

# **Climate policy, the state, and the problem of credible commitment**

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## **Abstract**

This thesis explores the regulatory uncertainty that originates from the problem of credible commitment in climate policy. The state defines and transacts property rights in an environment where third-party enforcement, the possibility to have contracts enforced by an independent authority, is infeasible. In such a setting, the ability to credibly commit to the maintenance of established rights is essential if one wants to encourage other actors to cooperate. The thesis consists of four independent publications and an introductory and a concluding chapter to address these points.

Chapter 1 presents research context and questions and the thesis' conceptual framework. Chapter 2 reviews design elements for domestic cap-and-trade systems and finds that regulatory uncertainty is an important source of investment hold-up and risk in carbon markets. Chapter 3 explores three sources of regulatory uncertainty: strategic interaction between the state and regulated firms, uncertainty over the costs of climate change damages and emissions abatement, and changing political preferences. The social benefit of commitment to long-term climate policy varies depending on the source of regulatory uncertainty. The chapter also qualitatively compares different commitment devices the state could use to reduce regulatory uncertainty. Chapter 4 presents a formalisation of one commitment device, the adjustment rule, in a game theoretic context and assesses its social benefit in comparison to commitment to a fixed policy target. Chapter 5 explores the drivers and forms of transaction costs in international climate finance. It shows how transaction costs in state-to-state transfers invalidate the assumed separability of allocation and efficiency in economic assessments of global mitigation costs. Finally, Chapter 6 summarises the main messages of preceding chapters and concludes with a discussion of the limits of a new institutional view on climate policy and its implications for the science-policy interface.