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

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 is an increasingly important fuel in both the U.K. and EU-27. Yet, because wood is more carbon intensive than fossil fuels at the smokestack, the climate impact from wood bioenergy policies depends on whether forest carbon uptake offsets these emissions. I study this question in the context of the U.S. South, a globally significant supplier of wood bioenergy. I develop a dynamic structural model of land use and harvesting decisions, extending a traditional stochastic Faustmann model to incorporate land use switching and oligopsony power. Using this model, I assess the impact of wood bioenergy mills supplying wood to Europe following large bioenergy subsidies. The model is estimated on a panel of 5.1 million plots of land, built from remote sensing data on land use, tree harvesting, and forest biomass accumulation. My estimates imply that by 2050, harvesting rates increase by 6% and due to imperfect replanting, forested area shrinks by $\approx$1500 km^2, roughly the size of Orlando's urban area in 2010. By 2024, this translates to an annual decline in carbon sequestration equal to 1.3% of U.K. emissions. The resulting reduction in forest carbon stocks does not recover within any policy horizon.

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%.