Sara Moreira
1607 East 50th Place, Apt 10D
Chicago, IL 60615
Phone: (773) 620-2767
Email: spmoreira@uchicago.edu

April 1st, 2013

To whom it may concern,

I am writing to apply to the NBER Entrepreneurship Research Boot Camp 2013. I am a Ph.D. student in Economics at the University of Chicago. I see this boot camp as an opportunity to greatly improve my knowledge in entrepreneurship theory and applied work and I strongly believe that my participation can have an important impact in my future research.

Enclosed, please refer to the following documents:

1. My curriculum vitae
2. A list of all current and completed PhD courses
3. Recommendation letter from Professor Erik Hurst.

Please feel free to contact me if you require any additional materials or information concerning my application. Thank you for your consideration.

Sincerely,

Sara Moreira

Ph.D. Student in Economics

Erik Hurst
V. Duane Rath Professor of Economics
Email: erik.hurst@chicagobooth.edu

April 1, 2013

I am enthusiastically writing to recommend Sara Moreira to be a participant in NBER's Entrepreneurship Research Boot Camp. I know both Sara and the boot camp well. Sara is currently in her third year of the Ph.D. program within the Department of Economics at the University of Chicago. I taught her this year in my Ph.D. course "Micro Data for Macro Models" (co-taught with Steve Davis). Of the twenty students registered in my class, Sara was in the top 4 or 5 in terms of her performance. She has all the makings of someone who will be at the top of the job market in a few years.

Sara is embarking on a series of projects looking at firm level productivity. In a paper she presented in our class, she is asking to the extent to which sectoral change can explain the evolution of the skill wage premium. In a sector paper, she wants to use firm level data from Census to decompose firm productivity growth into permanent and transitory components. Many recent papers have used statistical properties of household earnings and consumption growth to infer something about household earnings dynamics. Sara has the idea to apply very similar methods to firm level data to learn about the firm productivity process. I think this idea has tremendous upside. I am currently sponsoring a proposal at Census to get her access to the micro data.

As you know, I taught at the boot camp last year. Given that, I know the distribution of students who attend the program quite well. I think it is a no-brainer to include Sara as a participant. Sara is a careful thinker with strong economic intuition. At the same time, she has a very good background in econometrics and a broad knowledge of several fields of economics. Sara will grow as a researcher and thinker from attending the summer camp, and I am expecting that her participation will broaden her perspective so as to improve her research. At the same time, I think the other participants will benefit from her comments and questions. There are not too many participants who have macro-theory training that want to explore the micro nature of firm dynamics.

Let me know if I can provide any more information. Feel free to call me directly if it would help to discuss things further. Again, Sara has my fullest support as a candidate for the NBER's Entrepreneurship Research Boot Camp.

Erik Hurst
V. Duane Rath Professor of Economics
University of Chicago
Booth School of Business
(773) 834 4073

SARA MOREIRA

1607 East 50th Place, Apt 10D
Chicago, IL 60615
Citizenship: Portugal (J-1 Visa)

Phone: (773) 620-2767
Email: spmoreira@uchicago.edu

EDUCATION

University of Chicago, USA — Expected 2015
Ph.D., M,A, in Economics

Universidade Tecnica de Lisboa ISEG - Lisbon, Portugal — 2009
M.Sc. in Applied Econometrics and Forecasting (2-year degree)

Universidade do Porto, FEP - Porto, Portugal — 2005
B.Sc. in Economics (5-year degree)

RESEARCH INTERESTS

Human Capital, Applied Macro, Applied Econometrics, Entrepreneurship

PUBLICATIONS AND WORK IN PROGRESS

Papers

"Double coverage and health care utilisation: Evidence from quantile regression" (with Pedro Barros), *Health Economics,* 19, 2010, pp. 1075–1092

"Impact of double coverage on the utilisation of health care" (with Pedro Barros), *Banco de Portugal Economic Bulletin*, Vol. 15(3), 2009, pp.191-211

"Efficiency analysis of public hospitals transformed into public corporations: An application of data envelopment analysis", *Banco de Portugal Economic Bulletin*, Vol. 14(1), 2008, pp.119-141

"Efficiency of secondary schools in Portugal: A stochastic frontier analysis" (with M. Pereira), *Banco de Portugal Economic Bulletin,* Vol. 13(1), 2007, pp.101-117

Book Chapters

"Public finances in Portugal: trends and challenges" in "The Portuguese economy in the context of economic, financial and monetary integration", Banco de Portugal, 2009.

