

October, 2019

To: RECRUITMENT COMMITTEE OR OFFICER

Re: Wisconsin Job Market Candidates for 2020 ECONOMICS Positions

Dear Colleagues:

I am enclosing a summary listing of our doctoral candidates who expect to receive their degree in 2020, and who seek positions that begin in the summer or fall of that year. Full vitae and additional information on each student are available from:

Becca George (on leave through Dec. 2019) Placement Administrator becca.george@wisc.edu 608-263-3879

Kim Grocholski (through Dec 2019) kim.grocholski@wisc.edu 608-262-3285 Professor Kenneth Hendricks Placement Director hendrick@ssc.wisc.edu 7450 Social Science Bldg. University of Wisconsin-Madison 1180 Observatory Drive Madison, Wisconsin 53706 (608) 263- 3869

You can also find information about our job market candidates at our website: <u>https://econ.wisc.edu/doctoral/job-market-candidates/</u>

Our students plan to attend the American Economic Association meetings in San Diego, CA and interviews should be arranged with them directly.

Should you wish to come to Madison to interview, kindly provide Kim Grocholski or Becca George with a list of students you wish to see, the desired length of each interview, and the expected dates of your stay on campus.

Please email or call me for additional information on any of our students seeking positions.

Cordially,

Ken Hendricks Placement Director

University of Wisconsin – Madison Listing of Candidates

Candidate	References	Interest
Yu-Chi Chu	Ananth Seshadri, Dean Corbae, Randy Wright	Macroeconomics, Family Economics, and Monetary Economics
Yu Ding	Alan Sorensen, Kenneth Hendricks, Justin Sydnor	Industrial Organization, Health Economics, Applied Microeconomics
Zhigang Ge	Ananth Seshadri, Noah Williams, Kenneth West	Macroeconomics, Public Finance, Industrial Organization
Pedro Vaissman Guinsburg	Marek Weretka, Antonio Penta	Game Theory, Information Design, Microeconomic Theory
Shoya Ishimaru	John Kennan, Christopher Taber, Chao Fu	Labor Economics, Applied Econometrics
Amrita Kulka	Christopher Taber, Jesse Gregory, Matthew Wiswall, J. Michael Collins	Public Economics, Urban Economics, Economics of Education
Dohyeon Lee	Charles Engel, Kenneth West, Menzie Chinn	International Macro/Finance, Monetary Economics, Firm Dynamics
Zehao Li	Kenneth West, Noah Williams, Charles Engel, Jack Porter (teaching)	Macroeconomics and Monetary Economics, Financial Economics
Chang Liu	Noah Williams, Charles Engel, Kim Ruhl	Macroeconomics, International Economics, Financial Economics
Gabriel Martinez-Roa	Marzena Rostek, Marek Weretka, Bill Sandholm, David Hansen (teaching)	Information Economics, Empirical Industrial Organization, Applied Microeconomic Theory
Yue Qiu	Alan Sorensen, Kenneth Hendricks, Lorenzo Magnolfi	Industrial Organization, Health Economics, Applied Econometrics
Adam Smith	Alan Sorensen, Kenneth Hendricks	Industrial Organization, Digital Economics, Applied Microeconomies
Steve Pak Yeung Wu	Charles Engel, Kenneth West, Menzie Chinn	International Macroeconomics, Monetary Economics, Macroeconomics

Yu-Chi Chu

(Updated: October 2019)

Department of Economics University of Wisconsin-Madison 1180 Observatory Drive, Rm 7222 Madison, WI 53706 Phone: (608)-960-2514 Email: yuchi.chu@wisc.edu Website: <u>https://sites.google.com/site/yuchichu0803/</u> Citizenship: Taiwan (R.O.C)

Education

University of Wisconsin – Madison – Ph.D. in Economics (*Expected* June 2020) University of Wisconsin – Madison – M.S. in Economics (2016) National Taiwan University - MS in Economics (2013) National Taiwan University - BA in Finance (2011)

Dissertation

"Essays on Micro Data and Macro Models"

Abstract Summary: My dissertation emphasizes on a tight link between micro data and macro models. The first chapter studies inter vivos transfers in the PSID based on a dynamic model of altruistic transfers. I present a full solution to the canonical dynamic model of altruistic transfers with income risks, liquidity constraints and no-commitment. The predictions from the model with a full solution are more consistent with the data pattern. The second and the third chapter examine financial behaviors among students with postsecondary education in the NLSY97. In the second chapter, I document a hump-shaped pattern of average student loan by family wealth. I propose a Becker human capital model with dynamic altruistic transfers to explain this puzzling pattern. The third chapter explains the student loan delinquency rate by education groups in the U.S. from 1992 to 2012 through a lifecycle saving model of delinquency choice.

References:

Ananth Seshadri University of Wisconsin-Madison (608) 262-6196 aseshadr@ssc.wisc.edu Dean Corbae University of Wisconsin-Madison (608) 262-3281 corbae@ssc.wisc.edu

Randall Wright University of Wisconsin-Madison (608) 262-9890 randall.wright@wisc.edu

Research Fields

Macroeconomics, Family Economics, Monetary Economics

Research Papers

"Testing Parental Altruism: A Full Solution to a Dynamic Model of Altruistic Transfers", Job market paper "Secured Loans and Risky Assets in a Monetary Economy" (with Yiting Li), submitted "An Explanation for the Rich Hold More Student Debt", working paper "Credit Constraints and Student Debt Delinquency", working paper

Teaching Experience

Econ 310: Statistics (Fall 2017, Spring 2018) Econ 102: Principles of Macroeconomics (Fall 2016, Spring 2017, Head TA) Econ 330: Money and Banking (Spring 2016) Econ 302: Intermediate Macroeconomics (Fall 2015)

Honors, Scholarships and Fellowships

Studying Abroad Scholarship, Taiwan (2018) Summer Research Fellowship, University of Wisconsin-Madison (2018) Two Year University Fellowship, University of Wisconsin-Madison (2014) Award for Excellent Master Thesis in Macroeconomic Theory, Taiwan (2013)

Programming Languages

Fortran, Matlab, Mathematica, Stata

Languages

English (fluent), Mandarin (native)

Essays on Micro Data and Macro Models

Dissertation Abstract

Yu-Chi Chu

University of Wisconsin-Madison

Testing Parental Altruism: A Full Solution to A Dynamic Model of Altruistic Transfers

The prediction of the altruism model that forms the core of empirical tests is the derivative restriction: the difference in parental and child transfer-income derivatives equals one. Substantive number of papers have measured a low value (close to zero) of the difference in transfer-income derivatives and thus decisively reject altruism. This paper revisits the canonical dynamic model of altruistic transfers with income risks, liquidity constraints and no-commitment. There are two equilibrium paths indexed by whether parents giving bequests is a zero-probability event. This paper presents a full solution of this model by characterizing the parent's decisions in choosing equilibrium paths. The established result --- that inter vivos transfers only flow to constrained children --- is overturned. The solution of inter vivos transfers flowing to an unconstrained child reflects the parent's decision in opting for the equilibrium path where bequests are inoperative. The Samaritan's dilemma is eliminated but the parent needs to pre-commit a sufficiently large transfer to achieve this equilibrium outcome. There are two transfer regions, distinguished by whether children are constrained in equilibrium. I show that the derivative restriction holds in each region, however, mixing the two transfer regions leads to a downward estimate of the difference in transfer-income derivatives. I extend the two-period model to a life-cycle economy where parents and children interact until parents die. The model is calibrated to the U.S. in 1988 and mimics samples of parent-child pairs from Panel Study of Income Dynamics ---- the samples used to test altruism in Altonji et al. (1997). The model yields an estimate of the difference in transfer-income derivatives in line with the evidence.

An Explanation for the Rich Hold More Student Debt

I document that the average student loan by family wealth quintile groups exhibits a hump-shaped pattern in NLSY97, controlling differentials in AFQT, financial aids, years enrolled, and types of college. This pattern casts doubts on the view that youth with poor parents are more likely to be constrained and underinvest in human capital. To account for this observation, I augment the Becker human capital model with labor market risks and dynamic altruistic transfers in a no commitment environment. The upfront transfers alleviate liquidity needs and reduce borrowings for education; The postschool transfers lessen precautionary saving motives and prompt youth to borrow more. The amount borrowed depends on how parents allocate transfers across time. I show that the equilibrium outcomes are described by four brackets of initial wealth. The low wealth parents do not give transfers, the middle wealth parents delay transfer, the upper-middle wealth parents give transfers early, and the high wealth parents give transfers in both periods. In terms of human capital investment, children in the low wealth group underinvest, children in the middle wealth group overinvest, while children' decisions in the other two groups are aligned with parents' interests. This model generates the empirical relationship between student loan and parental wealth and sheds new lights on how credit constraints affect human capital inequality.

Credit Constraints and Student Loan Delinquency

Why do student loan borrowers choose to default if they expect the government will garnish their wages and social security incomes to repay the defaulted debts? This paper rationalizes why people choose to default on unsecured debts expecting a strong mechanism of enforcing repayments. I demonstrate that borrowers have no incentives to default on student loans under perfect credit markets --- this result is in contrast to unsecured debts default without enforcements. Student loan borrowers may choose to default if it is difficult to get loans from credit markets so they substitute taking on more new debts with not repaying the existing debts. This argument links student loan default decisions with credit markets. Finally, a quantitative model is developed to account for the student loan default rate from 1992 to 2012 during which credit markets had grown rapidly and then shrunk.

