HARVARD UNIVERSITY

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March 20, 2015

Brett Maranjian
NBER

NBER:

I strongly recommend Gordon Liao for the NBER workshop on innovation and macroeconomics. He is probably one of your top candidates for this program.

Gordon worked with me first when he was an undergraduate at Harvard in 2010-11. He was an outstanding student, with a lot of strength in mathematics and finance. He was also very much of a self-starter on research. We worked together at the time on the macroeconomic impacts of tax rates, with an application to marginal income-tax rates in New Zealand.

Subsequently, he was hired by Harvard Management—which manages Harvard's portfolio. I think it was the first time they hired someone right after they finished undergraduate work. He did very well but also determined that he wanted to follow an academic path. Hence, he entered the business-economics Ph.D. program at Harvard, where he is in the second year.

Gordon and I recently began to work together again on research. We are working on an application of rare-disaster modeling to using stock-option prices to infer time-varying disaster probabilities. He brings to this research a great combination of knowledge from the finance industry (a "trader's" perspective) with academic skills. I am optimistic that we will put together a significant joint paper in this area.

You definitely want Gordon to be part of the workshop.

Sincerely,

Robert J. Barro

Gordon Liao
Harvard Business School
Wyss House
Boston, MA 02163
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gliao@hbs.edu

Dear Selection Committee,

I am writing to express my interests in attending the NBER Entrepreneurship Research Boot Camp. I am a second-year Ph.D. student in Business Economics at Harvard University, and I have strong research interests in entrepreneurship and entrepreneurial finance. I am specializing in entrepreneurship as one of my three fields of concentration, and I will be taking my oral field exam this summer with Josh Lerner. My recommender and former advisor, Robert Barro, has sent in a letter of recommendation.

I am especially excited for the speaker line-up this year, as it includes professors with diverse focus areas within entrepreneurship and varying methodologies. For instance, I am excited to learn from Erik Hurst about entrepreneurial returns and liquidity constraints using innovative archival data sources, and to learn from Nick Bloom and John van Reenen about survey-based evidence. I think the Boot Camp will give me an excellent opportunity to further explore literature, available data, and common methodologies in the field of entrepreneurship.

While my past research has been in asset pricing and macroeconomics, I am interested in conducting future research in entrepreneurship and entrepreneurial finance. Three broad areas that I am interested in researching are the linkages between entrepreneurship and real economic outcomes, the optimal structure of entrepreneurial finance, and the source of entrepreneurship. In the first area, I am interested in how entrepreneurship affects innovation, productivity, employment and growth. I would like to pursue this question by examining firm-level micro data to the extent that the data is available or can be constructed. I would especially like to focus on studying entrepreneurial activities outside of the U.S., both in developed and developing countries. Many countries have been proponents of creating supportive entrepreneurial environments and have granted substantial capital to start-ups. I would like to compare the entrepreneurial ecosystem across countries and examine the policies and factors

that affect the success rate of business formation as well as the translation of entrepreneurial activities into aggregate economic outcomes.

In the second area of research, I am interested in studying the optimal financing environment that is supportive of entrepreneurship. How can one provide the right incentives to the entrepreneurs while also minimizing losses due to risk-aversion? For this research, I would like to link empirics to contract theory models. I would also like to examine how the overall financial sector facilitates entrepreneurship by providing capital and exit opportunities for investors at every stage of the venture. On the investment side of entrepreneurship, I would like to explore the degree to which start-ups are priced fairly by VCs and the factors that influence over- and under- valuation. I am also excited to test theories from asset pricing and behavioral finance in the venture valuation context. Can we explain momentums of firm valuation through behavioral biases and peer influence? Are there aggregate mispricing in the market? I would like to explore these and other questions that combine the literature in asset pricing with entrepreneurial finance.

The final area of research that I am interested in exploring is the source of entrepreneurship, especially that of high-growth entrepreneurship. I am interested in researching the career decisions and the tradeoffs faced by potential entrepreneurs. What factors determine their career choice and their successes? I think the recent emphasis on entrepreneurial education skill development across many business schools have also opened fertile grounds for potential data-sources and quasi-experiments. I would like to apply my learnings from the boot camp to study the source of high-growth entrepreneurship.

Furthermore, I am excited to meet other participants at the workshop. I hope to use this opportunity to discuss research ideas and potential collaboration with other participants. I hope to learn from my peer in the process of discussion and informal interaction and produce fruitful relationships for the future.

I believe the NBER Entrepreneurship Research Boot Camp would be of tremendous benefit to my future research in entrepreneurship. Thank you for your consideration.

Warm regards,
Gordon Liao

Gordon Yu Liao

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Wyss House
Boston, MA 02163

Email: gliao@hbs.edu
Mobile: 530.574.5215

Education

P.h.D. Candidate in Business Economics, Harvard University, 2013-present

A.B in Applied Mathematics and Economics, Harvard University, *magna cum laude*, 2011

Research Interests

Corporate Finance, Entrepreneurship, Innovation, International Finance

Other Employment

2011-2013 Harvard Management Company, Fixed Income Group, Derivatives Trader

Ongoing Research Projects

"Price Dynamics in Partially Segmented Markets" (with Sam Hanson and Robin Greenwood)

Unpublished Manuscripts

"Average Marginal Income Tax Rates in New Zealand, 1907-2009**"** (with Debasis Bandyopadhyay, Robert Barro, Jeremy Couchman, Norman Gemmell, Fiona McAlister)

Research Experience

2015, 2010-2011 National Bureau of Economics Research, RA for Robert Barro

2009 Harvard Kennedy School, RA for Steve Kelman

2008-2009 Harvard Business School, RA for Josh Lerner

Teaching Experience

2013 Teaching Fellow for Stephen Blyth, Stat 123 (Applied Quantitative Finance), Harvard University

Honors, Awards

Harvard Business School Doctoral Fellowship, 2013-
Participant The Society for Financial Econometrics Summer School 2014
Phi Beta Kappa, High Honors in Field 2011
AmeriCorps Student Leader in Service 2010
Harvard University Human Rights Summer Fellow 2008
Weissman Fellow 2008

Other Professional Activities

Referee *Quarterly Journal of Economics*

Liao, Gordon Yu 606-9764-7 GRADUATE SCHOOL

Status: Good Standing
Subject: Business Economics

Prior Degrees: AB HARVARD COLLEGE 2011

HARVARD UNIVERSITY
Faculty of Arts and Sciences

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Not official unless signed and sealed

COURSE TITLES		GRADE full	GRADE half
	2013-2014		
ECON 2010C	Economic Theory		A
ECON 2010A	Economic Theory		B+
Fall Term :	2 units of TIME		
ECON 2010D	Economic Theory		B+
XBUS 4921	Business Ed for Schlrs&Tchrs:Mk		A
ECON 2140	Econometric Methods		A
ECON 2728	Behavioral Finance		A
ECON 2010B	Economic Theory		A-
	2014-2015		
ECON 2060	Contract Theory		B+
ECON 2723	Asset Pricing		A
XBUS 1166	Managing Intern Trade&Investmen		2
Fall Term :	1 unit of TIME		
ECON 2725	Corporate Finance and Banking		~
XBUS 4920	Business Ed for Schlrs&Tchrs Fn		~
ECON 2530B	International Finance		~
ECON 2727	Empirical Methods Corp Finance		~
Spring Term:	1 unit of TIME		

Issued to Student