Work in Progress

"Volatility and Dispersion of Firm Level Growth Rates"

"The Role of Sectoral Composition in the Evolution of the Skill Wage Premium"

TEACHING ACTIVITIES

University of Chicago

Research Seminar on the Quantitative Study on Inequality, PhD course (James Heckman)	Spring 2013
The Origins & Consequences of Inequality in Capabilities, PhD course (James Heckman)	Winter 2013
Analysis of Microeconomic Data II, PhD course (Robert LaLonde)	Winter 2013
Analysis of Microeconomic Data I, PhD course (Dan Black)	Fall 2012

Other

Macroeconomics, Undergraduate course of University o Porto	2005
GMAT Preparation Course, Special course of Universidade Catolica Portuguesa	2008

AWARDS AND HONORS

Prize for best paper in the 11th National Health Economics Conference	2009
Award Fundação Eng. António de Almeida for Top Economics Student	2006
Best Student in Economics Award (highest GPA, 2005), Universidade do Porto	2005
Merit Award, Universidade do Porto	2002/03 and 2003/04

WORK EXPERIENCE

Research Economist, Economic Research Department, Banco de Portugal	2005-2010

PROFESSIONAL ACTIVITIES

Ad Hoc Reviewer, Journal of Health Economics

Ad Hoc Reviewer, Portuguese Journal of Management Studies

SARA MOREIRA

LIST OF ALL COMPLETED PHD COURSES

Introduction to Mathematical Methods in Economics	Summer 2010
Price Theory I	Fall 2010
Theory of Income I	Fall 2010
Empirical Analysis I	Fall 2010
Price Theory II	Winter 2011
Theory of Income II	Winter 2011
Empirical Analysis II	Winter 2011
Price Theory III	Spring 2011
Theory of Income III	Spring 2011
Empirical Analysis III	Spring 2011
Analysis of Microeconomic Data I	Fall 2011
Aggregate Labor Market Dynamics	Fall 2011
Analysis of Microeconomic Data II	Winter 2012
The Origins & Consequences of Inequality in Capabilities	Winter 2012
Research Seminar on the Quantitative Study on Inequality	Spring 2012
Social Interactions and Inequality	Spring 2012
Micro Data for Macro Models	Fall 2012
Advanced Industrial Organization I	Fall 2012
Computational Econometrics: Bringing Economics to Data	Winter 2013

SARA MOREIRA

STATEMENT OF PURPOSE

I became interested in studying economics a couple of years before applying to college. Throughout my undergraduate studies, I realized that understanding the knowledge that had been produced to date was not enough for me; I wanted to contribute to it. My motivation in pursuing a research-oriented career grew stronger during my 5-year undergraduate program in Economics at Universidade do Porto in Portugal. At the end of my undergraduate studies I got the opportunity to become a researcher at the research department of the Portuguese central bank. I accepted because I wanted to experience what a research position at a central bank was like. The environment I found there was very stimulating. I carried out studies that contributed to a more in-depth knowledge of the Portuguese economy. My major responsibilities consisted in analyzing the public finances of Portugal, in preparing estimates and forecasts for the main macroeconomic aggregates, and in elaborating analysis to be incorporated in the central bank regular publications. In terms of research, my main areas were the economics of education and health economics. During that period I further invested in my formal education by pursuing a M.Sc. in Applied Econometrics and Forecasting.

My work experience confirmed that research was the right choice for my future. I started the doctoral program in economics at the University of Chicago in 2010. During the past few years, I became increasingly interested in understanding the process of human capital formation and its implications for the evolution of inequality and other macroeconomic aggregates. Hence, I chose to specialize on human capital and inequality, labor econometrics and applied macro, in the second and third years. Currently, I am working on a project that incorporates sector-specific productivity and factor-specific productivity effects in the analysis of the evolution of the skill wage premium. I use CPS data on wages and employment for 30 industries that compose the U.S. economy to examine the evolution of employment and skill-intensity by sector. To guide the empirical work, I construct a simple two-sector model that explores the role of heterogenous technology in the process of structural change. I show that the college premium depends crucially on industry-specific elasticities of substitution between skilled and unskilled labor and on the nature of the factor augmenting technology. The model allows me to derive closed form expressions for the aggregate elasticity of substitution and estimate its evolution. I find that the degree of skilled-unskilled labor substitutability is diminishing as the sectors with low flexibility (e.g. services) are becoming in-

creasingly important. My final objective is to further study the mechanisms through which change in the composition of an economy shapes the degree of inequality among workers in the labor market.

While attending the course of Micro Data for Macro models taught by Erik Hurst and Steven Davis, I became interested in the entrepreneurship literature. In my dissertation, I plan to work on the intersection of human capital, inequality and entrepreneurship. I am currently starting a new paper on volatility and dispersion of firm level growth rates. Large job flows and high firm-level volatility reflect the restructuring, experimentation and adjustment processes at the heart of Schumpeterian theories. Understanding how much risk and what types of risks firms face is important in the entrepreneurship literature. In the first stage of the paper, I plan to look at the covariance structure of employment (using the LBD) such that I can empirically determine the proportion of volatility that is due to idiosyncratic shocks and the proportion that refers to sectoral and aggregate shocks. At the same time, with some extra assumptions, I will be able to disentangle the variation that refers to unobservable heterogeneity and the part that refers to pure uncertainty, as well as the role of permanent and transitory shocks. In a second stage of the paper, I plan to explore how different types of shocks differentially affect firms depending on the age of the firm and on their public ownership status.

By applying to the NBER Entrepreneurship Research Boot Camp, I look forward to learning from top researchers and benefit from a prolific research environment. I see my admission as an opportunity to greatly improve my knowledge in entrepreneurship theory and applied work. I strongly believe that this boot camp can have a significant impact in the quality of my future research.