Omar Ahsan

9/29/22

Department of Economics   (646) 957-3160
Columbia University   oa2256@columbia.edu
New York, NY 10027

Placement Chairs: Sandra Black, sblack@columbia.edu, Suresh Naidu, sn2430@columbia.edu
Placement Assistant: Amy Devine, (212) 854-6881, aed2152@columbia.edu

Education:

2023 (expected)	Ph.D.	Economics	Columbia University
2020	MPhil	Economics	Columbia University
2019	M.A.	Economics	Columbia University
2015	B.S.	Computer Science & Math	University of Maryland
2015	B.A.	Economics	University of Maryland

Honors and Awards:

2021-2022, Dissertation Fellowship, Department of Economics, Columbia University
2017-2021, Dean's Fellowship, Department of Economics, Columbia University
2015, Dudley and Louisa Dillard Award, UMD
2014, John D. Gannon Scholarship, UMD
2013, Fig Leaf Software Drucker/Gallerizzo Computer Science Scholarship, UMD

Fields of Specialization:

Primary Field: Corporate Finance
Secondary Field: Labor Economics, Microeconomics

Job Market Paper: Resilience in U.S. Firms: Evidence from the Covid-19 Pandemic

Abstract: In this paper, I exploit the Covid-19 pandemic and associated government restrictions as a natural experiment in order to study the resilience of businesses in the United States. I use a border-county identification strategy with data on government restrictions, employment and open small businesses, in order to assess the resilience of small businesses in the United States. In my main results, I find negative impacts of stay-at-home orders on the number of open small merchants. In particular, shutdowns of businesses accelerated 8 weeks after imposition of a stay-at-home order, suggesting that many businesses were only resilient enough to handle adverse conditions for 8 weeks. On average, a county with a stay-at-home order experienced an additional 1.51 percentage points loss in the number of open small businesses, relative to January 2020, 8 weeks later compared to a neighboring county that did not have a stay-at-home order. Firms were quicker to resort to layoffs. On average a county with an active stay at home order in a month experienced an additional 1.28 percentage point loss in employment, relative to January

2020, the following month compared to a neighbor that did not have a stay-at-home order the previous month. I also find that stay-at-home orders caused significant reductions in movement in both directions between neighboring counties.

Working Papers:

Career Concerns in Major League Baseball Umpires

Major League Baseball games can be dramatically shaped by minor lapses in judgement from the umpires officiating the game. Due to the indefinite length a game may have, this can include having the game shaped in a way that ends it faster. In this paper I study whether evidence for the career concerns model can be found in baseball umpires. A career concerns model would suggest that older umpires, whose careers and reputations are much more established than younger ones, would be more inclined to improperly make judgements that favor the end of the game in extra innings. I use data on MLB umpires and extra-innings games from the 2010-2018 seasons to conduct my empirical analysis. I use a linear probability model to isolate the impact of the umpires' tenure on the probability they make a "bad call." I find some evidence supporting the career concerns hypothesis, that the probability that an umpire makes a bad call increases with their tenure.

Career Concerns and Asset Diversification

In this paper I show that career concerns can lead to a situation where fund managers inefficiently diversify their asset holdings. In a risk neutral setting, fund managers would maximize their expected return by only trading on assets that they have the best information about. However, using a twoperiod model, I show that there exists an equilibrium where managers will also trade an asset they have less knowledge about, lowering their expected profit in the first period. They do this in order to raise their chances of being retained and thus raise their total two period profit. A manager who is more knowledgeable about one asset over another has a profitable deviation in the immediate period to only trading that asset if investors and managers are risk neutral. However the deviation leads to long term losses since the investor believes a manager who does not trade an asset is not knowledgeable about that asset, and fire him after that period. The manager's keep-or-fire decision is robust to a range of parameter values for the skill of a knowledgeable manager, and the proportion of managers who are skilled.

Research and Work Experience:
Technology Associate, Morgan Stanley (2017)
Technology Analyst, Goldman Sachs (2015 - 2017)

Teaching Experience:
Corporate Finance, TA (Fall 2022, Summer 2021, Spring 2020)
Intermediate Microeconomics, TA (Fall 2020)
Game Theory, TA (Fall 2019)

Personal:

Born on 05/12/1993
US Citizen

References

Sandra Black:
sblack@columbia.edu

Xavier Giroud:
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Glenn Hubbard:
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Amanda Awadey

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PLACEMENT ASSISTANT
Amy Devine, aed2152@columbia.edu

EDUCATION

Columbia University

Ph.D. in Economics — May 2023 (expected)

Dissertation Title: Essays in Development Economics

M.Phil. in Economics — 2020

M.A. in Economics — 2019

University of Ghana

B.A. in Economics and Mathematics *(Summa cum laude)* — 2014

SELECTED SCHOLARSHIPS, AWARDS, AND GRANTS

Student Research Grant Program, Center for Development Economics and Policy	2022
Dissertation Fellowship, Columbia University	2022
Wueller Teaching Award, Columbia University	Fall 2019
Dean's Fellowship, Columbia University	2017 - Present
Best graduating student, B.A., University of Ghana	2014
Best graduating female student, B.A., University of Ghana	2014
Best Level 200 student in the Humanities, University of Ghana	2012
Best female student for Mathematical Science, University of Ghana	2012

FIELDS Development Economics and Applied Microeconomics - Education and Firms

JOB MARKET PAPER

Double the Number: High School Crowding and Schooling Outcomes

Cohort size, beyond its effect on class or school size, could have important implications for schooling outcomes and therefore, influence behavior. Labor economists study the long-term implications of entering the market when competition is more acute (e.g., during a recession). A similar interest arises in education, but there is little evidence of the implications. This paper shows the impact of increased cohort size by examining reforms in Ghana that resulted in a doubling in the number of students who graduated high school and could apply to university in a given year. I combine a cohort analysis and a regression discontinuity design leveraging a compulsory schooling law to isolate causal effects. I find a notable fall in end-of-high school performance for students who faced a larger cohort. These individuals are less likely to obtain a college degree. First, many forgo application altogether, and even when they do, universities face

supply constraints and cannot absorb the increased demand. Second, they reduce the selectivity of their application's field choices. Analogous results hold for females and economically vulnerable students.

WORK IN PROGRESS

The Intended and Unintended Effects of an Additional Year in High School
Ongoing, Columbia University

Existing evidence posits that an additional year of schooling increases human capital on average. However, the extra year of education is usually associated with an increased breadth of the curriculum. In this paper, I investigate the effects of an additional year which increased the duration without a change in the curriculum. Particularly the impact on performance in the short term, and for college-bound students, any persistent effects. In addition, in a setting where high school costs are borne by students and their families, increasing the duration of high school may have unintended impacts because of the increased financial burden. In this study, I explore these unintended effects on high school graduation rates and heterogenous results by socioeconomic status and gender.

Towards a Cash-lite Economy: Mobile Money and Retail Payments
Ongoing, Columbia University with Rowena Cornelius, Western University, Ontario, Canada

Increased penetration of mobile phones, a large unbanked population, and the recent COVID-19 pandemic have advanced the rapid spread of mobile money usage in sub-Saharan Africa. Predominantly used for person-to-person transfers (P2P), mobile money is yet to gain significant traction as a mode of payment, particularly in retail. Empirically, evidence of the constraints and the factors that promote using mobile money as a payment tool is scant and was obtained before the COVID-19 pandemic. We are collecting data on these constraints and factors from micro and small firms in Ghana after the surge of digital transactions triggered by the COVID-19 pandemic. With this, we aim to design informed interventions to address the constraints of using mobile money for retail payments.

RESEARCH AND WORK EXPERIENCE

The World Bank, Short-Term Consultant	December 2019 – Present
Columbia University, Research Assistant for Michael Best	June – December 2019
Columbia University, Research Assistant for Jón Steinsson	May - June 2013
KPMG Ghana, **Audit** Associate - *Consumer and Manufacturing Industry*	2014 – 2017

TEACHING EXPERIENCE

Columbia University

Financial Economics*:*	*Teaching Assistant* for Professor Tamrat W. Gashaw	*F2021**
	Teaching Assistant for Professor Martina Jasova	*S2021*
	Teaching Assistant for Professor Tamrat W. Gashaw	*F2020*
	Teaching Assistant for Professor Martina Jasova	*S2020*
	Teaching Assistant for Professor Harrison Hong	S2019
Principles of Economics:	*Teaching Assistant* for Professor Sunil Gulati	F2018

*Part of the semester

PROFESSIONAL DEVELOPMENT

Affiliate: Association of Chartered Certified Accountants - ACCA   2016 - Present
L'Alliance Française (Intermediate level – Level 500)   2009 – 2010

SELECTED VOLUNTARY EXPERIENCE

Diversity Committee, Columbia University   November 2020 – May 2021
Organizing Committee, Young Economists Symposium   January – August 2019

SKILLS AND CERTIFICATES

- Computer and Software: R, Stata, Matlab, GitHub, LaTeX, Microsoft Office
- Languages: Native English, Fluent in Ga, Intermediate French (Diplome d'Etude de Langue Française A1, A2) and Twi, basic Spanish

ADVISORS

Cristian Pop-Eleches
School of International and Public Affairs
Columbia University
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Miguel Urquiola
Department of Economics
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E d u c a t i o n
Columbia University,
  Department of Economics, Ph.D. candidate
  GPA 3.8/4.0
MSU (Lomonosov Moscow State University),
  Department of Economics, Bachelor of Economics (2013 - 2016)
  GPA 4.9/5.0
IUM (Independent University of Moscow),
  Studied Calculus and Calculus on Manifolds, 5 courses passed (2013-2014)

P r o f e s s i o n a l   E x p e r i e n c e
Ph.D. Intern at the International Monetary Fund (2021)

R e s e a r c h   A s s i s t a n t   E x p e r i e n c e
Research Assistant for Professor Stiglitz (2018-2019)
Research Assistant for "Exchange Rate Disconnect in General Equilibrium"
  Professor Itskhoki and Professor Mukhin, Princeton University (2016)

T e a c h i n g   E x p e r i e n c e
Teaching Assistant for "Macroeconomic Analysis II" (Ph.D.)
  Professor Hassan Afrouzi, Professor Martin Uribe, Columbia University (2021)
Teaching Assistant for "Intermediate Macroeconomics"
  Professor Irasema Alonso, Columbia University (2020)
Teaching Assistant for "Intermediate Macroeconomics"
  Professor Schmitt-Grohé, Columbia University (2020)
Teaching Assistant for "Intermediate Macroeconomics"
  Professor Sala-I-Martin, Columbia University (2019)

R e s e a r c h   E x p e r i e n c e
"Variable Markups and Pass-through of Marginal Costs into Prices" Ongoing
  with S. Mishra, Columbia University
  Variability of markups makes price response to marginal cost shock imperfect. This imperfect pass-through of marginal costs into prices creates an additional friction in price adjustment. This is one of the reasons behind some of the recent trends, such as flattening of the Phillips Curve. In this paper we study this imperfect pass-through empirically and derive theoretically asymmetries for positive versus negative marginal cost shock. First we develop a theoretical framework for a general oligopoly model and derive sufficient statistics for oligopolistic firm-level elasticities and superelasticities. We would then those statistics empirically using ACNielsen Retail Scanner database and employing a novel Granular Instrumental Variable approach. We measure parameters that impact the variability of markups, such as demand elasticity, demand superelasticity and competitor price cross-elasticity. Finally we study pass-through of marginal costs into prices and point out the response asymmetry that causes firms to be more reactive to the marginal cost increases. This latter result may explain why in the aggregate data we might observe missing deflation and strong inflation.

"Monetary Policy under Labor Market Power" Ongoing

with R. Mano, Y. Timmer, A. Weber, International Monetary Fund

Using the near universe of online vacancy postings in the U.S., we study the interaction between labor market power and monetary policy. We show empirically that labor market power amplifies the labor demand effects of monetary policy, while not disproportionately affecting wage growth. A search and matching model in which firms can attract workers by either offering higher wages or posting more vacancies can rationalize these findings. We also find that vacancy postings that do not require a college degree or technology skills are more responsive to monetary policy, especially when firms have labor market power. Our results help explain the ``wageless'' recovery after the 2008 financial crisis and the flattening of the wage Phillips curve, especially for the low-skilled, who saw stagnant wages but a robust decline in unemployment.

"Heterogeneous Unemployment Response to Monetary Policy Shocks" Ongoing

with S. Mishra, Columbia University

First studies of monetary policy non-neutrality with identified shocks, such as Romer & Romer (2004), reported large and positive effect of monetary contraction on unemployment. Later studies, however, found that these large effects are a specific attribute of the time period. We relate those findings to differences in household portfolios. After a monetary contraction indebted individuals experience a negative wealth effect and are motivated to work and search for jobs more actively. Because of this effect, in times when consumers are highly indebted, unemployment does not rise significantly or even decrease after a monetary contraction. In this paper, we model this mechanism and provide empirical results supporting our conclusions.

"Monetary Policy Transmission through Fixed-Rate Mortgages" Ongoing

with M. Davitaya, Columbia University

We examine monetary policy transmission through fixed-rate mortgages (FRMs) and document the novel source of refinance response heterogeneity - credit score. We find that borrowers with lower credit scores display staggered refinance response to the decrease in the mortgage rates even when their current rate significantly excesses the one available at the market. A one standard deviation difference in the credit scores leads to 0.42% difference in the refinance probability. We then develop a theoretical model to capture this heterogeneity and translate it into the heterogeneous consumption response. The model predicts up to 0.49 pp of annual consumption response difference between the high and low credit score groups in the short run.

"Anchored or De-anchored? Inflation Compensation and Monetary Policy" Ongoing

with M. Davitaya and S. Mishra, Columbia University

Market expectations of Central Bank preferences and its future policies, may have impact on their response to monetary policy today. In this paper we study this effect. The empirical strategy is two-fold. First, we measure market expectations about Central Bank reaction function to inflation by looking at changes of different interest rates around CPI information release dates and regress them on the surprise change in CPI. Second, we measure the difference in inflation expectation response depending on whether Central Bank proved to be more or less responsive to inflation. We find that if Central Bank proved to be more responsive to inflation during the previous CPI release, the current effect of monetary policy will be staggered.

Honors and Awards

Wueller 4th year pre-dissertation award (2020)
Dean's Fellowship Columbia University (2017-present)
Primakov Scholarship (2016)

Skills

R, python, Stata, MatLab, LaTex
Languages: Russian (native), English (fluent), French (basic)

Conference Presentations

Federal Reserve Board Summer Workshop on Money, Banking, Payments and Finance (2022)

Workshops and Summer Schools

Princeton Initiative Camp, Macro Money and Finance (2019)

LSE Summer School, "Options, futures and other financial derivatives" (2015), Grade A+

IfW (Kiel Institute fur Weltwirtschaft), Advanced Studies Program (2016)
  Professor Sannikov's course «Financial markets and macro-economy», Grade A+

NES CSDSI workshop "Mechanism Design: New Products, New Markets, New Models"
  Professor Ismalkov, (2015)

MSU special course (2016) "Introduction to Applied Statistics and Econometrics" (passed)

MSU special course (2015) "Introduction to Decision Theory" (passed)

MSU special course (2014) "Introduction to Modern Macroeconomics" (passed)

UPM (Universidad Politechnica de Madrid)
  Advanced Statistics and Data Mining Summer School 2016 (4 courses)

Kyle Coombs

December, 2022

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New York, New York 10027, USA

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Placement Chairs

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Suresh Naidu, 212-854-0027, sn2430@columbia.edu

Placement Assistant

Amy Devine, (212) 854-6881, aed2152@columbia.edu

References

Suresh Naidu (co-sponsor)
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Columbia University
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Miguel Urquiola (co-sponsor)
Professor & Dean of Social Science
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Michael Carlos Best
Assistant Professor
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Jack Willis
Assistant Professor
Department of Economics
Columbia University
jw3634@columbia.edu
212-851-9485

Education

Columbia University, *Ph.D. Candidate in Economics* — 2017-Present
    Expected completion: May 2023
    M.Phil in Economics — 2019
    B.A. in Economics — 2019

Macalester College, *B.A. in Economics* — 2010-2014
    Magna Cum Laude
    Departmental Honors
    Robert L. Bunting Prize in Economics

Fields of Specialization

Applied Microeconomics; Public Economics; Labor Economics

Job Market Paper

"Crowding out crowd support? Substitution between formal and informal insurance"

Abstract: Gifts and loans from friends and family play a largely unstudied informal insurance role in high-income countries, making it difficult to assess their implications for social insurance policy. I present new results on informal insurance paid via person-to-person (P2P) payment platforms using a survey-linked administrative bank transaction dataset covering 130,502 low-income users from the US who experienced at least one unemployment spell between July 2019 and September 2020. Event study estimates show average monthly inflows from all P2P platforms increase by $30, or 2% of lost earnings, one month after job loss before returning to baseline over 10 months. Single mothers and the long-term unemployed receive the largest increases, as do those living in high-income areas. I leverage three plausibly exogenous changes to federal pandemic unemployment insurance (UI) policy to estimate that UI benefits crowd out at most $0.04 of informal P2P transfers. Using the social insurance framework introduced in Chetty and Saez (2010), my crowd-out estimates indicate negligible welfare consequences for an additional dollar of benefits. Altogether these results imply that public UI benefits raise welfare by pooling risk across networks without reducing within-network targeting of informal insurance.

