

# So Yoon Ahn

November, 2017

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Placement Chairs: Prof. Martin Uribe, [mu2166@columbia.edu](mailto:mu2166@columbia.edu); Prof. Pierre-André Chiappori (fall), [pc2167@columbia.edu](mailto:pc2167@columbia.edu); Prof. Navin Kartik (spring), [nk2339@columbia.edu](mailto:nk2339@columbia.edu)

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

## Education:

2018 (expected)	Ph.D. Economics	Columbia University
2012	M.A. Economics	Yonsei University
2010	B.A. Economics	Yonsei University
2008-2009	Exchange Program	University of California, Berkeley

## Fields of Specialization:

*Primary Fields:* Labor Economics, Family Economics, Applied Microeconomics

*Secondary Fields:* Development Economics, Gender Economics

## Job Market Paper:

### “Matching Across Markets: Theory and Evidence on Cross-Border Marriage”

*Vickrey Prize for Best Third Year Paper (runner-up)*

*Wueller Pre-Dissertation Award for Best Proposal (runner-up)*

Matching theory suggests that a demographic shock that shifts marriage market conditions should affect *all* men and women, not just the group impacted by the shock. This paper uses data on cross-border marriages in East Asia to evaluate these equilibrium effects. It exploits two events that dramatically changed the volume of marriage migration between Vietnam and Taiwan: the rapid emergence of matchmaking firms in the late 1990s, and a tightening of entry visas in Taiwan in 2004. I show that the number of marriage migrants significantly affects the matching patterns and intra-household allocations of local people in both countries. For instance, when marriage migration becomes easier and thus more common, less well-educated Vietnamese women emigrate; and those who stay in Vietnam benefit from more control over household expenditures. This purely equilibrium phenomenon takes place even though only a small percentage of Vietnamese women of marriageable age emigrate. My results suggest that changes in trade and immigration policies can have far-reaching implications on marital outcomes and women's bargaining power.

## **Work in Progress:**

**“Improving Job Matching Among Youth”** (with Rebecca Dizon-Ross and Benjamin Feigenberg) *preliminary results available upon request*

Abstract: Do inaccurate expectations about job seeker competitiveness contribute to poor job matching in developing countries? We utilize the largest online job portal in the Middle East and North Africa region to evaluate the effect of an intervention delivering information about job seeker competitiveness to job applicants. Providing information about the relative fit of an applicant's background for a particular job causes job seekers to apply for jobs that are better matches for their background. The effects of information are largest among entry-level workers with higher levels of education, who generally face the highest unemployment rates in the region. The findings are consistent with the hypothesis that changes over time in demand for skills in the job market may lead to inaccurate expectations that hinder labor market matching. Improving the efficiency of online job search may be particularly welfare-enhancing in the Middle East and North Africa region given that the young, highly-educated subpopulation that faces the greatest labor market hurdles also has the highest level of internet connectedness.

**“Assimilation of Marriage Migrants: Evidence from South Korea”**  
*preliminary results available upon request*

This paper studies economic assimilation of female marriage migrant using a rich dataset on more than 70,000 marriage migrants in Korea, one of the largest bride hosting country. Consistent with the previous literature on the role of intermarriage on assimilation, marriage migrants catch up with their native counterparts relatively well in terms of earnings and labor hours. The marriage migrants catch up monthly earnings of native women after 10 years of migration. Overall, conditional on education, it is hard to find evidence of discrimination against marriage migrants. In contrast, intra-household decision-making power cannot be caught up even after 15 years of migration. In particular, in terms of decision-making on daily expenditures, only 40% of marriage migrants who spent more than 15 years in South Korea made the decisions themselves, whereas more than 60% of native women made decisions themselves. The results show that migrant women can be particularly vulnerable within the households even when they perform well in the labor market.

## **Publications (before Ph.D.)**

“Introduction of Online Sponsored-Link Auction Theory” (with Yeon-Koo Che and Jinwoo Kim), *Korean Journal of Economics*, 2011

## **Research and Work Experience:**

2014, Research Assistant for Pierre-André Chiappori and Bernard Salanié  
2012, Intern, Korean Women's Development Institute

## **Honors and Awards:**

2017-2018, Sasakawa Young Leaders Fellowship Fund

2017, Center for Development Economics and Policy Grant, Columbia University  
2016, Dr. Edwin P. and Dr. Beatrice G. Reubens Travel and Research Fund  
2015, Wueller Pre-Dissertation Award (runner-up), Columbia University  
2015, Vickery Prize for Best Third Year Paper (runner-up), Columbia University  
2004-2009, Samsung Junior Frontier Leadership (JFL) scholarship

### **Teaching Experience:**

Advanced Microeconomics (Spring 2016) *Wueller Teaching Award Winner*  
Intermediate Microeconomics (Fall 2015)  
Introduction to Econometrics (Fall 2013, Spring 2014, Spring 2015)

### **Seminar Presentations:**

Annual Meeting of the Society of Economics of the Household (San Diego), 2017  
Empirics and Methods in Economics, Northwestern University, 2016  
Population Association of America Annual Meeting (Washington DC), 2016

### **Other Activities:**

Ronald Coase Workshop on Institutional Analysis (Tallinn, Estonia), 2016  
Price Theory Summer Camp, University of Chicago, 2015

### **Languages:**

English (fluent), Korean (native), French (basic)

### **References:**

#### **Pierre-André Chiappori**

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#### **Rebecca Dizon-Ross**

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# Sakai Ando

December 2017

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	Navin Kartik (Spring)	<a href="mailto:nk2339@columbia.edu">nk2339@columbia.edu</a>
Placement Assistant:	Amy Devine (212) 854-6881	<a href="mailto:aed2152@columbia.edu">aed2152@columbia.edu</a>

## Education:

2012-2018 (Expected)	Ph.D. Economics	Columbia University
2010-2012	M.A. Economics	Kyoto University
2006-2010	B.A. Integrated Human Studies	Kyoto University

## Fields of Specialization:

*Primary Field:* Macroeconomics

*Secondary Fields:* Financial Economics, Econometrics

## Job Market Paper: “Size-Dependent Policies and Efficient Firm Creation”

*Abstract:* I study the welfare implications of size-dependent firm regulation policies (SDPs) in the presence of entrepreneurial risks. Although SDP has been considered a source of misallocation, I show that, once entrepreneurial risks are taken into account, SDP might improve efficiency. Quantitatively, I use French data and show that removing the SDP leads to output and welfare loss by 1.5% and 1.3%, respectively, in opposition to the output gain reported by the previous literature that abstracts from risks. Qualitatively, I solve an optimal nonlinear SDP problem and show that the observed SDP shares certain features with the optimal SDP. The analysis uncovers a novel trade-off between the inefficiencies of the intensive and extensive margins. In extension, it is shown that (1) whether SDPs improve efficiency depends on the level of financial development and (2) capital accumulation and consumption-smoothing motive further justify SDPs.

## Publication:

“Measuring US Sectoral Shocks in the World Input-Output Network,” *Economics Letters*, Volume 125, Issue 2, November 2014, Pages 204–207

## Working Papers:

“Constrained Efficiency of Competitive Entrepreneurship,” (with Misaki Matsumura)

“Intensive Margin of the Volcker Rule: Price Quality and Welfare,” (with Misaki Matsumura)

“Indexing Structural Distortion: Productivity, Structural Change and Development,” (with Koffie Nassar), *IMF working paper*, 2017

## Works in Progress:

“Asset Bubbles and Production Networks,” (with Tomohiro Hirano)

“Fiscal Uncertainty, Liquidity Trap and Stagnant Growth,” (with Misaki Matsumura)

## Honors and Awards:

2017 Moriguchi Prize, Osaka University Institute of Social and Economic Research  
2017 AGES best 1<sup>st</sup> year graduate TA award  
2016-2017 Dissertation Fellowship  
2016 Wueller Teaching Award (for the best graduate TA)  
2016-2017 Travel Grant, Graduate School of Arts and Sciences  
2014 Harris Prize (for the best 2<sup>nd</sup> year paper, runners-up)  
2014-2015 Paul A. Volcker Scholarship  
2014-2018 Teaching Fellowship, Graduate School of Arts and Sciences  
2014 Research Grant, Chazen Institute of International Business  
2013 Research Grant, Center on Japanese Economy and Business  
2012-2014 Japan-IMF Scholarship Program for Advanced Studies  
2010-2012 Dentsu Scholarship  
2008-2010 Miyake Shotaro Scholarship

## Teaching Assistantships:

2017 Fall	Financial Crises	Undergraduate	Columbia University
2016 Spring (half)	Financial Economics	Undergraduate	Columbia University
2015 Fall	Macroeconomics I	Ph.D. core	Columbia University
2015, 2016	Econometrics II	Ph.D. tutor	Columbia University
2015 Spring	Money and Banking	Undergraduate	Columbia University
2014 Fall	Econometrics I	Ph.D. core	Columbia University
2011 Fall	Finance Theory	Undergraduate	Kyoto University
2011 Spring	Money and Banking	Undergraduate	Kyoto University

## Presentations:

2016 IMF African Department seminar on productivity  
2015, 2016 the Market Quality Seminar at Kyoto University

**Research and Work Experience:**

2016 Summer Internship	IMF African Department
2014 Research Assistant for Prof. Serena Ng	Columbia University
2013 Research Assistant for Prof. David Weinstein	Columbia University
2011 Research Assistant for Prof. Atsushi Kajii	Kyoto University
2011 Research Assistant for Prof. Makoto Yano	Kyoto University
2008 Summer Internship	Barclays Capital

**Referees:**

International Journal of Central Banking, International Journal of Economic Theory, PLOS one

**Languages:**

Matlab, Python, R, Stata  
Japanese (Native), Mandarin Chinese (Native), English (Fluent)

**References:**

Jose Scheinkman (co-advisor)  
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# ASHNA ARORA

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## Education:

2018 (expected)	Ph.D. Economics	Columbia University
2012	M.Sc. Quantitative Economics	Indian Statistical Institute
2010	B.A. Economics	Delhi University

## Affiliations:

2017-Present Fellow, Center for Development Economics and Policy

## Honors and Awards:

2017 Dissertation Fellowship, Columbia University  
2017 Wueller Teaching Award, Department of Economics, Columbia University  
*For the best Principles of Economics teaching assistant (runner up)*  
2017 HCEO SSSI Travel Grant, University of Chicago  
2016 Graduate School of Arts and Sciences Travel Grant, Columbia University  
2015 Wueller Pre-Dissertation Award, Department of Economics, Columbia University  
*For the best dissertation proposal by a 4<sup>th</sup> year student*  
2015 Center for Development Economics and Policy Student Grant  
2015-17 Applied Microeconomics, Applied Microeconomic Theory and Development  
Colloquia Grants, Columbia University  
2013-17 Faculty Fellowship, Department of Economics, Columbia University  
2012-13 Dean's Fellowship, Columbia University  
2010-12 Fellowship of the Indian Statistical Institute

**Fields of Specialization:** Labor Economics, Development Economics

## **Job Market Paper: “Juvenile Crime and Anticipated Punishment”**

**Abstract:** Recent research suggests that the threat of harsh sanctions does not deter juvenile crime. This is based on the finding that criminal behavior reduces only marginally as individuals cross the age of criminal majority, the age at which they are transferred from the juvenile to the more punitive adult criminal justice system. Using a model of criminal capital accumulation, I show theoretically that these small reactions close to the age threshold mask sizable reactions away from, or in anticipation of, the age threshold. The key prediction of this framework is that when the age of criminal majority is raised from seventeen to eighteen, all individuals under eighteen will increase criminal activity, not just seventeen year olds. I exploit recent changes to the age of criminal majority in the United States to show evidence consistent with this prediction - arrests of 13-16 year olds rise significantly for offenses associated with street gangs, including homicide, robbery, theft, burglary and vandalism offenses. Consistent with previous work, I find that arrests of 17 year olds do not rise systematically in response. I provide suggestive evidence that this null effect may be due to a simultaneous increase in under-reporting of crime by 17 year olds. Last, I use a back-of-the-envelope calculation to show that for every seventeen year old that was diverted from adult punishment, jurisdictions bore social costs of over \$65,000 due to the increase in juvenile offending.

## **Working Papers:**

“Elections by Consensus: Effects on Politician Identity and Government Size”

**Abstract:** This paper examines the effects of infusing elements of community consensus into local electoral processes. Identification comes from a unique policy experiment in rural India that incentivizes village residents to reach a consensus on who their political representatives should be, eliminating the need for the state government to organize official elections. Leveraging variation in these incentives, I document a decrease in the number of candidates running for political office, in line with the program’s primary goal of holding fewer elections. Elected candidates are younger and more educated, but exert a negative influence on government size, measured by the collection of tax revenue, government expenditure and employment creation. These results may be explained by the fact that politicians that rely on the support of local elites (who have a greater say in elections based on community consensus) are not incentivized to appease village residents in order to get re-elected.

“Representation and Opportunism: RD Evidence from Indian Village Councils”  
with Rakesh Banerjee, Kunjal Desai and Siddharth Hari

**Abstract:** Local governments in developing countries play a crucial role in the provision of local public goods and the functioning of social welfare programs. This paper investigates

the relationship between the size of elected local government councils and public service delivery. We use a natural experiment from India, where the number of politicians at the village level is an increasing, discontinuous function of village population. We set up a regression discontinuity design to study the impact of a larger elected council on the targeting of welfare schemes as well as the allocation of private benefits by politicians to themselves. We find that larger councils improve access to a large-scale workfare program, especially for traditionally disadvantaged communities. We also find that increasing the number of council members increases appropriation of private benefits by the council head but not by ordinary members.

**Work-in-Progress:**

“Bias Pass-Through in Criminal Justice: The Role of Prosecutors and Judges”

“The Career Impact of First Jobs: Evidence and Labor Market Design Lessons from Randomized Choice Sets” with Jonas Hjort

“Student Retention, Learning and Labor Market Outcomes” with Nazmul Ahsan, Rakesh Banerjee and Siddharth Hari

**Presentations:**

2017: Young Economists Symposium (Yale), HCEO Summer School on Socioeconomic Inequality (UChicago)

2016: Annual Conference on Economic Growth and Development (Indian Statistical Institute)

**Research Assistantships:**

Christopher Blattman, Columbia University, 2014

Indira Rajaraman, Central Board of the Reserve Bank of India, 2013

Vegard Iversen, Indian Statistical Institute, University of East Anglia, 2010

**Teaching Assistantships:**

Principles of Economics, Sunil Gulati, 2013-14, 2016

Mathematics for Economists (Masters Level), Muhammad Asali, 2014

Principles of Economics, Cattarina Musatti, 2014

Intermediate Microeconomics, Pietro Ortoleva, 2015

Intermediate Macroeconomics (Masters Level), Francisco Rivera-Batiz, 2015

Intermediate Macroeconomics, Jasmina Arifovic, 2015

Intermediate Microeconomics (Masters Level), Muhammad Asali, 2016-17

**References:**

**Suresh Naidu (co-primary)**

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**Francois Gerard**

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# Cynthia Mei Balloch

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Navin Kartik, [nk2339@columbia.edu](mailto:nk2339@columbia.edu) (Spring)  
Placement Assistant: Amy Devine, (212) 854-6881, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## Education

PhD in Economics, Columbia University	2018 (expected)
Master in Public Administration in International Development, Harvard Kennedy School	2011
Bachelor of Science ( <i>cum laude</i> ) in Engineering Sciences, Harvard University	2005

## Honors and awards

Dissertation Fellowship, Department of Economics, Columbia University	2017-2018
Macro Financial Modeling Group Dissertation Fellowship	2015
Harriss Prize for Best Second Year Paper, Columbia University	2014
Dean's Fellowship, Columbia University	2012-2017

Fields    Macroeconomics, Finance, International Macro

## Job Market Paper

### *Inflows and Spillovers: Tracing the Impact of Bond Market Liberalization*

Abstract: As bond markets grow, this affects not only the financing decisions of firms, but also the lending behavior of banks, and the resulting equilibrium allocation of credit and capital. This paper makes three contributions to understand the impact of bond market liberalization. First, using evidence from reforms in Japan that gave borrowers selective access to bond markets during the 1980s, it shows that firms that obtained access to the bond market used bond issuance to pay back bank debt. More importantly, this large, positive funding shock led banks to increase lending to small and medium enterprises and real estate firms. Second, it proposes a model of financial frictions that is consistent with the empirical findings, and uses the model to derive general conditions under which bond liberalization has this effect on banks. The model predicts that bond liberalization can significantly worsen the quality of the pool of bank borrowers, and so lower bank profitability. These results suggest that Japan's bond market liberalization contributed to both the real estate bubble in the 1980s and bank problems in the 1990s. Third, the model implies that bond markets amplify the effects of shocks to the risk-free rate and firm borrowing, in addition to attenuating the effects of financial shocks.

