ALEJANDRO RIVERA

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EDUCATION

Ph.D., Economics, Boston University, Boston MA, May 2015 (expected)
Dissertation Title: *Essays in Dynamic Corporate Finance*
Dissertation Committee: Simon Gilchrist, Francois Gourio, Dirk Hackbarth, Jianjun Miao (Chair), Berardino Palazzo

BSc, Mathematics and Economics *(First Class Honors)*, Simon Fraser University, Vancouver BC, 2008

Exchange Student, Mathematics, University of Bath, Bath, England, 2005-2006

International Baccalaureate (Higher level Mathematics, Physics, Economics, Theatre), Lester B. Pearson College UWC, Victoria BC, 2004

FIELDS OF INTEREST

Corporate Finance, Macroeconomics, Asset Pricing

TEACHING EXPERIENCE

Instructor, PhD Math Camp, Department of Economics, Boston University, Summer 2009, Summer 2010, Summer 2011, Summer 2012, Summer 2013
Instructor, Money and Banking, Boston University, Summer 2012
Instructor, Economía Matemática, Universidad del Rosario, Spring 2010
Teaching Fellow, Mathematical Economics (PhD Level), Department of Economics, Boston University, Fall 2009, Fall 2010, Fall 2011, Fall 2012
Teaching Fellow, Introduction to Macroeconomics, Department of Economics, Boston University, Spring 2011, Spring 2013

WORK EXPERIENCE

Research Fellow, American Institute for Economic Research, Great Barrington, MA, Summer 2011
Summer Fellow, American Institute for Economic Research, Great Barrington, MA, Summer 2009
Research Assistant, Simon Fraser University, Vancouver, BC, Summer 2007

FELLOWSHIPS AND AWARDS

Dean's Fellowship for the PhD program in Economics, Boston University, 2008-2014
Ranked top 350 in North American Putnam Mathematical Competition, 2007
W. Ronald Heath International Entrance Scholarship, Simon Fraser University, 2004-2008
Lester B. Pearson United World College, Full Scholarship, 2002-2004
Highest University Entrance Exam in the State (Cauca), 2002

WORKING PAPERS

"Dynamic Moral Hazard, Risk-Shifting, and Optimal Capital Structure," (Job Market Paper), June 2014.

"Robust Contracts in Continuous Time," (with Jianjun Miao), January 2013, resubmitted to *Econometrica*.

"Accounting Frictions: Implications for the Business Cycle," November 2011.

WORK IN PROGRESS

"Long-term vs short-term incentives" (with Tak-Yuen Wong)

SEMINARS AND CONFERENCE PRESENTATIONS

Naveen Jindal School of Management (February 2015)
Cass Business School (February 2015)
D'Amore-McKim School of Business (February 2015)
Laval University (February 2015)
Universidad de los Andes (January 2015)
Universidad Javeriana de Colombia (January 2015)
Federal Reserve Bank of Richmond (January 2015)
Federal Reserve Bank of Boston (November 2014)
Green Line Macro Meeting at Boston College (October 2014)
Boston University School of Management Brown Bag Seminar (September 2014)
Istanbul Conference of Economics and Finance (September 2014)
Princeton EconCon (August 2014)
Bank of Colombia (July 2014)
American Institute for Economic Research (July 2011)

LANGUAGES

English (Fluent), Spanish (Native), French (Conversational)

COMPUTER SKILLS

MATLAB, Dynare, Java, Python, Maple, STATA, Latex, Scientific WorkPlace

REFERENCES

Professor Jianjun Miao
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Federal Reserve Bank of Chicago
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ALEJANDRO RIVERA April, 2015

Dynamic Moral Hazard, Risk-Shifting, and Optimal Capital Structure (Job Market Paper)

I develop an analytically tractable model that integrates the risk-shifting problem between bondholders and shareholders with the moral hazard problem between shareholders and the manager. The presence of managerial moral hazard exacerbates the risk-shifting problem. An optimal contract binds shareholders and the manager. The flexibility of this contract allows shareholders to relax the incentive constraint of the manager when a good profitability shock is drawn. Hence, the optimal contract amplifies the upside thereby increasing shareholder appetite for risk-shifting. Moreover, some empirical studies find a positive relation between risk-shifting and leverage, while others studies find a negative relation. The model predicts a non-monotonic relation between risk-shifting and leverage and has the potential to reconcile this empirical evidence. Implications for capital structure, business cycles and executive compensation are also considered.

Robust Contracts in Continuous Time *(with Jianjun Miao)*

We study two types of robust contracting problem under hidden action in continuous time. In type I problem, the principal is ambiguous about the project cash flows, while he is ambiguous about the agent's beliefs in type II problem. The principal designs a robust contract that maximizes his utility under the worst-case scenario subject to the agent's incentive and participation constraints. We implement the optimal contract by cash reserves, debt and equity. In addition to receiving ordinary dividends when cash reserves reach a threshold, outside equity holders also receive special dividends or inject cash in the cash reserves to cope with model misspecification. Ambiguity aversion lowers outside securities value and raises the credit yield spread. It generates equity premium for type I problem, but not for type II problem. The equity premium and the credit yield spread are state dependent and high for distressed firms with low cash reserves.

Accounting Frictions: Implications for the Business Cycle

Credit constraints have been shown to be a powerful mechanism by which small shocks to productivity are amplified and propagated through the economy. This paper explores the consequences of incorporating accounting frictions into the traditional models that generate business cycles through credit constraints. Borrowers and lenders don't mark their assets to market on a regular basis, instead they are often reluctant to write down the value of their assets after the market price goes down. The interaction of this accounting friction with the credit constraints has important implications for the amplification and propagation of shocks, as well as for the cyclicality induced in the economy.