

Dr. Roweno J.R.K. Heijmans

This version: April 2022

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Personal Details

Name: Roweno Johannes Ryan King Heijmans
Citizenship: The Netherlands
Date of birth: August 11, 1994
Home address: Vikvägen 14, 75655 Uppsala, Sweden

Education

- 2021 **Ph.D., Economics**, Tilburg University, the Netherlands
 Supervisors: Prof. Dr. Eric van Damme & Prof. Dr. Reyer Gerlagh
 Specialization: environmental economics, public policy, game theory
 Thesis: On environmental externalities and global games
- 2017 **MSc, Economics**, Tilburg University, the Netherlands
- 2015 **BSc, Economics**, Tilburg University, the Netherlands

Research

Job Market Papers

- THE GLOBAL CLIMATE GAME

Abstract: I study emissions abatement in a global game of technological investments. Players choose between substitutable technologies. One technology is cheap and dirty, the other clean but expensive, and technologies exhibit strategic complementarities such as technology-specific technological spillovers. The paper makes two main contributions. My first contribution is to resolve equilibrium multiplicity in games of technological investment by addressing equilibrium selection through the use of global games. In well-identified cases the unique equilibrium is inefficient, motivating policy intervention. This leads to my second contribution, the introduction of network subsidies. A network subsidy allows the policymaker to correct the externality deriving from technological spillovers (and all externalities if use of the clean technology is an equilibrium of the underlying coordination game) but does not, in equilibrium, cost anything.

- TIME HORIZONS AND EMISSIONS TRADING

Abstract: I study cap-and-trade schemes where feedback mechanisms from the market for allowances determine, at least in part, the cap on emissions and where the scheme ends with a hard ban on emissions. The effect of bringing forward the ban depends on the supply mechanism in place: under a price mechanism (supply increasing in the allowance price) the reduction in equilibrium emissions from an earlier ban is positive and bounded from below, whereas it is bounded from above and possibly negative under a quantity mechanism (supply decreasing in the surplus of unused allowances). I characterize these bounds and provide conditions under which they coincide. I also identify sufficient conditions for which an earlier ban leads to strictly higher emissions under a quantity mechanism.

Publications in peer-reviewed journals

- CLIMATE-CONSCIOUS CONSUMERS AND THE BUY, BANK, BURN PROGRAM. With Reyer Gerlagh. *Nature Climate Change*, 2019.
The buy, bank, burn scheme we propose in this paper is being implemented by three NGOs that we know of: ForTomorrow, Compensators, and CAP₂.
- COVID-19 TESTS THE MARKET STABILITY RESERVE. With Reyer Gerlagh and Knut Einar Rosendahl. *Environmental and Resource Economics*, 2020.
- AN ENDOGENOUS EMISSIONS CAP PRODUCES A GREEN PARADOX. With Reyer Gerlagh and Knut Einar Rosendahl. *Economic Policy*, 2021.
- SHIFTING CONCERNS FOR THE EU ETS: ARE CARBON PRICES BECOMING TOO HIGH? With Reyer Gerlagh and Knut Einar Rosendahl. *Environmental Research Letters*, 2022.

Working Papers

- NETWORK SUBSIDIES: THEORY AND EXPERIMENTS. With Sigrid Suetens.
- LINKING CAP-AND-TRADE SCHEMES UNDER ASYMMETRIC UNCERTAINTY. With Reyer Gerlagh.
- REGULATING STOCK EXTERNALITIES. With Reyer Gerlagh.

Work in Progress

- EFFICIENT EPIDEMICS: CONTAGION, CONTROL, AND COOPERATION IN A GLOBAL GAME. With Ana Moura.
- SEQUENTIAL GLOBAL GAMES.

Book Chapters

Gerlagh, R., Heijmans, R.J.R.K., & Mayumi, K. T. (2019). Can the social cost of carbon be calculated? *Contemporary Climate Change Debates: A Student Primer*, 65.

Consultancy (in Dutch)

Van Damme, E.E.C., Gerlagh, R., Heijmans, R.J.R.K., & Willems, B.J. (2018). Veilen of vergelijken voor het winnen van windenergie op zee?