## Working Papers

### *Default, Commitment, and Domestic Bank Holdings of Sovereign Debt*

Abstract: How do the incentives of domestic banks and sovereign governments interact? This paper presents a model of government default and banks that invest in the debt of their own sovereign. In the model, banks demand safe assets to use as collateral, and default affects bank equity. These losses inhibit banks' ability to attract deposits, leading to lower private credit provision, and lower output. This disincentivizes the sovereign from defaulting. The extent of output losses depends on characteristics of the banking system, including sovereign exposures, equity, and deposits. In turn, bank exposures are affected by default risk. The model is also used to show that policies such as financial repression can improve welfare, but worsen output losses in the event of default.

### *Bank-Firm Matching, Leverage, and Credit Quality*

Abstract: We observe considerable differences between banks in practice. What effects do these differences have, in theory? This paper explores the effect of bank heterogeneity on lending in a static assignment model, in which borrowers are assumed to be heterogeneous firms. Firms are assumed to differ in terms of productivity, and borrow from banks and uninformed investors in order to invest and produce. Banks are assumed to vary in terms of monitoring efficiency, and faced with the problem of deciding to whom to lend, among heterogeneous firms. The model is then used to explore patterns of bank-firm matching, and demonstrate why it may be that changes in the characteristics of banks and firms lead to changes in lending, leverage, and credit quality.

## Research and Teaching Experience

### *Teaching Assistant*

#### **Columbia University**

Intermediate Macroeconomics for Jon Steinsson, Spring 2017

Introduction to Econometrics for Seyhan Erden and Miikka Rokkanen, Fall 2016

Political Economy for Alessandra Casella, Fall 2014

Corporate Finance for Emily Breza, Spring 2014 and Mauricio Larrain, Fall 2013

#### **Harvard Kennedy School**

Economics of International Financial Policy for Jeffrey Frankel, Spring 2012 (TF)

Advanced Macroeconomics for the Open Economy for Jeffrey Frankel, Fall 2010 and Fall 2011 (CA)

Advanced Microeconomic Policy Analysis II for Asim Khwaja, Spring 2011 (CA)

### *Research Assistant*

Ricardo Reis (2014-16), Dani Rodrik (2011-12), Jeffrey Frieden (2011-12), and Jeffrey Frankel (2010-12).

## Employment

International Finance Corporation, World Bank, Investment Analyst (Hong Kong) 2008-2009

J.P. Morgan Securities Asia Pacific Limited, Investment Banking Analyst (Hong Kong) 2005-2007

**Presentations** Ridge Workshop in Buenos Aires (2015).

**Refereeing** American Economic Review, Journal of Monetary Economics.

## Personal

Canadian and UK Citizen.

Languages: English (native), French (fluent), Spanish (proficient), Mandarin (proficient).

## References

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## EDUCATION

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2012-2018: PhD Economics, Columbia University, USA (Expected)  
2011-2012: Ingénieur, ENSAE-ParisTech, France  
2008-2011: Ingénieur, École Polytechnique, France  
2004-2008: BS Electronic Engineering, Fudan University, China

## RESEARCH INTERESTS

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Macroeconomics, Productivity, Inequality

## PAPERS

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- **TFP Declines: Misallocation or Mismeasurement? (JOB MARKET PAPER)**

This paper documents the sectoral growth paths of measured total factor productivity (TFP) in southern Europe during the boom that preceded the great contraction (1996 to 2007). Using both aggregate and firm-level panel data, I show that TFP in sectors that displayed fast expansion, such as construction, dropped significantly, while in non-expanding sectors, such as manufacturing, it stayed stable. I evaluate the relevance of two alternative explanations of this phenomenon: capital misallocation (the increase in capital was directed to less productive firms) and labor quality mismeasurement (lower quality of incoming labor was not fully captured in the TFP calculation). I find that the misallocation channel is almost negligible. Moreover, worker-firm matched data shows that labor quality did deteriorate in the expanding sectors but not in the others, giving credence to the labor-quality mismeasurement hypothesis. A model featuring both the misallocation and the mismeasurement channels and calibrated to match the micro-level productivity distribution and labor quality distribution predicts that the drop in true TFP was small if labor quality is measured properly.

- **Do the Rich Know Better? - Evidence from University Endowments**

This paper studies capital return inequality among university endowments. It combines university-level data on endowment size, capital returns, and portfolio allocations into a unified data set. Using panel data regression, I show a strong impact of size on investment return. Everything else the same, the biggest endowment has a capital return 8 percent higher than the smallest endowment. However, after adjusting for risk using Sharpe ratios, the strong positive correlation turns negligible or even negative. This result suggests that the higher return of bigger endowments can be attributed to risk compensation rather than to an informational premium.

- **SOEs and China's Productivity Deceleration: Firm-level Evidence,**  
with Jorge Alvarez and Grace Li

This paper documents the total factor productivity (TFP) growth path from 1998 to 2013 using both the aggregate data and the firm-level data of China. We find that the TFP growth is positive from 1998 to 2011 and then turn to flat and even negative. And careful comparison between the state-owned enterprises (SOEs) and private firms reveals that the slowing down of TFP growth of the SOEs is the major contributor to the TFP growth reversal of the whole manufacturing sector. Moreover, we reject a possible explanation that manufacturing TFP growth slowing down may due to the sectoral factor after the decomposition analysis.

## PROFESSIONAL ACTIVITY

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### Research Assistantship

2017: Jose A. Scheinkman  
Fall 2015: Stephanie Schmitt-Grohe and Martin Uribe

### Teaching Experience

Summer 2016: Instructor, Graduate Level Math Camp  
Summer 2015: Teaching Fellow, Graduate Level Math Camp  
Summer 2014: Teaching Fellow, Graduate Level Math Camp  
Fall 2016: TA, Graduate Level Math Methods (by Jushan Bai)  
Spring 2016: TA, International Monetary Theory & Policy (by Stephanie Schmitt-Grohe)  
Spring 2015: TA, International Monetary Theory & Policy (by Martin Uribe)  
Spring, Fall 2014: TA, Financial Economics (by Rajiv Sethi)  
Fall 2013: TA, Intermediate Macro (by Xavier Sala-i-Martin)

### Internship

Summer 2017: International Monetary Fund  
Summer 2015: Internship Central Bank of Chile  
Summer 2011: Prudential Supervisory Authority, Central Bank of France

### Invited Talks

2017: International Monetary Fund  
2016: WEAI 2016 Nanyang Technological University of Singapore

### Conference Organization

Summer 2013: EconCon (now known as Young Economist Symposium) Co-organizer

## AWARDS

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2018: Dissertation Fellowship, Columbia University  
2012 - 2017: Wueller Fellowship, Columbia University  
2012 - 2017: PhD Scholarship, Columbia University

## PERSONAL

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Citizenship: Chinese.  
Languages: Chinese (native), English (fluent), French (fluent).

## REFERENCES

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## PLACEMENT COMMITTEE

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<b>Co-Chair (spring):</b>	Navin Kartik,	nk2339@columbia.edu	(212) 854-3926
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[pc2167@columbia.edu](mailto:pc2167@columbia.edu) Navin Kartik (Spring), [nk2339@columbia.edu](mailto:nk2339@columbia.edu)  
Placement Committee Member: Jennifer La'O, [jl4196@columbia.edu](mailto:jl4196@columbia.edu)  
Placement Assistant: Amy Devine, (212) 854-6881, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## Education:

2018 (expected)	Ph.D. Economics	Columbia University
2015	M.Phil. Economics	Columbia University
2014	M.A. Economics	Columbia University
2011	M.S. Quantitative Economics	Indian Statistical Institute
2009	B.Sc. Economics	Calcutta University

## Honors and Awards:

2017	Dissertation Fellowship, Columbia University
2017	CORE-Teagle Fellow
2012-2017	Dean's Fellowship, Columbia University
2009-2011	Indian Statistical Institute Fellowship Award
2009	Debasish Ch. Memorial Prize, Presidency College, Kolkata.
2009	J.C. Sinha Prize and U.N. Ghoshal Prize, Presidency College.
2007	Nirmal Kanti Majumadar Memorial Prize, Presidency College.

## Fields of Specialization:

<i>Primary Field:</i>	Microeconomic Theory
<i>Secondary Field:</i>	Corporate Finance

## Job Market Paper: "Delegation and Learning"

A principal contracts with an agent whose ability is uncertain. Ability is learnt through the agent's performance in projects that the principal finances over time, where only a high-ability agent can succeed on a project, yielding the principal a payoff. Success however also depends on the quality of the project at hand, and quality is privately observed by the agent who is biased towards implementation. I characterize the optimal structure of rewards in a contract that

tolerates a fixed number of failures and incentivizes the agent to implement only good projects. The fact that success becomes less likely as the agent fails suggests that rewards for success should increase with past failures. However, this also means that the agent can earn a rent from belief manipulation by deviating and implementing a bad project which is sure to fail. I show that this belief manipulation rent decreases with past failures and implies that the optimal rewards are front-loaded. The optimal contract resembles the arrangements used in venture capital, where entrepreneurs must give up equity share in exchange for further funding following failure.

### **Research Papers:**

“Informal Risk Sharing and Index Insurance” (joint with Francis Annan).

When does informal risk sharing act as barrier or support to take-up of index-based insurance? We evaluate this substitutability or complementarity interaction by considering the case of an individual who endogenously chooses to join a group and makes decisions about index insurance. The presence of an individual in a risk sharing arrangement reduces his risk aversion, termed “Effective Risk Aversion” – a sufficient statistic for index decision making. Our analysis establishes that such reduction in risk aversion can lead to either reduced or increased take up of index insurance. These results provide alternative explanations for two empirical puzzles: unexpectedly low take-up for index insurance and demand being particularly low for the most risk-averse.

### **Research in Progress:**

“Investment Timing and Dynamic Agency”

### **Research and Work Experience:**

2011-12      Research Assistant, Monetary Research Project, ICRA India.

### **Teaching Experience:**

Teaching Assistantships at Columbia University:

2017, 2015	Intermediate Microeconomics
2016	Introduction to Econometrics
2016, 2015, 2013	Political Economy
2014	Public Economics

### **Personal:**

Indian Citizen.

## References

Patrick Bolton (Co-sponsor)  
Professor  
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# Golvine de Rochambeau

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**Placement Coordinator:** Amy Devine, (212) 854-6881, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## RESEARCH INTERESTS

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Development Economics, Organizational Economics, Trade

## EDUCATION

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### COLUMBIA UNIVERSITY, New York

Ph.D. in Economics (2018 - Expected), MPhil in Economics (2015), MA in Economics (2013)

### ECOLE POLYTECHNIQUE, Paris

MSc in Economics and Public Policy (2012), BSc in Mathematics and Physics (2011)

## JOB MARKET PAPER

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### Monitoring and Intrinsic Motivation: Evidence from Liberia's Trucking Firms

*Abstract:* Severe information asymmetries are thought to make contracting particularly difficult within (and across) firms in developing countries. Standard principal-agent theory predicts that a new monitoring technology provided at zero cost should be widely adopted and unambiguously raise workers' effort. I test this classical prediction using a field experiment with trucking companies in Liberia. The treatment offered to install GPS tracking devices on randomly selected trucks at no cost. Treatment-on-the-treated estimates reveal that the tracking devices increased monitored drivers' average speeds by 58 percent, without leading to higher accident rates or maintenance costs. Despite this, managers declined to install the devices on 35 percent of the trucks selected for treatment. Using a model of intrinsic motivation, I show that it may be optimal not to monitor workers who are intrinsically motivated to work hard. While monitoring technologies increase agents' extrinsic incentives to provide effort, they also do not allow worker to show that he or she does not need these incentives to work hard, which can crowd out effort. I provide three pieces of evidence in support of this explanation. First, Liberian trucking company managers choose to install tracking devices only on the trucks of drivers who perform less well at baseline. Second, the treatment effect on speed for monitored drivers is greater the lower the performance of the driver at baseline. Finally, I show that for drivers who performed well at baseline, the treatment has a negative effect on the relation between the manager and the driver, and on the driver's propensity to follow the rules of the business. Overall, this paper demonstrates that, while new monitoring technologies can dramatically raise some workers' productivity in settings where employment contracts are difficult to enforce, their use may lower the productivity of some workers - those who are intrinsically motivated to work hard.

## REFERENCES

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### Eric Verhoogen (sponsor)

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### Andrea Prat

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Department of Economics  
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## WORK IN PROGRESS

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- “Ethnicity, Expected Discrimination, and Effort: Evidence from Liberian Firms”, with Jonas Hjort
- “Is Liberia Getting Globalized? Estimating Intra-national Trade Costs in Liberia”

## PUBLICATIONS

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- “Fraud Risks in Customs Bonded Warehouses in Tunisia”, with Lotfi Ayadi and Gaël Raballand, *Global Trade and Customs Journal* (2015) 10, Issue 11/12, pp. 417-425.
- “The Trucking Industry and the Price of Commodities in Liberia”, Chapter for *Liberia Development Conference Anthology: Engendering Collective Action for Advancing Liberia’s Development* (2017), Monrovia, Liberia: USAID/Liberia, Embassy of Sweden and University of Liberia: pp. 341-352.

