## Cornell Economics Ph.D Students 2015-16

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Goel, Tirupam</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Ha, Jongrim</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>Kingi, Hautahi</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Lee, Jaesun</td>
<td>P</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>Lopes, Jose</td>
<td>P</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td>S</td>
</tr>
<tr>
<td>McGavock, Tamara</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Milton, Ross</td>
<td></td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>S</td>
<td>P</td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Mohapatra, Debi</td>
<td>S</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Pan, June</td>
<td>S</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Tai, Kei Fung Dennis</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Zhao, Nellie</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
<tr>
<td>Zsiros, Janos</td>
<td>S</td>
<td>P</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>P</td>
<td></td>
<td></td>
<td>P</td>
</tr>
</tbody>
</table>
**Tirupam Goel**  
Curriculum Vitae

**Contact Information**  
Department of Economics,  
Cornell University,  
404 Uris Hall, Ithaca, NY 14853  
+1 607 527 0172  
tirupam@gmail.com  
https://sites.google.com/site/tirupam

**Placement Committee**  
Chair: Prof. Karl Shell  
+1 607 255 5277; karl.shell@cornell.edu  
Assistant: Andrea Conlon  
+1 607 255 4893; arc54@cornell.edu

**References**  
Prof. Assaf Razin (co-advisor)  
Department of Economics, Cornell University  
+972 3 640 7303  
razin@post.tau.ac.il

Prof. Maxim Troshkin (co-advisor)  
Department of Economics, Cornell University  
+1 607 255 6337  
troshkin@cornell.edu

Prof. Eswar S. Prasad  
Dyson School of Applied Economics & Management, Cornell University  
+1 607 255 5687  
eswar.prasad@cornell.edu

Prof. Karel Mertens  
Department of Economics, Cornell University  
+1 607 255 6287  
km426@cornell.edu

**Fields**  
Macroeconomics, Financial Economics, Computational Economics  
*Research Interests:* Financial Fragility, Macroeconomic and Financial Policy

**Education**  
Ph.D. in Economics, **Cornell University**  
2016 (expected)

M.A. in Economics, **Cornell University**  
2015

B.S. & M.S. in Mathematics, **Indian Institute of Technology (IIT) Kanpur**  
2004 – 2009

**Research**  
- Banking Industry Dynamics and Size Dependent Leverage Regulation (*Job market paper, Oct 2015*)
- Assessing the Natural Rate of Unemployment (*with John M. Abowd and Lars Vilhuber, Working paper, Apr 2013, Under revision*)
- Financial contagion in multiple-edge interbank networks (*Working paper, Apr 2014*)
- Countercyclical Capital Regulation: Rules vs. Discretion (*with Isha Agarwal, In progress, Oct 2015*)

**Seminars & Conferences**  
India Finance Conference  
Winter 2015

Mid-West Macro Conference  
Fall 2015

Macro / International Seminar, Cornell University  
Spring & Fall 2014, Fall 2015

Indian Institute of Management (IIM), Calcutta  
Spring 2015

Indian Institute of Technology (IIT), Kanpur  
Spring 2015

**Relevant Experience**  
Research assistant to Prof. John M. Abowd  
2012 – Present

Research assistant to Prof. Maxim Troshkin  
Summer 2014

Teaching assistant to Prof. Karl Shell, Accelerated Macroeconomics  
Spring 2014

HSBC Analytics, *Business Analyst*  
2009 – 2011

Reserve Bank of India, *Intern*  
Summer 2009

Morgan Stanley, *Intern*  
Summer 2008

**Skills**  
SAS, Matlab, Excel with VBA, Dynare, JAVA

**Awards & Achievements**  
L. R. ‘Red’ Wilson Research Excellence Medal, Cornell University  
2015

Cornell Graduate School Travel Grant  
2015

Sage Fellow, Cornell University  
2011

Technology Innovation Award, HSBC (shared)  
2011

Leading Light Award, HSBC  
2010

Best Masters Thesis, Indian Institute of Technology (IIT) Kanpur  
2009

Physics Olympiad, National Top 1% (India)  
2004

Chemistry Olympiad, National Top 1% (India)  
2004

Page: 1/2
**Banking Industry Dynamics and Size Dependent Leverage Regulation** *(Job Market Paper)*

I develop a general equilibrium model with a dynamic banking sector to characterize optimal size dependent bank leverage regulation. Bank leverage choices are subject to the risk-return trade-off: high leverage increases expected return, but it also increases variance of return and bank failure risk. Due to financial frictions, bank leverage choices are inefficient, and I show that leverage regulation can generate welfare gains. The optimal regulation is tighter relative to benchmark, and in particular it is bank size specific - it is tighter for large banks relative to small banks. Intuitively, tighter regulation results in a smaller bank exit rate and a larger equilibrium mass of better capitalized banks. Even though capital stock and wages are smaller, welfare increases due to smaller bank failure losses, smaller startup costs, and higher bank dividends. The welfare gains from a size dependent regulation comes from three channels. Firstly, allowing small banks to take more leverage enables them to potentially grow faster conditional on survival, leading to a selection effect. Secondly, although more leverage by small banks results in a higher exit rate, these exits are less costly. Moreover, entrant banks have higher mean efficiency relative to failed banks, leading to a cleansing effect. Thirdly, large bank failures are more costly since large banks are more efficient in equilibrium and intermediate more capital. In fact, to replace failed large banks, entrants need time to grow, during which, the period operating costs are incurred. Therefore, tighter regulation for large banks renders them less prone to failures, leading to a stabilization effect. The calibrated model rationalizes various steady state moments of the US banking industry, and points towards qualitatively similar but quantitatively tighter leverage regulation relative to Basel III.

**Assessing the Natural Rate of Unemployment** *(with John M. Abowd and Lars Vilhuber)*

Careful application of the Abowd & Vilhuber (2011) method for creating national time series from the detailed disaggregated Quarterly Workforce Indicators (QWI) data reveal that economy-wide movements in the trend plus cycle component of the excess accession rate mirror the same components of the unemployment rate. While the local (state) wise measures of unemployment rate are benchmarked to the national level, the local measures of excess accession rate are not. In this paper, we exploit this property of the QWI data to isolate the local labor market flows that contribute bulk of the Great Recession movement in worker and job flow statistics. To this end, we develop a state space model where trend and cyclical components of Macroeconomic aggregates, and, labor market flow and stock variables, are jointly estimated. Local drivers of movement in natural rate of unemployment are characterized.

**Financial contagion in multiple-edge interbank networks**

Banks are subject to idiosyncratic and aggregate shocks on both asset and liability sides of the balance sheet. To hedge against the idiosyncratic shocks, banks contract with each other. However, these interbank linkages also serve as channels of contagion. Studies have investigated the contagion problem in interbank network models where any two banks are assumed to have utmost one directed or undirected contract between them. In this paper, I show that the standard intuition of contagion does not translate to the case when banks engage in multiple, non-additive contracts with other banks. To this end, I develop a multiple-edge interbank network model where banks engage in two different types of contracts with other banks, and characterize the set of parameters where the contagion problem is worsened.

**Countercyclical Capital Regulation: Rules vs. Discretion** *(with Isha Agarwal)*

It is now well documented that a time invariant minimum capital requirement for banks has procyclical effects on the business cycle. It has been suggested in practice and in literature that a countercyclical capital buffer (CCB) requirement can address this issue. However, it is not clear whether this requirement should be implemented strictly as a rule, or whether regulators should have some discretion with respect to the timing and magnitude of this time varying capital requirement. Discretionary policy gives regulators flexibility in responding to changing economic conditions, but it also generates policy induced uncertainty. On the other hand, robust rules allow banks to form relatively precise expectations. In this paper, we investigate the welfare implications of this trade-off the regulator faces. In particular, we compare the discretionary and rule based implementations of CCR proposed in Basel III. We also propose and study an alternative rule based CCR that is contingent on asset prices instead of growth in credit to GDP ratio. The idea behind an asset based CCR is that it is asset specific, and is automatically countercyclical in addressing the fire sale issue. The hypothesis is that these properties of the asset based CCR are welfare improving.
Jongrim Ha

Contact: (+1) 917-825-0002, jongrim.ha@gmail.com, https://sites.google.com/site/jongrinhaha
Department of Economics, Cornell University, 453 Uris Hall, Ithaca, NY 14850

Citizenship / Visa Status: South Korea / F1

Education: Ph.D. in Economics, Cornell University (expected completion: May 2016)
B.A. in Economics, Seoul National University (South Korea), Cum Laude (Feb. 2004).

