April 1, 2013
NBER Entrepreneurship Research Boot Camp Application

Dear Professor Hellman,

I wish to be considered for acceptance into the NBER Entrepreneurship Research Boot Camp during the summer of 2013. Enclosed please find my Curriculum Vita, list of PhD courses, and essay.

Thank you very much, and I look forward to hearing from you.

Best regards,

Richard Thakor
PhD Candidate, Financial Economics
MIT Sloan School of Management
E-mail: rthakor@mit.edu
Phone: (314) 330-8871
Mailing Address: 350 Third St. #1011, Cambridge MA 02142

Dear Brett,

I am writing to provide a letter of recommendation in support of Richard Thakor's application for admission to the summer 2012 NBER Entrepreneurship Research Boot Camp. Richard is currently completing his second year in the Financial Economics PhD program at MIT Sloan. I have been his advisor during that time, and he has also worked with me as a research assistant from the summer of 2011 to the present.

Richard is a bright, hard working, and ambitious graduate student. Throughout his time in the PhD program, he has demonstrated great diligence in his coursework and a genuine desire to learn more. As my research assistant, he has worked on various projects, including manipulating data, conducting empirical analysis, and reading and summarizing relevant literature. He has devoted considerable effort to each task, and has performed in an exemplary manner.

Richard has shown a passion for research and an eagerness to conduct independent research, even at the early stages of the PhD program. He has been working on two research papers starting in his first year, and has been proactive in approaching faculty in order to discuss the papers and obtain feedback.

Richard has additionally shown an interest in broadening his perspective by exploring other areas of research not directly related to his own work. He has been participating in the asset pricing reading group by presenting and discussing recent papers to fellow students and faculty. He has also made an effort to take courses in other areas, including an experimental economics course at Harvard and an intensive, week-long PhD course in behavioral finance at Yale.

I strongly recommend Richard for admission to your program. I believe that he will be very engaged in the program, and that his participation will produce a substantial benefit for his research development.

Best,
Nittai Bergman
Associate Professor Finance
Sloan School of Management

RICHARD T. THAKOR

Current Address: 350 Third St. #1011, Cambridge, Massachusetts 02142, USA
+1 314-330-8871 • Richard.Thakor@gmail.com • RThakor@mit.edu

EDUCATION

MASSACHUSETTS INSTITUTE OF TECHNOLOGY, Sloan School of Management
Cambridge, Massachusetts, USA — September 2010 – Present
PhD Candidate, Financial Economics

LONDON SCHOOL OF ECONOMICS
London, United Kingdom — September 2007 – July 2008
MSc Finance and Economics, July 2008
Masters Dissertation: "Investment Opportunities and the Value of Foreign and Domestic Cash Holdings".

- *Awarded* £7,000 *Creditflux-Cairn Capital Prize for best dissertation out of the MSc Finance and Economics, MSc Management and Regulation, and MSc Finance programs in 2007/8*

WASHINGTON UNIVERSITY IN ST. LOUIS
St. Louis, Missouri, USA — August 2003 – May 2007
A.B., Summa Cum Laude, ***Distinction in Economics***, May 2007
Majors: Economics, Psychology
Minors: Mathematics, Japanese
Cumulative GPA: 3.8/4.0
Honors Thesis: "The Value of Foreign and Domestic Cash in Firms".

- *Awarded Adam Smith Prize for Excellence in Economics for top honors thesis in Economics*

YALE UNIVERSITY, PhD Summer School in Behavioral Finance — Summer 2011
New Haven, Connecticut, USA

HARVARD UNIVERSITY, Summer School
Cambridge, Massachusetts, USA — Summer 2005
Relevant Course Work: Strategy, Conflict and Cooperation (Game Theory); Law and Psychology
GPA: 3.9/4.0

PUBLICATIONS

- "Investment Opportunities and the Value of Foreign and Domestic Cash Holdings," *CreditFlux*, December 2008.
- "The Impact of Japan's Big Bang Financial Reforms," *Apex*, vol. II issue 2, Spring 2006. pp. 54-63.

