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Curriculum Vitae Fall 2003

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Major Fields of Concentration

International Economics, Industrial Organization, Macroeconomics, Monetary Economics

Education

<i>Degree</i>	<i>Field</i>	<i>Institution</i>	<i>Year</i>
Ph.D.	Economics	University of Minnesota (expected)	2004
B.A.	Economics	Hendrix College (Arkansas)	1998
B.A.	Physics	Hendrix College (Arkansas)	1998

Dissertation

Title: "Firm Heterogeneity and Applied General Equilibrium Models of Trade: Lessons from CA-US FTA"
Dissertation Advisor: Professor Timothy J. Kehoe
Expected Completion: Summer 2004

References

Professor Timothy J. Kehoe	(612) 625-1589 (612) 204-5533 tkehoe@econ.umn.edu	Department of Economics University of Minnesota 1035 Heller Hall 271 - 19 th Avenue South Minneapolis, MN 55455
Professor Edward C. Prescott	(612) 625-3810 (612) 204-5520 prescott@econ.umn.edu	
Professor Sam Kortum	(612) 625-0767 (612) 204-5549 kortum@econ.umn.edu	
Professor Simran Sahi	(612) 625-6353 ssahi@econ.umn.edu	

Honors and Awards

- 2000-2003 *Heller Teaching Award* (3 times), University of Minnesota, Minneapolis, Minnesota.
1999-2003 *Distinguished Instructor*, University of Minnesota, Minneapolis, Minnesota.
1998 *Distinguished Teaching Assistant*, Fall, University of Minnesota, Minneapolis, Minnesota.
1998 Graduated with highest distinction, Hendrix College (Arkansas).
1993–1997 National Merit Scholar
1993–1998 Byrd Scholar

Teaching Experience

- 2000-Present *Instructor*, Department of Economics, University of Minnesota, Minneapolis, Minnesota.
Instructor for large lecture of *Principles of Microeconomics* (500 students). Prepared lectures, exams, homework assignments and answer keys. Managed a staff of teaching assistants and graders.
- Summer 2003, *Instructor*, Department of Economics, University of Minnesota, Minneapolis, Minnesota.
Summer 2002 Instructor for *Intermediate Microeconomics*.
- 1999-Present *Instructor*, College of Continuing Education, University of Minnesota, Minneapolis, Minnesota.
Updated the distance learning course materials for *Introduction to Microeconomics* and taught the course.
- 1999 - 2001 *Instructor*, Department of Economics, University of Minnesota, Minneapolis, Minnesota.
Instructor for *Introduction to Microeconomics*.
- 1998 - 1999 *Teaching Assistant*, Department of Economics, University of Minnesota, Minneapolis, Minnesota. Led recitation sections for *Introduction to Microeconomics*

Research Experience

- 2000 - Present *Visiting Scholar*, Research Department, Federal Reserve Bank of Minneapolis, Minneapolis, Minnesota.
- 1995–1998 *Research Assistant*, Department of Physics, Hendrix College (Arkansas). Research Assistant to Professor Richard Rolleigh

Papers

“Firm Heterogeneity and Applied General Equilibrium Models of Trade”

“Migration and Tax Harmonization with International Labor Mobility: The US-Canada Experience,” with Ron Leung.

“Opening to Trade and Firm Selection: Productivity in Selected Industries under the Canada-US Free Trade Agreement,” with Ron Leung.

"Effects of Finite Apertures on Transverse Eigenmodes of Optical Resonators,"(with R. Rolleigh, M. Bell, and D. Bandy, *J. Opt. Soc. Am. A.*, 16, 2669, (1999)).

Presentations

- September 2003 “Firm Heterogeneity and Applied General Equilibrium Models of Trade” presented at the Society of Economic Dynamics, Paris.

- September 2002 “Opening to Trade and Firm Selection: Productivity in Selected Industries under the Canada-US Free Trade Agreement” presented at Society of Economic Dynamics, New York City.
- May 1998 “Finite Aperture Effects in Ringer Laser Cavities,” American Physical Society, Cincinnati, Ohio
- April 1998 “Costs of Income Redistribution,” National Conference on Undergraduate Research, Salisbury, Maryland

Dissertation Abstract

Firm Heterogeneity and Applied General Equilibrium Models of Trade: Lessons from CA-US FTA

Virtually every modern trade model fails to capture the empirical observation that small decreases in tariffs generate large increases in trade volumes. Most trade models lack explicit modeling of firm size, productivity, and entry/exit. In this paper, we demonstrate that a calibrated trade model with these features captures the strong dependence of trade volumes on small tariff changes. We introduce these features by adapting a Hopenhayn (1992) model of firm entry and exit and embed this in a multisector trade model. The resulting model is very similar to Melitz (2003), but this study focuses on quantifying the effects of trade liberalization. This approach has three advantages over earlier calibrated models. First, firm entry and exit presents a new channel for stimulating trade growth. Second, more productive firms enter the export market, creating larger trade flows than that of a representative firm. Third, modeling production at the plant level provides a new dimension of data to compare to our model's predictions. We calibrate our model using trade data between the United States and Canada before their Free Trade Agreement (FTA) and evaluate the model's performance using post FTA data. We find that these modeling innovations are important for improving the match between model prediction and data. Remaining discrepancies indicate that explicit modeling of plant level production units is not the complete story. We provide several alternate model specifications and calibration strategies. The results from the various approaches are qualitatively similar.

Other Papers

Migration and Tax Harmonization with International Labor Mobility: The Canada-US Experience (with Ron Leung)

Productivity, tax, and transfer policies differ considerably across countries, providing strong economic incentives for individuals to migrate. Regional trade agreements increase international labor mobility, making these economic incentives more important. We undertake an empirical analysis to explain the migration of Canadian workers to the United States in the latter half of the 20th century. We develop an overlapping generations model with heterogeneous agents and careful attention to tax and transfer policies in each country. We calibrate the model to the actual migration of Canadian workers from 1970 to 1990. The model delivers a rich set of predictions regarding the migration choices of individuals differentiated by income and age. Comparisons of the actual versus predicted behavior show that the model quantitatively accounts for a wide variety of phenomena observed in the data, including the relatively few Canadian workers aged 45-55 in the US in 1990. We assess the sustainability of Canadian welfare state institutions with increased labor mobility under the US-Canada Free Trade Agreement. We find a significant decrease in Canadian tax revenues over the next 20 years as an increasing number of young Canadian workers migrate to the US.