



## **Doctoral Program in Applied Economics**

# **PHD CANDIDATES AVAILABLE FOR POSITIONS IN THE ACADEMIC YEAR 2022-2023**

**Placement Director:**

Eduardo Azevedo

Phone: (215)-573-9984

Email: [eazevedo@wharton.upenn.edu](mailto:eazevedo@wharton.upenn.edu)

**Graduate Administrator:**

Dhivya Kaushik

Phone: (215) 898-1197

Email: [dhivya@wharton.upenn.edu](mailto:dhivya@wharton.upenn.edu)

**Placement Website:**

<https://bepp.wharton.upenn.edu/programs/applied-economics-job-market-candidates/>



## Applied Economics Job Market Candidates 2022-2023

### Tian Fang (Tom) Cui

JMP: *"The Emergence of Exclusionary Zoning Across American Cities"*

FIELDS: Urban Economics, Public Economics, Real Estate

ADVISORS: Fernando Ferreira, Joseph Gyourko, Benjamin Keys

EMAIL: [tfcui@wharton.upenn.edu](mailto:tfcui@wharton.upenn.edu)

---

### Samuel K Hughes

JMP: *How Mortgage Financing Costs Affect Rental Housing: Pass-Through & Pricing*

FIELDS: Real Estate Finance, Urban Economics, Labor Economics

ADVISORS: Benjamin Keys, Joe Gyourko, Jessie Handbury, Todd Sinai

EMAIL: [skhughes@wharton.upenn.edu](mailto:skhughes@wharton.upenn.edu)

---

### Qingqing Chen

JMP: *Who steps into the void? A third-party perspective on the U.S. sanctions on Huawei in international standard-setting*

FIELDS: Strategy, Technology Management, International Business

ADVISORS: David Hsu, Lori Rosenkopf, Witold Henisz, Gilles Duranton

EMAIL: [qingch@wharton.upenn.edu](mailto:qingch@wharton.upenn.edu)

---

## Rui Yu

JMP: *Returns to Political Contributions in Local Housing Markets*

FIELDS: Urban Economics and Real Estate, Public Finance, Applied Microeconomics, Political Economy

ADVISORS: Fernando Ferreira, Joseph Gyourko, and Gilles Duranton

EMAIL: [ruiyu.ch@gmail.com](mailto:ruiyu.ch@gmail.com)

---

## Jonah Matthew Rexer

JMP: *The local advantage: Corruption, organized crime, and indigenization in the Nigerian oil sector*

FIELDS: Applied Microeconomics, Development Economics, Political Economy

ADVISORS: Santosh Anagol, Arthur van Benthem, Guy Grossman, Ethan Kapstein (postdoc), Jacob Shapiro (postdoc)

EMAIL: [jrexer@princeton.edu](mailto:jrexer@princeton.edu)

---

## Xiaoyue Shan

JMP: *The Minority Trap: Minority Status Drives Women Out of Male-Dominated Fields*

FIELDS: Labor Economics, Behavioral Economics, Applied Microeconomics

ADVISORS: Judd B. Kessler, Corinne Low, Michel Maréchal, Ulf Zölitz

EMAIL: [xiaoyues@wharton.upenn.edu](mailto:xiaoyues@wharton.upenn.edu)

---

**TIAN FANG (TOM) CUI**

Website: tom-cui.com

tffcui@wharton.upenn.edu

**WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA**

Placement Director: Eduardo Azevedo                      eazevedo@wharton.upenn.edu                      215-573-9984  
Graduate Student Coordinator: Dhivya Kaushik                      dhivya@wharton.upenn.edu                      215-898-1197

**Contact Information**

3733 Spruce Street  
Philadelphia, PA 19104-6302  
Phone number: (267) 318-0507

**Previous Education:**

M.A. Economics, Northwestern University, 2015.  
B.A. Mathematics and Economics, Northwestern University, 2015.

**Graduate Studies:**

Wharton School, University of Pennsylvania, 2017 to present  
Thesis Title: “Essays on Housing Economics”  
Expected Completion Date: May 2023

Thesis Committee and References:

Professor Fernando Ferreira: Primary Advisor  
3733 Spruce Street  
Philadelphia, PA 19104-6301  
(215) 898-7181  
ffereir@wharton.upenn.edu

Professor Joseph Gyourko: Primary Advisor  
3733 Spruce Street  
Philadelphia, PA 19104-6301  
(215) 898-3003  
gyourko@wharton.upenn.edu

Professor David Berger  
419 Chapel Drive  
Durham, NC 27708-0097  
(919) 660-1853  
david.berger@duke.edu

Professor Eric Zwick  
5807 South Woodlawn Avenue  
Chicago, IL 60637  
(239) 822-8942  
ezwick@chicagobooth.edu

Professor Benjamin Keys  
3733 Spruce Street  
Philadelphia, PA 19104-6301  
(215) 746-1253  
benkeys@wharton.upenn.edu

**Teaching and Research Fields:**

Research fields: Urban economics, public economics

Teaching fields: Real estate, household finance

**Teaching Experience:**

Spring 2020–22 Housing Markets (MBA & UG): Teaching fellow for Prof. Joseph Gyourko.  
Fall 2018–21 Microeconomics for Managers (MBA): Teaching fellow for Prof. Juuso Toikka.  
Fall 2019 Urban Public Finance (MBA&UG): Teaching fellow for Prof. Fernando Ferreira.