Fields of Concentration: Open-economy Macroeconomics, Monetary economies, International finance

Placement Committee: Chair: Prof. Karl Shell, (+1) 607-255-5277, karl.shell@cornell.edu
Assistant: Andrea Conlon, (+1) 607-255-4893, arc54@cornell.edu

Special Committee
Prof. Eswar S. Prasad (Co-chair)
Charles H. Dyson School of Applied Economics and Management, Cornell University
(+1) 607-255-5687
eswar.prasad@cornell.edu

Prof. G. Andrew Karolyi (Member)
Samuel Curtis Johnson Graduate School of Management, Cornell University
(+1) +650-255-2153
gak56@cornell.edu

Prof. Kristoffer P. Nimark (Member)
Department of Economics, Cornell University
(+1) 607-255-0596
pkn8@cornell.edu

Research & Work Experience
Research assistant to Prof. Eswar S. Prasad, Cornell University, Jan. 2013– present.
Secretary to the Governor of the Bank of Korea: Mar. 2007–Feb. 2009; composed papers for governor

Teaching Experience
Spring 2015 - Teaching Assistant for ECON1120: Introductory Macroeconomics, Cornell University; Teaching Evaluation: 4.37/5.00
Summer 2015 - Teaching Assistant for ECON 1100: Introductory Microeconomics, Cornell University.
Summer 2014 - Teaching Assistant for ECON 1100: Introductory Microeconomics, Cornell University.
Fall 2014 - Teaching Assistant for ECON3420: Intermediate Macroeconomics, Cornell University.
Summer 2013 - Teaching Assistant for ECON 1100: Introductory Microeconomics, Cornell University.
Fall 2013 - Teaching Assistant for ECON1120: Introductory Macroeconomics, Cornell University.

Honors and Awards
Study Abroad Fellowship, Bank of Korea, Jul. 2010
Minister of Finance Commendation, Dec. 2006
Merit Scholarship, Kwanjeong Educational Foundation, Spring 2003
Merit Scholarship, Seoul National University, Fall/Spring 1998-1999, Fall 2002

Seminars and Conferences
Presenter, Macroeconomic seminar, Cornell University, Oct. 2015
Presenter & Discussant, Third-year research seminar, Cornell University, Apr. 2014
Participant, Fall 2013 Cornell/Penn State Macro Workshop, Sep. 2013
Bank Representative, OECD Meeting on Economic Forecasting May 2006

Reviewer For: Journal of International Money and Finance (2014).
1. International transmission of U.S. monetary policy shocks in open financial markets (Job Market Paper)

I investigate the international transmission of U.S. monetary policy shocks into open financial markets. Unlike earlier studies that impose arbitrary relationships on endogenous variables, I use the external instrument approach to identify the impact of U.S. and domestic monetary policy shocks in a structural VAR (SVAR) system. Utilizing the identified shocks for the local projection estimation, I further test non-linear features of such transmission. I find that foreign exchange rates respond flexibly to monetary shocks, i.e., avoiding puzzles raised by earlier studies (e.g., delayed overshooting) and that the shocks strongly propagate into other types of open financial markets as well. I also confirm the significant transmission of domestic monetary shocks, but U.S. shocks appear to exhibit greater and more persistent influences over domestic asset prices than domestic shocks. Moreover, the responses of international asset prices support stylized cyclical-dependency and asymmetry in the propagation of U.S. monetary shocks. These results imply that U.S. monetary announcements and subsequent reactions of U.S. asset prices play a critical role in international financial markets and this can substantially limit policy effects from domestic central banks.

2. Which monetary shocks matter in small open economies? Evidence from SVARs (with I. So, under revision)

This paper investigates the nature of monetary policy transmission in four small open economies—Australia, Canada, South Korea, and the U.K.—and the U.S. (the benchmark) by estimating structural vector autoregressive models using the external instrument identification method. Differing from related studies on U.S. monetary policy, which mostly employ high-frequency futures data on monetary policy operating instruments (federal fund futures rates) to identify monetary policy shocks, we propose and test alternative sets of external instruments for the four focal open economies that do not yet have well-established futures markets in monetary policy instruments. The empirical results obtained by applying this data-oriented method yield important messages from both the econometric and macroeconomic perspectives. First, U.S. monetary policy plays an important role in monetary transmission in SOEs, presumably hampering the effectiveness of domestic monetary policy. In particular, the effect of domestic monetary policy shocks on medium- and long-term interest rates is quite weak and short-lived, while U.S. monetary innovation significantly and persistently influences domestic financial variables. Second, the paper provides some evidence that foreign exchange rates in this process respond to monetary shocks consistently with Dornbusch (1976)’s overshooting hypothesis.

3. What explains volatility spillovers in the financial systems of emerging market countries: co-movement, transmission, or contagion? (Dec. 2013, under revision)

This paper investigates the occurrence of dependency between foreign exchange markets and stock markets in emerging market (EM) countries by testing volatility spillovers of asset returns using a BEKK GARCH (1,1) model. The author modifies the classical BEKK GARCH model in order to study the dynamics and origins of volatility spillovers. The study’s empirical results are threefold. First, volatility spillovers between the foreign exchange and stock markets are significant in most EM countries. Second, such spillovers are found to be contingent on the sample period and market conditions, a result that is generally consistent with findings in the literature on time-varying, asymmetric, and contagion-shift spillovers. The paper also examines the sources of volatility spillovers, namely, co-movement through common information, sequential information transmission, and contagion, by specifying alternative models that restrict the mean equation of the GARCH model. The results suggest that, under normal conditions, the relevant spillovers are explained mostly by co-movement from common information about fundamentals; during crises, however, while common information plays a role, market contagion also becomes an important source of spillovers.

4. What news shocks from the FOMC? (with Prof. Karel Mertens, work in progress)

Publications (Cornell)

Publications (Bank of Korea)
4. Factors influencing housing price spread between southern and northern areas of Seoul and implications for the monetary policy of the Central Bank (with G. Choi), Bank of Korea working paper competition, Jun. 2006
5. Analysis of the impact of expanding IT technology use to total factor productivity (with J. Park), Monthly Bulletin, Bank of Korea, Jul. 2005
International transmission of U.S. monetary policy shocks in open financial markets
(Job market paper)

Jongrim Ha†

November 11, 2015

Abstract

I investigate the international transmission of U.S. monetary policy shocks into open financial markets. Unlike earlier studies that impose arbitrary relationships on endogenous variables, I use the external instrument approach to identify the impact of U.S. and domestic monetary policy shocks in a structural VAR (SVAR) system. Utilizing the identified shocks for the local projection estimation, I further test non-linear features of such transmission. I find that foreign exchange rates respond to monetary shocks flexibly, i.e., without puzzles raised by earlier studies (e.g., delayed overshooting) and that the shocks strongly propagate into other types of open financial markets as well. I also confirm the significant transmission of domestic monetary shocks in open economies, but U.S. shocks appear to exhibit greater and more persistent influences over domestic asset prices than domestic shocks. Furthermore, the responses of international asset prices support stylized cyclical-dependency and asymmetry in the propagation of U.S. monetary shocks. These results imply that U.S. monetary announcements and subsequent reactions of U.S. asset prices play a critical role in international financial markets and this can substantially limit policy effects from domestic central banks.

JEL code: E44, E52

Keywords: monetary policy transmission, external instrument identification, structural VAR model, local projection method, open economy

*I am very grateful to Prof. Eswar S. Prasad, Prof. Karel Mertens, Prof. G. Andrew Karolyi, Prof. Kristoffer Nimark, and Prof. Karl Shell for helpful comments and encouragements. I enjoyed several helpful discussions with Lawrence Jin, Inhwan So, and macroeconomics seminar participants at the Cornell University and the paper benefited from their feedback.

†Cornell University, 453 Uris Hall, Ithaca, NY 14850. Email: jh2272@cornell.edu.
EDUCATION

**Ph.D.**  Economics, Cornell University, 2016 (Expected)

**M.A.**  Economics, Cornell University, 2015

**B.C.A.**  Economics & Finance, Victoria University of Wellington, 2011 (*First Class Honors*)

**B.Sc.**  Mathematics & Statistics, Victoria University of Wellington, 2010

**Fields**  Macroeconomics; International Economics; Computational Economics

**Advisers**  Karel Mertens (Chair), John Abowd, Chris Huckfeldt

ACADEMIC AND PROFESSIONAL EXPERIENCE

**Cornell University**, 2012 - Present  
* Instructor, High Performance Computing Workshop  
* Teaching Assistant for Karel Mertens, PhD Macroeconomics  
* Teaching Assistant for Ron Ehrenberg, Economic Analysis of the University  
* Teaching Assistant for Jennifer Wissink, Introductory Macroeconomics  
* Research Assistant for Maxim Troshkin  
* Research Assistant for Lars Villhuber, Labor Dynamics Institute

**International Monetary Fund**, Summer 2012  
* Research Associate, Asia and Pacific Department

**PricewaterhouseCoopers**, 2007 - 2011  
* Consultant, Economics and Finance Advisory  
* Analyst, Corporate Finance

**Victoria University**, 2009 - 2011  
* Teaching Assistant for Stephen Burnell, Microeconomic Principles  
* Teaching Assistant for Vladimir Petkov, Intermediate Microeconomics

AWARDS

* Louis Walinsky Fund in Economics Outstanding Teaching Award, 2014  
* William Georgetti Scholarship, 2012 - 2015  
* Bernard Edward Murphy Memorial Scholarship for Economics, 2010  
* Victoria University Graduate Award, 2010  
* Jan Whitwell Prize in Macro and Monetary Economics, 2009  
* Financial Services Institute of Australasia Prize in Corporate Finance, 2009  
* Sir Apirana Ngata Memorial Scholarship, 2009  
* Alumni Association Faculty Award, 2007  
* Victoria University School-Leaver Scholarship for Academic Excellence, 2006  
* PricewaterhouseCoopers Scholarship, 2005  
* Maori Education Trust Undergraduate Higher Learning Scholarship, 2005
RESEARCH

Working Papers

· The Dynamic Effects of Immigration (Job Market paper)

I examine the welfare effect of immigration on United States workers within a dynamic search and matching model in which migrants and natives differ according to their outside options, separation rates, wealth holdings and skill composition. Immigration affects native-born welfare by i) altering the skill composition of the labor force, ii) lowering the expected hiring cost of firms, and iii) increasing the rate of return on wealth. I propose a specification of preferences that facilitates a full analysis of the transition dynamics. I show that accounting for these transition dynamics reduces welfare in comparison to the long run steady state. These transition costs disproportionately affect less wealthy households, which are less able to benefit from the temporary increase in asset returns.

