Antoine L. Noël (November 2022)

CONTACT
INFORMATION

Queen's University
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RESEARCH
INTERESTS

International Trade, Macroeconomics, and Time Series Econometrics

EDUCATION

Queen's University, Kingston, Ontario Canada
2017-Present

Ph.D. Candidate, Economics: 4.13/4.30

- Thesis committee: Amy Hongfei Sun, Beverly Lapham, and Morten Ørregaard Nielsen
- Named on the U SPORTS Academic All-Canadians board for the season 2018-2019

University of Toronto, Toronto, Ontario Canada
2017

M.A., Economics (Doctoral Stream): 3.93/4.00

Université de Montréal, Montreal, Quebec Canada
2016

B.Sc., Economics (Honours): 4.21/4.30 (Summa Cum Laude)

- Carabins' student-athlete of the year 2016
- Named on the U SPORTS Academic All-Canadians board from 2013 to 2016

PUBLICATIONS

Nielsen, M.Ø. & A.L. Noël (2021) **To Infinity and Beyond: Efficient Computation of ARCH(∞) Models.** Journal of Time Series Analysis 42, 338–354.

WORKING
PAPERS

Information Transparency of Firm Financing (submitted), *with Amy Hongfei Sun*

WORK IN
PROGRESS

Production Structures and Preferential Trade Agreements (Job Market Paper)

Trade Bargaining Power, Multilateralism, and Regional Trade Agreements

CONFERENCE
PRESENTATIONS

Congrès Annuel de la Société Canadienne de Science Économique	2021, 2022
Annual Meeting of the Canadian Economics Association	2021, 2022
CIREQ PhD Students' Conference	2021
European Winter Meeting of the Econometric Society	2020
Canadian Econometric Study Group (Poster session)	2019

REFEREE

Journal of Time Series Analysis

TEACHING
EXPERIENCE

Instructor
Queen's University, Kingston, Ontario Canada

ECON 250: Introductory Statistics, undergraduate	Fall 2020, 2021
ECON 222: Macroeconomic Theory I, undergraduate	Fall 2019

Teaching Assistant

Queen's University, Kingston, Ontario Canada

ECON 422: Monetary Economics	Fall 2022
ECON 851: Econometrics II, doctoral level	Winter 2019, 2021, 2022
ECON 222: Macroeconomic Theory I (Head TA)	Winter 2020
ECON 850: Econometrics I, doctoral level	Fall 2018
ECON 390: Natural Resource Economics	Winter 2018
ECON 425: International Trade Theory	Fall 2017

University of Toronto, Toronto, Ontario Canada

ECO 100: Introductory Economics	Fall 2016
ECO 100: Introductory Economics	Winter 2017

Université de Montréal, Montreal, Quebec Canada

ECN 1075: Techniques of Economic Analysis II	Fall 2015
ECN 1000: Principles of Economics	Summer 2016

RESEARCH AND WORK EXPERIENCE

Research Assistant

for Marie-Louis Vierø at Queen's University	Spring 2021
for Morten Ørregaard Nielsen at Queen's University	Fall 2020
for Brant Abbott at Queen's University	Winter 2019
for Varouj Aivazian at University of Toronto	Summer 2017

Accounting Technician

Paul Rioux CPA, Montreal, Quebec Canada	Summer 2015

HONORS AND AWARDS

Joseph-Armand Bombardier CGS - Doctoral	2019-2022
R.S. McLaughlin Fellowship	2018
Queen's Graduate Award	2018
Richard S. Malone Memorial Fellowship in Economics	2017
University of Toronto Fellowship	2016
Carabins (Varsity) Scholarships	2012-2016
Alma Mater Scholarship (declined)	2016
André-Raynauld Award	2016
Desjardins Excellence Award	2015
Roger Dehem Award	2015
SAE Excellence Award (Student services)	2015
Marcel Boyer Award	2014

COMPUTER SKILLS

- Statistical Packages: R, Stata
- Languages: Matlab, Ox, Dynare, Python, Typescript
- Applications: LaTeX, common Windows database, spreadsheet, and presentation software

LANGUAGES

English, French (Native)

VOLUNTEERING	Member of the Varsity Leadership Committee	2018-2019
	Special Olympics	2015-Present
	Regroupement Pour La Trisomie 21	2021-Present