**Research Experience and Other Employment:**

Spring–Summer 2020 Research Assistant, Wharton School  
(work with Professors Fernando Ferreira and Santosh Anagol)  
Summer 2018 Research Assistant, Wharton School  
(work with Professor Joseph Gyourko)  
2015–2017 Research Professional, Booth School of Business  
(work with Professor Eric Zwick)

**Service:**

2021–2022 Mentor, Research Professional Mentorship Program, Chicago Booth  
August 2020 Student referee and organizer, Young Economists Symposium (YES)  
March-May 2020 Co-organizer, Spatial Student Reading Group, University of Pennsylvania

**Honors, Scholarships, and Fellowships:**

October 2022 Honorable mention for Student Paper Prize, Urban Economics Association  
July 2022 Robert R. Nathan Fellowship, Wharton School  
April 2017 George James Doctoral Fellowship, Wharton School

**Research Papers:**

“The Emergence of Exclusionary Zoning Across American Cities.” ([Job Market Paper](#))

This paper identifies the effects of demographic change in American central cities on restrictive land use controls adoption in their suburbs. First, I show lot-level records provide information on when a local government adopted a ubiquitous U.S. residential land use control – the minimum lot size. To jointly estimate when and which minimum lot sizes were adopted by those governments, I develop an algorithm detecting the first years when the lot sizes for new residential development bunch at certain size bins. Second, I apply the procedure to national home assessor records and recover dynamic estimates of lot size restrictiveness for 7000 governments. Restrictiveness defined as excess mass around lot size bins capture where contemporary market demand could support denser housing absent the minimum lot size. Third, I use the Second Great Migration from 1940-1970 as a natural experiment shifting the racial composition of central cities toward Black Americans. Regressions identified with shift-share migration instruments indicate a one standard deviation increase in central city Black composition due to the Great Migration moderately accelerated minimum lot size adoption, while explaining at least a fifth of contemporaneous growth in lot size restrictiveness. Migration of working class whites into the same cities, however, yield null or negative effects on suburban lot size outcomes. Together, the results support theories of land use regulation adoption based on local governments meeting contemporary demand for segregated neighborhoods or for segregated public good provision.

**Research Papers in Progress:**

“Stimulating Durable Purchases.” (with David Berger, Nicholas Turner and Eric Zwick)

An empirical literature shows large responses to temporary subsidies for durable goods. However, the evidence is inconclusive on these policies' stimulative effect net of reversal. We build a heterogeneous agent life cycle model in which durable takeup and adjustment decisions over the life cycle are lumpy, but the timing of which can be considerably shifted by temporary subsidies. Households' binding financial constraints affect how much temporary subsidies shift their future durable purchase, providing the channel through which income and savings heterogeneity impacts aggregate policy responses. The model reconciles empirical results on temporary policies' reversal, emphasizing how aggregate effects depend on the stimulated good's durability and the timing of stimulus receipt.

“Housing Segments and Segmented Remodeling.”

In 2019, home remodeling and improvement accounted for over \$400 billion in annual U.S. investment. I show that this sizable investment in remodeling is also segmented investment: investment is concentrated in the right tail of major remodels. Households making major remodels live in higher-quality homes within a housing market, as defined by their self-reported home values. Preliminary results show remodeling is both procyclical and price elastic, but that the price elasticity varies greatly between households with different mortgage payment-to-income ratios. The incentive to remodel during a housing boom is quantitatively similar to the disincentives of not remodeling due to higher leverage. These facts suggest credit markets play a key role in ensuring remodeling activity is directed towards providing affordable housing stock compared to properties held by real estate investors.

**Personal Information:**

Date of birth: August 9, 1993

Citizenship: Canada

Gender: Male (he/him)

Programming experience: Stata, R, Python, GIS (QGIS), SQL, MATLAB, Fortran, L<sup>A</sup>T<sub>E</sub>X

Languages: Mandarin Chinese (native), English (fluent), French (proficient)

**SAMUEL K HUGHES**

<https://sites.google.com/view/skhughes/home>  
skhughes@wharton.upenn.edu

**WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA**

Placement Director: Eduardo Azevedo                      eazevedo@wharton.upenn.edu      215-573-9984  
Graduate Student Coordinator: Dhivya Kaushik              dhivya@wharton.upenn.edu      215-898-1197

**Office Contact Information**

417A Vance Hall, 3733 Spruce Street  
Philadelphia, PA 19104-6301  
Department (Admin): (215) 898-9687

**Home Contact Information**

1520 Hamilton St.  
Philadelphia, PA 19120  
Mobile: (919) 360-3685

**Personal Information:** U.S. citizen; Birth date: May 10, 1991.

**Undergraduate Studies:**

B.A., Economics & Political Science, University of North Carolina at Chapel Hill, 2013

**Graduate Studies:**

Wharton School, University of Pennsylvania, 2017 to present  
Thesis Title: “Essays in Rental Housing Finance and Urban Economics”  
Expected Completion Date: June 2023

**Thesis Committee and References:**

Professor Benjamin Keys  
432 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104-6301  
Phone: (215) 746-1253  
Email: benkeys@wharton.upenn.edu

Professor Joe Gyourko  
448 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104  
Phone: (215) 898-3003  
Email: gyourko@wharton.upenn.edu

Professor Jessie Handbury  
431 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104-6301  
Phone: (215) 573-7903  
Email: handbury@wharton.upenn.edu

Professor Todd Sinai  
429 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104-6301  
Phone: (215) 898-5390  
Email: sinai@wharton.upenn.edu

**Teaching and Research Fields:**

Primary fields: Real Estate Finance

Secondary fields: Urban Economics, Labor Economics

**Teaching Experience:**

Spring 2021 & 2022      Teaching Assistant, Prof. Joe Gyourko; Housing Markets (REAL/BEPP 208/708), Wharton MBA/Undergraduate