<u>Yu Ding</u>

(Updated: Oct 2019)

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Education

University of Wisconsin - Madison - PhD in Economics (*Expected* June 2020) University of Wisconsin - Madison – M.S. in Economics (August 2017) Wuhan University - B.A. in Economics (July 2015) Wuhan University - B.S. in Mathematics (July 2015)

Dissertation

"Essays on Financial Incentives and Service Decision in Healthcare Industry"

Abstract Summary: My dissertation focuses on studying how financial incentives shape the service decisions in the healthcare industry. The first chapter examines whether hospitals consolidate duplicate services post horizontal mergers and quantifies the cost savings related to the service consolidations. The second chapter studies the relationship between the physicians' response to the adverse drug relabeling and the detailing strength they received from the relabeled drug's manufacturer. The third chapter analyzes the difference in physicians' treatment decisions under capitated and non-capitated payments.

References:

Alan Sorensen University of Wisconsin - Madison 608-263-3867 sorensen@ssc.wisc.edu Kenneth Hendricks University of Wisconsin - Madison 608-263-3869 hendrick@ssc.wisc.edu

Justin Sydnor University of Wisconsin - Madison 608- 263-2138 jsydnor@bus.wisc.edu

Research Fields

Industrial Organization, Health Economics, Applied Microeconomics

Research Papers

"Consolidation for Cost Savings? Hospital Mergers and Service Repositioning" (with Chenyuan Liu), job market paper "Private Label: a price-discrimination device or an evaluation-manipulation tool? the Case of Dominick's in Oatmeal Cereal", working paper "Payment to Buy Loyalty? Pharmaceutical-Physician Interaction and Post-Relabeling Drug Prescription" "Financial Incentive and Physician Treatment Decision: The Case of Lower Back Pain" (With Chenyuan Liu)

Publication

Bundled Payments and Quality of Hospital Care. (Letters to the Editor) Health affairs, 38(7), 1229-1229.

Teaching Experience

Econ 310: Statistics: Measurement in Economics (Spring 2019) Econ 706: Econometrics 3: Applied Econometrics (Fall 2018) Econ 101: Introduction to Microeconomics (Spring 2018) Econ 464: International Trade and Finance (Spring 2017) Econ 101: Introduction to Microeconomics (Fall 2016)

Research Experience and Other Employment

Summer Associates, Analysis Group, Summer 2019 Research Assistant for Prof. Lydia Ashton, University of Wisconsin-Madison, Fall 2017 – Spring 2018

Honors, Scholarships and Fellowships

Graduate School Fellowship, University of Wisconsin-Madison, 2019 Julia Plant Grainger Teaching Excellence Scholarship, Department of Economics 2018 Graduate School Fellowship, University of Wisconsin-Madison, 2015 Best Undergraduate Thesis of Hubei Province, China, 2015

Conferences and Seminars

Industrial Organization Lunch Workshop, University of Wisconsin – Madison, 2018 & 2019 Student Research Group Workshop, University of Wisconsin – Madison, 2018 & 2019 International Conference on Economic Theory and Applications, Chengdu, China, 2018 National Doctoral Student Conference, Wuhan, China, 2015

Data Experience

Truven MarketScan claim database, California/New York hospital inpatient discharge database, Nielsen Scanner database

Essay on Financial Incentive and Service Decision in Healthcare Industry

Dissertation Abstract

Yu Ding

University of Wisconsin-Madison

Consolidation for Cost Savings? Hospital Mergers and Service Repositioning (with Chenyuan Liu)

This paper studies whether merged hospitals eliminate duplicate services to save costs. When confronted with antitrust challenges, hospitals seeking mergers frequently claim substantial cost savings from consolidating their services to achieve economies of scale. Using the California Patient Discharge Data and Hospital Financial Report, we employ a difference-in-differences research design to empirically explore hospitals' post-merger service relocation. We find that targets and acquirers located within 10 miles of each other reduce on average 5.1 of their duplicate services. These adjacent merged hospitals also become more specialized in services, with the volume concentration measurement (Herfinndahl-Hirschman Index) across services increasing by 10%. Compared to non-consolidated services, the consolidated services experience a reduction of standardized patient care costs in the magnitude of 0.2 standard deviations (equivalent to approximately \$340 for cardiac catheterization and \$13 for the echocardiology service). These effects are only evident when the merging hospitals are geographically close to one another. Our findings identify a mechanism through which horizontal consolidations generate cost savings.

Payment to Buy Loyalty? Pharmaceutical-Physician Interaction and Post-Relabeling Drug Prescription

The adverse event of drug safety relabeling leads to a decrease in the drugs' demand. However, no research studies how pharmaceutical detailing impacts physicians' response to the adverse drug relabeling event. This paper exploits the issuing of a Black Box Warning of a blood thinner drug, Pradaxa, in 2013 to analyze the heterogeneous response of physicians under different detailing strengths from the Pradaxa's manufacturer. Using the Open Payment data and the Massachusetts claim data, we estimate a demand model for the demand of the blood thinner drug, leveraging instrumental variables build from hospitals' conflict-of-interest policy strengths.

Financial Incentive and Physician Treatment Decision: The Case of Lower Back Pain (With Chenyuan Liu)

Value-based care has increasingly received attention in the policy debate of reducing health care spending. This paper empirically studies a specific form of payment model: capitated payment models. The physicians under capitated payment are paid a fixed amount regardless of the care spending generated. Using a large employer-sponsored health insurance claim database in the U.S. from 2003 to 2006, we examine whether the capitated payment effectively motivates physicians to adopt low-cost treatments in the context of lower back pain. To mitigate selection concerns, we leverage capitation variation within an insurer and control for insurance-plan type fixed effects. After doing that, patients treated by capitated primary care physicians are similar to other patients in terms of pre-existing conditions. However, they are significantly more likely to receive therapy treatment than surgical treatment. They also have lower total medical expenses and out-of-pocket costs.

Zhigang Ge

(Updated: Oct. 2019)

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Education

University of Wisconsin - Madison – Ph.D. in Economics (*Expected* May 2020) University of Wisconsin - Madison – M.A in Economics (2016) Tsinghua University – M.A. in Economics (2014) Beijing University of Posts and Telecommunications – BBA (2010)

Dissertation

"Essays on Macroeconomics, Inequality and Tax Policies" Abstract: My thesis studies the macroeconomic and policy implications of individual heterogeneity in occupation, consumption, earning, and wealth. The first chapter quantitatively studies the optimal top marginal income tax rate in the US when most top earners are entrepreneurs, and I find it should be much lower than the established view. In the second chapter, I studied the mechanism by which the model is able to generate observed wealth distribution by relaxing the prevailing assumption in the literature. The third chapter studies household's heterogeneity in housing choice and the amplification of housing (illiquid asset) on the consumption response to aggregate productivity shocks.

References:

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Noah Williams University of Wisconsin-Madison (608) 263-3864 nwilliam@ssc.wisc.edu

Kenneth D. West University of Wisconsin-Madison (608) 262-0033 kdwest@ ssc.wisc.edu

Research Fields

Macroeconomics, Public Finance, Industrial Organization

Research Papers

"Taxing Top Earners: The Role of Entrepreneurs" (Job Market Paper) "Heterogenous Entrepreneurial Ability and Wealth Inequality" (working paper) "The Amplification Effect of Housing on Household Consumption Response to Aggregate Shocks" (in progress)

Teaching Experience

Econ 700: Mathematics for Economists (Fall 2015-2017) Econ 310: Measurement in Economics (Spring 2015, 2018) Econ 302: Intermediate Macroeconomics (Spring 2016-2017, Fall 2018)

Research Experience

Project Assistant for Professor Ananth Seshadri, UW-Madison, Fall 2019

Honors, Scholarships and Fellowships

Culbertson Fellowship for Best Field Paper, UW-Madison, 2017 Summer Grainger Research Scholarship, UW-Madison, 2017 One-Semester Juli Plant Grainger Fellowship, UW-Madison, 2018

Programming Languages

Fortran, MPI, Matlab, Stata, LaTeX, Python

Essays on Macroeconomics, Inequality and Tax Policies

Dissertation Abstract

Zhigang Ge

University of Wisconsin-Madison

Taxing Top Earners: The Role of Entrepreneurs (Job Market Paper)

This paper studies the optimal top marginal tax rate in a quantitative framework with entrepreneurial choice, financing constraint, and realistic earning and wealth distribution. I find that the revenue maximizing top tax rate is approximately 40 percent. In contrast, the model economy without entrepreneurs predicts an optimal rate of 77 percent, close to the established view. There are two mechanisms contribute to this low revenue maximizing top tax rate. First, the wealth distribution channel. An increase in top tax rate decreases the marginal return to capital in business thus distorts entrepreneur's saving and capital accumulation. In the long run, the average wealth of top entrepreneurs decreases, which leads to a fall in business income in the presence of financing constraint. Second, there are positive spillovers of entrepreneur's capital accumulation on the earnings of non-top workers. I also find that the welfare maximizing top tax rate is high given the low revenue maximizing top tax rate, which is not the case for studies abstract from entrepreneurs.

Heterogeneous Entrepreneurial Ability and Wealth Inequality

Models with entrepreneurship can reproduce high wealth concentration in the top. The key assumption is borrowing constraint, that is, households are unable to borrow enough assets to start a business or to invest to the optimal amount in the business. More recent evidence, however, shows that borrowing constraint does not matter for the majority of households in the US. This paper seeks to generate high wealth concentration without assuming borrowing constraint. The baseline model that introduces heterogeneous abilities of entrepreneurs is able to match the wealth distribution while the model assuming same entrepreneurial ability fails. Besides wealth distribution, the baseline model generates other moments that are consistent with data.

Household Heterogeneity and Consumption in the Presence of Housing

This paper studies the amplification effect of housing on household's consumption in response to aggregate productivity shocks. I build up a heterogenous-agent model with endogenous housing choice and find that households tend to keep the most of their assets as housing and live with low liquidity level, which makes their consumption sensitive to aggregate shocks given that housing resale is costly. In the counterfactual exercise where the original steady state of the economy is hit by an (unexpected) negative productivity shock, I find that the drop in the aggregate consumption is even larger than the drop in aggregate output. The amplification mechanism helps to understand the consumption slump during the Great Recession.

