

# Marijn A. Bolhuis

**Address:**

Department of Economics  
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**Phone:** +1-647-624-1321**Email:** marijn.bolhuis@mail.utoronto.ca**Website:** marijnbolhuis.info**Research and**

International Macroeconomics, Economic Growth, International Trade

**Teaching Interests:**

## EDUCATION

Ph.D. in Economics, University of Toronto 2021 (Expected)

*Committee:* Diego Restuccia (supervisor), Xiaodong Zhu,  
Kevin Lim

*Dissertation:* "Essays in Economic Growth"

*Honors:* Distinction in Macroeconomic Theory, GPA 4.0/4.0

Recognised Research Student in Economics, University of Oxford 2018

*Supervisor:* Douglas Gollin

Visiting Graduate Student in Economics, University of Groningen 2016

*Honors:* GPA 4.0/4.0

Visiting Graduate Student in Economics, University of Toronto 2015

*Honors:* GPA 4.0/4.0

Research MSc in Economics, Utrecht University 2014-2016

*Honors:* top of class, highest cum laude, GPA 4.0/4.0

Visiting Student in International Relations, University of Amsterdam 2013-2014

*Honors:* GPA 4.0/4.0

B.Sc in Liberal Arts & Sciences, Utrecht University 2010-2014

*Honors:* top 5% of class, highest cum laude, GPA 4.0/4.0

*Double major:* economics; energy science

*Double minor:* public administration; international relations

## WORKING PAPERS

**Financial Linkages and the Global Business Cycle** (Job Market Paper) with Marina M. Tavares (International Monetary Fund).

**Catch-Up Growth and Inter-Industry Productivity Spillovers in Open Economies.**  
*Media Coverage:* World Bank Blogs

**Misallocation in Indian Agriculture** with Swapnika Rachapalli (University of Toronto) and Diego Restuccia (University of Toronto and NBER).

## WORK IN PROGRESS

**An Intangible Stagnation Trap: Evidence from Europe**

**The Millennial Boom, the Baby Bust and the Housing Market** with Judd Cramer (Harvard University).  
*Media Coverage:* VoxEU

## POLICY RESEARCH ON MACHINE LEARNING

**Deus ex Machina? A Framework for Macro Forecasting with Machine Learning** with Brett Rayner (International Monetary Fund). IMF Working Paper 20/45.

**The More the Merrier? A Machine Learning Algorithm for Optimal Pooling of Panel Data** with Brett Rayner (International Monetary Fund). IMF Working Paper 20/44.

## AWARDS AND GRANTS

Ontario Trillium Scholarship, University of Toronto	2016 - 2020
Master of Financial Economics Award, University of Toronto	2020
Department of Economics Travel Grant, University of Toronto	
Program Level Fellowship, University of Toronto	
CEA Travel Grant (declined)	2019
WEHC Travel Grant	2018
SGS Conference Grant, University of Toronto	
Fulbright Scholarship (declined)	2016
University of Toronto Fellowship (declined)	
Prins Bernhard Cultuurfonds Scholarship (declined)	
VSBFonds Scholarship (declined)	
Dr. Hendrik Muller's Vaderlandsch Fonds Scholarship (declined)	
Vreedefonds Scholarship (declined)	
EHS Bursary, Economic History Society	
U-Fonds Grant, Utrecht University	
K. F. Heinfonds Scholarship, K. F. Heinfonds	2015
Young Innovators Summer School Grant, Utrecht University	
Nominee Egbert Tellegen Prize, Utrecht University	2014
Honorable mention OUP Student Prize, U. of Amsterdam	2014
Winner Taste of Strategy, Boston Consulting Group	2013
Exceptional Achievement in Chemistry, KNCV & VNCI	2010
NLT Award, Landelijk Coördinatiepunt NLT	

## PRESENTATIONS AT CONFERENCES, WORKSHOPS, SEMINARS

RCEA 8th Biennial Conference, Waterloo (postponed)	2020
University of Toronto	
Warwick Economics PhD Conference	2019
International Monetary Fund 3 × (invited, February, August, October)	
North East Universities Development Consortium, Northwestern University	
University of Toronto	
University of Oxford	2018
World Economic History Conference, Cambridge, MA	
University of Toronto	
ASREC Conference, Boston	2017
REBO Research Day, Utrecht University	2016
Workshop Health and Welfare in the Long Run, University of Groningen	
Economic History Society Conference, Cambridge, UK	

## DISCUSSIONS

"Insurance and Propagation in Village Networks" , by Kinnan, Samphantharak, Townsend, and Vera-Cossio	2019
"Irrigation vs Education: The Long Run Effects of Opium Cultivation in British India" , by Lehne	
"The Impact of Genetic Diversity on Religiosity" , by Cesur and Yildirim	2017

## RESEARCH VISITS

International Monetary Fund	2019
University of Oxford	2018

## RESEARCH EXPERIENCE

Research Assistant, University of Toronto	2016 - present
<ul style="list-style-type: none"> <li>to Diego Restuccia, Marco Gonzalez-Navarro, Serdar Ozkan, Murat Celik, Margarida Duarte, Burhanettin Kuruscu</li> </ul>	
PhD FIP Machine Learning Forecasting, International Monetary Fund	2019
Research Assistant, Utrecht University	2014 - 2016
<ul style="list-style-type: none"> <li>to Jan Luiten van Zanden, Mark Sanders</li> </ul>	
Researcher, Morgen, Dutch National Student Association for Sustainability	2011 - 2012