Fall 2018, Teaching Assistant, Prof. Ioana Marinescu; Economics for Social Policy (MSSP  
2019 & 2020 668), UPenn School of Social Policy & Practice MS/MA  
Spring 2020 Head Teaching Assistant, Profs. Mike Abito & Uli Doraszelski; Managerial  
Economics (BEPP 250), Wharton Undergraduate

**Research Experience and Other Employment:**

2015-2017 Research Data Analyst, Prof. Christopher Palmer; Fisher Center for Real Estate and  
Urban Economics, UC Berkeley-Haas, Berkeley, CA  
2013-2015 Analyst; Analysis Group, Washington, D.C.  
2013 Research Assistant, Executive Director Janneke Ratcliffe; UNC Center for  
Community Capital, Chapel Hill, NC  
2012 Economic Policy Intern, Director Julia Gordon; Housing Finance Group at Center  
for American Progress, Washington, D.C.

**Honors, Scholarships, and Fellowships:**

2018 Finalist, Penn Prize for Excellence in Teaching by Graduate Students, UPenn  
2009-2013 Honors Program & Merit Scholarship Recipient, UNC-CH

**Research Papers:**

“How Mortgage Financing Costs Affect Rental Housing: Pass-Through & Pricing” (Job Market Paper)

*Abstract:* The first part of this paper estimates how changes in landlords’ mortgage financing costs affect rental housing markets. I construct a novel dataset allowing me to observe within-property variation in asking rents, vacancy rates, revenues, expenses, and net operating incomes. The two main empirical exercises use shifts in financing costs coming from (1) refinances after prepayment lock expiration, and (2) the end of interest-only payment periods. My main estimates suggest landlords significantly raise revenue by 2-3% after interest-only periods end, and around a refinance. The second part of this paper examines why landlords change their behavior around these financing cost shocks and how tenants are affected. Landlords have pricing power and respond to financing shocks because of liquidity constraints, information costs, and valuation frictions. I then estimate city-level effects of shifts in financing costs on rental price indices using variation in the share of multifamily mortgages prepaying & maturing, and variation in the spread between interest rates on existing loans and current market rates. For cities with 5% of mortgages prepaying in a given year, a 1 ppt increase in rates causes 0.18 ppt higher rent growth. The evidence suggests that renters are strongly affected by the financing conditions of their landlords.

“Housing Demand & Affordability for Low-Wage Households: Evidence from Minimum Wage Changes”

*Abstract:* Rent-to-income ratios have risen over the past two decades with large increases at the bottom of the income distribution, prompting concern about a housing affordability crisis. This paper uses minimum wage changes as a natural experiment to study the relationship between housing demand & policies affecting low-wage households. If their housing demand is relatively inelastic, an increase in income will causally decrease rent-to-income ratios. The results suggest a 10% increase in minimum wages increases income for affected households by 1.9%, increases housing consumption by 0.5%, and decreases rent-to-income ratios by 1.4%. These estimates suggest that housing demand is fairly income inelastic, and preferences over housing demand are non-homothetic. In a modeling exercise, this paper suggests that homothetic models may not match housing demand behavior and may underestimate welfare gains to low-wage households.

**Research in Progress:**



“The Effect of Expanding Colleges and Universities on Local Housing & Labor Markets”

“The Role of Unemployment Insurance in Smoothing & Family Co-Residence in Accelerating Shocks to Rental Housing & Household Formation”

**QINGQING CHEN**

<https://sites.google.com/view/qingqing-chen>

qingch@wharton.upenn.edu

**WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA**

Placement Director: Eduardo Azevedo

eazevedo@wharton.upenn.edu (215) 573-9984

Graduate Student Coordinator: Dhivya Kaushik

dhivya@wharton.upenn.edu (215) 898-1197

**Office Contact Information**

3000 Vance Hall, 3733 Spruce Street

Philadelphia, PA 19104

Cell phone number: (+1)2159093042

**Home Contact Information**

329 S 42<sup>nd</sup> Street

Philadelphia, PA 19104

**Personal Information:** May 13<sup>th</sup>, 1991, Female, Chinese citizen, Canadian permanent resident

**Undergraduate Studies:**

B.A. in Economics, Yuan Pei College, Peking University, 2009-2013

B.S. in Statistics, Peking University, 2010-2013

**Graduate Studies:**

Wharton School, University of Pennsylvania, 2016 to present

Thesis Title: “*Ripple effects of Technology Protectionism in International Standard-Setting*”

Expected Completion Date: May 2013

**Thesis Committee and References:**

Professor David Hsu

Richard A. Sapp Professor

Professor of Management

2028 SH-DH

3620 Locust Walk

Philadelphia, PA 19104

[dhsu@wharton.upenn.edu](mailto:dhsu@wharton.upenn.edu)

215-746-0125

Professor Lori Rosenkopf

Simon and Midge Palley Professor

Professor of Management

3018 SH-DH

3620 Locust Walk

Philadelphia, PA 19104

[rosenkof@wharton.upenn.edu](mailto:rosenkof@wharton.upenn.edu)

215-898-6723

Professor Witold Henisz

Vice Dean of Faculty Director, ESG Initiative

Deloitte & Touche Professor of Management in

Honor of Russell E. Palm

3107 SH-DH

3620 Locust Walk

Philadelphia, PA 19104

[henisz@wharton.upenn.edu](mailto:henisz@wharton.upenn.edu)

