

# Nan Xu

---

CONTACT INFORMATION Department of Economics Phone: (720) 878-3856  
University of Colorado at Boulder Email: nan.xu@colorado.edu  
256 UCB Homepage: <http://nanxucuboulder.weebly.com/>  
Boulder, CO 80309  
USA

## EDUCATION **University of Colorado at Boulder**

Ph.D. in Economics, expected May 2017.

- Dissertation: “Product Quality, Exports, and Trade Policy”
- Dissertation Committee: James R. Markusen (Chair), Keith E. Maskus, and Jeronimo Carballo

M.A. in Economics, May 2013

## **Nankai University**

B.A. in Economics, June 2011

RESEARCH INTERESTS **Primary fields:** International Trade, Economic Development  
**Secondary fields:** Industrial Organization

JOB MARKET PAPER “ **Per-capita Income, Taste for Quality, and Exports across Countries.**”

*Abstract* This paper studies how per-capita income affects trade patterns of quality-differentiated goods across countries. A product’s perceived quality depends on intrinsic characteristics of the product as well as consumers’ tastes for quality. In addition to aggregate income, this paper features a taste for quality channel through which a destination’s income per capita causes the variety-quality tradeoff in product exports. I build a model combining non-homothetic preferences and product quality heterogeneity in which rich consumers demand more high-quality varieties than poor consumers. In equilibrium, holding market size constant, the elasticity of consumer taste for quality with respect to income per capita determines the differences between rich and poor countries in productivity thresholds, firm market shares, and number of varieties produced. To assess the evidence, I construct a quality index and examine cross-country variation in prices and export sales at the firm-product level with Chinese disaggregate trade data from the Household Audio and Video Equipment industry. In line with the model’s predictions, the results show that firms charge higher prices in richer countries, and the effects of GDP per capita on export sales differ by product quality. Conditional on entry, low-quality export sales are decreasing in the destination country’s GDP per capita, controlling for other country characteristics. The relationship between high-quality export sales and income

per capita exhibits an inverted-U shape, which reflects the varying preferences for quality versus variety across consumers at different income levels.

WORKING PAPERS	“ Effects of Rules of Origin on FTA Utilization Rates and Country Welfare ” (2015) “ Import Tariff Reductions, Processing Trade, and Quality Upgrading ” (2015)	
CONFERENCE AND SEMINAR PRESENTATIONS	Midwest International Trade Conference, West Lafayette, December 2016 Trade Group Brown Bag Seminar, CU boulder, May 2016	
HONORS AND AWARDS	Morris E. Garnsey Fellowship, University of Colorado Boulder, 2015 Yordon Prize in Microeconomics, University of Colorado Boulder, 2013 Prize in Econometrics, University of Colorado Boulder, 2013 Department of Economics Fellowship, University of Colorado Boulder, 2011 First Class Scholarship, Nankai University, 2010 Merit Student Award, Nankai University, 2010	
TEACHING EXPERIENCE	University of Colorado at Boulder <i>Instructor</i> Intermediate Macroeconomic Theory: Fall 2013 - Spring 2016 <i>Teaching Assistant</i> Principles of Microeconomics: Fall 2011, Fall 2012 Principles of Macroeconomics: Spring 2012, Spring 2013, Summer 2013	
OTHER SKILLS	Computer Skills: STATA, GAMS, Eviews, Mathematica, MATLAB and LaTeX Language: English (fluent), Mandarin (native)	
REFERENCES	James R. Markusen University Distinguished Professor Department of Economics University of Colorado Boulder, CO 80309 Phone: +1 (303)492-0748 Email: james.markusen@colorado.edu	Keith E. Maskus Professor of Distinction Department of Economics University of Colorado Boulder Chief economist U.S. Department of State Phone: +1 (303)492-7588 Email: keith.maskus@colorado.edu
	Jeronimo Carballo Assistant Professor Department of Economics University of Colorado Boulder, CO 80309 Phone: +1 (303)735-7816 Email: jeronimo.carballo@colorado.edu	

**“ Effects of Rules of Origin on FTA Utilization Rates and Country Welfare.”**

*Abstract* Free trade agreements (FTAs) are generally under-utilized. Assuming full utilization overstates the benefits and overlooks the substantial distortions generated by free trade preferences. This paper investigates the impacts of rules of origin (ROOs) on FTA utilization rates and on country welfare in the context in which there is a vertical production linkage between FTA members. I develop a general equilibrium model featuring both variable and fixed costs of complying with ROOs. A binding ROO forces exporters to employ more locally produced inputs instead of using the most efficient manufacturing process. Additionally, firms face fixed documentation costs due to the administrative process of obtaining certificates of origin. Whether firms utilize an FTA depends on the tariff benefits net of the extra costs. Both local analytical solutions and global numerical results show that: (1) as the ROO becomes stricter, the FTA utilization rate decreases and the dominant extensive margin drives down the wage rate in the downstream country; (2) a slightly binding ROO encourages regional production, and the welfare effects of ROOs are ambiguous depending on the elasticity of substitution between varieties.

**“ Import Tariff Reductions, Processing Trade, and Quality Upgrading.”**

*Abstract* This studies the effects of import tariff reductions on the quality of China’s exports. Considering processing trade accounts for a large share of China’s total exports, I focus on a composition effect arising from firm self-selection into the ordinary and the processing trade regimes following tariff reductions and provide an explanation for the over time declining trend of China’s exports quality documented in trade literature. I analyze the reactions of the two types of exporting firms to import tariff reductions in a framework of linear demand preferences and endogenous markups. The model predicts that processing firms produce higher quality goods than ordinary firms due to tariff exemptions on the processing of intermediate goods. A lower import tariff favors ordinary exporting firms in that cheaper imported inputs induce firms to upgrade product quality and compete for larger market shares. Faced by the unchanged tariff treatment but more intensified competition, processing firms produce the same quality as before and charge lower markups. I derive the critical tariff rate under which the average quality of exports decreases in import tariffs. I use U.S. import data over the period from 1997 to 2006 to examine the evolutions of product quality exported from China to the US. Adapting the market share approach to measure quality, I find that the negative correlation between export quality and import tariffs is stronger with ordinary firms, which is consistent with the model’s predictions.