San Francisco, 16 May 2018

Research Statement

Summary

My research is at the intersection of international trade and development economics, focusing on how different forms of market integration, both across and within countries, affect the economic livelihoods of households in developing countries.

Over the course of the first five years since receiving my PhD in 2013, I have completed eight papers and one policy report that I list below, and am working on several new projects. Since starting at Berkeley, these papers have been invited for presentation at 13 NBER program meetings, and my research has been accepted for publication at the American Economic Review, the Journal of Political Economy and the Review of Economic Studies.

1) A New Engel on the Gains from Trade: Theory and Evidence Within and Across Countries, with David Atkin (MIT), Thibault Fally (Berkeley) and Marco Gonzalez-Navarro (Berkeley), Working Paper.

2) E-Commerce Integration and Economic Development: Evidence from China, with Victor Couture (Berkeley), Yizhen Gu (Jinan) and Lizhi Liu (Georgetown), Working Paper.

3) Tourism and Economic Development: Evidence from Mexico’s Coastline, with Cecile Gaubert (Berkeley), Conditionally accepted at American Economic Review.

4) Firm Heterogeneity in Consumption Baskets: Evidence from Home and Store Scanner Data, with Thibault Fally (Berkeley), Revise and resubmit at Review of Economic Studies.

5) Retail Globalization and Household Welfare: Evidence from Mexico, with David Atkin (MIT) and Marco Gonzalez Navarro (Toronto), Published in Journal of Political Economy (Lead Article).


8) ICT and Education: Evidence from Student Home Addresses, with Rosa Sanchis-Guarner (Imperial College) and Felix Weinhardt (Humboldt University Berlin), Working Paper.

9) Artisanal Mining, Livelihoods, and Child Labor in the Cobalt Supply Chain of the Democratic Republic of Congo, with Benjamin Krause (Berkeley) and Raul Sanchez de la Sierra (Berkeley), Policy Report.
There are three recurrent themes to my work.

1. My research combines theoretical insights from the trade literature with rich and often newly available microdata and econometric tools from applied microeconomics.

(1) to (8) combine theory, data and empirical estimation using a variety of different methods. My work frequently aims at the combination of both reduced-form empirical evidence and quantitative estimation through the lens of a theoretical structure. In (1) to (5) this combination of methods allows us to shed light on questions outside the scope of reduced-form estimation, such as welfare analysis or exploring the aggregate implications of regional shocks, and to quantify the underlying channels through the lens of a model. In turn, the reduced-form evidence informs and disciplines the calibration of the model, such that the results of the structural estimation are consistent with the observed reduced-form effects in the data. (6) to (8), on the other hand, use qualitative predictions from theory to guide the empirical analysis and the interpretation of results. A common thread of the analysis presented in (1) to (8) is that the estimation results are based on clearly defined identification strategies and a sequence of robustness tests to assess their validity. To this end, my work exploits both natural experiments and field experiments to present credible new estimation approaches to the literature.

2. While much progress has been made estimating the effects of globalization on nominal wages and income inequality in developing countries (e.g. Goldberg and Pavcnik, 2007), my research seeks to pay careful attention to consumer price indices in the denominator of household real incomes, that have traditionally been challenging to quantify empirically.

(1), (2), (4), (5) and (7) share a focus on quantifying the effects of different forms of market integration on household welfare, while taking into account changes in price indices across the income distribution. (2), (4), (5) and (7) address this question by bringing to bear detailed consumption microdata for China, Mexico and the US. These data are then used with experimental or quasi-experimental empirical strategies to estimate the effect of the arrival of e-commerce trading on household welfare in rural China in (2), the price index implications in a setting where rich and poor US households source their consumption from different parts of the firm size distribution in (4), the effect of foreign retail entry on household welfare in Mexico in (5), and the effect of NAFTA trade liberalization on the price of product quality and real income inequality in Mexico in (7). On the other hand, (1) addresses the challenge that such detailed information on local consumer prices and quantities are not available to researchers in most empirical settings. Instead, the paper develops a new methodology to estimate theory-consistent and exact changes in household price indices at each point of the income distribution, that only relies on rich but widely available consumer expenditure survey microdata. We formally derive a number of conditions that need to hold for unique and unbiased identification, and their testable implications in the survey microdata. We then implement this approach to re-visit the implications of trade reforms on household welfare across Indian districts, and the gains from trade across countries at the national level.
While much has been learned in recent years about the gains from trade in goods across countries (e.g. Costinot and Rodriguez-Clare, 2014; 2018), my work frequently aims to explore the economic implications of rapidly growing but so far less studied facets of globalization in the developing world. (2), (3), (5) and (6) share this objective. Against the backdrop of rapid growth in e-commerce trading in Chinese cities—from practically zero in 2000 to more than 400 million users by 2015—, (2) combines a field experiment with a new collection of survey and administrative microdata to learn about the potential of e-commerce integration to foster economic development in the Chinese countryside. (3) studies the long-term economic implications of tourism, a fast-growing services sector in developing countries. Tourism involves the export of otherwise non-traded local services by temporarily moving consumers across space, rather than shipping goods. Over the past decade, tourism exports exceeded manufacturing exports for 40 percent of developing countries, and agricultural exports for half of them. Our analysis combines Mexican census, GIS and satellite data with a new identification strategy and a quantitative spatial equilibrium model to estimate the local and aggregate implications of tourism development. (5) aims to inform the heated policy debate about the entry of foreign retail chains that is currently ongoing in many developing countries. These debates have led to stark differences in policies towards retail FDI, with some countries, such as India, continuing to severely restrict foreign entry. In our analysis, we exploit a new collection of household and store microdata in Mexico with an event study design to provide empirical evidence of the effect of foreign retail entry on local household welfare, the underlying channels, and the distribution of the gains from retail FDI across the income distribution. (6) studies the effect of inter-regional transport networks in developing countries. Large scale transport investments almost inevitably connect both large metropolitan centers of production as well as small peripheral regions. The paper addresses the question whether the resulting trade cost reductions between asymmetric markets are a force for the diffusion of industrial and total economic activity to peripheral regions, or reinforce the concentration of production in space. To answer this question, the paper exploits China's National Trunk Highway System as a large-scale natural experiment, and proposes the construction of hypothetical least cost path spanning tree networks as instrumental variables to address non-random route placements between targeted city nodes by Chinese policy makers.

References

