

DISSERTATION DEFENSE

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“Essays on Macroeconomics”

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Economists have thought very deeply about why productivity varies across firms and across countries. Complementary to this are the industry projects published by consultancy firms which identify several frictions faced by firms in developing countries. These frictions generate misallocation, as resources (like capital, labor) are not directed to the most productive firms of the economy. In my dissertation, I focus on analyzing the adverse effects of capital, labor market and behavioral frictions on firm/entrepreneurial growth and welfare. I use both a quantitative model-based approach and firm-level data from a large, developing country to understand this theory deeper. Through my research, I show that corporate diversification strategies, over-borrowing are adequate mechanisms to reduce the effect of these frictions.

In the first chapter, I determine whether the organizational structure of firms alleviates the effect of capital market frictions in developing countries. In this paper, I empirically and theoretically establish that capital misallocation is lower across business-group firms than across stand-alone firms. Business groups are an important organizational structure in most developing countries. I first propose a method which extends the identification approach of Hsieh & Klenow (2009) to a dynamic framework and structurally identifies mean investment distortions from firm-level data. I apply this scheme on a panel of manufacturing firms in India. I find that for most industries, mean investment distortions are lower for business-group firms than stand-alone firms and are increasing with firm size. Business-group firms also display lower cross-sectional dispersion in capital revenue productivity (marginal product of capital) over the entire sample period. In order to interpret these findings, I develop and estimate a two-sector model of firm dynamics in which firms choose their organizational structure, face investment irreversibility and financing frictions. Using the model, I show that capital reallocation and cashflow diversification within business groups translate into lower investment distortions and lower dispersion for group-affiliated firms.

In the second chapter, using cross-country data for 45 countries, I show that business group firms are more prevalent in countries with more stringent job protection provisions. This relation is robust to the inclusion of country-level governance, financial development indicators, hiring costs and other potential determinants of business group formation. To reconcile these empirical findings, I propose a general equilibrium model of firm dynamics in

which firms choose their optimal employment policies and their decision to form a business group. I calibrate the model using realistic parameter values and study the effect of two types of job protection policies on the stationary equilibrium: (i) size independent and (ii) size dependent firing costs.

In the third chapter, I analyze the distortionary effect of time inconsistent preferences on the investment behavior of poor entrepreneurs. The specific form of time inconsistency that I consider is the quasi-hyperbolic discounting structure. I develop a model in which an entrepreneur is characterized by her degree of present bias i.e. her quasi-hyperbolic discount factor and chooses to execute a lumpy investment decision by borrowing from a Micro Finance Institution (MFI). Using the model I show that if the entrepreneur is sufficiently patient and if her project generates high returns, she optimally borrows and invests. However, if she is impatient and her project returns are modest then she is seen to undergo preference reversals and uses the microcredit for consumption rather than investment. Given this sub-optimal behavior, a non-profit MFI can prompt the impatient borrower to invest by allowing her to overborrow and offering her a larger loan size. This analysis suggests that larger, more flexible loan sizes can increase the take-up rate of micro-credit and build commitment for sophisticated, poor entrepreneurs.