Matthew Denes

University of Washington
Foster School of Business
364 Mackenzie Hall
Seattle, WA 98195

March 31, 2014

National Bureau of Economic Research
Entrepreneurship Research Boot Camp 2014
1050 Massachusetts Ave.
Cambridge, MA 02138

Dear Sir or Madam,

I am currently a Ph.D. student in the Finance Department in the Foster School of Business at the University of Washington. This application package contains the materials for my application to the NBER Entrepreneurship Research Boot Camp 2014 on July 15, 2014 to July 18, 2014 in Cambridge, Massachusetts. The package includes my Curriculum Vitae and a two-page essay. You can reach me by e-mail at denes@uw.edu and by phone at 973-271-8677. My mailing address is provided below:

University of Washington
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364 Mackenzie Hall
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My Ph.D. advisor, Ran Duchin, sent a letter of recommendation separately to Brett Maranjian by email. Ran Duchin is an Associate Professor of Finance in the Foster School of Business at the University of Washington. You can reach him by email at duchin@uw.edu or by his office phone at (206) 543-4377.

Thank you for considering my application for the Entrepreneurship Research Boot Camp 2014. As I begin the research phase of my Ph.D. program, the boot camp is an excellent opportunity for me to extend my knowledge of entrepreneurship literature. Within this area, I am particularly interested in entrepreneurial financing. One potential research question that I would like to study is the effect of entrepreneurial financing on innovation.

If you have any questions about my application package or if you would like any additional materials, please let me know.

Sincerely,

Matthew Denes

Matthew Denes

March 2014

denes@uw.edu
(973) 271-8677
Citizenship: United States

University of Washington
Foster School of Business
364 Mackenzie Hall
Seattle, WA 98195

Education

University of Washington, Foster School of Business — Seattle, WA
Ph.D., Finance — (expected) 2016

University of Pennsylvania, The Wharton School — Philadelphia, PA
M.A., Finance — 2012

Boston College, Carroll School of Management — Chestnut Hill, MA
B.S., Finance and Computer Science, *summa cum laude* — 2005

Completed and Current Ph.D. Courses

University of Washington, Foster School of Business

Finance Ph.D. Courses: Doctoral Seminars in Financial Economics, Corporate Finance, Capital Market Theory, Financial Research (Asset Pricing), Special Topics in Financial Economics

Statistics Ph.D. Courses: Hierarchical Modeling, Event History Analysis, Causal Modeling

University of Pennsylvania, The Wharton School

Finance and Economics Ph.D. Courses: Microeconomic Theory, Econometrics I and II, Financial Economics, Financial Institutions, Empirical Asset Pricing, Intertemporal Macroeconomic Finance, Quantitative Macroeconomic Theory, Empirical Methods in Corporate Finance, Empirical Research in Finance, Continuous-Time Financial Economics, Advanced Quantitative Methods in Finance, Applied Econometrics I and II

Statistics Ph.D. Courses: Bayesian Methods & Computation, Statistical Methods, Mathematical Statistics

Publications

Deficits, Public Debt Dynamics and Tax and Spending Multipliers,
with Gauti B. Eggertsson and Sophia Gilbukh,
The Economic Journal, 2013, 123(566), 133–163

Work Experience

New York Federal Reserve Bank — New York, NY
Visiting Economist — Summer 2010

New York Federal Reserve Bank — New York, NY
Research Associate — 2008–2009

Board of Governors of the Federal Reserve System — Washington, DC
Research Assistant — 2006–2008

Deloitte & Touche — New York, NY
Enterprise Risk Services Consultant — 2005–2006

Teaching Assistance

Business Finance (for Jonathan Karpoff, Jarrad Harford and Ran Duchin)
Winter 2013, Winter 2014, Spring 2014

Financing Decisions, Payout Policy and Corporate Control (for Edward Rice)
Spring 2013

Business Valuation, Investment and Financing (for Lawrence Schall)
Winter 2013

Referee Service

The Economic Journal

Fellowships

Nancy Jacob Ph.D. Fellowship, 2012–2016

University of Pennsylvania Dean's Fellowship for Distinguished Merit, 2009–2012

References

Ran Duchin
Associate Professor of Finance
University of Washington
Foster School of Business
(206) 543-4377
duchin@uw.edu

The NBER Entrepreneurship Research Boot Camp is an excellent opportunity for me to gain exposure to the research frontier in entrepreneurial economics and finance. By attending the boot camp, I will learn from leading researchers and interact with students who are also interested in these areas. In a current research project and planned future work, I broadly study innovation policy at firms. With two professors, I am currently exploring the link between government spending and innovation. In my own research, I plan to study the effect of entrepreneurial financing on innovation. Interacting with experienced researchers in entrepreneurship will greatly support and advance my future work in this area.