Publications

"Early Withdrawal of Pandemic Unemployment Insurance: Effects on Earnings, Employment and Consumption" (w/ Arindrajit Dube, Calvin Jahnke, Raymond Kluender, Suresh Naidu, & Michael Stepner) *Published: AEA Papers and Proceedings*

Abstract: We examine the effects of the sudden withdrawal of expanded pandemic unemployment benefits in June 2021 using anonymized bank transaction data for 16,253 individuals receiving unemployment insurance (UI) in April 2021. Comparing the difference-in-differences between states withdrawing and retaining expanded UI, we find that UI receipt falls 36.3 p.p., while employment rises by only 6.8 p.p. by early September. Average cumulative UI benefits fall by $2,529, while average cumulative earnings increase by only $292. Heterogeneity by unemployment duration implies that these effects are primarily driven by extensive margin expiration of benefits rather than by intensive margin reductions in the benefit level.

Working Papers

"Effects of Pandemic Unemployment Policies on Consumption, Savings, and Incomes of Workers: Evidence from Linked Survey-Transactions Data" (w/ Arindrajit Dube, Calvin Jahnke, Raymond Kluender, Suresh Naidu, & Michael Stepner)

Abstract: We present new results on the consumption, savings, and income effects of the introduction of the unusually generous unemployment insurance benefits during the COVID-19 pandemic in April, their abrupt expiration at the end of July, and their short-term partial reintroduction through August and September. We use a new dataset of administrative bank account balances and transactions 1.2 million workers and 258,065 recipients of UI. We link these administrative data with a large-scale survey (N = 24,671) of expectations and economic preferences. We find that account outflows fell by 20% among July UI recipients in the 12 weeks since expiration relative to non-recipients. We find that consumption drops around expiration were muted owing to accumulated savings out of the expanded UI over the March-July period; end of July savings were roughly three times as large as savings in January. The magnitude of the drop in savings following the expiration was larger in households with low expectations of continuing benefits, no children, low risk aversion, and high discount rates. We also find that the temporary Lost Wages Assistance program provided a small but temporary boost to savings and consumption, and the timing of this boost varied based on the staggered adoption by states.

"Scandal-driven Catholic school closures and charter school response: Dynamics of competition for educational services"

Short Abstract: Find charter schools filled gaps in the education market as private Catholic schools close using event studies around the announcement of abuse scandals within Catholic churches, suggesting these schools are responsive to competition.

In Progress

"Charitable Contributions and the Federal Government" (with Michael Best & Daniel Rogger)

Short Abstract: We exploit plausibly exogenous turnover of the Senate Finance Committee chair to instrument changes in state-level federal spending as they relate to charitable giving.

"The Price of Politics: How much are evangelical Presbyterians willing to pay to separate?"

Short Abstract: Proxy for the value of social policy using variation in the amounts that conservative-learning Presbyterian Churches paid to fulfill a Property Trust Clause and sever ties with the Presbyterian Church (USA) after the denomination voted to allow ordination and marriages of LGBTQ+ individuals.

"Best responses to banning the box? Extensive Labor Supply Responses to Statistical Discrimination"

Short Abstract: Leverage staggered roll out of Ban-The-Box (BTB) laws to analyze job search strategies among the unemployed by race. Early results suggest non-hispanic black men are more likely to apply for jobs within the public sector after laws are passed.

Presentations

Crowding out crowd support? Measuring substitution between formal and informal insurance
LACDev Conference, September 2022 *Wellesley College*

Early Withdrawal of Pandemic Unemployment Insurance: Effects on Earnings, Employment and Consumption
AEA Papers & Proceedings Equity And Efficiency In Unemployment Insurance, January 2022 *Online*

Effects of Pandemic Unemployment Policies on Consumption, Savings, and Incomes of Workers: Evidence from Linked Survey-Transactions Data
Innovative Data in Household Finance: Opportunities and Challenges, December 2020 *Online*

Research Assistant

Research Assistant, Columbia University for Suresh Naidu	Spring 2020-Present
Research Assistant, Columbia University for Eric Verhoogen	Fall 2018-Spring 2020
Research Assistant, Federal Reserve Board	2015-2017

Teaching Experience

Columbia University

Instructor of Record, *Public Economics*, solo-taught	Summer 2022
Data Teaching Fellow, *All Senior Seminars* with Michael Best & Susan Elmes	Fall 2021-Spring 2022
Teaching Assistant, *Perspectives of Economics* with Suresh Naidu & Joseph Stiglitz	Spring 2021
Teaching Assistant, *The Economics of Race in the United States* with Brendan O'Flaherty	Fall 2020

Federal Reserve Board, joint with Howard University

Teaching Assistant, *Data Analysis and Financial Literacy in R* with William Ampeh & Andrew Cohen	Spring 2017

Macalester College

Teaching Assistant: *Principles of Economics* with Amy Damon	Fall 2014
Supplemental Instructor, Macalester College: *Intermediate Microeconomics* with Sarah West	Spring 2013

Advising

Honors Thesis Committee Member for Nicholas Di, Macalester College   Fall 2021-Spring 2022

Academic Service

Columbia University

Coordinator & Mentor, Economics Diversity Initiative Undergraduate Mentoring Program   2020-Present
President & 2nd-Year Representative, Association of Graduate Economics Students (AGES)   2018-2020
Coordinator & Mentor, AGES First-Year Mentoring Program   2018-2021

Miscellaneous

Nationality: United States

Human Languages: English (Native), Spanish (Fluent), Portuguese (Proficient), Quechua (Basic), French (Basic)

Programming Languages: R, Python, Stata, Mathematica, SAS, SPSS, MATLAB

Other skills/hobbies: Audiovisual production and video editing, game design, piano, guitar, voice (tenor)

MARTSELLA DAVITAYA

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Placement Chairs: Sandra Black, sblack@columbia.edu, Suresh Naidu, sn2430@columbia.edu
Placement Assistant: Amy Devine, aed2152@columbia.edu

REFERENCES

Hassan Afrouzi	**Michael Woodford**	**Andres Drenik**
Assistant Professor of Economics	John Bates Clark Professor of Political Economy	Assistant Professor of Economics
Columbia University	Columbia University	The University of Texas at Austin
ha2475@columbia.edu	michael.woodford@columbia.edu	andres.drenik@austin.utexas.edu

EDUCATION

Columbia University

Ph.D. in Economics Candidate	2023 (expected)
M.Phil. in Economics	2020
M.A. in Economics	2019

- Fields: Macroeconomics, Econometrics (secondary)

NRU Higher School of Economics and University of London
International College of Economics and Finance / International Programs under the academic direction of the London School of Economics

B.Sc. in Economics (HSE) / B.Sc. in Economics and Finance (UoL)	2013 – 2017

- Graduated with Honors (HSE) and First-Class Honors (UoL)

RESEARCH

My research lies at the intersection of household finance and macroeconomics, combining structural macroeconomic models with analyses of macro and micro data, and contributes to two research agendas. The first relates to the channels through which monetary policy impacts the economy. The second aims to understand how heterogeneity observed at the micro level affects the economy.

Job Market Paper: *Monetary Policy Implications of Heterogeneous Mortgage Refinancing* with A. Burya

We show that credit score heterogeneity dampens monetary policy transmission through fixed-rate mortgages. Using Fannie Mae Single-Family Loan-Level historical data, we show that a 1% increase in mortgage rate increases the refinancing probability for borrowers with a FICO credit score of 800 twice as much as that of borrowers with a FICO score of 700. We then develop a refinancing model and find that credit score heterogeneity dampens consumption response to monetary policy by 11%, compared to a standard model with only mortgage rate heterogeneity. Borrowers with lower credit scores face tighter borrowing limits and benefit from refinancing more than borrowers with higher credit scores, but face more difficulties obtaining refinance loans, resulting in a smaller consumption response.

Anchored or De-anchored? Inflation Compensation and Monetary Policy with A. Burya and S. Mishra

If far-ahead inflation compensation is insensitive to incoming economic news, then inflation expectations remain anchored. Using daily bond yield data, we show that inflation compensation is less sensitive to monetary policy shocks in the U.S. if the Fed is more responsive to inflation during the most recent CPI release. The empirical strategy consists of two steps. First, we construct a measure of market expectations about the Fed's reaction to inflation, which equals changes in different interest rates unexplained by the size of the inflation shock and exogenous monetary policy. Second, we estimate the sensitivity of inflation compensation's response to monetary policy conditional on the expectations of the Fed's reaction to inflation. Our estimates suggest anchoring of long-term inflation expectations in the U.S.

Recessions, Social Security, and Retirement

The main difficulty in studying the effect of retirement income on labor supply is that factors that affect retirement income correlate with the labor force participation rate. Using the Health and Retirement Study and Social Security Administration income data, I overcome this difficulty by utilizing the fact that the Social Security benefit is a function of the economic conditions when the worker turns 60. My estimates suggest that the labor supply elasticity of older workers is -0.19 at the extensive margin and -0.57 at the intensive margin. This estimate is relevant for studying effects of macroeconomic shocks on the employment of older workers, optimization of public and fiscal policies, and calibration of life-cycle models.

Games of Cheating with Kosmas Marinakis

We develop a model of risky information transmission between a higher and a lower ability agent, which closely resembles academic cheating behavior. Assuming no synergy effects between agents or correlation of outputs, we derive a substitution and a strategic effect, both of which dictate the behavior of agents when information transmission is feasible. We show that the higher ability agent may find it strategically useful to moderate her effort in order to limit the supply of information and curb her risk. We also find that the use of a relative compensation scheme may cause cheating activity to increase when the coefficient of relative incentives is not sufficiently high. Even when relative incentives are powerful enough to mitigate cheating, this seriously distorts the incentives, causing high-ability agents to further cut down on effort. We conclude that performance in the group is higher when similar ability agents are matched, and that the only cost-free way to deter cheating is to match agents of similar abilities together, since the risk of transmitting information will offset its benefit. We also extend the model to include the case where the higher ability agent can choose the level of her cheating supply.

AWARDS, FELLOWHIPS & GRANTS

Awards

Wueller Teaching Award, best teaching assistant in M.A. courses (Columbia University)	2021 – 2022
Wueller Teaching Award, runner-up for best teaching assistant in M.A. courses, online format (Columbia University)	2020 – 2021
Wueller Teaching Award, runner-up for best teaching assistant in M.A. courses (Columbia University)	2019 – 2020
Prize for Academic Achievement (University of London)	2017
Academic Excellence Award (University of London)	2017
Top 8th in Econometrics Universiade organized by Moscow State University	2017
Top 15% High-Quality Award in Sanofi Health Guardians Business Consulting Case Competition (1,380 competitors)	2016

Fellowships

Dean's Fellowship (Columbia University)	2017 – 2023
Dissertation Fellowship (Columbia University)	2022
Wueller Fellowship (Columbia University)	2017 – 2022
Merit-based scholarship covering 75% of tuition fees (Higher School of Economics)	2014 – 2017
Merit-based scholarship covering 60% of tuition fees (Higher School of Economics)	2013 – 2014

Grants

GSAS Matching Travel Grant (Graduate School of Arts and Sciences, Columbia University)	2022
Economics Fluctuations Colloquium Travel Grant (Department of Economics, Columbia University)	2022
The Program for Economic Research (PER) Travel Grant (Columbia University)	2022

TEACHING EXPERIENCE & TRAINING

Columbia University

Teaching Development Program (Foundational Track) at the Center for Teaching and Learning	Fall 2022
Teaching Assistant in Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2021
Junior Instructor in Introduction to Business, Finance, and Economics (Programs for High School Students) for Professor Raheem A. Haji	Summer 2021
Teaching Assistant in Advanced Macroeconomics (Undergraduate) for Professor Irasema Alonso	Spring 2021
Teaching Assistant in Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2020
Teaching Assistant in Financial Economics (Graduate) for Professor Steven Wei Ho	Spring 2020
Teaching Assistant in Introduction to Econometrics I (Graduate) for Professor Seyhan Erden	Fall 2019
Teaching Assistant in Intermediate Microeconomics (Undergraduate) for Professor Steven Olley	Spring 2019
Teaching Assistant in Principles of Economics (Undergraduate) for Professor Caterina Musatti	Fall 2018

National Research University - Higher School of Economics

Teaching Assistant at the Department of Economics (Undergraduate) for Professor Lubov Schukina	2015 – 2016
Lecturer and Class Teacher at the ICEF Evening School (Programs for High School Students)	2015 – 2016

WORK EXPERIENCE

Columbia Business School

Research Assistant for Professor Steven Zeldes	2019 – 2020
- Tested cointegration between stock prices and GDP per capita for 49 countries using the Global Financial Database	

Promsvyazbank

Summer Intern at the Department of Corporate Business Development	2015
- Developed the VBA code for filtering and analyzing the data on corporate bank clients	

CONFERENCES & PRESENTATIONS

AREUEA (The American Real Estate and Urban Economics) National Conference: Monetary Policy Implications of Heterogeneous Mortgage Refinancing	2022
Successfully Navigating Your PhD: A Mentoring Workshop for 3rd Year + Women & Non-Binary PhD Students in Economics & Economics-Adjacent Fields: Recessions, Social Security, and Retirement	2020

SKILLS

Technical: MATLAB, STATA, R, EViews, SAS, VBA Excel

Languages: Russian (Native), Georgian (Native), English (Fluent), Spanish (Intermediate)

MISCELLANEOUS

Member of Econ Soccer Team "The New Kanesians=Keynes+H.Kane" (Columbia University)	Sep 2021 –
Board Member of Association of Graduate Economics Students (Columbia University)	Sep 2017 –
President of Association of Graduate Economics Students (Columbia University)	2019 – 2020
Member of Mentoring Program (International College of Economics and Finance, Higher School Economics)	2014 – 2016
Member of IcefCrew – student community that organizes all extracurricular events (International College of Economics and Finance, Higher School Economics)	2013 – 2016
Member of the Association of Intellectual Clubs (Higher School of Economics)	2013 – 2016

Bruno Furtado

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New York, NY 10027

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Mobile: 917-992-4681
Nationality: Brazilian

EDUCATION

2017 - MAY 2023 (expected)	PhD in Economics **Columbia University GSAS**, New York, USA *Committee*: Navin Kartik (chair), Mark Dean, Jose Luis Montiel Olea
2013 - 2015	MSc in ECONOMICS **University of Brasília**, Brasília, Brazil
2006 - 2011	Bachelor of ECONOMICS **University of Brasília**, Brasília, Brazil

FIELDS

Primary: Microeconomic Theory

Secondary: Econometrics

Research Interests: Decision Theory, Information Economics, Mechanism Design, Econometrics

RESEARCH

Working Papers

1. **Job market paper:** *"The Behavioral Implications of Statistical Decision Theory"*

   Abstract: Statistical decision theory (SDT), which models the information acquisition and decision under uncertainty problems as strategic games against Nature, is the preferred framework used to study information economics. Surprisingly, axiomatic representations of statistical decision theoretic models have hitherto been absent from the literature, leaving the exact behavioral implications of such models unclear. This paper provides axioms on preferences over the objects of choice of SDT – decision rules and experiments – that characterize a very general statistical decision theoretic model. Using the representation of this base model and a result that connects SDT to the Anscombe-Aumann framework, I then develop a methodology to import existing representation results from classic decision theory into SDT. I illustrate the power of this technique by providing representations of SDT versions of some widely used decision theoretic models. While I initially axiomatize preferences over decision rule-experiment pairs, many applications are concerned only with choices between decision rules for a given experiment, or with choices between experiments paired with a specific decision rule. To bridge the gap between the main representation results and these applications, I also characterize when such choices are derived from a single preference over pairs of decision rules and experiments.