SOCCER	Assistant Coach of the Queen's Men's Soccer	2019-2020
	Co-Captain of the Queen's Men's Soccer	2018-2019
	Coach of the Candiac Soccer Club	2016-2017
	Player of the Carabins Men's Soccer	2012-2016
	Captain of the Ottawa Fury	2011-2013
	Player of the Ottawa Fury	2009-2013
	Captain of Cavaliers Men's Soccer	2011-2012
	Player of Cavaliers Men's Soccer	2010-2012

REFERENCES

Amy Hongfei Sun
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Beverly Lapham
Professor, Department of Economics
Queen's University
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Morten Ørregaard Nielsen
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Aarhus University
Phone: +45.8715.0000
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Brant Abbott
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Queen's University
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Production Structures and Preferential Trade Agreements
(Job Market Paper)

This paper examines the effects of differences in production structure between countries on the liberalization of global tariffs in the coalition-proof Nash equilibrium sense. Using a static tariff-setting game with endogenous trade agreements, I develop a competing exporters model with three countries that differ in their production structure and economic size. I consider three settings that are differentiated by the type of trade agreements that countries can sign: free trade agreements, customs unions, and multilateral trade agreements, i.e. no preferential trade agreements. Under a symmetric change in production structure across countries, I find that for the last two settings countries optimally reach global free trade regardless of the size of this change. In the setting with free trade agreements, a strong free riding incentive affects the capacity of countries to reach global free trade. Under an asymmetric change in production structure, I find that countries in the setting with multilateral trade agreements optimally reach global free trade, regardless of the size of the change. The setting with free trade agreements exhibits a strong free riding incentive and the setting with customs unions has a strong exclusion incentive, with the former setting being more restrictive than the latter. These findings suggest that permitting the signing of preferential trade agreements fails to properly incentivize countries to reduce global tariffs when they only differ in production structure.

Information Transparency of Firm Financing,
(with Amy Hongfei Sun)

We propose a theory on information transparency of optimal financial contracts. Our model nests adverse selection and agency cost. There exists a unique perfect Bayesian equilibrium with novel features: First, three types of optimal contracts can arise endogenously, *i.e.*, equity, transparent debt, and opaque debt. The former two require firms to take on a costly verification technology while opaque debt does not. Second, the unique equilibrium is either pooling on opaque debt, or mixing with transparent and opaque financing. Third, firms with sufficiently high quality and intermediate levels of internal funds find it optimal to use a transparent contract.

Trade bargaining power, multilateralism, and regional trade agreements
(Work In Progress)

This paper examines the effects of differences in trade bargaining power between countries on their ability to reduce global tariffs. Using a static tariff-setting game with endogenous trade agreements, I develop a competing exporters model with three countries that differ in their trade bargaining powers. I consider three settings that are differentiated by the type of trade agreements that countries can sign: free trade agreements, customs unions, and multilateral trade agreements, i.e. no preferential trade agreements. I find that only the setting with free-trade agreements can guarantee global free trade as a unique coalition-proof Nash equilibrium, i.e. a world without tariffs. The setting with customs unions does not always have global free trade as the unique solution. Global free trade can never be realized in the setting without preferential trade agreements when countries differ in their trade bargaining powers. There is a strong free riding incentive for countries to leave the three-country multilateral trade agreement. Permitting the signing of preferential trade agreements significantly mitigates the role of trade bargaining power of countries in trade relations and helps reduce global tariffs.

To infinity and beyond: Efficient computation of ARCH(∞) models.
(*with Morten Ørregaard Nielsen*)

This paper provides an exact algorithm for efficient computation of the time series of conditional variances, and hence the likelihood function, of models that have an ARCH(∞) representation. This class of models includes, e.g., the fractionally integrated generalized autoregressive conditional heteroskedasticity (FIGARCH) model. Our algorithm is a variation of the fast fractional difference algorithm of Jensen and Nielsen (2014). It takes advantage of the fast Fourier transform (FFT) to achieve an order of magnitude improvement in computational speed. The efficiency of the algorithm allows estimation (and simulation/bootstrapping) of ARCH(∞) models, even with very large data sets and without the truncation of the filter commonly applied in the literature. In Monte Carlo simulations, we show that the elimination of the truncation of the filter reduces the bias of the quasi-maximum-likelihood estimators and improves out-of-sample forecasting. Our results are illustrated in two empirical examples.