## RESEARCH AND WORK EXPERIENCE

---

<i>Visiting Student</i> , Sciences Po (Paris)	2016
<i>Senior Research Associate</i> , Innovations for Poverty Action - IPA (Liberia)	Apr-Aug 2016
<i>Research Assistant</i> for Eric Verhoogen, Columbia University	2015
<i>Short Term Consultant</i> , The World Bank (Washington D.C.)	Jul-Aug 2014
<i>Teaching Assistant</i> in Game Theory, Intermediate and Advanced Microeconomics, Columbia University (New York)	2013-18
<i>Research Intern</i> , International Monetary Fund (Gabon)	Apr-Jul 2012

## CONFERENCES, SEMINARS AND WORKSHOPS (Presentations\*)

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<i>North East Universities Development Consortium (NEUDC)*</i> , Tufts University	2017
<i>Impact Evaluation Workshop</i> , World Bank (Portugal)	2017
<i>Liberia Development Conference*</i> , Social Impact - USAID Liberia (Liberia)	2017
<i>Summer School in Development Economics*</i> , IDEAS, University of Trento and Verona & CELPE (Italy)	2015
<i>Advanced Graduate Workshop*</i> , Initiative for Poverty Dialogue (India)	2015
<i>Development Colloquium*</i> , Columbia University (New York)	2013-17
<i>Political Economy Colloquium*</i> , Columbia University (New York)	2015

## GRANTS AND FELLOWSHIPS

---

<i>Exploratory Grant</i> , Private Enterprise Development in Low-Income Countries - PEDL	2017
<i>Development Colloquium Grant</i> , Columbia University	2017
<i>Student Research Grant</i> , Center for Development Economics and Policy, Columbia University	2016 & 2017
<i>Research Grant</i> , International Growth Center - IGC	2016
<i>Partnership PhD Mobility Program</i> , Columbia University and Sciences Po Paris	2016
<i>Dissertation Fellowship</i> , Department of Economics, Columbia University	2016 & 2017
<i>Faculty Fellowship</i> , Department of Economics, Columbia University	2012-18

## AFFILIATION & SERVICE

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<i>Fellow</i> , Center for Development Economics and Policy, Columbia University	Sep 2017- present
<i>Referee</i> , <i>Annals of Public and Cooperative Economics</i>	

## LANGUAGES

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French (Native); English (Fluent); Spanish (Fluent); Italian (Conversational); Russian (Beginner)

# Sandesh Dhungana

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

---

## Education

### **Columbia University**

Ph.D. in Economics 2018 E  
*Fields: Macroeconomics, Household Finance, Housing*  
Master of Philosophy in Economics 2015  
Master of Arts in Economics 2013

### **Harvard Kennedy School**

Masters in Public Administration, International Development 2012

### **Williams College**

Bachelor of Arts in Economics, *Magna Cum Laude, Phi Beta Kappa* 2008

## Dissertation

“Regional Heterogeneity in Fiscal Stimulus Effectiveness: The Economic Stimulus Payments of 2008” (with Keshav Dogra)

We investigate the regional heterogeneity in the effectiveness of fiscal rebates during the 2008 recession. Using a special module of the Nielsen Consumer Panel which surveys households about their 2008 Economic Stimulus Payments, we find that households' marginal propensity to consume (MPC) out of these rebates was significantly lower in counties where housing prices declined more. This pattern holds for both households with liquid assets and for those without. Our results highlight a problem for policymakers, suggesting that fiscal stimulus may have been least effective in stimulating nondurable consumption in precisely the regions experiencing the worst recession. The negative relation between MPC and house price decline is at odds with the predictions of both canonical buffer-stock models, which predict a higher MPC in worse affected regions, and more sophisticated models of housing and consumption. A state of the art heterogeneous agent life cycle model, which features adjustment costs, long term debt and a default option, substantially overestimates the effectiveness of fiscal stimulus in the worst affected regions.

## In Progress

“Unemployment and the Value of Refinancing Credit: Evidence from the Home Affordable Refinance Program” (with Joseph Hogan)

“Evolution of Hand to Mouth Households during the Great Recession”

## Experience

Research Assistant to Mauricio Larrain, Columbia University 2012  
Short Term Consultant, World Bank Group, Washington DC 2011  
Research Assistant to Ricardo Hausmann, Harvard University 2010  
Analyst, Cornerstone Research, New York 2008-10

Teaching	Instructor, Intermediate Macroeconomics (Summer): Mean Review - 5/5	2017
	Instructor, Intermediate Macroeconomics (Summer): Mean Review - 4.9/5	2016
	Teaching Assistant, Intermediate Macroeconomics: Mean Review - 4.9/5	2015
Fellowships	Dissertation Fellowship, Columbia University	2017
	Dean's Fellowship, Columbia University	2012-17
	John F. Kennedy Fellowship, Harvard University	2010-12
Skills	Stata, Matlab, R, LaTeX	
Personal	Nepali citizen, Avid soccer fan and player	
Volunteer	President of Budhanilkantha School Endowment Fund (Not-for-Profit) President of Udhyami Nepali (Not-for-Profit)	
References	Jon Steinsson Professor of Economics Columbia University jsteinsson@columbia.edu	Emi Nakamura Professor of Business and Economics Columbia University enakamura@columbia.edu
	Jennifer L'ao Assistant Professor of Economics Columbia University jl4196@columbia.edu	Andres Drenik Assistant Professor of Economics Columbia University ad3376@columbia.edu

# Jean-Jacques FORNERON

## PLACEMENT CHAIRS

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NAVIN KARTIK (Spring) [nk2339@columbia.edu](mailto:nk2339@columbia.edu)

## PLACEMENT ASSISTANT

AMY DEVINE [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## CONTACT

---

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EMAIL: [jmf2209@columbia.edu](mailto:jmf2209@columbia.edu)  
WEBSITE: [jjforneron.com](http://jjforneron.com)

FIELDS OF INTEREST: Econometrics, Macroeconometrics, Industrial Organization

## EDUCATION

---

2012–2018 | Ph.D. in ECONOMICS, Columbia University, New-York  
Dissertation title: *Essays on Simulation-Based Estimation*  
2009–2012 | MA. in ECONOMICS AND STATISTICS, ENSAE ParisTech, Paris, France  
2009–2012 | MSc. in MANAGEMENT, HEC Paris, Paris, France

## JOB MARKET PAPER

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### A Sieve-SMM Estimator for Dynamic Models ([pdf](#), [supplement](#))

*Abstract:* This paper proposes a Sieve Simulated Method of Moments (Sieve-SMM) estimator for the parameters and the distribution of the shocks in nonlinear dynamic models where the likelihood and the moments are not tractable. An important concern with SMM, which matches sample with simulated moments, is that a parametric distribution is required but economic quantities that depend on this distribution, such as welfare and asset-prices, can be sensitive to misspecification. The Sieve-SMM estimator addresses this issue by flexibly approximating the distribution of the shocks with a Gaussian and tails mixture sieve. The asymptotic framework provides consistency, rate of convergence and asymptotic normality results, extending sieve theory to more general dynamics with latent variables. Monte-Carlo simulations illustrate the finite sample properties of the estimator. Two empirical applications highlight the importance of the distribution of the shocks. The first provides evidence of non-Gaussian shocks in macroeconomic data and their implications on welfare and the risk-free rate. The second finds that Gaussian estimates of stochastic volatility are significantly biased in exchange rate data because of fat tails.

## PAPERS

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2017 | The ABC of Simulation Estimation with Auxiliary Statistics ([pdf](#))  
*with Serena Ng, Conditionally Accepted at the Journal of Econometrics, last revision August 2016*  
2016 | A Likelihood-Free Reverse Sampler of the Posterior Distribution ([pdf](#))  
*with Serena Ng, Advances in Econometrics Vol 36, p.389-415, 2016*

## WORK IN PROGRESS

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Assessing the Sensitivity of Structural VAR models

## WORK EXPERIENCE

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- SUMMER 2013 | Bank of America Merrill Lynch, *European Economics Research, London, UK*  
*Forecasting EU GDP growth rates using dynamic factor models*
- SPRING 2011 | Credit Suisse, *Global Economics Research, Zurich, Switzerland*  
*Daily and weekly economic reports, forecasting G20 GDP growth rates*
- FALL 2010 | Amundi Asset Management, *Economics Strategy, Paris, France*  
*Forecasting US economic indicators and constructing a surprise index*
- 2009-2010 | OECD, *Regulatory Policy (Governance), Paris, France*  
*Statistical analysis of the Indicators of Regulatory Management Systems ([pdf](#))*

## TEACHING ASSISTANT

---

- 2013–2017 | Introduction to Econometrics
- 2015 | Introduction to Econometrics II (PhD)
- 2015–2016 | Advanced Econometrics

## RESEARCH ASSISTANT

---

- 2014–2016 | Serena Ng      Columbia University
- 2014 | Emi Nakamura      Columbia Business School
- 2012 | Lucrezia Reichlin      London Business School

## CONFERENCE PRESENTATIONS

---

- 2016 | The ABC of Simulation Estimation with Auxiliary Statistics  
*International Association for Applied Econometrics Annual Conference (IAAE, Milan)*
- | Assessing the Sensitivity of Structural VAR Models (Poster Session)  
*CIREQ Econometrics Conference in Honor of Jean-Marie Dufour (Montréal)*
- 2015 | A Likelihood-Free Reverse Sampler of the Posterior Distribution  
*9th International Conference on Computational and Financial Econometrics (CFE, London)*

## HONORS AND AWARDS

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2017–2018		Dissertation Fellowship
2013–2017		Teaching Fellowship
2016–2017		Lewis A. Sanders Endowed Fellowship in Economics
2014–2015		Lewis A. Sanders Endowed Fellowship in Economics Wueller Pre-Dissertation Award for Best Fourth Year Paper ( <i>Runner-Up</i> )
2013–2014		Lewis A. Sanders Endowed Fellowship in Economics Harris Prize for Best Second Year Paper ( <i>Runner-Up</i> )
2012–2013		Dean’s Fellowship

## PERSONAL

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LANGUAGES: French (native), English (fluent), Spanish (basic), Chinese (basic)  
CITIZENSHIP: France and the United-States  
PROGRAMMING: R, C++, SQL, Python, Matlab, Stata

## REFERENCES

---

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# TONG GENG

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## PLACEMENT COMMITTEE

Co-Chair: Martin Uribe, [mu2166@columbia.edu](mailto:mu2166@columbia.edu)  
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Co-Chair (spring): Navin Kartik, [nk2339@columbia.edu](mailto:nk2339@columbia.edu)  
Placement Assistant: Amy Devine, [aed2152@columbia.edu](mailto:aed2152@columbia.edu)

## EDUCATION

**Columbia University**, Graduate School of Arts and Sciences, New York, NY  
**Ph.D.** in Economics Expected May 2018

**University of Illinois**, College of Liberal Arts and Sciences, Urbana–Champaign, IL  
**B.A.** summa cum laude in Economics May 2012

## FIELDS OF SPECIALIZATION

Labor Economics, Economics of Education

## JOB MARKET PAPER

*The Complementarity of Incentive Policies in Education: Evidence from New York City*

Abstract: Many production activities require cooperation between agents in an organization, and incentive alignment may take advantage of complementarities in such activities. This paper investigates such a possibility by examining two education policies that were implemented in New York City: a grade retention policy that incentivizes students and an accountability scheme that incentivizes schools. I employ double- and triple-difference strategies to estimate the individual and *combined* effects of these policies. The policies alone appear to have generated either modest or insignificant improvements in student outcomes. *Combined*, however, the retention and accountability policies led to a substantial increase in math test scores and reductions in student absences and suspension rates; the effect on English test scores is positive but not robust. These results underscore the value of using incentive alignment to realize complementarities in organizations.

## **WORKING PAPERS**

*Does Repeating a Grade Make Students (and Parents) Happier? Regression Discontinuity Evidence from New York City*, with Jonah E. Rockoff

Abstract: When a student's academic knowledge or preparation is well below that of his or her age group, a common policy response is to have that student repeat a grade level and join the following, younger cohort. Evaluating the impacts of grade retention is made complicated by the potential incomparability of (1) retained students to promoted peers and (2) outcomes measured differently across grade levels. In this paper, we use novel data from New York City to ask whether parents' and students' self-reported educational experiences are significantly affected by grade retention. We take advantage of surveys that ask the same questions regardless of a student's grade level, and implement a regression discontinuity approach, identifying causal effects on students retained due to missed cutoffs on math and English exams. We find that parental satisfaction with the quality of their child's education and students' sense of personal safety both improve significantly over the three years we can observe from the time of retention. Our findings suggest that the stringent and somewhat controversial test-based retention policies enacted in New York had positive effects on the educational experience of these marginal students.

## **RESEARCH IN PROGRESS**

*Extrapolation of Treatment Effects in Multidimensional Regression Discontinuity Designs*, with Miikka Rokkanen

Abstract: Regression discontinuity designs (RDDs) provide limited external validity, as results are only generalizable around the cutoff. This paper develops a general framework to estimate effects away from the cutoff in RDDs when the running variable contains multiple components. The key assumption is that the outcome variable is additively separable of each component in the running variable; this assumption can be tested empirically. We apply this technique to the analysis of Chile's SNED program in Mizala and Urquiola (2013), a program that seeks to identify effective schools.

## **RESEARCH ASSISTANTSHIPS**

Jonah E. Rockoff, Columbia Business School, Summer 2015

Miguel Urquiola, Department of Economics, Summer 2014 & Spring 2015

W. Bentley MacLeod, Department of Economics, Fall 2014

## **REFeree SERVICE**

*Journal of Public Economics*

## **FELLOWSHIPS AND AWARDS**

Dissertation Fellowship, Department of Economics, Columbia University, 2017–2018  
Faculty Fellowship, Department of Economics, Columbia University, 2013–2017

## **TEACHING EXPERIENCE**

Teaching Assistant, Principles of Economics, Anna Caterina Musatti, 2016–2017  
Teaching Assistant, Urban Economics, Jason Barr, Fall 2015  
Teaching Assistant, The Global Economy, Sunil Gulati, Spring 2014  
Teaching Assistant, Economic Growth and Development, Xavier Sala-i-Martin, Fall 2013

## **PRESENTATIONS**

Education Policy & Social Analysis, Teachers College Columbia University, 2017  
Applied Micro Research Methods Colloquium, Columbia University, 2013–2017  
Education in Contemporary China, Council on International Educational Exchange (CIEE)  
Shanghai Center, 2016 and 2017

## **OTHER ACTIVITIES**

Price Theory Summer Camp, University of Chicago, 2016  
Board Member, Columbia University Association of Graduate Economics Students, 2015  
Summer School, London School of Economics and Political Science, 2011

## **REFERENCES**

Miguel Urquiola  
Professor of Economics  
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School of International and Public Affairs  
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[msu2101@columbia.edu](mailto:msu2101@columbia.edu)

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Columbia University  
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# Chengcheng Jia

November 18, 2017

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## PLACEMENT CONTACTS

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	Pierre-Andre Chiappori	<a href="mailto:pc2167@columbia.edu">pc2167@columbia.edu</a>	212-854-6369
	Navin Kartik	<a href="mailto:nk2339@columbia.edu">nk2339@columbia.edu</a>	212-854-3926
Placement Assistant	Amy Devine	<a href="mailto:aed2152@columbia.edu">aed2152@columbia.edu</a>	212-854-6881

## EDUCATION

---

**Columbia University** *Ph.D.* in Economics, *May 2018 (Expected)*

**University of Notre Dame** *B.A. magna cum laude* in Economics, *May 2012*

## REFERENCES

---

### Michael Woodford (Primary)

*John Bates Clark Professor of Political Economy*

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### Jennifer La'O

*Assistant Professor of Economics*

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Columbia University  
[jenlao@columbia.edu](mailto:jenlao@columbia.edu)  
(212) 854-0474

### Jon Steinsson

*Professor of Economics*

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Columbia University  
[jsteinsson@columbia.edu](mailto:jsteinsson@columbia.edu)  
(212) 854-3690

## FIELDS OF SPECIALIZATION

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*Primary Field:* Macroeconomics, Monetary Economics

*Secondary Fields:* Financial Economics

## JOB MARKET PAPER

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- **“The Informational Effect of Monetary Policy and the Case for Policy Commitment”**

I study how the informational effect of monetary policy leads to gains from commitment.