2. *"Statistical Mechanism Design: Robust Pricing and Reliable Projections"*
   with Duarte Gonçalves

   Abstract: This paper studies the robustness of pricing strategies when a firm is uncertain about the distribution of consumers' willingness-to-pay. When the firm has access to data to estimate this distribution, a simple strategy is to implement the mechanism that is optimal for the estimated distribution. We find that such empirically optimal mechanism boasts

strong profit and regret guarantees. Moreover, we provide a toolkit to evaluate the robustness properties of different mechanisms, showing how to consistently estimate and conduct valid inference on the profit generated by any one mechanism, which enables one to evaluate and compare their probabilistic revenue guarantees.

3. *"Rational Choice with Full-Comparability Domains"*
   with Leandro Nascimento and Gil Riella

   Abstract: We propose a new model of choice in the presence of incomplete preferences. Instead of simply choosing an element which is maximal according to her preferences, the decision maker divides the space of alternatives into subdomains inside which her preferences are complete. She then acts fully rationally and maximizes her preferences inside these domains of full comparability. Representation theorems are given in which the decision maker always satisfies a weaker form of the Weak Axiom of Revealed Preference and different postulates are imposed on a general notion of revealed preference. They identify a class of choice functions that is nested between choice functions represented by multiple rationales and the standard model of rational choice.

Work in Progress

4. *"Identifiability of Finite Mixture Models via Non-negative Matrix Factorization"*

   Abstract: High-dimensional latent parameter models, such as finite mixtures and topic models, are notoriously only set identifiable, in general. By establishing directly verifiable conditions under which a matrix has a unique exact non-negative factorization (up to permutations), I provide sufficient conditions for point identifiability of mixture models. Since these conditions are imposed on the data matrix before factorization, they can be checked prior to estimation. I also show that, when the model is identifiable, approximate non-negative matrix factorization provides a consistent, likelihood-free estimator of mixture weights. Applications include identifiability and point estimation of topic models.

CONFERENCE PRESENTATIONS

2022	26th Spring Meeting of Young Economists, Orléans, France Title: *"Behavior under Uncertainty in Statistical Decision Problems"*
2019	41st Meeting of the Brazilian Econometric Society, São Paulo, Brazil *Economic Theory Prize Session* Title: *"Rational Choice with Full-Comparability Domains"*
2015	37th Meeting of the Brazilian Econometric Society, Florianópolis, Brazil Title: *"Rational Choice with Categories"*
2014	International Workshop of the Game Theory Society, São Paulo, Brazil Title: *"Auction Design and Collusion in Public Procurements"*

DISTINCTIONS AND AWARDS

2019/2020	Dhrymes Econometrics Award of the Columbia University Economics Department
2019	Brazilian Econometric Society best paper award in Economic Theory for *"Rational Choice with Full-Comparability Domains"*

Grants

2017 - 2023	Columbia GSAS Dean's Fellowship
2017 - 2022	Wueller Fellowship
2022	Columbia University GSAS Dissertation Fellowship
2022	Columbia University Department of Economics Teaching Fellowship
2020	MTI Summer Reseach Grant
2019	PER Summer Research Fellowship
2020	Sander's Fellowship for Promising Students in the Department of Economics
2013 - 2015	CNPq Fellowship for MSc. Program in Economics

Teaching Experience

TA Appointments at Columbia GSAS

2021	• PhD Mathematical Methods for Economists, Prof. Elliot Lipnowski • PhD Introduction to Econometrics II, Profs. Jushan Bai and Simon Lee
2020	• PhD Introduction to Econometrics I, Prof. Jose Luis Montiel Olea • Behavioral Economics, Prof. Mark Dean
2019	• Cognitive Mechanisms and Economic Decisions, Prof. Michael Woodford • Principles of Economics, Profs. Sunil Gulati and Wouter Vergote
2018	• Principles of Economics, Prof. Anna Musatti

Work and Research Experience

2019 - 2020	Research Assistant at the Columbia University Department of Economics *Supervisor:* Navin Kartik
2014 - 2017	Finance and Control Auditor at Brazil's Treasury Department, Brasilia, Brazil *Economic Affairs Advisory/Cabinet of the Minister of Finance*
2009 - 2010	Research Assistant at Sustainable Development Centre (CDS) - UnB, Brasília, Brazil *LUPIS Project Scholar*
2008 - 2009	Intern at Integration Ministry, Brasília, Brazil *Budget and Finance Coordination*

Languages

Portuguese (Native), English (Fluent), Spanish (Intermediate), Japanese (Intermediate)

Computer Skills

Wolfram Mathematica, R, C, Matlab, LaTeX, Office.

REFERENCES

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Professor Jose Luis Montiel Olea
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PLACEMENT ASSISTANT: Amy Devine   aed2152@columbia.edu

References

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Columbia University
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Cristian Pop-Eleches
Columbia University
cp2124@columbia.edu

Education

Columbia University Ph.D. Economics	2023 (Expected)
Delhi School of Economics M.A. Economics	2016
Indian Institute of Technology (IIT), Delhi B.Tech. Production and Industrial Engineering	2014

Fields Of Specialization

Primary: Political Economy, Development Economics
Secondary: Industrial Organization

Working Papers

JOB MARKET PAPER

Learning to Resist Misinformation: Field Experiment in India *(with Monika Yadav)*

Abstract: Can people learn to identify misinformation, and to what extent can this mitigate its effects on beliefs, attitudes, and behavior? We conduct a large field experiment with an intervention aimed at improving people's ability to identify misinformation and reduce their misperceptions about minorities. The experiment is done in India, where there has recently been high levels of misinformation on social media, a significant portion of which targets Muslims, the largest religious minority in the country. The intervention is to provide weekly digests containing compilation of fact-checks of viral misinformation, along with narrative explainers on the issues with a lot of misinformation around them. We find that this increases people's ability to correctly identify misinformation as false by eleven percentage points. However, it also decreases belief in true news by four percentage points. We estimate a structural model to disentangle the two mechanisms of impact—truth discernment, which is the ability to distinguish between false and true news; and skepticism, which changes the overall credulity for both false and true news. The impact is driven by an increase in both truth discernment and skepticism. The intervention also changes policy attitudes and behavior. Treated individuals are less likely to support discriminatory policies against Muslims and are more likely to pay for efforts to prevent harassment of inter-faith couples.

Ethnic Violence and Economic Growth

Abstract: I estimate the impact of ethnic violence on economic growth using data on Hindu-Muslim riots in India. For causal identification, I use shift-share instruments to isolate exogenous national shocks to violence from endogenous local shocks. On average, a riot reduces state GDP growth rate by 0.14 percentage points. To investigate mechanism, I estimate the dynamics of impact using the synthetic control method and compare it to theoretical predictions from a shock to social capital versus physical capital. The comparison suggests that the negative impact of violence is driven by a negative shock to social capital from higher animosity and discrimination among communities exposed to violence. This impact of violence on growth creates a vicious cycle when one also considers the effect in the opposite direction – lower growth leading to more violence. The multiplier due to this vicious cycle magnifies the impact of external growth shocks by 40 percent in equilibrium. These findings highlight the importance of having strong institutions to manage conflict for the long-term prosperity of societies.

Work in Progress

- Where is the Boundary: Using night lights to construct panel of city shapes

- Historical Origins of Ethnic Conflict in India

Awards, Grants and Fellowships

Wueller Pre-Dissertation Award (Runner-up), *Columbia University*	2020
Harris Prize for best second year paper (Runner-up), *Columbia University*	2019
Research Grant, *INCITE, Columbia University*	2019
PER Data Purchase Grant, *Columbia University*	2019
PER Grant for Experimental Research, *Columbia University*	2021
Dissertation Fellowship, *Columbia University*	2022
Dean's Fellowship, *Columbia University*	2017-2022
Krishnaraj Summer Research Fellowship, *Delhi School of Economics*	2015
Indian National Mathematical Olympiad (All India Rank – 21), *National Board for Higher Mathematics*	2009

Research Experience

Columbia University

Research Assistant (Prof. Réka Juhász)	2018
Research Assistant (Prof. Navin Kartik)	2018
Research Assistant (Prof. Joseph Stiglitz)	2018-2019
Research Assistant (Prof. Miguel Urquiola)	2019-2020

Reserve Bank of India

Research Associate	2016

Teaching Experience

Principles of Economics

Teaching Assistant (Prof. Prajit Dutta)	Fall 2020
Teaching Assistant (Prof. Sunil Gulati)	Spring 2021

Public Economics

Teaching Assistant (Prof. Wojciech Kopczuk)	Summer 2021

Intermediate Microeconomics
    Teaching Assistant (Prof. Wouter Vergote)   Fall 2021

Miscellaneous

Technical Skills:

    <u>Programming Languages</u>: R, Python, Stata, MATLAB, JavaScript, QGIS
    <u>DevOps:</u> SQL, MongoDB, Bash Scripting, Docker, NGINX

Languages: English, Hindi (Native)

Bhargav Gopal

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Placement Assistant: Amy Devine, (212) 854-6881, aed2152@columbia.edu

Education:

2023 (expected)	Ph.D.	Economics	Columbia University
2015	B.A	Economics	University of California, Berkeley

Fields of Specialization: Labor Economics, Law and Economics

Job Market Paper: *How Do Firms Respond to Gender Quotas? Evidence from California's Senate Bill 826*

Abstract: More than one-third of US-listed companies had all-male corporate boards in 2015. Quotas are discussed as policy levers to increase gender diversity, but there is much controversy whether they can increase female representation without harming organizational outcomes. Using the passage of a California law in 2018 that required the presence of at least one woman on corporate boards by the end of the following year, I estimate the effects of gender quotas on firm performance. I find the quota reduced the share of all-male boards by twenty-five percentage points within one year, with no reductions in operating performance, firm values, or shareholder returns within three years. These results question why all-male boards were prevalent prior to the legislation. I find that women directors are less likely to possess top-level experience and employment connections with corporate executives, which both appear as viable explanations. These findings provide insight on why women continue to lack representation in corporate leadership.

Working Papers

Do Non-Compete Agreements Help Workers? Evidence from the NLSY

Abstract: Non-compete agreements are provisions within employment contracts that prevent workers from joining competing firms. They are prevalent in the US workforce, with 38% of workers having signed such clauses at some point in their careers, but there is limited research on the type of workers who sign these agreements. Using newly released panel data on the usage of non-compete agreements from the NLSY, I find that non-compete signers earn 6 dollars more per hour and remain with their employers for 3 more months than individuals without such agreements. Non-compete signers also receive more employer-provided training, but do not experience higher wage growth.

These facts are rationalized through a theoretical model that builds upon Hashimoto (1981). Under the model's assumptions, which includes the premise that the contract is not renegotiated, I show that non-compete agreements can create one market failure – inefficient lack of job separation – while mitigating a separate market failure – inefficient provision of industry-specific training by firms. The model yields the predictions that (i) non-compete agreements are more likely to be used in industries where firms must share information that make the worker more productive at competing firms, (ii) non-compete signers have longer job tenures, and (iii) non-compete signers receive more firm-provided training. All predictions appear to hold in the data.

The Effects of Non-Compete Regulation: Theory and Evidence

Abstract: Using individual-level data from the Current Population Survey and 18 non-compete regulatory changes between 1992-2014, I study the effect of state-level non-compete enforcement on wages, unemployment, labor force participation, and job mobility. Leveraging the fact that public sector workers do not have non-compete agreements, I perform a triple difference analysis to find that increases in non-compete enforcement are associated with hourly wage increases of 3-7%, with larger gains for job leavers than job stayers. I find stricter non-compete enforcement to not be associated with decreases in job mobility, and to not be tied with unemployment or labor force participation decisions. The empirical results are interpreted through the lens of an incomplete contracting model following Meccheri (2009). Under the assumptions of the theoretical model, I show that non-competes mitigate the market failure of underprovided firm-sponsored general training, thus increasing the worker's productivity. The extent to which the worker is compensated for this increase in productivity depends an unobserved parameter: the number of firms that can offer a contract with an enforceable non-compete. The fact that increased enforcement raises the wages of job leavers more than job stayers is consistent with the model's predictions.

Honors and Awards:

Dean's Fellowship, Department of Economics, Columbia University (2017 – 2021)
Dissertation Fellowship, Department of Economics, Columbia University (2022)
Program for Economic Research Grant (2022)
Microeconomic Theory Initiative Matching Grant (2022)
Applied Microeconomics Colloquium Grant (3x -- 2020, 2021, 2022)
Graduate School of Arts and Sciences Grant (2022)

Invited Presentations:

Interdisciplinary Graduate Student Seminar Series at Columbia University (2022)
- Recipient of $500 honorarium.
Discrimination and Disparities Workshop at University of East Anglia (2022)
Annual Economics Graduate Student Conference of Washington University in St. Louis (2022)

Research Experience:
Research Assistant for Sandra Black at Columbia University (2019 - 2021)
Research Assistant for John Donohue at Stanford Law School (2015 – 2017)

Teaching Experience:
Economics of Race in the United States – TA (Fall 2018)
Economics of New York City – TA (Spring 2019)
        "Thank-a-Teaching-Assistant" Award from the Center for Teaching and Learning

Service:
Arts and Sciences Graduate Council at Columbia University (2019 – 2021)
Recipient of Honorary Own Award for Leadership and Service (2021)

Undergraduate Students Supervised (First Job, Role):
Baturalp Yalcin (UC Berkeley IEOR Department, PhD Student)
Bailey Kraus (Federal Reserve Bank of New York, Staff)
Michael Duarte (Columbia University Economics Department, Full-Time RA)
Margaret Gleason (Federal Reserve Bank of New York, Staff)
Eli Lee (United States Attorneys' Office, Staff)
Adithya Raajkumar (Federal Reserve Board, Staff)
William Pagel (Bank of England, Staff)

Other Work Experiences:
Consultant for Lumiere Education (2020 - 2022)
Writing Tutor (2012 – 2014)

Skills:
Languages: Proficient in Spanish
Computer and Technical: Advanced proficiency in R and Stata. Proficient in LaTeX, SQL, Linux

Personal:
Born on 08/03/1993
US Citizen

References:
Michael Best:
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Sandra Black:
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Bentley MacLeod:
wbm2103@columbia.edu

Sakshi Gupta

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New York, NY - 10027

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EDUCATION

Ph.D. candidate, **Columbia University**	May 2023 (Expected)
Dissertation Title - "Essays in Development Economics"	
M.Phil., **Columbia University**	2020
M.A., Economics, **Columbia University**	2019
M.A., Economics, **Delhi School of Economics, University of Delhi**	2015
Gold Medallist	
B.A., Economics, **St. Stephen's College, University of Delhi**	2013

RESEARCH FIELDS

Primary: Development Economics, Labor Economics, Applied Microeconomics
Secondary: Economics of Gender

HONORS, SCHOLARSHIPS, AND FELLOWSHIPS

Ralph Erdman Holben Fellowship, Columbia University	2022
Reubens Fellowship, Columbia University	2021
Wueller Fellowship, Columbia University	2017-22
Dean's Fellowship, Columbia University	2017-22
Wueller Pre-Dissertation Award (Runner up), Columbia University	2020
Data Purchase Grant Award, PER, Columbia University	2020
Hira Lal Bhargava Gold Medal, Delhi School of Economics	2016
K.C. Nag Memorial Prize, Delhi School of Economics	2016
Shri Ram Behari Rohatagi Memorial Gold Medal, Delhi School of Economics	2016
Dr. Manmohan Singh Fellowship, Delhi School of Economics	2014-15
Prof. Late Suresh D. Tendulkar Memorial Scholarship, Delhi School of Economics	2013-14
The Sumitomo–St. Stephen's College Scholarship	2010-13
George K George Kollamkulam Memorial Award, St. Stephen's College	2013

RESEARCH EXPERIENCE AND OTHER EMPLOYMENT

World Bank, Development Research Group, Short Term Consultant	2021
Columbia University, Research Assistant for Sandra Black	2021-22
Columbia University, Research Assistant for Miguel Urquiola	2020
Columbia University, Research Assistant for Michael Best	2019
Columbia University, Research Assistant for Jonas Hjort	2019
Columbia University, Research Assistant for W. Bentley Macleod	2018
Delhi School of Economics, Research Assistant for Ram Singh	2016-17

American Express India Ltd., Risk and Information Management Group, Business Consultant   2015-16

Reserve Bank of India, Rural Planning and Development Group, Summer Intern   2014

TEACHING EXPERIENCE

(Undergraduate Teaching unless specified)

Principles of Economics, Columbia University, TA for Sunil Gulati   2019-20
Received Wueller Award for best Teaching Assistants (Runner-up)

Globalization and its Risks, Columbia University, TA for Graciela Chichilnisky   Spring, 2019

Financial Economics, Columbia University, TA for Vivette Ancona   Summer, 2018

Microeconomics and Game Theory (Masters), Delhi School of Economics, Remedial Teacher   2016-17

WORKING PAPERS

Labor Market Response to Gendered Breadwinner Norms: Evidence from India *(Job Market Paper)*

Featured on the Ideas for India Blog

Despite recent gains in women's educational attainment and reproductive agency, substantial gender gaps in the labor market still remain, particularly in developing countries. In this paper, I study the impact of culture and social norms in explaining this puzzle in the Indian setting. In particular, I examine the role of the male-breadwinner norm, which dictates that husbands should earn more than their wives. I first establish a sharp discontinuity in the distribution of the share of the wife's income at the point where the wife's income exceeds income of the husband. I theoretical show that this pattern can be best explained by gender identity norms which make couples averse to a situation where the wife earns more than her husband. I also provide empirical evidence that this aversion has real implications on the labor market outcomes of the wife. First, the wife is less likely to participate in market activities if her potential income is likely to exceed her husband's. Second, she earns less than her potential if she does work and can potentially out-earn her husband. Evidence from observing couples over time and bunching methods supplement these results. Moreover, these results are more pronounced in couples where the husband is making the labor market decisions of the wife and where other regressive gender norms are prevalent.