My broad research interests lie within empirical corporate finance. Classes in corporate finance theory and empirics have provided me with a strong background as I begin research in this area. Michael Roberts' Empirical Methods in Corporate Finance class highlighted the importance of identification in most empirical work. Further, Ran Duchin's Corporate Finance class emphasized using a model to develop empirically-testable hypotheses. Additionally, Ph.D.-level statistics classes have strengthened my ability to conduct empirical research and to ensure that the research question is properly identified by the econometric specification.

The research boot camp would allow me to broaden my knowledge of the entrepreneurship literature. While it is a large, developed research topic, my current and completed courses have not exposed me to many of the articles in this area. It is an extremely interesting and important area to me and, by attending the boot camp, I can learn from the top researchers. As discussed below, my current research interest focuses on the effect of corporate financing on innovation policy. This is particularly relevant to entrepreneurial research and has been studied in the context of venture capital financing. The sessions guided by Thomas Hellmann, Josh Lerner and Antoinette Schoar would be exceedingly beneficial in guiding and informing my future research work.

A current research project that I am working on with Ran Duchin and Jonathan Brogaard explores the impact of government spending on innovation. Using federal procure-

ment contracts in the United States, we estimate the effect of receiving a contract on a firm's patent output. Our preliminary results find that an increase in sales from the government is associated with an increase in innovation. One potential mechanism that we are studying is the interaction between corporate governance and government spending and its effects on firm-level patent production. Our analysis largely focuses on large, public firms in the United States. An interesting extension would be to consider the effects of receiving a government contract on smaller firms and their innovation policy.

One research topic that I am particularly interested in is the interaction between entrepreneurial financing and innovation. An extensive literature in capital structure studies the effect of financing on firm value. The tradeoff theory and pecking-order model of Myers and Majluf (1984) are two of the main models of optimal corporate financing. In the trade-off theory, firms determine leverage ratios by comparing the tax benefits of issuing debt with the costs of financial distress and bankruptcy. The pecking-order model highlights informational asymmetries between the managers and investors of a firm. It predicts that a pecking order of financing is formed, where firms use financing with the lowest asymmetries first in broadly the following order: internal funds, debt and equity. Using these models for hypothesis development, I aim to study the effect of entrepreneurial financing on firm-level innovation.

In conclusion, my research interests and prior coursework has prepared me ideally for the NBER Entrepreneurship Research Boot Camp. As I enter the research phase of my Ph.D. program, the boot camp will allow me to learn about the several strands within the entrepreneurial literature from leading, experienced researchers. My current and future research would be considerably enhanced by attending the workshop and learning from both the professors and the other students. With this experience, I aim to produce journal-quality research, including my job market paper, on entrepreneurial finance.

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RAN DUCHIN
Associate Professor of Finance
Marguerite Reimers Endowed Fund Fellow

Foster
School of Business
UNIVERSITY OF
WASHINGTON

Recommendation Letter for Matthew Denes

March 27, 2014

Dear Madam/Sir,

It is my pleasure to write this letter of recommendation on behalf of Matthew Denes. Matt is a second year PhD student that I am advising. I have worked closely with Matt since he joined our program. Matt has been my teaching assistant and research assistant. He has done a great job on both fronts - he is careful, committed, and creative. As such, I can say without hesitation that Matt is among the very best PhD students that I have seen during my nearly six years in Michigan and Washington.

Matt is working on issues in corporate finance and entrepreneurship. Matt and I are currently working on a joint paper that studies the interaction between government spending, entrepreneurship, and innovation. As it is notoriously difficult to establish causality and generate clean estimates of these effects, we are using micro-level data on government contracts coupled with an IV-based approach to address these challenges. Given Matt's research interests and our

joint work, I believe that attending the NBER Entrepreneurship Research Boot Camp will be especially valuable for Matt.

I am confident that Matt will be a great addition to the Boot Camp. Matt is hard-working and exceptionally diligent. Matt is an especially good fit for the Boot Camp because he is already highly engaged in research. His was a frequent contributor in the discussions at my PhD seminar last quarter. He is also a frequent contributor at the faculty seminar. I therefore enthusiastically recommend Matt for the Boot Camp.

Sincerely,



Ran Duchin