Monetary policy has an informational effect when the private sector has imperfect information about the underlying economy and extracts information about unobserved shocks from the central bank's interest-rate decisions. With serially uncorrelated shocks, I show that the optimal monetary policy rule responds more aggressively to natural-rate shocks and less aggressively to cost-push shocks, relative to the central bank's optimizing response under discretion. The optimal policy rule improves ex-ante welfare by reducing the information revealed on cost push-shocks, which consequently reduces the stabilization bias caused by the actual cost-push shock under perfect information. In addition, I study how external information and serial correlation in shocks affect the size of gains from commitment. A calibrated dynamic model shows that, with relatively precise external information, committing to the optimal rule improves ex-ante welfare by 54 percent compared with the equilibrium outcome under optimizing discretionary policy.

## WORKING PAPERS

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- **“Central Bank Commitment under Uncertainty”**

- I study optimal monetary policy when both the central bank and the private sector have imperfect information about the underlying economy. I model forward guidance as providing the central bank's own forecast about the optimal monetary policy conditional on the imperfect information of the central bank. When the private sector has rational expectations, it is able to infer the imperfect information held by the central bank from the forward guidance policy. The central bank can either commit to the forward guidance policy, or re-optimize when accurate information becomes available in later stage. I demonstrate the policy trade-off of commitment under imperfect information: re-optimization closes the output gap, but also makes the aggregate price level deviate further away from zero, as re-optimization leads to additional uncertainty in firms' pricing decisions, which is amplified by the higher order beliefs.

## RESEARCH IN PROGRESS

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- **Financing Like China** (with Shijun Gu)

- We study how the reform of state-owned enterprises (SOEs) has led to the aggregate TFP improvement and the economic growth in China. We develop a two-sector firm dynamic model with financial frictions and study three aspects of the SOE reform: 1) the collateral constraints are tightened for the SOEs; 2) loss-making SOEs are shut down; 3) redundant labors are laid-off. All

three aspects have positive effect on the aggregate TFP. At the intensive margin, the selection effect of the reform increases the average productivity of the state sector. At the extensive margin, the general equilibrium effect of the reform reallocates labors and capitals away from the state sector. However, the tightened credit conditions for the SOEs have an ambiguous effect on total output, as it increases the average financial frictions in the economy. We plan to calibrate the model to quantitatively assess the effect of the SOE reform on China's aggregate TFP improvement and economic growth.

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## **RESEARCH EXPERIENCE**

2015 – 2016: Research Assistant to Michael Woodford, Columbia University

2013: Research Assistant to Shangjin Wei, Columbia Business School

2011: Research Assistant to Nelson Mark, University of Notre Dame

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## **TEACHING EXPERIENCE**

2016 – 2017: Teaching Assistant, Corporate Finance, Columbia University

2014 – 2015: Teaching Assistant, Financial Economics, Columbia University

2013 – 2014: Teaching Assistant, Corporate Finance, Columbia University

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## **HONORS AND AWARDS**

2017 – 2018, Dissertation Fellowship, Department of Economics, Columbia University

2012 – 2017, Doctoral Fellowship, Department of Economics, Columbia University

2017, Funds for Conference Travel, Department of Economics, Columbia University

2012, Best Senior Thesis in Economics Department, University of Notre Dame

2012, Best Undergraduate Statistical Research Paper, University of Notre Dame

2012, Phi Beta Kappa Honor Society, University of Notre Dame

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## **CONFERENCE PRESENTATIONS**

2017: The Asian Meeting of Econometrics Society

2016: Young Economists Symposium (previous name: EconCon)

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## **PERSONAL**

Languages: English (Advanced), Chinese (Native), Japanese (Conversational)

Interests: Modern Dance, Piano, Table Tennis, Hiking

# Yang Jiao

November 2017

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Jennifer La'O, jl4196@columbia.edu

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

## EDUCATION

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2012-2018 (expected): Ph.D. Economics, Columbia University  
2010-2012: M.A. Finance, Tsinghua University  
2006-2010: B.S. Mathematics and Physics, Tsinghua University

## REFERENCES

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**Jesse Schreger**  
Columbia Business School  
(212)-851-0171  
jesse.schreger@columbia.edu

## FIELDS OF SPECIALIZATION

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International Finance, Macroeconomics, International Trade

## JOB MARKET PAPER

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- **Financial Crises, Bailout and Optimal Monetary Policy in Open Economies**

This paper studies jointly optimal bailout policy and monetary policy in open economies. I document that countries with larger foreign currency liability/GDP ratio before financial crises underwent larger currency devaluation, inflation and bailout in crises. I build a quantitative open economy model with both nominal rigidities and financial frictions. Using the model, I show that in a world without bailout while currency mismatch effect is present, larger foreign currency liability before crises calls for smaller currency devaluation in crises, embracing the notion of “fear of floating”. The incorporation of optimal government bailout, whose cost needs to be monetized, can overturn the above negative relationship between foreign currency liability and currency devaluation, delivering results consistent with the empirical findings. Finally, I use firm level data to show that whether firms suffer from currency mismatch effect or not during crises hinges on their chance of obtaining bailout.

## WORKING PAPERS

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- **Intrinsic Openness and Endogenous Institutional Quality**, with Shang-Jin Wei (Columbia Business School and NBER), *submitted*

Quality of public institutions has been recognized as a crucial determinant of macroeconomic outcomes. We propose that a country's intrinsic level of openness (due to population size, geography, or exogenous trade opportunities) affects its incentives in investing in better institutions. We present a simple theory and extensive empirical evidence validating the role of intrinsic openness in determining institutional quality. This suggests an indirect but important channel for globalization to improve welfare by raising the quality of institutions.

- **When it Rains, it Pours: Capital Flows with Twin Crises**

This paper examines the joint dynamics of private and public external debt for countries. We develop a model with the co-occurrence of banking crisis and sovereign debt crisis in open economies, formalizing Reinhart and Rogoff (2011) findings "from financial crash to debt crisis". External interest rate spikes or sudden stop shocks force banks to cut down debt position and fire-sale capital. The existence of frictions in bank equity market creates incentives for the government to initiate a bailout. The government bails out banks by increasing external borrowing and implementing fiscal austerity to undo inefficiencies in the private sector. Under optimal bailout scheme, the model generates diverging external debt dynamics for the private sector and the government during a crisis, as we document in the European data. Finally, we investigate two rationales for ex-ante macro-prudential regulations on private external debt: fire-sale externalities between banks and moral hazard by banks.

- **Capital, Finance and International Trade Collapse**, with Yi Wen (Federal Reserve Bank of St. Louis)

This paper proposes a model of international trade with capital accumulation and financial frictions. This is achieved by embedding the Melitz (2003) model into an incomplete-markets neoclassical framework with an endogenous credit market. The model preserves the analytical tractability of the original Melitz model despite non-trivial distribution of firms' net worth and capital stocks. We use the model to examine the differential effects of financial and non-financial shocks on aggregate output and international trade flows. The model predicts that trade volume declines far more sharply and significantly than that of output (with an elasticity larger than 3) under financial shocks than under non-financial shocks. The prediction is consistent with the stylized fact that most countries that experienced major financial crises had significantly larger and sharper contraction in trade volume than aggregate output (as is also true during the recent financial crisis). In the long run, a deeper financial market raises not only the level of aggregate productivity but also the ratio of trade volume to domestic output.

## WORK IN PROGRESS

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- **Domestic Offshoring in a Knowledge Economy**, with Lin Tian (Columbia University)

During past decades, substantial skill and occupation relocation took place across U.S. cities: big cities attract more skilled workers and specialize more in cognitive intensive occupations. Motivated by the empirical literature on improvement in Information and Communications Technology (ICT) and the increasing domestic production fragmentation-or domestic offshoring-we develop a spatial equilibrium model with domestic offshoring to analyze the impact of reduction in cross-city production team formation cost-e.g., communications cost-on the spatial distribution of skills and economic activities. The model generates predictions consistent with observed empirical patterns, including more spatial segregation of skilled and unskilled workers, and occupation specialization across US cities over time. In contrast to findings in the international offshoring literature, in which there are winners and losers, we find Pareto welfare gains for all agents with heterogeneous talents, together with a substantial measured labor productivity increase at the aggregate level.

- **Corruption, Bailout and Monetary Policy**

Study rent seeking in financial and monetary policy in financial crises. Find significant empirical relationship between corruption index and the size of bailout/inflation/currency devaluation during financial crises.

- **Intrinsic Openness, Institutions and Trade Policy**, with Shang-Jin Wei (Columbia Business School and NBER)

Relate human chosen trade openness (tariff) to God chosen trade openness (intrinsic openness) of countries. Find significant empirical relationship between intrinsic openness measures and import tariff.

## HONORS, AWARDS AND GRANTS

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2017:	Dissertation Fellowship, Columbia University
2017:	Economic Fluctuations Colloquium Grant, Columbia University
2015:	Wueller Teaching Awards, Department of Economics, Columbia University
2015:	Nominee of Presidential Teaching Awards, Columbia University
2012-2016:	Dean's Fellowship, Columbia University
2011:	Scholarship, School of Economics and Management, Tsinghua University
2009:	Scholarship, Department of Physics, Tsinghua University
2007:	Scholarship, Department of Mathematics, Tsinghua University

## RESEARCH EXPERIENCE

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Summer 2017:	Dissertation Internship, Federal Reserve Bank of St. Louis
Summer 2015:	Summer Internship, Research Department, Asian Development Bank, Manila, Philippines Internship Supervisor: Chief Economist, Shang-Jin Wei
Fall 2015-Spring 2016:	RA for Prof. Stephanie Schmitt-Grohé and Martín Uribe
Spring 2014-present:	RA for Prof. Shang-Jin Wei

## TEACHING EXPERIENCE

---

Spring 2017:	TA, International Trade (Réka Juhász)
Fall 2016, Fall 2014:	TA, First-year Ph.D. Macro (Xavier Sala-i-Martin, Ricardo Reis, Karel Mertens)
Spring 2016:	TA, Second-year Ph.D. Open Economy Macro (Stephanie Schmitt-Grohé)
Spring 2015, Spring 2014, Fall 2013 :	TA, Intermediate Macro (Stephanie Schmitt-Grohé, Jón Steinsson, Ricardo Reis)

# Meeroo Kim

## Contact Information

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(Spring) Navin Kartik ([nk2339@columbia.edu](mailto:nk2339@columbia.edu)).

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

## Education

### Columbia University

New York, U.S.

- *Ph.D. Economics*

*May 2018 (expected)*

– Principal Advisor: Bernard Salanié

- *M.Phil. Economics*

*May 2015*

- *M.A. Economics*

*May 2014*

### Seoul National University

Seoul, Korea

- *The Integrated M.A./ Ph.D. Course in Economics*

*Sep 2009 ~ Aug 2012*

- *B.S. Physics*

*Mar 2001 ~ Feb 2008*

– Graduation with Honor (*Summa Cum Laude*), Department of Physics

## Research Interests

Applied Microeconomics, Information Economics, Econometrics, Applied Contract Theory.

## Working Papers and Work in Progress

### 1. (Job Market Paper) "Multidimensional Heterogeneity and the Nature of Advantageous Selection in the Consumer Credit Market"

Abstract: Existing theories predict that low risk borrowers tend to accept a high collateral requirement paired with a low interest rate in the competitive credit market. However, I find that in the highly concentrated consumer credit market of South Korea, those who select a loan with a high interest rate paired with a low collateral requirement are less likely to default than those who opt for a low-interest-high-collateral pair. As a source of this advantageous selection in the highly concentrated

consumer credit market, I focus on unobserved heterogeneity in consumption smoothing motives. Consumers who have strong consumption smoothing motives choose a loan with a high interest rate paired with a low collateral requirement since they are willing to bear larger interest costs to reduce the collateral requirement. At the same time, they are less likely to default since their opportunity cost of being excluded from the credit market is higher. Using a unique data set from a major South Korean bank, I show that the empirical relationships between the proxy of consumption smoothing motives, loan choices, and default risks appear consistent with the explanations based on the unobserved consumption smoothing motives. Furthermore, by empirically distinguishing behaviors associated with moral hazard from adverse selection, I provide evidence that consumers who have stronger consumption smoothing motives indeed exert more costly effort to avoid default.

## **2. "Estimating Correlation Structure of Multidimensional Heterogeneity through the Contract Choices in the Consumer Credit Market" (Working Paper)**

Abstract: When consumers choose a loan from a menu where interest rates are paired with collateral requirements in a consumer credit market, unobservably risky borrowers choose a credit loan, which charges a high interest rate instead of requiring collateral. On the other hand, consumers who have unobservably strong consumption smoothing motives also choose a credit loan. In this paper, using a structural model allowing multidimensional heterogeneity in consumers' consumption smoothing motives as well as default risks, I try to show that unobserved heterogeneity in consumption smoothing motives is the main source that drives choices of a contract with a low collateral requirement among repeated borrowers. On the other hand, unobserved heterogeneity in consumption smoothing motives does not dominate, as a source of contract choices, unobserved heterogeneity in default risks among first-time borrowers. There is large unobserved heterogeneity in default risks among first-time borrowers, while residual unobserved heterogeneity in default risks is relatively small among repeated borrowers.

## **3. "The Welfare Impact of Avian Influenza on the Retail Egg Market" (Work in Progress with Heedae Park)**

Abstract: Avian Influenza (H5N1) has a huge negative influence on the supply of eggs in Korea. Especially, the tendency of dense barrier husbandry, in Korea, increases the risk of infection, resulting in a huge decrease in the number of layers. Since eggs are widely used in households and food industries, Avian Influenza has a huge negative influence on the consumer and producer surplus. This paper, first, tries to estimate the demands and the marginal costs for the differentiated egg products using a random coefficient logit model. And then, analyze the welfare impact of Avian Influenza on the market. Finally, this paper suggests an optimal level and proportion of the government purchase of the differentiated egg products to save up for the outbreak of Avian Influenza.

## Awards, Grants & Honours

GSAS Dissertation Fellowship, Columbia University . . . . . 2017 ~ 2018  
Caswell L. Johnson Columbia Scholarship . . . . . 2016 ~ 2017  
GSAS Dean's Fellowship, Columbia University . . . . . 2012 ~ 2017  
Brain Korea 21 Fellowship, National Research Foundation of Korea . . . . . 2010 ~ 2012  
Graduation with Honor (**Summa Cum Laude**), Seoul National University . . . . . 2008  
Merit-based Scholarship, Seoul National University . . . . . 2006 ~ 2007  
Merit-based Full Scholarship, Korea Student Aid Foundation . . . . . Fall 2006

## Research Experience

Research Assistant for Yeon-Koo Che and Youngwoo Koh . . . . . 2015

## Teaching Experience

TA for Micro-Econometrics (2nd year Ph.D.), Columbia University . . . . . Spring 2015  
TA for Introduction to Econometrics II (1st year Ph.D.), Columbia University . . . . . Spring 2016  
TA for Introduction to Econometrics, Columbia University . . . . . Fall 2014, Spring 2015, Fall 2015, Fall 2016  
TA for Principles of Economics, Columbia University . . . . . Fall 2013, Spring 2014

## Miscellaneous

Citizenship: Republic of Korea.

Languages: Korean (Native), English (Fluent).