WORKING PAPERS

- "The Dividend Initiation Decision: Theory and Evidence"
- "Is Short-Termism a Value-Maximizing Internal Governance Practice?"
- "Investment Opportunities, Free-Cash-Flow, the Market Value of Domestic and Foreign Cash Holdings"

ACADEMIC EXPERIENCE

MIT SLOAN SCHOOL OF MANAGEMENT

Research Assistant for Nittai Bergman — Summer 2011 – Present

Teaching Assistant, 15.466 Functional and Strategic Finance — Spring 2013

- MBA course, taught recitation sections and graded assignments. Teaching Assistant for Robert Merton.

Teaching Assistant, 15.434 Advanced Corporate Finance — Fall 2012

- MBA course, Teaching Assistant for David McLean.

Teaching Assistant, 15.414 Financial Management — Summer 2012

- Sloan Fellows course, Teaching Assistant for Kathryn Kaminski.

Teaching Assistant, Finance Made Difficult 2012 — Summer 2012

- One-week mini-course offered to MIT faculty. Taught problem sessions for participants.

Teaching Assistant, 15.414 Financial Management — Summer 2011

- Sloan Fellows course, taught recitation sections and graded assignments. Teaching Assistant for Andrew Lo and Kathryn Kaminski.

PROFESSIONAL EXPERIENCE

NISA INVESTMENT ADVISORS, LLC
St. Louis, Missouri, USA.
An investment management firm which manages over $80 billion in assets for institutional clients.

Analyst, Derivatives Trading September 2008 – June 2010

- Price and help manage Fixed Income and Equity Futures, Total Return and Commodity Swaps, Credit Default Swaps, and Forwards
- Calculate hedges, monitor daily portfolio movements, and assist in determining and executing trades
- Work on special analytical projects for the Trading Desk and Investment Strategies group

Intern (Part-time), Research and Derivatives Trading Spring 2007

Intern, Research and Derivatives Trading Summer 2006

HONORS AND AWARDS

- Awarded £7,000 *Creditflux-Cairn Capital Prize* for best Finance Masters Dissertation in 2007/2008, London School of Economics
- Graduated with Arts and Sciences Honors, *Summa Cum Laude* in Economics, Washington University in St. Louis
- *Dean's List*, Washington University in St. Louis (Fall 2003, Fall 2004 – Fall 2006)
- *Distinction in Economics*, Washington University in St. Louis (Spring 2007)
- *Adam Smith Prize for Excellence in Economics*, Washington University in St. Louis (Spring 2007). Awarded for top honors thesis in the Economics department.
- Omicron Delta Epsilon, the *National Economics Honor Society* (Spring 2007)
- Tau Kappa Epsilon Xi Chapter *Jim Burmeister Scholarship* (Spring 2007)
- 2006-2007 Tau Kappa Epsilon *All-Teke Academic Team Award*
- 2006-2007 Tau Kappa Epsilon *Michael J. Morin Memorial Scholarship*
- 2006-2007 Tau Kappa Epsilon Xi Chapter *Otte Excellence in Leadership Scholarship*
- 2006-2007 Tau Kappa Epsilon Xi Chapter *Top Scholar Award*
- Biography published *The National Dean's List 2005-2006*
- Gamma Sigma Alpha, the *National Greek Academic Honor Society* (Fall 2005)
- *National Society of Collegiate Scholars* (NSCS) (Fall 2004)

POSTGRADUATE ACTIVITIES AND LEADERSHIP EXPERIENCE

Tau Kappa Epsilon Fraternity, Xi Chapter, Washington University in St. Louis Spring 2009 – Present

- *Board of Advisors Member* (Spring 2009 – Present)
- *Chapter Advisor* (Spring 2009 – Summer 2010)

UNDERGRADUATE ACTIVITIES AND LEADERSHIP EXPERIENCE

Tau Kappa Epsilon Fraternity, Xi Chapter, Washington University in St. Louis Spring 2005 – Spring 2007

- *Vice-President* (Spring 2006 – Spring 2007)
- *Member of Candidate Education, History, Scholarship, and Leadership Initiative Committees* (Fall 2005 – Spring 2006)
- *Leadership Scholarship Coordinator* (Fall 2005)

Kendo Club, Washington University in St. Louis Fall 2003 – Spring 2004; Fall 2005 – Spring 2007

- *Founder and President* (Fall 2005 – Spring 2007)

Tae Kwon Do Club, Washington University in St. Louis Fall 2004 – Spring 2007

- *Vice-President* (Fall 2006 – Spring 2007)
- *Secretary* (Fall 2005 – Spring 2006)

College Republicans, Washington University in St. Louis Fall 2003 – Spring 2007

- *Vice-President* (Fall 2006 – Spring 2007)
- *Public Relations Officer* (Fall 2005 – Spring 2006)

TECHNICAL SKILLS

- Computer: Proficient in Stata, Matlab, Bloomberg, Microsoft Visual Basic, and Microsoft Office. Knowledge of EViews, LaTeX, and Yieldbook.
- Databases: Experience with the Wharton Research Data Services CRSP/Compustat merged database.
- Language: Fluent in English as native language. Knowledge of Spanish and Japanese.