· On the Measurement of Federal Taxes as Automatic Stabilizers (with Kyle Rozema)

We develop the first policy relevant estimator for the size of the tax system’s automatic stabilizers. The empirical measure estimates the absorption effect of federal taxes relative to the response of aggregate consumption to income fluctuations. Using the Survey of Consumer Finances, we find that, on average between 1988 and 2009, the tax system decreased the response of aggregate consumption to income fluctuations by 19.5% (from 0.164 to 0.132). The tax system has played a much larger role in stabilizing the macroeconomy than previously thought.

· The Effect of Tax Expenditures on Automatic Stabilizers: Methods and Evidence (with Kyle Rozema)

We analyze the effect of tax expenditures on the stabilizing power of the tax system. We propose a microsimulation strategy which exploits links that we identify between automatic stabilizers, tax expenditures, and effective marginal tax rates. Using the Survey of Consumer Finances from 1988 to 2009, we estimate that, on average, the Mortgage Interest Deduction and the Charitable Contributions Deduction increased the sensitivity of consumption to income fluctuations from a baseline of 0.14 by 1.13% and 0.97%, respectively.

Work in Progress

· The Effect of the Mortgage Interest Deduction on Optimal Monetary Policy (with Kyle Rozema)

Tax filers in the United States can reduce their taxable income by the amount of interest paid on home mortgages. The close relationship between mortgage interest rates and the federal funds rate implies a direct link between monetary and fiscal policy. In this article, we first estimate the sensitivity of reductions in tax liability induced by the mortgage interest deduction with respect to the federal funds rate using the Survey of Consumer Finances. We then investigate the implications of this relationship on optimal monetary policy within a New Keynesian framework.

· The Replicability of Economics Research (with Flavio Stanchi and Lars Vilhuber)

Replication, reproduction, and falsification of published articles is an important part of the scientific endeavor. Apart from some notable exceptions, however, very few reproductions of economics articles are published or made available in any other public way. We describe and present the results of a large replication exercise using every article published in the American Economic Journal: Applied Economics for the years 2010, 2011 and 2013.

SKILLS AND ACTIVITIES

<table>
<thead>
<tr>
<th>Statistical Programming</th>
<th>Matlab, R, Python, Stata</th>
</tr>
</thead>
<tbody>
<tr>
<td>Other Programming</td>
<td>\LaTeX, html, SVN, Git, Bash</td>
</tr>
<tr>
<td>Languages</td>
<td>Maori, Spanish (Basic)</td>
</tr>
<tr>
<td>Sport</td>
<td>Cornell Johnson School Rugby, 2011 - Present</td>
</tr>
<tr>
<td></td>
<td>Old Boys University Premier Rugby, 2009 - 2010</td>
</tr>
<tr>
<td></td>
<td>Wellington Maori Mens Representative Rugby, 2009 - 2010</td>
</tr>
<tr>
<td></td>
<td>NZ Under-20 400m Track Medallist, (Bronze 2005; Bronze 2006; Gold 2007)</td>
</tr>
<tr>
<td>Other</td>
<td>Committee Member, Graduate Student Association for Economics, 2012 - 2013</td>
</tr>
</tbody>
</table>
The Dynamic Effects of Immigration

Hautahi Kingi*

October 2015

Abstract

I examine the welfare effect of immigration on United States workers within a dynamic search and matching model in which migrants and natives differ according to their outside options, separation rates, wealth holdings and skill composition. Immigration affects native-born welfare by i) altering the skill composition of the labor force, ii) lowering the expected hiring cost of firms, and iii) increasing the rate of return on wealth. I propose a specification of preferences that facilitates a full analysis of the transition dynamics. I show that accounting for these transition dynamics reduces welfare in comparison to the long run steady state. These transition costs disproportionately affect less wealthy households, which are less able to benefit from the temporary increase in asset returns.

JEL codes: E24, F22, J61, J64

Keywords: Immigration, Search, Employment

*Ph.D. candidate, Cornell University, Department of Economics, Uris Hall, Ithaca, NY 14853, USA, e-mail: hrk55@cornell.edu, web: www.hautahikingi.com
JAESUN LEE
jl2634@cornell.edu
https://sites.google.com/site/jaesuneeweb/
Department of Economics
Cornell University
465 Uris Hall
Ithaca, NY 14850
(607) 279-6122

EDUCATION
Ph.D. in Economics, Cornell University,
Expected Completion: May 2016
DISSERTATION: “Relative Status and Economic Behaviors”

M.A. in Economics, Cornell University, 2015

M.P.A., Public Administration, Financial and Fiscal Policy Concentration, Cornell University, 2013

B.S. in Mathematics Education (Major)/International Relations (Minor), Seoul National University (South Korea), 2007

DISSERTATION COMMITTEE
Prof. Daniel Benjamin (Chair) Prof. Victoria Prowse
Center for Economics and Social Research Department of Economics, Cornell University
University of Southern California (607) 255-4723
(617) 548-8948 vlp33@cornell.edu
djbenjam@usc.edu

Prof. Tatiana Homonoff
Department of Policy Analysis and Management, Cornell University
(607) 255-4821
tah96@cornell.edu

RESEARCH FIELDS AND INTERESTS
Focus: Behavioral Economics (Primary) and Experimental Economics (Secondary)
Other research interests: Public Economics and Labor Economics

TEACHING EXPERIENCE
2015 Teaching Assistant for Prof. Robert Ehrenberg, Economic Analysis of University
2014-15 Teaching Assistant for Prof. Robert Ehrenberg and Prof. Robert Hutchens, Economics of Wage and Employment (Labor Economics)
2014 Teaching Assistant for Prof. Claire Lim, Statistics and Applied Econometrics
2013 Teaching Assistant for Prof. Micky Falkson, Intermediate Macroeconomics
2013 Teaching Assistant for Prof. Jenny Wissink, Introductory Macroeconomics
2012-13  Teaching Assistant for Prof. Richard Burkhauser and Prof. Jenny Wissink, Introductory Microeconomics
2004  Teaching Practicum as a math teacher at Seoul National University Middle School (South Korea)

RELEVANT POSITIONS
2015  Research Assistant for Prof. Claire Lim, Cornell University
2014  Research Assistant for Prof. Victoria Prowse, Cornell University
2011  Research Assistant for Prof. Daniel Benjamin, Cornell University

WORK EXPERIENCE
2006-2010  Samsung C&T Corporation (South Korea), Financial Associate/Market Research Associate
2006  Korean Embassy to the United Kingdom (U.K), Research Assistant
2005  Nemo Partners (Consulting Company, South Korea), Research Assistant

RESEARCH PAPERS

*How does Competition Benefit People Economically and Emotionally?* (Job Market Paper)

This paper investigates the effect of competitive environments on effort provision and mood by conducting a lab experiment and proposes a simple model that incorporates mood in the utility function. Also, it explores how competitive environments experienced in the past affect people's preferences for competitive payment schemes. The results show that people exert more effort and feel worse in more competitive environments while low-rank people suffer most as the working environment becomes more competitive. The findings propose that the effect of earnings may dominate the effect of mood in preferences.

*First-Place Loving and Last-Place Loathing: How Rank in the Distribution of Performance Affects Effort Provision* (with David Gill, Victoria Prowse, and Zdenka Kissova)

Rank-order relative-performance evaluation, in which pay, promotion and symbolic awards depend on the rank of workers in the distribution of performance, is ubiquitous. Whenever firms use rank-order relative-performance evaluation, workers receive feedback about their rank. Using a real-effort experiment, we aim to discover whether workers respond to the specific rank that they achieve. In particular, we leverage random variation in the allocation of rank among subjects who exerted the same effort to obtain a causal estimate of the rank response function that describes how effort provision responds to the content of rank-order feedback. We find that the rank response function is U-shaped. Subjects exhibit 'first-place loving' and 'last-place loathing,' that is subjects increase their effort the most after being ranked first or last. We discuss implications of our findings for the optimal design of firms' performance feedback policies, workplace organizational structures and incentives schemes.

