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April 2, 2012

Brett Maranjian, Administrative Coordinator
National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138, US

Dear Brett Maranjian:

I am a PhD candidate at the Charles H. Dyson School of Applied Economics and Management, Cornell University. My primary fields of interest are development economics and applied econometrics. I also have a strong interest in entrepreneurship in developing countries, along with related issues such as firm behavior and rural finance and risk.

The NBER Entrepreneurship Research Boot Camp would be a great opportunity to meet expert scholars and exchange ideas. Furthermore, since my current research in Thailand's rural nonfarm economy incorporates frameworks used in the entrepreneurship literature, I believe I would be able to make a useful contribution to discussions at the Boot Camp.

Enclosed is my CV with a list of all current and completed PhD. Courses and essay application for the NBER Entrepreneurship Research Boot Camp. If you have any questions or require any further information, I can be reached at 607-280-5158 and cc844@cornell.edu. Professor Christopher B. Barrett, my adviser, has already written a recommendation letter on my behalf. Thank you for your consideration.

Sincerely yours,

Chayanee Chawanote

Cornell University
Charles H. Dyson School of
Applied Economics and Management

Christopher B. Barrett
Stephen B. and Janice G. Ashley Professor of
Applied Economics and Management
International Professor of Agriculture
Professor of Economics

Director, Stimulating Agricultural and Rural Transformation Initiative
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March 31, 2012

Ms. Brett Marangian
National Bureau of Economic Research
1050 Massachusetts Avenue
Cambridge, MA 02138

Dear Ms. Marangian,

This letter offers my recommendation of Ms. **Chayanee (Namtip) Chawanote** for the NBER Entrepreneurship Research Boot Camp in July 2012.

Namtip is a fourth year Ph.D. candidate in Applied Economics and Management at Cornell, working under my direction. She has a faculty appointment at Thammasat University, the leading academic institution in her native country of Thailand, and is pursuing her doctorate with support from a highly selective Royal Thai Scholarship. Namtip's dissertation research explores the emergence, persistence and growth of rural nonfarm enterprises in Thailand, with an eye toward understanding the micro-economics of the transition out of agriculture and the creation of non-farm employment opportunities in rural towns and villages.

The first two of her dissertation papers use a rich, nationally representative panel household survey data set collected by the National Statistical Office (NSO) of Thailand. The NSO data are not publicly available; Namtip had to negotiate an access agreement to obtain the data. She also took the opportunity while in Thailand the past two summers to conduct interviews with a range of rural nonfarm entrepreneurs so as to better understand the dynamics she is trying to explore in the quantitative data.

Namtip has drafted a very solid first dissertation paper that offers a careful empirical analysis of transitions into and out of the rural nonfarm sector and the relationship between earnings transitions, intersectoral mobility and firm expansion as manifest in household-based firms taking on non-household employees. She finds strong evidence of occupational ladders of activity groupings that can be strictly ordered in stochastic dominance terms. Not surprisingly, operating a non-farm business large enough to employ non-family workers generates the most attractive earnings distribution among the various options identifiable in the data. But the creation and survival rates of such firms are low. In a second paper that is well underway, she explores the determinants of rural, non-farm enterprises expanding their employment rolls. The objective in the second paper is to understand better the determinants of rural non-farm firms' creation and expansion dynamics, especially for the subset of firms that generate employment spillover benefits for non-entrepreneurial households.

Her third paper uses the Indonesia Family Life Survey (IFLS) panel data to explore the heterogeneous returns to education across different occupational groups, distinguishing in particular between farming and non-farm occupations and between being an employee versus an entrepreneur in the non-farm sector. She has been working with the IFLS data on another project with me and David Newhouse of the World Bank, so she is already familiar with these data. But she has only just begun serious work on this paper, which could benefit considerably from the NBER boot camp.

This is interesting and important research. Cornell has considerable strength and depth in development economics. But we are weaker in the economics of entrepreneurship and entrepreneurial finance. Namtip would benefit enormously from participating in the Boot Camp, as did another former student of mine (and David Easley's), Russell Toth. She is an exceptionally congenial and hard-working young woman who would also contribute a great deal, I am sure.

Thank you for your consideration of Namtip Chawanote's application. Please do not hesitate to contact me if I can provide any further information.

Sincerely yours,



Christopher B. Barrett

Chayanee Chawanote

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EDUCATION :

- Ph.D. student, Applied Economics and Management, Cornell University, 2008 – present.
- M.A. in Economics (English Program), Thammasat University, Thailand, May 2008.
- B.A. in Economics (First Class honor), Thammasat University, Thailand, February 2005.