List of PhD Courses

MASSACHUSETTS INSTITUTE OF TECHNOLOGY

Course Number/Title	Semester	Units	Description
Economics Courses			
14.121 Microeconomic Theory I *Taught by Robert Townsend*	Fall 2010	6	Introductory Microeconomics
14.122 Microeconomic Theory II *Taught by Mihai Manea*	Fall 2010	6	Game Theory
14.123 Microeconomic Theory III *Taught by Muhamet Yildiz*	Spring 2011	6	Game Theory/Decision Theory
14.124 Microeconomic Theory IV *Taught by Mathias Dewatripont*	Spring 2011	6	Introductory Contract Theory
14.281 Contract Economics *Taught by Richard Holden and Bengt Holmstrom*	Fall 2011	12 (listener)	Contract Theory
14.282 Organizational Economics I *Taught by Robert Gibbons*	Fall 2012	12 (listener)	Organizational and Contract Theory
14.451 Dynamic Optimization Methods *Taught by Bruno Strulovici*	Fall 2011	6 (listener)	Macroeconomic Theory I
14.452 Economic Growth *Taught by Daron Acemoglu*	Fall 2011	6 (listener)	Macroeconomic Theory II
14.453 Economic Fluctuations *Taught by Ivan Werning*	Spring 2012	6 (listener)	Macroeconomic Theory III
14.454 Economic Crises *Taught by Guido Lorenzoni*	Spring 2012	6 (listener)	Macroeconomic Theory IV
14.661 Labor Economics *Taught by Josh Angrist and Parag Pathak*	Fall 2012	12 (listener)	Labor Economics I
14.381 Statistical Methods in Economics *Taught by Anna Mikusheva and Victor Chernozhukov*	Fall 2010	12	Statistics/Introductory Econometrics
14.382 Econometrics *Taught by Jerry Hausman*	Spring 2011	12	Econometric Theory and Methods
14.384 Time Series Analysis *Taught by Anna Mikusheva*	Fall 2011	12	Time Series Econometrics
14.386 New Econometric Methods *Taught by Victor Chernozhukov*	Spring 2013	12 (listener)	New Research in Econometrics
Finance Courses			
15.416J Intro to Financial Economics *Taught by Stephen Ross*	Fall 2010	12	Discrete-time Asset Pricing
15.441J Advanced Financial Economics I *Taught by Stewart Myers and Antoinette Schoar*	Spring 2011	12	Corporate Finance
15.440J Advanced Financial Economics II *Taught by Leonid Kogan*	Fall 2011	12	Continuous-time Asset Pricing
15.442J Advanced Financial Economics III *Taught by Adrien Verdelhan, Jonathan Lewellen, and Jun Pan*	Spring 2012	12	Empirical Finance
15.961 Independent Study in Management	Summer 2011 – Spring 2012		Research Assistant for Nittai Bergman

HARVARD UNIVERSITY

Economics 2040 Experimental Economics *Taught by Alvin Roth*	Spring 2012	12	PhD Course in Experimental Economics

YALE UNIVERSITY

Summer School in Behavioral Finance Summer 2011 week-long PhD course in Behavioral Finance
Taught by Nicholas Barberis, Robert Shiller, Lauren Cohen, James Choi, William Goetzmann, Kent Daniel, Xavier Gabaix, and Ulrike Malmendier

Essay

My interest in attending the NBER Entrepreneurship Research Boot Camp stems from my academic background and my research interests. I am currently a PhD candidate in Financial Economics at the Sloan School of Management at MIT. I have an undergraduate degree from Washington University in St. Louis, where I pursued Economics and Psychology as majors, and Mathematics and Japanese as minors. Through coursework in economics and finance and research during my undergraduate education, I became interested in Finance, which led me to pursue an MSc in Finance and Economics at the London School of Economics. It was during my time as an undergraduate and during my master's degree that I enjoying engaging in research, writing papers for my undergraduate honors thesis and my master's dissertation, which earned awards for best thesis and dissertation. After completing my master's degree, I decided to gain some experience in applying what I had learned in school by working in the financial industry. I worked for two years at an investment management firm called NISA Investment Advisors, LLC, as an analyst on the Derivatives Trading desk. While I enjoyed working in industry, my passion for academic research made me decide to pursue a PhD in Finance.