Pedro Vaissman Guinsburg

(Updated: October 2019)

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Education

University of Wisconsin - Madison – Ph.D. in Economics (*Expected* June 2020) Getulio Vargas Foundation – EPGE, Brazil – M.Sc., Economics (2014) Pontifical Catholic University- Puc-Rio, Brazil – Bachelors degree, Economics (2011)

Dissertation

"Essays on Information Design"

Abstract Summary: My research is focused on the exchange of information in a verifiable manner. I am concerned with bringing the Information Design literature to important economic models with the objective to endogenize the Information Structures in Price and Quantity Competition, Entry Deterrence Models, Bargaining setups among others. Common to all of these scenarios, the models I propose involve Information Exchange rather than just the provision of it.

References:

Marek Weretka University of Wisconsin - Madison +1 608-262-2265 mweretka@ssc.wisc.edu Antonio Penta Universitat Pompeu Fabra +34 93 542 2551 antonio.penta@upf.edu

Research Fields

Microeconomic Theory (Information Economics), Game Theory

Research Papers

"Information Design and Sensitivity to Market Fundamentals" (Job Market Paper) "Talking in Bayesian - Information Design, Bargaining and Joint Ventures" (Working Paper) "Inside a Miner's Mind - An Arbitrage Condition for SHA 256 Cryptocurrency Mining" (Working Paper)

Teaching Experience (Teaching Assistant)

Math 320: Linear Algebra and Differential Equations - Fall 2019 Econ 708: Microeconomics II (Master's) - Spring 2019 Econ 101: Principles of Microeconomics - Fall 2018 Econ 301: Intermediate Microeconomics - Spring 2018 Econ 301: Intermediate Microeconomics - Fall 2017 Econ 101: Principles of Microeconomics - Spring 2017 Econ 522: Law and Economics - Fall 2016 AAE 343: Environmental Economics - Spring 2016 Econ 701/31: Microeconomics I (Masters) and Intermediate Microeconomics (Honors) - Fall 2015

Research Experience and Other Employment

R.A. for Professor Marcio G. P. Garcia (Ph. D., Stanford) at PUC-Rio, Brazil (January 2008 - May 2010) – Macroeconomics

R.A. for Professor Monica Baumgarten de Bolle (Ph. D. L.S.E.) at Galanto Consulting (forecasting), Brazil, June 2010 - February 2011

Honors, Scholarships and Fellowships

Departmental Fellowship, 2014

Student Involvement Activities

Windsurfing and Sailing Instructor for the Hoofers Sailing Club - Former Yu Chen Windsurfing Fleet captain

Programming Languages

Python - Packages: Pandas and Json - Have Automated a Download from a JSON API in High Frequency (Download of data of Dozens of Digital Coins with Several variables every 6 minutes for a Cryptocurrency Project.)

Stata – Computation of the Reset Price Inflation using Microdata of a major Price Index of Brazil (IPC-FGV) - Research Assistant for Arnildo Correa (Central Bank of Brazil), Marco Bonomo (Insper - SP) and Marcelo Medeiros (PUC-Rio) in the Paper "Estimating Strategic Complementarities in a State-Dependent Pricing Model"

Matlab - Bellman Equation Programming for Masters Degree Paper

Essays on Verifiable Information

Dissertation Abstract

Pedro Vaissman Guinsburg

University of Wisconsin-Madison

My research is focused on the exchange of information in a verifiable manner. I am concerned with bringing the Information Design literature to important economic models with the objective to endogenize the Information Structures in Price and Quantity Competition, Entry Deterrence Models, Bargaining setups among others. Common to all of these, the models I propose involve Information Exchange rather than just the provision of it and the interchange of roles of agents between senders, receivers and decision-makers.

Information Design and Sensitivity to Market Fundamentals

I study the problem of firms that disclose verifiable information, either in the form of statistical reports or in the form of market segmentations. The model can be used to understand interactions in the retail industry, where market segmentations are made visible as regional policy segments, or the disclosure of public reports that precedes the release of a new product, like a new drug in the pharmaceutical industry or the auditing exercises run before a debt or equity emission by firms in the primary market. When choosing a signal policy before engaging in price or quantity competition, firms choose the degree of sensitivity of their decisions to market fundamentals. Full Disclosure, which is analogous to decentralization of market segments, enable companies to adapt to realized market conditions at the expense of releasing crucial information to the competitors. On the other hand, running the same policy across multiple markets, or across different states of the world, force companies to lose local optimality when making strategic decisions, but enable them to commit to an aggressive policy of preclusion, thanks to the insensitivity of strategic decisions to market fundamentals. Opacity, or insensitivity to market conditions, thus, acts as a commitment device and precludes the opponents from entering in otherwise competitive markets, - a "flooding" behavior characterized by the insensitivity of the equilibrium decisions with respect to realized fundamentals. Full Disclosure, or decentralization, on the other hand, is a weakly dominant strategy when opponents cannot be put out of operation and are always playing interior solutions. Since decentralization acts as a way to correlate decisions with realized market fundamentals, and a uniform, vertical, approach acts as a commitment device to avoid competitors, I describe a tradeoff between commitment over a distribution of actions versus correlation with states of the world.

Talking in Bayesian: Information Design, Dynamic Bargaining and Joint Ventures

I study sequential models of Blackwell Experimentation that explain a reason for sharing information in joint ventures. Agents have a private underlying state that is only assessed under an investigation procedure, and must decide between developing a product alone or in a Joint Venture. Before making a joint venture offer, a verifiable report is presented to the other firm. The model is a relaxation on the roles performed by the agents in an Information Design setup since firms are senders, receivers and perform payoff relevant actions. The situation modelled is that of a sequential Decision between a Joint or Solo Venture. The Joint Venture case studied is an informational bargaining setup where instead of monetary transfers, agents offer information about their states and must then make and accept offers that are binary choices - to share the product of the report or not. I show that Cooperation is always profitable to the firm that receives the offer and that happens with positive probability independently of the types, since there is an ex-ante Pareto Improvement in the realization of a Joint Venture. Even though the first mover has the first and final word, she has a disadvantage and only benefits from trade in a specific region of the relative ex-ante quality of the second mover compared to the prizes of a Solo Venture. The offering firm can only benefit from sharing information if the quality of the firm receiving the offer is high enough, whereas the firm that receives the offer no matter what is the quality of the product of the offering firm.

Shoya Ishimaru (Updated: September 2019)

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Education

University of Wisconsin - Madison - Ph.D. in Economics (Expected May 2020) University of Tokyo – M.A. in Economics (2014) **University of Tokyo** – B.A. in Economics (2012)

Dissertation

"Essays on College and Labor Market"

Abstract: The first chapter investigates how the place in which youths have grown up determines their economic outcomes, in a context of post-high school channels such as local college options and local labor market options. By estimating a dynamic structural model that takes account of how people choose colleges and local labor markets under geographic barrier, I quantify the importance of local college and labor market options in explaining spatial gaps of outcomes among youths from different locations with otherwise identical background. The estimated model indicates that local college and labor market options are important in explaining spatial gaps of outcomes, and thus that improving post-high school local opportunities in low-achieving communities can improve economic outcomes of youths from the communities. The second chapter is motivated by the difference between linear IV and OLS coefficients in return to schooling estimation and studies how the IV-OLS coefficient gap can be interpreted and empirically decomposed when the schooling effect is nonlinear and heterogeneous. I show that the IV-OLS coefficient gap can be decomposed into three components explained by the difference in weights on treatment levels, the difference in weights on observables, and the difference in marginal effects. I revisit return to schooling estimates with compulsory schooling and college availability instruments using my framework.

References:

John Kennan University of Wisconsin-Madison (608) 262-5393 jkennan@ssc.wisc.edu

Chao Fu University of Wisconsin-Madison (608) 263-3866 cfu@ssc.wisc.edu

Research Fields

Labor Economics, Applied Econometrics

Research Papers

"Geographic Mobility of Youths and Spatial Gaps in Local College and Labor Market Opportunities" (Job Market Paper) "Beyond Linear and Homogeneous Effects: Decomposing the IV-OLS Gap in Return to Schooling Estimates" (Dissertation Chapter)

"Government Expenditure on the Public Education System" (with Chao Fu and John Kennan)

Christopher Taber University of Wisconsin-Madison (608) 263-7791 ctaber@ssc.wisc.edu

Publications

"Trade preferences and political equilibrium associated with trade liberalization." (with Soo Hyun Oh and Seung-Gyu Sim) *The Journal of International Trade & Economic Development* 26, no. 3 (2017): 361-384.

Teaching Experience

Econ 101: Principles of Economics, Teaching Assistant to David Johnson, Spring 2017 Econ 705: Econometrics II (graduate), Teaching Assistant to Jack Porter, Spring 2016 Econ 709: Economic Statistics and Econometrics I (graduate), Teaching Assistant to Jack Porter, Fall 2015

Research Experience and Other Employment

Research Assistant to Chao Fu, UW-Madison, 2016-2018 Research Assistant to Seung-Gyu Sim, University of Tokyo, 2012-2014

Honors, Scholarships and Fellowships

Graduate School Fellowship, UW-Madison, 2018-present Summer Research Support Scholarship, UW-Madison, 2016-2017 Scholarship for Long-term Overseas Study, Japanese Student Services Organization, 2014-2017

Conferences and Seminars

2019 (includes scheduled): Economics Graduate Student Conference (WashU), JPGI Alumni Conference (Poster, UW-Madison)
2018: JPGI Alumni Conference (Poster, UW-Madison)
2013: Asia-Pacific Economic Association Annual Conference
2012: Asian Meeting of the Econometric Society

Programming Languages

Fortran (with MPI), Stata, R

Essays on College and Labor Market

Dissertation Abstract

Shoya Ishimaru

University of Wisconsin-Madison

"Geographic Mobility of Youths and Spatial Gaps in Local College and Labor Market Opportunities" (Job Market Paper)

This paper investigates how the place in which youths have grown up determines their economic outcomes in a context of post-high school channels such as local college options and local labor market options. To take account of how people choose colleges and local labor markets under geographic barrier and to quantify the contribution of the post-high school channels to spatial gaps of outcomes, I estimate a dynamic model that incorporates college choice stage with geographic variation of college options and labor market stage with spatially segmented frictional market. The model addresses sorting on unobserved pre-college human capital, in order to determine the causal effect of college choice and work location choice on outcomes. The estimated model indicates that local college and labor market options are important in explaining spatial gaps in outcomes among otherwise identical youths from different locations. The gap in local college options is found to be as important as the observed gap in local K-12 school and neighborhood quality in explaining the spatial variance of college attendance rate. They also respectively explain about 20% of the spatial variance of log wage rate, with remaining 60% explained by the gap in local labor market options. These findings suggest that improving post-high school local opportunities in low-achieving communities can improve economic outcomes of youths from the communities.

