
*Department of Economics,
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CURRENT POSITION

Ph.D. Univ. of Calgary: <i>Economics</i> , Calgary, AB, CANADA	<i>Sep 2019 - Present</i>
Research Fellow at Smart Prosperity Institute: Ottawa, ON, CANADA	<i>Jan 2024 - Present</i>

RESEARCH INTERESTS

International Economics, Trade Policy, Environmental Economics, Energy Policy, Applied Econometrics, Air Pollution Modeling.

PUBLICATIONS

Gogebakan, A. (2025). Revisiting Trade and Income in the New Era of Globalisation—Distance, Big Boats and Natural Barriers to Trade. *The World Economy*, 48(4), 886–921.
DOI: [10.1111/twec.13667](https://doi.org/10.1111/twec.13667) — [View Article](#)

Abstract: This paper investigates the relationship between international trade and income, exploiting a dynamic distance measure generated by the growth of container ships and Panama Canal capacity. Employing a version of the gravity model, this paper constructs an instrument for trade that accounts for bilateral trade flow differences driven by the Panama Canal and big ships. I exploit the created instrument, given its purely geography-based nature, to estimate the impact of trade on income between 2002 and 2022. This paper finds a trade elasticity of income at 0.4, indicating that a one-dollar increase in trade translates into a 40-cent higher income on average. Compared to earlier studies, this indicates a more pronounced impact of trade on income in the recent era of globalization.

WORKING PAPERS

The Role of Energy Efficiency in Productivity: Evidence from Canada (Job Market Paper)

Abstract: This paper quantifies how the misallocation of energy, capital, and labor across provinces and sectors reduces productivity in Canada. Using annual provincial input–output data (2014–2020) and a standard Hsieh–Klenow–style framework, I decompose the loss into interprovincial (within-sector) and intersectoral (within-province) components and measure each input’s contribution. Unlike most studies focusing on firm-level variation within manufacturing, I examine the full economy at the province–sector level. The results show that misallocation drags aggregate productivity 5–8% below its efficient potential, depending on the assumed substitutability of goods between provinces. Within-sector misallocation drives most of the loss, reaching 4.3%, while between-sector misallocation contributes up to 4%, consistently less than the within-sector component, indicating interprovincial misallocation is the primary source. While energy accounts for only 8% of input costs, it makes up as much as 1.5% of the gap—comparable to capital’s 1.8% peak and substantially exceeding that of labor’s 0.8%—highlighting energy’s key role in productivity.

Uneven Gains: The Environmental Justice Impact of the Regional Greenhouse Gas Initiative (RGGI) on Local Air Pollution and Health. (with Sookti Chaudhary and Linh Pham)

Abstract: This paper examines how cap-and-trade programs on greenhouse gases such as CO₂, CH₄, and N₂O—specifically, the Regional Greenhouse Gas Initiative (RGGI)—indirectly affect local air pollutants such as NO_x and SO_x through their impact on power plants. By investigating differences in emission reductions across various locations, we assess the environmental justice effects of these programs. We use a difference-in-differences (DiD) method with heterogeneous treatment effects, preserving the asymmetry of how the program affects each power plant. Then, we feed these changes into a high-resolution intervention air pollution model (InMAP) to analyze how pollution reduction impacts vary among different demographic groups across fine-grained areas (1 km x 1 km census tracts). We focus on the RGGI program, launched in 2009 and tightened in 2014 across 9 northeastern U.S. states. We find significant variation in how the program affects emissions across power plants, leading to uneven health benefits, with avoided deaths varying by region.