RESEARCH IN PROGRESS

*Does Relative Performance Feedback Alter Risk-taking Behaviors?*

*Asymmetric Responses to Tax Changes: How the Tax Elasticity Differs in Case of Tax Increases versus Decreases*
How does Competition Benefit People Economically and Emotionally?

Jaesun Lee *
Cornell University

This version: Oct 1, 2015

Abstract

This paper investigates the effect of competitive environments on effort provision and mood by conducting a lab experiment and proposes a simple model that incorporates mood in the utility function. Also, it explores how competitive environments experienced in the past affect people’s preferences for competitive payment schemes. The results show that people exert more effort and feel worse in more competitive environments while low-rank people suffer most as the working environment becomes more competitive. The findings propose that the effect of earnings may dominate the effect of mood in preferences.

Keywords: Relative status, feedback, happiness, competitive payments, experiment

JEL Classification: C91, C92, D60, J22, J31, M52

*Department of Economics, Cornell University. Email: jl2634@cornell.edu. The latest version of this paper is available at https://sites.google.com/site/jaesuneee.
JOSE MARIO GUERREIRO LOPES

PhD Candidate in Economics
451 Uris Hall
Cornell University
Ithaca, N.Y. 14853

PERSONAL INFORMATION
Phone: 607-280-3256
Alternative phone: +351 917659316 (Portuguese number)
Email: jml454@cornell.edu
Website: https://sites.google.com/a/cornell.edu/josemariolopes/
Citizenship: Portuguese, F1 VISA

RESEARCH INTERESTS
Primary Fields: Monetary and Macroeconomics, Econometrics and Economic Statistics;
Secondary Fields: International Economics

EDUCATION
Cornell University, Ithaca N.Y., USA
   PhD candidate Economics 2016 (expected)
   Masters of Arts Economics, 2014
INDEG-IUL, Lisbon, Portugal
   Executive Masters (one year post-degree), Tax Management, 2008
Nova School of Business and Economics, Lisbon, Portugal
   Masters Research Economics, 2006
   Bachelor of Science Economics, 2001

LANGUAGES
Portuguese (native), English (fluent), Spanish (conversational), French (conversational), Arabic (beginner)
TEACHING EXPERIENCE
TA positions in Cornell

2015/2016
*Fall*: ECON 3040 Intermediate Macroeconomics (Julieta Caunedo)

2013/2014
*Fall*: ECON 1110 Introductory Microeconomics (Jennifer Wissink)
*Spring*: ECON 3040 Intermediate Macroeconomic Theory (Micky Falkson)

2012/2013
*Fall*: ECON 3210 Applied Econometrics (Claire Lim)
*Spring*: ECON 1110 Introductory Microeconomics (Jennifer Wissink)

Previous work at Nova School of Business and Economics: several TA positions, among which, Calculus II (Steffen Hoernig), Introduction to Macroeconomics (Jose Tavares), Macroeconomics II (Francesco Franco), Applied Econometrics (Joaquim Pina). Research Assistance for Jose Tavares and Francesco Franco.

WORKING PAPERS
"The federal tax multiplier in Canada - a narrative approach" (Job Market Paper)
  Companion paper: "Construction of a Narrative series for Tax Measures in Canada"

"The impact of tax and spending consolidations - a Panel VAR narrative approach"

PUBLICATIONS AND OTHER WORK

"Modelizacao de economias monetarias", Portuguese translation of "Modeling monetary economies", B. Champ and S. Freeman, work at the request of the Calouste Gulbenkian foundation
HONORS AND AWARDS
Scholarship awarded by Fundacao para a Ciencia e Tecnologia (Portugal), 2011-2014

REFERENCES

Karel Mertens
Associate Professor
Department of Economics, Cornell University, 402 Uris Hall, Ithaca, NY 14853
phone: 607-255-6287, email: km426@cornell.edu

Yongmiao Hong
Ernest S. Liu Professor of Economics and International Studies
Department of Economics, 424 Uris Hall, Ithaca, NY 14853
phone: 607-255-5130, email: yh20@cornell.edu

Assaf Razin
Barbara and Steve Friedman (Retired) Professor of International Economics, Cornell University Department of Economics Ithaca, New York, 14853, USA
Bernard Schwartz (retired) Professor, Eitan Berglas School of Economics, Tel Aviv University, Tel Aviv 69978 ISRAEL
phone: 972-58-7900033, email: razin@post.tau.ac.il

Teaching reference

Louis (Micky) Falkson (teaching)
Senior Lecturer
Department of Economics, 474-E Uris Hall, Ithaca, N.Y., 14853
phone: 607-255-4575, email: lmf11@cornell.edu
The impact of federal tax shocks in Canada - a narrative approach

José Lopes*

October 14, 2015

Abstract

This paper estimates the impact of federal tax changes for Canada for the period 1981-2009 using a new quarterly narrative dataset. This dataset distinguishes between tax changes motivated by deficit consolidation, long run growth, ideological concerns, which broadly speaking, correspond to social concerns, and externally mandated tax changes. The narrative variable is not assumed to be perfectly correlated with the underlying structural shocks. The main finding is that tax increases of 1% of GDP induce a strong fall in output with a peak of 2%. Long run shocks and deficit consolidation shocks have both strong effects over output, peaking at almost 2% and 1.6% respectively. Ideological tax hikes have a peak effect of 1% over output. The interest rate tends to increase on impact following an ideological or long run shock by 0.6% and 1.1% respectively, and it barely changes in impact and indeed decreases by 0.5% two years after a tax hike motivated by a deficit consolidation. Changing the definition of the narrative to include temporary measures causes the significance of the rise in the interest rate to increase and reduces the peak effect on output to little more than 1%; also, long run tax hikes become ineffective over output. A second finding is that the response to a deficit consolidation minded federal tax increase is associated with a fall in provincial revenues of approximately 2%, thus indicating some evidence for fiscal imbalance between the federal budget and the provincial budgets. Finally, I find significant effects of tax shocks over other variables, such as a decrease in the interest rate five quarters after a deficit consolidation, whereas the interest rate increases on impact when a long run or ideological permanent tax hike occurs. Hours worked do not change very much, except for deficit consolidation. Unit labor costs increase with a tax hike, regardless of the motivation of the shock. JEL Codes: E32, E62, H20, H30, N12.

*José Lopes wishes to thank Karel Mertens, Assaf Razin, Yongmiao Hong and all the people at the Cornell University Macro reading group for suggestions; funding by the Fundação para a Ciência e Tecnologia was appreciated.
Tamara J. McGavock

Contact Information:
Department of Economics
Cornell University
404 Uris Hall
Ithaca, NY, 14853
Phone: +1 781 801 4333
Email: tjm276@cornell.edu
Homepage: www.tamaramcgavock.com
Office: Uris 401D

EDUCATION
Cornell University, Economics, PhD. expected May 2016.
Cornell University, Economics, M.A. 2014.

FIELD CONCENTRATIONS
Labor Economics, Development Economics, Economics of Gender and the Family, Econometrics.

RESEARCH
Publications

Working Papers

Work in Progress
Crisis, Sibling Inequality, and Transfers as Compensation: Evidence from Indonesia.
Encouraging Adoption of Urea Deep Placement Fertilizer in Liberia (with Markus Goldstein and Niklas Buehren).
The Multiple Motivations Behind Gender-Differentiated Child Fostering in West Africa.

TEACHING
Instructor, Labor Economics (Cornell ILRLE 2400) Fall 2014 (4.8/5), Spring 2015 (4.7)
TA, Development Economics (Cornell Econ 4650) for Prof. James Berry Spring 2014
TA, Intro. to Microeconomics (Cornell Econ 1110) for Prof. Jennifer Wissink Fall 2013 (4.5/5)
TA, Econometrics (Wellesley College Econ 203) for Prof. Adrienne Lucas Spring 2008
TA, Probability and Statistics (Wellesley Econ 103) for Prof. Stacy Sneeringer Fall 2007
Tutor, Economics Department (Wellesley College) Spring 2006 – Spring 2008
ESL Instructor, India (Odanadi Children’s and Women’s Shelter) Summer 2012
ESL instructor, Boston (Park Street Church) Fall 2005, Summer 2007

GRANTS, AWARDS, AND FELLOWSHIPS

Affiliate, Center for the Study of Inequality, Cornell University, 2015.
Cornell University Graduate School Conference Grant, 2014.
Center for the Study of Inequality Seed Grant, Cornell University, 2014.
Sage Fellowship, Cornell University, 2011-2016.
Peggy Howard Fellowship for Graduate Studies, Wellesley College Department of Economics, 2011.
Wall Street Journal Student Achievement Award, Wellesley College Department of Economics, 2008.
Carolyn Shaw Bell Summer Stipend Award, Wellesley College, 2006.
Academic All-Conference Team (Lacrosse), New England Women’s and Men’s Athletic Conference, 2006.

