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PUSHING A TROIKA OF DEVELOPMENT:
PROMOTING INVESTMENT, CURBING CORRUPTION, AND ENHANCING PUBLIC GOOD PROVISION

A dissertation presented by

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Abstract:

Using case studies on business development and cooperation in Russia and Kenya, I tackle three measurement challenges in development: efficient investment, effective institutions, and public good provision. First, I estimate marginal rates of return to capital for small firms, evaluate causes of inefficiency and examine effectiveness of interventions. Next, I examine corruption as a barrier to business growth and assess whether policy reform is capable of decreasing corrupt activity. Finally, I investigate the causes of heterogeneity in success of financing local public goods and experimentally document the conditions that improve communities' ability to cooperate and coordinate on efficient Nash equilibria.

Executive Summary:

In recent decades, a new direction of development economics has emerged, led by economists on a mission to improve the quality of life for citizens of developing countries, through proven, cost-effective interventions. This micro-economic focus on development hinges on identifying barriers to growth and implementing targeted programs designed to alleviate these constraints. However, identifying constraints is far easier than measuring their magnitude, and designing effective measures of to quantify these barriers is often a substantial challenge. In fact, numerous microeconomic indicators of development are famously intractable, resisting simple methods of accurate measurement. This dissertation uses three case studies to tackle three such measurement challenges, to propose novel ways to quantify these constraints, and to suggest novel methods to alleviating them. The empirical analyses were conducted in Russia and in rural Kenya and focus on two important development topics: business development and community provision of local public goods. In the first chapter, I estimate marginal rates of return to capital in small retail firms, evaluate the causes of inefficiency and examine interventions that may increase growth. In the next chapter, I examine corruption as a barrier to small business growth and assess whether policy reform is capable of decreasing corrupt activity. In the final chapter, I investigate the causes of heterogeneity in financing of a local public good and experimentally document the conditions that improve the ability of communities to cooperate and coordinate on efficient Nash equilibria. Specifically, I propose new ways of measuring marginal rates of return to capital, corruption, public good provision and cooperation; then leverage these measures to shed light on barriers to growth and to assess the effectiveness of possible interventions to enable development and achieve more efficient resource distribution.

The first case study is titled “The Return to Capital for Small Retailers in Kenya: Evidence from Inventories” and tackles an important measurement problem in development economics: quantifying the returns to capital for small business that do not keep records. Standard textbook models suggest risk-adjusted rates of return should be equalized across activities within firms, and across firms. However, testing this implication is typically complicated by the difficulty in measuring rates of return. In this study, we take advantage of the characteristics of the retail industry in rural Kenya to create estimates and bounds on the rate of return to inventories in a set of retail firms. Using administrative data on whether firms purchased enough to take advantage of quantity discounts from wholesalers, we estimate a lower bound on rates of return for the median shop of well over 100 percent per year. A second approach measures the return to increased investment by surveying shops on a regular basis about “stockouts” (lost sales due to insufficient inventory). Though average returns are much lower from this approach (likely because firms fear losing customers due to lost goodwill), we are able to reject the hypothesis that the marginal rates of return are equal across shops. We examine alternative explanations of why we observe such high and heterogeneous marginal returns to capital and find evidence that credit constraints are not the only explanation. Though preliminary, our results suggest significant departures from the notion of firms as purely rational profit makers.

The next chapter, "Living Up to Reputation: Cooperation in Public Good Experiments in Rural Kenyan Communities," develops an application of lab-in-the field experimental methods to examine the drivers of cooperative behavior. We investigate the relative roles of symmetry, fairness and social preferences in explaining observed heterogeneity in the success of community-level fundraising for local public goods. We implement a threshold public goods game in relatively closed communities in rural Kenya to model collective maintenance of a public good. We measure experimentally the cooperative behavior of villagers and identify the relative importance of subjective beliefs and preferences in individual decisions. We examine subjects' sensitivity to external social peer pressure using anonymous and non-anonymous games, in which contributions either stay secret or are announced to the entire group, respectively. To assess the value of social accountability mechanisms and the impact of various types of asymmetry, we use four experimental treatments to disentangle the effects of social capital, inequality, fairness norms and multiple chances to give on individual contributions and the probability of coordination success. We estimate experimentally the level of social capital in the communities and the reputation effects per individual; and devise new methodology to classify individuals as free-riders, cooperators and focalists. Reputation appears to matter differentially to various player types. Although announcing contributions has a significant effect of increasing contributions by almost 10%, we find that about 30% of players actually contribute more in the anonymous round than in announced. It appears that they are motivated by pessimistic beliefs of others' contributions and a belief that their contributions are pivotal in the anonymous games but less so in the revealed contribution game. We also model the multi-stage contribution strategy utilized by local communities and find that offering an unexpected second chance to contribute drastically increases total contributions, allowing the majority of groups to meet the threshold; while anticipated multi-stage contribution does not have such a radical effect. The results of other treatments suggest that, surprisingly, asymmetric conditions produce more cooperation: asymmetric endowments and disallowing "fair" contributions result in higher contributions.

The final chapter, "Can Policy Reform Cut Corruption? The Case of Small Business in Russia," examines the impact of corruption as a barrier to business development. The burdens imposed by the institutional environment can substantially affect the costs and procedures of business operation and thus greatly influence private sector performance. These include informal costs associated with extralegal arrangements, mainly corruption. The majority of studies on corruption and its impact on firms are qualitative or focus on cross-country comparisons. This paper, however, leverages a unique micro-level panel data on Russian small firms to evaluate the impact of regulation on the incidence and magnitude of corruption. We examine changes in corruption affecting small businesses after de-bureaucratization regulatory reform and estimate the effects of firm characteristics on corruption vulnerability for new and for existing firms. We empirically estimate the magnitude of factors affecting corruption practices and corruption perception; measure the factors associated with corruption vulnerability and assess post-reform changes in corruption, including temporal patterns and the differential changes in the incidence on various types of corruption in complying with various regulations. We show that regulatory reform was associated with a decrease in the incidence of directly regulated corrupt transactions, after controlling for firm and macroeconomic factors, yet the incidence of corruption in other transactions actually increased. We provide evidence that this change is temporary and that corruption levels appear to return to previous levels as government agents discover corruption channels to circumvent new legislation.