Research Statement

(1) 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, 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), Forthcoming in 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).


(7) Trade Liberalization, the Price of Quality, and Inequality: Evidence from Mexican Store Prices, Working Paper.

(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.

3. 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
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.

(II) Brief Descriptions

In the following paragraphs, I summarize each paper's analysis in a bit more detail and situate it in the existing literature. I also briefly discuss two examples of ongoing work in progress at the end.

In “A New Engel on the Gains from Trade”, we address the challenge that measuring changes in household welfare requires a combination of detailed microdata that are seldomly, if ever, available to researchers. For example, measuring the change in household cost of living due to a reduction in trade costs with other regions requires knowledge of the full vector of price changes down to the level of individual varieties for all sectors of household consumption (goods and services). If we acknowledge that trade can also affect the available product variety, perceived quality of goods and services and the shopping modes through which households source their consumption, then even knowledge of the full vector of price changes is insufficient to measure the price index changes due to trade. Recent empirical work has addressed this challenge by bringing to bear newly available and ever richer sources of microdata (e.g. Atkin, Faber and Gonzalez-Navarro, 2018; Borusyak and Jaravel, 2018; Hottman and Monarch, 2018). While such data have become available for some components of household welfare, and for some periods and locations, they are not available in most empirical settings, are infeasible to collect for the entire consumption basket in any setting, and still require strong functional form assumptions (e.g. to evaluate the gains from variety).

In this paper, we propose and implement an alternative approach that uses rich, but widely available, expenditure survey microdata to estimate a theory-consistent and exact metric of changes in income-group specific price indices and welfare. Our approach builds on existing work that uses linear Engel curves and changes in expenditure on income-elastic goods to infer unobserved real incomes (e.g. Costa, 2001; Hamilton, 2001; Young, 2012). A major shortcoming of this approach is that the preference structure typically imposed to estimate even simple linear Engel curves implies income-dependent price indices that, once again, require knowledge of all price changes. This requirement holds unless one imposes the assumption that the realization of unobserved price changes is such that
inflation rates are identical across the income distribution. We improve this methodology in two key ways: i) we show that for a broad class of quasi-separable preferences (Gorman, 1970; 1976), and focusing on what we term “relative Engel curves”, we can recover changes in income-specific price indices and welfare from horizontal shifts in Engel curves; and ii) our approach is flexible enough to allow for the highly non-linear Engel curves we document in the data, and for fully non-parametric estimation at each point of the income distribution. We formally derive a number of conditions that need to hold for unique and unbiased identification, and their testable implications in the available survey data. We then implement this approach using Indian microdata to revisit the impacts of India’s trade reforms across districts. We also draw on harmonized cross-country expenditure surveys compiled by the World Bank to explore the gains from trade across the income distribution at the national level.

In “E-Commerce Integration and Household Welfare: Evidence from China”, we explore the implications of the rapid growth of e-commerce trading in developing countries on economic development outside of urban centers. The Chinese government recently announced the expansion of e-commerce to the countryside as a policy priority with the objective to close the rural-urban economic divide. As part of this agenda, the government entered a partnership with a large Chinese e-commerce firm. The program invests in the necessary logistics to ship products to and sell products from 100,000 villages that were largely unconnected to e-commerce trading. Bringing e-commerce to the countryside in developing countries requires more than internet access. Instead, there are two currently binding barriers to e-commerce trading in the Chinese countryside, which we refer to as the logistical barrier (lack of commercial parcel delivery) and the transactional barrier (lack of familiarity with online transactions). To overcome these barriers, the e-commerce firm makes two key investments. First, the firm builds warehouses as logistical nodes for rural parcel delivery and pick-up near the county’s main urban center, and fully subsidizes transport between the urban center to and from the participating villages. To address transactional barriers, the program installs an e-commerce terminal in a central village location, where a terminal manager assists households in buying and selling products through e-commerce. Theoretically, we rationalize the program as a reduction in trade and information costs between participating villages and the rest of urban China that is already connected to e-commerce.

