The Macroeconomics of Microfinance

Francisco J. Buera, Joseph P. Kaboski, Yongseok Shin

Comments by Chris Udry
• 2 technologies (most of the lessons come via model with just one). Per-period fixed cost $\kappa$

$$\pi = pzk^\alpha l^\theta - Rk - wl - (1 + r)p\kappa$$

with $\alpha + \theta < 1$. Entrepreneurial talent, evolves over time in a gorgeous way.

• Imperfect financial markets. Defaulting entrepreneur keeps

$$c^d = (1 - \phi) \left[ pzk^\alpha l^\theta - wl + (1 - \delta)k \right]$$

gives

non-defaulting entrep keeps

$$c^p = \pi + (1 + r)a$$

and default iff

$$c^d \geq c^p$$
thus defining a credit limit (rental limit):

$$\bar{k}(a, z; \phi)$$

(slight mysteries..., but quite elegant and simple)

- First issue:

  $\bar{k}$ plays a driving role in the model.

  - Leads to lots of saving by high $z$ guys who want to set up a business,

  - can imagine neutral or even negative impact of $z$ on $\bar{k}$ depending on model of financial friction (e.g., the able guys manage to keep more. Or have better opportunities outside)

- 2-sectors differ by having different $\kappa$ and thus differing scale
• Microfinance

\[ k \leq \max(\bar{k}(a, z; \phi), k^{MF} - \rho\kappa) \]

• There is risk aversion; the source of risk is the evolution of \( z \).

• They set up the value functions for choosing to work or be an entrepreneur (in whatever sector in the 2 sector model)

• Equilibrium is very natural

• I won’t comment on the calibration. I’m sure that there is a lot to discuss here, but way outside my box!

• Let’s look at pictures:
1. Capital: High $z$ guys save a lot more than low $z$ guys

   (a) precautionary against the day their $z$ drops (note role of absent insurance markets)

   (b) financial constraints give them high demand for $a$ as collateral

   (c) income share shifts to lower $z$ guys with MF

2. This is the main negative force associated with MF; the link between savings and capital. What if $a$ is internationally-mobile (tying down $r$)?
3. TFP:

(a) first order thing: closer to efficient allocation of $k$ across enterprises

(b) with large enough $k^{MF}$, start drawing low $z$ guys into enterprises
Two Sectors

Best GE effect: large scale, low $k^{MF}$

- MF leads to entry into $S$ so $p^M$ increases. High $z$, low $\alpha$ types accumulate wealth faster, lowering dispersion in productivity of $k$ in $M$. Also, marginal $z$ guys find $S$ better than $M$, so $z$-efficiency of $M$ increases.
Extensions: sector-specific $\phi^M > \phi^S$; what happens if $z$ influences labor productivity?