"Beyond Linear and Homogeneous Effects: Decomposing the IV-OLS Gap in Return to Schooling Estimates"

Many empirical studies interested in the causal impact of a treatment variable on an outcome variable use the linear regression model in which the treatment effect is linear along treatment levels and homogeneous across controlled observed characteristics. This study suggests how the difference between linear IV and OLS coefficients can be interpreted and empirically decomposed when the treatment effect is nonlinear and heterogeneous in the true causal relationship. I show that the IV-OLS coefficient gap can be decomposed into three components explained by the difference in weights on treatment levels, the difference in weights on observables, and the difference in marginal effects. The suggested decomposition can be implemented by a simple two-step regression estimator. Using my framework, I revisit return to schooling estimates with compulsory schooling and college availability instruments. Even though the weight difference is one of the most favored explanations for the positive IV-OLS gap in those empirical contexts, I find that it only explains one-fifth of the gap in my empirical example with the college availability instrument, and that it even widens the gap in my example with the compulsory schooling instruments.

<u>Amrita Kulka</u>

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Education

University of Wisconsin - Madison - Ph.D. in Economics (*Expected* May 2020) University of Wisconsin - Madison - M.S. in Economics (2016) Ludwig-Maximilian University Munich -M.Sc. in Economics (2013) Humboldt-University Berlin - B.Sc. in Economics (2011)

Dissertation

"Essays in Public and Urban Economics"

Abstract Summary: My dissertation studies how government policies influence location choices of individuals and the behavior of movers. The first chapter of my dissertation examines an under-studied channel of neighborhood formation: I quantify the effect that land use regulations such as minimum lot sizes have on neighborhood sorting and find that it is considerable compared to other sorting estimates in the literature. I then estimate a static neighborhood choice model to study counterfactuals in which minimum lot sizes are relaxed in desirable neighborhoods. The second chapter studies how the locational preferences of primary care physicians drive rural physician shortages. We find that government incentive payments are too small to have a meaningful impact on shortages. The third chapter looks at the introduction of language classes for immigrants in Germany and how these affect labor market outcomes. The program lead to significant and robust increases in monthly wages and the probability of full time employment by improving the language skills of participants.

References:

Christopher Taber University of Wisconsin-Madison (608) 263-7791 ctaber@ssc.wisc.edu

Matthew J. Wiswall University of Wisconsin-Madison (608) 263-2326 mjwiswall@wisc.edu Jesse M. Gregory University of Wisconsin-Madison (608) 890-4913 jmgregory@ssc.wisc.edu

J. Michael Collins University of Wisconsin-Madison (608) 616-0369 jmcollins@wisc.edu

Research Fields

Public Economics; Urban Economics; Economics of Education

Research Papers

"Sorting into Neighborhoods: The Role of Minimum Lot Sizes", Job Market Paper "Rural Physician Shortages and Policy Intervention" (with Dennis B. McWeeny), Working Paper "The Effect of Learning the Language on Job Market Outcomes – Introduction of Integration Courses in Germany", Working Paper "Bulk Purchases and Consumption Smoothing: Using Tax Policy Changes to Estimate Saving for the Future by Buying Ahead" (with J. Michael Collins), Working Paper

"Pathways to a Bachelor's Degree: Evaluating Transfer Policies between Two-Year and Four-Year Colleges" (with Suchitra Akmanchi), In Progress

"Fecundity and the Evaluation of Infant and Child Health Programs in the US" (with Jenna Nobles and Marianne Bitler), In Progress

Teaching Experience

Econ 310: Statistics – Measurement in Economics (Fall 2015) Econ 101: Principles of Microeconomics (Spring 2015, Head TA Spring 2016) Econ 102: Principles of Macroeconomics (Fall 2014)

Research Experience and Other Employment

Research Assistant for Professor Jenna Nobles, University of Wisconsin-Madison Department of Sociology (2018-2019) Visiting Summer Fellow, Board of Governors of the Federal Reserve System (Summer 2018) Research Assistant for Professor James Raymo, University of Wisconsin-Madison Department of Sociology (2017-2018) Project Assistant for Professor J. Michael Collins, University of Wisconsin-Madison Consumer Science (2016-2017) Research Assistant for Professor Panu Poutvaara, Ifo Institute Munich Center for International Institutional Comparisons and Migration Research (2012-2014) Research Assistant for Professor Joachim Gassen, Humboldt University Berlin School of Business and Economics (2009-2011)

Honors, Scholarships and Fellowships

Juli Plant Grainger Outstanding Dissertator Fellowship (2019-2020)
CSWEP Summer Economics Fellow (2018)
Summer Research Scholarship, Department of Economics (2018)
Best Poster Award, (2018 PAA, for "Rural Physician Shortages and Policy Intervention")
Pre-Doctoral Trainee, Center for Demography of Health and Aging (since 2016)
Alumni Prize for Young Economists of the Munich Economics Alumni Club (2014)
Anita Augspurg Prize for the best Master Thesis written by a female student (2014)
Scholar of German National Academic Foundation (2010-2014)
Kurt Fordan Association for the promotion of exceptional talent (2012-present)

Conferences and Seminars

Association for Public Policy Analysis & Management (2019, upcoming) Western Economic Association International Graduate Student Workshop (2019) 9th European Meeting of the Urban Economics Association (2019) Population Association of America Annual Meeting (2019) 13th Meeting of the Urban Economics Association (2018) Federal Reserve Board of Governors (2018) Population Association of America Annual Meeting (Poster, 2018)

Student Involvement Activities

Wisconsin Economics Graduate Organization President (2016-2017)

Programming Languages

Stata, MATLAB, ArcGIS, SAS, Python (basic)

Essays in Public and Urban Economics

Dissertation Abstract

Amrita Kulka

University of Wisconsin-Madison

Chapter 1: Sorting into Neighborhoods: The Role of Minimum Lot Sizes (Job market paper)

This paper examines how minimum lot size regulations affect sorting into neighborhoods. By imposing a floor on housing expenditure, minimum lot size regulations can play a role in determining access to neighborhoods with desirable neighborhood amenities such as good public schools. I match administrative school data from Wake County in North Carolina with fine level land use information for children's home locations and property transaction data with data from the Home Mortgage Disclosure Act. First, I quantify the effect that minimum lot size regulations have on neighborhood composition using a boundary discontinuity design. I find that sorting is larger than sorting on income at boundaries where public goods provision changes, e.g. school attendance zone boundaries. These effects are driven by boundaries at which the regulation is more binding. To study small-scale relaxations of the mandated minimum lot size I then develop a neighborhood choice model that takes into account minimum lot sizes and focuses on the trade-off between neighborhood amenities and consumption. In a counterfactual I explore households' willingness to pay for a high-amenity neighborhood with a low mandated minimum lot size. How much households value this neighborhood over a high-amenity neighborhood with strict regulation or a low-amenity neighborhood depends on the size of the neighborhood as well as the degree to which the regulation is being relaxed.

Chapter 2: Rural Physician Shortages and Policy Intervention (with Dennis B. McWeeny)

Although 14.5 percent of the U.S. population lives in rural areas, only 10.4 percent of primary care physicians (PCPs) practice medicine in rural areas. Populations in areas with PCP shortages have measurably worse health outcomes, including higher rates of preventable hospitalizations and higher mortalities from preventable chronic diseases like diabetes and heart disease. This problem has persisted for decades despite the introduction of numerous government programs that attempt to combat physician shortages. In this paper, we analyze the effects of government incentive programs intended to eliminate physician shortages. Using a differences-in-differences approach, we estimate that student loan forgiveness programs lead to an increase of three physicians on average per rural county. We then estimate a model of physician location decisions and use it to simulate the effects of incentive programs intended to eliminate physicians are relatively unresponsive to differences in salaries across locations and strongly prefer to practice medicine close to their home state. These results imply that current physician incentive payments are too small to have a meaningful impact on shortages. We suggest that policymakers who wish to address physician shortages either implement a nationwide revenue-neutral policy or focus on recruiting more physicians who were raised in shortage areas to stay and practice medicine there.

Chapter 3: The Effect of Learning the Language on Labor Market Outcomes – Introduction of Integration Courses in Germany

This paper studies the effects of local language skills on labor market outcomes of immigrants by analyzing the introduction of so-called integration courses in Germany in 2004. An integration course consists of a 600 hour language class and a 60 hour cultural module. I use data from the German Socio Economic Panel (GSOEP) to estimate a fuzzy regression discontinuity model with two instruments. The program is mandatory for some immigrants but it is open to almost all others as well on a voluntary basis. This allows me to use two instruments, one that affects the entire group of immigrants and another that affects mostly the mandated group. For all immigrants, I find statistically significant and robust increases in monthly wage and in the probability of full time employment due to an improvement in language skills after the introduction of integration courses. I also find statistically significant increases of the order of 30% in the probability of full time and general employment for those immigrants arriving after 2004.