215-898-0788

Professor Gilles Duranton

Dean’s Chair in Real Estate Professor

452 Vance Hall

3733 Spruce Street

Philadelphia, PA 19104

[duranton@wharton.upenn.edu](mailto:duranton@wharton.upenn.edu)

215-898-2859

**Teaching and Research Fields:**

Research fields: Strategy, Technology Management

Teaching fields: Strategy, Technology & Innovation, Entrepreneurship, International Business

**Teaching Experience:**

Fall, 2018	<i>Managerial Economics</i> (BEPP 250), Wharton School, teaching fellow for Professor Gilles Duranton
Fall, 2019	<i>Managing the Emerging Enterprise</i> (MGMT 612), Wharton School, teaching fellow for Professor David Hsu
Fall, 2019	<i>Strategy and Competitive Advantage</i> (MGMT 701), Wharton School, teaching fellow for Professor Nicolaj Siggelkow
Spring, 2020	<i>Strategy Implementation</i> (MGMT 782), Wharton School, teaching fellow for Professor Nicolaj Siggelkow

**Honors, Scholarships, and Fellowships:**

2018	Mack Institute Research Grant
2019	Wharton Doctoral program, Travel Grant
2020	Mack Institute Research Grant
2020	Jacob Levy Equity Management Center for Quantitative Financial Research
2022	Wharton Doctoral program, Travel Grant
2022	SMS-Final list of Corporate Strategy IG Best Paper (Job market paper)

**Research Papers:**

[“Who steps into the void? A third-party perspective on the U.S. sanctions on Huawei in international standard-setting”](#) (Job market paper, Final list of Corporate Strategy IG Best Paper – SMS 2022)

This paper examines the role of third-party companies in the standard-setting process when the cooperation between two groups of key players is exogenously disrupted. By jointly considering technology interdependence and cooperative interactions between players in an innovation ecosystem, the paper builds a framework to understand the third party's technological and sociological salience in the face of disruptions. The paper argues that after the disruption, a third-party player will become more influential in the standard setting process if it could (1) replace either party in the disrupted relationship (the substitution effect); or (2) serve as an information broker connecting the two groups of key players (the brokerage effect). Social familiarity magnifies the substitution effect, and the technology proximity between the disconnected two parties negatively moderates the brokerage effect. The theory hypotheses are supported by evidence collected in 3GPP, an international telecommunication standard-setting organization, during the recent US sanctions on Huawei. By tracking 67 active third-party companies' standard proposals in 535 3GPP meetings, I find supportive evidence for the substitution and the brokerage effects.

[“Inventor commingling and innovation in technology startup acquisition,” with David Hsu and David Zvilichovsky, \*R&R at Organization Science\*](#)

How does inventor team commingling, which we define as integrating human capital from the target and acquiring firm for R&D collaboration, impact innovation outcomes in technology acquisitions? Organizing post-acquisition R&D production teams in this manner holds the potential of sidestepping the classical integration-autonomy tradeoff. Structural integration facilitates task coordination but may dampen individual motivation, while an autonomous post-acquisition organization presents the opposite tradeoff. We argue that commingling is especially suited to technology acquisition integration and innovation facilitating know-how recombination. We assemble a sample of technology acquisitions, with some firms also experiencing prior R&D alliances with the acquirer. While structural integration

reduces post-merger innovation outcomes, inventor commingling has a significant positive effect, increasing post-merger innovation outcomes for firms with more intensive inventor commingling. These effects are distinct from team knowledge diversity. Interestingly, commingling works better for firms that are less structurally integrated. We instrument direct flights between the acquisition party locations to address the issue of endogenous commingling, and find consistent results. This supports a causal interpretation of commingling on innovation. Finally, as initial evidence that the commingling design may also depend on managerial authority and control, we find that inventors who engaged in both post-acquisition commingling and pre-acquisition R&D collaboration experienced greater innovation outcomes under the former structure. These findings suggest ways to augment the knowledge-based theory of the firm.

*“Protection or isolation? Asymmetric impacts of technology disclosure restrictions in international standard-setting”*

While global cooperation in standard-setting thrives upon the emergence of many international ecosystems, there are increasing concerns that technology leaks to potential foreign rivals may harm a nation's leadership in the international ecosystems. Yet, will governmental intervention by restricting knowledge transfer helps to maintain/improve domestic companies' leadership? This paper tries to answer this question by investigating the direct impacts of the U.S. sanctions on Huawei by restricting U.S. firms from transferring technical information with the sanctioned entities in the standard-setting process. By closely investigating 3GPP, one of the essential international standard-setting organizations in the telecommunication industry, this paper finds that the restrictions on technology transfer have asymmetric impacts on the influence of knowledge distributors and knowledge receivers. Contrary to the intuition that restrictions on knowledge transfer should have more negative impacts on knowledge receivers, the paper suggests that it is knowledge distributors' influence in the standard-setting body that is severely impaired. This arises because knowledge sharing is an important mechanism for players in an ecosystem to align other actors' technical choices with theirs. Knowledge sharing with complementors is essential for potential cooperation and joint contribution. Balanced against the concerns of imitation and misappropriation, the flexibility to choose the optimal level of technology disclosure is critical for a firm to maximize the expected returns from its entire IP portfolio. Since standard-setting organizations make decisions by forging a broad consensus, the restrictions on knowledge transfers cause knowledge distributors to lose the ability to argue for their technologies' merits. In contrast, the negative impacts on knowledge receivers may be minimized if they can find alternative sources for complementary technologies. As a result, U.S. firms' successful proposals in 3GPP significantly declined compared to those sponsored by Huawei and other participants after the sanctions aimed to "protect" U.S. technologies.