We combine a new collection of survey and administrative microdata with a randomized control trial (RCT) that we implement across villages in collaboration with the e-commerce firm. We use this empirical setting to provide evidence on the potential of e-commerce integration to foster economic development in the countryside. In the first part, we use the experimental design in combination with our survey data collection to document the effects of e-commerce trading access on household consumption and production and the local retail sector. The experiment takes place in 8 counties located in three provinces, Anhui, Henan and Guizhou, that have a large share of rural population. For each county, the firm gave us authorization to randomly select control villages from a list of candidates that had been extended by 5 villages per county for the purpose of this research. Upon receipt of this extended list of village candidates, we randomly select 5 control villages and 7-8 treatment villages from each county’s list. The remaining villages on the list also receive a program terminal as planned. One of the main constraints of the fieldwork is that we are able to study the effects of first-time e-commerce trading access on household outcomes up to one year after the program installation. In the second part, we then bring to bear the firm’s administrative database that provides us with access to the universe of village transaction records in 5 provinces. The data allow us to observe village-level purchases and online sales up to two years and four months after the arrival of e-commerce. We use these data to investigate to what extent we may be missing longer-term adjustments on both the consumption and production sides of the local economy. In the final part of the analysis, we combine these empirical results with our theoretical framework to evaluate the gains in household welfare due
to e-commerce integration, including effects on household nominal earnings as well as price indices, and explore the heterogeneity across households and villages.

In “Tourism and Economic Development: Evidence from Mexico’s Coastline”, we estimate the long-term economic consequences of a rapidly growing services sector in developing countries, both locally and in the aggregate. To answer these questions, the paper combines a rich collection of Mexican microdata with a quantitative spatial equilibrium model and a new empirical strategy for identification. In the first part of the analysis, we estimate a number of reduced-form effects on local economic outcomes in today's cross-section of Mexican municipalities. Tourism in Mexico has had more than half a century to materialize into today’s observed distribution of regional economic outcomes. In this context, our empirical strategy aims to use cross-sectional variation to capture the long-term effects of tourism exposure on relative regional economic outcomes. To do so convincingly, we exploit geological, oceanographic and archaeological variation in ex-ante local tourism attractiveness across the Mexican coastline. We assess the validity of this empirical strategy in several ways, including a placebo falsification test during periods before beach tourism had become a discernible economic force in Mexico, and corroborating the cross-sectional results with shorter-term panel variation using the interaction of national tourist arrivals to Mexico with local measures of tourism attractiveness. Using this design, we document large and significant local economic gains relative to less touristic regions that are in part driven by sizable positive multiplier effects on local manufacturing production.

In the second part, we then investigate the underlying channels and shed light on their aggregate implications through the lens of a quantitative spatial equilibrium model. We build on the theoretical framework developed by Allen and Arkolakis (2014), Ahlfeldt et al. (2015) and Redding (2016), and extend it in several dimensions to capture the economic forces that are relevant in our context. In addition to trade in goods and migration across regions, the model features trade in tourism-related services via traveling consumers across regions and countries, input-output linkages between tourism, manufacturing and non-traded services, public tax-financed capital investments as inputs to tourism development, and local production externalities. To quantify these forces, we use the Mexican data to estimate the model parameters, and calibrate the model to current-day Mexico as a reference equilibrium. In particular, we estimate the intensity of within and cross-sector agglomeration economies using an approach that combines model-based indirect inference with the exclusion restrictions of our instrumental variables. Armed with the calibrated model, we proceed to explore general equilibrium counterfactuals to quantify the long-term welfare gains from both domestic and international tourism development in Mexico.