Liquidity Shock and Schooling: Evidence from India's Demonetization
with Dhruv Jain

Evidence across developing countries suggests that parents are often credit constrained when making schooling decisions for their children. But little is known about the severity of this constraint. That is, would temporary shocks to liquidity affect parents' decisions? To identify this effect, we use a shock to available cash in the economy induced by India's 2016 demonetization. The policy made 86% of currency-in-circulation illegal overnight and individuals could deposit old notes at the bank in exchange for new ones. We identify the impacts of demonetization's severity by leveraging discontinuities in banking access across Indian districts. Difference-in-discontinuity estimates show that districts which experienced a more severe liquidity shock saw an increase in dropout from private schools but no effect in free public schools, consistent with the presence of real credit constraints.

Measuring the Effectiveness of Financial Incentives in Altering Parents' Fertility Decisions

Do financial incentives provided by governments, for the protection and betterment of a girl child, have intended effects on the fertility decision of parents? As part of a broader research agenda, I look at this question in context of an intervention, Bhagyalakshmi. Launched in March 2006, in an Indian state, Karnataka, the intervention provided financial incentives to couples for having girl children with an intention to improve the sex ratio and the condition of girls born in the state. My results suggest that Bhagyalakshmi led to an increase in total fertility in Karnataka by approximately 1.3% but had no effect on the proportion of sons living in the state, indicating that the scheme was not able to achieve its intended goals.

POLICY PAPERS

Is there an Urban Wage Premium in Rwanda? *with Jonathan Bower and Carlo Menon (IGC WP C-20061-RWA-1)* **- *Blog***

Sharing Responsibility through Joint Decision-making and Implications for Intimate-Partner Violence: Evidence from 12 Sub-Saharan African Countries *with Aletheia Donald, Cheryl Doss and Markus Goldstein (WB Working Paper WPS9760)* **- *Blog***

SELECTED WORK IN PROGRESS

Banks and Roads: Do Complementarities Matter? *with Dhruv Jain*

Do Informal Firms Benefit from Expansion in Formal Credit? Regression Discontinuity Evidence from India *with Dhruv Jain*

The Measurement and Evolution of Son Preference in India *with S Anukriti and Nistha Sinha*

PROFESSIONAL ACTIVITIES

Conference Presentations

The 9th South Asia Economic Policy Network Conference, World Bank	2022
15th Annual Conference on Economic Growth and Development, ISI Delhi	2021
Young Economist Symposium (YES)	2021
North East Universities Development Consortium (NEUDC), Darthmouth College	2020

TECHNICAL SKILLS

Languages/Software: Stata, R, LaTeX, GitHub, Matlab, SAS, SQL
Tools: Panel Data Econometrics, Causal Inference, Applied Statistics

ADVISORS

Sandra Black (Chair)
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    Suresh Naidu, sn2430@columbia.edu
Placement Assistant:
    Amy Devine, aed2152@columbia.edu

Fields of Specialization

Applied Microeconomics, Health Economics

Education

Columbia University	Ph.D., Economics	Expected 2023
	M.Phil., Economics	2020
	M.A., Economics	2018
University of Hong Kong	B.Econ. *(First Class Honours)*	2016

Job Market Paper

Lead Pipe Information and Housing Prices: An Analysis in Washington, DC

Abstract: In 2016, the Water and Sewer Authority of Washington, DC released an online map that contains information on lead service lines (LSLs) for all properties in the district. Using the release as a natural experiment, this paper estimates the effect of the new information on prices of properties with and without LSLs. Neither a difference-in-differences model nor a repeat sales model captures a significant divergence between prices of the two groups after the map's release, implying the housing market response to the information was limited.

Working Paper

Marriage Penalty and the Decision to Marry: Same-Sex Couples After *U.S. v. Windsor*

Abstract: The U.S. Supreme Court's ruling on *United States v. Windsor* in June 2013 compelled the federal government to recognize state-sanctioned same-sex marriages, including for tax purposes. The switch in the income tax filing status for same-sex couples implied that the marriage penalty or subsidy that came with joint filing became a legitimate concern for couples making a marriage decision. Using repeated cross-sectional data, I find that lesbian couples who had more to gain (or less to lose) from marriage were more likely to marry after the Supreme Court ruling. No comparable effect is found for gay couples.

Teaching Assistant Experience

Principles of Economics	Fall 2020, 2022
Microeconomic Analysis I (M.A.)	Fall 2017, 2018, 2019
Microeconomic Analysis II (M.A.)	Spring 2020, 2021
Introduction to Econometrics	Spring 2019
Intermediate Microeconomics	Spring 2018
Introductory Microeconomics (Undergraduate TA)	Fall 2015

Honors and Awards

Teaching Fellowship, Department of Economics, Columbia University	2022
Dissertation Fellowship, Department of Economics, Columbia University	2021
Wueller Teaching Award (runner-up), Columbia University	2021
in the M.A. course category	
Dean's Fellowship, Department of Economics, Columbia University	2016–2020
Jao Tao Su Prize in Economics, University of Hong Kong	2016
for best overall academic performance in degree curriculum	
C.V. Starr Scholarships, University of Hong Kong	2014
CMA and Donors Scholarship, University of Hong Kong	2014
Dean's Honours List, Faculty of Business and Economics, University of Hong Kong	2013–2015
HKU Foundation Scholarships for Outstanding Mainland Students, University of Hong Kong	2012–2015

Miscellaneous

Languages	Mandarin (native), English (fluent), Cantonese (elementary)
Software	Stata, R, MATLAB, SAS
Year of Birth	1994

References

Michael Best	Douglas Almond	Miguel Urquiola
Assistant Professor	*Professor of Economics and*	*Chair and Professor of Economics and*
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Yu Kyung Koh

November 2022

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Placement Assistant: Amy Devine, (212) 854-6881, aed2152@columbia.edu

EDUCATION

Ph.D. in Economics	Columbia University	2017-Present
M.A. in Economics	Columbia University	2019
B.A. in Economics	The University of Chicago	2015

FIELDS OF SPECIALIZATION

Fields: Family Economics, Labor Economics, Applied Microeconomics

REFERENCES

Pierre-André Chiappori *(Co-sponsor)* E. Rowan and Barbara Steinschneider Professor of Economics Columbia University pc2167@columbia.edu	Bernard Salanié *(Co-sponsor)* Professor of Economics Columbia University bs2237@columbia.edu	Brendan O'Flaherty Professor of Economics Columbia University bo2@columbia.edu

JOB MARKET PAPER

"The Unequal Gains from Racial Desegregation in the US Marriage Market"

Abstract: Interracial marriages have increased in the US over the past several decades, but the trends differ across race, gender, and education groups. This suggests that racial desegregation in the marriage market may not have improved marriage prospects of all groups. This paper studies why some groups have gained more from marital desegregation than others over the past four decades. To this end, I build a transferable utility matching model to define and estimate the welfare gains from marital desegregation by comparing the equilibrium rates of singlehood in the observed marriage market with those in a completely segregated marriage market. I find that among Blacks and Whites, college-educated men gained more than their female and lower-educated male counterparts. To understand why, I implement a decomposition method based on quantitative comparative statics to examine the general equilibrium effects from various market-level changes in population and in marital preferences. I find that the rise in the welfare gains for college-educated Black men is largely driven by the increase in the joint surplus from marriage with college-educated White women. Other Black men and women did not benefit as much from any change in the marital surplus, implying that race relations have not improved in the marriage market except for the most educated Black men. I also find that the rise in welfare gains for college-educated White men is mechanically driven by the increase in the number of college-educated Asian and Hispanic women. Simulation results suggest that progress toward racial integration in the marriage market would significantly reduce the rates of singlehood among Blacks.

WORKING PAPERS

"Spousal Bargaining Power and Consumption of Married Couples in the US: Evidence from the Scanner Data" (with So Yoon Ahn)

Abstract: This paper studies how spousal bargaining power affects consumption patterns of married households in the US, using a detailed barcode-level dataset. We use two distribution factors as proxies for spousal bargaining power: (1) spouses' relative education and (2) spouses' relative potential wage, which is our preferred distribution factor. As an arguably exogenous measure of bargaining power, our relative potential wage is constructed as a Bartik-style measure of female-to-male wage ratio, exploiting county-level variations in heterogeneous exposure to different industries and state-wide wage growth. We find that the expenditure share on women's beauty goods increases and the expenditure share on alcohol decreases when the relative bargaining position of the wife is higher. These results are consistent with household bargaining explanations. For couples with children, improved women's household bargaining position is associated with a higher budget share on books, stationery, and school supplies, which are potentially related to investment in children. For singles, we do not find statistically meaningful effects of relative potential wage on any of their consumption outcomes, which strengthens the interpretation that the relative wage only affects couples' consumption decisions.

SELECTED WORK IN PROGRESS

"Geographical Variation in the Gains from Racial Desegregation in the US Marriage Market"

PRE-DOCTORAL PUBLICATION

"Evaluation of the Reggio Approach to Early Education" with P. Biroli, D. Del Boca, J. J. Heckman, L. P. Heckman, S. Kuperman, S. Moktan, C. D. Pronzato, A. L. Ziff, *Research in Economics*, 72(1): 1-32 (2018).

INVITED CONFERENCE PRESENTATION

| 2022: | Annual Meeting of the Society of Economics of the Household (UCL), Leuven Summer Event – Labor/Family Economics (KU Leuven) |
| 2021: | Asian and Australasian Society of Labour Economics Annual Conference (Peking University, Virtual) |

RELEVANT WORK EXPERIENCE

Full-Time Research Professional at the Center for the Economics of Human Development, University of Chicago, 2015-2017 (Director: James J. Heckman)

TEACHING EXPERIENCE

TA for Intermediate Microeconomics (Dr. Wouter Vergote), Columbia University, Fall 2019
TA for Intermediate Microeconomics (Prof. Caterina Musatti), Columbia University, Spring 2020

HONORS AND AWARDS

Dissertation Fellowship, Columbia University, 2022-2023
Kwanjeong Education Foundation Fellowship, 2017-2022
Dean's Fellowship, Columbia University, 2017-2022
Young-Iob Chung Fellowship, Columbia University, 2019-2020
First Place in the Econometrics Game, Becker Friedman Institute, University of Chicago, 2015

UNIVERSITY/DEPARTMENT SERVICE
Student organizer for Applied Microeconomic Theory Colloquium, Columbia University, 2021-2022

SKILLS
Computer Skills: R, Matlab, Stata, Julia, Python
Languages: Korean (native), English (fluent)

PERSONAL
Citizenship: South Korea

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PLACEMENT ADMINISTRATOR
Amy Devine
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PERSONAL INFORMATION

Female, US Permanent Resident

RESEARCH INTERESTS

Primary Fields: Macroeconomics – Innovation, Growth and Firm Dynamics

Secondary Fields: Finance, Inequality, Entrepreneurship

EDUCATION

Ph.D. in Economics, Columbia University	2016 – 2023 (Expected)
M.A. in Economics, Columbia University	2015 – 2016
Ph.D. in Cell and Developmental Biology, Rutgers University	2009 – 2015
B.S. in Pharmaceutical Science, Peking University	2005 – 2009

JOB MARKET PAPER*

The Dynamics of Firm Size Inequality: The Role of Acquisition and Innovation [Latest Version]

Abstract: In this paper, I construct a new dataset on the dynamic ownership of firms by tracking the M&A transactions among acquirers and targets that are either public or private. I then merge the firm dynamic ownership panel onto the USPTO patent database to obtain novel data on the dynamic ownership of patents by firms. Using this data, I document the importance of acquisitions of private targets in driving the growth of the acquirers and the rise in corporate concentration. My empirical analysis reveals three channels through which firms grow via acquisition: (i) acquirers develop more innovations based on the patents of their

target firms after acquisition; (ii) acquirers use acquisitions of innovative targets as an explorative tool to build their strength in new technology fields; (iii) acquisitions can shield acquirers' innovations from becoming technologically obsolete. I then examine the implications of these innovation mechanisms on upper tail firm size inequality — in terms of both stationary distribution and transition dynamics — using a range of firm random growth models. Utilizing the mathematical tool "Green's function", I find that acquisitions give rise to higher inequality among top firms (i.e., superstar firms are even bigger) in the stationary firm size distribution. Furthermore, I adapt the "heat kernel" in PDE theory and introduce a new and stronger measure for the speed of convergence in distributions — uniform convergence — to find that acquisitions by top firms can lead to a faster rise in inequality at the upper tail of firm size distributions.

OTHER WORKING PAPERS

Firm Dynamics and Innovation: Evidence from Decomposing Top Sales Shares
[PDF] (*EEA Conference 2022 – Firms and Technology Program*)

Abstract: What do changes in top sales shares signal about changes in firm dynamics? I use an accounting decomposition to identify two sources of top sales shares growth: (i) incumbent top firms grow bigger; (ii) new top firms replace old top firms. Over the 1950-2019 period, incumbent top firms contribute about 3.5 times as much as new top firms to the growth of the sales shares accrued to the top 0.01% firms in the US economy. Using the results from this empirical decomposition, I then build a model to estimate a firm dynamics process in which firms grow in response to own innovation shocks and shrink at the impact of creative destruction shocks. The existence of a channel through which own innovation can lead to higher top sales shares growth is supported by the data. My estimation reveals a surge in the rate of own innovation since 1980 and a decline in the rate of creative destruction over time.

Employment during the COVID-19 Pandemic: Collapse and Early Recovery
with **Tam Mai** [PDF]

Abstract: We use monthly Current Population Survey data to document employment changes during the COVID-19 pandemic at the occupation, industry, and metropolitan statistical area (MSA) levels. Over March-April 2020, jobs losses are larger for occupations with higher physical proximity or lower work-from-home feasibility, especially for lower-paying occupations. Non-essential industries also see greater declines in employment. Such occupational and industrial susceptibility to COVID-19 contributes to the variation in employment changes across MSAs:

Employment shrinks more for MSAs with larger pre-crisis fractions of workers employed in occupations with higher infection risk. Over April-June 2020, occupations and industries that are hit harder recoup more jobs, but the recovery is only partial. Moreover, the gains are concentrated in lower-paying occupations and a few industries. Taken together, these abrupt changes in employment following the COVID-19 outbreak are unprecedented and potentially have long-term implications for occupational inequality and regional disparity.

