

Our latest impact note looks at whether a one-off infusion of capital can have long-lasting impacts on small firms.

## Long-term impacts of one-off grants to microenterprises

Suresh de Mel, David McKenzie and Christopher Woodruff

Our [very first impact note](#) described the results of an experiment in Sri Lanka which gave one-off grants of \$100-200 to male and female microenterprise owners. In the short-run we found very high returns to capital for men (11 percent per month), and no return to female owners.

Traditional economic models of investment such as the Ramsey model would predict that such grants should have at most temporary effects. In such models, there is an efficient steady state size for a business conditional on the ability of the owner. A positive shock to capital in such a model will have only temporary effects, speeding up convergence to this steady state, but those firms that did not receive the grants should be able to catch up over time by taking advantage of the high returns to capital and reinvesting in their business.

In contrast, a one-off infusion of capital can have a permanent impact on the business if there are poverty traps caused by production non-convexities, or if there are self-control problems or intra-household inefficiencies which lead to persistent underinvestment.

Knowing which of these two cases prevails not only helps us understand better the appropriate model that describes microenterprise investment behavior, but should help guide policy efforts to help this sector.

### Longer-term follow-up

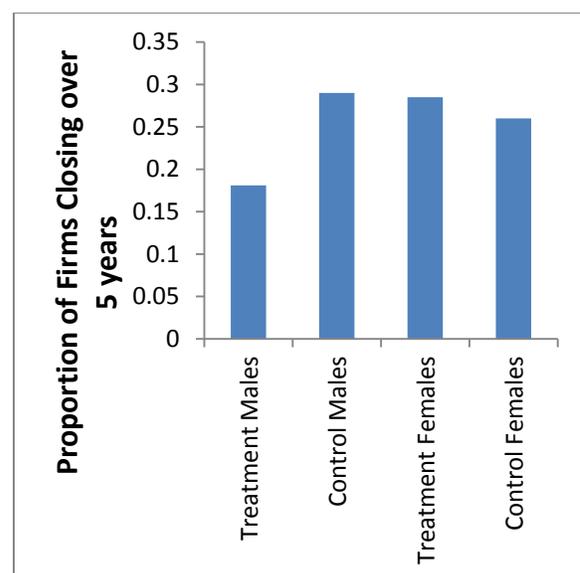
In June and December 2010 we conducted two follow-up surveys of the original sample of 387 microenterprises. This corresponds to periods of 5 to 5.5 years after our initial interventions. A key concern in measuring

long-term outcomes is whether these same firm owners can be located and re-interviewed. Our results show that it can be possible – we re-surveyed 348/387 (90%) of firms in the June survey, and 356/387 (92%) in the December survey. Through physical observation and discussions with neighbors we were able to verify whether or not the business had closed by the end of 2010 even for those firm owners not interviewed

### Impacts on Firm Survival

We find that the grants had long-lasting impacts on the survival of male-owned firms, reducing their closure probability by 10.9 percentage points over 5 years. In contrast, they had no significant impact on survival of female-owned microenterprises (Figure 1).

**Figure 1: Impact of Grants on Firm Closure Rate**



We also examine whether the grants affect *which* firms survive, and find no significant differences in the baseline characteristics of the survivors in the treatment and control groups.

The firms which do shut down largely seem to be doing so because the business failed, not because they have had better opportunities arise in wage work.

### **Impacts on Long-term Profitability**

We find the grants have lasting impacts on firm profitability for male-owned firms – for males a \$100 grant increases monthly profits by \$6-12, with this increase staying roughly constant over the 5 years post-grant. That is, it doesn't appear to be the case that the amount of higher profits falls over time (as would be the case with a temporary effect), but neither do they grow dramatically over time (as would occur if returns compound).

In contrast, the one-off grants have no impact in either the short-run or the long-run on female-owned microenterprises.

### **Why are the grants having long-term impacts?**

Our grants were given as either cash, or as raw materials, inventories and equipment that the owner chose for the business. The capital was thus mostly in a form where owners could take it out of the business relatively easily if they wanted to – yet, for males at least, the capital stayed in the business for years earning sustained returns. This raises the question of why the control group males didn't reinvest small amounts over time and catch up?

We believe that there are two main reasons for this. First, recent behavioral theories of decision-making have stressed the role of self-control and time-inconsistency problems. This may explain why owners keep putting off investments that are profitable in the long-term. Second, because this leads to less capital invested in the firm, it may make the control group more vulnerable to shocks than the owners of the treatment group firms.

Our [fourth](#) and [fourteenth](#) impact notes examine in detail some of the reasons why female-owned microenterprises do not benefit more from the grants. In sum, some of the money gets diverted to household uses, while a combination of household inefficiencies and the industries that many women work in having low efficient scale mean that the money these women do invest in their businesses has low returns (although note in Ghana we have found high returns to conditional grants for women operating businesses at a scale a little above the subsistence enterprises studied here).<sup>1</sup>

### **Policy Implications**

Our results highlight that a one-off grant can have a lasting impact on some types of microenterprises. This has implications both for charitable giving, and for policymakers deciding which types of microenterprises to target for assistance.

In particular, our results from Sri Lanka, coupled with short-term results from similar experiments in Mexico and Ghana suggest that additional capital can have substantial impacts on microenterprises run by poor urban males.

For further reading see: Suresh de Mel, David McKenzie and Christopher Woodruff “One-time transfers of cash or capital have long-lasting effects on microenterprises in Sri Lanka”, *Science*, published online February 24, 2012.

*Recent impact notes are available on our website:* <http://econ.worldbank.org/programs/finance/impact>

1. The low labor force participation of women in Sri Lanka meant our sample does not contain enough women running businesses earning \$5 or more per day, which are the type of business in Ghana we find high returns for.