FIELDS OF INTERESTS: *Primary*: Development Economics, Applied Econometrics
Secondary: Applied Microeconomics, Policy Analysis

RESEARCH EXPERIENCES:

- Working paper (dissertation), "Rural Non-farm Dynamics and Earnings Mobility in Thailand".
- Working paper (dissertation), "Rural Household Non-farm Businesses: Startup, Expansion, Contraction, or Exit?"
- Research assistant for working paper "The Determinants of Housing Values in Indonesia" (using IFLS data) with Chris Barrett, Cornell University, and David Newhouse, the World Bank, 2010-2011.
- M.A. thesis in "Trade and Convergence in Overlapping Generation", 2008.
- Sustainability and Sufficiency Economy Roadmap: Thailand's Capital and Technology Interdependency, the Thailand Research Fund, 2007.
- A Research Project for the Formulation of Indicators for Evolution of the Economic and Social Progress of Thailand based on Sufficiency Economy Philosophy, National Economic and Social Advisory Council, 2006-2007.

WORKING EXPERIENCES:

- Cornell Institute for Social and Economic Research (CISER) computing consultants, 2011 – present.
- Lecturer in Economics (Principles of Microeconomics and Introductory Econometrics), Faculty of Economics, Thammasat University, 2006-2008.
- Research Assistant under WTO Watch Project, Thailand Research Fund, 2004 – 2006.
- Internship at Bank of Thailand, Monetary Policy Department, as a research assistant under the research paper, "Financial Sector Liberalization in WTO" and presentation on "Foreign Bank Entry in Thailand" at the Monetary Policy Department, April-May 2004.

FELLOWSHIPS AND GRANTS:

- Cornell Graduate School Research Travel Grant Award, Fall 2010.
- Thammasat University Scholarship for continuing Ph.D. study, 2008 – present.
- Freeman Foundation Fellowship, Salzburg Global Seminar in the Session of "The Dynamic Economies of India and China: What Lessons for Others?", Austria, November 2007.
- Bank of Thailand Scholarship for MA in Economics, 2005 (Declined)
- The Thammasat Economics Association Scholarship for Highest Score of Faculty Entrance Examination, 2001-2005.

INVITED PRESENTATIONS:

- "Rural Household Non-farm Businesses: Startup, Expansion, Contraction, or Exit?", selected presentation, 2012 AAEA Annual Meeting, Seattle WA. August 12-14, 2012.
- "Rural Non-farm Dynamics and Earnings Mobility in Thailand", Cornell Population Center Encore Conference. Oct, 2011.
- "Rural Non-Farm Dynamics: Occupational Ladder and Earnings Mobility" Poster section, 2011 AAEA & NAREA Joint Annual Meeting, Pittsburgh PA. July 24-26, 2011.
- First AMID Summer School: An Introduction to Field Surveys in LDCs, University of Namur, Belgium, with the support of the BREAD, CEPR, and EUDN, June 2009.

SKILLS:

- Microsoft Office (Word, Excel, Power Point, Publisher), Stata, Matlab, R, SAS (beginner), ArcGIS (beginner).
- Languages: English, Thai (native).

PHD COURSES:

- Core courses:

- Microeconomic Theory I
- Microeconomic Theory II
- Macroeconomics I
- Intermediate Mathematical Economics
- Econometrics I
- Econometrics II
- Applied Microeconomics I (Consumer behavior, experimental and production economics)
- Applied Microeconomics II (Welfare economics, risk analysis, and industrial organization)
- Microeconomics Qualifying exam and Applied Microeconomics Qualifying exam

- Other completed courses:

- Economics of Development (Welfare economics of poverty, inequality and growth; labor market models and economics of education)
- Economic Development (Microeconomics of poverty alleviation; risk, saving and insurance; credit constraints and microcredit; institutions and corruption)
- Empirical Analysis of Industrial Organization
- Empirical Methods for the Analysis of Household Survey Data
- Dynamic Optimization
- Applied Econometrics I (Longitudinal data)
- Applied Econometrics II (Limited dependent variables)
- Semi/nonparametric Econometrics
- Empirical Statistics for Policy Analysis
- Statistics for Spatio-Temporal Data (currently taking)

As a forth year PhD student, I am in the process of preparing for the job market and postdoctoral research. I would like to attend the NBER Entrepreneurship Research Boot Camp this summer because I have a strong interest in entrepreneurship in developing countries and related issues such as firm behavior, rural finance and risk. This boot camp would not only be of great use for me, but I am well placed to contribute and be an asset to other participants. The experience would help me develop a compelling dissertation that can contribute to an important, emergent research area in economics that provides useful policy implications toward removing the impediments to economic development faced by poor rural populations in developing countries.

