Making the Leap from Self-Employed to Employer?
What matters – capital, labor, or training?

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(with Suresh de Mel and Chris Woodruff)
In developing countries there are lots of self-employed, but few of them hire workers.

Figure 3b. Share of employers and own-account workers in total employment, available European Union and low-income and lower-middle-income sub-Saharan African countries, latest years.
What does it take to make the jump from self-employed to employer?

• Work with subsistence firms has found last impacts of access to capital on profits (de Mel et al, 2012; Field et al. 2012), but no impact on employment creation.

• Existing literature on business training struggled to find employment effects

• But: there are so many self-employed, if we can get even a fraction to become employers, may have major impact on job creation.
What constrains firm owners from hiring and growing?

• Think about constraints to using inputs A, K and L in production function:
  – **A**: owners may lack ability to grow business to next level; or to hire and manage workers effectively.
  – **K**: firms may be credit-constrained, not able to purchase the capital needed to make extra worker productive.
  – **L**: new workers may require a period of on-the-job training to become productive, with social, subsistence or legal constraints preventing firms paying low or negative wage in interim; search frictions may make it costly to identify and hire new worker.
What do we do?

• We offer selected firms 0, 1 or 2 of the following:
  – Matched savings program (50-100% match rates, ‘locked’ for 9 months)
  – Training (ILO “Improve Your Business”)
  – Incentives to hire new worker (4000 LKR/month, ~50% of unskilled wage)

• Baseline surveys in April/Oct 2008 – then interventions, and twice-yearly surveys through April 2012.
  => long-term tracking of progress and constraints to becoming an employer.
Putting together a Sample

• Sample of 1535 Sri Lankan microenterprise owners
  – Male
  – Urban areas (Colombo, Kandy, Galle)
  – Selected through door-to-door screening exercise of households in randomly selected GNs (census tracts)
  – aged 20 to 45
  – with 2 or fewer employees (87% non-employers)

• Note: random sample of firms with these characteristics
  – not restricted to MFI clients, or only subsistence firms
  – Advantage is allows us to learn about full range of small firms.
  – But downside is that heterogeneity amongst firms reduces power
Timeline of project

- Apr 2008: Screening and baseline survey
- Oct 2008: Baseline survey for ‘booster’ sample + follow-up
- April 2009
- October 2009
- April 2010
- October 2010
- April 2011
- October 2011
- April 2012
Timeline of project

- Apr 2008: Screening and baseline survey
- Oct 2008: Baseline survey for ‘booster’ sample + follow-up
- Nov 2008: Begin matched savings program
- Aug 2009: Savings program account ‘unlocked’
- Oct 2009 - Apr 2010
- Oct 2010 - Apr 2011
- Oct 2011
- Apr 2012
Timeline of project

- **Apr 2008**: Screening and baseline survey
- **Oct 2008**: Baseline survey for ‘booster’ sample + follow-up
- **April 2009**: June - July: Training program
- **Nov 2008**: Begin matched savings program
- **August 2009**: Savings program account ‘unlocked’
- **October 2009**: April 2010
- **April 2010**: October 2010
- **October 2010**: April 2011
- **April 2011**: October 2011
- **April 2012**
Timeline of project

- **Screening and baseline survey**
  - April – July 2009
- **Baseline survey for ‘booster’ sample + follow-up**
  - Oct 2008
- **Begin matched savings program**
  - Nov 2008
- **Training program**
  - June – July 2009
- **Begin wage subsidies**
  - Aug 2009
- **Savings program account ‘unlocked’**
  - Aug 2009
- **Wage incentives end**
  - May 2010
- **Wage incentives end**
  - Apr 2010
- **Matched savings program end**
  - Oct 2010
- **Wage incentives end**
  - Apr 2011
Take-up: Proportion of those offered

<table>
<thead>
<tr>
<th></th>
<th>Number Offered</th>
<th>% Participating</th>
</tr>
</thead>
<tbody>
<tr>
<td>Savings</td>
<td>559</td>
<td>81.4% (455)</td>
</tr>
<tr>
<td>Training</td>
<td>589</td>
<td>57.9% (341)</td>
</tr>
<tr>
<td>Employment</td>
<td>845</td>
<td>29.2% (247)</td>
</tr>
</tbody>
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(1) Based on the percentage completing the training course. 368 (62.5%) began the training course.
Impacts on Input Use

• Look at impacts on
  – Management practices (expect impact from training)
  – Capital stock (expect impact from savings)
  – Labor usage (expect impact from wage subsidy)
Impact on Management Practices

Solid Markers indicate statistically significant point estimate
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Impact on Number of Paid Workers

Solid Markers indicate statistically significant point estimate
From inputs to outputs?

• Does this added use of inputs lead firms to sell more, increase profits, and owner’s to increase household income?
Impact on Monthly Sales (% increase)

% increase in monthly sales relative to control mean
Impact on Monthly Sales (% increase)
Savings
Wage
Training

Solid Markers indicate statistically significant point estimate
Summary of output impacts

• With more capital they sell more
• But aren’t significantly more profitable
• And don’t earn significantly more household income
Do interactions help?

• Theoretical reasons to think there may be complementarities
  – E.g. training may be of no use if you don’t have capital to use
  – Hiring another worker may be more profitable if you have the training on how to grow the business and create enough extra work for them
  – Hiring another worker may require complementary capital (e.g. tailor might need another sewing machine)

• But we find no significant positive interactions between treatments (most are negative and insig.)
Conclusions/Discussion

• Most consistent effects come from a savings program which allows owners to build capital in their enterprises.
  – Why different from our earlier work which found no employment impact from capital?
    • Previous work focused on firms with capital stock below $1000 – subsistence firms – no upper cap here, getting some firms slightly closer to cusp of making the jump?
    • Role of the macro environment? Sri Lanka growing fast.

• Wage incentives lead to higher employment, but not higher profits

• Training not having large effects
Take-aways

• **Impacts take time to materialize, and the period at which you measure makes a difference.**

• **Generating new jobs in microenterprises is hard, but capital and labor subsidies seem to work better than skills training.**