Military Service: Private 1st class, the Republic of Korea Army (Aug. 2003 - Aug. 2005)

## References

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E. Rowan and Barbara  
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**Tobias Salz**  
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# Ryan Kim

December 5, 2017

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(Spring) Navin Kartik, [nk2339@columbia.edu](mailto:nk2339@columbia.edu)

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

## Education

2018 (expected)	Ph.D.	Economics	Columbia University
2015	M.Phil.	Economics	Columbia University
2014	M.A.	Economics	Columbia University
2012	B.A. (with Distinction)	Economics (Honors), Mathematics	University of Wisconsin-Madison

## Field of Specialization

Primary Field: Macroeconomics

Secondary Fields: Corporate Finance, International Economics

## Job Market Paper

[“The Effect of the Credit Crunch on Output Price Dynamics: The Corporate Inventory and Liquidity Management Channel”](#)

*Abstract:* I study how a credit crunch affects output price dynamics. I build a unique micro-level dataset that combines scanner-level prices and quantities with producer information, including the producer’s banking relationships, inventory, and cash holdings. I exploit the Lehman Brothers’ failure as a quasi-experiment and find that firms facing a negative credit supply shock *decrease* their output prices approximately 15% relative to their unaffected counterparts. I hypothesize that such firms reduce prices to liquidate inventory and to generate additional cash flow from the product market. I find strong empirical support for this hypothesis: (i) firms facing a negative bank shock temporarily decrease their prices and inventory and increase their market share and cash holdings relative to their counterparts, and (ii) this effect is stronger for firms and sectors with high initial inventory or small initial cash holdings. To discuss the aggregate implications of these findings, I integrate this micro-level study into a business cycle model by explicitly allowing for two identical groups of producers facing different degrees of credit supply shock. The model predicts that a negative credit supply shock leads to a large *temporary* drop in aggregate inflation - as a result of the aggressive liquidation of inventory - followed by an increase in inflation as producers eventually run out of inventory. This prediction for inflation and inventory dynamics is fully consistent with observations for the 2007-09 recession.

## Working Papers

[“Price-Cost Markup Cyclical: New Evidence and Implications”](#)

*Abstract:* Existing empirical evidence on price-cost markup cyclical is mixed. This paper finds that markups are procyclical unconditionally, and procyclical conditional on demand shock using a flexible production function. The estimated production function features a larger input complementarity than that in a tightly parameterized production function (Cobb-Douglas and CES), producing both greater efficiency and higher markups during an expansion. These results have two striking implications: (i) much of the cyclical in markups arises from input complementarity, rather than nominal rigidity, and (ii) the U.S. economy behaves as if it has increasing returns to scale.

## “Business Cycles with Input Complementarity” (with Jungsik Hyun)

*Abstract:* We study the business cycle with a Translog production function. We empirically identify a complementarity between labor and energy that leads to *procyclical* returns to scale, which is not compatible with the tightly parameterized production functions commonly used in the literature (Cobb-Douglas and CES). We therefore propose a flexible Translog production function that not only features complementarity-induced procyclical returns to scale but is also consistent with a balanced growth path. A simple calibrated business cycle model with the proposed production function generates strikingly data-consistent dynamics following demand shock without relying on either nominal rigidities or countercyclical markups. Our model also produces a stronger amplification effect than a model without complementarity. We then incorporate our production function into a benchmark medium-scale New Keynesian model (Smets and Wouters 2007) and repeat the business cycle accounting exercise. We find that input complementarity leads to a more dramatic decrease in the role of “suspicious shocks” than of “structural shocks.”

## Work In Progress

”The Margins of Trade and Inequality” (with Jonathan Vogel)

“Quantifying the Effect of Financial Development on Productivity and Misallocation” (with Mauricio Larrain, Sebastian Stumpner)

“Propagation of the Housing Market Shocks through the Production Networks” (with Jungsik Hyun)

“Rising Global Corporate Saving: Drivers and Macroeconomic Implications” (with Hiroko Oura)

## Honors, Awards, and Grants

- 2017-2018 Dissertation Fellowship, Columbia University
- 2017 EEA Student Travel Award, European Economic Association
- 2016 RES Conference Grant Scheme, Royal Economic Society
- 2015, 2016 GSAS Conference Matching Travel Fund (x2), Columbia University
- 2015 GSAC Travel Grant Award, Columbia University
- 2014, 2015 Wueller Teaching Award (x2), Columbia University
- 2014 CIBER Research Grant, Columbia University
- 2012-2017 Faculty Fellowship, Columbia University
- 2011 College of Letters & Science Scholarship, University of Wisconsin-Madison
- 2011 Academic Excellence Award, Korea University Summer Campus
- 2011 Everett H. Smith Scholarship in Economics, University of Wisconsin-Madison

## Seminar and Conference Presentations [Including Scheduled]

- 2017 [Fordham Macro International Workshop](#), [Trans-Atlantic Doctoral Conference](#), [Asian Meeting of the Econometric Society](#), [Financial Intermediation Research Society PhD Job-Market Candidate Session](#), Federal Reserve Board [Computing in Economics and Finance](#), [KAEA-KEA-APEA](#), [Annual Seminar on Risk, Financial Stability and Banking](#), [Congress of the European Economic Association](#), [Comparative Analysis of Enterprise Data](#) [Empirics and Methods in Economics Conference](#), [Economic Graduate Student Conference](#), [Chicago Fed Rookie Conference](#)
- 2016 [Royal Economic Society Symposium of Junior Researchers](#), [Tsinghua Workshop in Macroeconomics](#), [Asian Meeting of the Econometric Society](#)
- 2015 [EconCon](#), [Midwest Macro Meeting](#)

## Research Experience

- Summer 2017 Dissertation Intern, Federal Reserve Board
- Fall 2016 - Spring 2017 RA, David Weinstein, Columbia University
- Summer 2016 Ph.D. Intern, International Monetary Fund (IMF)
- Spring 2016 RA, Jonathan Vogel, Columbia University
- Fall 2015 - Spring 2016 RA, Ricardo Reis, Columbia University
- Spring 2012 Intern, Korea Development Institute (KDI)

## Teaching Experience

### Instructor

Summer 2016 International Trade, Columbia University  
Summer 2015 Principle of Economics, Columbia University  
2014, 2015 Summer QMSS Math Camp (MA), Columbia University

### Teaching Assistant

Spring 2017 Econometrics of Time Series, Jose L Montiel Olea, Columbia University  
Spring 2016 Econometrics of Time Series, Seyhan Erden, Columbia University  
Fall 2015 Corporate Finance, Tri Vi Dang, Columbia University  
Summer 2015 Corporate Finance (MBA), Brendan Mallee, Columbia University  
Spring 2015 Industrial Organization, Michael Riordan, Columbia University  
Fall 2014 Introduction to Econometrics (Head TA), Seyhan Erden, Columbia University  
Summer 2014 Globalization, Markets, and the Changing Economic Landscape (EMBA),  
Bruce Greenwald & Joseph Stiglitz, Columbia Business School  
Summer 2014 Introduction to Econometrics, Seyhan Erden, Columbia University  
Spring 2014 Introduction to Econometrics, Steven Olley, Columbia University  
Fall 2013 Intermediate Macroeconomics, Xavier Sala-i-Martin, Columbia University

## Other Experience

2007-2009 Military Service - Republic of Korea Marine Corps (ROKMC)

## Computer Skills

STATA, MATLAB, R, DYNARE

## Personal

Citizenship: Republic of Korea; Legal Name: Sung Ryong Kim  
Language: English (Fluent), Korean (Native), Japanese (Beginner)  
Taekwondo: 2nd Dan

## References

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David E. Weinstein (co-primary)  
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# ANDREW KOSENKO

November 2017

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co-chair: (spring) Navin Kartik, nk2339@columbia.edu, (212-854-3926)  
Jennifer La'O, jl4196@columbia.edu, (212-854-0475)

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

## Education

2018 (expected)	Ph.D.	Economics	Columbia University
2015	M.Phil.	Economics	Columbia University
2014	M.A.	Economics	Columbia University
2010	M.A.	Quant. Methods in Soc. Sci.	Columbia University
2008	B.A.	Economics	New York University
2008	B.A.	European Studies	New York University

## Fields of Specialization

Economic theory, experimental economics, political economy, information economics.

## Job Market Paper

“Bayesian Persuasion with Private Information” (2017)

*Abstract:* We study a model of communication and Bayesian persuasion between a sender who is privately informed and has state independent preferences, and a receiver who has preferences that depend on the unknown state. In a model with two states of the world, over the interesting range of parameters, the equilibria can be pooling or separating, but a particular novel refinement forces the pooling to be on the most informative information structure in all but one case. We also study two extensions - a model with more information structures as well as a model where the state of the world is non-dichotomous, and show that analogous results emerge.

## Working Papers and Work in Progress

“Mediated Persuasion” (2017)

*Abstract:* We study a game of strategic information design between a sender, who chooses state-dependent information structures, a mediator who can then garble the signals generated from these structures and a receiver who takes an action after observing the signal generated by the first two players. We characterize sufficient conditions for information revelation, and provide comparative statics with regard to the mediator's preferences, the number of mediators, and different informational arrangements.

“Equilibrium in a Competitive Insurance Market under Adverse Selection with Endogenous Information”  
(with Joseph E. Stiglitz and Jungyoll Yun, submitted, 2017) NBER Working Paper No. 23556

*Abstract:* This paper investigates the existence and nature of equilibrium in a competitive insurance market under adverse selection with endogenously determined information structures. Rothschild-Stiglitz (RS) characterized the self-selection equilibrium under the assumption of exclusivity, enforcement of which required full information about contracts purchased. By contrast, the Akerlof price equilibrium described a situation where the insurance firm has no information about sales to a particular individual. We show that with more plausible information assumptions - no insurance firm has full information but at least knows how much he has sold to any particular individual - neither the RS quantity constrained equilibrium nor the Akerlof price equilibrium are sustainable.

But when the information structure itself is *endogenous* - firms and consumers decide what information about insurance purchases to reveal to whom - there *always* exists a Nash equilibrium. The equilibrium set of insurance contracts is unique: the low risk individual obtains insurance corresponding to the pooling contract most preferred by him; the high risk individual, that plus (undisclosed) supplemental insurance at his own actuarial odds resulting in his being fully insured. Equilibrium information revelation strategies of firms entail some but not complete information sharing. However, in equilibrium all individuals are induced to tell the truth.

“A Novel Refinement for Signaling Games” (in progress)

### Honors and Awards

2017-2018	Dissertation Fellowship, Columbia University
2012-2017	Dean’s Fellowship, Columbia University.
2010-2011	Graduate Fellowship, University of California, San Diego.
2005	Study Abroad Scholarship, New York University.
2004-2008	Maurice Feinberg Memorial Scholarship, New York University

### Research Experience (RF is full time, RA is part time)

Summer '16, Fall '16,	RF for professor Joseph E. Stiglitz (Columbia economics/business school)
Summer '17, Spring '17	
Spring 2014	RF for professor Alessandra Casella (Columbia economics)
2011-2012	RF for professor Mark Orr (Columbia epidemiology)
2017	RA for professor Allison Carnegie (Columbia political science)
2010	RA for professor Shigeo Hirano (Columbia political science)
2008-2009	RA for professor Bradley Abrams (Columbia history)

### Teaching Experience (TA)

Summer 2016, Summer 2017	Globalization & Markets & the Changing Economic Landscape. Profs. Bruce Greenwald and Joseph Stiglitz (Columbia EMBA course)
Spring 2016	Perspectives on Economic Studies (first year PhD required course). Prof. Joseph Stiglitz (Columbia)
Fall 2015	Financial Crises. Prof. Jose Scheinkman (Columbia)
Summer 2015	Principles of Economics. Inst. Evan Plous (Columbia)
Spring 2015	Historical Foundations of Modern Economics. Prof. Andre Burgstaller (Barnard College)
Fall 2014	Financial Crises. Prof. Jose Scheinkman (Columbia)
Summer 2014	Principles of Economics. Inst. Xing Xia (Columbia)
Fall 2013	Financial Crises. Prof. Jose Scheinkman (Columbia)
Fall 2010	Economics of Immigration. Prof. David Bernotas (UCSD)
Winter, Spring 2011	Principles of Macroeconomics. Prof. Valerie Ramey, Inst. Laura Gee (UCSD)
Fall 2009	Introduction to Economic Reasoning. Prof. David Weiman (Barnard College)

### Professional Experience

Summer 2008	Intern, Economics, Energy and Business Bureau, U.S. Department of State.
Fall '15, Spring '16, Fall '16, Spring '17	Graduate student advisor to undergraduate students majoring or interested in economics.

### Personal

Citizenship: USA  
 Fluent in English, Ukrainian and Russian, intermediate French and basic German.  
 Matlab, Mathematica, R, Stata, LaTeX.

## References

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Kelvin J. Lancaster Professor of Economic Theory  
Department of Economics  
Columbia University  
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yc2271@columbia.edu

**Joseph E. Stiglitz**  
University Professor  
Department of Economics, SIPA & GSB  
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Edwin W. Rickert Professor of Economics  
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# NANDITA KRISHNASWAMY

November 2017

## ACADEMIC INSTITUTION

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## PLACEMENT COMMITTEE

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Navin Kartik, [nk2339@columbia.edu](mailto:nk2339@columbia.edu), (212) 854-3926 (Spring)

**Placement Co-ordinator:** Amy E. Devine, [aed2152@columbia.edu](mailto:aed2152@columbia.edu), (212) 854-6881

## EDUCATION

PhD, Economics, Columbia University, 2018 (expected)  
M. Phil, Economics, Columbia University, 2015  
M.A., Economics, Columbia University, 2014  
B.A. *summa cum laude*, Economics and Mathematics, Wellesley College, 2012

## FIELDS OF SPECIALIZATION

Development Economics, Labor Economics, Industrial Organization

## WORKING PAPERS

### **[“At What Price? Price Supports, Agricultural Productivity, and Misallocation”](#) (Job Market Paper)**

*Abstract:* Agricultural price support policies are a popular way to alleviate the risk inherent in volatile prices, but, at the same time, may distort input allocation responses to agricultural productivity shocks across multiple sectors. This could reduce productivity in the agricultural sector in developing countries. I empirically test for misallocation in the Indian agricultural setting, with national price supports for rice and wheat. I first motivate the setting using a two-sector, two-factor general equilibrium model and derive comparative statics. I then use annual variation in the level of the national price supports for rice and wheat relative to market prices, together with exogenous changes in district-level agricultural productivity through weather shocks, in a differences-in-differences framework. I derive causal effects of the price supports on production patterns, labor allocation, wages, and output across sectors. I find that rice area cultivated, rice area as a share of total area planted, rice yields, and rice production all increase, suggesting an increase in input intensity (inputs per unit area) dedicated to both staple crops. Wheat shows a similar increase in input intensity. The key input response is a reallocation of contract labor from the non-agricultural sector during peak cultivation periods, which results in an increase in wages in equilibrium in the non-agricultural sector (especially in response to price supports for the labor-intensive crop, rice, of 23%). The reallocation of labor reduces agricultural productivity by 82% of a standard deviation, and simultaneously reduces gross output in non-agricultural firms by 2.6% of a standard deviation. I also find that rice- and wheat-producing households do not smooth consumption more effectively in response to productivity shocks in the presence of price supports.

