Cristina Tello-Trillo

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Citizenship: U.S.A. & Peru (dual citizenship)

Fields of Interest:
International Trade
Organizational Economics
Applied Microeconomics

Current Employment:
Economist, Center for Economic Studies, U.S. Bureau of the Census, July 2015-

Degrees:
Ph.D., Economics, Yale University, May 2015
M.Phil., Economics, Yale University, May 2012
M.A., Economics, Yale University, 2011
Licentiate in Economics, Pontificia Universidad Católica del Perú, 2007
Bachelor in Economics (highest distinction), Pontificia Universidad Católica del Perú, 2006

Fellowships, Honors and Awards:
Doctoral Dissertation Fellowship Yale University, 2014-2015
Richard J. Bernhard Fellowship, 2012-2013
Ryoichi Sasakawa Young Leaders Fellowship, 2011-2012
Yale University Economic Growth Center Prize, 2009-2013
Yale University Doctoral Fellowship, 2009-2013
National Science Foundation Minority Scholarship, 2008
First place in the "International Thesis Competition in Trade and Statistics" European
Union-Andean Community, 2007
Prima AFP "Academic Excellence Award" First place in graduating class, 2006

Teaching Experience:
Yale University, Teaching Fellow (TF)
Head TF, ECON115 Introductory Microeconomics (Professor Chris Udry)
Fall 2012 and Fall 2013
Head TF, ECON527 Behavioral and Institutional Economics (Professor Robert Shiller),
Fall 2011 and Spring 2013
MGT825 International Trade (Professor Peter Schott), Spring 2012

University of California Santa Barbara, Teaching Fellow
AEA Summer Program, Advanced Econometrics, Summer 2008

Pontificia Universidad Catolica del Peru, Teaching Assistant
Econometrics II, Fall 2008 ; Econometrics I, Spring 2008
Advanced Microeconomics, Fall 2007; Advanced Macroeconomics, Spring 2007

Research and Work Experience:
Research Assistant, to Professor Costas Arkolakis, Yale University, 2011-2013
Research Assistant, Economic Commission for Latin America and the Caribbean, 2007-2008
Research Assistant, International Development Research Center (Canada) & CIES, 2006

Working Papers:
"The Impact of Trade on Managerial Incentives and Productivity", Job Market Paper, (July 2015)
"Workers' Performance-Pay and Firm Productivity", with Ben Friedrich (June, 2015)

Works in Progress:
"The Impact of export promotion program in United States: Global Markets"
"Trade and within-firm income inequality"
"Trade and the rise in CEO-to-worker compensation ratio"

Publications/Book Chapter:
Bloom, Nick and Cristina Tello-Trillo, *Forthcoming* (2016) "Firms and Development: Productivity and Management" Book Chapter in Development Strategies for Peru, 2016-2030

Seminar and Conference Presentations:

2015: USITC (upcoming), John Hopkins SAIS, BEA-Census Workshop, Federal Reserve Board, Williams College, University of Colorado – Boulder, Georgetown SFS, U.S. Census Bureau, Colgate College, University of Oklahoma, University of Florida, Pompeu Fabra University, Centre de Recerca en Economia Internacional (CREI).

2014: Midwest International Trade Conference, University of Mannheim, AEA Annual Summer Mentoring Pipeline Conference, Dynamic Economic Growth and International Trade Conference (DEGIT) XIX.

Languages:
English (Fluent), Spanish (native), French (beginner)

References:

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Dissertation Abstract

Chapter 1: "The Impact of Trade on Managerial Incentives and Productivity" [Job market paper]

Recent studies in trade support the role of trade liberalization in increasing productivity. The precise mechanisms by which trade triggers firm productivity improvements, however, still need to be analyzed and measured. In this paper, I study a novel mechanism, managerial incentives, as the link between trade and firm productivity gains. I introduce a principal-agent incentive problem in a trade model with monopolistic competition and heterogeneous firms in which trade-induced incentives become the driver of productivity gains from trade. In this environment, as trade liberalizes, firm owners reshape incentive schemes offered to their managers while managers respond by changing their effort to reduce marginal costs.

The model predicts that the effect of trade liberalization on managerial incentives is heterogeneous across firms and depends on how a firm's expected revenue responds to the degree of trade exposure. In this setup, a bilateral reduction in tariffs induces stronger incentives to reduce marginal cost for the group of firms in the middle-to-upper range of the firm productivity distribution, while it induces weaker incentives for the group of firms in the lower range of the distribution. This result implies that trade liberalization generates efficiency gains for firms in the former group, while produces efficiency loses for firms in latter group.

Using firm level data on U.S. manufacturing industry from 1993-2005, I estimate that the average reduction in tariffs (of 0.8 log points) increases incentives of the median firm by 8% while decreases incentives of the bottom 5 percentile firm by around 5%, consistent with my model. At the aggregate level, I estimate that between 5% and 8% of the aggregate productivity growth for the 1993-1998 period of trade liberalization can be attributed to within-firm productivity growth through managerial incentives.

Chapter 2: "Workers' Performance-Pay and Firm Productivity" (with Ben Friedrich)

Do workers' incentives improve firm productivity? This paper studies how performance-related pay of different occupational groups (manager, white-collar, and blue-collar) affects firm productivity. We analyze a panel of linked employer-employee data set with 27,000 Danish manufacturing firms over the period 2000-2009 to measure firms' occupation-specific incentives. The empirical strategy is motivated by tournament theory where incentives depend on the size and spread of expected prizes. We define two measures of incentives: the weighted average performance-pay per occupational group, weighted by the hours worked per individual, and the spread of incentives, which is the weighted average of the square difference of each worker performance-pay relative to the average performance pay.

We find an overall positive effect of performance-related pay on firm productivity. Our results show that firm productivity increased by 1% for each additional $1000 in bonuses given to white-collar or blue-collar workers. Regarding the dispersion of incentives, we find two different

effects: for workers the effect on productivity is insignificant or even negative, while among managers dispersion has a positive effect on productivity. In other words, while for managers dispersion in performance-pay creates stronger incentives to exert effort, for workers dispersion seems to incentivize uncooperative behavior.

Chapter 3: "Trade and the rise in CEO-to-worker compensation ratio"

Over the last 30 years the CEO-to-worker compensation ratio in the U.S. has increase from 20 to 272. Around the world the pattern of rising inequality is also evident. Is trade responsible for the raise in incomes of the top 1%? This paper develops an intra-industry model of trade with heterogeneous firms and workers to account for the role of trade in explaining the rise in the CEO-to-worker compensation ratio. In my model workers are heterogeneous in talent and firms heterogeneous in productivity. In equilibrium, there is positive assortative matching between firms' productivity and managerial talent, hence only the most talented workers become top managers (CEOs). In the model, CEO wages depend on the size of the firm, which in turn is affected by exposure to trade and the level of competition in the industry. Worker wages are determined by labor market equilibrium conditions. The model generates testable predictions about the CEO-to-worker compensation ratio across firms and between countries. Further work is required to quantify the impact of trade in explaining the rise in wage inequality within and across countries.