Policies covered here

• Cash grants (Tsunami, Sri Lanka)
• Wage subsidies (Global Financial Crisis, Mexico)
• Directed credit via private banks (Global Financial Crisis, Brazil)
• Firm formalization (various studies and countries)
Cash grants: Microenterprise recovery after the December 2004 Indian Ocean Tsunami

De Mel et al. (EJ, 2012)

• Panel survey of 608 microenterprises
  • 11 quarterly rounds 2005-2007
  • 2 semi-annual rounds 2007, 2008

• Three types of firms:
  • Directly affected – assets destroyed
  • Indirectly affected – same neighborhoods, and demand effects, but no damage
  • Unaffected – inland firms

• Experiment randomly gave $100-200 grants to firms. $200 is 80% of median pre-tsunami capital stock.
Lesson 1: Business recovery much slower than commonly assumed

- Directly affected firms still haven’t caught up 3 years later (e.g. capital stock)
Lesson 2: Access to capital greatly speeds up recovery

• Firms receiving grants recover profit levels almost 2 years before other damaged firms

• On average the grants allowed the damaged firms to recover within the first year, in that damaged firms receiving a grant had profits relative to pre-tsunami size which were almost identical to that of undamaged firms not receiving a grant

• Return to capital is very high: 11.8% per month – and represent a quadrupling of initial grant over a period of less than 2 years
Lesson 3: Capital alone not enough when supply chains are disrupted

• Grants had much larger impacts in the retail sector than in the manufacturing and services sectors
  • In *retail* – grants led to rapid recovery of capital stocks, and large increases in profits with returns of almost 20% per month
  • In *manufacturing and services* – grant led to recovery in capital stock, but no increase in profits.

• Why?
  • Disruption in supply chains – e.g. firms which are suppliers for a larger manufacturer which is itself disrupted have to wait for it to recover
  • Disruption in trading relationships – e.g. firms who sell to a main buyer lose this customer who finds alternatives while waiting for them to recover
  • Tourism industry recovery takes time – e.g. service firms selling to tourists find demand takes longer to recover than retailers selling to local customers.
  • Retail recovery can benefit from cash aid to households: local demand for retail recovers as cash aid reaches households
Wage subsidy program in Mexico after 2008 Global Financial Crisis

• Firms in durable goods manufacturing industries eligible for receiving wage subsidies from January 2009 to August 2009
  • Conditional on not firing workers and agreeing to reduced work schedules instead
  • Funds were paid out starting in June 2009

• Bruhn (JDS, forthcoming) uses industry level social security data and propensity score matching to study effects on employment
Lesson: Subsidies speed up employment recovery

- Employment in eligible industries starts to recover once funds are being paid out
  - Effect seems to come from providing liquidity instead of firing restrictions
- Subsidies also went to large firms, but effects were greater in industries with smaller average firm size
Directed credit via private banks: Earmarked credit program in Brazil

• Program aims to increase credit for constrained firms, with a focus on investment loans

• Brazilian development bank (BNDES) funds commercial banks who select recipients of subsidized interest rate loans
  • Commercial banks carry the risk of loan default → incentives to select borrowers with less default risk

• Large expansion of the program in 2010 (in response to the Global Financial Crisis)
Lesson: Directed credit via private banks may not reach the smallest and most constrained firms

- Earmarked loans mostly go to larger, less credit constrained firms
  - *Haas, Pedraza, Ruiz-Ortega and Silva (2019); Bonomo, Brito, and Martins (2014)*

<table>
<thead>
<tr>
<th>Size</th>
<th>Share of earmarked credit before 2010</th>
<th>Share of earmarked credit after 2010</th>
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</thead>
<tbody>
<tr>
<td>Micro: &lt; 10 workers</td>
<td>4.7%</td>
<td>3.69%</td>
</tr>
<tr>
<td>Small: &gt;=10 and &lt; 50 workers</td>
<td>5.8%</td>
<td>7.69%</td>
</tr>
<tr>
<td>Medium: &gt;=50 and &lt; 500 workers</td>
<td>7.0%</td>
<td>12.37%</td>
</tr>
<tr>
<td>Large: &gt;=500 workers</td>
<td>9.1%</td>
<td>13.40%</td>
</tr>
</tbody>
</table>

Micro: < 10 workers  Small: >=10 and < 50 workers  Medium: >=50 and < 500 workers  Large: >=500 workers
Studies on registration of informal firms

- *Bruhn and McKenzie (WBRO, 2014)* summarize lessons from 10 studies in 6 countries
  - Bangladesh, Brazil, Colombia, Mexico, Peru, Sri Lanka

- Benin: *Benhassine, McKenzie, Poulquen, and Santini (JPubE, 2018)*

- Malawi: *Campos, Goldstein, and McKenzie (2018)*
Lesson: Do not make transfers to informal firms conditional on registering for taxes

- Some type of registry is necessary to identify informal business owners
- Firms are more likely to register when de-linked from tax obligations
- Most informal firms appear to not benefit on net from registering (when registration is linked to paying taxes)

Proportion of informal firms taking-up free cost registration in Malawi
Take-aways

• Cash grants and subsidies speed up firms’ recovery
• Directed credit may not reach the smallest firms
• Making transfers to informal firms conditional on tax registration may not benefit firms in the longer run and may limit take-up