

The Macroeconomics of Microfinance

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- 2 technologies (most of the lessons come via model with just one). Per-period fixed cost κ

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

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

- Imperfect financial markets. Defaulting entrepreneur keeps

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



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.

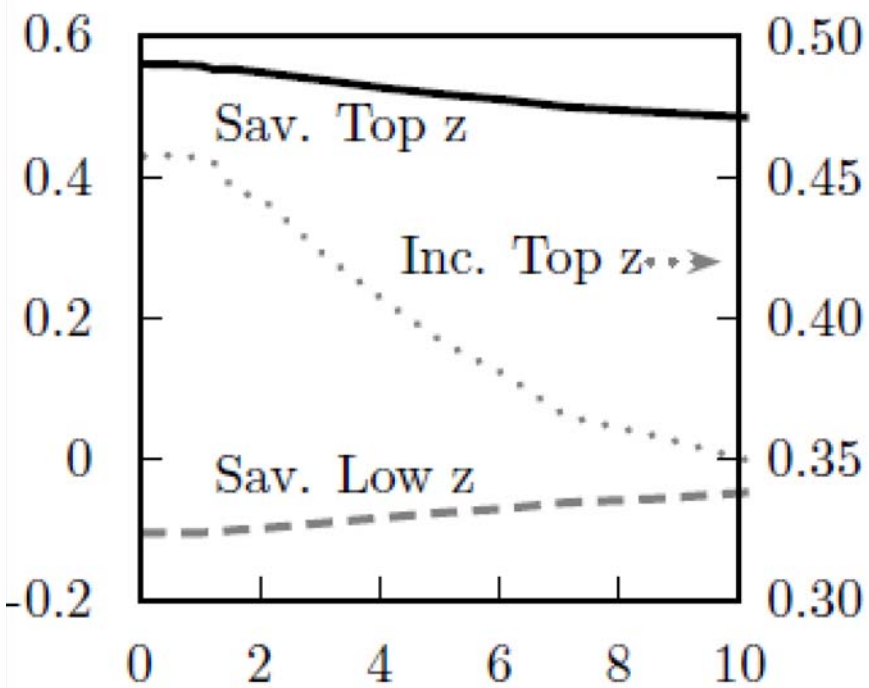
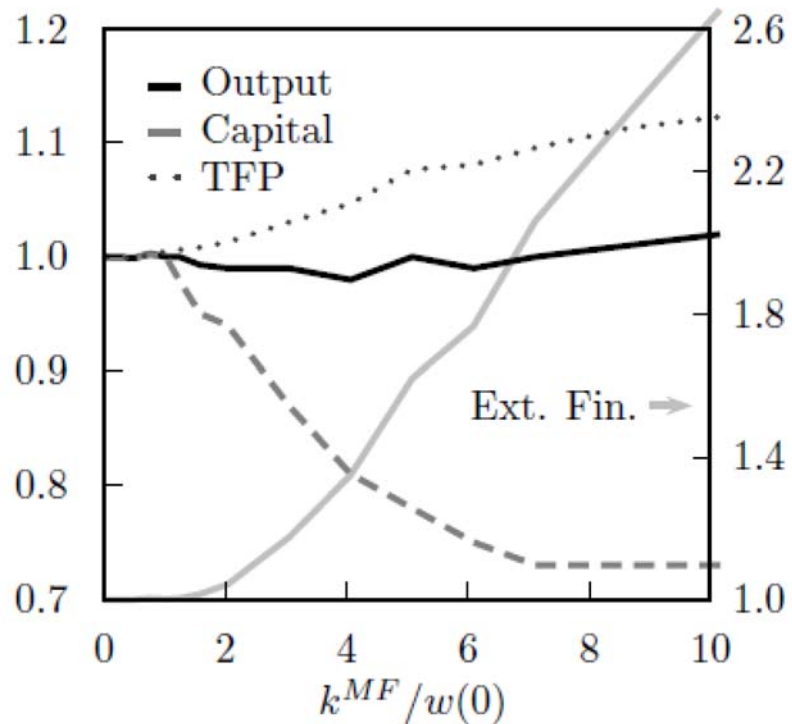
- Leads to lots of saving by high z guys who want to set up a business,
- can imagine neutral or even negative impact of z on \bar{k} depending on model of financial friction (e.g., the able guys manage to keep more. Or have better opportunities outside)

- 2-sectors differ by having different κ and thus differing scale

- Microfinance

$$k \leq \max(\bar{k}(a, z; \phi), k^{MF} - p\kappa)$$

- 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:

