic formula for the risk premium on the social cost of carbon. A base version characterizes the uncertainty channels when using a Monte Carlo approach, the US government's method of choice. This approach implicitly assumes that future policymakers cannot respond to future observations. Extending the base model, we show how future policy response reduces the risk premium. The formula generalizes simple precautionary savings analysis to complex economic interactions. It clarifies the distinct roles of risk aversion, prudence, production vulnerabilities, and future policy response.