Part of my interest specifically in the area of entrepreneurial finance was stoked through taking the PhD Corporate Finance class at MIT Sloan, which was co-taught by Stew Myers and Antoinette Schoar. The class helped to deepen my interest in Corporate Finance through the many interesting topics that it surveyed, and it also introduced me to topics related to entrepreneurship. The theory and empirical evidence on venture capital and private equity (including contracting theory), IPOs, and development finance, among other topics, showed me how important the realm of entrepreneurial finance is to understanding behavior at the managerial, company, and broader economic levels. And it also gave me a glimpse of the great number of exciting research questions that are still open to be studied in the area. I believe that the NBER program will provide me with an opportunity to take an even deeper, as well as more comprehensive, look at many of the topics and research questions that I encountered in class.

My current research interests also intersect with issues that are germane to the economics of entrepreneurship. I am currently pursuing both empirical and theoretical research in Corporate Finance. One of my papers is a theoretical examination of the potential for "short-termism" to be value maximizing. In other words, I ask whether firms may want to encourage managers to emphasize short-term results, rather than such investment myopia being the outcome of managerial self interest, as characterized in the existing literature. I find that there may be situations in which divisional managers have an incentive to choose projects that have long horizons, even when these projects are negative NPV, in order to maximize the value of the option they possess on their human capital and private benefits. A long-horizon project means that this option is not "prematurely" exercised. A firm may thus reduce distortions in (delegated) project selection by banning long-term projects and insisting on short-term projects. This leads to the use of mechanisms such as the payback criterion in capital budgeting. The implication is that capital budgeting rules such as payback, and more generally the emphasis on short-term results by managers, which are typically labeled as value-destroying, may actually be efficient

internal governance practices by firms. This paper thus focuses on private-benefit and learning-related contracting frictions to improve our understanding of how these frictions affect governance and corporate decisions; similar frictions also influence the ability of entrepreneurs to raise financing, the choice of financial contracts they use to raise this financing, and the governance arrangements that typify contractual arrangements between VCs and entrepreneurs.

Another paper that I am working on is an empirical examination of whether the value attached by the stock market to the firm's on-balance-sheet cash is higher if the cash is held domestically than if it is held in foreign subsidiaries. On the one hand, because of a repatriation tax to bring cash back to the US, US multinational firms have an incentive to stockpile cash abroad in order to defer/avoid the repatriation tax. This would imply that cash held by firms abroad should be valued at a discount. On the other hand, better investment opportunities abroad (especially in growth markets) would imply that the foreign cash is used for efficient investments, and that free-cash-flow problems should be less severe abroad. This would imply that cash held by firms abroad should be valued at a premium. Extending the methodology of previous papers, I find empirical support for the latter explanation. The results indicate that, in the cross-section, investors attach a higher marginal value to cash held abroad than to cash held domestically. The results also indicate that investment opportunities appear to drive this difference, and that the overall effect of these good investment opportunities swamps the repatriation-tax disadvantage of foreign-held cash. Further evidence from a one-time holiday from the repatriation tax in 2004 further substantiates this explanation.

Although my research interests are still evolving, many topics in Corporate Finance hold a great deal of interest for me. But my research interests are also eclectic. Some of the research that I have been doing as a research assistant has been on employment dynamics. I am also currently involved in a preliminary research examination of bankruptcy and (inefficient) liquidation; these are issues that are particularly compelling in an entrepreneurship context, given the relatively high mortality rate of new firms. Thus, a great many topics interest me, and I am keen to further broaden my portfolio of research knowledge.

Overall, I believe that the NBER Entrepreneurship Research Boot Camp is an excellent opportunity for me to get in-depth exposure to the latest research in an exciting area, one that could potentially have a shaping influence on my future research agenda. In addition, the program is taught by renowned faculty from whom I could learn a great deal, and stimulate my thinking about important research questions in entrepreneurship, innovation and growth.