In “Firm Heterogeneity in Consumption Baskets: Evidence from Home and Store Scanner Data”, we explore the implications of Melitz-type (2003) firm heterogeneity within sectors for household price indices across the income distribution. A recent and growing literature has documented the role of firm heterogeneity in accounting for nominal income inequality (e.g. Bloom et al., 2015; Card et al., 2013; Helpman et al., 2017). In this paper, we aim to answer three main questions: to what extent do rich and poor households source their consumption baskets from different parts of the firm size distribution?; what explains these differences?; and what are the implications for real income inequality? In the first part of the analysis, we use detailed matched US home and store scanner microdata that allow us to trace the firm size distribution into the consumption baskets of individual households to present a new set of stylized facts. We present evidence that richer US households source their consumption from on average significantly larger producers of brands within disaggregated product groups compared to poorer US households, and use the richness of the microdata to explore alternative explanations.
We then propose a tractable model that rationalizes these observed moments in the data. On the consumption side, we specify non-homothetic preferences allowing households across the income distribution to differ both in terms of their price elasticities as well as in their evaluations of product quality attributes. On the production side, we introduce product quality choice into a Melitz model of heterogeneous firms within sectors. These firms now operate in a setting where their choice of product quality attributes and prices endogenously affect the composition of heterogeneous consumers that shape each firm’s market demand. Modeling optimal product choices with two-sided heterogeneity implies that shocks that affect producers differently, such as trade integration, can feed into the consumption baskets of rich and poor households asymmetrically. We use the scanner microdata to estimate the model’s preference and technology parameters. These estimates reveal two opposing forces that in equilibrium determine both firm sizes across consumption baskets and the sorting of firms across product quality attributes. On the one hand, larger firms offer lower quality-adjusted prices, which increases the share of their sales coming from more price-sensitive lower-income consumers. Since these consumers value quality relatively less, this channel, ceteris paribus, leads poorer households to source their consumption from on average larger firms that, in turn, choose to produce at lower quality. On the other hand, the estimated economies of scale in quality production give larger firms incentives to sort into higher product quality, catering to the taste of wealthier households. This second channel dominates the first, giving rise to the endogenous sorting of larger, more productive firms into products that are valued relatively more by richer households. In the final part of the analysis, we use the calibrated model to explore a number of general equilibrium counterfactuals in a setting where rich and poor households source their consumption from different parts of the firm size distribution. We find that economic shocks give rise to asymmetric effects on household price indices across the income distribution. These price index effects amplify observed changes in nominal inequality over time, lead to a more regressive distribution of the gains from international trade, and give rise to new distributional implications of business regulations.

In “Retail Globalization and Household Welfare: Evidence from Mexico”, we evaluate the effect of foreign direct investment (FDI) in the retail sector of developing countries on household welfare. A key driver of the so-called ’supermarket revolution’ in developing countries has been the arrival of global retail chains (e.g. Reardon et al., 2003; Humphrey, 2007; Bronnenberg and Ellickson 2015). This process of retail globalization has led to heated policy debates. Those against foreign retailers point to the large share of employment in the traditional retail sector, while those in favor emphasize potential benefits from lower consumer prices. To inform this debate, we set out to answer three central questions: what is the effect of retail FDI on average household welfare in the municipality of foreign entry?; what are the channels underlying this effect?; and iii) to what extent do the gains from retail FDI differ across the pre-existing income distribution? In answering these questions, the paper also makes two methodological contributions to the literature that focuses on quantifying the gains from trade and FDI. The first is that rather than imposing structure ex ante to limit the data requirements, we instead exploit newly available and extremely detailed microdata that allow us to estimate a very general expression for the welfare gains from retail FDI. These data allow us to capture all major components of household welfare without shutting down any potential channels –such as gains from variety or pro-competitive effects on prices in domestic stores– ex ante. The second contribution is that, rather than relying on cross-sectional moments that may or may not capture the causal effects of FDI, we propose an event study design to credibly identify the moments we feed into the welfare expression. We write down a general expression for the effect of retail FDI on household welfare in the municipality of entry. We decompose the total effect into six distinct channels: three effects on household cost of living (the price index) and three effects on household nominal incomes. In the second part, we estimate the empirical moments required to quantify the six effects that underlie the total household gains from
retail FDI. To address the concern of non-random entry of foreign retailers across municipalities and over time, we propose an event study design that allows us to transparently and non-parametrically test whether foreign retailers targeted store openings towards municipalities with pre-existing trends in economic outcomes (such as retail prices). In the final part of the paper, we combine the estimated effects on consumer prices, consumption quantities and nominal incomes with the theoretical framework in order to quantify the household welfare effects of foreign entry, distinguish between the underlying channels and estimate the heterogeneity of the gains from retail FDI across the income distribution. We show that the estimated effects appear to be specific to foreign retailers, rather than modern store formats more generally, and investigate to what extent the observed pro-competitive effect on prices is driven by reductions in markups vs productivity spillovers. We also compare our estimates to those of the existing literature, including quantitative models in international trade following Arkolakis et al. (2012) and the extension to multinational production by Ramondo and Rodriguez-Clare (2013).