INVITED PRESENTATIONS AND WORKSHOPS (includes scheduled)

Wellesley College, Fall 2015.
NBER Summer Institute, Labor Studies Workshop, invited participant.
Advanced Graduate Workshop on Poverty, Development, and Globalization, Azim Premji University (with Columbia University), January 2015.

PROFESSIONAL SERVICE

Referee, Economics Bulletin; Economics of Education Review.
President, Graduate Student Association for Economics, Cornell University, 2012-2013.

PROFESSIONAL AFFILIATIONS

American Economic Association.
Eastern Economic Association.

RESEARCH ASSISTANCE AND WORK EXPERIENCE

RA for Prof. Matthew Freedman, Labor Economics, Cornell University ILR Fall 2012 – Spring 2013
Senior Analyst, Analysis Group, Boston, MA July 2008 – February 2011
RA for Prof. Christopher Udry, Development Economics, Yale University Summer 2010
RA for Prof. Robert Pindyck, Microeconomics text 7th ed., MIT Summer 2007
Field Work for Opportunity International (microfinance), Hefei, China Summer 2006

REFERENCES

Francine Blau (chair)
Frances Perkins Professor of Industrial and Labor Relations
Professor of Economics
Cornell University
Phone: 607-255-4381
E-mail: francine.blau@cornell.edu

Kaushik Basu
Senior Vice President and Chief Economist
The World Bank
Professor of Economics
Cornell University
Phone: 607-255-6338
E-mail: kb40@cornell.edu

James Berry
Assistant Professor
Department of Economics
Cornell University
Phone: 607-255-6338
E-mail: jimberry@cornell.edu

Victoria Prowse
Assistant Professor
Department of Economics
Cornell University
Phone: 607-255-4723
E-mail: prowse@cornell.edu

OTHER

Programming: Stata, Mata, Matlab, SAS, SQL, VBA, \LaTeX, Beamer.
Languages: English (native), French (proficient), Spanish (basic).
Citizenship: USA.

Last updated: October 7, 2015
Child Brides, Bargaining Power, and Reform of Ethiopia’s Family Law

Abstract (Job Market Paper)

Tamara J. McGavock*
Department of Economics, Cornell University
October 2015

Abstract “#GirlsNotBrides,” “#TooYoungtoWed,” and “#EndChildMarriageNOW,” read the tags of recent photo and information campaigns galvanizing efforts by individuals and governments against the global practice of marrying girls before their 18th, and frequently before their 15th, birthday. While these campaigns credit early marriage with directly hindering education, health, and empowerment of women, poverty is correlated with all of these, and there is little empirical evidence on the causal effects of child marriage itself. I use a quasi-experiment – staggered rollout of a family law reform in Ethiopia raising the legal minimum age of marriage – to identify and quantify these causal effects. I find that the reform delayed marriage for women by about one year, increasing educational attainment by about one year and literacy by 18 percentage points. Effects on other dimensions of married women’s well-being are mixed: they are more likely to know how children are conceived and have fewer children but they are no more likely to report using contraceptive methods. While they claim more perceived say in their marriages, their perception that domestic violence by their husbands is justified does not change and remains at a disturbingly high level. I also find that the effect of the reform is smaller for Muslim women, which may have more to do with how knowledge of the reform was spread rather than differences across religious groups in norms. Together my results suggest that age of consent laws reduce the prevalence of very early marriage for women and improve their well-being in some dimensions, but more work remains to be done for improving the status of women in Ethiopia.

*E-mail: tjm276@cornell.edu Website: http://www.tamaramcgavock.com
Ross Milton

Home Address:  
4 Willets Pl  
Ithaca, NY  
14850  

Office Address:  
Department of Economics  
404 Uris Hall  
Cornell University  
Ithaca, NY 14853  

Telephone: 781-640-2794  
E-mail: rtm56@cornell.edu  

Personal web page: http://www.rossmilton.com  

Citizenship: United States  

Placement Committee Chair: Prof. Karl Shell (karl.shell@cornell.edu) (607) 255-5277.  
Placement Office: Andrea Conlon, Graduate Field Assistant, (arc54@cornell.edu), (607) 255-4893  

Fields of Concentration:  
Primary Field: Public Finance  
Secondary Fields: Economics of Education, Political Economy  

Desired Teaching:  
Public Finance  
Applied Econometrics  
Political Economy  
Economics of Education  
Labor Economics  

Dissertation Committee:  
Professor Stephen Coate  
Professor Ronald Ehrenberg  
Professor Maria Fitzpatrick  

Expected Completion Date: May 2016  

Degrees:  
Ph.D., Economics, Cornell University, 2016 (expected)  
M.A., Economics, Cornell University, 2014  
B.A., Economics & Political Science, Macalester College, 2008  

Working Papers:  
Works In Progress:
“Dynamic Coattails”

Other Papers:

Fellowships, Honors and Awards:
C. Lowell Harriss Dissertation Fellowship, Lincoln Land Institute, 2015-16
Mabel A. Rollins Scholarship, Cornell University, 2010-11
Flora Rose Fellowship, Cornell University, 2010-11
Ruth Ada Birk Eastwood Fellowship, Cornell University, 2010-11
Human Service Studies Graduate Fellowship, Cornell University, 2010-11
Lucy Maltby Fellowship, Cornell University, 2010-11
Honorable Mention, National Science Foundation Graduate Research Fellowship, 2010
John M. Dozier Prize in Economics, Macalester College, 2008

Teaching Experience:
Intermediate Microeconomics, Fall 2015 (Eric McDermott)
Waiting for Superman? The “crisis” in American education, Spring 2015 (Maria Fitzpatrick)
Market Regulation and Public Policy (Masters), Fall 2014 (Richard Geddes)
Econometrics, Spring 2014 (Michael Lovenheim)
Empirical Strategies for Policy Research (PhD), Fall 2013 (Alfonso Flores-Lagunes)

Research and Work Experience:
Research Assistant to Damon Clark, Cornell University 2012-13
Research Assistant to Ronald Ehrenberg, Cornell University 2011-12
Research Assistant to Jane Hannaway, Urban Institute, 2008-10

References:
Prof. Stephen Coate
Department of Economics
476 Uris Hall
Cornell University
Ithaca, NY 14853
Phone: 607-255-1912
sc163@cornell.edu

Prof. Ronald Ehrenberg
Department of Economics
271 Ives Hall
Cornell University
Ithaca, NY 14853
Phone: 607-255-3026
rge2@cornell.edu

Prof. Maria Fitzpatrick
Dept. of Policy Analysis and Management
103 Martha Van Rensselaer Hall
Cornell University
Ithaca, NY 14850
Phone: 607-255-1272
maria.d.fitzpatrick@cornell.edu
Do Local Taxes Crowd out Private Contributions to Local Public Schools?

Ross T. Milton
PhD Candidate
Department of Economics
Cornell University
rtm56@cornell.edu

October 5, 2015

Abstract

If public taxes crowd out private voluntary provision of the same services, it questions the efficacy of government, but also suggests that when tax revenues decline, the losses might be made up by private contributions. Prior estimates of the effect of government funding on charitable giving suffer from the difficulty in finding a suitable instrument for government funding. I provide a new estimate of this parameter using only very weak empirical assumptions. Local elections to approve taxes generate sharp differences in the resulting tax revenues depending on the percent of voters in favor. Exploiting this variation using a regression discontinuity design, I show that private contributions to public school systems, which most school districts receive, are not crowded out by local taxes. I can reject that one dollar higher taxes causes more than 1.5 cents lower contributions. I use a large set of referenda in which local taxes face voter approval in four Midwestern states, combined with administrative records of the sources of school district revenues.
Debi Prasad Mohapatra

Curriculum Vitae

CONTACT INFORMATION
Department of Economics,
Cornell University,
404 Uris Hall, Ithaca, NY 14853
+1 607 379 1390
dm555@cornell.edu
https://sites.google.com/a/cornell.edu/debi-prasad

Placement Committee
Chair: Prof. Karl Shell
Assistant: Andrea Conlon
+1 607 255 5277; karl.shell@cornell.edu
+1 607 255 4893; arc54@cornell.edu

References
Prof. Panle Jia Barwick (co-advisor)
Department of Economics, Cornell University
+1 607 255 4867
panle.barwick@cornell.edu

Prof. David Easley (co-advisor)
Department of Economics, Cornell University
+1 607 255 6283
dae3@cornell.edu

Prof. Matthew Backus
Department of Economics, Columbia Business School
matthew.backus@columbia.edu

Prof. Larry Blume
Department of Economics, Cornell University
+1 607 255 9530
lb19@cornell.edu

Prof. Francesca Molinari
Department of Economics, Cornell University
+1 607 255 6367
fm72@cornell.edu

Fields
Empirical Industrial Organisation, Applied Microeconomic Theory, Econometrics

Education
Ph. D. in Economics, Cornell University, Ithaca, NY 2016 (Expected)
M.A. in Economics, Cornell University, Ithaca, NY 2013
M.S. in Quantitative Economics, Indian Statistical Institute, Kolkata, India, 2009