Income Inequality and Mortgage Credit Allocation [PDF]

Abstract: This paper studies how income inequality at the Metropolitan Statistical Area (MSA) level affect mortgage credit allocation along the income distribution of households *within* MSAs. I find that MSA-level income inequality has heterogeneous effect on household-level mortgage debt accumulation. Two measures of inequality, the ratio of 95th-to-80th percentile (p95/p80) and the ratio of 80th-to-50th percentile (p80/p50) of household income, exhibit significant impact. With respect to credit approval along the income distribution, high p95/p80 inequality works more in favor of low-income households while high p80/p50 inequality benefits high-income households more.

PUBLICATIONS (IN BIOMEDICAL SCIENCE, FROM PREVIOUS PHD STUDY)

1. Shi, A., **Liu, O.**, Koenig, S., Banerjee, R., Chen, C. C. H., Eimer, S., Grant, B. D. (2012). RAB-10-GTPase–mediated regulation of endosomal phosphatidylinositol-4, 5-bisphosphate. *Proceedings of the National Academy of Sciences*, 109(35), E2306-E2315. [PDF]

2. Sun, L., **Liu, O.**, Desai, J., Karbassi, F., Sylvain, M. A., Shi, A., Grant, B. D. (2012). CED-10/Rac1 regulates endocytic recycling through the RAB-5 GAP TBC-2. *PLoS genetics*, 8(7), e1002785. [PDF]

3. **Liu, O.**, Grant, B. D. (2015). Basolateral endocytic recycling requires RAB-10 and AMPH-1 mediated recruitment of RAB-5 GAP TBC-2 to endosomes. *PLoS genetics*, 11(9), e1005514. [PDF]

4. Wang, P., Liu, H., Wang, Y., **Liu, O.**, Zhang, J., Gleason, A., Grant, B. D. (2016). RAB-10 promotes EHBP-1 bridging of filamentous actin and tubular recycling endosomes. *PLoS genetics*, 12(6), e1006093. [PDF]

5. (*In Chinese.*) Li, X. T., Yuan, Y. L., Xia, Y. Y., Yu, B. Z., Zhang, T. J., **Liu, O.**, Zhan, S. Y. (2009). Genetic polymorphism of glutathione-S-transferase M1 and T1: a systematic review in Chinese population and a pilot study in smear-positive pulmonary

tuberculosis cases of Jilin province. *Chinese Journal of Epidemiology*, 30(5):502-6. [PDF]

TEACHING EXPERIENCE

TEACHING FELLOW

Columbia University [Evaluation]

Principles of Economics (Undergraduate)	Fall 2022
Instructor: Miguel Urquiola	
Behavioral Finance (Undergraduate)	Spring 2022
Instructor: Harrison Hong	
Finance and the Real Economy (Undergraduate)	Spring 2019, Spring 2020
Instructor: Matthieu Gomez	
Corporate Finance (Undergraduate)	Fall 2018, Fall 2019, Fall 2020
Instructors: Olivier Darmouni and Ethan Namvar	
Intermediate Macroeconomics (Undergraduate)	Fall 2017, Spring 2018
Instructors: Irasema Alonso and Jón Steinsson	

Rutgers University [Evaluation]

Genetics (Undergraduate)	Fall 2013, Spring 2014, Fall 2014, Spring 2015

INSTRUCTOR

Institute of Industrial Economics of Chinese Academy of Social Sciences

Macroeconomics (1st-year PhD level, equiv. 1.5 credit minicourse)   Summer 2018

LAB MENTOR

Rutgers University

Mentored pre-med, master and PhD students during their lab rotations 2011-2015

FELLOWSHIPS

Dissertation Fellowship, 2022-2023, Columbia University

Dean's Fellowship, 2016 – 2021, Columbia University

Anne B. and James B. Leathem Fellowship, Summer 2011 – 2014, Rutgers University

Excellence Fellowship, 2009 – 2010, Rutgers University

REFERENCES

Martin Uribe	**Matthieu Gomez**
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Émilien Gouin-Bonenfant
Assistant Professor
Columbia University
(+1) 212-854-5488
eg3041@columbia.edu

MISCELLANEOUS INFORMATION

LANGUAGES:

Chinese (native)   English (fluent)   French (intermediate)   German(basic)

- French: Diplôme de Français professionnel-Affaires B2 awarded by the Paris Chamber of Commerce
- German: Goethe-Zertifikat B1

PROGRAMMING: Python, Stata, Matlab

SPORT: player on Table Tennis women's team at Peking University (2005 – 2008) and at Columbia University (2016 – 2017)

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Research Interests

Economics of Climate Change, Public Finance, Financial Economics

References

Harrison Hong	**José A. Scheinkman**	**Joseph E. Stiglitz**
Columbia University	Columbia University	Columbia University
hh2679@columbia.edu	js3317@columbia.edu	jes322@gsb.columbia.edu

Education

Ph.D. in Economics, Columbia University, NY, USA	2016-23
en route: M.A. in Economics (2017). M.Phil. in Economics (2018)	(expected)
M.B.A., Indian Institute of Management, Ahmedabad, India.	2014–16
B.Tech. Chemical Engineering, Indian Institute of Technology, Roorkee, India.	2008–12

Research Papers

Working Papers

- **Hurricanes, Mitigation and Capital Formation**

  Abstract: A number of recent papers have investigated the impact of hurricanes on economic growth. However, there is limited understanding of the investment component of local growth after hurricanes. Using hand collected and web-scraped statutory property tax rate data in the U.S., I find that local governments respond to hurricane impact by raising tax rates. I find the hike in tax rates is persistent for 3-4 years after hurricane impact. The response is four times larger for major hurricanes compared to minor hurricanes. However, the increase in tax rates is not expected to be large enough to cause significant out-migration after the average hurricane. I supplement these findings with a novel data set of firm facility-level hurricane impact. I find that firms initially decrease investment in the quarter following hurricane impact and increase it in the final quarters of the second year after impact. Taken together, my paper presents a novel set of stylized facts on government and firm mitigation investment response that can be interpreted in light of recent general equilibrium models with disaster risk.

- **Local Governments' Response to Fiscal Shocks: Evidence from Connecticut**, with Oliver Giesecke. *Best Student Paper (Honorable Mention) at the 15th North American Meeting of the Urban Economics Association 2021.*

  Abstract: The deteriorating fiscal position of municipalities across the United States raises the question which adjustment mechanisms municipalities have at their disposal and what their effects are. We utilize quasi-experimental variation in the year of property tax assessments in the state of Connecticut to provide causal evidence of the fiscal adjustment following a large decline in property values after the Great Financial Crisis. We find that local governments adjust tax rates to maintain stable tax revenues; there is no change in public employment levels and limited adjustments of public services. Our micro data on people's location further allows us to causally estimate the migration elasticity to a change in property tax rates. We find evidence of inter-state migration in response to an increase in property tax rates; and no statistically significant response of intra-state migration. Detailed property and location choice data reveal the elasticity of migration with regard to the property tax bill. An increase in the property tax bill by ten percent leads to an average increase in the migration propensity by about 1.5%.

- **Local Government Debt Valuation**, with Oliver Giesecke and Marcelo Sena.

Abstract: We construct a novel data set on the fiscal position of municipalities in the United States and document a secular decline in their financial health. Our data combines financial data from the Annual Comprehensive Financial Reports (ACFRs) of municipalities along with Census data of their revenue and expenditure cash flows. We find that a large share of municipalities operate with a negative net position—akin to a negative book equity position in the corporate context. We find that most of the decline originates from the accumulation of legacy obligations, i.e., pensions and other post-employment benefits (OPEBs); this is recognized by municipal bond markets through higher credit spreads. While accounting values from the ACFRs are informative, they are based on book valuations which potentially convey limited information about the economic value of assets and liabilities. Thus, we turn to the market valuation of local governments' equity by estimating an SDF that matches the valuation of a wide range of assets in the economy to prices future tax and expenditure claims. Using market prices for tax and expenditure claims, and market valuations of liability positions we find that the market values of equity are highly correlated with the book values. The negative equity position—in terms of book and market values—for some local governments suggests the presence of implicit insurance by the state and federal governments.

- **Income Contingent Loans as an Unemployment Benefit**, with Joseph E. Stiglitz and Jungyoll Yun, NBER Working Paper 29198.

Abstract: Imperfections in risk and capital markets imply that individuals who lose jobs suffer from imperfect smoothing of consumption across states and times. Compared to the first best, there will be too little search. Optimal unemployment programs, which balance the marginal benefit of consumption smoothing vs. the marginal cost of the insurance externality, increase welfare and may even increase GDP. Our analytical results suggest that welfare is higher if the unemployment benefits program includes income-contingent unemployment loans (ICL), where the amount repaid depends on the individual's future income. Such loans can be financed by a risk premium imposed on the unemployed who avail themselves of the loans, and partially substitute for unemployment insurance (UI) benefits. Optimal unemployment benefits programs (UB) with ICL do a better job of smoothing consumption across states and time, and in particular total benefits when unemployed increase. We analyze how changes in key parameters, such as the degree of risk aversion and the nature of post-employment work, affect the design of the optimal UB program and the magnitude of the incremental benefits from including income-contingent loans.

- **The Microstructure of the U.S. Housing Market: Evidence from Millions of Bargaining Interactions**, with Franklin Qian and Ye Zhang.

Abstract: We study the microstructure of the U.S. housing market using a novel data set comprising housing search and bargaining behavior for millions of interactions between sellers and buyers. We first establish a number of stylized facts, the most prominent being a nearly 50–50 split between houses that sold below final listing price and those that sold above final listing price. Second, we compare observed behavior with predictions from a large theoretical housing literature. Many predictions on the relationship between sales price, time on the market, listing price and atypicality are borne out in the data. However, existing models do not adequately explain the spread of the sales price around the final listing price. Using a modeling strategy that treats listing price changes as revisions of expectations about the sales price, we find sellers under-react to information shocks in estimating the sales price. Last, we find that the bargaining outcomes are influenced by previously undocumented buyers' bid characteristics, e.g., financing contingencies and escalation clauses, that signal a buyer's ability to complete or expedite the transaction. This suggests an important role for buyer bid characteristics, which are not explained by existing theories, in affecting bargaining power and surplus allocation in bilateral bargaining in housing transactions.

- **Something Biased This Way Comes: The Effect of Media on Local Elections in the US** , with Dario Romero.

Abstract: We study how the introduction of a biased TV station operator affects electoral results. We use the staggered expansion of Sinclair Broadcasting Group (SBG) – a large TV station operator known for its conservative slant – from 2012 to 2017 and causally establish a set of facts. First, we find that SBG acquisition increases the likelihood of a Republican candidate winning the House of Representatives election. This is accompanied with a decrease in likelihood of a third-party candidate running in House elections. Interestingly, and on the other hand, in presidential elections, the Republican party candidate receives fewer votes, due to an increase in voting for third party candidates, after SBG acquisition. Second, when analyzing the winner's ideology in the House election, we document an ideological shift to the right for the winner. Part of this shift is mechanical due to a greater probability of the Republican candidate winning the election. However, we also find that Republican candidates have a greater likelihood of being conservative rather than moderate in SBG acquired places, suggesting an effect on the ideology of candidates winning primaries. We do not find any shifts in ideology for Democratic candidates. We also document other interesting facts, for example, that Republican candidates see an increase in PAC donations in SBG acquired places.

- **Repricing Avalanches in the Billion Prices Data**, with Laura Leal, Makoto Nirei and José A. Scheinkman, NBER Working Paper 29236.

    Abstract: Nirei and Scheinkman (2021) proposed an equilibrium model of price adjustments with menu-costs with a finite number of firms and derived a "reproduction number" for repricing and a limit functional form for the distribution of the number of simultaneously price-adjusting firms. We show that the distribution of price-changes in data from the Billion Prices Project is well fitted by this functional form and exhibits a reproduction number that is close to unity, indicating that complementarity in price-changes plays a major role in repricings.

WORK IN PROGRESS

- Climate Treaties with Abatement Technology Discovery (with Prajit Dutta)
- Conflicting Clauses in Contracts
- COVID-19 Infections Absent Residential Segregation (with Oliver Giesecke, Harrison Hong, Jeffrey Kubik, Neng Wang and Jinqiang Yang)

PUBLICATION FROM ENGINEERING DAYS

- **Stability of oil-in-water macro-emulsion with anionic surfactant: Effect of electrolytes and temperature**, with Partha Kundu, Akanksha Agrawal and Indra M Mishra, *Chemical Engineering Science*, 2013.

WORK AND TEACHING EXPERIENCE

RESEARCH FELLOW

Columbia University

Joseph E. Stiglitz	September 2017- August 2021
José A. Scheinkman	January 2020 - August 2021
Andrea Prat	May 2018 - August 2018

TEACHING FELLOW

Columbia University

Financial Crises	Fall 2018
Instructor: José A. Scheinkman	
Behavioral Finance	Spring 2019
Instructor: Harrison Hong	

BEFORE ACADEMIA

Boston Consulting Group

Summer Intern	Summer 2015
Received offer to join.	

ITC Limited

Head Engineer, Primary Manufacturing Maintenance	2012 - 2014

RESEARCH GRANTS AND ACADEMIC AWARDS

RESEARCH GRANTS & FELLOWSHIPS

Angell Fellowship	2020
Columbia University	
Dissertation Fellowship	2021
Department of Economics, Columbia University	

Honorable Mention - Best Student Paper   2021
    Urban Economics Association 15th Meeting
Dean's Fellow (Ph.D. in Economics)   2016-2021
    Columbia University
Institute Scholar (summa cum laude equivalent)   2016
    Indian Institute of Management, Ahmedabad

Other Information

Languages

English (Native)   Hindi (Native)   Urdu (Advanced)
French (Beginner)

Programming Skills

Python, ArcGIS, QGIS, MATLAB, C++, R, STATA

Nationality

India

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Placement Assistant: Amy Devine   aed2152@columbia.edu

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Adam Sacarny
Assistant Professor
Department of Health Policy & Management
Columbia University Mailman School of Public Health
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RESEARCH INTERESTS

Applied microeconomics, industrial organization, health economics

EDUCATION

Columbia University, Ph.D. Economics, 2023 (expected)
Fields: industrial organization, public finance

George Washington University, B.S. Economics, 2015 *summa cum laude*

JOB MARKET PAPER

Reallocation and the (In)efficiency of Exit in the U.S. Nursing Home Industry

Abstract: I examine the role of firm exits in generating welfare-improving reallocations. Using administrative data on the universe of nursing home patients, I estimate the mortality effects of 1,109 nursing home closures for current residents using a matched difference-in-differences approach. I find that displaced residents face a short-run 15.1% relative increase in their mortality risk. This sharp increase is offset by long-run survival improvements, such that the cumulative effect inclusive of the initial spike is a net decline in mortality risk. I document evidence that this is driven by reallocation to higher quality providers, measured by deficiency inspections. These survival gains accrue only to residents in competitive nursing home markets. Residents in areas with limited alternatives to long-term care experience no long-run survival improvement. To examine the policy relevance of these findings, I estimate a dynamic model of the nursing home industry with endogenous exit. Using the model, I conduct two reimbursement policy experiments to avert nursing home closures. A universal 10% increase in the Medicaid rate decreases the frequency of closures, but has the consequence that some low-quality providers remain open in competitive areas. In contrast, a targeted subsidy for facilities in areas with limited access to care improves overall mortality by averting the costliest nursing home closures.

WORKING PAPERS

1. **Olenski A**, Sacher S. "Estimating Nursing Home Quality with Selection." Revise and resubmit, *Review of Economics and Statistics.*

Abstract: We estimate a Bayesian model of nursing home quality using variational inference. We then conduct three exercises. First, we examine the correlates of quality, finding that public report cards have near-zero correlation. Second, we show that higher quality nursing homes fared better during the pandemic: a one standard deviation increase in quality corresponds to 2.4% fewer Covid-19 cases. Finally, we show that a 10% increase in the Medicaid reimbursement rate raises quality, leading to a 1.85 percentage point increase in 90-day survival. Such a reform would be highly cost-effective even under conservative estimates of the quality-adjusted statistical value of life.

PEER-REVIEWED PUBLICATIONS

Research in Economics

1. Barnett M, **Olenski A**, Sacarny A. "Common Practice: Spillovers from Medicare on Private Health Care," NBER Working Paper No. 27270. Forthcoming at *American Economic Journal: Economic Policy.*

Research in Health Policy

1. Jena AB, Khullar D, Ho O, **Olenski A**, Blumenthal D. "Sex differences in academic rank in U.S. medical schools in 2014," *Journal of the American Medical Association (JAMA)* 314(11), pp. 1149-1158, 2015.