**RUI YU**  
<https://rui-yu.org>  
ruiyu.ch@gmail.com

**WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA**

Placement Director: Eduardo Azevedo                      eazevedo@wharton.upenn.edu    (215) 573-9984  
Graduate Student Coordinator: Dhivya Kaushik              dhivya@wharton.upenn.edu    (215) 898-1197

**Personal Information:**

11/6/1991, Male, U.S. Citizen

**Undergraduate Studies:**

B.A., Economics-Mathematics, Columbia University, *cum laude*, 2014

**Graduate Studies:**

Ph.D., Wharton School, University of Pennsylvania, 2022

Thesis Title: “Essays on Urban Economics and Public Finance”

**References:**

Fernando Ferreira (Advisor)  
C. F. Koo Professor  
430 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104  
(215) 898-7181  
fferreir@wharton.upenn.edu

Gilles Duranton  
Dean’s Chair in Real Estate Professor  
452 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104  
(215) 898-2859  
duranton@wharton.upenn.edu

Joseph Gyourko  
Martin Bucksbaum Professor  
448 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104  
(215) 898-3003  
gyourko@wharton.upenn.edu

**Teaching and Research Fields:**

*Primary:* Urban Economics and Real Estate, Public Finance

*Secondary:* Applied Microeconomics, Political Economy

**Teaching Experience:**

**University of Pennsylvania:**

Fall, 2020              Managerial Economics (Executive MBA), TA for Kent Smetters  
Fall, 2019              Urban Fiscal Policy (Undergraduate/MBA), TA for Fernando Ferreira  
Fall, 2018              Managerial Economics (Undergraduate), Head TA for Eduardo Azevedo

Columbia University:

Fall, 2013 Intermediate Macroeconomics (Undergraduate), TA for Jon Steinsson

**Research Experience and Other Employment:**

2022- Associate, The Brattle Group  
2018-2019 Research Assistant for Fernando Ferreira and Maisy Wong  
Wharton School, University of Pennsylvania  
2017-2018 Research Assistant for Fernando Ferreira and Joe Gyourko  
Wharton School, University of Pennsylvania  
2014-2016 Senior Research Analyst  
Research and Statistics, Federal Reserve Bank of New York

**Professional Activities:**

*Presentations:*

2022 Department of the Treasury (Office of Tax Analysis), Hong Kong University,  
Department of Housing and Urban Development, New York University  
(Furman Center), Syracuse University  
2018-2021 Urban Economics Association, Summer School in Urban Economics, MIDAS  
Seminar, Wharton Seminars

*Service:*

2019 Wharton-INSEAD Doctoral Consortium, Executive Committee, Wharton  
Innovation Doctoral Symposium, Organizing Committee

**Honors, Scholarships, and Fellowships:**

2021 Urban Economics Association Co-Winner of Best Student Paper  
2021 University of Pennsylvania Graduate Center Grant  
2021 Robert R. Nathan Fellowship  
2019, 2020 Graduate and Professional Student Assembly Grants  
2019 Becker-Friedman Institute Price Theory Summer Camp  
2019 George James Term Fund  
2018, 2019 Zell/Lurie Real Estate Center Research Grants  
2018, 2019 Mack Institute for Innovation Management Research Grants  
2018, 2019 Applied Economics Travel Grants  
2016–2021 Wharton Doctoral Fellowship  
2016 NSF Graduate Research Fellowship, Honorable Mention

**Research Papers:**

[\*“Returns to Political Contributions in Local Housing Markets”\*](#) (Job Market Paper)

Revise and Resubmit, *Review of Economics and Statistics*

This paper investigates whether firms donate to political campaigns in order to influence supply in local housing markets. Using new data on campaign donors of U.S. mayoral candidates and a regression discontinuity design, I uncover three findings. Consistent with political favors, connection to the mayor causes residential development firms to sell more new housing units. Favors to donors

shape local housing supply, since mayors attracting more donations from residential developers double permits for new housing construction. But differences in housing policy between mayors are empirically more important than favors for determining local housing supply.

[“Poverty Alleviation through a Large-Scale Homeownership Lottery”](#) with Rafael Pucci and Rafael Tavares

This paper evaluates whether homeownership alleviates poverty by exploiting a large-scale affordable housing program in Brazil. Linking applicants to administrative data on formal employment, we investigate the impact homeownership has on labor supply, earnings, mobility, occupation, and formalization. Becoming a homeowner increases hours worked and formal employment, suggesting wealth effects in this setting do not, on net, dampen labor supply. However, wages and earnings of new homeowners fall. The likely mechanism is homeownership programs accelerate formalization. New homeowners transition to public sector employment, and, consistent with the homevoter hypothesis, increase political participation.

**Research Paper(s) in Progress:**

*“The Influence of Public Safety Unions in Local Elections: Evidence from U.S. Cities’ Spending and Performance”* with Maria Carreri and Edoardo Teso

**Publications:**

Abrahams, Michael, Tobias Adrian, Richard Crump, Emanuel Moench, and Rui Yu. "[Decomposing Real and Nominal Yield Curves.](#)" *Journal of Monetary Economics* 84 (2016): 182-200.