First, attending the boot camp will broaden my knowledge of the current literature in entrepreneurship, helping me to bridge the gap between my field of development economics and the literature on entrepreneurship, firms, and finance. Although my dissertation focuses on rural non-farm dynamics, earnings mobility, occupational choices, and returns to education across rural sectors in Thailand and Indonesia, a key related issue is entrepreneurship in rural non-farm business. In keeping with the literature, I distinguish non-farm self-employment and non-farm business employers, since subsistence self-employment does not automatically lead to enterprise growth that will improve the entrepreneur's own household income and create employment opportunities (Mondragon-Velez and Pena-Parga, 2008; de Mel et.al., 2008; Schoar, 2010). My research shows that only a small number of individuals expand their businesses by hiring non-family members, reflecting the difficulty involved in starting, expanding or even maintaining a rural non-farm business that employs others. Hence, I am especially interested in Professor John Haltiwanger's work on survival dynamics and the job growth contribution of entry and young firms. My research also examines the characteristics of different types of non-farm household entrepreneurs, focusing on household wealth distribution, credit constraints and education, to determine the probability of becoming entrepreneurs instead of working as farmers or non-farm workers. Previous and current research by Professor Erik Hurst motivates me to learn more about how underlying motivations, constraints and related household behaviors that are important to the rural business growth process.

In addition to providing me an opportunity to learn about the latest trends of the entrepreneurship theory and the empirical work being done by the top researchers in this field, the boot camp would give me a chance to build a network of other scholars with similar interests. I would look forward to sharing research ideas and discussing relevant topics with other participants who engage in research related to entrepreneurship. Interaction with experienced professors whose work I admire and am building upon would push me to think more critically about my research in these areas, as well as to receive feedback and develop new idea to improve my current research and to develop my future research.

Thirdly, I hope to use this experience concretely to contribute to my research findings and experience working with small enterprises in Thailand. As in developed countries, rural developing economies are largely driven by the increasing number of entrepreneurial enterprises. A significant difference lies in that most companies in developed countries are formal small- and medium-sized enterprises while in developing countries most are in the informal sector, and are microenterprises that hire few workers. These trends are apparent in Thailand, my home country and regional focus of my research on entrepreneurship. This empirical regularity stimulates

increasing research interest in entrepreneurship in developing countries in which ways that supporting entrepreneurship could be an aid to help the poor, to stimulate employment and wage growth and contribute to economic growth in the developing world.

I am currently exploring occupational and earnings dynamics in rural Thailand over the period of 2005-2010 using the Thai Socio-economic panel data. Investigating occupational transition matrices, I find significant occupational transitions, mainly involving moving out of farming and into non-farm employment. However, it is rare that these transitions involve starting businesses, especially enterprises that employ others. Transitions into the rural non-farm economy (RNFE) are associated with statistically significant earnings gains while transitions into farming are associated with earnings losses. Cumulative distributions of earnings are compared and tested to show that non-farm employers' earnings stochastically dominate the distributions of the other categories and all the non-farm occupational categories' earnings distributions dominate that of farming. Based on the premise that an individual compares her expected utility under different occupations, the multinomial logit is also used to estimate the determinants of these occupational transitions. The results indicate that household initial wealth and the quality of rural transport infrastructure both matter to successful transitions into RNFE employment and self-employment.

In another current paper, I examine how household endowments and characteristics also determine the stage of hiring labors (size) of non-farm household business in the presence of a two-tiered labor market. Both parametric and semi-parametric approaches are applied. Preliminary results show highly increasing predicted probabilities of rural households running non-farm businesses at the lower level and above the 90^{th} percentile of the wealth distribution, while the predicted probabilities do not vary with wealth over the mid range and most of the wealth distribution. Moreover, the results confirm other studies in developing countries that households with high levels of education might obtain better opportunities in (higher-skilled) wage employment, reducing the probability of operating rural non-farm business.

In my future research I plan to intensify my exploration of the mechanisms involved in the agent's behavioral decision, and further develop a theoretical framework that advances our understanding of the aforementioned constraints and the role of market structure and institutions. During my field interviews with microenterprise owners in Thailand last summer, I discovered that there were many puzzles remaining to investigate; I plan to use this summer to review more literature and delve more deeply into these puzzles. Relative to other regions of the world, there are not many studies in firm growth and entrepreneurship in Thailand and other Southeast Asian countries. When I return to my academic position in Thailand's leading university, I hope to develop thorough research projects and experiments at the intersection of the fields of entrepreneurship and rural development, which is of great importance when we consider that the majority of the Thai population still lives in rural areas and faces significant capital, informational and regulatory constraints to starting or expanding a nonfarm business. Attending the boot camp is also a great opportunity to learn more about research funding from the Kauffman Foundation and how to apply for a research grant in entrepreneurship in the future. With my strong intention to participate the boot camp to enhance my theoretical knowledge and methodological skill, as well as my research experience, I believe I am well prepared and qualified to participate in the intensive workshop at NBER.