

# Howard Zihao Zhang

## CONTACT INFORMATION

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## PLACEMENT INFORMATION

### Placement Chairs:

Sandra Black, [sblack@columbia.edu](mailto:sblack@columbia.edu)  
Suresh Naidu, [sn2430@columbia.edu](mailto:sn2430@columbia.edu)

### Placement Assistant:

Amy Devine, +1 (212) 854-6881  
[aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## RESEARCH INTERESTS

Primary Fields: International Trade, Urban Economics  
Secondary Field: Real Estate

## EDUCATION

Ph.D. Candidate in Economics, Columbia University, 2017 - present  
M.Phil. Economics, Columbia University, 2017 - 2020  
M.A. Economics, Columbia University, 2017 - 2019  
A.B. Applied Mathematics, *Magna Cum Laude*, Harvard University, 2011 - 2015  
High Honors in Field, Minor in Computer Science

## JOB MARKET PAPER

### Consumer Cities: The Role of Housing Variety

This paper estimates theoretically-founded housing price indices that account for differences in housing variety availability, where some varieties are available in certain cities but not others. I develop a model of housing demand and city choice that incorporates differentiated housing varieties and the discrete-nature of housing decisions. For estimation, I develop a method to jointly estimate the nests that varieties belong to and the elasticity of substitution across varieties within each nest. I find that households in larger cities benefit from having access to varieties not available in smaller cities. These consumption amenities are quantitatively large: the elasticity with respect to population is a third of the elasticity of housing prices with respect to population. After accounting for consumption amenities, real income increases with city size.

## WORKING PAPERS

### Exporting and Knowledge Diffusion

How do we model and quantify the dynamic gains from exporting? I develop a dynamic trade model where firms innovate and learn from other firms in the destinations they sell to. The evolution of a country's stock of knowledge can be expressed as a function of export flows and the stocks of knowledge of their trading partners. I find evidence that countries in Asia, North America, and Europe, as well as countries in the top two quartiles of TFP growth were able to better absorb foreign insights than other countries. I evaluate whether there are dynamic gains from trade with two counterfactual exercises. First, I measure the impact of changing trade costs between 1962 and 2000. I find small static gains but zero dynamic gains for the world economy. Second, I quantify the dynamic gains from export-induced foreign knowledge flows by simulating a counterfactual where there is no learning from foreign sources. I find that domestic learning compensates for foreign learning: there are large dynamic gains from exporting when there is no domestic learning and small dynamic gains when there is domestic learning.

IN PROGRESS	Decreasing Returns to Scale and Exchange Rate Pass-Through Shopping Alone: The Impact of the Decline of the American Mall ( <i>with Guy Aridor and Louise Guillouet</i> )	
RESEARCH EXPERIENCE	Research Assistant for Réka Juhász and Dávid Nagy, Columbia University, 2019 Research Assistant for Andrea Prat, Columbia University, 2019 Research Assistant for Joseph Aldy, Harvard Kennedy School, 2012	
TEACHING EXPERIENCE	Columbia University (Teaching Assistant)  Introduction to Econometrics: Fall 2018, Spring 2019, Spring 2020 International Trade: Fall 2019, Spring 2021 Economic Development of Japan: Fall 2020	
FELLOWSHIPS AND AWARDS	UEA North America Meeting: Prize for Best Student Paper, 2022 Reubens Travel and Research Fellowship, Columbia University, 2021 - 2022 Dissertation Fellowship, Columbia University, 2022 - present Doctoral Fellowship, Columbia University, 2017 - present Harvard University Center for the Environment Summer Research Fellowship, 2012	
PROFESSIONAL ACTIVITIES	Conference Presentations: UEA Summer School 2021, UEA Fall 2021, AREUEA National 2022, UEA Fall 2022 Referee: Journal of Urban Economics Organizer of International Trade Colloquium at Columbia University, 2020 - 2022	
NON-ACADEMIC EMPLOYMENT	Analyst, Cornerstone Research, 2015 - 2017	
PERSONAL	Citizenship: Chinese (U.S. Permanent Resident)	
TECHNICAL SKILLS	Julia, Stata, SQL, Matlab, R, Python	
REFERENCES	<b>David E. Weinstein</b> <a href="mailto:dew35@columbia.edu">dew35@columbia.edu</a> Carl S. Shoup Professor of the Japanese Economy Columbia University	<b>Donald R. Davis</b> <a href="mailto:drdavis@columbia.edu">drdavis@columbia.edu</a> Ragnar Nurkse Professor of Economics Columbia University
	<b>Bernard Salanié</b> <a href="mailto:bsalanie@columbia.edu">bsalanie@columbia.edu</a> Professor of Economics Columbia University	