Dohyeon Lee

(Updated: October 2019)

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Education

University of Wisconsin-Madison – Ph.D. in Economics (*Expected* 2020) University of Wisconsin-Madison – M.S. in Economics (2016) Seoul National University – M.A. in Economics (2013) Seoul National University – B.S. in Electrical Engineering and Economics (2011)

Dissertation

"Essays on International Macroeconomics and Firm Dynamics" Abstract Summary: Abstract summary: Chapter 1 studies optimal cooperative monetary policy in a twocountry open economy, where imperfect capital mobility gives rise to expected return differentials and carry trades, leading to certain dynamics in the current account. Chapter 2 finds that high U.S. inflation predicts appreciation of dollar, and uses an extension of the model in Engel (2016) to explain this finding. Chapter 3 introduces irreversible investment on Klette-Kortum's (2004) model to account for the exits of large firms.

References:

Charles Engel University of Wisconsin - Madison 608-262-3697 cengel@ssc.wisc.edu Kenneth West University of Wisconsin - Madison 608-262-0033 kdwest@wisc.edu

Menzie Chinn University of Wisconsin - Madison 608-262-7397 mchinn@lafollette.wisc.edu

Research Fields

International Macro/Finance, Monetary Economics, Firm Dynamics

Research Papers

"Optimal Monetary Policy in an Open Economy under Imperfect Capital Mobility" (*Job Market Paper*)
"The Uncovered Interest Parity Puzzle, Exchange Rate Forecasting, and Taylor Rules" (with C. Engel, C. Liu, C. Liu, and S.P.Y. Wu), *Journal of International Money and Finance* (2019)
"Offshoring, Matching, and Inequality" (with Gueyon Kim, *working paper*)
"Firm Dynamics with Irreversible Investment – Accounting for the Exits of Large Firms" (*working paper*)
"Currency Risk Premium and the Skewness of Excess Return" (*in progress*)
"Ideas, Human Capital, and Entrepreneurial Choice in an Industry Equilibrium" (with Gueyon Kim, *in progress*)
"Industry Life Cycle and the Balanced Growth Path" (*in progress*)

Teaching Experience

Econ 302: Intermediate Macroeconomics (Spring 2018) Econ 310: Statistics: Measurement in Economics (Fall 2015, Fall 2016, Spring 2017) Math 211: Calculus (Fall 2017)

Research Experience and Other Employment

Project Assistant to Menzie Chinn, UW-Madison, 2018-current Project Assistant to Charles Engel, UW-Madison, 2014-2016

Programming Languages Matlab/dynare, Stata, Fortran

Essays on International Macroeconomics and Firm Dynamics

Dissertation Abstract

Dohyeon Lee

University of Wisconsin-Madison

Optimal Monetary Policy in an Open Economy under Imperfect Capital Mobility

I study optimal cooperative monetary policy between two countries where imperfect capital mobility may lead to different expected returns from the bonds in each country. Households' borrowing or saving activities must be done through the global intermediaries, while the risk-averse intermediaries' optimal strategy implies that the size of carry trade is proportional to the expected return differential. As a result, unlike with the typical uncovered interest parity (UIP) condition under incomplete markets which leads to permanent expected consumption gaps in response to shocks, here the expected gaps in consumption decrease by an amount proportional to the size of carry trade in each period. The optimal cooperative monetary policy as well as optimal capital control policy is characterized and solved numerically where the planner takes this modified UIP condition as one of the constraints. Finally, I find empirical evidence that is consistent with the model prediction.

The Uncovered Interest Parity Puzzle, Exchange Rate Forecasting, and Taylor Rules (with Charles Engel, Chenxin Liu, Chang Liu and Steve Pak Yeung Wu)

Recent research has found that the Taylor-rule fundamentals have power to forecast changes in U.S. dollar exchange rates out of sample. Our work casts some doubt on that claim. However, we find strong evidence of a related in-sample anomaly. When we include U.S. inflation in the well-known uncovered interest parity regression of the change in the exchange rate on the interest-rate differential, we find that the inflation variable is highly significant and the interest-rate differential is not. Specifically, high U.S. inflation in one month forecasts dollar appreciation in the subsequent month. We introduce a model in which a Taylor rule determines monetary policy, but in which not only monetary shocks but also liquidity shocks drive nominal interest rates. This model can potentially account for the empirical findings.

Firm Dynamics with Irreversible Investment – Accounting for the Exits of Large Firms

I build a model of firm dynamics a la Klette and Kortum (2004), featuring irreversible investment. Firms build plants upon successful innovations, which can be left idle and re-utilized as demand fluctuates but have zero scrap value. The cost of building a new plant is assumed to be financed by non-renegotiable long-term debt (consol until exit). Zero profit conditions for the competitive lenders lead to an equilibrium schedule of interest rates, where larger firms face lower interest rates due to longer expected survival time. The maximum size ever reached for each firm is an important state variable that summarizes the firm's history, and the exit threshold is increasing in this state variable. As a result, a firm that was once large and then became smaller after a series of adverse demand shocks is more likely to exit than a same sized firm that is currently at its peak.

<u>Zehao Li</u>

(Updated: September 2019)

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Education

University of Wisconsin - Madison – Ph.D. in Economics (*Expected* June 2020) University of Wisconsin – Madison – M.S., Economics (2016) The University of Hong Kong – Bachelor of Economics (2014)

Dissertation

"Essays in Macroeconomics"

Abstract Summary: My dissertation studies the effects of financial intermediary frictions on real economic activities over the business cycles. The first chapter establishes that financial intermediary leverage and unemployment are closely related and builds a model that combines frictions on financial intermediaries with labor search and matching to explain the relationship. The second chapter documents that monetary policy is more effective when financial intermediaries have lower leverage. The third chapter develops a continuous-time toolbox for analyzing constrained portfolio choice and asset pricing with two agents in a general equilibrium framework.

References:

Kenneth D. West (Co-Chair) University of Wisconsin-Madison (608) 262-0033 kdwest@wisc.edu

Charles Engel University of Wisconsin-Madison (608) 262-3697 cengel@ssc.wisc.edu Noah Williams (Co-Chair) University of Wisconsin-Madison (608) 263-3864 nwilliam@ssc.wisc.edu

Jack Porter (Teaching) University of Wisconsin-Madison (608) 263-3870 jrporter@ssc.wisc.edu

Research Fields

Macroeconomics and Monetary Economics, Financial Economics

Research Papers

"Financial Intermediary Leverage and Unemployment" (Job Market Paper) "Financial Intermediary Leverage and Monetary Policy Transmission" "Asset Pricing with Heterogeneous Belief and Preference under Portfolio Constraints"

Teaching Experience

Teaching Assistant, ECON 302: Intermediate Macroeconomics (Fall 2015) Teaching Assistant, ECON 705: Econometrics II (Spring 2016)

Research Experience and Other Employment

Project Assistant for Professor Noah Williams, University of Wisconsin - Madison, 2016-2019

Honors, Scholarships and Fellowships

Hester Dissertation Fellowship, University of Wisconsin-Madison (2019) Ko and Ying Shih Graduate Fellowship, University of Wisconsin-Madison (2018) Grainger Fellowship, University of Wisconsin-Madison (2017) Summer research fellowship, University of Wisconsin-Madison (2017) Culbertson prize for the best third-year paper, University of Wisconsin-Madison (2017)

Conferences and Seminars

Minnesota-Wisconsin International/Macro Student Workshop (2019) 2019 Asian Meeting of the Econometrics Society (2019) 27th Annual Symposium of the Society for Nonlinear Dynamics and Econometrics (2019) Midwest Macroeconomics Meetings (2018)

Programming Languages

MATLAB, Stata, R

Languages

Chinese (native), English (fluent)

Essays in Macroeconomics

Dissertation Abstract

Zehao Li

University of Wisconsin-Madison

Financial Intermediary Leverage and Unemployment (job market paper)

I establish that financial intermediary leverage and unemployment are closely related and build a model that combines frictions on financial intermediaries with labor search and matching to explain the relationship. In U.S. data, the responses of the unemployment rate and the job finding probability to a productivity shock are significantly larger when the financial intermediary sector has a lower equity-toasset ratio (capital ratio). In contrast, the responses of the capital stock and the investment-to-capital ratio are not sensitive to the capital ratio of the intermediary sector. My general equilibrium model incorporates financial frictions and is solved globally. Impulse responses to a productivity shock depend on intermediary leverage. There are two potential channels for the state-dependent impulse response: capital accumulation and the stochastic discount factor (SDF). In accordance with the sluggish movement of capital in the data, the model relies mostly on the stochastic discount factor channel. As in a Diamond-Mortensen-Pissarides model, employment mostly depends on the firm's vacancy posting decision, which is largely affected by the continuation value. The SDF is critical for evaluating the continuation value. The SDF, which is endogenously driven by fluctuations in the capital ratio of the financial intermediary sector, increases sharply when the capital ratio is low. This is because the intermediaries find it hard to raise funds, and thus put higher weights on those states. Negatively covarying with the SDF, the marginal product of labor is low in those states. This decreases the continuation value of a match. Consequently, vacancy posting and employment plummet.

Financial Intermediary Leverage and Monetary Policy Transmission

The effects of monetary policy strongly depend on the leverage of the primary dealers. Monetary policy is more effective when the primary dealers have a higher share of equity in their total assets. When the equity-to-asset ratio is one percentage point above average, the effect of a monetary policy shock on the S&P 500 return is 1.44 percentage points larger. Moreover, shocks to the leverage of the primary dealers account for thirty percent of the forecast error variances of real GDP, investment, and consumption in the U.S. The leverage of the primary dealers is counter-cyclical, and thus helps explain why monetary policy is more powerful during expansions as found in the literature.

