Research Statement

My research centers on Applied Microeconomics. In particular, it focuses on the behavior of small firms in developing countries, using both theoretical insights from contract and organizational theory along with econometric methods. My primary research fields are Development and Organizational Economics. My research can be classified into three areas of interest: (1) applications of organizational economics in developing economies, and barriers to small firms’ growth such as (2) lack of access to credit and (3) lack of access to markets.

1 Applications of organizational economics

Limitations such as lack of access to efficient courts, asymmetric information and incomplete markets are common in developing countries. Taking those restrictions as given, firms decide how to find and when to keep providers and customers, how to hire and organize their workers and how to allocate decision making among them. In this line of research, I adapt conceptual frameworks developed in Organizational Economics to rationalize the behavior of small firms in developing countries. My goal is to suggest policies that help those firms to identify and take maximum advantage of market opportunities.

In my job market paper, “Coordination and Gains from Relational Contracts: Evidence from the Peruvian Anchovy Fishery”, I empirically investigate the efficiency gains coming from the use of informal agreements. First, I provided evidence that in a context of highly variable supply conditions, commercial partners draw upon relational contracts to effectively exchange demand and supply assurance. Next, I showed that the use of these informal agreements imposes positive net externalities on those agents operating without them. This paper is the first to document spillover effects of long-term relationships.

Using exceptionally detailed data for the Peruvian Anchovy Fishery, I compared the production and trading patterns of sellers operating with and without a long-term relationship. I provided evidence that sellers (vessels) and buyers (fishmeal plants) rely on long-term relationships to cope with supply uncertainty. When a port is exposed to low anchovy availability, vessels with a relationship renounce attractive fishing opportunities in neighbor areas. This loss is compensated in high availability scenarios, in which related vessels face a lower transaction cost. Unlike previous studies, I had access to a proxy measure for the cost of finding a buyer in excess supply scenarios (transaction cost). Evidence supports theoretical models in which parties use informal agreements to coordinate their actions and reduce the burden of being exposed to sudden changes in market conditions. Unlike theory, empirical studies on this regards has remained scarce.

Then, I investigated the efficiency gains arising from the use of relational contracts. In particular, I showed that these informal agreements generate positive net spillovers on other
firms. The logic is that as more independent vessels operate under a relational contract, the greater the level of segmentation in the industry. Thus, less vessels will run into each other in ports exposed to high fish availability. Therefore, all vessels, even those without a relationship, will face a lower transaction cost when operating in a port with a positive supply shock. In the setting under analysis, a one standard deviation increase in the share of vessels with a relationship will generate gains of US$ 208,000 per year in producers’ surplus.

I concluded that in a context of limited access to formal contract enforcement and highly variable supply conditions, governments should implement policies that promote the use of long-term relationships. It is particularly important for developing countries. Due to the combination of ineffective courts and a relatively high share of small firms in those countries, commercial partners pervasively rely on informal agreements to improve upon market outcomes. Examples of policies are: (i) Generating information on players’ performance which should increase accountability, and (ii) creating specialized courts for specific industries which should increase the efficiency at solving parties’ disputes.

2 Lack of access to credit

Small and micro firms in developing countries are severely credit constrained. In this context, access to capital is key to step on untapped high-return investments and to accelerate the growth of productive firms. Even though it might seem obvious that entrepreneurs should be benefited by gaining access to formal financial services, previous research shows mixed evidence on business investment and performance. In this line of research, I study which attributes of credit services can be shaped to increase their adoption and impact on entrepreneurs’ investments.

With the boom of mobile phone use and simple tools to process big data, digital financial services are becoming a promising ally in the quest for increasing financial inclusion in developing countries. Importantly, data availability allows providers to constantly tailor the products to the needs of entrepreneurs. Conscious of this phenomena, Erica Field and I have partnered with a digital financial service provider in Peru to study the barriers to adoption and impact of using trade-credit among small merchants. This firm offers credit lines that can only be used to pay inventories according to the needs of each merchant. Every credit operation is coordinated through mobile phones and there is no physical access to the money. We plan to implement two randomized control trial studies. In the first one, we aim to evaluate the impact of randomly assigning different credit cycles’ length: one week versus two weeks. While the first one reduces over-indebtedness and default, the second one allows small merchants to invest in a greater variety of products. In addition to low risk products that can be sold in a week such as soda and beer, they can invest in products with lower rotation. Increasing the variety of supplied products should increase attractiveness of the store among clients. In a complementary project, we aim to determine the average impact of getting access to this innovative trade-credit product on inventory investments, sales volume
and returns.

In a different project, Erica Field, Rohini Pande and I showed that gaining access to women banking is effective to increase female labor force participation, especially in micro-businesses managed by them. This result is key in the context of our project: urban India, where only 16% of women participate in the labor force while 50% of men do. Women banking focuses on offering credit to female micro-entrepreneurs and in addition, only female employees interact with clients. Therefore, the consequences of getting access to credit might be reinforced by the impact of being exposed to the role model of the bank employees: independent women earning their own income. We expect the role model effect to be stronger among the individuals of the same social group. Thus, we are now investigating whether the impact of women banking is stronger when the client and the associated women bank’s employee belong to the same caste.

3 Lack of access to markets

Access to international markets is considered one of the most important paths to growth for small and medium-sized enterprises (SMEs) in developing economies. Yet, a small fraction of these SMEs engage in international trade. While many of them are not productive enough to compete in international markets, it is also possible that some productive firms face iceberg costs to access international market opportunities. These costs can reflect the lack of access to a (physical/on-line) platform to exhibit their products, as well as the lack of reputation of firms offering similar products in particular foreign markets. These frictions may prevent SMEs from learning-by-exporting interactions that could lead to growth, as well as increases in productivity and quality. The importance of these frictions has been clearly identified by policy-makers in the developing world. In contrast, the empirical economic literature does not yet have much to say on this matter.

In a joint project with Daniel Xu and Pamela Medina, we seek to utilize a government SME e-commerce export promotion program in Peru to evaluate the differential importance of entrepreneurial capability/technology versus buyer-seller search frictions. In its first stage, the program will provide selected firms with the necessary skills to participate in international e-commerce. In the second stage, randomly selected participants will be granted subsidies for the promotion and diffusion of their businesses. Given the randomization process, comparison of firm-level variables from the first and second treatment groups will systematically test the impact of the training versus market access components. In addition, besides the use of usual survey data, we will test an innovative tool to recover high-frequency data in an e-commerce setup: a web-page tracker. We will program an automated system to collect high frequency data on buyer-seller interactions. Among other variables, we will collect information on the number of visits (from the same IP address or not), the time each buyer spends on the web-page, and the time lap between each buyer-seller interaction (effort measure).