

# The Social Cost of Carbon with Economic and Climate Risks

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Uncertainty about future economic and climate conditions substantially affects the choice of policies for managing interactions between the climate and the economy. We develop a framework of dynamic stochastic integration of climate and economy, and show that the social cost of carbon is substantially affected by both economic and climate risks and is a stochastic process with significant variation. We examine a wide but plausible range of values for critical parameters with robust results and show that large-scale computing makes it possible to analyze policies in models substantially more complex and realistic than usually used in the literature.

## I. Introduction

Global warming has been recognized as a growing potential threat to economic well-being. Determining which policies should be implemented requires analyses that incorporate models of both the climate and the economy and how they interact; this is the purpose of *integrated assessment*

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