Policy report written on request of the Dutch Ministry of Agriculture, Nature and Food Quality regarding the question how the rights to build windmill parks on the North Sea are most efficiently allocated.

Teaching Experience

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| 2021-22 | Lecturer , Swedish University of Agricultural Sciences, Sweden
Management of Biological Resources (Msc). Also MSc thesis supervision. |
| 2019-20 | Teaching Assistant and Thesis Supervision , Tilburg University, the Netherlands
Grondslagen macro-economie (undergraduate macro, in Dutch), Micro-economics 2: Game Theory (research master). BSc thesis supervision. |
| 2018-19 | Teaching Assistant and Thesis Supervision , Tilburg University, the Netherlands
Grondslagen macro-economie (BSc macro, in Dutch), Economics for Social Sciences (BSc). BSc thesis supervision |

Teaching Assistant and Thesis Supervision, Tilburg University, the Netherlands
 2017-18 Grondslagen macro-economie (BSc macro, in Dutch), Macroeconomics for EOR (BSc). Msc thesis supervision.

Professional Activities

Refereeing: Nature Climate Change, Journal of Environmental Economics and Management, Resource and Energy Economics, Annals of Economics and Statistics, Energy Journal, One Earth

Conferences: Reviewer for the Spring Meeting of Young Economists (24th and 25th edition)

Organizational: Member of the Education Committee, Tilburg University, 2015-2017. Seminar organizer Department of Economics, Swedish University of Agricultural Sciences.

Awards & Honors

2019 Scholarship from the Spanish-Portuguese Association of Resource and Environmental Economics to present my job market paper at their conference.

2015 Tilburg University Excellence Scholarship

2016 CentER Honors Program, CentER, Tilburg University

2015 Honors Program “Discourses on Europe”, Tilburg University

Employment

2021– **Postdoctoral researcher**, Swedish University of Agricultural Sciences

2017-21 **PhD Candidate**, Tilburg University

2014 **Intern**, De Nederlandsche Bank, Amsterdam

Academic talks

Conferences

2020 SURED (Ascona, Switzerland); European Economic Association Annual Meeting (Berlin, Germany); Econometric Society World Congress (Milan, Italy); Conference of the Spanish-Portuguese Association of Resource and Environmental Economics (Lleida, Spain – moved to 2020); European Association of Environmental and Resource Economists Annual Meeting (Berlin, Germany); Koninklijke Vereniging voor Staatshuishoudkunde New Paper Session (Leiden, the Netherlands); Autumn panel meeting on the economics of climate change (Berlin, Germany – organized by Economic Policy and CEPR)

2019 European Economic Association Annual Meeting (Manchester, United Kingdom); European Association of Environmental and Resource Economists Annual Meeting (Manchester, UK); CREE Workshop (Statistics Norway, Oslo, Norway); UECE Lisbon Meetings in Game Theory and Applications (Lisbon, Portugal); International Energy Workshop (IEA, Paris, France); Energy & Climate Conference (Toulouse, France)

2018 SURED (Ascona, Switzerland); World Meeting of Environmental and Resource Economists (Gothenburg, Sweden); European Economic Association Annual Meeting (Cologne, Germany); CREE Workshop (Statistics Norway, Oslo, Norway); UECE Lisbon Meetings in Game Theory and Applications (Lisbon, Portugal); Nederlandse Economendag/Dutch Economists Day (Amsterdam, the Netherlands)

Seminars

- 2020 Tilburg University; Nova SBE Health Economics & Management Knowledge Center, Lisbon, Portugal; Universidad del Rosario, Bogota, Colombia
- 2019 Nederlandse Emissieautoriteit (Dutch emissions authority)
- 2017 Tilburg University; CPB Netherlands Bureau for Economic Policy Analysis

Skills

Computer: L^AT_EX, Matlab, Microsoft Office, State, Python, R

Languages: Dutch (native), English (fluent), German (intermediate), Portuguese (intermediate).

References

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Prof. Dr. Bård Harstad

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