

ISABEL HOVDAHL

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Contact Information

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Academic positions

2020-present: Assistant Professor, Norwegian School of Economics (NHH)

Education

Ph.D., Economics, Norwegian University of Science and Technology (NTNU), 2016-2020.

M.Sc., Economics, NTNU, 2016.

B.Sc., Social anthropology, NTNU, 2014.

Affiliations

Researcher, Climate Futures (Bergen), 2021-present

Affiliated PhD student, BI Norwegian Business School Centre for Applied Macroeconomics and Commodity Prices (BI CAMP), 2016-2020.

Visiting PhD student, University of Chicago Harris School of Public Policy, 2017.

Publications

”The deadly effect of day-to-day temperature variation in the United States”

Environmental Research Letters, 2022 (open access)

Abstract: Recent research has found anthropogenic forcing to also affect day-to-day variability of temperatures. For many people, the climate is not only becoming hotter but also more volatile. Based on the new climate-economy literature, I explore the historical impact of day-to-day temperature variation on mortality in the United States over a 35-year period. I find that an extra +1C of daily temperature variability caused an additional 0.206 deaths per 100,000, equal to a 0.28% increase in the average monthly mortality rate. There is, however, evidence of adaptation to daily temperature variability as income and access to air-conditioning have increased and as people have become accustomed to large seasonal variation in temperatures. Given the deadly effect of day-to-day temperature variation, falling average daily temperature variability in the US since 1970 could have resulted in as many as 1,400 and 1,600 premature deaths avoided every winter and summer, respectively. In comparison, the increase in the number of days with a mean temperature above 35C could have caused an additional 655 premature deaths every year. These back-of-the-envelope calculations show that

current estimates of the social cost of carbon are omitting an important channel for the mortality impact of climate change by not considering this additional effect of temperature volatility.

Working Papers

”Patent Protection and the Transition to Clean Technology” (joint with Maria Alsina-Pujols)

Abstract: This paper investigates the use of patent policy to induce the transition to clean technology. It is well established that optimal climate policy should not only price emissions, but also induce innovation in clean technology. Although the combination of a price on emissions and a subsidy to clean innovation has been shown to be first-best, we argue that this policy is unattainable. Raising revenues to finance climate policy is challenging since it can be associated with large efficiency losses. Using an endogenous growth model with directed technical change, we show that reducing patent protection on dirty technology can improve second-best outcomes. In numerical simulations, we find that combining environmental policy with patent policy can recover a substantial amount of the welfare loss in second-best, and at a lower carbon tax and clean innovation subsidy than in first-best.

Work in progress

”Guarantees of Origin and Market Power in the Spot Electricity Market” (joint with Malin Arve, Endre Bjørndal, Mette Bjørndal and Mario Blázquez)

”Optimal enforcement: Monitoring versus self-reporting in CO2 tax compliance” (joint with Evelina Gavrilova-Zoutman)

Teaching Experience

2022	Application Development in Python (M.Sc.), NHH Lecturer
2022, '21	Introduction to Python (M.Sc.), NHH Lecturer
2021	Algorithms and Computer Programming with Python (B.Sc.), NHH Lecturer (joint with Julio C. Góez)
2019, '18	Statistics for Economists (B.Sc.), NTNU Lecturer
2019	International Trade (B.Sc.), NTNU Lecturer (joint with Irmelin S. Helgesen)

Fellowships and grants

IAERE Young Environmental Economist Award, 2020

Research grant, BI CAMP, 2017

Master Thesis collaboration, Norges Bank, 2016

Conference and seminar presentations

* cancelled due to covid-19

2022 Scottish Economic Society Annual Conference (Glasgow, Scotland)

2021 ETH (online), EAERE Annual Conference (online), AERE Annual Summer Conference (online), EEA Annual Congress (online)

2020 IAERE Annual Conference (Brescia, Italy), Scottish Economic Society Annual Conference* (Perth, Scotland), NHH (Bergen, Norway), AERE Annual Summer Conference* (Miami, US), EEA Annual Congress (Rotterdam, the Netherlands)

2019 University of Chicago EEE PhD Student Workshop (Chicago, US), EAERE Annual Conference (Manchester, UK), 4th Conference on Econometric Models of Climate Change (Milan, Italy), University of Reading (Reading, UK), BI Norwegian Business School (Oslo, Norway)