### **[“A Supply Side Rationale for Wage Floors: Evidence on Worker Collusion”](#) (with Emily Breza and Supreet Kaur)**

*Abstract:* While the presence of wage floors in village labor markets has been long discussed in the development literature, potential micro-foundations have remained elusive. We posit that collusive pressure among workers dampens individual labor supply below the prevailing wage. We design a field experiment to test whether some workers find it privately optimal to take up jobs at wages lower than the prevailing wage, but do not do so because this would result in sanctions from co-villagers. In 185 Indian villages, we partner with local landowners, who offer employment to randomly-selected workers during the agricultural lean season. The job offers vary, at the village-level, both the wage rate (the prevailing wage, or 10% below the prevailing wage) and the observability of the offers (in public on the street where co-workers can observe the wage offer, or in private within the worker's home). The observability level has no impact on take-up of jobs at the prevailing wage, with about 23% of workers accepting such jobs. In contrast, observability plays a drastic role in affecting job take-up at wage cuts: take-up of work below the prevailing wage falls from 18% in private to 4% in public. The effects are stronger for workers whose main occupation is agricultural labor—with virtually zero take-up of wage cuts in public. In surveys, the majority of laborers state that accepting wage cuts will lead to anger and sanctions from other workers in the village. To our knowledge, this provides the first piece of positive evidence for any micro-foundation for wage rigidity in village labor markets.

**[“End Heuristics in Retrospective Voting: Evidence From a Conditional Cash Transfer Experiment”](#)** (with Sebastian Galiani, Nadya Hajj, Pablo Ibararán, and Patrick J. McEwan), *Submitted*

*Additional coverage:* **[“Electoral Reciprocity in Programmatic Redistribution: Experimental Evidence”](#)**, VoxEU Post, 10/22/2016

*Abstract:* A Honduran field experiment allocated cash transfers that varied in their amount and timing. Voters were not indifferent to timing. Two groups of villages received similar cumulative payments per registered voter, but one received larger “catch-up” payments closer to election day. The latter treatment had larger effects on voter turnout and incumbent party vote share in the 2013 presidential elections. The results are consistent with lab experiments showing that individuals err in their retrospective evaluations of payment sequences. In Honduras, voters apparently used the amount of the final payment as an end heuristic for the sum of all payments received.

## **SELECTED RESEARCH IN PROGRESS**

**“Does Wage Compression Exacerbate Earnings Inequality?”** (with Emily Breza and Supreet Kaur), *In the field*.

**“Economic Opportunity and Motivation for Crime: Theft From Oil Pipelines in Nigeria”**

*Abstract:* Nigeria is Africa's largest (and the world's thirteenth-largest) producer of oil. At the same time, the country loses at least 4% of daily production (and likely even more) to theft, largely spearheaded by militia groups. These groups recruit local youth for help with stealing oil efficiently. In this paper, I show that access to crime (proxied by households' geographic proximity to pipelines) is used as a mechanism to hedge against agricultural risk. Using data on oil spills (since precise data on theft alone is not available), and a detailed map of oil pipelines in the country that I digitized, I find an increase of 0.66 spills per month (0.13 when restricted to large spills of over 1000 barrels – suggestive of militia activity) when percentage losses in anticipated agricultural yields are above 50% for households within 15km of pipelines. Non-food expenditures are the hardest hit in times of shock to agricultural output, for an average impact of about 28K Naira. I find that households close to pipelines do not face decreases in non-food expenditure when they face agricultural shocks (in fact, they make up for this shortfall by almost 200% (about half of median non-food expenditure in the sample)). Future work on this topic will ask whether access to crime can have a long-lasting effect on the educational outcomes of at-risk youth.

## **ADDITIONAL RESEARCH EXPERIENCE**

Research Fellow for Professor Supreet Kaur, Economics Department, Columbia University (Fall 2014- Spring 2016)

Short-Term Consultant, Development Research Group, World Bank (June 2013 – August 2013)

## **TEACHING EXPERIENCE**

Teaching Fellow, Economics Department, Columbia University (Fall 2013 – Present)

*Game Theory (Undergraduate), Principles of Economics (Undergraduate, includes both Micro and Macroeconomics)*

Instructor, Introductory Intensive Math Course for Quantitative Methods in the Social Sciences Masters Program, Columbia University (Fall 2016 – Present)

Innovative Teaching Summer Institute, Columbia University (June 2016)

Teaching Assistant, Economics Department, Wellesley College (Fall 2011- Spring 2012)

## **FELLOWSHIPS & FUNDING**

Dissertation Fellowship, Graduate School of Arts and Sciences, Columbia University (Spring 2017 – Present)

Dean's Fellow, Graduate School of Arts and Sciences, Columbia University (Fall 2012 – Present)

Fellow, Center for Development Economics and Policy, Columbia University, (Fall 2017-Present)

Center for Development Economics and Policy Research Grant (Summer 2017)

Caswell L. Johnson Fellow, Columbia University (Fall 2015- Spring 2016)

*Nominated by the economics department for this institution-wide fellowship based on dissertation research proposal.*

Alice Freeman Palmer Graduate Fellow, Wellesley College (2012) (Declined)  
*Graduate fellowship amounting to \$35,000 for the first year of graduate study.*

## **HONORS**

Wueller Award for Excellence in Teaching, Department of Economics, Columbia University (August 2013- May 2014, August 2016- May 2017)

## **CONFERENCE/SEMINAR PRESENTATIONS**

**2017:** Columbia University [Development Colloquium, Applied Microeconomic Methods Colloquium, Applied Microeconomic Theory Colloquium], Liberal Arts College Development Conference 2017 (discussant), Wellesley College

**2012-2016:** Columbia University [Development Colloquium]

## **PERSONAL**

**Languages:** English (Native), Tamil (Native), Spanish (Fluent), Hindi (Basic)

## **REFERENCES**

Eric A. Verhoogen  
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# Seunghoon Na

December 18, 2017

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Navin Kartik (spring), nk2339@columbia.edu

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

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## Education:

2018 (expected)	Ph.D.	Economics	Columbia University
2015	M.Phil.	Economics	Columbia University
2012	M.A.	Economics	Seoul National University
2010	B.A.	Economics (summa cum laude)	Seoul National University

**Fields of Specialization:** Open Economy Macroeconomics, Monetary Economics, Finance.

**Research Interests:** Business cycles, monetary and fiscal policies, financial crises, currency markets, inequality.

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## Job Market Paper:

- **A Theory of the Tošovský Dilemma.**

When an emerging economy experiences a boom associated with capital inflows and exchange rate appreciation, it is not appealing to tighten monetary policy to counteract inflationary pressures as this might further exacerbate inflows and appreciation, a problem known as the Tošovský Dilemma. This paper develops an intertemporal general equilibrium framework of the monetary transmission mechanism to investigate how this dilemma shapes optimal monetary policy. In the model, financing is decentralized and collateralized by physical capital, which is nontradable and costly to adjust over time. The Dilemma materializes when there is a positive external shock that increases capital inflows and generates real exchange rate appreciation and inflation in the nontradable sector, all of which are inefficient. Contrary to conventional wisdom, the Ramsey optimal monetary policy calls for lowering the policy rate in such circumstances in order to suppress capital inflows and appreciation, while accepting inflation in the nontradable sector. If external debt is denominated in local currency or capital flows can be controlled by an additional policy instrument, then optimal monetary policy becomes countercyclical, as in the conventional framework without the Dilemma.

## Publication:

- **The Twin Ds: Optimal Default and Devaluation** (with Stephanie Schmitt-Grohé, Martín Uribe, and Vivian Yue), forthcoming, *American Economic Review*.

A salient characteristic of sovereign defaults is that they are typically accompanied by large devaluations. This paper presents new evidence of this empirical regularity known as the Twin Ds and proposes a model that rationalizes it as an optimal policy outcome. The model combines limited enforcement of debt contracts and downward nominal wage rigidity. Under optimal policy, default is shown to occur during contractions. The role of default is to free up resources for domestic absorption, and the role of exchange-rate devaluation is to lower the real value of wages, thereby reducing involuntary unemployment.

## Working Papers:

- **The Labor Share Fluctuation.**

Recent empirical studies show that labor shares are rarely stable and are instead volatile and have heterogeneous cyclicity across countries, facts not readily explained by existing standard models. This paper looks to fill this gap by providing a comprehensive view to better understand the cyclical patterns of labor share fluctuations. The model is a dynamic stochastic general equilibrium, small open economy, composed of tradable and nontradable sectors with CES production functions. In the model, there are two margins of labor share fluctuations over the business cycle: i) fluctuations of the capital-labor ratio in each sector and ii) fluctuations in the relative value of sectoral production. The estimated models show a countercyclical labor share and volatility near that of output in Canada, and procyclical and an excessively volatile labor share in Mexico, in line with the data.

- **Business Cycles and Labor Income Shares in Emerging Economies.**
- **Business Cycles through Firm Dynamics in Small Open Economies** (with Munseob Lee).
- **Monetary Policy under Bounded Rationality** (with Jae-Young Kim).

## Research in Progress:

- **Inequality-Driven Business Cycles** (with John Donaldson).

## Honors and Awards:

Fall 2017	Dissertation Fellowship, Columbia University.
May 2015	Vickrey Prize (runner-up) for Best Paper by 3rd year Ph.D. student, Economics Department, Columbia University.
2013-2017	Economics Department Fellowship, Columbia University.
2012	Excellent Master's Thesis, College of Social Science, Seoul National University.

**Conference Presentations:**

- 2017: Econometric Society 2017 Asian Meeting, Hong Kong.
- 2015: Econometric Society 2015 World Congress, Montréal, Canada;  
Econcon 2015, University of Pennsylvania.

**Research Experience:**

- Summer 2016-present Research Assistant for Professor José A. Scheinkman  
(Columbia University)
- Summer 2016-present Research Assistant for Professor John Donaldson  
(Columbia Business School).
- September 2014-present Research Assistant for Professors Stephanie Schmitt-Grohé  
and Martín Uribe (Columbia University).

**Teaching Experience:**

- Spring 2017 Teaching Assistant for Behavioral Finance (undergraduate),  
Professor Harrison Hong, Columbia University.
- Spring 2016 Teaching Assistant for Macroeconomic Analysis II (Ph.D. core),  
Professors Michael Woodford and Martín Uribe, Columbia University.
- Fall 2015 Teaching Assistant for Financial Crises (undergraduate),  
Professor José A. Scheinkman, Columbia University.
- Fall 2013 Teaching Assistant for Intermediate Macroeconomics (undergraduate),  
Professor Xavier Sala-i-Martin, Columbia University.

**Additional Skills:**

Languages: Korean (native), English (fluent), Japanese (basic).

Software: MATLAB, Fortran, Python, Parallel computing, R, STATA.

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**References:****Stephanie Schmitt-Grohé**

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# NATE NELIGH

Fall 2017

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

## Education:

2018 (expected)      Ph.D. Economics      Columbia University

## Fields of Specialization:

*Primary Fields:* Behavioral, Experimental, Microeconomic Theory

*Secondary Fields:* Complexity, Industrial Organization

## Job Market Paper:

“Vying for Dominance: An Experiment in Dynamic Network Formation” Presented NYU-Columbia-Warton Graduate Student Conference on Experimental Economics October 2017

**Abstract:** Centrality in a network is highly valuable. This paper investigates the idea that the timing of entry into the network is a crucial determinant of a node's final centrality. We propose a model of strategic network growth which makes novel predictions about the forward-looking behaviors of players. In particular, the model predicts that agents entering the network at specific times will "vie for dominance"; that is, they will make more connections than is myopically optimal in hopes of receiving additional connections from future players and thereby becoming dominant. The occurrence of these opportunities varies non-monotonically with the parameters of the game. In a laboratory experiment, we find that players do exhibit “vying for dominance” behavior, but do not always do so at the predicted critical times. We find that a model of heterogeneous risk aversion best fits the observed deviations from initial predictions. Timing determines whether players have the opportunity to become dominant, but individual characteristics determine whether players exploit that opportunity.

## Accompanying Technical Paper:

“The Theory of Vying for Dominance in Dynamic Network Formation” Presented NYU-Columbia-Warton Graduate Student Conference on Experimental Economics October 2017

**Abstract:** Previous literature on network formation has largely avoided many inherently dynamic features including history dependence, growing networks and forward looking strategic agents. As a result, the outcomes of most network formation games depend only on static features of the network. In this paper, we present a new model of network formation in which the forward looking strategic behaviors of agents play a considerable role. In particular, this model predicts a behavior called “vying for dominance” in which players make a larger number of connections than is myopically beneficial in order to receive more connections from future players. The game is generally difficult to solve for large networks, but under some restrictions we find that play should be characterized by individuals vying for dominance separated by periods of myopic play. These periods of myopic play grow exponentially as the game progresses, because vying for dominance becomes more expensive, and more connections are therefore needed to make it profitable.

**Developed Working Papers:**

“Experimental Tests of Rational Inattention” with Mark Dean (Submitted), Presented Information Frictions Workshop – Barcelona Summer Forum 2017; Society for Neuroeconomics Satellite Meeting, Zurich 2016; Society for Neuroeconomics Annual Conference, Munich 2016; and others

“Estimating Information Cost Functions in Models of Rational Inattention” with Ambuj Dewan, Presented NYU-Columbia-Warton Graduate Student Conference on Experimental Economics September 2016

**Working Papers:**

“Rational Attention with Perceptual Distances” (with Ambuj Dewan)

“Optimal Memory and Recall with a Lossy Medium”

“Propagation of Technological Advancement through Multiple Technology Levels”

**Honors and Awards:**

2017-2018, Dissertation Fellowship, Department of Economics, Columbia University

Spring 2016, CELSS Graduate Student Research Grant

Fall 2015, CELSS Graduate Student Research Grant (With Ambuj Dewan)

2014 – 2015, Institute for Humane Studies, Humane Studies Fellowship

Fall 2013, CELSS Graduate Student Research Grant

Fall 2017, CELSS Dissertation Fellowship

**Other Professional Experiences and Employment:**

Fall 2013 – Spring 2015, Columbia University, CELSS Lab Manager

Fall 2016 – Spring 2017, Columbia University, CELSS Lab Manager

Spring 2015 – Fall 2016, Research Assistant for Professor Francois Gerard

Summer 2014, Santa Fe Institute, Graduate Workshop in Computational Social Science Modeling and Complexity

**Teaching Experience:**

Fall 2015, Industrial Organization, Columbia University, Teaching Assistant for Professor Katherine Emily Ho

Spring 2016, Intermediate Microeconomics, Columbia University, Teaching Assistant for Professor Qingmin Liu

Fall 2014 – Spring 2017, Tutorial on zTree, Columbia University, Instructor once per semester

**Personal:**

**Software Skills:** zTree, R, Lyx, LaTeX, Matlab, Python, STATA, Microsoft Office

**References:**

Professor Alessandra Casella 1030 International Affairs

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Professor Mark Dean 1031 International Affairs

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Professor Pietro Ortoleva 392A Julis Romo Rabinowitz

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

## Education

Ph.D. Economics, Columbia University, May 2018 (expected).

Principal Advisor: Kate Ho

M.Phil. Economics, Columbia University, 2015.

M.A. Economics, Columbia University, 2014.

B.S. Economics and Mathematics (*Summa Cum Laude*), George Washington University, 2012.

## Research Interests

Industrial Organization; Health Economics; Public Economics; Development Economics; Econometrics.