2. **Olenski A**, Abola M, Jena AB. "Do heads of government age more quickly? An observational study comparing mortality between elected leaders and runners-up in national elections of 17 countries," *British Medical Journal (BMJ)* 351:h6424, 2015.

3. Jena AB, **Olenski A**, Blumenthal D. "Sex differences in physician salary in U.S. public medical schools," *JAMA: Internal Medicine* 176(9), pp. 1294-1304, 2016.

4. Barnett M, **Olenski A**, Jena AB. "Opioid-prescribing patterns of emergency physicians and risk of long-term use," *New England Journal of Medicine* 376(7), pp. 663-673, 2017.

    – Best Published Research Paper of the Year Award, *Society of General Internal Medicine*, 2018

5. Barnett M, **Olenski A**, Jena AB. "Patient mortality during unannounced accreditation surveys at US hospitals," *JAMA: Internal Medicine* 177(5), pp. 1-9, 2017.

6. Jena AB, Mann NC, Wedlund LN, **Olenski A**. "Delays in emergency care and mortality during major U.S. marathons," *New England Journal of Medicine* 376(15), pp. 1441-1450, 2017.

7. Khullar D, Blumenthal D, **Olenski A**, Jena AB. "U.S. immigration policy and American medical research - the scientific contributions of foreign medical graduates," *Annals of Internal Medicine* 167(7), pp. 584-586, 2017.

8. Blumenthal DM, **Olenski A**, Tsugawa Y, Jena AB. "Association between treatment by locum tenens internal medicine physicians and 30-day mortality among hospitalized Medicare beneficiaries," *Journal of the American Medical Association (JAMA)* 318(21), pp. 2119-2129, 2017.

9. Jena AB, **Olenski A**, Molitor D, Miller N. "Association between rainfall and diagnoses of joint or back pain: retrospective claims analysis," *British Medical Journal (BMJ)* 359:j5326, 2017.

10. Blumenthal D, **Olenski A**, Yeh R, DeFaria-Yeh D, Sarma A, Stefanescu-Schmidt A, Wood M, Jena AB. "Sex differences in academic rank among cardiologists at U.S. medical schools in 2014," *Circulation* 135(6), pp. 506-517, 2017.

11. Jena AB, **Olenski A**. "Reductions in firearm injuries during NRA annual conventions," *New England Journal of Medicine* 378:866-867, 2018.

12. Jena AB, **Olenski A**, Blumenthal DM, Yeh RW, Goldman DP, Romley J. "Acute myocardial infarction mortality during dates of national interventional cardiology meetings," *Journal of the American Heart Association* 117:e008230, 2018.

13. Jena AB, **Olenski A**, Khullar D, Bonica A, Rosenthal H. "Physicians' political preferences and the delivery of end of life care in the United States," *British Medical Journal (BMJ)* 361:k1161, 2018.

14. Barnett M, **Olenski A**, Thygeson M, Ishisaka D, Wong S, Jena AB, Mehrotra A. "A Health Plan's Formulary Led to Reduced Use of Extended-Release Opioids, But Did Not Lower Overall Opioid Use," *Health Affairs* 37(9), pp. 1509-1516, 2018.

15. Sacarny A, **Olenski A**, Barnett M. "Association of Quetiapine Overuse Letters With Prescribing by Physician Peers of Targeted Recipients," *JAMA Psychiatry* 76(6), pp. E1-2, 2019.

16. **Olenski A**, Coussens S, Zimmerman A, Jena AB. "Behavioral Heuristics in Coronary Artery Bypass Graft Surgery," *New England Journal of Medicine* 382:8, 2020.

17. Ly D, Essien U, **Olenski A**, Jena AB. "Affirmative Action Bans and Enrollment of Students from Underrepresented Racial and Ethnic Groups in U.S. Public Medical Schools," *Annals of Internal Medicine*, 2022.

OTHER WRITING

1. "Trump's immigration order could make it harder to find a psychiatrist or pediatrician" *FiveThirtyEight*, 02/03/2017.

2. "When clinicians know they're being watched, patients fare better" *Harvard Business Review*, 03/24/2017.

3. "When roads are closed for marathons, more elderly people die of heart attacks" *Harvard Business Review*, 04/12/2017.

4. "Substitute doctors are becoming more common. What do we know about their quality of care?" *Harvard Business Review*, 12/11/2017.

5. "How common mental shortcuts can cause major physician errors" *The New York Times*, 02/20/2020.

FELLOWSHIPS, HONORS, AND AWARDS

Best Abstract Award, Health Economics Group, AcademyHealth Annual Research Meeting 2022
  – For *Reallocation and the (In)efficiency of Exit in the U.S. Nursing Home Industry*

Vickrey Prize for Best Third Year Paper, Runner-up, 2020

Harriss Prize for Best Second Year Paper, Runner-up, 2019

NBER Health Economics Bootcamp, 2019

Outstanding Reviewer Award, Annals of Internal Medicine, 2018, 2019

National Science Foundation Graduate Research Fellowship, 2018

Dean's Fellowship, Department of Economics, Columbia University, 2017

Special Honors in Economics, Department of Economics, George Washington University, 2015

PROFESSIONAL SERVICE

Referee for *Econometrica, Journal of Human Resources, Annals of Internal Medicine, Academic Emergency Medicine*

TEACHING ASSISTANT EXPERIENCE

Industrial Organization (undergraduate), Econometrics (undergraduate)

PRESENTATIONS

2022: American Society of Health Economists

RELEVANT POSITIONS

Research Assistant, Adam Sacarny, Ph.D.
Department of Health Policy and Management, Columbia University, 2018-2019

Research Assistant, Anupam Bapu Jena, M.D./Ph.D.
Department of Health Care Policy, Harvard University, 2015-2017

Research Assistant, Graciela Kaminsky, Ph.D.
Department of Economics, George Washington University, 2014-2015

Research Intern, Matthew Fiedler, Ph.D.
Council of Economic Advisers, The White House, 2013-2014

SELECTED MEDIA COVERAGE

1. Do heads of government age more quickly? Observational study comparing mortality between elected leaders and runners-up in national elections of 17 countries, *The BMJ* 2015. Reported by New York Times, Washington Post, STAT, Reuters, Associated Press, The Atlantic, NPR, Vox.

2. Sex differences in academic rank in US medical schools in 2014, *JAMA* 2015. Reported by NPR, Reuters, US News and World Report.

3. Sex differences in physician salary in U.S. public medical schools, *JAMA: Internal Medicine* 2016. Reported by New York Times, Washington Post, Associated Press, Bloomberg News, Reuters, TIME.

4. Opioid-Prescribing Patterns of Emergency Physicians and Risk of Long-Term Use, *New England Journal of Medicine* 2017. Reported by New York Times, Washington Post, Chicago Tribune, Philadelphia Inquirer, Associated Press, Reuters, NPR, STAT, Vox, TIME.

5. Patient mortality during unannounced accreditation surveys at US hospitals, *JAMA: Internal Medicine* 2017. Reported by New York Times, Reuters, NPR, STAT.

6. Delays in emergency care and mortality during major U.S. marathons, *New England Journal of Medicine* 2017. Reported by New York Times, Wall Street Journal, CNN, Reuters, Associated Press, The Atlantic, NPR, STAT, Boston Globe, Philadelphia Inquirer, NBC, USA Today, TIME.

7. Association Between Treatment by Locum Tenens Internal Medicine Physicians and 30-Day Mortality Among Hospitalized Medicare Beneficiaries, *JAMA* 2017. Reported by U.S. News and World Report, Reuters, STAT News.

8. Reductions in firearm injuries during NRA annual conventions, *New England Journal of Medicine* 2018. Reported by Scientific American, TIME, Los Angeles Times, Boston Globe, Vox, ABC, New York Magazine, Gizmodo, CNN, Philadelphia Inquirer, Bloomberg Business, US News and World Report, Reuters.

9. Behavioral heuristics in coronary artery bypass graft surgery, *New England Journal of Medicine* 2020. Reported by New York Times, STAT, Forbes, Associated Press.

MISCELLANEOUS

U.S. Citizen

ROMAN GABRIEL RIVERA

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Website | Google Scholar

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Placement Chair: Suresh Naidu, sn2430@columbia.edu
Placement Assistant: Amy Devine, aed2152@columbia.edu, (212) 854-6881

Fields: Labor, Economics of Crime

References

Sandra E. Black	W. Bentley MacLeod	Sokbae (Simon) Lee
Professor of Economics	Sami Mnaymneh Professor of Economics	Professor of Economics
Columbia University	Columbia University	Columbia University
sb4338@columbia.edu	bentley.macleod@columbia.edu	sl3841@columbia.edu
(212) 854-3676	(310) 571-5083	(212) 853-1853

Education

2018-	Columbia University
Ph.D. in Economics, expected May 2023
2022-	The University of Chicago Booth School of Business
Visiting Ph.D. Student
2017	The University of Chicago
Master of Public Policy (Honors), June 2017
2016	The University of Chicago
Bachelor of Arts in Economics, June 2016

Job Market Paper

"Release, Detain, or Surveil? The Effect of Electronic Monitoring on Defendant Outcomes"

Abstract: This paper studies the effect of pretrial electronic monitoring (EM) as an alternative to both pretrial release and detention (jail) in Cook County, Illinois. EM often involves a defendant wearing an electronic ankle bracelet that tracks their movement and aims to deter pretrial misconduct. Using the quasi-random assignment of bond court judges, I estimate the effect of EM vs. release and EM vs. detention on pretrial misconduct, case outcomes, and future recidivism. I develop a novel method for the semi-parametric estimation of marginal treatment effects in ordered choice environments, allowing me to construct relevant treatment effects. Relative to release, EM increases new cases pretrial due to bond violations while reducing new cases for low-level crimes and failures to appear in court. Relative to detention, EM increases low-level pretrial misconduct but improves defendant case outcomes and reduces cost-weighted future recidivism. Finally, I bound EM's crime-reduction effect; I find that while EM is likely an effective substitute for pretrial detention, it is not clear that EM prevents enough high-cost crime to justify its use relative to release, particularly for low-level defendants.

Publications and Accepted Papers

"The Black-White Recognition Gap in Award Nominations"
[Accepted at *Journal of Labor Economics*]
(with Nayoung Rim, Andrea Kiss, and Bocar Ba)

"Peer Effects in Police Use of Force"
[Conditionally Accepted at *American Economic Journal: Economic Policy*]
(with Justin Holz and Bocar Ba)

"The Role of Officer Race and Gender in Police-Civilian Interactions in Chicago", *Science* 2021, Vol. 371
(with Bocar Ba, Dean Knox, Jonathan Mummolo)
Coverage: CNN, The Guardian, Business Insider, +200 others

"Disparities in Police Award Nominations: Evidence from Chicago", *AEA Papers and Proceedings* 2020, Vol. 110: 447-51
(with Nayoung Rim and Bocar Ba)

Working Papers

"The Effect of Minority Peers on Future Arrest Quantity and Quality"
[Revise and Resubmit at *American Economic Journal: Applied Economics*]

"The Effect of Police Oversight on Crime and Allegations of Misconduct: Evidence from Chicago"
[Revise and Resubmit at *The Review of Economics and Statistics*]
(with Bocar Ba)
Coverage: Vox, Niskanen Center

"Who are the Police? Descriptive Representation in the Coercive Arm of Government"
[Revise and Resubmit at *American Political Science Review*]
(with Bocar Ba, Jacob Kaplan, Dean Knox, Mayya Komisarchik, Rachel Mariman, Jonathan Mummolo, and Michele Torres)

"Police Officer Assignment and Neighborhood Crime"
[NBER Working Paper No. 29243]
(with Bocar Ba, Patrick Bayer, Nayoung Rim, and Modibo Sidibe)
Coverage: City Journal

Works in Progress

"Deterrence, Income Support and Optimal Crime Policy"
(with W. Bentley MacLeod)

"Who 'Benefits' from Bail Reform? Evidence from Chicago"
(with Bocar Ba, Patrick Bayer, Jenny Jiao, and Nayoung Rim)

"Community Ties and Police Use of Force"
(with Bocar Ba and Nayoung Rim)

"Good Intentions but Bad Policy?"
(with W. Bentley MacLeod)

Honors, Fellowships, Awards, and Grants

2022-2023	Ford Foundation Dissertation Fellowship (The National Academies of Sciences, Engineering, and Medicine)
2022	Program for Economic Research Graduate Student Summer Fellowship (Columbia University)
2022	Graduate Student Workshop (WEAI Annual Conference)
2021-2022	Lewis A. Sanders Endowed Fellowship in Economics (Columbia University, GSAS)
2021	Wueller 4th Year Pre-Dissertation Award, Winner (Columbia University, Economics Department)
2021	Best Student Paper (Urban Economics Association 2021)
2021	Program for Economic Research Graduate Student Summer Fellowship (Columbia University)
2020	Harriss 2nd Year Paper Award, Winner (Columbia University, Economics Department)
2020	Russell Sage Foundation Pipeline Diversity Grant (PIs: Bocar Ba and Nayoung Rim)
2018	Provost Diversity Fellowship (Columbia University, GSAS)

Conferences and Presentations

2022	Texas Economics of Crime Workshop, Conference on Empirical Legal Studies, Society of Labor Economists, Western Economics Association International, CHEPS/SDSU, Dartmouth, APPAM, CEP/LSE Crime Seminar
2021	CIVICA, Urban Economics Association (North America), HBS Rising Scholars, Southern Economics Association
2020	APPAM, Southern Economics Association

Media and Panels

2021	Panelist, *Obtaining, Organizing, and Opening Police Misconduct Data Panel*, Ford Foundation
2020	Panelist, *Community Dialogue on Police Accountability*, HPKCC
2020	"Police think they can get away with anything. That's because they usually do.", *Washington Post*, (with Bocar Ba)

Employment and Other Positions

2020-2021	W. Bentley MacLeod, Research Assistant, Columbia University
2020-2021	Diversity Initiative Committee, Student Liaison, Columbia University
2016-2018	Robert J. LaLonde, Research Assistant, University of Chicago
2017-2018	Amy Claessens, Research Assistant, University of Chicago
2017-2018	Invisible Institute, Data Scientist

Teaching

Spring 2022	Sokbae (Simon) Lee, Introduction to Econometrics (Undergrad), Teaching Assistant, Columbia University
Spring 2020	Nima Haghpanah, Game Theory (Undergrad), Teaching Assistant, Columbia University
Fall 2019	Brendan O'Flaherty, Economics of Race (Undergrad), Teaching Assistant, Columbia University

Referee Service

Quarterly Journal of Economics (3)*, American Economic Journal: Economic Policy (1)*, *Journal of Labor Economics* (1)*, Journal of Economic Behavior and Organization* (1)*, American Law and Economics Review* (1)*, Journal of Quantitative Criminology* (1)

Software

Python, R, Julia, Stata, Matlab, ArcGIS, LaTeX

Personal

Citizenship: USA

Shogo Sakabe

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Placement Assistant: Amy Devine, (212) 854-6881, aed2152@columbia.edu

Education

Columbia University, New York, NY
　　　　Ph.D., Economics, 2023 (expected)
　　　　M.Phil., Economics, 2019
　　　　M.A., Economics, 2018

University of Tokyo, Tokyo, Japan
　　　　M.A., Economics, 2015

Soka University, Tokyo, Japan
　　　　B.A., Economics, *summa cum laude,* 2013
　　　　Exchange Student, Queen's University Belfast, 2010

Fields of Specialization
Primary: International Trade, Urban Economics
Secondary: Growth/Innovation, Corporate Finance

Job Market Paper
Mobile Human Capital and Diffusion of Ideas Across Cities

Abstract: I study how the internal migration of inventors affects local and aggregate growth through technological diffusion across cities. I propose a quantitative spatial theory of growth and knowledge diffusion through internal migration. My model highlights two mechanisms by which productivity growth can be higher in one city than in another: (1) agglomeration forces and (2) knowledge inflows through internal migration. Using data on U.S. cities, I find that the effect of knowledge diffusion explains approximately 40 percent of the spatial variation in productivity changes. I quantify the dynamic effects of place-based policies and find that reducing migration costs toward a small number of cities can improve aggregate efficiency while reducing spatial disparities in productivity across cities.

