

## CRAWFORD SCHOOL OF ECONOMICS AND GOVERNMENT

# Stern, Climate Policy and Saving Rates

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Seminar: 12.30 - 1.30pm

Seminar Room 1, Crawford Building

The lecture is free and open to the public

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Dasgupta and Weitzman have shown that the saving rates implied by the Stern Review's values for the rate of pure time preference and the elasticity of the marginal utility of consumption are too high from either a normative (Dasgupta) or descriptive (Weitzman) perspective. Given the attention this debate has received in the literature, there is a need for a rigorous presentation of the determinants of saving rates in models actually used to evaluate climate change policy. This paper provides the first detailed investigation of the implications of Stern's parameter choices for saving, firstly in standard neoclassical growth theory and then in a widely used climate policy model based on that theory, Nordhaus's Dynamic Integrated model of Climate and the Economy (DICE). In theory and practice, optimal saving rates in the presence of near-zero pure time preference are far from the near-100 per cent ones obtained from simpler models used by several of the Review's critics. We show that in DICE, for the utility function used in the Stern Review, optimal saving rates do not exceed 32 per cent, and that this falls to 26 per cent when using Stern's revised value for the elasticity of the marginal utility of consumption.



**Kathryn Smith is an Assistant Director in the Economic Analysis Team at the Department of Climate Change and an occasional researcher with the Environmental Economics Research Hub at ANU. Kathryn will present work begun during her MSc in Environment and Development at the London School of Economics and Political Science under the supervision of Dr Simon Dietz, for which she received the School's**

**Robert McKenzie prize for outstanding postgraduate academic achievement. Prior to studying in London, Kathryn was an economist at the Reserve Bank of Australia.**

*This seminar is co-organised between Crawford School of Economics and Government and the Environmental Economic Research Hub.*



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