**Technical Skills:**

Stata, Python, MATLAB, R

**Pronunciation:**

REE YOO

**JONAH M. REXER**  
<https://www.jonahrexa.com/>  
[jrexer@princeton.edu](mailto:jrexer@princeton.edu)

## **WHARTON SCHOOL, UNIVERSITY OF PENNSYLVANIA**

Placement Director: Eduardo Azevedo      [eazevedo@wharton.upenn.edu](mailto:eazevedo@wharton.upenn.edu)      215-573-9984  
Graduate Student Coordinator: Dhivya Kaushik      [dhivya@wharton.upenn.edu](mailto:dhivya@wharton.upenn.edu)      215-898-1197

### **Contact Information**

322 Bendheim Hall  
School of Public and International Affairs  
Princeton University  
Princeton, NJ 08540  
347-351-2178

### **Current employment**

Postdoctoral Associate, Empirical Studies of Conflict project, Princeton University, 2021-Present

### **Previous Education**

MPA, International Development, John F. Kennedy School of Government, Harvard University, 2016  
BA, International Relations, Stanford University, 2008

### **Graduate Studies**

Wharton School, University of Pennsylvania, 2016-2021  
Thesis Title: Essays on the Political Economy of Development

#### **Thesis Committee and References:**

Professor Santosh Anagol  
321 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104  
Email: [anagol@wharton.upenn.edu](mailto:anagol@wharton.upenn.edu)

Professor Guy Grossman  
434 Ronald O. Perelman Center  
133 S. 36<sup>th</sup> Street  
Philadelphia, PA 19104  
Email: [ggros@sas.upenn.edu](mailto:ggros@sas.upenn.edu)

Professor Arthur van Benthem  
327 Vance Hall  
3733 Spruce Street  
Philadelphia, PA 19104  
Email: [arthurv@wharton.upenn.edu](mailto:arthurv@wharton.upenn.edu)

Professor Jacob Shapiro  
Bendheim Hall  
Princeton School of Public and International Affairs  
Princeton, NJ 08540  
Email: [jns@princeton.edu](mailto:jns@princeton.edu)

Professor Ethan Kapstein  
Bendheim Hall  
Princeton School of Public and International Affairs  
Princeton, NJ 08540  
Email: [kapstein@princeton.edu](mailto:kapstein@princeton.edu)

### **Teaching and Research Fields**

Primary fields: development economics, political economy, applied microeconomics



Secondary fields: international economics and finance, resource economics, urban economics

### **Teaching Experience**

Fall, 2021 Primary instructor for Junior Politics Workshop, Princeton University Undergraduate  
Fall, 2018 Teaching Assistant, Prof. Eduardo Azevedo, Managerial Economics, Wharton Undergraduate

### **Research Experience and Other Employment**

2017 Visiting Fellow, Myanmar Development Institute, Government of Myanmar  
2016-2020 Research Assistant, Wharton School, University of Pennsylvania  
2015-2016 Research Assistant, Center for International Development, Harvard University  
2015-2016 Consultant, Poverty Global Practice, Myanmar Country Office, The World Bank Group  
2012-2014 Research Associate, BRAC Uganda

### **Honors, Scholarships, and Fellowships**

2020 Private Enterprise Development in Low Income Countries (PEDL) Research Grant, Centre for Economic Policy Research  
2018 University of Pennsylvania Kleinman Center for Energy Policy Grant  
2018 Individual grant from Professor Ann Harrison (UC Berkeley)  
2017 Amy Morse Prize, The Wharton School, University of Pennsylvania  
2016 George James Doctoral Fellowship, The Wharton School, University of Pennsylvania  
2015 Dubin Emerging Leaders Fellowship, Harvard University

### **Publications**

J. Rexer. 2022. "The brides of Boko Haram: Economic shocks, marriage practices, and insurgency in Nigeria." *The Economic Journal*, 132 (645) 1927-1977.

Grossman, G., S. Kim, J. Rexer and H. Thirumurthy. 2020. "Political partisanship influences behavioral responses to governors' recommendations for COVID-19 prevention in the United States." *Proceedings of the National Academy of Sciences*, 117 (39) 24144-24153.

### **Research Papers**

*"The local advantage: Corruption, organized crime, and indigenization in the Nigerian oil sector"*  
([Job Market Paper](#))

Revise and Resubmit at *American Economic Review*

Multinationals in the extractive sectors of weak states face resource theft by armed groups. This criminality is often abetted by state corruption, even though firms are willing to pay for protection. I study indigenization in Nigeria's oil sector, which increased participation by Nigerian firms substantially. Despite evidence that local firms are lower quality, localization increases output and reduces oil theft. A bargaining model illustrates that political connections align law enforcement incentives, solving commitment problems. Data on raids by government forces show that local firms receive preferential law enforcement protection. I find that connections to military elites drive the local advantage.

*"Violence and black markets: Evidence from the Niger Delta Conflict"* (with Even Hvinden)  
*Under Review*

We use original data on the locations, attacks, and black market activities of militant commanders in the Niger Delta conflict to show that a peace agreement led to large declines in petroleum sector violence and sustained growth in oil theft. We derive a bargaining model to demonstrate that a state may allow resource theft from powerful rebels in black markets with favorable cost conditions. We find that post-conflict oil theft is elevated

and government enforcement is muted in these areas. Our analysis highlights how local economic conditions and relative military capabilities jointly shape incentives for participants in resource conflicts.

*“Estimating the Economic Value of Zoning Reform”* (with Santosh Anagol, Fernando Ferreira)

We develop a framework to estimate the economic value of a recent zoning reform in São Paulo. Using a block-level regression discontinuity design, we find that developers request more permits in blocks with higher allowable densities. We incorporate these micro-estimates into an equilibrium model of housing supply and demand, finding that the reform produces a 1.9% increase in housing stock and a 0.5% reduction in prices, with substantial heterogeneity across neighborhoods. Welfare gains increase 4-fold once accounting for changes in built environment, and gains are larger for high-income and high-education families. However, homeowner house price losses overshadow all consumer gains.

