

# MITIGATION AMBIGUITY AND PRUDENCE IN CLIMATE PLEDGES

Vegard Tørstad<sup>1</sup> and Vegard Wiborg<sup>2</sup>

<sup>1</sup>Department of Law and Governance, BI Norwegian Business School

<sup>2</sup>Department of Economics, University of Oslo

## Introduction

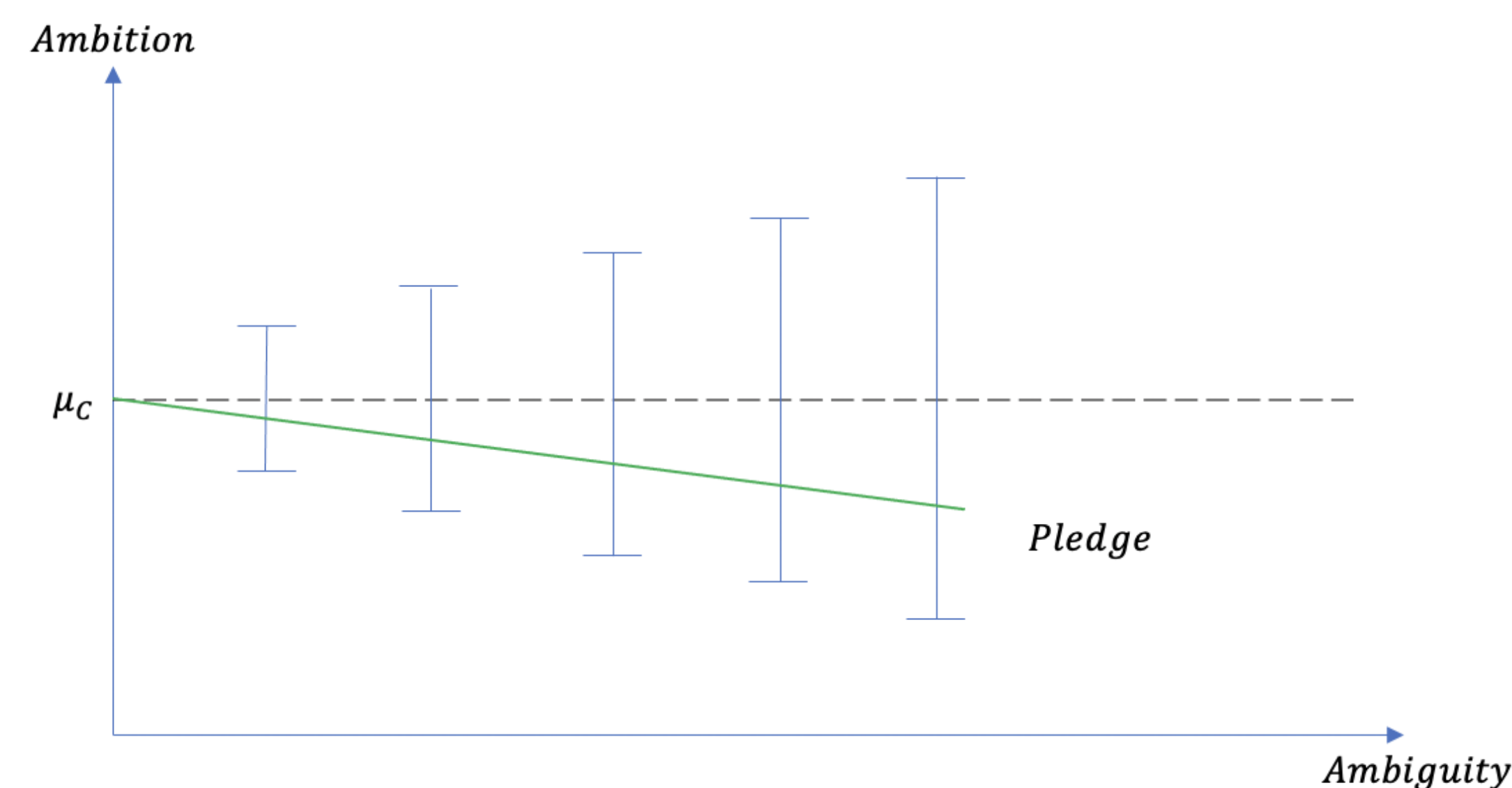
- The Paris Agreement (PA) established a pledge-and-review system that asks states to undertake progressively ambitious climate policies.
- The PA's review mechanism aims to promote implementation of pledges through a logic of reciprocity.
- However, the efficacy of this review mechanism depends on states providing precise and credible information about mitigation targets and performance.
- And: states' pledges under the PA vary substantially in degree of ambiguity, which potentially obfuscates reviews of efforts.
- While previous literature has explained why reliable information provision matters for compliance, this paper examines how ambiguity is related to the **ambition level** of commitments.
- The relationship between ambiguity and ambition can reveal whether pledges are inflated/deflated and shed light on the compliance prospects of states with ambiguous pledges.