Research
• Price Control and Access to Drugs: The Case of India’s Malarial Market,
  [Job Market Paper] (with Chirantan Chatterjee)
• Credible Identification of Online Auctions,
  [Work in Progress] (with Matthew Backus and Francesca Molinari)
• Heterogeneous Beliefs and Wealth Dynamics in a Binary Hidden Markov Model,
  [Working Paper]

Seminars and Conferences
Industrial Organization Seminar, Cornell University, October 2015
Indian Statistical Institute, Kolkata, January 2013

Teaching Experience
Intermediate Mathematical Economics (PhD core) TA for Prof. Tapan Mitra, Fall 2011
Microeconomic Theory II (PhD core), TA for Prof. Larry Blume, Spring 2011
Intermediate Mathematical Economics (PhD core) TA for Prof. Eric Fisher, Fall 2012
Intermediate Microeconomic Theory (Undergraduate) TA for Prof. Larry Blume, Spring 2013
Econometric Theory (Undergraduate) TA for Prof. Francesca Molinari, Spring 2015

Research Experience
RA for Prof. Panle Jia Barwick, Department of Economics, Cornell University
RA for Prof. Francesca Molinari, Department of Economics, Cornell University
RA for Prof. Mukul Majumdar, Department of Economics, Cornell University
Fellowships and Awards
Invited participant, 5th Lindau Meeting of Nobel Laureates in Economic Sciences
Herbert Joseph Davenport outstanding teaching award, Cornell University, June 2012
Sage Fellowship, Cornell University, August 2010-Present
Cornell Graduate School Travel Grant
Masters Fellowship, Indian Statistical Institute, 2007-2009

Job Market

Paper Abstract
Price Control and Access to Drugs: The Case of India’s Malarial Market
This article investigates the effects on consumer welfare of a drug price control policy implemented in India in 1995. The analysis takes into account endogenous product entry and exit decisions by the firms. We focus on the drugs that cure malaria, an important neglected disease in the context of the Indian pharmaceutical market. We use a novel and unique dataset which features detailed region level sales and price data. We exploit the significant heterogeneity across different regions in India to estimate a two stage game where firms endogenously make product offer decisions across different markets. The richness of the model requires us to confront econometric challenges associated with multiplicity of equilibria, endogeneity, and inference in partially identified models, as well as computational challenges associated with the high dimensionality of the problem. Our estimation results show that there is significant variation in elasticity and willingness-to-pay across different regions in India; firms incur significant fixed costs for making the developed drugs available in the local markets. Moreover, fixed costs are heterogeneous across firms and across regions. The results of our counterfactual analysis show that under price control, small domestic firms and foreign firms withdraw their products, and markets become more concentrated. In most cases, only big domestic firms continue producing the drugs. Depending on the level of price control, the loss in consumer welfare due to products withdrawal may exceed the gain in consumer welfare resulting from lower prices, leading to an overall decrease in consumer welfare.

Updated November 2015
Price Control and Access to Drugs:  
The Case of India’s Malarial Market

Abstract

This article investigates the effects on consumer welfare of a drug price control policy implemented in India in 1995. The analysis takes into account endogenous product entry and exit decisions by the firms. We focus on the drugs that cure malaria, an important neglected disease in the context of the Indian pharmaceutical market. We use a novel and unique dataset which features detailed region level sales and price data. We exploit the significant heterogeneity across different regions in India to estimate a two stage game where firms endogenously make product offer decisions across different markets. The richness of the model requires us to confront econometric challenges associated with multiplicity of equilibria, endogeneity, and inference in partially identified models, as well as computational challenges associated with the high dimensionality of the problem. Our estimation results show that there is significant variation in elasticity and willingness-to-pay across different regions in India; firms incur significant fixed costs for making the developed drugs available in the local markets. Moreover, fixed costs are heterogeneous across firms and across regions. The results of our counterfactual analysis show that under price control, small domestic firms and foreign firms withdraw their products, and markets become more concentrated. In most cases, only big domestic firms continue producing the drugs. Depending on the level of price control, the loss in consumer welfare due to products withdrawal may exceed the gain in consumer welfare resulting from lower prices, leading to an overall decrease in consumer welfare.
PERSONAL INFORMATION
Citizenship: China (U.S. Permanent Resident)
Security Clearances: Special Sworn Status (U.S. Census Bureau)

EDUCATION
Ph.D. Economics, Cornell University (Expected) 2016
M.A. Economics, Cornell University 2014
B.S. Mathematics and Economics (summa cum laude, Phi Beta Kappa), University of Miami 2011

RESEARCH FIELDS
Primary Fields: Industrial Organization, Health Economics
Secondary Field: Applied Econometrics

WORKING PAPERS
Patents, In-house Pipelines and Planned Anti-Obsolescence: Theory and Evidence from the Pharmaceutical Industry (Job Market Paper)
Does Health Insurance Encourage Smoking? Evidence from the RAND Health Insurance Experiment

WORK IN PROGRESS
Effects of State Prescription Drug Monitoring Programs on Opioid Prescribing: Evidence from the National Ambulatory Medical Care Survey (with Yuhua Bao)

ACADEMIC EXPERIENCE
Teaching Assistant for Graduate Level Course:
Microeconomics for Management (MBA core) for Michael Waldman Summer 2015 & Fall 2015
Head TA in Fall 2015

Teaching Assistant for Undergraduate Level Courses:
Intermediate Microeconomics Theory for Brandon Tripp Fall 2015
Intermediate Microeconomics Theory for Maxim Troshkin Spring 2015
Economics of Wages and Employment for Hassan Enayati and Richard Mansfield Fall 2014
Development Economics for Jim Berry  
Industrial Organization for Matthew Backus  
Introductory Macroeconomics for Jennifer Wissink  
Introductory Macroeconomics for Steve Kyle

Research Assistant:
Michael Waldman, Samuel Curtis Johnson Graduate School of Management Fall 2013-present  
Yuhua Bao, Weill Cornell Medical College Summer 2014-present  
Matthew Freedman, School of Industrial and Labor Relations Summer 2012 & Summer 2013

PROFESSIONAL EXPERIENCE

REFEREE SERVICE
Journal of Labor Economics

OTHER SKILLS
Languages: Mandarin Chinese (Native), Shanghainese (Native), Cantonese (Fluent), English (Fluent)
Computer Skills: STATA, SAS, MATLAB, R, LATEX, and Microsoft Office

REFERENCES

Michael Waldman (Chair)  
Charles H. Dyson Professor of Management  
Professor of Economics  
323 Sage Hall  
Cornell University, Ithaca, NY 14853  
Phone: 607-255-8631  
E-mail: mw46@cornell.edu

Sean Nicholson  
Professor  
2307 Martha Van Rensselaer Hall  
Cornell University, Ithaca, NY 14853  
Phone: 607-254-6498  
E-mail: sn243@cornell.edu

George Jakubson  
Associate Professor  
257 Ives Hall  
Cornell University, Ithaca, NY 14853  
Phone: 607-255-4546  
E-mail: George.Jakubson@cornell.edu

Catherine Barrera  
Assistant Professor  
403 Sage Hall  
Cornell University, Ithaca, NY 14853  
Phone: 607-255-9470  
E-mail: cgb82@cornell.edu
Abstract

This paper studies how incentives in patent protection can affect a firm’s integration decisions in development. In crowded product areas with many existing goods under patent, a firm may want to protect its own patented products from becoming obsolete when introducing new ones in the same product area. I incorporate this idea of planned anti-obsolescence in modeling a firm’s in-house and outsourced development decisions. Using an incomplete contract framework, my model predicts that the likelihood a firm develops a new product in-house increases if it already owns at least one existing patented product in the same area, and also increases both with the patent length and the expected market share of the existing product(s) by the time the new one reaches the market. I test the model’s predictions within the pharmaceutical sector, where the patent system is a defining feature of the industry and a large number of firms employ both in-house and outsourced development strategies. Controlling for firm characteristics and therapeutic class heterogeneity, my empirical findings are consistent with the theoretical predictions and show the important role that planned anti-obsolescence plays in a firm’s choice of in-house or outsourced development.
Kei Fung D. Tai

Contact Information: 467 Uris Hall, Cornell University
Phone: (415) 519-5821
Ithaca, NY 14853 USA
E-mail: kdt43@cornell.edu
Website: http://kdt435.wix.com/dennistaicv

Education
- PhD Economics, Cornell University, expected May 2016
- M.A. Economics, Cornell University, January 2014
- BS Management Science, UC San Diego, May 2009

Personal Information
- Year of Birth: 1983
- Gender: Male
- Citizenship: U.S.