Working Papers
Place-Based Policies and the Spatial Distribution of Corporate Investment
　　(joint with Cameron LaPoint)
　　Homer Hoyt Institute Best Paper Award at the Asian Real Estate Society (AsRES)- the American Real Estate and Urban Economics Association (AREUEA) Joint Conference 2022

Abstract: Growing spatial inequality has led policymakers to enact tax breaks to attract corporate investment and jobs to economically peripheral regions. We demonstrate the importance of multi-plant firms' physical capital structure for the take-up and efficacy of place-based policies by studying a national bonus depreciation scheme in Japan which altered the relative cost of capital across locations, offering high-tech manufacturers immediate cost deductions from their corporate income tax bill. Combining corporate balance sheets with a registry containing investment by plant location and asset type, we find the policy generated big gains in employment and investment in building construction and in machines at pre-existing production sites, with an implied fiscal cost per job created of $16,000. These responses are driven by more financially constrained firms, firms which rely on costly but long-lived capital inputs, and firms with a larger portion of their existing operations proximal to the policy catchment areas. The policy did not generate positive local spillovers to ineligible plants or spillovers through inter-regional trade networks. For eligible firms, plant-level hiring in ineligible areas outstripped that in eligible areas, suggesting reallocation of resources within firms' internal capital and labor markets mitigates the spatial misallocation inherent in subsidizing low productivity areas.

Coming in at a Trickle: The Optimal Frequency of Public Benefit Payments
    (joint with Cameron LaPoint)

Abstract: How governments should choose the frequency of payments has received little attention in the literature on the optimal design of benefits programs. We propose a simple model in which the government chooses the interval length between payments, subject to a tradeoff between costs of providing more frequent benefits and welfare gains from mitigating consumption non-smoothing. Using a high-frequency retail dataset that links consumers to their purchase history, we apply the model to the Japanese National Pension System. Our evidence suggests suboptimal intra-cycle consumption patterns, with negligible retailer price discrimination. Model calibrations support the worldwide prevalence of monthly payment systems.

Works In Progress
 From Malthus to Miracle: The Sources of Japanese Industrialization
    (joint with Réka Juhász and David E. Weinstein)

Research Experience
2021	Hitotsubashi University, Visiting Researcher
2017–2020	Columbia University, Research Assistant for David E. Weinstein
2015–2016	University of Tokyo, Research Assistant for Tsutomu Watanabe
2013–2015	University of Tokyo, Research Assistant for Michal Fabinger

Teaching Experience
Columbia University
    Teaching Assistant for Corporate Finance (Undergraduate)   2019 Spring
    Teaching Assistant for International Trade (Undergraduate)   2018 Fall
University of Tokyo
    Teaching Assistant for Macroeconomics (Undergraduate)   2014 Fall

Fellowships, Grants & Honors
2022	GSAS Matching Travel Grant
2021	Dissertation Fellowship, Columbia University
2018	The PER Summer Research Assistant Grant, Columbia University
2016–2020, 2022	Center on Japanese Economy and Business Doctoral Fellowship, Columbia University

2016–2021	The Nakajima Foundation Scholarship
2013, 2014	First Prize (2014); Second Prize (2013), Mizuho Foundation for the Promotion of Sciences Essay Contest
2013	Valedictorian; Dean's Award, Soka University
2009–2012	Academic Merit Scholarship, Soka University

Invited Seminars & Presentations

2022: UEA London (LSE), Keio-Kyoto IT Webinar (Keio), AsRES-AREUEA Joint Conference (virtual)
2021: RIETI Workshop (virtual)
2014: University of Tokyo
*scheduled

Professional Activities

Referee Services: Journal of Urban Economics

Skills

Languages: English (fluent), Japanese (native)
Programming: Python, Stata, MATLAB, R, Julia, Mathematica, GIS

References

David E. Weinstein	**Réka Juhász**	**Donald R. Davis**
Carl S. Shoup Professor of Japanese Economy	Assistant Professor of Economics	Ragnar Nurkse Professor of Economics
Columbia University	Vancouver School of Economics	Columbia University
dew35@columbia.edu	University of British Columbia	drd28@columbia.edu
	reka.juhasz@ubc.ca	

BooKang Seol

CONTACT INFORMATION	Department of Economics	Phone: +1 (617) 866-0115
	Columbia University	Email: bookang.seol@columbia.edu
	420 West 118th Street	Website: bookangseol.com
	New York, NY 10027	

PLACEMENT

Chairs: Sandra Black, sblack@columbia.edu; Suresh Naidu, sn2430@columbia.edu
Administrator: Amy Devine, aed2152@columbia.edu, +1 (212)854-6881

EDUCATION

Ph.D. in Economics, Columbia University (expected)	2023
MPA/ID (Int'l Development), Harvard Kennedy School	2017
A.B. in Economics, Harvard University	2013

FIELDS

Development Economics, Applied Microeconomics, and Economic History

FELLOWSHIPS AND AWARDS

Columbia University

CDEP Fellow, Center for Development Economics and Policy	2022-2023
Dissertation Fellowship	2022-2023
PER Summer Research Fellow, Program for Economic Research	2022
PER Field or Experiment Fund	2022
CDEP Field Research Fund	2021
Economics Department Colloquium Research Fund	2021
Young-Iob Chung Fellowship	2019-2020
Dean's Fellow	2017-2022

Harvard University

The Harvard International Development Internship Fund (HIDIF)	2016
Morris Kronfeld Prize (for showing the greatest academic improvements)	2013

Others

Army Achievement Medal from the US Army	2010

JOB MARKET PAPER

Fractionalization and Rural Development in Korea [Most recent version]

Abstract: Social fractionalization along dimensions like ethnicity or class can stunt economic development. This paper investigates how fractionalization affects a group's ability to respond to economic shocks by studying rural South Korea in the 1970s. The fractionalization of rural Korean society can be proxied by clan homogeneity– the density of family clans that share the same parental lineage. I combine this cross-sectional variation with the time variation in market access created by the construction of a new bridge, the *Namhae* bridge, in 1973. I test whether less fractionalized groups experienced faster productivity growth following the construction of the *Namhae* bridge. I find that homogeneous villages displayed higher agricultural investments and productivity growth than heterogeneous villages. Homogeneous villages better exploited opportunities created by the bridge by providing complementary local public goods more effectively than heterogeneous villages. Finally, heterogeneous villages did catch up, consistent with spillovers or demonstration effects.

WORKING PAPERS

Technical Glitch with a Lasting Impact: the Y2K Bug and IT Sector in India

Abstract: The Y2K bug refers to the problem when old computer programs misinterpret the year 2000 for 1900. During the months following up to January of 2000, governments and companies worldwide started outsourcing debugging tasks to companies in India. The Y2K bug created a temporary demand shock for Indian IT firms. I use this variation in exports to examine how it affects firm productivity in the long run. I also investigate the responses in the secondary education market. I find that (1) the "exposed" firms have significantly higher sales and wages even after the shock had dissipated and that (2) the districts that had more exposed firms experienced a significant increase in the number of private secondary schools where English is the primary medium of instruction.

WORK IN PROGRESS	**How Crony was Korea's "Crony Capitalism"?**	
	Research Question: Do family ties explain the allocation of government funds?	

RESEARCH AND WORK EXPERIENCE	Summer Intern for Rohini Pande, Harvard Kennedy School	Summer 2016
	Analyst, The World Development Report 2016, The World Bank	2014-2015
	Research Assistant for Pol Antràs, Harvard University	2013-2014
	Research Assistant for Ed Glaeser, Harvard University	Fall 2013
	Research Assistant for Ricardo Hausmann, Harvard Kennedy School	2011-2013
	Military service, the Korean Army	2008-2010

TEACHING EXPERIENCE	<u>Teaching Assistant</u>	
	International Trade (Undergraduate)	Fall 2021
	Industrial Organization (Undergraduate/Master's)	Spring 2020, Spring 2021
	Principles of Economics, Head TA	Fall 2019, Fall 2020
	Game Theory (Undergraduate/Master's)	Spring 2019, Fall 2018

OTHER INFORMATION	Citizenship: South Korea
	Languages: English, Korean
	Programming: STATA, ArcGIS, Python, MATLAB, R
	Leadership Experience: President (2016-2017), Harvard Korea Society

REFERENCES	**Miguel Urquiola (Sponsor)**	**Eric Verhoogen**
	Dean of Social Sciences	Professor of Economics and SIPA
	Department of Economics	Department of Economics
	Columbia University	Columbia University
	msu2101@columbia.edu	eric.verhoogen@columbia.edu
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Yeji Sung

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Placement Chair   Suresh Naidu   sn2430@columbia.edu   (212) 854-0027
Placement Assistant   Amy Devine   aed2152@columbia.edu   (212) 854-6881

🏢 Department of Economics, Columbia University, New York, NY 10027

Fields of Specialization

Macroeconomics, Monetary Economics, and Behavioral Economics.

Education

Columbia University, Ph.D., Economics, 2016 - present; M.A., Economics, 2017.
Seoul National University, M.A., Economics, 2015; B.A., Economics, 2013.

References

Professor Michael Woodford   Professor Jennifer La'O   Professor Hassan Afrouzi
Columbia University   Columbia University   Columbia University
mw2230@columbia.edu   jenlao@columbia.edu   ha2475@columbia.edu

Job Market Paper

"Macroeconomic Expectations and Cognitive Noise"

The rational expectations hypothesis cannot explain the seemingly conflicting pattern from recent studies: Consensus forecasts are under-revised while individual forecasts are over-revised. In this paper, I argue that cognitive noise — the unsystematic errors in human judgments — can explain this pattern. In particular, I suppose noise arises from two types of constraints, one in processing new information and another in remembering old information. I show that jointly modeling these two sources of cognitive noise is essential in understanding the pattern. I then estimate the extent of noise in the professional forecasters' projections of the overall U.S. economy.

Working Paper

"Optimally Imprecise Memory and Biased Forecasts" (with Rava Azeredo da Silveira and Michael Woodford), NBER Working Paper No. 28075, Nov. 2020

- Revised and Resubmit, *American Economic Review*

We propose a model of optimal decision making subject to a memory constraint. The constraint is a limit on the complexity of memory measured using Shannon's mutual information, as in models of rational inattention; but our theory differs from that of Sims (2003) in not assuming costless memory of past cognitive states. We show that the model implies that both forecasts and actions will exhibit idiosyncratic random variation; that average beliefs will also differ from rational expectations beliefs, with a bias that fluctuates forever with a variance that does not fall to zero even in the long run; and that more recent news will be given disproportionate weight in forecasts. We solve the model under a variety of assumptions about the degree of persistence of the variable to be forecasted and the horizon over which it must be forecasted, and examine how the nature of forecast biases depends on these parameters. The model provides a simple

explanation for a number of features of reported expectations in laboratory and field settings, notably the evidence of over-reaction in elicited forecasts documented by Afrouzi et al. (2020) and Bordalo et al. (2020a).

"The impact of TLTOR2 on the Italian credit market: some econometric evidence"
(with Lucia Esposito and Davide Fantino), Bank of Italy Temi di discussione No. 1264, Feb. 2020

This work evaluates the impact of the second series of Targeted Longer-Term Refinancing Operations (TLTRO2) on credit market conditions for Italian firms. The estimates use a difference-in-differences approach on quarterly data, including term loans, interest rates, and bank and firm characteristics, between the start of 2015 and the end of 2017. The TLTRO2 had a positive impact on credit, encouraging lending to firms and reducing interest rates. The impact on the amount of credit was stronger for less risky firms, while that on interest rates was stronger for riskier ones. Smaller firms benefited more in terms of both loan amounts and interest rates.

Publication

"The Relevance of the FTPL in Korea"
Journal of Economic Theory and Econometrics 26(1): 1-34, Mar. 2015.
(with Jungsik Hyun, Jung Yi Hong, and Jae Won Lee)

Fellowships and Grants

Federal Reserve Bank of St. Louis, Dissertation Fellowship, 2022
Federal Reserve Board, Dissertation Fellowship, 2021
Caswell L. Johnson Columbia Scholarship, 2019-2020.
Program for Economic Research, Columbia University, Data & Research Fellow Grant, 2018, 2019.
Ilju Academy and Culture Foundation, Ph.D. Fellowship, 2016-2020.
GSAS Dean's Fellowship, Columbia University, 2016-2021.

Teaching Assistance

Columbia University
Money and Banking (2019, 2020), The Psychology and Economics of Consumer Finance (MBA; 2019, 2018), International Trade (2017)

Seoul National University, 2013-2016.
Principles of Economics, Introductory Statistics for Economists, Microeconomics, Macroeconomics, Advanced Macroeconomics (Graduate), Applied Macroeconomics (Graduate)

Research Assistance

2018-2019: for Michael Woodford
2017-2018: for Adam Guren, Emi Nakamura and Jón Steinsson
2014-2016: for Jae Won Lee

Workshop and Conference Presentations

2022: ASSA Meeting
2021: Federal Reserve Board, MA Workshop & IFB Lunch Workshop
2020: Bocconi Virtual Ph.D. Conference (Behavioral Macro-Finance)
2019: The Sloan-Nomis Workshop on the Cognitive Foundations of Economic Behavior, Young Economists Symposium

2016: The Econometric Society Australasia Meeting
2015: Korea's Allied Economic Associations Annual Meeting

Personal

Citizenship: South Korea

Ken Teoh

October 2022

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Placement Assistant: Amy Devine, +1 (212) 854-6881, aed2152@columbia.edu

Education

Columbia University, New York, NY   *2017 - 2023 (expected)*

Ph.D. Candidate in Economics
M.Phil. in Economics   *2020*
M.A. in Economics   *2019*

University of Pennsylvania, Philadelphia, PA   *2013 - 2017*

B.A. Economics, *summa cum laude*, College of Arts and Sciences
B.S. Economics, *summa cum laude*, Wharton Business School

Fields of Specialization

Finance, Macroeconomics

Job Market Paper

Anticipating Binding Constraints: An Analysis of Financial Covenants. October 2022.

This paper studies the extent to which public nonfinancial firms in the United States are concerned about future covenant violations. Applying textual analysis to earnings call transcripts, I construct a novel measure of covenant concerns by distinguishing between discussions of covenants that relate to the future as opposed to the past or present. Covenant concerns rise significantly during recessions, covary asymmetrically with earnings growth, and predict a higher risk of violating covenants in the next quarter. Firms that are concerned about future violations significantly reduce their investments, debt issuance, and equity payouts. The reduction in investments associated with concerns about future violations is twice as large as the reduction due to actual violations.

Working Papers

1. "Macroeconomic Attention and Expected Returns." with Eugene Larsen-Hallock. December 2021.

2. "Covid-19: Testing Inequality in New York City." with Stephanie Schmitt-Grohé and Martín Uribe. *NBER Working Paper No. 27019.* April 2020.

3. "Aggregate Uncertainty and Attention: Cross-sectional Evidence from the Covid-19 Pandemic." with Eugene Larsen-Hallock. April 2020.

Other Writings

1. Review of "Disaggregating Asian Race Reveals COVID-19 Disparities among Asian Americans at New York City's Public Hospital System." *Rapid Reviews: COVID-19.* January 2021.

2. "Croatian Pension System: A Closer Look at Pillar II." August 2019.