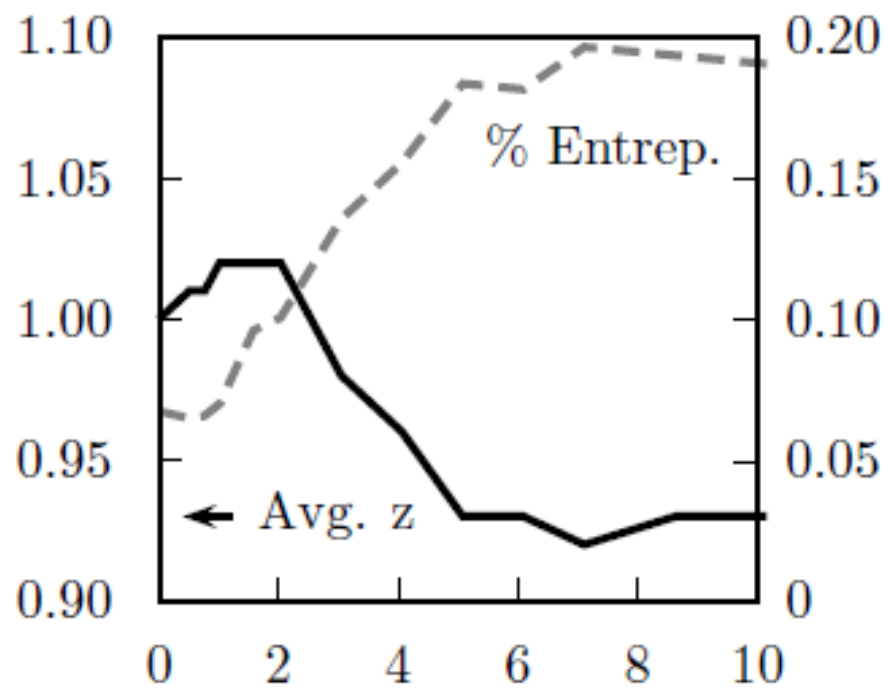


1. Capital: High z guys save a lot more than low z guys
 - (a) precautionary against the day their z drops (note role of absent insurance markets)
 - (b) financial constraints give them high demand for a as collateral
 - (c) income share shifts to lower z guys with MF

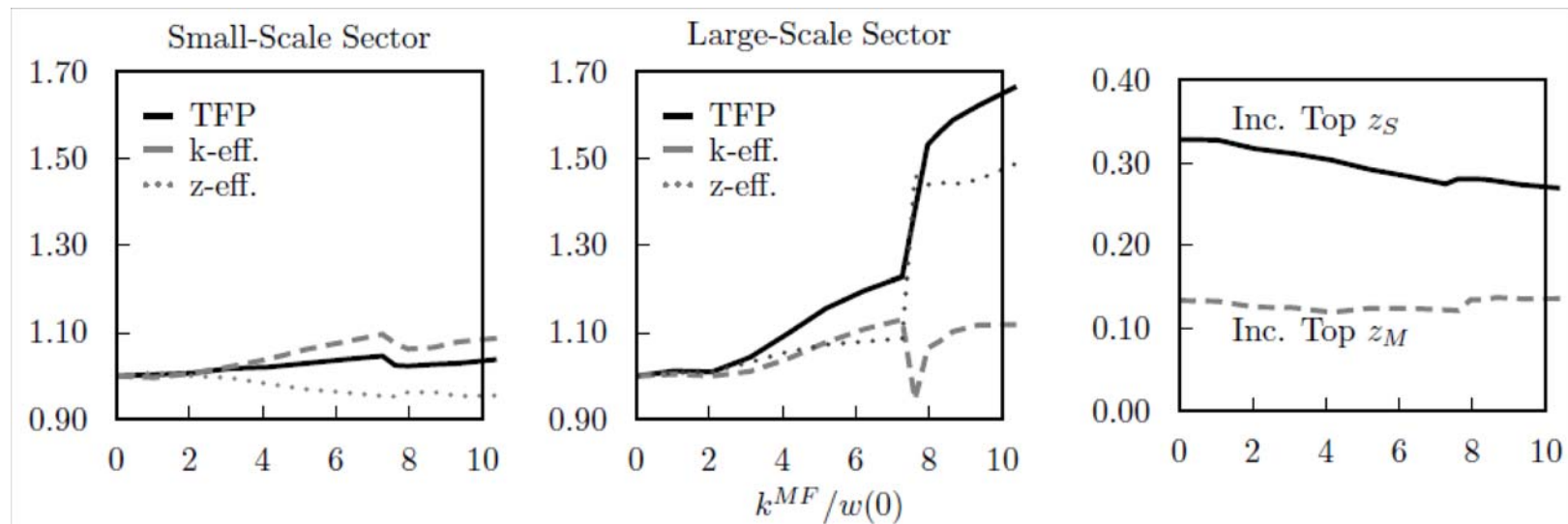
2. This is the main negative force associated with MF; the link between savings and capital. What if a is internationally-mobile (tying down r)?

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 a 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?