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NBER Productivity, Innovation, and Entrepreneurship Program
Entrepreneurship Area

To Whom It May Concern,

I am writing to apply for a postdoctoral fellowship in entrepreneurship at the NBER. I expect to receive my Ph.D. degree in Economics from The University of Chicago in June 2016. My advisers are Erik Hurst (chair), Steven Davis, Chad Syverson, and Ali Hortaçsu. My general areas of interest are applied economics, with an emphasis on the dynamics of business formation, growth, and productivity.

My academic work uses granular data from large administrative and micro-survey datasets to study the economic mechanisms that shape the dynamics of business formation, growth, and productivity. In my Job Market Paper, I use data covering the universe of businesses operating in the U.S. since the late 1970s to examine how the state of the economy when businesses start operations affects their size and performance over the lifecycle. I provide new evidence that businesses born during downturns start on a smaller scale and remain smaller over their entire lifecycle than those created during expansionary periods. I examine the mechanisms that explain this empirical result by exploiting the granular detail of available Census Bureau data. I show that the persistent effects of entry conditions are driven by selection at entry and demand-side channels. Finally, I develop a theoretical model of firm dynamics that includes aggregate shocks, idiosyncratic productivities, and demand accumulation processes to quantitatively explore the role of these persistent effects on the propagation of the Great Recession. Going forward, a primary objective will be to deepen my expertise in the use of administrative datasets. In particular, I plan to explore the U.S. Census Bureau's new Longitudinal Employer-Household Dynamics program to address key questions regarding the characteristics of business founders, and the relevance of their employment histories.

My work studies entrepreneurship, firm dynamics, and productivity from a macroeconomic angle. My research has a strong empirical base but is disciplined by the rigor of a formal theoretical framework. I am highly interested in a postdoctoral fellowship in entrepreneurship at the NBER. My contact with the PRIE Program's dates to my participation in the NBER Entrepreneurship Summer Bootcamp in July of 2013. More recently, I received a Kauffman Dissertation Fellowship and participated in the Entrepreneurship Mentoring Workshop.

Please find attached my proposal. Let me know if there are any other materials or information that you might need and I will be happy to provide them to you as quickly as possible.

Thank you for your consideration. I very much look forward to hearing from you.

Sincerely,

Sara Moreira

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Proposal

I am interested in conducting applied research on the dynamics of business formation, growth, and productivity. My principal methodological approach involves the application of rigorous theoretical frameworks to large, highly granular administrative and micro-survey datasets in order to study key aspects of the aggregate evolution of entrepreneurial activity and labor demand in the economy. Below I summarize my current work, and then provide a brief overview of my future research agenda.

Ongoing Research

Scholars have long recognized that labor market conditions at the time individuals graduate and enter the workforce have permanent effects on their lifecycle earnings profile (Kahn 2010, Oreopoulos, von Wachter, and Heisz 2012). While businesses are inherently different from individuals, it is no less relevant to examine whether temporary economic shocks at inception could have long-lasting effects on the size, growth, and performance of businesses. Young firms play a critical role in injecting new blood into the economy, fostering innovation and creating new jobs. In my job market paper, ***Firm Dynamics, Persistent Effects of Entry Conditions, and Business Cycles***, I analyze whether firms' ability to generate employment is diminished by poor economic conditions during their initial entry into the market.

This question is, however, difficult to tackle for two reasons. First, measuring these effects and understanding the economic mechanisms behind the empirical patterns is a challenging task. Large publicly available datasets are either limited in their coverage or do not provide enough detail to allow a definitive identification of the mechanisms driving the empirical results. Second, unlike individuals, who are constrained in their ability to choose their graduation year, businesses endogenously select when to start operating. Hence, an empirical analysis of this research question requires a careful treatment of the mechanisms that determine firms' time of entry. I use administrative data from the Census Bureau?s Longitudinal Business Database. I find that businesses born in downturns start on a smaller scale and remain smaller over their entire lifecycle. I examine the mechanisms that explain this empirical result by exploiting the tax return data of the Census Bureau Business Register. Specifically, I assemble a dataset with revenue and employment measures at the firm level that allow me to compute labor productivity in all sectors of the economy. I establish that businesses born in recessions are relatively more productive than other businesses. This result suggests that differences in the underlying quality of startups cannot explain the persistently smaller size of those established during recessions. I also exploit cross-sectional heterogeneity among businesses and industries to investigate why businesses started during recessions are unable to catch up with their boom-time counterparts. I find evidence that the persistent effects of entry conditions are stronger in industries where demand is more dependent on a demand accumulation process such as building a customer base.

In the second part of this paper, I propose an analytically tractable framework to formalize these insights and construct counterfactuals in order to isolate the effects of selection mechanisms and demand accumulation processes in generating the persistent effects of entry conditions. This paper makes an important contribution to the literature on aggregate shock propagation mechanisms. I simulate the propagation of the Great Recession using my empirical estimates and show that the persistently smaller size of businesses born in 2008 and 2009 accounts for a loss of 1.2 million jobs in the long run, which is a sizeable share of the total decrease in employment observed during the recession.

In a related paper, ***Self-Employment and the Business Cycle***, I use a combination of micro-level data from the Current Population Survey (CPS) and the American Time Use Survey (ATUS) to study the fluctuations of hours worked among self-employed workers. I find that the bulk of the fluctuations in total hours worked by the self-employed come from transitions in and out of self-employment, rather than from changes in the effort levels of already self-employed workers. I use a stock-flow accounting framework to decompose the transitions in and out of self-employment. I find that transitions in and out of inactivity, rather than transitions in and out of unemployment, explain most of the cyclical variation in total hours worked by self-employed individuals. To better understand the economic mechanisms behind this new empirical evidence, I develop a simple model that combines features of Roy models and search models. The empirical findings in this paper speak to an important debate in the entrepreneurship literature: whether or not recessions cause individuals to become entrepreneurs because they lack other options. My data show that transitions from unemployment to self-employment are not statistically relevant to this question, which raises significant doubts about the economic magnitude of this mechanism. The findings of this paper also speak to the question addressed by my job market paper. They suggest that entrepreneurs who start operations during recessions are not significantly more likely to be low-quality entrepreneurs who start businesses only because they lack other options.

Future Research

I plan to work on two follow-ups of my job market. First, I want to deepen my expertise in the use of administrative datasets with the objective of investigating the relation between entrepreneurship and business cycles in the U.S. economy. In particular, I plan to explore the U.S. Census Bureau's new Longitudinal Employer-Household Dynamics program. These data, along with the datasets from my job market paper, will allow me to address key questions regarding the characteristics of business founders, and the relevance of their employment histories. In this line of work, I want to explore the composition of entrants over the business cycle by focusing on the differences between potential entrepreneurs and established entrepreneurs (business owners). My preliminary results suggest that the entry rate of single-unit businesses, sole-proprietorships, and partnerships is significantly more procyclical than that of other businesses. Established businesses and corporations, which are often larger and more productive, are more likely to start new establishments during economic downturns. I want to use business cycle variations in the decisions to start a new business to learn about the the different nature of the problem that a *de novo* entrepreneur and an incumbent firm face when deciding to open a new establishment.

Finally, I also plan to use these administrative datasets to ask questions regarding the effects of public policies on the decisions to start new businesses. One of the projects consists in examining how minimum wage policies affects new business formation, the decisions of firms to exit the market, the location decisions of new businesses, and allocation of production decisions within a multi-plant firm. In spite of the importance of minimum wage policies very little is known about their consequences for firm dynamics. My objective is to use the granularity of the LBD to answer some of these very important unanswered questions about public policies that are regularly used by governments throughout the world.