Research Fields
- Environmental Economics
- Applied Microeconomics
- Urban Economics

Committee Chair
Professor Antonio M. Bento

Research Papers
Job Market Paper
If You Can’t Park, You’ll Ride: Modelling the Effect of Transit Expansion and Parking Subsidy Reduction as Two-Part Instruments

Working Papers
On the Benefits of Public Transit Provision: Evidence from Los Angeles Expo Line
(with Antonio Bento and Gabriel Ahlfeldt)
On the Effects of Parking Subsidy on travel behavior
(with Sandip Chakrabarti)

Teaching Experience
Cornell University:
- Intermediate Macroeconomics, TA for Prof. Levon Barseghyan
  Fall 2012, Spring 2013
- Introduction to Microeconomics, COTA for Dr. Jennifer Wissink
  Spring 2012
- Introduction to Microeconomics, TA for Prof. Richard Burkhauser
  Fall 2011

Research Assistant
Cornell University:
- RA for Prof. Antonio Bento, Applied Economics and Management
  Fall 2013 - Fall 2015

Awards and Fellowship
- Ernest Liu Family outstanding teaching award 2013
- Provosts Diversity Fellowship 2015
  Fall 2015
- Sage Fellow 2010-2014
Conference Participation

2nd NE Workshop on Energy Policy and Environmental Economics
- Cornell University, May 2013
- Chair, Parallel Discussion Section on Transportation

Spatial Economics Research Centre Sixth Annual Conference
- LSE, May 2014
- Presenter, *On the benefits of public transit provision: Evidence from Los Angeles Expo line*

3rd Canadian PhD and Early Career Workshop in Environmental Economics & Policy
- University of Ottawa, May 2014
- Presenter, *On the benefits of public transit provision: Evidence from Los Angeles Expo line*

Others

Programming: Stata (Mata), Matlab, VBA, Python, R, Git
Languages: Chinese(native), English(fluent)

References

Prof. Antonio Bento (Committee Chair)
Dyson School of Applied Economics and Management
(607) 255-0626
amb396@cornell.edu

Prof. Shanjun Li
Dyson School of Applied Economics and Management
(607) 255-1832
sl2448@cornell.edu

Prof. Gabriel Ahlfeldt
London School of Economics
+44 20 7852 3785
G.Ahlfeldt@LSE.AC.UK
If You Can’t Park, You’ll Ride:
Modelling the Effect of Transit Expansion and Parking Subsidy Reduction as Two-Part Instruments

Kei Fung Dennis Tai
September 2015

Abstract

This paper aims at examining the effect of combining two policy interventions—transit investment and parking subsidy—in a two part instrument framework, using the Los Angeles Expo line as the background. I constructed a gravity style model to predict the change in flow and subsequently change in welfare from a transit investment and parking subsidy shock in a two-part instrument framework, using publicly available population and employment data as well as cartographic GIS data. Based on model prediction I found that removing $5 in parking subsidy for roughly 10% of zones located in the Downtown Los Angeles area, thereby increasing out of pocket parking cost by $5, leads to an optimal level of welfare where the welfare gain is maximized in the presence of a transit infrastructure expansion, creating $20.44 million in welfare gain when combined with the opening of Expo line.
NELLIE LEI ZHAO  
CURRICULUM VITAE

Department of Economics  
Cornell University  
423 Uris Hall, Ithaca, NY 14853

Placement Director: Karl Shell  
Graduate Field Assistant: Andrea Conlon

Education

Cornell University, Ithaca, NY  
Ph.D., Economics, May 2016 (expected)  
Fields of Concentration: Macroeconomics and Labor Economics  
Advisers: John Abowd (co-chair) and Karel Mertens (co-chair)

Cornell University, Ithaca, NY  
M.A., Economics, January 2014

The University of Chicago, Chicago, IL  
A.B. with Honors, Economics, June 2010

Personal Information

Citizenship: U.S. and Canada

Teaching Experience

Teaching Assistant for Karel Mertens, Cornell University, Department of Economics  
Graduate Macroeconomics II  
Spring 2012

Research Experience

Longitudinal Employer-Household Dynamics Program, Center of Economic Studies  
Pathways Internship Program, U.S. Census Bureau  
07.2012 - Present

Labor Dynamics Institute, Cornell University, School of Industrial and Labor Relations  
Research Assistant to John M. Abowd  
07.2012 - Present

Richard Mansfield, Cornell University, Department of Economics  
Research Assistant  
08.2011 - 06.2012

James J. Heckman, The University of Chicago, Department of Economics  
Research Assistant  
06.2008 - 06.2010

John R. Birge, The University of Chicago, Booth School of Business  
Research Assistant  
02.2007 - 08.2007

Conference Presentations

2015  
Society of Economic Dynamics 2015 Meetings, Midwest Macro Spring 2015

2014  
European Population Conference 2014, TASKS III: Changing Tasks - Consequences for Inequality (BIBB/IAB/ZEW), Society of Labor Economists 2014 Meetings

N. Zhao  
Last Updated: November 20, 2015
Scholarships and Awards

Ernest '64 and Joan Liu, Ta-Chung and Ya-Chao Memorial Fellowship 2014 - 2015

The Louis Walinsky Fund in Economics in Honor of Professor Herbert Joseph Davenport Outstanding Teaching Award 2013

Sage Fellowship, Cornell University, Department of Economics 2010 - 2015

Working Papers

Search and Multiple Jobholding (Job Market Paper)

I document that search frictions and adjustments in labor supply across jobs are important for explaining how hours fluctuate over the business cycle. Focusing on employed individuals that are only able to obtain part-time jobs, I first show empirically that both changing jobs and working multiple jobs act as important margins of hours adjustment. Then, to understand how these margins interact with aggregate labor market conditions, I formulate and estimate a dynamic job search model in which workers can maintain portfolios of up to two jobs. The main insight of this theoretical analysis is that part-time jobs become more valuable when individuals are allowed to combine them into portfolios that are equivalent to single full-time jobs. Accordingly, workers in my model are more willing to enter into part-time work than they would be in a corresponding search model without such job portfolios. I also show that the importance of this margin of adjustment is highly dependent on how frequently job offers arrive. In particular, when the offer arrival rate falls during recessions, underemployment rises and the multiple job-holding rate falls as workers are unable to find a second job. As a result, average hours of work falls and is slow to recover because workers are unable form full-time job portfolios immediately.

Works in Progress

The U.S. Job Ladder and the Occupation Structure of the New Millennium
(with I. Cairo and H. Hyatt)

After the year 2000, the U.S. economy did not exhibit as much growth in high-pay occupations as it had in previous decades, and the relative decline in low-pay occupations reversed. Previous studies have used negative shocks to the demand for high-pay occupations to account for these empirical regularities. We view these changes in light of the unprecedented slowdown in the job-to-job transition rate, which fell by half from the late 1990s to the year 2012, with declines concentrated in the labor market downturns associated with the 2001 and 2007-2009 recessions. When aggregate labor market conditions are weak, the least productive employers lose workers through poaching to more productive employers at a slower rate. Our empirical analysis links the slowdown in the job ladder with the lower growth in high paying jobs. Theoretically, we propose and estimate a model of on-the-job search, which allows us to explore the relative contribution of aggregate demand shocks vs. shocks to high-pay jobs in generating the observed empirical patterns.
Analyzing Income Inequality in the U.S. Using Longitudinally Linked Employer-Employee Data
(with J. Abowd and K. McKinney)

We track sources of earnings inequality using the statistical technique introduced to the labor economics literature in 1999 (Abowd, Kramarz and Margolis, Econometrica 1999). When this technique has been used in Europe (Card, Heining and Kline QJE 2013 for Germany, in particular), the biggest contributor to the increase in earnings inequality appears to be increased employer-level heterogeneity (called the firm effect in AKM). Using the Census Bureau’s Longitudinal Employer-Household Dynamics Infrastructure data for 1990-2013, we show that with respect to the U.S. data, the CHK result does not hold. There has been very little change in employer-level earnings heterogeneity in the U.S. when one compares wage measures similar to the ones used to analyze the European data. European administrative databases allow one to construct something akin to a wage rate (usually, the amount that would be earned if an individual worked full-time full-year). The American data don’t directly allow that. We develop a statistical approximation to the full-year full-time wage rate, using integrated Current Population Survey, Census 2000, and American Community Survey data. Using that measure, the earnings inequality trends in the U.S. do look more similar to the European analyses. But, for the purposes of studying earnings inequality, considering only the wage rate, and not the amount of time a person actually works, is seriously incomplete—especially in the U.S. where there is very little statutory employment security except in the public sector. The most important determinant of increased earnings inequality in our analyses is changes in labor force attachment (weeks worked in the year, hours worked per week).

References

John Abowd (co-chair)
Edmund Ezra Day Professor
Department of Economics
Cornell University
261 Ives Hall
Ithaca, NY 14853
email: john.abowd@cornell.edu
phone: 607.255.8024

Karel Mertens (co-chair)
Associate Professor
Department of Economics
Cornell University
402 Uris Hall
Ithaca, NY 14853
email: km426@cornell.edu
phone: 607.255.6287

Victoria Prowse
Assistant Professor
Department of Economics
Cornell University
264 Ives Hall
Ithaca, NY 14853
email: vlp33@cornell.edu
phone: 607.255.4723

Christopher Huckfeldt
Assistant Professor
Department of Economics
Cornell University
444 Uris Hall
Ithaca, NY 14853
email: ckh55@cornell.edu
phone: 607.255.0090

N. Zhao
SEARCH AND MULTIPLE JOBHOOLDING

Nellie L. Zhao*
Cornell University

November 20, 2015

DOWNLOAD THE LATEST VERSION HERE.

