Benjamin Rommelaere

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Citizenship: Canadian
Research Interests: Environmental Economics, Industrial Organization, Applied Microeconomics

Education

Ph.D. in Economics, University of Toronto — 2026 (Expected)
Committee: Eduardo Souza-Rodrigues (supervisor), Victor Aguirregabiria, Stephan Heblich
Parental leave: May–Aug 2022; Jan–Apr 2025

M.A. in Economics, Queen's University — 2013

B.A. in Economics (Honours), Toronto Metropolitan University — 2012

Working Papers

Carbon Flux from Wood Bioenergy Subsidies: A Structural Model of Forest Land Use (Job Market Paper)

Market Concentration and Deforestation: Evidence from the Brazilian Soy Industry

Work-in-Progress

Incentives and Corruption in Panama: Evidence from Gasoline Markets, with Steven Lehrer and Decio Coviello

Environmental Regulation of Wood Processing Mills: The Boiler MACT Rule

Forest Market Dynamics and Global Carbon Leakage of EU Bioenergy Subsidies

Conference Proceedings

Making Transit Reliability Benefits Accessible to Engineers, with John Parker
Proceedings of the International Conference on Transportation and Development, 2016.

Awards and Grants

SSHRC Doctoral Fellowship ($40,000 x 2)	2023-2024
CPE Climate Solutions Scholarship ($15,000)	2023
University of Toronto Doctoral Fellowship ($20,000 x 5)	2019-2023
Queen's University Graduate Scholarship ($17,500)	2013
Toronto Metropolitan University's Best Thesis Award ($5,000)	2013

Professional Experience

Teaching Assistant, *University of Toronto* 2019–present

- ECO439: Empirical Methods in Microeconomics
- ECO414 / ECO1960: Energy and Regulation
- ECO403: Topics in Development Economics and Policy
- ECO314: Energy and the Environment
- ECO313: Environmental Economics and Policies
- ECO227: Foundations of Econometrics
- ECO220: Introduction to Data Analysis and Applied Econometrics
- ECO202: Macroeconomic Theory and Policy
- ECO101: Principles of Microeconomics
- ENV462: Energy and Environment – Economics, Politics, and Sustainability
- ENV347: The Power of Economic Ideas

Consulting Associate, *Charles River Associates* 2017–2019

- Economics research in support of antitrust litigation and regulatory board hearings

Economist, *Impact Infrastructure* 2014–2017

- Economics research in support of infrastructure investment decisions for government agencies

Data Analyst, *Janys Analytics* 2014

Research Analyst, *AOL Canada* 2012

Research Assistant, Prof. Paul Missios, *Toronto Metropolitan University* 2011

Professional Service

Assistant to the Editor-in-Chief, *The Energy Journal* (referee selection) 2023–2024

Language & Technical Skills

English (native)
Programming: Python, R, Stata, MATLAB, ArcGIS

References

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Abstracts

Carbon Flux from Wood Bioenergy Subsidies: A Structural Model of Forest Land Use

(Job Market Paper)

Wood bioenergy offers one path to reduce carbon emissions from fossil energy and has become an important energy source in the U.K. and EU-27, driven largely by subsidies. At the smokestack, burning wood emits more CO_2 than coal, so any climate benefit depends on its impact on forest carbon flux. I study the effects of these subsidies on forests in the U.S. South, the world's main export region of wood bioenergy, to assess whether they have delivered climate benefits. I develop a dynamic structural model which unifies land use and harvesting decisions while incorporating local oligopsony power of mills over landowners. The model is estimated on a panel of 5.1 million land plots built from remote sensing data on land use, tree harvesting, and forest biomass accumulation. The results show most exported wood comes from new harvests without offsetting increases in planting rates, leading to net deforestation, lower forest carbon stocks, and reduced annual carbon sequestration. The impact is substantial: in 2024, the estimated loss in annual sequestration equals 1.4 percent of U.K. emissions, and by 2050 the social cost of the lost forest carbon reaches $53 billion. What looked bad at the smokestack is worse once the forest response is measured. Spatial variation in the results suggests that location-based sourcing restrictions could reverse this result and deliver climate benefits.

Market Concentration & Deforestation: Evidence from the Brazilian Soy Industry

The Brazilian soy industry is a leading cause of deforestation in several important forest biomes, including the Amazon, yet little is known about how the market structure of this industry affects deforestation. This paper exploits the 2014 acquisition and merger of two major soy exporters by China's state-owned firm COFCO to estimate the causal effects of buyer concentration on farmgate soy prices, production, and deforestation. Using a municipality-level panel from 2006–2018 linking supply-chain data, administrative data, and MapBiomas deforestation records, I implement a staggered event-study design to estimate the local impacts of the merger. Results show a short-run increase in farmgate prices in markets where buyer concentration rose, an unexpected effect consistent with strategic mutual forbearance among oligopsonists. In contrast, when COFCO enters new markets, I find that increased competition leads to sustained price increases and lower deforestation. One potential reason for higher prices and lower deforestation is COFCO's deforestation-free sourcing commitments.

Incentives and Corruption in Panama: Evidence from Gasoline Markets

with Decio Coviello & Steven Lehrer

This paper studies the misuse of public funds using transaction-level data from Panama's national fuel card program, covering over two million purchases by government employees. We document both passive waste, arising from weak cost-minimization incentives, and active misuse, where employees personally benefit. We use the fuel programs rules to develop waste and misuse measures and exploit two distinct sources of variation in the incentives to misuse funds. A local price shock from a merger involving the contracted fuel supplier reduces misuse across most agencies, whereas, national fuel price shocks driven by exogenous oil market events increase it. We develop an economic model of expected profit and detection risk to explain these behavioral responses and their heterogeneity across agencies. Our estimates imply an elasticity of supply of stolen fuels between 2.7 and 4.6, meaning that a 10% rise in fuel prices increases stolen fuel by 27-46%.