Asset Pricing with Heterogeneous Belief and Preference under Portfolio Constraints

I study the interaction between portfolio constraints and incentives to trade. I construct a general equilibrium model in continuous time so the equilibrium conditions can be explicitly characterized. The model has two agents disagreeing about the growth rate of the dividend of a real asset. The agents also have different risk aversion parameters. Each agent faces a short sale constraint and a borrowing constraint. Furthermore, the borrowing constraint depends on the market value of the real asset. I characterize conditions under which each constraint is binding. The short sale constraint, when binding, decreases the equity premium and the market price of risk of the real asset. The long-run probability density of the model states features two modes concentrating on either end of the state space, so both agents have positive wealth in the long run.

Chang Liu

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Education

University of Wisconsin - Madison – Ph.D. in Economics (*Expected* May 2020) **Peking University** – B.A. in Economics (July 2014)

Dissertation

"Essays on Macroeconomics with Heterogeneous Regions"

Abstract Summary: This dissertation approaches various macroeconomic topics from a regional perspective. In the first Chapter, I document the empirical patterns of regional risk and risk sharing across U.S. states and study their implications for aggregate fluctuations. In the second Chapter, we provide evidence for the heterogeneous impacts of federal tax policies at the state level. In the third Chapter, we introduce a brand-new state-level dataset at the business cycle frequency and discuss its potential in broadening our understanding of both the regional and macroeconomic dynamics.

References:

Noah Williams (Primary Advisor) University of Wisconsin-Madison 608-263-3864 nwilliam@ssc.wisc.edu Charles Engel University of Wisconsin-Madison 608-262-3697 cengel@ssc.wisc.edu

Kim Ruhl University of Wisconsin-Madison 512-299-3126 ruhl2@wisc.edu

Research Fields

Macroeconomics, International Economics, Financial Economics

Research Papers

"Regional Risk and Aggregate Fluctuations", Job Market Paper. "Implications of a Quarterly Dataset of U.S. State-Level Aggregates" (with Noah Williams), working paper. "Learning and Forward Guidance", work in progress. "Inflation Expectations of U.S. Firms" (with Brent Meyer), work in progress.

Publications

Chang Liu, Noah Williams, "*State-Level Implications of Federal Tax Policies*", Journal of Monetary Economics, Volume 105, 2019, Pages 74-90. Charles Engel, Dohyeon Lee, Chang Liu, Chenxin Liu, Steve Pak Yeung Wu, "*The Uncovered Interest Parity Puzzle, Exchange Rate Forecasting, and Taylor Rules*", Journal of International Money and Finance, Volume 95, 2019, Pages 317-331.

Teaching Experience

Econ 301: Intermediate Microeconomics (Online Course) -Summer 2017 Econ 711: Microeconomic Theory (for Ph.D.) -Fall 2015 Econ 102: Principles of Macroeconomics- Spring 2015 Econ 101: Principles of Microeconomics - Fall 2014/ Spring 2016/ Summer 2016

Research Experience and Other Employment

Research Assistant to Prof. Noah Williams, UW-Madison, Jan. 2017 – present Research Assistant to Prof. Ananth Seshadri, UW-Madison, Aug. 2016 – Jan. 2017 Research Assistant to Prof. Kenneth West, UW-Madison, Summer 2015

Honors, Scholarships and Fellowships

Graduate School Conference Presentation Funds, UW-Madison, 2018/2019 Robock Research Award in Empirical Economics, UW-Madison, 2018 Department of Economics Travel Fund, UW-Madison, 2018 Summer Research Fellowship, Department of Economics, UW-Madison, 2018 Princeton Initiative: Macro Money and Finance, Princeton University, 2016 Department of Economics Scholarship, UW-Madison, 2014 – 2015 Excellent Graduate Award, Peking University, 2014 Merit Student, Peking University, 2011/2012/2013 First-Class Scholarship for Freshmen, Peking University (ranked 2nd place among ~300k in the College Entrance Exam, Hubei Province), 2010 – 2014

Conferences and Seminars

2019: Juli Plant Grainger Macroeconomics Seminar, UW-Madison; North American Summer Meeting of the Econometric Society, Seattle.

2018: Carnegie-Rochester-NYU Conference on Public Policy, Carnegie Mellon University; China Meeting of the Econometric Society, Shanghai; Juli Plant Grainger Alumni Conference (Poster Session), UW-Madison; Robert E. Baldwin International Workshop, UW-Madison.

Programming Languages

Matlab, Stata, Python, Julia

Essays on Macroeconomics with Heterogeneous Regions

Dissertation Abstract

Chang Liu

University of Wisconsin-Madison

Regional Risk and Aggregate Fluctuations

I empirically document that regional income risk, defined as the volatility of regional shock to output growth, is countercyclical. However, the extent to which regions share risk does not vary over the business cycle. I build a New Keynesian model with heterogeneous regional economies to jointly explain the empirical patterns, and study the quantitative implications of regional risk sharing on the aggregate fluctuations. In the model, while time-varying regional risk exacerbates risk sharing and amplifies the impact of aggregate shocks during an economic downturn, state-specific federal government transfers and monetary policy are both important channels in stabilizing the regional and aggregate economy.

State-Level Implications of Federal Tax Policies (with Noah Williams)

The United States federal fiscal policy has differential impact across states. We construct a new quarterly state-level dataset that we use to analyze the impact of unexpected changes in federal personal and corporate income taxes. We find substantial heterogeneity across states, with more than half having no significant response to the tax cuts. In addition, less capital-intensive states have larger responses to corporate tax cuts. Although puzzling in standard models, a model with corporate and non-corporate sectors is consistent with this evidence. Overall, our results suggest the importance of variation and reallocation across states in evaluating federal policy.

Implication of a Quarterly Dataset of U.S. State-Level Aggregates (with Noah Williams)

We gather and combine state-level macroeconomic data from various sources. To build a balanced panel at the quarterly frequency that dates back to 1960s, we develop a Mixed-Frequency Bayesian Estimation method to deal with the state-level macroeconomic data that feature: changing frequency (e.g. GDP), mixed frequencies across variables, short span (e.g. unemployment), and measurement errors (e.g. consumption). We confirm the precision of our estimated panel with multiple tests, and argue that it has great potential for researchers interested in studying topics related to the regional economy.

Gabriel Martinez-Roa

(Updated: October 2019)

Department of Economics University of Wisconsin-Madison 1180 Observatory Drive, Rm 7226 Madison, WI 53706 Phone: (608) 358 80334 Email: gamartinez@wisc.edu Website: http://gabriel-martinez-roa.github.io Citizenship: Mexico

Education

University of Wisconsin - Madison - Ph.D. in Economics (*Expected May 2020*) **University of Wisconsin - Madison -** M.S. in Economics (2016) **Centro de Investigación y Docencia Económicas (CIDE) -** B.S. in Economics (2012)

Dissertation

"Essays on Applied Microeconomic Theory"

Abstract Summary: My dissertation centers around three axes. In the first one, I develop a simple model to study the transmission of information in digital media where the quality of messages is uncertain. The second axis examines economic interactions that occur in complex networks. These interactions include both non-competitive markets and games among groups of players. Finally, I also study the size and effect of moral hazard on the outcomes of patients in the Colombian health-care system.

References:

Marzena Rostek (Chair) University of Wisconsin - Madison (608) 262 6723 <u>mrostek@ssc.wisc.edu</u>

Marek Weretka University of Wisconsin -Madison (608) 262 2265 weretka@wisc.edu William H. Sandholm University of Wisconsin -Madison (608) 263 3858 whs@ssc.wisc.edu

David Hansen (Teaching) University of Wisconsin -Madison (608) 265 8019 <u>drhansen3@wisc.edu</u>

Research Fields

Information Economics, Empirical Industrial Organization, Applied Microeconomic Theory

Research Papers

"Bayesian Persuasion with Signal Uncertainty," - Job Market Paper

- "Dynamic Trading in Decentralized Markets," (with M. Rostek) Working Paper
- "Hospital Incentives under Capitation and Fee-for-Service Contracts" (with N. Serna) Work in Progress
- "Games among Groups," (with M. Rostek and J.H. Yoon) Work in Progress
- "Optimal Echo Chambers," (with N. Tenev) Work in Progress
- "Cooperative Decentralized Games," (with M. Rostek and J.H. Yoon) Work in Progress

Teaching Experience

University of Wisconsin – Madison

Finance 300: Introduction to Finance (Undergraduate), Fall 2019

Finance 325: Corporate Finance (Undergraduate), Fall 2019)

Econ 521: Game Theory (Online, Undergraduate), Summer 2019 - Eval: 4.67

Econ 703: Mathematics for Economists (Ph.D.), Fall 2017 - Eval: 4.78 (Avg: 4.11)

Econ 703: Mathematics for Economists (Ph.D.), Fall 2016 - Eval: 4.82 (Avg: 4.12)

Econ 713: Microeconomic Theory Seq. II (Ph.D.), Spring 2016 - Eval: 4.55 (Avg: 4.13)

Econ 711: Microeconomic Theory Seq. I (Ph.D.), Fall 2015 - Eval: 4.43 (Avg: 4.01)

Econ 101: Principles of Microeconomics (Undergraduate), Spring 2015 - Eval: 4.35 (Avg: 4.02)

Econ 302: Intermediate Macroeconomics Theory (Undergraduate), Fall 2014 - Eval: 3.98 (Avg: 3.97)

Centro de Investigación y Docencia Económicas (CIDE) Advanced Microeconomic Theory (Undergraduate – Fall 2012) Game Theory (Undergraduate – Spring 2012) Intermediate Microeconomics (Undergraduate – Spring 2011) Intermediate Macroeconomics (Undergraduate – Fall 2010)

