

## Chaoran Chen

### Business Address

Department of Economics  
University of Toronto  
150 St. George Street  
Toronto, ON, Canada, M5S 3G7  
Phone: (647) 787-3065

### Home Address

4104, 65 St. Mary Street  
Toronto, ON, Canada, M5S 0A6

Email: [chaoran.chen@mail.utoronto.ca](mailto:chaoran.chen@mail.utoronto.ca)

Web: <https://sites.google.com/site/chaoransite/>

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<b>Citizenship</b>	P. R. China
<b>Languages</b>	English, Mandarin
<b>Research Interests</b>	Macroeconomics, Growth and Development, Structural Transformation, and Misallocation
<b>Teaching Interests</b>	Macroeconomics, International Economics, Development Economics

### Education

2011-2017 (expected)	Ph.D., Economics, University of Toronto  Dissertation: Essays on economic growth and development Committee: Diego Restuccia (supervisor), Xiaodong Zhu, Margarida Duarte
2010-2011	M.A., Economics, University of Toronto
2006-2010	Bachelor of Economics ( <i>summa cum laude</i> ), Fudan University

### Publications and Working Papers

**Technology Adoption, Capital Deepening, and International Productivity Differences**, October 2016, *Job market paper*

**Untitled Land, Occupational Choice, and Agricultural Productivity**, September 2016  
Third revision resubmitted to the *American Economic Journal: Macroeconomics*

**Land Markets, Resource Allocation, and Agricultural Productivity**, October 2016  
(with Diego Restuccia and Raül Santaeuilàlia-Llopis)

### Work in Progress

**Capital-Skill Complementarity, Sectoral Labour Productivity, and Structural Transformation**, preliminary draft available

**Firm-Manager Matching, Contracting Frictions, and Misallocation**, in progress  
(with Ashique Habib)

## Awards and Grants

Dorothy J. Powell Graduate Scholarship, 2015  
Samuel Hollander Graduate Award, 2015  
Award for Excellence in Teaching by Teaching Assistants, 2015  
Doctoral Completion Award, 2015  
Harry Eastman Graduate Award, 2013  
University of Toronto Fellowship, 2011-2015  
China National Scholarship, 2009  
First-class People's Scholarship, 2007, 2008, 2010

## Professional Experience

- 2014-present Course Instructor, University of Toronto
- Economic Growth (3<sup>rd</sup>-year undergraduate course, 2014, 2015, 2016)
- 2010-present: Teaching Assistant, University of Toronto
- Economic Growth (2011-present)
  - Intermediate Macroeconomics (2013-present)
  - Ph.D. Core Macroeconomic Theory I & II (2012-2014)
  - Ph.D. Core Microeconomic Theory I & II (2012-2013)
- 2011-present: Research Assistant, University of Toronto
- Prof. Diego Restuccia, macro development and agriculture (2014-present)
  - Prof. Burhanettin Kuruscu, macroeconomics and taxation (2013-2015)
  - Prof. Xiaodong Zhu, trade and development (2013-2014)

## Conference and Invited Seminar Presentations

Northeast Universities Development Consortium Conference (MIT Sloan, 2016)  
EconCon (Princeton, 2016)  
Midwest Macro Meeting (Purdue, 2016)  
Canadian Economics Association (U. Ottawa, 2016)  
Shanghai University of Finance and Economics (2015)  
Canadian Economics Association (Ryerson U., 2015)  
Econometric Society Winter Meeting (CEMFI, 2014)  
Canadian Economics Association (Simon Fraser U., 2014)

## Refereeing Experience

Journal of International Economics, Review of Economic Dynamics

## Computational Skills

Fortran 90/95, Matlab, Stata, C, E-views

**References**

Professor Diego Restuccia  
Department of Economics  
University of Toronto  
150 St. George Street  
Toronto, ON M5S 3G7

phone: (416) 978-5114  
email: diego.restuccia@utoronto.ca

Professor Xiaodong Zhu  
Department of Economics  
University of Toronto  
150 St. George Street  
Toronto, ON M5S 3G7

phone: (416) 978-7134  
email: xzhu@chass.utoronto.ca

Professor Margarida Duarte  
Department of Economics  
University of Toronto  
150 St. George Street  
Toronto, ON M5S 3G7

phone: (416) 978- 6208  
email: margarida.duarte@utoronto.ca

## Dissertation Abstract

### Technology Adoption, Capital Deepening, and International Productivity Differences

Cross-country differences in capital intensity are larger in the agricultural sector than in the non-agricultural sector, indicating that rich and poor countries differ in agricultural technology adoption. I build a two-sector general equilibrium model featuring technology adoption in agriculture. As the economy develops, farmers gradually adopt a modern capital-intensive technology to replace the traditional labour-intensive technology, as is observed in the U.S. historical data. Using this model, I find that the technology adoption channel is key to accounting for low agricultural capital intensity in poor countries. In my model, measured aggregate factors – land endowment, economy-wide productivity, and barriers to investment – can explain 1.56-fold more in rich-poor agricultural productivity differences compared to a model without technology adoption. I further show that land market frictions in agriculture impede technology adoption and magnify productivity differences.

### Untitled Land, Occupational Choice, and Agricultural Productivity

The prevalence of untitled land in poor countries helps explain the international agricultural productivity differences. Since untitled land cannot be traded across farmers, it creates land misallocation and distorts individuals' occupational choice between farming and working outside agriculture. I build a two-sector general equilibrium model to quantify the impact of untitled land. I find that economies with higher percentages of untitled land would have lower agricultural productivity; land titling can increase agricultural productivity by up to 82.4%. About 42% of this gain is due to eliminating land misallocation, and the remaining due to eliminating distortions in individuals' occupational choice.

### Land Markets, Resource Allocation, and Agricultural Productivity (with Diego Restuccia and Raül Santaaulàlia-Llopis)

We study factor misallocation and its impact on aggregate agricultural productivity using detailed household-level micro data from Ethiopia, where land ownership resides with the state and use-rights are granted at the local level with strong restrictions for reallocation. We find severe factor misallocation in agriculture. An efficient reallocation of resources can increase aggregate agricultural output and productivity by 144%. We explore the regional variation of land rentals which resulted from differences in the implementation of a land-certification reform. We find that land rentals differ substantially across regions and that regions with more land rentals are associated with lower factor misallocation and higher agricultural productivity. On average, a one percentage point higher land rental implies a 1.7 percentage points increase in aggregate agricultural productivity.