In “Trade Integration, Market Size and Industrialization: Evidence from China’s National Trunk Highway System”, we study the consequences 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. This is especially the case in developing countries where spatial disparities have been found to be particularly pronounced (Kanbur and Venables, 2005). The research question is whether the resulting trade cost reductions between ex ante 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? Despite widespread policy interest in this question, a growing empirical literature on the evaluation of transport infrastructure (e.g. Donaldson, 2016; Duranton and Turner, 2012) have paid relatively little attention to the role of asymmetric market sizes in trade integration, and the policy question of how peripheral regions are affected when connected to large metropolitan agglomerations.

To answer these questions, the paper exploits China's National Trunk Highway System as a large-scale natural experiment. The network was designed to connect provincial capitals and cities with an urban population above 500,000. As a side effect, a large number of small peripheral counties were connected to large metropolitan agglomerations. While the targeted metropolitan centers represented just 1.5% of China's land area and 17% of its population, they accounted for 60% of the country's non-agricultural production before the bulk of the network was built in 1997. The NTHS thus provides an empirical setting where, as a by-product of the network's policy objective, a large number of relatively small peripheral counties were connected to China's major centers of production. The analysis exploits this policy setting to empirically estimate the economic consequences of NTHS network connections among peripheral counties on the way between targeted metropolitan centers relative to other peripheral regions in China over this period. To address non-random route placements on the way between targeted city nodes, we propose an IV strategy based on hypothetical least cost path spanning tree networks. These correspond to the question which routes planners would have been likely to build if the sole policy objective had been to connect all targeted city nodes on a single continuous network subject to global construction cost minimization. In a first step, I use remote sensing data on land cover and elevation in combination with Dijkstra's (1959) optimal route algorithm to compute least costly construction paths between any bilateral pair of targeted nodes. I then use these bilateral cost parameters in combination with Kruskal's (1956) minimum spanning tree algorithm to identify the subset of routes that connect all targeted nodes on a single continuous graph subject to network construction cost minimization. To assess the validity of the exclusion restriction, I report how baseline IV point estimates are affected by the inclusion of county controls, investigate the heterogeneity of the
connection effects across pre-existing county characteristics, and test for network connection effects on identical county samples both before and after the network was built as a placebo falsification test.

In “Trade Liberalization, the Price of Quality and Inequality: Evidence from Mexican Store Prices”, we study a new distributional channel of developing country trade liberalization. Motivated by a set of stylized facts in Mexican microdata on household consumption and plant production, the paper considers quality differentiation as a channel that links differences in the consumption baskets of rich and poor households to differences in plant technologies, and thus relative price changes due to trade. In particular, higher-quality producers in Mexico make significantly more intensive use of imported intermediate inputs from the US. Guided by this framework, we exploit the microdata of the Mexican Consumer Price Index to quantify this channel empirically in the context of NAFTA. It has been a common concern in the literature that tariff changes may be correlated with omitted factors that also affect mean sectoral outcomes. Focusing instead on relative price changes within disaggregated product groups allows me to rely on the weaker identifying assumption that tariff cuts are plausibly exogenous at the level of individual barcode-level products, especially in the case of intermediate inputs that are shared across a wide range of producers in the domestic economy. To address potential remaining concerns, I also propose two new IV strategies. The first instrument for input tariff changes is based on the insight that tariff targeting at particular plants or product groups should be of less concern for a subset of intermediate inputs, such as basic chemicals, that are used widely across domestic output sectors. The second instrument is based on the same subset of widely used inputs, but also makes use of rich Colombian plant microdata to overcome the additional concern that large plants are disproportionately weighted in conventional input-output matrices. In a final set of robustness results, I exploit the store price microdata to report three different placebo falsification tests. We use this design to present evidence on two main questions. First, we estimate to what extent cheaper access to US imports reduces the relative price of higher quality products in Mexican cities. Second, we quantify the implications of this relative price effect of NAFTA on real income inequality due to differences in cost of living inflation between rich and poor households.