## Theory

- The PA sets few requirements for the type of information that NDCs should contain → substantial variation in cross-country target precision.
- Imprecise information provision can undermine reciprocal collective action and compliance in international institutions.
- However, whether information precision in the pledge phase of a pledge-and-review system can generate enhanced compliance presumably depends on the ambition level of mitigation targets.
- When pledging mitigation targets, states have partly conflicting incentives for deciding on the ambition level of targets:
  - High ambition can spur reciprocity among other states and please domestic constituents/interest groups.
  - Low ambition facilitates compliance and hence reduces likelihood of shaming/repercussions.
- Our argument: if states are unable to set precise targets, the existence of a review system induces states to pledge **lower ambition** because the downside risk of pledging ambitiously is more tangible than the upside risk.

## Model and empirical strategy

- Theoretically, we show how states face a dilemma between ambitious pledging and achievable compliance; and explain why target ambiguity incentivizes states to exercise **prudence** when setting the ambition level of pledges.
- If states are unable to set precise targets, the prospect that non-compliance will be revealed in the periodic review process induces states to set less ambitious targets than states that are capable of precise pledging.
- We hypothesize that ambiguity is negatively related to ambition in climate pledges:



- To test our hypothesis, we assess the correlation between ambiguity and ambition in states' Nationally Determined Contributions (NDCs) under the PA.
- We code the degree of ambiguity in 20 NDC target characteristics, and regress these on an NDC ambition metric.

## Results

- We identify substantial cross-country variation in NDC ambiguity.
- Overall, point estimates show that ambiguity leads to **lower ambition in NDCs**, in line with our theory.
- However, the analysis also reveals that **different kinds of ambiguity have differing effects** on ambition:
  - Ambiguity in the NDC characteristics *Waste, Land-use and forestry*, and *Planning* significantly decrease ambition; while ambiguity in *Reducing non-CO<sub>2</sub> gases* and *Conditionality of technology transfer* are associated with higher ambition.
- Four of the five significant variables resemble **exogenous ambiguity**; but hard to disentangle exogeneity/endogeneity in our analysis.

## Discussion

- We propose a theory of how ambiguity (exogenous and endogenous) relates to ambition in climate cooperation. Our framework suggests that ambition mediates the relationship between ambiguity and compliance; and shows why ambiguity leads to prudence in mitigation ambition under pledge-and-review.
- Our empirical findings shed light on the sources of ambiguity in climate cooperation under the Paris Agreement, and provides evidence on how plausible it is that ambiguous pledges will be complied with.
- Overall, the negative relationship between ambiguity and ambition challenges propositions that ambiguous pledges are detrimental to cooperation: our findings suggest that ambiguous pledges are deflated rather than inflated.
- Finally, our findings propose five specific NDC characteristics that affect ambition: if policy-makers enhance precision in these, states with ambiguous pledges could raise ambition and enhance the credibility of pledges.