Research and Work Experience

Federal Reserve Board, Washington, DC

Dissertation Fellow, Division of Financial Stability   *Summer 2022*

Columbia University, New York, NY

Research Assistant to Prof. Matthieu Gomez   *Spring 2022*
Research Assistant to Prof. José Luis Montiel Olea   *Summer 2021*
Research Assistant to Profs. Stephanie Schmitt-Grohé and Martín Uribe   *2019 - 2021*

International Monetary Fund, Washington, DC

PhD Summer Intern, European Department   *Summer 2019*

Teaching Experience

Columbia University, New York, NY

International Macroeconomics, Prof. Martín Uribe   *Spring 2022*
Finance and the Real Economy, Prof. Matthieu Gomez   *Fall 2021*
EMBA/MBA Fintech: Consumer Financial Services, Prof. Stephen Zeldes   *Spring 2021*
International Macroeconomics, Prof. Stephanie Schmitt-Grohé   *Spring 2019*
Corporate Finance, Prof. Ethan Namvar   *Fall 2018*

Fellowships, Honors, and Awards

Columbia University, New York, NY

Dissertation Fellowship   *2022 - Present*
Dean's and Department Fellowship   *2017 - 2022*
Wueller Teaching Award (Runner Up)   *2022*
PER Summer Research Stipend Award   *2022*
Marion B. Stewart and Marcia E. Glanz Fund Fellowship   *2022*
PER Data Purchase Grant   *2020*

University of Pennsylvania, Philadelphia, PA

Phi Beta Kappa   *2018*
Bernard Shanbaum Prize for Excellence in Economics   *2017*
Rose Undergraduate Research Award   *2017*
Dean's List   *2013 - 2017*
Undergraduate Scholarship, Khazanah Foundation   *2013 - 2017*

Presentations (* scheduled)

2022	Federal Reserve Board, Midwest Macro Meetings*
2021	27th International Conference on Computing in Economics and Finance
2019	International Monetary Fund

Referee Service

Personal

Full name: Hong Ken Teoh
Citizenship: Malaysian, F1-visa
Programming languages: Python, Stata, Matlab, R

References

Stephanie Schmitt-Grohé
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Jesse Schreger
Class of 1967 Associate Professor
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Yu Fu Wong

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Education

PhD in Economics, Columbia University   2023 (expected)
MSc in Economics, Toulouse School of Economics   2017
BSc in Physics and Mathematics, Hong Kong University of Science and Technology   2015

Dissertation Committee

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Research Fields

Microeconomic theory, organizational economics, information design, experimentation

Job Market Paper

Dynamic Monitoring Design

This paper introduces flexible endogenous monitoring into dynamic moral hazard. A principal can commit to not only an employment plan but also the monitoring technology to incentivize dynamic effort from an agent. Optimal monitoring follows a Poisson process that produces rare informative signals, and the optimal employment plan features decreasing turnover. To incentivize persistent effort, the Poisson monitoring takes the form of "bad news" that leads to immediate termination. Monitoring is non-stationary: the bad news becomes more precise and less frequent. When persistent effort is not required, the optimal incentive scheme features a trial period of non-stationary monitoring, and a combination of Poisson bad news that leads to termination and Poisson good news that leads to tenure.

Publications

Strategic Exploration: Preemption and Prioritization, with Qingmin Liu
  Review of Economic Studies (Forthcoming)

This paper analyzes a model of strategic exploration in which competing players independently explore a set of alternatives. The model features a multiple-player multiple-armed bandit problem and captures a strategic trade-off between *preemption*—covert exploration of alternatives that the opponent will explore in the future—and *prioritization*—exploration of the most promising alternatives. Our results explain how the strategic trade-off shapes equilibrium behaviors and outcomes, e.g., in technology races between superpowers and R&D competitions between firms. We show that players compete on the same set of alternatives, leading to duplicated exploration from start to finish, and they explore alternatives that are a priori less promising before more promising ones are exhausted. The model also predicts that competition induces players to implement unreliable technologies too early, even though they should wait for the technologies to mature. Coordinated exploration is impossible even if the alternatives are equally promising, but it can emerge in equilibrium following a phase of preemptive competition if there is a short deadline. With asymmetric capacities of exploration, the weak player conducts *extensive* instead of *intensive* exploration—exploring as many alternatives as the strong player does but never fully exploring any.

Working Papers

Spatial Experimentation: Optimal Costly Exploration of Correlated Alternatives
  R&R (second-round) at *Theoretical Economics*

I study how a forward-looking decision maker experiments on unknown alternatives of spatially correlated utilities, modeled by a Brownian motion so that similar alternatives yield similar utilities. For example, a firm experiments on its size that yields unknown, spatially correlated profitability. Experimentation trades off the opportunity cost of exploitation for the indirect inference about unknown alternatives. The optimal strategy is to explore unknown alternatives and then exploit the best known alternative when the explored becomes sufficiently worse than the best. The decision maker explores more quickly as the explored alternative worsens. My model predicts the conditional Gibrat's law and the linear relation between firm size and profitability.

Work in Progress

Dynamic Matching without Transfers

Fellowships and Awards

Fellow, Journal of Industrial Economics	2022
Harriss Award for the Best Second-Year Paper, Columbia University	2019
Dean's Fellowship, Columbia University	2017–2023
Jean-Jacques Laffont Foundation Scholarship, Toulouse School of Economics	2016
Alexandre Yersin Excellence Scholarship, Campus France	2015–2017

Paul and May Chu Research Award, HKUST   2012
Silver Medal, International Physics Olympiad   2011

Teaching

Columbia University

Teaching Assistant: GR6211 Microeconomic Analysis I (PhD)   Fall 2020, Fall 2021
Teaching Assistant: UN1105 Principles of Economics (undegraduate)   Fall 2018

Presentations

2022: Spring Meeting of Young Economists, Stony Brook International Conference on Game Theory, SITE Dynamic Games, Contracts, and Markets, Young Economist Symposium, NYU Student Micro Theory Lunch, CEANA Job Market Conference, Berkeley/Columbia/Duke/MIT/Northwestern IO Theory Conference
2021: Econometric Society European Winter Meeting
2020: NYU Student Micro Theory Lunch
2019: Stony Brook International Conference on Game Theory

Services

Referee for *Games and Economic Behavior*

Lizi Yu

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Education

2017-Present	**Ph.D. in Economics**, *Department of Economics*, Columbia University, NY.
	○ GPA: 3.99/4.0
2015-2017	**M.A. in Economics**, *Department of Economics*, Duke University, NC.
2011-2015	**B.A. in Finance**, *Kuang Yaming Honors School*, Nanjing University, China.

Research Interests

Production Networks, Macroeconomics, Finance, Econometrics

Working Papers

2022   ***Strategic Alliance and Endogenous Production Network*** (Job Market Paper).

This paper examines how the U.S. firm's involvement in strategic alliance interacts with its endogenous choice of production networks. The results reveal that the alliance firm is more likely to actively create and break supply chains, especially with customers or suppliers from the industries within the alliance-related industrial scope. Moreover, such interactions are stronger when the updated customers and suppliers have a closer proximity to the alliance-related industries. To rationalize these stylized findings, I developed a model featured with the firm's endogenous searching of supplier candidates and endogenous input sourcing strategy. Additionally, strategic alliance is introduced as a mitigation of the friction in the candidate searching. The model implies that the strategic alliance could encourage the firm's searching of supplier candidates, and boost the adding and dropping of production networks simultaneously.

2022   ***R&D, Risk Premia, and Credit Spreads*** (with Z. Liu).

Empirical evidence suggests that the R&D-intensive firms tend to show higher expected equity returns, but lower leverage, default rates, and credit spreads than the R&D-nonintensive ones. To provide a unified explanation for this cross-sectional pattern, we propose a production-based DSGE model featured with innovation-driven endogenous growth, and long-run and disaster risk. The model generates sizable heterogeneity in the quantities of interest between the R&D and Non-R&D sector and reconciles the coexistence of high equity returns and low leverage of the R&D sector. Additionally, our model fits the aggregate macroeconomic moments reasonably well.

Working in Progress

2021   ***Measuring Industry-Specific Uncertainty: A Bayesian Approach***.

In this paper, I estimate the common and industry-specific uncertainty measures from U.S. quarterly firms' accounting data with a Bayesian dynamic factor model, where the industry-specific uncertainty governs the fluctuations within one industry and the common uncertainty drives the fluctuations of the aggregate economy. Based upon the estimation, these measures are further linked to the stock returns and generate implications regarding asset pricing.

Awards

2022-2023	Dissertation Fellowship, *Columbia University*.
2017-2022	Dean's Fellowship, *Columbia University*.

Teaching Experience

2021-22	**Corporate Finance** (Graduate-Level), *Columbia University*.
2018, 20-21	**Financial Economics** (Undergraduate-Level), *Columbia University*.
2019	**Microeconomics** (Economics M.A. Course), *Columbia University*.
2019	**Principle of Economics** (Undergraduate-Level), *Columbia University*.
2017	**Econometrics** (Economics M.A. Course), *Duke University*.

Skills

MATLAB, STATA, SAS, R, DYNARE

Reference

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*Placement Assistant***:**

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

Education

Columbia University

Ph.D., Economics	*Expected 2023*
M.Phil., Economics	*2020*
M.A., Economics	*2019*

Bocconi University

M.Sc., Economic and Social Sciences	*2016*

    Thesis: "Spreading of Diseases on the Sexual Networks"
    Supervisors: Paolo Pin and Alessa Melagaro

Sciences Po Paris

B.A., Social Sciences	*2014*

Fields of Specialization

Primary Field: Health Economics
Secondary Fields: Applied Econometrics, Family and Labor Economics, Networks

Job Market Paper

[Effects of Intra-Couple Bargaining Power on the Maternal and Neonatal Health](#)

Abstract: This paper provides evidence that the distribution of the bargaining power in a relationship shapes pregnancy outcomes. I measure female bargaining power with the availability of potential male partners in the local dating market. To circumvent endogeneity in the sex ratio, I use a novel instrument that leverages the randomness in sex at birth and the persistence of local demographics to isolate exogenous variation in the relative availability of men. Instrumental variables estimation shows that higher female bargaining power leads to fewer out-of-wedlock births, a lower rate of Chlamydia and Hypertension among mothers, and a lower share of infants with APGAR score below seven. These findings point to a significant contribution of the marriage market to racial disparities in pregnancy health, particularly between Black and White mothers. Black women face poor prospects when looking for a partner compared to White women: there is 102 White man per 100 White women but only 89 Black men per 100 Black women. According to my estimates, Black women's disadvantage accounts for 5-10% of the racial gap in maternal and neonatal health. Next, I use a decomposition technique to demonstrate that the racial difference in male availability is mostly policy driven, as incarceration accounts for 45% of the gap. I show with simulations that a counterfactual policy equalizing incarceration rates for non-violent offenses between Black and White people would, if one considers the sole effect on female bargaining power, still reduce health disparities by 1-4%

Working Papers

1. Opening of hotels and ski facilities: impact on mobility, spending, and Covid-19 outcomes
   (**R&R at** *Health Economics*)

   Abstract: This paper investigates how reopening hotels and ski facilities in Poland impacted tourism spending, mobility, and COVID-19 outcomes. We used administrative data from a government program that subsidizes travel to show that the policy increased the consumption of tourism services in ski resorts. By leveraging geolocation data from Facebook, we showed that ski resorts experienced a significant influx of tourists, increasing the number of local users by up to 50%. Furthermore, we confirmed an increase in the probability of meetings between pairs of users from distanced locations and users from tourist and non-tourist areas. As the policy impacted travel and gatherings, we then analyzed its effect on the diffusion of COVID-19. We found a significant association between tourist movements and the severity of a major pandemic wave in Poland. In particular, counties with ski facilities experienced more infections after the reopening. Moreover, counties strongly connected to the ski resorts during the reopening had more subsequent cases than weakly connected counties.

2. Contribution of school and commuting networks to spreading influenza in Poland

   Abstract: Epidemics can have devastating health and economic consequences. This paper studies the diffusion of influenza-like illnesses (ILI) through social and economic networks. Using almost two decades of weekly, county-level infection and mortality data from Poland, it studies within and across-counties ILI transmission. Firstly, it evaluates the causal effect of school closures on viral transmission. The results show that closing schools for two weeks decreases the number of within county cases by 30-40%. The decline in infections extends to elderly and pre-school children. In addition, flu-related hospitalizations drop by 7.5%, and mortality related to respiratory diseases among the elderly drops by 3%. Secondly, the paper demonstrates the significant contribution of economic links to diffusion across counties. The disease follows the paths of workers commuting between home and workplace. Together with the structure of the labor mobility networks, these results highlight the central role of regional capitals in sustaining and spreading the virus.

Work in Progress

1. Beware of Fake Friends: Spurious Links and Peer Effects in Networks

   Abstract: This paper discusses the robustness of the widely used IV method of estimating peer effects (from Bramoullé et al., [2009]) to spurious links. Spurious links are "false positive" connections that researchers observe but which do not exist in reality. First, I show that this estimator is inconsistent when spurious links are present and can find significant peer effects even if there are none. Next, I suggest an unbiased test for the existence of peer effects and show its performance in simulations.

2. Spreading New Habits

   Abstract: Various behaviors of economic relevance, such as condom use or hand washing, are subject to habitual practice. This paper takes into account habit formation to model the spread of new behaviors on networks. It augments traditional diffusion models with a novel insight: the probability of abandoning a new behavior decreases with the time spent practicing it. Three main results concerning interventions aiming to diffuse new behaviors stem from the augmented models. Firstly, repeated interventions are more successful at establishing new behaviors that require a long habit formation process. Secondly, there is a trade-off between the minimum number of initial adopters needed to spread the behavior and the intervention duration. Thirdly, habit formation can introduce non-monotonicities in adoption patterns in time, identifying behaviors prone to habit.

3. [Dashboard: Mobility in Poland During Covid-19 Pandemic](#)

    An online R Shiny dashboard visualizing mobility trends in Poland during Covid-19 pandemic. It *uses Facebook* smartphone geolocation data to measure daily changes in movement patterns in the period March 2020-May 2022. Interactive visualizations explore spatial, temporal, and network aspects of mobility.

4. Predicting Malpractice among New York Physicians

    This project utilizes machine learning techniques to predict which physicians are likely to be disciplined by the New York Medical Conduct Board. It is based on a compilation of datasets describing 140 000 physicians licensed to practice in NY and includes their characteristics, location, employment history, networks, education, and disciplinary actions. The goal of the project is to assign each physician a risk score of committing a professional misconduct.

Professional Experience

Columbia University

Research Assistant (Prof. Michael Best)   *2019-2021*

  o Analysis of tax evasion in the Paraguayan production network (with Paraguayan Tax Authority)

Research Assistant (Prof. José L. Montiel Olea)   *2019*

  o Review of research on educational peer effects in networks

Research Assistant (Prof. Alessandra Casella)   *2019*

  o Analysis of data from a lab experiment in political economy

European Commission

Brussels, Trainee in DataLab, DG HR   *2017*

  o Research on the impact of mental health and staff well-being on careers

Bocconi University

Research Assistant (Prof. Fernando Vega-Redondo)   *2016-2017*

  o Analysis of the Spanish production network (with Spanish Tax Authority)

  o Organization of an experiment on peer effects in entrepreneurship in Accra, Ghana

Teaching Experience

Principles of Economics

Teaching assistant, (with Prof. Prajit Dutta)   *Fall 2018*

Teaching assistant, (with Prof. Brendan O'Flaherty)   *Spring 2019*

Teaching assistant, (with Prof. Brendan O'Flaherty)   *Spring 2020*

Introduction to Econometrics

Teaching assistant, (with Prof. Tamrat Gashaw)   *Fall 2019*

Honors and Awards

Dissertation Fellowship, Department of Economics, Columbia University	*2022*
Program for Economic Research, Columbia University, Data Purchase Grant	*2020*
Dean's Fellowship, Department of Economics, Columbia University	*2017-2021*
Summa Cum Laude, Bocconi University	*2016*
Bocconi Merit Award	*2014-2016*
Cum Laude, Sciences Po Paris	*2014*
Award for top student at Sciences Po Paris Dijon Campus	*2012-2014*

References

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Brendan O'Flaherty
Professor of Economics
Columbia University
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bo2@columbia.edu

Miscellaneous

Programming Languages:

R, MATLAB, Python, SQL, Stata, Linux shell scripting

Human Languages:

Polish (native), English (fluent), Italian (fluent), French (fluent)

Refereeing:

American Journal of Health Economics, Preventative Medicine

U.S. work authorization:

Eligible for 3-year OPT

Howard Zihao Zhang

Contact Information

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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

Awarded Best Student Paper Prize 2022 by the Urban Economics Association

Housing costs are key in understanding real income differences across space and time. Standard measures of housing costs do not account for availability differences, where some housing varieties are available in certain cities or time periods but not others. When households have idiosyncratic preferences over housing units, the set of available housing varieties in a city matters. This paper develops theoretically-founded housing price indices to measure housing costs that account for availability differences. To allow for flexible substitution patterns, I propose 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. Utility-consistent housing prices reduce the elasticity of housing prices with respect to population by a half. Since housing is a third of household expenditure, this implies that we have systematically underestimated real income and overestimated residual amenities in larger cities. In contrast to previous estimates, I find that real income is increasing in city size after accounting for availability differences.

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 (*with Guy Aridor and Louise Guillouet*)
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, Fall 2021
	Economic Development of Japan: Fall 2020
FELLOWSHIPS AND AWARDS	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

David E. Weinstein
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Columbia University

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Donald R. Davis
drdavis@columbia.edu
Ragnar Nurkse Professor of Economics
Columbia University

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