*“Pricing Conflict Risk: Evidence from Sovereign Bonds”* (with Ethan Kapstein, Andres Rivera)

What do sovereign bond investors know about the risks and costs of violent conflict? Do they rationally incorporate available information, or are they overly-optimistic -- or pessimistic -- about the economic effects of political violence? To answer these questions, we estimate event-studies using daily sovereign bond trading prices and information on violent armed conflicts over the past two decades. We show that bond prices fall by an average of 0.7 points after the onset of state-involved conflict. Using reduced-form parameters, we calibrate a bond pricing model which implies both under-reaction and investor learning: the share of the shock that is priced in rises from 14% initially to 75% after 15 days. Consistent with the model, effects are larger where priors are optimistic because of recent peacefulness. Prices also respond more to severe outbreaks of violence near the capital city, and to center-seeking conflicts where rebels threaten the state. The magnitudes of these heterogeneous responses imply accurate beliefs about the process of conflict damages. The results suggest that bondholders have a sophisticated understanding of the underlying political and spatial dimensions of conflict.

*“Penalties and Premiums in Sovereign Credit Ratings”* (with Ethan Kapstein, Adi Tantravahi, Fangyuan Yi)  
*Under Review*

Credit rating agencies collapse high-dimensional borrower characteristics into summary statistics of creditworthiness, facilitating capital flows. But biases embedded in these rating algorithms may lead to misallocation. We test for bias in sovereign credit ratings across a wide array of borrower-country characteristics, training machine learning models to estimate ratings as a function of countries' observable economic, political, and borrower history fundamentals. Even after accounting for these fundamentals, ratings agencies tend to favor the “clubs” of the Western world, namely the members of the G7, EU, and OECD, while penalizing emerging Latin American and Asian nations. Using data on sovereign bond issues, we find that ratings bias increases coupon spreads between the G7 countries (the most overrated) and Southeast Asian states (the most underrated) by 62.7 basis points. We show that it is possible to earn risk-free excess returns by using our algorithm to construct an unbiased portfolio of investment-grade bonds, suggesting persistent mispricing from credit ratings bias.

### **Works in progress**

*The Fuel Subsidy Paradox* (with Adi Tantravahi)

*Political Turnover and Firm Connections: Evidence from Corporate Boards* (with Darin Christensen)

### **Seminars, workshops, and conference presentations**

- 2022 NYU Political Science; Yale Political Science; BI Norwegian Business School (Oslo); Empirical Studies of Conflict (ESOC) Seminar; Finance and Development workshop (WEFIDEV)
- 2021 The Federal Reserve Bank of Atlanta; The World Bank; NBER Summer Institute, Political Economy; International Conference on Globalization and Development (GLaD), Gottingen; Barcelona GSE Summer Forum; Pacific Development Conference (PACDEV), UC San Diego; Midwest International

- Economic Development Conference (MWIEDC), Northwestern; Working Group on African Political Economy (WGAPE), UC Berkeley
- 2020 Center for Study of African Economies (CSAE) Conference, Oxford\*; Economics Department Seminar, BI Norwegian Business School\*; Peace Research Institute Oslo Weekly Seminar\*; Wharton-BEPP graduate student seminar; Pacific Development Conference (PACDEV), UC Berkeley; Development and Political Economics Conference (DEVPEC), UC Berkeley; Northeast Workshop in Empirical Political Science (NEWEPS), NYU; Young Economists Symposium (YES), UPenn; Empirical Studies of Conflict (ESOC) Virtual Workshop; African Development Bank; NBER Development Fall Meeting
- \*Postponed or cancelled due to COVID-19 pandemic
- 2019 Empirical Studies of Conflict (ESOC) annual meeting, UCSD; Midwest International Economic Development Conference (MWIEDC), UW-Madison; Pacific Development Conference (PACDEV), USC; Development and Political Economics Conference (DEVPEC), Stanford; Penn Development Research Initiative (PDRI) workshop, UPenn
- 2018 Wharton Business Economics and Public Policy graduate seminar

**Referee Service**

*American Economic Journal: Applied Economics, American Economic Review: Insights, Journal of Development Economics, Journal of Urban Economics, Journal of the European Economic Association, American Journal of Health Economics, Scandinavian Journal of Economics*

# Xiaoyue Shan

Business Economics and Public Policy Department  
The Wharton School, University of Pennsylvania  
Vance Hall 334, 3733 Spruce Street, Philadelphia 19104  
[xiaoyues@wharton.upenn.edu](mailto:xiaoyues@wharton.upenn.edu)  
[xiaoyueshan.com](http://xiaoyueshan.com)

## Academic Position

2021 – The Wharton School, University of Pennsylvania, Postdoctoral Researcher  
Mentors: Judd B. Kessler and Corinne Low

## Education

2016 – 2021 University of Zurich, Ph.D. Economics  
Advisors: Ulf Zölitz and Michel Maréchal  
2014 – 2016 Hong Kong University of Science & Technology, M.Phil. Economics  
Advisor: Albert Park  
2010 – 2014 Renmin University of China, B.A. Economics

## Research Fields

Primary: Labor Economics, Behavioral Economics, Experimental Economics

Secondary: Gender Economics, Development Economics, Applied Microeconomics

## Working Papers

[1] Xiaoyue Shan. “The Minority Trap: Minority Status Drives Women Out of Male-Dominated Fields.” 2022. *Job Market Paper*.

