

Roweno J.R.K. Heijmans

This version: January 2021

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Personal Details

Name: Roweno Johannes Ryan King Heijmans
Citizenship: The Netherlands
Date of birth: August 11, 1994

Education

- 2017/21 **Ph.D. Candidate, Economics**, Tilburg University, the Netherlands
Supervisors: Prof. Dr. Eric van Damme & Prof. Dr. Reyer Gerlagh
Specialization: environmental economics, public policy, game theory
Expected date of graduation: Summer 2021
- 2017 **Research Master, Economics**, Tilburg University, the Netherlands
- 2015 **BSc, Economics**, Tilburg University, the Netherlands

Research

Job Market Paper

- "THE GLOBAL CLIMATE GAME"

Abstract: I study emissions abatement in a global game of technological investments. Players invest in competing technologies. One technology is cheap and dirty, the other expensive but clean, and technological investments are strategic complements. The paper makes three contributions. First, it resolves complications due to equilibrium multiplicity in games of technological investment by addressing equilibrium selection through the use of global games. The unique equilibrium may be inefficient, in which case policy interventions are needed. This leads to my second contribution, which is to introduce network subsidies. Network subsidies virtually guarantee efficient adoption of the clean technology but do not, in equilibrium, require any payments to be made. Third, a two-stage extension of the game sheds a new light on the (mostly experimental) literature on institutional choice. In particular, players decide in stage 1 whether or not to make technological investments strategic complements in stage 2; that is, they choose between playing a prisoners' dilemma or a coordination game in the second stage. In contrast to the existing literature, my global games approach allows me to characterize a unique equilibrium irrespective of the type of game chosen by the players. The two-stage game has a unique perfect Bayesian equilibrium and allows for sharp predictions.

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: 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 EMISSION CAP PRODUCES A GREEN PARADOX”, with Reyer Gerlagh and Knut Einar Rosendahl. Conditionally accepted at *Economic Policy*

Working Papers

- “REGULATING STOCK EXTERNALITIES”, with Reyer Gerlagh. Submitted.
- “EFFICIENT EPIDEMICS: CONTAGION, CONTROL, AND COOPERATION IN A GLOBAL GAME”, with Ana Moura. Submitted.
- “LINKING CAP-AND-TRADE SCHEMES UNDER ASYMMETRIC UNCERTAINTY”, with Reyer Gerlagh

Work in Progress

- “SEQUENTIAL GLOBAL GAMES”
- “ENDOGENOUS EMISSION CAPS ALWAYS PRODUCE A GREEN PARADOX”, with Reyer Gerlagh and Knut Einar Rosendahl.
- “MULTIPLE EQUILIBRIA AND EQUILIBRIUM SELECTION IN THE EU ETS: A GAME-THEORETIC APPROACH”, with Reyer Gerlagh.

Book Chapters

Gerlagh, R., Heijmans, R.J.R.K., & Mayumi, K. T. (2019). 5 Can the social cost of carbon be calculated? *Contemporary Climate Change Debates: A Student Primer*, 65.

Policy Reports (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

- Teaching Assistant**, Tilburg University, the Netherlands
- 2019/20 BSc thesis supervision, Grondslagen macro-economie (undergraduate macro, in Dutch), Microeconomics 2: Game Theory (research master).
- Teaching Assistant**, Tilburg University, the Netherlands
- 2018/19 BSc thesis supervision, Grondslagen macro-economie (BSc macro, in Dutch), Economics for Social Sciences (BSc).
- Teaching Assistant**, Tilburg University, the Netherlands
- 2017/18 MSc thesis supervision, Grondslagen macro-economie (BSc macro, in Dutch), Macroeconomics for EOR (BSc).

Professional Activities

Refereeing: Resource and Energy Economics, Annals of Economics and Statistics

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

Organizational: Member of the Education Committee, Tilburg University, 2015-2017

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

- 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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