
Research statement

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As an industrial development economist, my research mostly focuses on understanding how firms grow, what barriers they face in growing, and how their growth can be harnessed to increase welfare. I am particularly interested in the interaction of globalization and development. I work mostly on developing countries, but these questions are also relevant to high-income countries, as the rise of inequalities and environmental risks threaten the growth trajectories started in the XXth century. I use theoretical tools, natural experiments and randomized controlled trials to answer different types of questions in this nexus.

1 Job market paper

Information frictions prevent customers from knowing the true quality of products. Consumers may therefore favor firms that already have an established reputation, limiting the growth of small or new firms and potentially overall growth. In Mexico, foreign firms are much larger than domestic firms on average. In my job market paper “**The Demand Side of Firm Growth: Evidence from Mexico**”, I ask how much uncertainty about product quality can account for the differences between international firms which are generally very large and domestic firms, most of which are very small. We study this question in the context of the consumer goods industry. In Mexico uncertainty about product quality is prevalent and consumers are willing to pay a higher price for global brands. Leveraging barcode-level consumption data, I show that domestic firms grow more through the growth of surviving goods than through new goods, and that domestic goods have a slower and longer life-cycle than foreign goods. I also show that the new customers of older domestic goods are poorer than the customers of new domestic products, a pattern that does not exist for foreign products. I rationalize these findings using a model of product choice under uncertainty. The possibility of learning through others slows down the most price-sensitive customers from buying a new product, driving down firms’ profits. Lastly, I document the mechanisms behind this model by showing evidence of learning, evidence of the importance of the uncertainty margin, and evidence of the relevance of price-sensitivity.

In future work, I plan to structurally estimate a fully-fledged model of demand for domestic products under uncertainty about product quality. This will enable me to compute counterfactual equilibria in situations when there would be a minimum quality standards, or where firms would be able to credibly signal their quality through trusted certifications schemes.

2 Other projects

Multinational firms are known to be more productive than other firms, which is why many governments subsidize them to invest in their country, hoping for productivity spillovers. The literature on this question is plagued by measurement and identification problems and rather inconclusive. In a working paper “**Language Barriers in Multinationals and Knowledge Transfers**”, coauthored with Amit Khandelwal, Rocco Macchiavello and Matthieu Teachout, we look at knowledge transfers within multinational firms, which are the necessary spark for spillovers to happen. Language barriers between foreign managers (FMs) and domestic managers (DMs) could impede transfers of management knowledge. We develop a model in which

DMs learn general management by communicating with FMs, but communication effort is non-contractible. These conditions generate sub-optimal communication within the MNC. If communication is complementary with language skills, the planner could raise welfare by subsidizing foreign language acquisition. We experimentally assess the validity of the general skills and the complementarity assumptions in Myanmar, a setting where FMs and DMs communicate in English. The first experiment examines the general skills assumption by asking prospective employers at domestic firms to rate hypothetical job candidates. They value candidates with both higher English proficiency and MNC experience, a premium driven, in part, by frequent interactions with FMs. The second experiment examines the complementarity assumption by providing English training to a random sample of DMs working at MNCs. At endline, treated DMs have higher English proficiency, communicate more frequently with their FMs, are more involved in firm management, and perform better in simulated management tasks. Organizational barriers within MNCs can thus hinder knowledge transfers and lead to an under-investment in English relative to the social optimum.

A separate strand of my research looks at the interaction of growth with the preservation of the environment and concerns for growing inequality among individuals. Increased competition has been shown to increase consumer welfare. But does increased competition, especially when it arrives at the top of a vertically differentiated market, benefit all consumers equally? In my paper **"The Unequal Gains from Entry at the Top: Estimating the Whole Foods Effect"**, I study the growing "better-for-you" segment of the food retail market, which at first seems like a positive transformation for both consumer welfare and the environment. However, these products are mainly targeted at high-income consumers. Increasing income inequality may have accelerated the development of this high-end market, with positive consequences on the welfare of these consumers, but possibly negative consequences for low-income consumers through decreased competition, higher prices and/or lower quality for basic groceries. In this paper, I test this hypothesis by studying the impact of the entry of Whole Foods in a new area - a symbol of gentrification - on the incumbent grocery stores' offers in terms of prices. I find that on average, grocery prices do not change or decrease, but the prices of groceries bought by households in the bottom half of the income distribution increase by 30% on average two years after an entry.

Policy decisions can be made more difficult because of uncertainty, which is prevalent in the case of environmental preservation. In my paper **"Precaution, Information and Time-inconsistency: On the Value of the Precautionary Principle"**, coauthored with David Martimort, we consider a dynamic decision-making problem under irreversibility and uncertainty. A decision-maker enjoys surplus from his current actions but faces the possibility of an irreversible catastrophe, an event that follows a non-homogeneous Poisson process with a rate that depends on the stock of past actions. Passed a tipping point, the probability of a disaster increases once for all. For such a context, the Precautionary Principle has repeatedly been invoked to regulate risk. We ask whether such an institutional commitment to prudent actions in a world of incomplete social contracts has any value and we answer negatively. When only the distribution of possible tipping points is known, the optimal feedback rule should a priori determine actions in terms of first the stock of past actions and second, the beliefs on whether the tipping point has been passed or not. We nevertheless show that Stock-Markov Equilibria, which are sustained with feedback rules that only depend on stock and only allow commitment to actions for infinitesimally short periods of time, suffice to implement an optimal path. Yet, committing to such limited feedback rules once for all is suboptimal; pointing out at the negative value of the Precautionary Principle.

3 Future work

Going forward, I will pursue research in two directions. First, I want to better understand the interactions between the presence of multinationals and the development of domestic firms in developing countries. Second, I want to continue studying how innovations that contribute to average growth may hurt the environment or increase inequality.

In order to gain insight about multinationals and how they impact the development of the domestic sector, data is key. I therefore plan to acquire more data in two ways. I plan to apply for more scanner data from the AiMark foundation which collects scanner data from many countries for research purposes. Comparing countries where uncertainty about product quality may be higher or lower will enable me to confirm the hypothesis that this is an important factor leading consumers to prefer the products released by multinationals to the local products. In parallel, comparing countries where multinationals may be more or less will enable me to validate the hypothesis that multinationals may exert an externality on domestic sector development.

I also plan to collect more data by doing field work, either in Mexico or in other countries through the research network I have developed during my PhD experience with the IGC. Following pilot work I have done in Myanmar (interrupted due to COVID-19 and then the February 2021 military coup), I have developed a plan, and received NSF funding for, a lab-in-the-field experiment which would measure consumers' perceptions of quality based on the signals they are given about the product's origin and its potential private, national or international certifications. I would control for quality by running third-party checks on products. In the long term, I would like to do more field work that would generally look at quality certifications schemes in developing countries.

Regarding my second research line, in an ongoing project with Guy Aridor and Howard Zhang, I study the "retail apocalypse", which describes a secular phenomenon whereby malls across the United States are closing their brick-and-mortar stores, as consumers increasingly shop online. We use cellphone mobility data to study how the closures of some stores, due to decreased demand, may lead through strategic complementarities to the closures of more stores, hurting poorer, less connected consumers. I plan to complete this article in the near future and would like to expand this analysis in two dimensions. First, I am interested in thinking about how this applies to other countries. Second, I am interested in the environmental consequences of the digital revolution.

Moving forward, I will continue to investigate firm growth in developed and developing countries. I am looking forward to collaborating with future colleagues to enhance the understanding of the synergies and trade-offs between growth, inequalities, and environmental preservation.