Abstract: This paper examines whether being in the minority causes women to leave male-dominated fields. I conduct a field experiment in an introductory economics course where I randomly assign students to small study groups with different gender compositions. Results show that women assigned to female-minority groups are 11 percentage points more likely to drop out of the course than women in other groups. This dropout effect is especially strong for women with higher math achievement and academic potential; when randomly assigned to a female-minority group, these women are also more likely to leave the original study program in the long run. I highlight three potential mechanisms of the effect: raised salience of women's minority status, decreased academic self-confidence, and reduced social integration. The findings of the paper suggest that minority status can perpetuate itself and create a vicious cycle of underrepresentation.

[2] Xiaoyue Shan and Albert Park. “Access to Pensions, Old-Age Support, and Child Investment in China.” 2022. *Revise and Resubmit* (2<sup>nd</sup> round), *Journal of Human Resources*.

- [3] Christine Exley, Raymond Fisman, Judd Kessler, Corinne Low, Xiaoyue Shan, and Mattie Toma. “The Transparency Gap.” 2022. *Revise and Resubmit* (2<sup>nd</sup> round), *Nature*.
- [4] Xiaoyue Shan and Ulf Zölitz. “Peers Affect Personality Development.” 2022. *Submitted*.
- [5] Judd B. Kessler, Corinne Low, and Xiaoyue Shan. “Lowering the Playing Field: Discrimination through Sequential Spillover Effects.” 2022. *Submitted*.

### **Selected Work in Progress**

- [1] “Can Blind Hiring Remove Bias?” with Judd B. Kessler and Corinne Low
- [2] “Early Childhood Investment and Parental Well-Being,” with Victoria Baranov, Pietro Biroli, and Anne Brenøe
- [3] “The Impact of Online Instruction on Student Learning and University Experience,” with Ulf Zölitz
- [4] “Preferences for Peers,” with Ulf Zölitz

### **Teaching Experience**

- 2022            Guest lecture for Experimental Economics, Purdue University
- 2018 – 2019    Supervision of BA/MA student theses
- 2016            International macroeconomics and Chinese economy, teaching assistant
- 2015            Microeconomic analysis, teaching assistant

### **Academic Visit**

- 2020 – 2021    IZA Institute of Labor Economics

### **Refereeing**

*Review of Economic Studies, Journal of Political Economy Microeconomics, Management Science, Journal of Labor Economics, Labour Economics, Economics of Education Review, Journal of Human Capital, Social Science Research*

### **Talks and Conferences**

- 2022    ASSA Annual Meeting (discussant), ESA-JiLAEE Special Meeting, Discrimination and Disparities Seminar, Society of Labor Economists (SOLE) Meeting, Advances with Field Experiments (AFE), 4<sup>th</sup> Convening of the Science of Diversity & Inclusion Initiative (SODI), ESA World Meeting, Stanford Institute for Theoretical Economics (SITE), Wharton Applied Economics Workshop (AEW), ICES Gorge Mason University, North-American ESA Meeting (scheduled), University of Arkansas (scheduled), Southern Economics Association Meeting (scheduled)

- 2021 Society of Labor Economists (SOLE) Meeting, Erasmus University Rotterdam, University of Amsterdam, Rady UCSD, Young Swiss Economists Meeting, Society for the Study of Economic Inequality (ECINEQ), European Economic Association (EEA) Congress, Wharton AEW, SWEET Workshop
- 2020 SOFI Stockholm University, IZA-Institute of Labor Economics, VfS Annual Conference on Gender Economics, CIS Workshop in Empirical Political Economy, Webinar in Gender and Family Economics, Graduate Students in Economics of Education Webinar, Applied Young Economist Webinar, PhD-Workshop at Graduate Institute Geneva, Jinan University
- 2019 Society of Labor Economists (SOLE) Meeting, CRC TR 224 Summer School on Peer Effects and Social Interactions, Annual APRU Research Conference on Population Ageing
- 2016 Annual Workshop on Population Ageing and the Chinese Economy

### **Awards and Fellowships**

- 2020 – 2021 Swiss National Science Foundation Doc.Mobility Fellowship
- 2018 – 2019 Jacobs Center Fellowship
- 2016 – 2020 PhD Scholarship, University of Zurich
- 2014 – 2016 Postgraduate Studentship, Hong Kong University of Science & Technology

### **Research Assistance and Service**

- 2022 Organizer of Wharton summer Applied Economics Workshop
- 2018 – 2020 PhD representative for professorship recruiting committee, University of Zurich
- 2017 – 2018 Globalization and EU Political Backlash (with David Dorn and Josef Zweimüller)
- 2013 – 2014 World Resources Institute, China Office

### **References**

Prof. Judd B. Kessler  
 Business Economics & Public Policy Department, The Wharton School, University of Pennsylvania  
[judd.kessler@wharton.upenn.edu](mailto:judd.kessler@wharton.upenn.edu)

Prof. Michel Maréchal  
 Department of Economics, University of Zurich  
 & Rady School of Management, UC San Diego  
[michel.marechal@econ.uzh.ch](mailto:michel.marechal@econ.uzh.ch)

Prof. Pietro Biroli  
 Department of Economics, University of Bologna  
[pietro.biroli@unibo.it](mailto:pietro.biroli@unibo.it)

Prof. Corinne Low

Business Economics & Public Policy Department, The Wharton School, University of Pennsylvania  
[corlow@wharton.upenn.edu](mailto:corlow@wharton.upenn.edu)

Prof. Ulf Zölitz

Department of Economics & Jacobs Center,  
University of Zurich  
[ulf.zoelitz@econ.uzh.ch](mailto:ulf.zoelitz@econ.uzh.ch)