JOB MARKET PAPER

Abstract

I document that search frictions and adjustments in labor supply across jobs are important for explaining how hours fluctuate over the business cycle. Focusing on employed individuals that are only able to obtain part-time jobs, I first show empirically that both changing jobs and working multiple jobs act as important margins of hours adjustment. Then, to understand how these margins interact with aggregate labor market conditions, I formulate and estimate a dynamic job search model in which workers can maintain portfolios of up to two jobs. The main insight of this theoretical analysis is that part-time jobs become more valuable when individuals are allowed to combine them into portfolios that are equivalent to single full-time jobs. Accordingly, workers in my model are more willing to enter into part-time work than they would be in a corresponding search model without such job portfolios. I also show that the importance of this margin of adjustment is highly dependent on how frequently job offers arrive. In particular, when the offer arrival rate falls during recessions, underemployment rises and the multiple jobholding rate falls as workers are unable to find a second job. As a result, average hours of work falls and is slow to recover because workers are unable form full-time job portfolios immediately.

*I greatly appreciate the advice and support of John M. Abowd, Karel Mertens, Victoria Prowse, and Christopher Huckfeldt. I would also like to sincerely thank the labor seminar participants at Cornell University, the Labor Dynamics Institute research group, Isabel Cairo, Thomas Eisenberg, Jorgen Harris, Henry Hyatt, David Jaume, Miriam Larson-Koester, and Stefan Pitschner for their helpful comments. All mistakes herein are my own. Contact: nlz6@cornell.edu
Curriculum Vitae, Janos Zsiros, 1

Janos Zsiros

Contact Information
Department of Economics
423 Uris Hall
Cornell University
Ithaca, NY 14853, USA
Voice: +1-607-280-1387
Email: jz428@cornell.edu
Web page: https://sites.google.com/site/zsiros/

Fields of Concentration
Primary: Behavioral Economics, Experimental Economics
Secondary: Applied Microeconomics

Education
Cornell University, Department of Economics, USA
Ph.D., Economics, July 2016

Tilburg University CentER Graduate School, the Netherlands
M.Sc., Economics, July 2010 (cum laude)

Corvinus University of Budapest (CUB) (before: Budapest University of Economic Sciences), Hungary
Combined B.Sc./M.Sc., Quantitative Economic Analysis, July 2008
Major: Macroeconomic Modeling and Policy Analysis

Tilburg University, the Netherlands
Exchange student, Spring 2007

Rajk Laszlo College for Advanced Studies, Hungary
Member of the College, 2004 – 2008

Working Papers
Effort Provision with Expectation- and History-Based Reference Points (Job Market Paper)

Abstract: In this paper, I use a real effort experiment to test the predictions of a model with expectation-based and history-based reference points. Under expectation-based reference point model an agent cares about outcomes relative to her expectation, and experiences a loss in utility if the actual outcome is below her expectation. Under history-based reference point an agent evaluates her actual outcome compared to an outcome that she had in the past, and she experiences a loss in utility if the actual outcome is below the one from the past. In the experiment, I exogenously manipulate participants’ past earnings that could serve as a history-based reference point and expectations about future earnings that can serve as expectation-based reference point. Consistent with the model’s predictions, I find evidence of both kinds of reference points. Subjects work significantly more in the high expectation treatment compared to the low expectation treatment; on average, they earn $1.1 more (a marginal effect of 18.2%) in the high expectation treatment. I find a significant effect of a history-based reference point among the subgroup of subjects with low productivity. Subjects with below median productivity earn $1.59 more in the high history treatment than subjects in the low history treatment with below median productivity. On the other hand, the effect of the history treatment for subjects with high productivity is statistically not different from zero.
The Principal Agent Model with Loss-Averse Agents

Frictions in an experimental dynamic stochastic general equilibrium economy (with Charles Noussair and Damjan Pfajfar)

Publications

Pricing decisions in an experimental dynamic stochastic general equilibrium economy (with Charles Noussair and Damjan Pfajfar) *Journal of Economic Behavior & Organization*, 109, 2015, pp. 188-202


Honors, Awards and Grants

<table>
<thead>
<tr>
<th>Year</th>
<th>Grant/Program</th>
</tr>
</thead>
<tbody>
<tr>
<td>2014-2015</td>
<td>Small Grants in Labor Economic ($5000), Cornell University</td>
</tr>
<tr>
<td>2010-2015</td>
<td>Sage Fellowship, Cornell University</td>
</tr>
<tr>
<td>09/2008-07/2010</td>
<td>CentER Scholarship, Tilburg University</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Period</th>
<th>Event</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2007/08</td>
<td>Student Scientific Conference, Corvinus University of Budapest</td>
</tr>
<tr>
<td>Spring 2006/07</td>
<td>Erasmus Scholarship, Tilburg University Faculty of Economics and Business Administration</td>
</tr>
<tr>
<td>Fall 2005/06</td>
<td>Scholarship for distinguished academic achievement, Corvinus University of Budapest</td>
</tr>
</tbody>
</table>

Teaching Experience

<table>
<thead>
<tr>
<th>Period</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spring 2014/15</td>
<td>Teaching Assistant to Professor Ted O’Donoghue, Behavioral Economics (4660), Cornell University</td>
</tr>
<tr>
<td>Fall 2014/15</td>
<td>Teaching Assistant to Professor Gregory Besharov, Intermediate Microeconomics (3030), Cornell University</td>
</tr>
<tr>
<td>Spring 2011/12</td>
<td>Teaching Assistant to Professor Jennifer Wissink, Introductory Macroeconomics (1120), Cornell University</td>
</tr>
<tr>
<td>Fall 2011/12</td>
<td>Teaching Assistant to Professor Aaron Bodoh-Creed, Microeconomic Theory I (6090, graduate level), Cornell University</td>
</tr>
<tr>
<td>Spring 2008/09</td>
<td>Instructor of Financial Economics, Tilburg University</td>
</tr>
</tbody>
</table>

Relevant Positions

<table>
<thead>
<tr>
<th>Period</th>
<th>Position</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fall 2015/16</td>
<td>Research Assistant to Professor Mallika Thomas</td>
</tr>
<tr>
<td>Summer 2014</td>
<td>Consultant, Databound Solutions</td>
</tr>
<tr>
<td>2012/13</td>
<td>Research Assistant to Professor Victoria Prowse</td>
</tr>
<tr>
<td>2011/12</td>
<td>Research Assistant to Professor Daniel Benjamin</td>
</tr>
</tbody>
</table>

Relevant Skills

Languages: English, Hungarian, Spanish (intermediate)

Scientific softwares & Programming: Perl, Python, Visual Basic, Stata, Eviews, Matlab, Maple, Z-tree

Personal Details

Citizenship: Hungarian

Visa: F-1
**Placement chairman:** Karl Shell (karl.shell@cornell.edu)
**Placement coordinator:** Andrea Conlon (arc54@cornell.edu, 607-255-4893)

**Dissertation Committee and References**

- Daniel Benjamin (Chair)
  University of Southern California
  Center for Economics and Social Research
  Dauterive Hall, 635 Downey Way, Suite 312
  Los Angeles, CA 90089
  daniel.benjamin@gmail.com

- Ted O’Donoghue
  Cornell University
  Department of Economics
  482 Uris Hall
  Ithaca, NY 14853
  edo1@cornell.edu

- Victoria Prowse
  Cornell University
  Department of Economics
  264 Ives Hall
  Ithaca, NY 14853
  prowse@cornell.edu

- Aaron Bodoh-Creed
  University of California, Berkeley
  Haas School of Business
  S545 Student Services Building
  Berkeley, CA 94720
  acreed@haas.berkeley.edu

Last updated: October 15, 2015
Effort Provision with Expectation- and History-Based Reference Points

Janos Zsiros

October 15, 2015

Abstract

In this paper, I use a real effort experiment to test the predictions of a model with expectation-based and history-based reference points. Under expectation-based reference point model an agent cares about outcomes relative to her expectation, and experiences a loss in utility if the actual outcome is below her expectation. Under history-based reference point an agent evaluates her actual outcome compared to an outcome that she had in the past, and she experiences a loss in utility if the actual outcome is below the one from the past. In the experiment, I exogenously manipulate participants’ past earnings that could serve as a history-based reference point and expectations about future earnings that can serve as expectation-based reference point. Consistent with the model’s predictions, I find evidence of both kinds of reference points. Subjects work significantly more in the high expectation treatment compared to the low expectation treatment; on average, they earn $1.1 more (a marginal effect of 18.2%) in the high expectation treatment. I find a significant effect of a history-based reference point among the subgroup of subjects with low productivity. Subjects with below median productivity earn $1.59 more in the high history treatment than subjects in the low history treatment with below median productivity. On the other hand, the effect of the history treatment for subjects with high productivity is statistically not different from zero.

JEL classification: C25, C91; D03; D12; D81; D84; J22; J29

Keywords: Reference-Dependent Preferences; Loss Aversion; Reference Points; Expectations; Effort Provision; Experiments