EDUCATION

Ph.D. Univ. of Calgary (3.71/4): *Economics*, Calgary, AB, CANADA Sep 2019 - 2026
(Expected)

Ph.D. Izmir Univ. of Econ. (3.83/4): *Economics*, Izmir, TURKEY Sep 2018 - Jun 2019
No degree awarded***

M.A. Bogazici University (Honors): *Economics*, Istanbul, TURKEY Sep 2015 - Sep 2018

M.A. Exchange: Monash University, Melbourne, VIC, AUSTRALIA July 2017 - Dec 2017

B.A. Bogazici University (Honors): *Economics*, Istanbul, TURKEY Sep 2013 - Jun 2015

B.A. Erasmus+: Nova School of Business & Economics, Lisbon, PORTUGAL Sep 2014 - Feb 2015

B.S. & M.S. Bogazici University: *Teaching Mathematics*, Istanbul, TURKEY Sep 2009 - Sep 2013
Undergraduate transfer to B.A. in Economics***

WORK EXPERIENCE

RA for Dr. Alaz Munzur, Canadian Climate Policy Partnership (C2P2), Calgary, AB, CANADA Feb 2025 - Aug 2025

- Coded and implemented a general equilibrium trade model for scenario analysis.

RA for Dr. Trevor Tombe: *Dept. of Econ.*, Calgary, AB, CANADA July 2024 - Aug 2024

- Conducted a literature review for "From Farms to Tables: Quantifying the Effect of Emissions Pricing on Canadian Food Prices."

RA for Dr. Megan Bailey: *Haskayne Bus. School*, Calgary, AB, CANADA July 2023 - July 2024

- Scraped National Emissions Inventory (NEI) data and ran coal phase-out simulations for New York power plants using InMAP.
- Analyzed simulation results and prepared summary reports.

RA for Dr. Arvind Magesan: *Dept. of Econ.*, Calgary, AB, CANADA Nov 2021 - Jun 2022

- Assisted in scraping petition data for "Instrumental and Expressive Value of Political Participation: The Case of Petitions" and "Petitions, Political Participation, and Government Responsiveness."

RA for Dr. Trevor Tombe: *Dept. of Econ.*, Calgary, AB, CANADA May 2021 - Jun 2021

- Assisted in designing the master's program for the School of Public Policy.

RA for Dr. Alexander Whalley: *4POINT0*, Calgary, AB, CANADA Sep 2019 - Apr 2021

- Analyzed a near-universe firm-level dataset of Canadian companies (Aberdeen Data).
- Replicated empirical studies using the dataset and summarized results.

Res. Asst.: <i>Dept. of Econ.</i> , Dokuz Eylul Univ., Izmir, TURKEY	<i>Mar 2016 - Aug 2019</i>
Res. Asst.: <i>Dept. of Mgmt.</i> , Haliç Univ., Istanbul, TURKEY	<i>Sep 2015 - Feb 2016</i>
Marketing Intern: Akbank Directorate General, Istanbul, TURKEY	<i>July 2013 - Aug 2013</i>
Student Assistant: <i>Economics</i> , Bogazici University, Istanbul, TURKEY	<i>Sep 2012 - Jan 2013</i>

TEACHING EXPERIENCE

Sessional Instructor:

Principles of Microeconomics (Econ 201)	(Spring 2024 at Univ. of Calgary)
Principles of Microeconomics (Econ 201)	(Summer 2023 at Univ. of Calgary)

Teaching Assistantship:

Principles of Microeconomics (Fall 2012 - Student Asst., Spring 2018, Fall 2020/2021/2022/2024/2025)	
Principles of Macroeconomics	(Winter 2022, Winter 2025)
Introduction to Econometrics	(Summer 2022, Winter 2023)
Intermediate Economic Theory - Microeconomics I	(Fall 2018)
Intermediate Economic Theory - Microeconomics II	(Winter 2021)
Intermediate Economic Theory - Macroeconomics I	(Spring 2023)
Engineering Economics	(Spring 2025)
Petroleum Economics	(Fall 2023)
Energy Economics and Policy	(Fall 2023)
Monetary Theory	(Winter 2021)
Advanced Macroeconomic Theory II (Econ 759 Graduate level)	(Winter 2024)
Environmental Economics (Econ 677 Graduate level)	(Winter 2025)
International Trade (Econ 621 Graduate level)	(Winter 2025)