Research Experience and Other Employment

Research Assistant for Professor Marzena Rostek, UW-Madison, Spring 2016 - current Research Assistant for Professor William H. Sandholm, UW-Madison, Spring 2018 Research Assistant for Professor Scott Gehlbach, UW-Madison: Political Science, Winter 2017 Summer Research Intern, Financial Stability Unit of the Bank of Mexico, Summer 2015 Research Assistant for Professors Maria José Roa and Alberto Ortiz, CEMLA, 2012-2013 Research Assistant for Professors Victor Carreón and Kurt Unger, CIDE 2011-2012

Honors, Scholarships and Fellowships

Nomination to the Capstone PH.D. Teaching Award (by the Economics department), Fall 2019 Graduate School University Fellowship, UW-Madison, 2013 – 2019 Conference Presentation Grants, UW-Madison, 2019 Conference Presentation Grants, UW-Madison, 2018 Distinguished Teaching Assistant Award, UW-Madison, 2016 Exchange Program Fellowship for Duke University, CIDE, 2011 Academic Excellence Fellowship, CIDE, 2008-2011

Conferences and Seminars

The 30th Stony Brook International Conference on Game Theory, Summer 2019 Midwest Economic Theory Conference, Fall 2019 Midwest Economic Theory Conference, Fall 2018 UW-Madison Theory Workshop, Fall 2018 Theory Research Team - UW-Madison Student Workshop, 2017 - 2018 Central Bank of Mexico (Banxico), Financial Stability Unit Seminar, Summer 2015 Center for Latin American Monetary Studies (CEMLA), Young Researchers' Seminars, Spring 2013

Student Involvement Activities

Mentor and tutor for dozens of undergraduate students in one-on-one settings, 2015 – Current Instructor at the annual training for new Teaching Assistants, UW-Madison, Fall 2019 Instructor at the annual training for new Teaching Assistants, UW-Madison, Fall 2018 Organizer of the theory students research seminar (TRT), UW-Madison, 2017-2018 Leader of a Latino-culture student organization (open to the public), UW-Madison, 2017-2018 Advisor for the MS students' summer research project, UW-Madison, Summer 2017 President of the PhD. student association (former JRC, now WEGO), UW-Madison, 2015-2016

Programming Languages

MATLAB, Stata, EViews, R, Python, Excel

Essays on Applied Microeconomic Theory

Dissertation Abstract

Gabriel Martinez-Roa

University of Wisconsin-Madison

Bayesian Persuasion in the Digital Age

In digital platforms, agents have vast access to information, but the quality of it is unclear. I study this phenomenon as a Bayesian persuasion game with multiple senders that have partial control over the beliefs of a receiver. The receiver knows the signal chosen by all senders but randomly observes the realization of only one such signal. Senders can pool their signals, so the receiver is uncertain about the informativeness of the message received. This uncertainty may incentivize a sender to provide more or less information compared to the benchmark without uncertainty about the source. The main insight is that each sender's optimal signal is chosen to affect the average informativeness of messages given the communication strategies of other senders. I apply this framework in some important examples to derive policy recommendations for information platforms like social media.

Dynamic Trading in Decentralized Markets

Most financial assets are traded in multiple trading venues. We study a model of imperfectly- competitive trading where agents have multiple opportunities to trade risky assets. We consider decentralized markets: that is, there are coexisting exchanges for many assets and any number of strategic traders. We characterize the equilibrium dynamics of prices, trades, and price impact. Markets with the same prices, allocations, and price impact may differ in their dynamic efficiency properties depending on the characteristics of traders and their participation in different exchanges. We provide necessary and sufficient conditions - on trader participation alone - for markets to be dynamically efficient as the number of rounds grows to infinity. Decentralized markets for a single asset (or, more generally, standardized assets) are always dynamically efficient. For assets traded at low frequencies, even markets that are not dynamically efficient can give rise to higher total welfare than the centralized market. Increasing trading frequency can lower welfare due to the interaction of price impact and market incompleteness (i.e., limited participation in the exchanges).

Hospital Incentives under Capitation and Fee-for-Service Contracts

In the Colombian health care system, the government regulates the relationship between insurers and hospitals by fixing a menu of contracts from which they can choose for the provision of health services. The menu of contracts includes "capitation" and "fee-for-service" (FFS), which represent 80% of the claims in 2010. In capitation contracts hospitals are paid a fixed amount per patient, regardless of treatment; while in FFS contracts, insurers fully pay the hospitals for each service. We use a comprehensive dataset of individual patients' claims in the Colombian healthcare system. We estimate the extent to which these financial incentives distort the provision of health services and their effect on patient's outcomes.

Games among Groups

Externalities and peer effects typically apply to groups rather than all agents. We model noncooperative interactions among a finite number of players who interact through any number of groups (a hypergraph). Groups endogenously change how the players value the interaction and contribute to it. Interaction through groups can realize a surplus that cannot be attained by a single group among the same players. The group structure determines players' influence on one another. The effects on the player's influence are essential to understand why groups matter. Private clubs (interactions among some agents) can increase welfare if they are exclusive and not too prevalent. Different group interactions enhance equilibrium surplus from externality vs. risk-sharing.

<u>Yue Qiu</u>

(Updated: October 2019)

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Education

University of Wisconsin - Madison – Ph.D. in Economics (*Expected* May 2020) University of Wisconsin - Madison – M.S. in Economics (2016) University of International Business and Economics – B.A. in Economics with Honors (2014)

Dissertation

"Essays in Industrial Organization and Health Economics"

Abstract Summary: The first chapter of my dissertation estimates a structural demand model for HIV cocktail regimens and simulate the regimen price change if drug manufactures coordinate and price on regimens instead of component drugs. The second chapter examines the effect of an airline merger with a potential competitor on the flight frequency. The third chapter studies the factors that cause non-adherence in anti-cholesterol drugs.

References:

Alan Sorensen University of Wisconsin-Madison 608-263-3867 sorensen@ssc.wisc.edu Ken Hendricks University of Wisconsin-Madison 608-263-3869 hendrick@ssc.wisc.edu

Lorenzo Magnolfi University of Wisconsin-Madison 608-262-8789 magnolfi@wisc.edu

Research Fields

Industrial Organization, Health Economics, Applied Econometrics

Research Papers

"Coordination in a Market with Bundles-A Case of HIV Cocktail Therapy", Job Market Paper "Mergers with a Potential Competitor-Evidence from the American Airline/US Airways Merger" "What Cause Medication Non-Adherence? A Study of Anti-Cholesterol Drugs"

Teaching Experience

Econ 310: Statistics-Measurement in Economics (Fall 2015-Spring 2018)

Research Experience

Project Assistant for Professor Ananth Seshadri, University of Wisconsin-Madison, Summer 2018-Present

Programming Languages

MATLAB, Stata, R, Python, SQL, Gauss

Essays in Industrial Organization and Health Economics

Dissertation Abstract

Yue Qiu

University of Wisconsin-Madison

Coordination in a Market with Bundles-A Case of HIV Cocktail Therapy

The cocktail regimen for HIV patients consists of a bundle of HIV drugs from different drug manufacturers. Each drug manufacturer sets prices for its own HIV drugs. However, it has become a trend that drug manufacturers collaborate on the production of a regimen and price on the regimen directly. This paper estimates a structural demand model for HIV cocktail regimens with insurance claims data. It then uses the model to simulate the price change for HIV regimens if drug manufacturers coordinate and price on regimens instead of component drugs.

Mergers with a Potential Competitor-Evidence from the American Airline/US Airways Merger

This paper examines how an airline merger with a potential competitor affects flight frequency. Before the merger, American Airlines and US Airways were potential competitors. When one merged carrier serviced an airport-pair, the other merged carrier operated in at least one endpoint airport. The result of a difference-in-differences model shows that the merger caused the merged carriers to decrease their flight frequency relative to that of the carriers in the control group. This finding is consistent with the hypothesis that merging with a potential competitor would remove a potential entry threat and lead to the drop in the excess capacity used to deter entry.

What Cause Medication Non-Adherence? A Study of Anti-Cholesterol Drugs

Poor adherence to medications for chronic diseases leads to a lower quality of life for patients and associated with high societal costs. This paper uses the insurance claims data to study the adherence to anti-cholesterol drugs. It estimates a proportional hazards model to examine the potential factors that cause the medication non-adherence, including patient-specific factors, and the role of physicians and health insurance. It also proposes possible solutions that will improve medication adherence.

Adam James Smith

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Education

University of Wisconsin - Madison – Ph.D. in Economics (*Expected* May 2020) University of Wisconsin - Madison – M.S. in Economics (2015) University of Sydney – Bachelor of Economics (First Class Honors in Economics and Econometrics, 2013)

Dissertation

"Product Visibility on a Digital Goods Platform" (job market paper) Abstract: This paper explores the tradeoff digital goods platforms face when deciding whether to allocate visibility to established products of known quality or to new products of unknown quality, where quality must be learned by observing the behavior of consumers. Using high frequency data on views and downloads from Nexus Mods, a platform for mods (user generated content) for the popular video game Skyrim, I estimate a structural model of search, downloads, and expectation formation. I find that the platform is currently overexperimenting: by reducing the visibility of new mods they could substantially increase downloads for medium popularity mods without impairing their ability to learn the quality of new mods. The current level of experimentation would be (download) optimal if the number of new mods arriving was higher. Consumer search behavior is sensitive to the level of experimentation, suggesting platforms need to consider equilibrium effects when deciding on how much visibility to give new products.