## Working Papers

1. (*Job market paper*) **Bundling to Reduce Adverse Selection: Application to Social Health Insurance.**

Abstract: This paper explores the use of bundling to reduce adverse selection in insurance markets and its application to social health insurance programs. When the choice to buy health insurance is made at the household level, bundling the insurance policies of household members eliminates the effect of adverse selection *within* a household since the household can no longer select only sick members to enroll. However, this can exacerbate adverse selection *across* households, as healthier households might choose to drop out of the insurance market. The net effect of this trade-off depends on the characteristics of the household demand for medical care and risk preferences. I explore this issue using individual survey data on insurance enrollment and medical spending in Vietnam that contain detailed information about the structure of the household. The reduced-form evidence suggests that income, own-price and cross-member substitution effects play important roles in the demand for medical care, which affects a household's selection of members into insurance. I then develop and estimate a model of household insurance bundle choice and medical utilization that accounts for these features. The results suggest that much of the adverse selection is concentrated within the household. Counterfactual analysis reveals that under optimal pricing, household bundling yields significantly higher consumer surplus and insurance enrollment than individual purchase. Furthermore, the insurance market is less susceptible to complete unraveling under household bundling.

## 2. **Information Control in the Hold-up Problem**, with Teck Yong Tan. *Submitted*

Abstract: We study optimal information control in the hold-up problem with binary investment. A signal structure, which is publicly determined before investment, generates signals about the investment. We characterize the set of investment probability and social welfare that can be achieved in equilibrium, and the signal structure that implements them. The optimal signal structure is generically unique and takes a simple form which eliminates ex-post inefficiency arising from trade breakdown. Contrary to results suggested in the existing literature, there is *no* tradeoff between creating ex-ante investment incentive and eliminating ex-post inefficiency.

## Work in Progress

### 1. **Bundling in Competitive Markets with Adverse Selection.**

Abstract: Bundle discounts are ubiquitous in many product markets. However, preliminary analysis of the ACA health exchange shows that many insurers do not provide a bundle discount when a couple jointly purchase insurance. Such discounts are more often observed in states with lower average premium and fewer insurers. This does not resonate with the usual intuition of the bundling literature that firms almost always have an incentive to offer a bundle discount regardless of the degree of competition in the market. In this paper, I empirically show that adverse selection is the key reason why firms in some markets choose not to bundle. When a firm unilaterally offers a bundle discount, it risks attracting couples with worse health types from other firms. This adverse effect from bundle discounts is worsened when firms are more closely positioned in the product space. In the counterfactual exercise, I explore how a premium subsidy to reward couple purchase from the government could improve both consumer and producer surplus by mitigating adverse selection.

### 2. **Advantageous Selection in Moral Hazard.**

## Fellowships & Awards

Becker Friedman Institute Health Economics Fellow, 2017–2018.

GSAS Dissertation Fellowship, 2017–2018.

Wueller Teaching Award for best TA (runner-up), Columbia University, 2016.

GSAS Faculty Fellowship, Columbia University, 2012–2018.

Outstanding Academic Achievement Award, The George Washington University: 2010–2011.

University Award, The George Washington University, 2009–2011

## Teaching

Lecturer for Industrial Organization (Summer 16).

Teaching Assistant: Industrial Organization (Spring 15, Spring 16, Fall 16 & Spring 17).  
Principles of Economics (Fall 15).  
American Economy (Fall 14).  
Econometrics of Time Series (Spring 14).  
Introduction to Econometrics (Fall 13).

## Work Experience

Associate, DRT Strategies (02/2012 - 07/2012).

## Miscellaneous

*Citizenship:* Vietnamese.

*Languages:* English (Fluent), Vietnamese (Native).

*Computer Skills:* C++, Matlab, Python, R, SQL, Stata.

## References

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# DANIEL RAPPOPORT

October 2017

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## Education:

2018 (expected)	Ph.D. Economics	Columbia University
2014	M.Phil Economics	Columbia University
2012	B.S. (both with Honors) Mathematics and Economics <i>Summa Cum Laude</i>	George Washington University

## Honors and Awards:

2017, Dissertation Fellowship, Department of Economics, Columbia University  
2015, Vickrey Prize For the best third year paper, Department of Economics, Columbia University  
2012-17, Deans Fellowship, Department of Economics, Columbia University  
2011, Ruggles Prize for an outstanding undergraduate, Department of Mathematics, George Washington University

## Fields of Specialization:

Microeconomic Theory, Information Economics, Comparative Statics

## Job Market Paper:

*“Evidence and Skepticism in Verifiable Disclosure Games”*

Abstract: A key feature of communication with evidence is *skepticism*: to the extent possible, a receiver will attribute any incomplete disclosure to the sender concealing unfavorable evidence. The degree of skepticism depends on how much evidence the sender is expected to possess. I characterize when a change in the prior distribution of evidence induces *more skepticism*, i.e. induces any receiver to take an equilibrium action that is less favorable to the sender following every message. I formalize an increase in the sender's (ex-ante) amount of evidence and show that this is equivalent to inducing more skepticism. My analysis provides a method to solve general verifiable disclosure games, including an expression for equilibrium actions. I apply my

results to a dynamic disclosure problem in which the sender obtains and discloses evidence over time. I identify the necessary and sufficient condition on the evidence structure such that the receiver can benefit from early disclosures. If this condition does not hold then early disclosures induce more skepticism in the receiver, and therefore violate incentive compatibility.

### **Working Papers:**

“*Single-Crossing Differences on Distributions*”, with Navin Kartik and SangMok Lee,  
Revise and Resubmit at *Econometrica*

Abstract: We characterize when choices among lotteries over arbitrary allocations are monotonic in an expected-utility agent’s type. Our necessary and sufficient condition is on the von Neumann-Morgenstern utility function; we identify an order over lotteries that generates the choice monotonicity when the condition holds. We discuss applications to cheap-talk games, costly signaling games, and collective choice problems. Our characterization requires some new results on monotone comparative statics and aggregating single-crossing functions, a by-product of which is a characterization of the monotone likelihood ratio property.

“*Incentivizing Information Design*”, with Valentin Somma,

Abstract: We study a principal who hires an agent to acquire costly information. While the realized piece of information is observable and contractible, the experimental process is not. Assuming a general family of information cost functions (inclusive of Shannon’s mutual information), we show that the first best is achievable when the agent has limited liability or when he is risk averse, in contrast to standard moral hazard models. However, when the agent is both risk averse and has limited liability, efficiency losses arise generically. Specifically, we show that the principal obtains his first best outcome if and only if he intends to implement a "symmetric" experiment, i.e. one in which the cost of generating each piece of evidence is the same. On the other hand, "asymmetric" experiments that are uninformative with high probability but occasionally produce conclusive evidence will bear large agency costs.

“*Humility in Experts*”, winner of the Vickrey Prize for best third year paper

Abstract: I explore whether career concerned experts can admit that they are uncertain. The model has a binary state, and a continuum of signals, where intermediate signals provide both experts and non-experts with little information about the state. I introduce a condition on signal structures, *humility*, that characterizes when all equilibria only involve directional reporting: experts can at most communicate a prediction of the likely state. Humility is defined in terms of the interim expertise: the update on expertise after observing in the signal but not the state. A signal structure is humble if interim expertise decreases when the certainty of a signal decreases. If the signal structure is not humble, then there will exist a value for reputation such that uncertainty is revealed.

### **Research Assistantships:**

2015-16: Navin Kartik, Department of Economics, Columbia University

2014-15: Amit Khandelwal, Columbia Business School

2014-15: Andrea Prat, Department of Economics and Columbia Business School

**Teaching Assistantships:**

2015-16: Game Theory, Qingmin Liu (two semesters)  
2015: EMBA Managerial Economics (one semester)  
2014: Political Economy, Alessandra Cassella (one semester)  
2013-14: Principles of Economics, Cattarina Musatti (two semesters)

**Invited Seminars and Conference Presentations:**

2017: Microeconomics Student Lunch (NYU), Microeconomics Reading Group (Yale), Chicago-Minnesota Theory Conference (U of Chicago), North American Econometrics Society Summer Meetings (Washington University in St. Louis), Stonybrook Economic Theory Conference (Stonybrook University), Junior Accounting Theory Conference (UCSD)  
2016: Northwestern-Columbia-Duke-MIT IO Theory Conference, Rising Scholars Session (NWU)  
2015: Econcon (UPenn)

**Refereeing:**

Rand Journal of Economics  
Mathematical Social Sciences  
Games and Economic Behavior

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**Placement Committee Members:** Jennifer La'O, [jl4196@columbia.edu](mailto:jl4196@columbia.edu)

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

## Education

2018 (expected)	Ph.D., Economics	Columbia University
2015	M.Phil., Economics	Columbia University
2014	M.A., Economics	Columbia University
2012	B.S., Mathematics, <i>Summa Cum Laude</i>	Auburn University
2012	B.S., Economics, <i>Summa Cum Laude</i>	Auburn University

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Tobias Salz  
Assistant Professor  
Department of Economics  
Columbia University  
(917) 855-0313  
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## Fields of Specialization

Applied Microeconomics, Public Economics, Industrial Organization

## Research

### *Job Market Paper*

"License Quotas and the Inefficient Regulation of Sin Goods: Evidence from the Washington Recreational Marijuana Market" (2017)

This paper studies the welfare impacts of license quotas in markets for "sin goods." License quotas not only affect market structure and reduce total sales, their implementation also creates allocative costs. Retail licenses are often restricted by geography, meaning licenses are not necessarily allotted to areas where they are most valuable. Furthermore, licenses may be distributed to firms randomly; hence, the most profitable potential entrants are not necessarily license recipients. A difficulty in studying license quotas is finding credible counterfactuals of unrestricted entry. Therefore, I first develop a three stage model that endogenizes firm entry decisions and incorporates spatial demand. I then estimate the model using a new firm-level data set from the Washington recreational marijuana market and use data on

the participants in a marijuana retail license lottery to simulate counterfactual entry patterns. I find that allowing firms to enter freely at Washington's current marijuana tax rate increases total surplus by 21% relative to a baseline simulation of Washington's license quota regime. Geographic misallocation and random allocation of licenses account for 6.6% and 65.9% of this difference, respectively. Moreover, I study tax policies that directly control for the marginal damages of marijuana consumption. Free entry with tax rates that keep the quantity of marijuana or THC consumed equal to baseline consumption increases welfare by 6.9% and 11.7%, respectively. While free entry with a non-uniform sales tax consistent with Washington's geographic license restrictions increases efficiency by over 6%.

### *Working Papers*

"Hits from the Bong: The Impact of Recreational Marijuana Dispensaries on Property Values" (2017) with Lin Tian

This paper studies the impact of local disamenities on property values, by focusing on the legalization of recreational marijuana dispensaries in Washington State. Policymakers have long expressed concerns that the positive effects of the legalization—e.g., increases in tax revenue—are well spread spatially, but the negative effects are highly localized. We use changes in property values to measure individuals' willingness to pay to avoid the local negative externalities caused by the arrival of marijuana dispensaries. Our key identification strategy is to compare changes in housing sales around winners and losers in a lottery for recreational marijuana retail licenses; due to location restrictions, license applicants were required to provide an address of where they would like to locate. Hence, we have the locations of both actual entrants and potential entrants, which provide a natural difference-in-differences set-up. Based on our preliminary analysis using data from King County, Washington, we find a 1.7% decrease in the value of properties within a 0.5 mile radius of an entrant (or a \$6,700 decline in property values).

### Invited Presentations (Including Scheduled)

2018: Western Economic Association International Annual Conference (Vancouver)

### Honors and Awards

2017	Dissertation Fellowship	Columbia University
2016-2017	Alice Hanson Jones Fellowship for Economics and History	Columbia University
2015-2016	Alice Hanson Jones Fellowship for Economics and History	Columbia University
2015	Wueller Award for Best Graduate Teaching Assistant	Columbia University

### Research and Work Experience

Summer 2015-Spring 2016	R.A. to Peter Bergman	Teachers College, Columbia University
Spring 2015	R.A. to Francois Gerard	Columbia University
Summer 2013	Intern	U.S. Senate Committee on the Budget

## Teaching Experience

### *Teaching Assistantships*

Fall 2016, 2014, 2013; Spring 2015, 2014	Intermediate Microeconomics	Columbia University
Spring 2016	Public Economics	Columbia University
Fall 2015, Spring 2014	Principles of Economics	Columbia University
Summer 2014	Law and Economics	Columbia University

### *Additional*

Fall 2015	Math Tutor for M.A., Economics Program	Columbia University
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## Personal

Citizenship: United States of America

Last updated: December 17, 2017

# Lin Tian

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Columbia University  
New York, NY 10027

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<http://www.columbia.edu/~lt2475>

## Placement Committee

Placement Chairs: Martin Uribe, [mu2166@columbia.edu](mailto:mu2166@columbia.edu); (Fall) Pierre-Andre Chiappori, [pc2167@columbia.edu](mailto:pc2167@columbia.edu); (Spring) Navin Kartik, [nk2339@columbia.edu](mailto:nk2339@columbia.edu)  
Placement Assistant: Amy Devine, [aed2152@columbia.edu](mailto:aed2152@columbia.edu), (212) 854-6881

## Education

Columbia University, New York, NY

Ph.D. in Economics	2018 (Expected)
M.Phil. in Economics	2015
M.A. in Economics	2014

Carnegie Mellon University, Pittsburgh, PA

M.Sc. in Statistics	2006
B.Sc. in Economics, <i>summa cum laude</i> equivalent (Additional major in Statistics)	2006

## Fields of Specialization

Primary: International Trade, Economic Geography  
Secondary: Urban Economics, Public Economics

## Job Market Paper

“Division of Labor and Extent of Market: Theory and Evidence from Brazil”

*Firms are more productive in larger cities. This paper investigates a potential explanation that was first proposed by Adam Smith: Larger cities facilitate greater division of labor within firms. Using a dataset of Brazilian firms, I first document that division of labor is indeed robustly correlated with city size, controlling for firm size. I propose a theoretical model in which this relationship is generated by both a selection effect—firms endogenously sort across space—and a treatment effect—larger cities increase division of labor for all firms, by reducing the costs associated with greater division of labor. The model embeds a theory of firms' choice of the optimal division of labor in a spatial equilibrium model. Structural estimates derived from the model show that division of labor accounts for 16% of productivity advantage of larger cities in Brazil, half of which is due to firm sorting and the other half to the treatment effect of city size. The theory also generates a set of auxiliary predictions of firms' responses to a reduction in the cost of division of labor. Exploiting a quasi-experiment that changes the cost of division of labor within cities—the gradual roll-out of broadband internet infrastructure—I find causal empirical support for these predictions, which helps to validate the model. Finally, the quasi-experiment also provides validation for the structural estimation. The estimated model predicts changes in the average division of labor within different cities in response to the new broadband internet infrastructure, which I find are similar to the actual changes.*

## Working Papers

“Tradability and the Labor-Market Impact of Immigration: Theory and Evidence from the U.S.”, with Ariel Burstein, Gordon Hanson, and Jonathan Vogel

*In this paper, we show that labor-market adjustment to immigration differs across tradable and nontradable occupations. Theoretically, we derive a simple condition under which the arrival of foreign-born labor crowds native-born workers out of (or into) immigrant-intensive jobs, thus lowering (or raising) relative wages in these occupations, and explain why this process differs within tradable versus within nontradable activities. Using data for U.S. commuting zones over the period 1980 to 2012, we find that consistent with our theory a local influx of immigrants crowds out employment of native-born workers in more relative to less immigrant-intensive nontradable jobs, but has no such effect within tradable occupations. Further analysis of occupation labor payments is consistent with adjustment to immigration within tradables occurring more through changes in output (versus changes in prices) when compared to adjustment within non-tradables, thus confirming our model's theoretical mechanism. Our empirical results are robust to alternative specifications, including using industry rather than occupation variation. We then build on these insights to construct a quantitative framework to evaluate the consequences of counterfactual changes in U.S. immigration.*