REFeree SERVICE

Review of World Economics
AERE Summer Conference 2025 Paper Reviewer

RESEARCH GRANTS

EEPRN Research Grant, Smart Prosperity Institute (SPI)

Title: The Role of Energy Efficiency in Productivity: Evidence from Canada (\$30,000 CAD) 2024-2026

GRANTS, AWARDS AND HONORS

CREEA Conference Travel Support (500 CAD)	<i>01 Jun 2025</i>
Travel Grant for CREEA Conference (1,195 CAD)	<i>01 Jun 2025</i>
Professional Development Grant (GSA) for ACE24 conference (750 CAD)	<i>10-12 July 2024</i>
Travel Grant for Rocky Mountain Empirical Trade Conference (750 CAD)	<i>24-26 May 2024</i>
Travel Grant for Midwest Econ. Theory and Intl. Trade Conference (1,250 CAD)	<i>16-19 May 2024</i>
Travel Grant for 57th CEA Conference (1,100 CAD)	<i>02-03 Jun 2023</i>
Economics Alumni Graduate Scholarship (2,900 CAD)	<i>2022-2023</i>
Anton and Dalgarno Memorial Graduate Scholarship (10,000 CAD)	<i>2020-2021</i>
Anton and Dalgarno Memorial Graduate Scholarship (10,000 CAD)	<i>2019-2020</i>

Travel Grant (2,350 AUD) and paid research leave for visiting Monash University	<i>July-Dec 2017</i>
Erasmus+ Exchange Scholarship (2,080 EUR)	<i>2014-2015</i>
Turkey Ministry of National Education Scholarship (17,340 TRY)	<i>2010-2015</i>

CONFERENCES

The Canadian Resource and Environmental Economics Association (CREEA) Workshop (<i>Presenter</i>), Montreal, QC, CANADA	<i>01 June 2025</i>
Canada's Productivity Summit (<i>Notetaker</i>), Calgary, AB, CANADA	<i>16-17 Oct 2024</i>
Energy Disruptors Unite 2024 Summit (<i>Participant</i>), Calgary, AB, CANADA	<i>01-02 Oct 2024</i>
Brown Bag Departmental Seminar at Queensland University of Technology (QUT) (<i>Invited speaker at internal seminar</i>), Brisbane, QLD, AUSTRALIA	<i>27 Aug 2024</i>
Australian Conference of Economists (<i>Presenter</i>), Adelaide, SA, AUSTRALIA	<i>10-12 July 2024</i>
Asia Pacific Trade Seminars (APTS) (<i>Presenter</i>), Bangkok, THAILAND	<i>29-30 June 2024</i>
Rocky Mountain Empirical Trade Conference (<i>Discussant</i>), Banff, AB, CANADA	<i>24-26 May 2024</i>
Midwest International Trade Conference (<i>Presenter</i>), Indianapolis, IN, USA	<i>16-19 May 2024</i>
CEA annual meeting (<i>Presenter</i>), RBC Convention Center, Winnipeg, MB, CANADA	<i>02-03 Jun 2023</i>
The Society for Economic Measurement (SEM) (<i>Organizer</i>), Calgary, AB, CANADA	<i>11-14 Aug 2022</i>
Izmir International Congress on Economics and Administrative Sciences (<i>Organizer</i>), Altın Yunus Hotel, Izmir, TURKEY	<i>5 - 8 Dec 2018.</i>

MEMBERSHIP

Association of Environmental and Resource Economists (AERE), Australasian Agricultural and Resource Economics Society (AARES), European Economic Association (EEA).

COMPUTER SKILLS

Stata, Python, Microsoft Office, Eviews, InMAP, L^AT_EX

LANGUAGES

Turkish (Native), English (Fluent), German (Lower-Intermediate)

PERSONAL

Citizenship: Turkish
Year of Birth: 1991

REFERENCES

Prof. Dr. Trevor Tombe (*Main Supervisor*)
Department of Economics, University of Calgary
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Prof. Dr. M. Scott Taylor
Department of Economics, University of Calgary
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Prof. Dr. Arvind Magesan
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