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PLACEMENT DIRECTORS

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EDUCATION

Ph.D.	Economics, University of Maryland at College Park, expected May 2020
M.A.	Economics, University of Maryland at College Park, 2016
B.A.	Economics, Seoul National University, South Korea, 2012

FIELDS OF SPECIALIZATION

Primary: Macroeconomics
Secondary: International Trade

DISSERTATION

Essays on Firm Growth Through Innovation and International Trade

Committee: Prof. John Haltiwanger (Co-Chair), Prof. Nuno Limão (Co-Chair), Prof. Felipe Saffie (Co-Chair)

JOB MARKET PAPER

“Defensive Innovation and Firm Growth in the U.S.: Impact of International Trade”

I develop a two-country endogenous growth model in which firms perform two types of innovation under imperfect technology spillovers, and study how firms use different types of innovation to survive and grow when international competition increases. Firms improve their existing products through internal innovation, while developing new products through external innovation. A novel friction I consider is that it takes time to learn others' technology, which I denoted imperfect technology spillover. This friction allows firms to defend themselves from competitors by improving their products and building technological barriers through internal innovation. Increasing international competition induces innovation-intensive and thus fast-growing firms to invest more in internal innovation for defensive reasons. At the same time, international competition discourages all firms from undertaking external innovation. This shift in innovation cuts the employment growth of innovation-intensive firms, as external innovation brings higher quality improvement than internal innovation and requires firms to hire a new set of workers to produce new products. Entry for potential startups is harder as incumbents build higher technological barriers. By using firm-level data from the U.S. Census Bureau integrated with firm-level patent data, I find regression results consistent with the model's predictions. These findings show that firms' shift of innovation in response to increasing international competition contributes to the recent decline in high-growth firms and startup rates in the U.S.

OTHER RESEARCH PAPERS

“Trade Induced Technological Change in the U.S.: The Rise of Software and Labor Substituting Technology”, work in progress

“The Effects of Offshoring on Firm Entry and Growth”, with Joonkyu Choi, and Chen Yeh, work in progress

TEACHING EXPERIENCE

Teaching Assistant, Intermediate Macroeconomic Analysis, University of Maryland, Fall 2018

Teaching Assistant, Principles of Macroeconomics, University of Maryland, Spring 2017

Teaching Assistant, Principles of Microeconomics, University of Maryland, Fall 2015

Teaching Assistant, Money and Banking, University of Maryland, Fall 2014 and Spring 2015

Teaching Assistant, Microeconomic Theory, Seoul National University, Fall 2012 and Fall 2013

Teaching Assistant, Mathematics for Economists, Seoul National University, Spring 2012 and Spring 2014

RESEARCH AND RELEVANT WORK EXPERIENCE

Special Sworn Status (SSS) Researcher, U.S. Census Bureau, March 2019-Present

Research Assistant, Prof. Felipe Saffie, University of Maryland, December 2015-December 2016

Research Assistant, Asia Center, Seoul National University, September 2013-January 2014

GRANTS AND AWARDS

Western Economic Association International (WEAI) Graduate Student Workshop Travel Grant, Summer 2019

Kauffman Dissertation Fellowship, Ewing Marion Kauffman Foundation, 2017-2018

Graduate Assistantship, Department of Economics, University of Maryland, 2014-2019

Teaching Assistantship, Department of Economics, Seoul National University, 2012-2014

Academic Achievement Award, Department of Economics, Seoul National University, 2010

CONFERENCE AND SEMINAR PRESENTATIONS

2019: WEAI Graduate Student Workshop (San Francisco), Midwest Macroeconomics Meeting (Athens), Global Entrepreneurship and Innovation Research Conference Poster Session (Washington DC)

LANGUAGES

English (fluent), Korean (native)

COMPUTATIONAL SKILLS

Fortran, MATLAB, Python, SAS, and Stata

REFERENCES

Prof. John Haltiwanger University of Maryland halt@umd.edu (301) 405-3504

Prof. Nuno Limão University of Maryland limao@umd.edu (301) 405-7842

Prof. Felipe Saffie University of Maryland fesaffie@umd.edu (301) 405-3490