## TEACHING AND ADVISING EXPERIENCE

Thesis Supervisor, Utrecht University	2019 - present
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Teaching Assistant, University of Toronto 2016 - present

- ECO 101: Principles of Microeconomics
- ECO 204: Microeconomic Theory
- ECO 230: International Economic Institutions and Policy
- ECO 325: Advanced Economic Theory - Macro
- ECO 341: Twentieth Century Economic History
- ECO 342: International Economics after 1945
- ECO 349: Money, Banking and Financial Markets
- ECO 352: Special Topics in Macroeconomics
- ECO 362: Economic Growth
- ECO 364: International Trade Theory
- ECO 365: International Monetary Economics
- ECO 406: Developmental Macroeconomics
- ECO 407: Competing Views in Macroeconomic Theory and Policy

Teaching Assistant, Utrecht University 2013 - 2016

- GEO2-2212: Thermodynamics and Energy Conversions
- ECBISO: Economics of Strategy and Organization
- ECMENE: Energy and Environmental Economics

Teacher Utrecht University Exam Preparation, Capita Selecta 2012 - 2013

- ECB1WIS: Mathematics (for economists)
- ECB1MI: Microeconomics and Institutions

Teacher and Tutor, Lyceo/StudentsPlus 2010 - 2014

- Mathematics, Physics, Chemistry, Economics, Business

## ACADEMIC SERVICE

Founder and co-organizer of the 5060 Study Group, seminar series for PhD candidates in Economics, University of Toronto 2017-current

Student Representative, REBO Graduate School, Utrecht University 2014 - 2016

Treasurer, Morgen, Dutch National Student Association for Sustainability 2013 - 2014

## ADDITIONAL SCHOOLING

Financial Crises: A Brief History of Time, University of Copenhagen 2015

Debt Sustainability Analysis, International Monetary Fund (EdX) 2014

Sustainable Economics and Management, Witten/Heidecke University

## SKILLS

*Programming:* Python, R, Stata, MATLAB, ArcGIS, SPSS, EViews, SQL

*Languages:* English (Fluent), Dutch (Native), German (Intermediate), French (Intermediate)

## REFERENCES

Diego Restuccia  
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## Abstracts

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### **Financial Linkages and the Global Business Cycle**

(Job Market Paper) with Marina M. Tavares (International Monetary Fund)

Business cycles tend to be highly correlated across countries, yet standard quantitative models explain only a fraction of this comovement. Motivated by the predictive power of changes in corporate funding costs for global GDP comovement, we examine the role of between-firm financial linkages in driving the global business cycle. We model multinational firms as buyers and suppliers of funding, and incorporate their cross-border linkages into a dynamic multicountry general equilibrium framework with production networks. We identify the structural parameter that governs international transmission of financial shocks using quasi-experimental variation in financing conditions of US multinationals during the 2008-09 crisis. Our framework accounts completely for countries' production, investment, labor supply, trade and financial flows in terms of different sets of shocks. Applying the model to 25 countries during the 2005-2016 period, we estimate that financial linkages account for 1/3 of global GDP comovement, and for 2/3 of comovement with the US.

### **Catch-Up Growth and Inter-Industry Productivity Spillovers in Open Economies**

Countries tend to export more skill-intensive products as they become more productive. This paper proposes a tractable quantitative framework to examine the role of inter-industry productivity spillovers in this development process. I document that a country's comparative advantage tends to increase in industries that employ occupations that are used most intensively in current exports. The model rationalizes these findings by incorporating occupation-specific dynamic scale economies into a multi-sector gravity framework. I estimate the model using cross-sector heterogeneity in foreign demand shocks and find that scale economies are relatively large in high-skilled production. As a result, productivity spillovers tend to be larger in richer countries, and access to foreign markets allows developing countries to shift labor into sectors that contribute more to aggregate productivity growth. Counterfactual exercises suggest that spillovers play a quantitatively substantial role in accounting for slow cross-country convergence and increase the gains from trade, especially in economies with a comparative advantage in manufacturing.

### **Misallocation in Indian Agriculture**

with Swapnika Rachapalli (University of Toronto) and Diego Restuccia (University of Toronto and NBER)

We exploit substantial variation in land-market institutions across Indian states and detailed micro panel data to study distortions in land rental markets and their impact on agricultural productivity. We find evidence that states with more rental-market activity feature less misallocation and over time reallocate land more efficiently. We develop a model of land rentals across heterogeneous farms to estimate land-market distortions in each state and assess their quantitative effect on agricultural productivity. Rentals have substantial positive effects on agricultural productivity. If farmers operate with their owned land instead of the actual cultivated land, agricultural productivity would decline by 22 percent on average and by more than 30 percent in states with substantial rental-market activity; whereas an efficient reallocation of land would further increase agricultural productivity by 29 percent on average and by more than 50 percent in states with highly distorted rental markets. Land market-distortions contribute to about one quarter of the differences in agricultural productivity across states.