Stephanie Rosch 901 N 20<sup>th</sup> St Unit 5 Lafayette, IN 47904 29 November 2014

Dr. Denis Healy National Bureau of Economic Research 1050 Massachusetts Ave Cambridge, MA 02138

Dear Dr. Healy:

I am writing in response to the listing for an Entrepreneurship Postdoctoral Fellow posted on the Job Openings for Economics website (ID # 2014-02\_111451158). I believe that my training, skills, and experience are well suited to the requirements listed for this position.

I will complete my PhD studies in Agricultural Economics at Purdue University in May 2015. My main research interests are contract theory and industrial organization applied to agricultural markets in developing countries. I employ a variety of methods for my research including laboratory experiments, case-control studies with matching design, household surveys, choice experiments, and focus groups. My dissertation examines the barriers that deter small-scale producers from entering export production contracts for green beans in Kenya, focusing on problems of contract enforcement and partner search. I have also conducted research on agricultural markets in Azerbaijan on behalf of the US Embassy in Azerbaijan; contract designs appropriate for a commercial biofuel crop market for dedicated energy crops; and linkages between climate change, agriculture, and poverty.

**External funding and Publications.** I have been awarded external funding from Borlaug Global Food Security Program, the US Embassy in Azerbaijan, and Purdue University. My work has been published in *Applied Economic Perspectives and Policy, Energy Economics, and BioEnergy Research*. Additionally, I have prepared research policy briefs for VoxEU.org and IREX's Scholar Research Brief series, and contributed to several policy analyses for USAID and USEPA while employed by The Cadmus Group, Inc. and the Tellus Institute (see enclosed CV).

**Potential for excellence in IO research.** For my dissertation, I have developed three cutting-edge empirical methodologies. In order to determine the effect of imperfect contract enforcement on farmers' decisions to enter and exit green bean contracting, I develop a new approach to test for barriers to technology adoption that combines a choice experiment and nearest-neighbor matching to form a case control design. This method builds on recent work by Imai et. al (2013) on experimental designs for causal mechanisms, and is discussed in detail in my job market paper. This research was presented at the 2014 International Industrial Organization Conference, the 2014 Midwest International Economic Development Conference, and the 2014 Annual Meeting for the Agricultural and Applied Economics Association.

I also develop novel theoretical and empirical contributions in my second dissertation essay: Do Search Frictions Compound Problems of Relational Contracting? To test if search frictions exacerbate the problems of imperfect contract enforcement, I extend Moen's (1997) model of search frictions to allow for heterogeneous agents and relational contracting. Then I test the model using two novel empirical methodologies. The first methodology measures search frictions based on the spatial density of firms and farmers in the market. The second uses preferences measured in a choice experiment to quantify the impact of search frictions on farmers' entry and exit decisions under different contract enforcement scenarios.

Interest in experimental methods. I have strong preparation in laboratory experimental methods. For the past six years, I have been a member of the Vernon Smith Experimental Economics Lab at Purdue University. As such, I have regularly provided feedback and constructive criticism on experimental designs in progress for the other members of the group and visiting scholars. Additionally, my Master's thesis used a combination of theoretical modeling and un-framed laboratory experiments to investigate the efficiency of contracts for perennial crops used in biofuels production. The experiments evaluated the performance of three contract designs: a fixed price contract, a perfectly indexed contract which reflects all changes in the opportunity costs of competing crops, and an attenuating index which changes the probability distribution of contract prices relative to the distribution under a perfect index. These three contracts provide different weighting for ex-ante and ex post price volatility, allowing us to observe which type of risk matters most to subjects in long-term contracting agreements. To evaluate the efficiency of these designs in reducing hold-up, I used four treatments: a fixed price contract set at the risk-neutral net present value price, a fixed price contract determined using a continuous-time button auction that minimizes the total cost of contracting for a refinery, an indexed price contract that perfectly adjusted for changes in subjects' outside options, and an indexed price contract that imperfectly adjusted for changes in subjects' outside options by attenuating movements away from the mean of the distribution. Although I have not yet sought publication for the laboratory experiments portion of this project, other aspects of this project were included in articles published in *Energy Economics, BioEnergy Research,* and as an extension bulletin in the Purdue agricultural extension series.

My nationality is American (USA) and my native language is English. I am also proficient in French and Wolof, and very comfortable working with colleagues from diverse cultural backgrounds. I will be available for interviews at the 2015 ASSA meetings in Boston, and am amenable to relocating to the Boston area for 2015-2016.

I would welcome the opportunity to further discuss this position with you. I have enclosed my current CV, research proposal, and list of references for your review. If you have questions or would like to schedule an interview, please contact my mobile phone at +001-617-314-1578 or email me at srosch@purdue.edu. I look forward to hearing from you.

Sincerely,

Stephanie Rosch

Enclosures