*“Domestic Offshoring in a Knowledge Economy”, with Yang Jiao*

*During past decades, substantial skill and occupation relocation took place across U.S. cities: Big cities attract more skilled workers and become more specialized in cognitive-intensive occupations. Motivated by empirical literature on the association between information and communications technology (ICT) adoption and production fragmentation, we develop a spatial equilibrium model with domestic production fragmentation to analyze the impact of a reduction in the costs of cross-city production teams—e.g., communications cost—on spatial distribution of skills and economic activities. The model generates predictions consistent with the observed empirical patterns, including more spatial segregation of skilled and unskilled workers, and occupation specialization across U.S. cities over time. In contrast to findings in the international offshoring literature, in which there are winners and losers, we find Pareto welfare gains for all agents with heterogeneous talents, together with a substantial measured labor productivity increase at the aggregate level.*

*“Big Bills on Uganda's Sidewalks? Value-added and Trade Taxes under Limited State and Taxpayer Capacity”, with Miguel Almunia, Jonas Hjort and Justine Knebelmann*

*Low-income countries (LIC) raise most of their tax revenue using two tax instruments: the value-added tax (VAT) and trade taxes (tariffs). Of these, only tariffs are predicted to distort production, but a given taxpayer's reported liability can be compared against a third party's report—which is thought to facilitate enforcement—under both the VAT and tariffs. For this reason, economists generally encourage VATs but discourage tariffs. However, “third party reporting” facilitates enforcement only if the revenue authority has sufficient capacity to compare reports; firms expect the revenue authority to have such capacity; and firms have sufficient capacity to report correctly. We evaluate the actual performance of a VAT and tariffs in a LIC context, using five years of comprehensive transaction-level tax data provided by the Uganda Revenue Authority (URA). As in many LICs, VAT-registered firms in Uganda are required to report all their transactions with other firms—both domestic and foreign—in their monthly VAT returns, and to report foreign transactions at customs. We crosscheck the amounts reported by sellers and buyers, and find widespread discrepancies. Domestically, sellers on average report much lower values and many fewer transactions than buyers (for whom transactions generate a tax credit rather than a liability). Although buyers reporting less than sellers is also common—partly because taxpayers make mistakes, and partly because they strategically underreport both sales and purchases to “look small”—VAT misreporting leads to an annual loss of revenue of about USD 128million (4% of Uganda's annual tax revenue). In comparison, misreporting of imports appears limited, costing the URA at most about USD 23million per year in tariff revenue. We conclude that low state and taxpayer capacity may dramatically change the calculus when different forms of taxes are compared.*

## **Selected Work-In-Progress**

"Hits from the Bong: The Impact of Recreational Marijuana Dispensaries on Property Values", with Danna Thomas

*This paper studies the impact of local disamenities on property values, by focusing on the legalization of recreational marijuana dispensaries in Washington State. Policymakers have long expressed concerns that the positive effects of the legalization—e.g., increases in tax revenue—are well spread spatially, but the negative effects are highly localized. We use changes in property values to measure individuals' willingness to pay to avoid the local negative externalities caused by the arrival of marijuana dispensaries. Our key identification strategy is to compare changes in housing sales around winners and losers in a lottery for recreational marijuana retail licenses; due to location restrictions, license applicants were required to provide an address of where they would like to locate. Hence, we have the locations of both actual entrants and potential entrants, which provide a natural difference-in-differences set-up. Based on our preliminary analysis using data from King County, Washington, we find a 1.7% decrease in the value of properties within a 0.5-mile radius of an entrant (or a \$6,700 decline in property values).*

"Information, Fiscal Capacity and Tax Compliance: An Experimental Evaluation", (Ongoing RCT) with Miguel Almunia, Jonas Hjort and Justine Knebelmann

## **Report**

"An Analysis of Discrepancies in Tax Declarations Submitted Under Value-Added Tax in Uganda", with Miguel Almunia, Francois Gerard, Jonas Hjort, Justine Knebelmann, Dorothy Nakyambadde, and Claude Raisaro. International Growth Centre, Final Report S-43312-UGA-1, January 2017.

## **Research Assistantships**

Jonathan Vogel, Aug 2015 – Feb 2016; Francois Gerard, Sep 2013 – Aug 2015; Donald Davis, May 2013 – Aug 2013

## **Work Experience**

Urban Redevelopment Authority, Singapore Jul 2006 – Jun 2012  
Executive Planner Level II (terminal appointment)  
*Coordinated national economic, population and land use planning exercises. Developed models to predict and evaluate impacts of policy changes on economy, land use and real estate markets.*

## **Teaching Experience**

Instructor, International Trade, Columbia University, Spring 2018 (scheduled)

Teaching assistant, Columbia University

Economics of New York City, Fall 2013, Fall 2014, Spring 2016, Spring 2017

International Trade, Fall 2015, Fall 2016

Public Economics, Spring 2015

Intermediate Microeconomics, Spring 2014

Teaching assistant, Carnegie Mellon University

Experimental Design for Behavioral and Social Sciences, Spring 2006

Introduction to Probability and Statistics, Fall 2005

Principles of Economics, Spring 2004, Fall 2004

Introduction to Civil and Environmental Engineering, Fall 2003

Introductory & Intermediate Programming, Spring 2003

## Grants, Honors, and Awards

Dissertation Fellowship, <i>Columbia University</i>	2017–Present
Research Grant, <i>International Growth Center – IGC</i>	2016 & 2017
International Trade Colloquium Grant, <i>Columbia University</i>	2017
Applied Microeconomic Colloquium Grant, <i>Columbia University</i>	2014
Dean's Fellowship, <i>Columbia University</i>	2012–2016
Phi Beta Kappa	2006
Outstanding Academic Achievement Award, <i>Carnegie Mellon University</i> (Awarded to one graduating student per year)	2006
Overseas Merit Scholarship, <i>Urban Redevelopment Authority, Singapore</i>	2002–2006

## Skills

Programming: STATA, R, Python, Matlab, GIS, Ztree  
Languages: English (fluent), Chinese (fluent), Japanese (beginner)

## Personal

Citizenship: Singaporean  
Marathon runner: New York City Marathon (2016), Chicago Marathon (2015), Philadelphia Marathon (2014), Singapore Sundown Marathon (2012), Singapore Standard Chartered Marathon (2010)  
Scuba diver: PADI certified advanced and open water diver, SDI certified nitrox diver

## References

Donald Davis ( <i>co-primary</i> ) Ragnar Nurkse Professor of Economics Columbia University (212) 854-4037 <a href="mailto:drd28@columbia.edu">drd28@columbia.edu</a>	Jonathan Vogel ( <i>co-primary</i> ) Professor of Economics University of California, Los Angeles (310) 794-7278 <a href="mailto:jvogel@econ.ucla.edu">jvogel@econ.ucla.edu</a>
David Weinstein Carl S. Shoup Professor of the Japanese Economy Columbia University (212) 854-6880 <a href="mailto:dew35@columbia.edu">dew35@columbia.edu</a>	Jonas Hjort Assistant Professor Columbia University (212) 854-5957 <a href="mailto:hjort@columbia.edu">hjort@columbia.edu</a>

# Xingye Wu

November 2017

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

## Education:

2018 (expected)	Ph.D. in Economics	Columbia University
2014	M.A. in Economics	Columbia University
2012	B.A. in Economics	Tsinghua University

## Honors and Awards:

2017 - 2018	<b>Dissertation Fellowship</b> , Department of Economics, Columbia University
2017	<b>Presidential Teaching Award</b> , Columbia University
2017	<b>Wueller Teaching Award</b> , Department of Economics, Columbia University
2016	<b>Wueller Teaching Award</b> , Department of Economics, Columbia University
2013 - 2014	<b>Ralph Erdman Holben Fellowship</b> , Columbia University
2012 - 2017	<b>Dean's Fellowship</b> , Columbia University

## Research Interests:

Microeconomic Theory, Mechanism Design, Matching Theory

## Teaching Interests:

Microeconomics at any level, Math for economics students

## Job Market Paper:

### Core of Convex Matching Games: A Scarf's Lemma Approach

It is known that the core of a matching game is often empty when the market does not have a two-sided structure, when contracts are multilateral, or when agents have complementary preferences. In this paper, I use Scarf's lemma to show that given a convexity structure I introduce, the core of a matching game is always nonempty, even if the game has an arbitrary contracting network, multilateral contracts, and complementary preferences. I provide three applications to show how the convexity structure is satisfied in different contexts by different assumptions. In the first application, I show that in large economies, the convexity structure is satisfied if the set of participants of each contract is small compared to the whole economy. Remarkably, no restriction on agents' preferences is needed beyond continuity. The second application considers finite economies, and I show that the convexity structure is satisfied if all agents have convex, but not necessarily substitutable, preferences. The third application considers a large-firm, many-to-one matching market with peer preferences, and I show that the convexity structure is satisfied under convexity of preferences and a competition aversion restriction on workers' preferences over colleagues. Because of the convexity structure, all three applications have nonempty core.

## Work in Progress:

“Consistency Implication of Expected Utility Models”  
“Credible Bayesian Persuasion”  
“Dynamic Matching in Large Markets”  
“Generalized Taxation Principle”

## Teaching Experience:

Courses Taught as **Instructor** at Columbia University:

2016 Economics Ph.D. Math Camp  
2015 Economics M.A. Math Camp

Courses Taught as **TA** at Columbia University:

2016 Fall Ph.D. Microeconomics I, Qingmin Liu and Bernard Salanie  
2016 Spring M.A. Microeconomics II, Qingmin Liu and Christian Gollier  
2015 Fall M.A. Math Methods for Economists, Rajiv Sethi’s pilot online course  
2015 Spring Advanced Microeconomics, Susan Elmes  
2014 Fall Introduction to Econometrics, Seyhan Erden Arkonac  
2014 Spring Introduction to Econometrics, George Steven Olley  
2013 Fall Ph.D. Microeconomics I, Konrad Mierendorff and Pierre-Andre Chiappori

## Invited Seminars and Conference Presentations:

2017 Micro Student Lunch, New York University  
2016 Conference on Market Design and Micro Theory, Seoul National University

## References:

**Yeon-Koo Che** (advisor)  
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# Jing Zhou

Updated: Dec 1, 2017

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

## Education:

2018 (expected)	Ph.D.	Economics	Columbia University
2012	M.A.	Economics (sum cum laude)	Peking University
2009	B.A.	Economics and Mathematics (double major)	Wuhan University

**Fields of Specialization:** Macroeconomics, International Finance

## Job Market Paper: “Financial Crises, Debt Maturity, and Capital Controls”

Abstract: This paper studies debt portfolio choice and optimal capital control policy in an open economy with financial frictions. I construct a new measure of capital control changes and document two novel stylized facts during financial crises: (i) capital inflow controls are tightened, and (ii) short-term inflow controls are tightened more than long-term inflow controls. Motivated by these empirical findings, I extend the model of international borrowing with collateral constraint to allow for multiple debt maturities. As in the single-maturity version of the model, the equilibrium exhibits overborrowing because, due to a pecuniary externality, private agents undervalue the cost of financial liabilities that demand repayment in future constrained states. The key insight of the multiple-maturity model is that overborrowing in short-term debt is especially severe because the repayment of short-term liabilities is larger than that of long-term liabilities in future constrained states, resulting in greater cost undervaluation of short-term financial obligations. To counteract these inefficiencies, the model justifies a set of maturity-dependent capital controls. In line with the data, the model predicts a tightening of capital controls tilted toward short maturities during financial crises. When calibrated to Argentine data, the model reproduces the observed dynamics of debt portfolios, and the short-term targeting of capital controls during crises. The optimal capital-control policy reduces the frequency of crises by half and generates sizable welfare improvements.

## Working Papers:

1. “Real Exchange Rate and External Balances: How Important Are Price Deflators?”

(with JaeBin Ahn, Rui Mano, 2017)

Abstract: This paper contrasts real exchange rate (RER) measures based on different deflators (CPI, GDP deflator, and ULC) and discusses potential implications for the link - or lack thereof - between RER and external balance. We begin by documenting patterns in

the evolution of different measures of RERs, and confirm that the choice of deflator plays a significant role in RER movements. A subsequent empirical investigation based on 35 developed and emerging market economies over 1995 to 2014 yields comprehensive and robust evidence that only the RER deflated by ULC exhibits contemporaneous patterns consistent with the expenditure-switching mechanism. We rationalize the empirical findings by introducing a model featuring nominal rigidity and trade in intermediate goods as the one in Obstfeld (2001) and Devereux and Engel (2007), which is shown to generate qualitatively identical patterns to empirical findings.

2. “Extensive Margin Adjustment of Multi-product Firms and Stock Returns”

(with Carlos Carvalho, Gee Hee Hong, 2017)

Abstract: Product scope adjustment is a key mechanism through which multi-product firms achieve efficient resource allocation. In this paper, we take a novel perspective to study firms’ product scope adjustment behavior through the lens of asset pricing. Using a unique panel scanner data set containing detailed information on products, matched with the financial information of their manufacturers, we find that multi-product firms with higher product turnover have lower equity excess returns and lower asset return volatility. To understand this channel, we propose a stylized model incorporating product turnover rate to highlight the “risk absorption channel” of product scope adjustment.

**Work in progress:**

1. Capital Controls in Financial Crises: Inflow and Outflow
2. Governance Quality and the Capital Structure of A Nation (with Shang-Jin Wei)
3. Business Cycle Through the Lens of Extensive Margin Adjustment of Multi-product Firms (with Carlos Carvalho and Gee Hee Hong)

**Research and Work Experience:**

Summer 2017	CSWEP Dissertation Fellow, St. Louis Fed
Summer 2015	Ph.D. Research Intern, Fund Internship Program, Research Department, IMF
Since 2016	RA for Prof. Shang-Jin Wei, Columbia Business School
2015	RA (part-time) for Prof. Ricardo Reis, LSE
Summer 2013	RA for Prof. Mauricio Larrain, Columbia Business School
2011 - 12	RA, Institute of Social Science Survey (National Bureau of Statistics and Peking Univ.)
2011 - 12	RA (part-time), The People’s Bank of China

**Honors and Awards:**

2017 - 18	Dissertation Fellowship, Columbia University
2017	AEA Summer Fellowship
2013 - 17	Doctoral Fellowship, Columbia University
2014	Research Grant Award, Center for International Business Education Research, Columbia Univ.
2010	First honor Scholarship, Guanghua Scholarship, Peking University
2006 - 09	First honor Scholarship, Wuhan University
2005	Freshman Scholarship, Wuhan University

### **Conference and Seminar Presentations:**

- 2017 St. Louis Fed; U.S. International Trade Commission;  
CESifo Venice Summer Institute on “Exchange Rate Adjustments in the Euro Area”;  
AEA Annual Meeting (poster session)
- 2016 Midwest Macro (Kansas City Fed);  
Institute for Capacity Development, IMF; Research Department, IMF
- 2015 Open Economy Division, Research Department, IMF
- 2012 Workshop on Institutional Analysis, Ronald Coase Institute

### **Teaching Experience** (teaching assistant):

- 2017,16,14,13 Financial Economics, Columbia University
- Spring 2016 Money and Banking, Columbia University
- 2014 - 15 Corporate Finance, Columbia University
- 2014 Globalization, Markets & the Changing Economic Landscape (EMBA), Columbia University
- Spring 2012 Advanced Macroeconomics, Peking University
- 2007 - 09 Mathematical Analysis, Wuhan University

**Language:** English, Chinese

### **References:**

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