Dissertation Abstract

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Jobmarket Paper: Financial Constraints, Working Capital Constraints and the Dynamic Behavior of the Firm

Financial constraints are widespread in developing countries, where even short term credit is limited. Finance held by firms as working capital is a substantial proportion of sales revenue, yet the role of working capital is largely neglected by existing models of financial constraints. I present a dynamic model of the firm that incorporates working capital by introducing a delay between factor payments and the receipt of revenue. In contrast with previous models, the working capital model predicts that firms under binding constraints will substitute between labor and capital in response to demand shocks, causing investment to be countercyclical. For firms near the margin of being constrained, constraints bind when positive production opportunities arise. Output growth is therefore constrained in response to positive shocks but not to negative shocks. Simulations suggest that models without working capital may understate the predicted effects of financial constraints on production efficiency, firm profit and growth over time. I test the predictions using the recently completed Bangladesh Panel Survey for manufacturing firms. Consistent with the theory, I find evidence that constraints bind when output price increases, that investment by constrained firms is countercyclical, and that output response to positive shocks is dampened for firms that are sometimes constrained. The results also are important for policy. In order to maximize growth, efforts to relieve credit constraints should be focused on periods when demand shocks are high.

Paper 2: Precautionary Savings of the Firm and the Cost of Financial Constraints

Firms in developing countries appear to hold large amounts of working capital on hand compared to developed countries. This may be due to different technologies or it may be due to financial constraints that causes precautionary savings behavior. If it is due to financial constraints, the stockpiling of finances is a source of inefficient utilization of resources.

I augment the working capital model of the firm with 'time to build' capital adjustment to show the precautionary saving behavior by the firm under financial constraints. Numerical solutions show that firms tend to save when production opportunities are low, in contrast to consumer behavior. I estimate the amount of working capital due to precautionary savings using survey data of Chinese manufacturing firms to illustrate the effects of financial constraints on production.

Paper 3: Entry into International Markets and Financial Access.

Financial constraints prohibit firms from fully taking advantage of positive demand opportunities and distort factor ratios. Both of these effects influence the firm's ability to engage in exports. This paper examines the interaction of financial constraints and entry into export markets. I present a model where firms are differentiated by both productivity and access to finance to show how financial constraints can distort the 'self -selection' process of entry into international markets.

Utilizing exogenous exchange rate changes, I test for the effects of financial access on export entry using a panel survey of Bangladeshi firms. Preliminary results show the level of access significantly decreases the likelihood of trade controlling for productivity. The potential benefits of trade is not fully realized as the distortion of access to finance amongst firms, leads to lower overall industry productivity improvements.