References:

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sorensen@ssc.wisc.edu	hendrick@ssc.wisc.edu

Research Fields

Industrial Organization, Digital Economics, Applied Econometrics

Research Papers

"Demand on the College Market" (with Chao Fu, Junjie Guo, and Alan Sorensen) "Mergers and Consumer Welfare in the Hotel Industry" (with Yun Ling)

Teaching Experience (Teaching Assistant)

Econ 101: Introductory Microeconomics - Fall 2013, Spring 2014, Fall 2014 (Head TA), Spring 2015 (Head TA), Summer 2015 (Head TA), Spring 2018 (Head TA), Fall 2019 Econ 410: Introductory Econometrics - Spring 2019 Math 211: Introductory Calculus for Business - Fall 2017 Math 234: Multivariate Calculus - Fall 2018

Research Experience and Other Employment

Research Assistant for Professor Alan Sorensen, University of Wisconsin-Madison (Fall 2015 – Spring 2017) Export profile forecasts for Wisconsin Economic Development Corporation (May – August 2018)

Awards

Juli Plant Grainger Outstanding Teaching Award (Spring 2018) Nominated for Early Excellence in Teaching Award (Fall 2014) Nominated for Capstone Ph.D. Teaching Award (Fall 2019)

Programming Skills

Python, Stata, Matlab, Fortran, R, SQL

Essays in Industrial Organization

Dissertation Abstract

Adam James Smith

University of Wisconsin-Madison

Chapter 1: Product Visibility on a Digital Goods Platform (job market paper)

This paper explores the tradeoff digital goods platforms face when deciding whether to allocate visibility to established products of known quality or to new products of unknown quality, where quality must be learned by observing the behavior of consumers. Using high frequency data on views and downloads from Nexus Mods, a platform for mods (user generated content) for the popular video game Skyrim, I estimate a structural model of search, downloads, and expectation formation. I find that the platform is currently over-experimenting: by reducing the visibility of new mods they could substantially increase downloads for medium popularity mods without impairing their ability to learn the quality of new mods. The current level of experimentation would be (download) optimal if the number of new mods arriving was higher. Consumer search behavior is sensitive to the level of experimentation, suggesting platforms need to consider equilibrium effects when deciding on how much visibility to give new products.

Chapter 2: Demand on the College Market (with Chao Fu, Junjie Guo, and Alan Sorensen)

This paper seeks to understand student preferences for colleges. We build a structural model of students' application portfolio choice problem and estimate it using data from the Educational Longitudinal Survey. Two key inputs to this problem, the probability that a students is admitted and the probability that a student received financial aid, are estimated using machine learning techniques (XGBoost). The model is then used to simulate the effects of various counterfactual changes to the college market, such as giving students access to in-state tuition rates nation wide, removing cross-state tuition agreements, and opening or closing colleges in particular locations.

Chapter 3: Mergers and Consumer Welfare in the Hotel Industry (with Yun Ling)

Marriott and Starwood's merger in early 2016 created the largest hotel chain worldwide. Our research seeks to understand the effects of this merger on market outcomes such as prices and consumer welfare. We scrape the menu of prices for all hotels in 400 markets in the U.S. from two hotel search websites, from July 2016 to present. We analyze the effect of the merger using a dif-and-dif strategy that compares the change in prices in markets affected by the merger to those not affected by the merger.

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(Updated: September 2019)

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Phone: (608) 772-8897 Email: steve.wu@wisc.edu Website: https://sites.google.com/view/stevewu Citizenship: Hong Kong SAR, China

Education

University of Wisconsin - Madison – Ph.D., Economics (*Expected* June 2020) **Boston University** – M.A., Economics (2014) The University of Hong Kong – Bachelor of Economics and Finance (2011)

Dissertation: Essay in exchange rates and debt in international economies

Job market paper abstract ("Corporate Balance Sheets and Sovereign Risk Premia"): We find that an increase in foreign currency (FC) corporate external debt has a significant positive effect on sovereign financing costs in emerging countries and build a model to study the relationship. Empirically, we decompose sovereign credit default swaps (CDS) into their risk premium and default premium (default probability). A 1% increase in FC corporate debt is associated with a 5 basis point increase in the risk premium but a small and insignificant change in the default premium. We incorporate a corporate sector and risk-averse foreign lenders into a sovereign default model. Corporates choose their investment and FC external debt. An increase in corporate debt facilitates investment, which increases expected tax revenue. This effect reduces the sovereign default probability. The FC debt brings in additional exchange rate risk to tax revenue. This effect increases the sovereign default probability. The two opposite forces lead to an insignificant effect on the sovereign default premium. Because the lenders' currency tends to appreciate in their bad times, higher FC corporate debt causes tax revenues to shrink, thus the sovereign is more likely to default when FC appreciates, leading to a higher sovereign risk premium. Corporates do not internalize their effect on the sovereign bond pricing, leaving room for policy improvement.

References:

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Menzie David Chinn University of Wisconsin-Madison (608) 262-7397 mchinn@lafollette.wisc.edu

Kenneth West (Co-chair) University of Wisconsin-Madison (608) 262-0033 kdwest@wisc.edu

Research Fields

International Macroeconomics, Monetary Economics, Macroeconomics

Research Papers

"Corporate Balance Sheets and Sovereign Risk Premia" (Job market paper)

"Liquidity and Exchange Rates: An Empirical Investigation", with Charles Engel (Submitted)

"Exchange rate puzzles: Evidence from Rigidly Fixed Nominal Exchange Rate Systems", with Charles Engel, Jimmy Shek and Feng Zhu (Work in progress)

"Original Sin Redux: A Model Based Evaluation", with Boris Hofmann and Nikhil Patel (Work in progress) "Determination and Motivation of Foreign Currency Debt: The Case for Korean Firms", with Annie Lee

(Work in progress)

"On the Dynamics of Oil Production and Investment", with Rabah Arezki and Akito Matsumoto (Work in progress)

"Monetary Spillovers: The Role of International Currency" (Field paper)

Publications

"The Uncovered Interest Rate Parity Puzzle, Exchange Rate Forecasting, and Taylor Rules," (with Charles Engel, Dohyeon Lee, Chang Liu, Chenxin Liu) **Journal of International Money and Finance** 95, July 2019, 317-331 (<u>link</u>)

Teaching Experience

Econ 330: Money and banking - Fall 2015 Econ 102: Intro to Macroeconomics - Spring 2016

Research Experience and Other Employment

Research Assistant for Professor Charles Engel, University of Wisconsin-Madison, 2016-present PhD Fellow, Bank for International Settlements, summer 2019 PhD Fellow, Hong Kong Institute of Monetary Research (Hong Kong Monetary Authority), summer 2018 PhD Intern, Fund Internship Program, International Monetary Fund, summer 2017 Research Assistant for Professor Ken West, University of Wisconsin-Madison, summer 2016 Trainee, Société Générale Corporate and Investment Banking (Asia) Ltd – Hong Kong, 2011-2012, and 2014

Honors, Scholarships and Fellowships

Ko and Ying Shih Fellowship, University of Wisconsin-Madison, 2019 Walker Family Fellowship, University of Wisconsin-Madison, 2018 Summer research fellowship, University of Wisconsin-Madison, 2017 HKU Worldwide Exchange Scholarship, 2010

Conferences and Seminars

2019: Midwest Macro Meetings (fall 2019, scheduled), Economics Graduate Student Conference (St Louis, scheduled), Minnesota-Wisconsin International/Macro Conference (spring2019, fall 2019), Conference on "Exchange Rates and Macroeconomic Policies: Recent Developments" (CityU Hong Kong, scheduled) 2018: Midwest Macro Meetings (spring2018), Hong Kong Institute of Monetary Research 2017: International Monetary Fund

Programming Languages

Fortran, MATLAB, Stata, R, RATS

Languages

English (fluent), Cantonese (native), Mandarin (fluent), Taiwanese (fluent)

Essays in Exchange Rates and Debt in International Economies

Dissertation Abstract

Steve Pak Yeung Wu

University of Wisconsin-Madison

Corporate Balance Sheets and Sovereign Risk Premia (Job market paper)

We find that foreign currency (FC) corporate external debt has a significant effect on sovereign financing costs in emerging countries and build a model to study the relationship. Empirically, we decompose sovereign credit default swaps (CDS) into their risk premium and default premium (default probability). A 1% increase in FC corporate debt is associated with a 5 basis point increase in the risk premium but a small and insignificant change in the default premium. We incorporate a corporate sector and risk-averse foreign lenders into a sovereign default model. Corporates choose their investment and FC external debt. An increase in corporate debt facilitates investment, which increases expected tax revenue. This effect reduces the sovereign default probability. The FC debt brings in additional exchange rate risk to tax revenue. This effect on the sovereign default premium. Because the lenders' currency tends to appreciate in their bad times, higher FC corporate debt causes tax revenues to shrink, thus the sovereign is more likely to default when FC appreciates, leading to a higher sovereign risk premium. Corporates do not internalize their effect on the sovereign bond pricing, leaving room for policy improvement.

Liquidity and Exchange Rates: An Empirical Investigation

(with Charles Engel)

We find strong empirical evidence that economic fundamentals can well account for nominal exchange rate movements. The important innovation is that we include the liquidity yield on government bonds as an explanatory variable. We find impressive evidence that changes in the liquidity yield are significant in explaining exchange rate changes for all of the G10 currencies. Moreover, after controlling for liquidity yields, traditional determinants of exchange rates – adjustment toward purchasing power parity and monetary shocks – are also found to be economically and statistically significant. We show how these relationships arise out of a canonical two-country New Keynesian model with liquidity returns. Additionally, we find a role for sovereign default risk and currency swap market frictions.

Original Sin Redux: A Model-Based Evaluation

(with Boris Hofmann and Nikhil Patel)

This paper studies the "Original sin redux" hypothesis in a two-country New Keynesian-DSGE framework. Emerging economies have been able to overcome the "original sin" and issue debt in local currency in recent years. We show that while this helps mitigate the vulnerability to external shocks, it does not completely eliminate it, as long as the currency mismatch remains on the balance sheet of lenders that are financially constrained (original sin redux). We study some policy recommendations such as sterilized foreign exchange (FX) interventions and increasing the domestic investor base that can help reduce the external vulnerability emanating from foreign borrowing.