In “ICT and Education: Evidence from Student Home Addresses”, we estimate the causal effect of upgrades in the available information and communication technology (ICT) on education outcomes. In doing so, the paper makes three main contributions to the existing literature. First, we draw on a new and uniquely rich collection of English microdata that allows us for the first time to link administrative test score records of the population of primary and secondary school students to the available ICT at student home addresses. Second, to base estimations on plausibly exogenous variation in the available ICT, we notice that capacity constraints at telephone exchange stations lead to invisible and essentially randomly placed boundaries of station-level catchment areas that give rise to substantial and discontinuous jumps in the available ICT across neighboring residences. Third, guided by a simple theoretical framework we bring to bear additional microdata on student internet and time use to quantify the channels underlying the estimated reduced form effects. As part of these estimations, we also provide empirical evidence on the elasticity of demand for online content with respect to its time cost. To base estimations on exogenous variation in ICT, we notice that the boundaries of usually invisible telephone exchange station catchment areas give rise to substantial and essentially randomly placed jumps in the available ICT across neighboring residences. We use this design across more than 20,000 boundaries in England to document the effect of jumps in the available ICT on education outcomes. Guided by a simple model we then bring to bear additional microdata on student time and internet use to quantify the potentially opposing mechanisms underlying the observed reduced-form effect.

In “Artisanal Mining, Livelihoods, and Child Labor in the Cobalt Supply Chain of the Democratic Republic of Congo”, we conducted a set of representative large-scale surveys in artisanal mining
communities of the “copper belt” of the Democratic Republic of Congo (DRC). The report presents the findings from this baseline survey data collection, covering the economic wellbeing and health of households as well as the role of artisanal mining for their livelihoods. It focuses on the prevalence, forms and causes of child labor in the DRC copper belt, and on the organization of the artisanal cobalt supply chain. The surveys were administered in 150 mining communities, sampled by random selection among the 426 we identified in total, and contains information gathered from 2,635 households about all household members (a total of 15,023 individuals). In addition, we conducted separate surveys with 1,575 children, 88 traders and cooperatives, 75 schools and 137 community leaders. The insights from our survey data are relevant for current debates about responsible cobalt sourcing policies. Disengaging from artisanal mining (reducing demand) can have detrimental effects for a large number of households living in the DRC copper cobalt belt, and while it could decrease the prevalence child labor, it could also increase it due to lowering household incomes. Maintained sourcing from the artisanal mining sector, coupled with providing support and incentives to miners can prevent unintended harm, while reducing the prevalence of child labor. Given the causes of child labor are complex, however, the social impact of interventions targeted at reducing child labor should be rigorously evaluated prior to their implementation at scale.

In addition to the papers discussed above, there are several ongoing research projects, of which I will briefly mention two in this paragraph. The first project (“The Gains from Online Integration: Evidence from County-Level Panel Data in China”) is based on the creation of a new county-level panel database on the number of internet users in China that we construct from archival county records covering the period 1995 (when internet was practically non-existent) to 2015. We plan to combine this new database with a reduced-form empirical analysis of the local effects of changes in internet usage on county-level economic outcomes, and a quantitative model of market integration through the internet in order to quantify the channels underlying the observed local effects, and shed light on their aggregate implications for Chinese economic growth over the past two decades. The second project (“Cleaning Up the Supply Chain: Evidence from Multinational Sourcing in the DR Congo”) aims to estimate the local economic implications of multinational “anti-sweatshop” policies in developing countries. Multinationals are under increasing public and regulatory pressure to ban child labor along their supply chains. We have worked in collaboration with several of the world’s largest multinational electronics companies. This collaboration has led to the baseline survey data on 150 mining communities in the DR Congo copper belt, that we describe in detail in the policy report discussed above. The second phase of this project is to leverage the baseline data collection and our industry partnerships in order to implement different types of “responsible sourcing” interventions against child labor, that we randomize across the mining communities. The objective is to provide a rigorous base of evidence to inform the effectiveness, and potential unintended side effects, of different responsible sourcing policies that are currently being considered by the multinationals.

(III) References


