#### The Macroeconomics of Microfinance

Discussion by

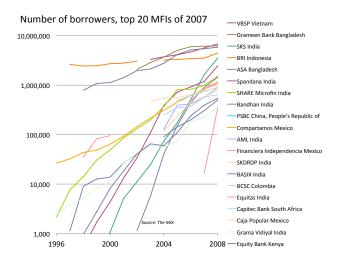
Lukasz A. Drozd

The Wharton School of the University of Pennsylvania

Sep 19th, 2014

#### Two Facts About Microfinance

• Microfinance recently turned to "macro-" finance



#### Two Facts About Microfinance

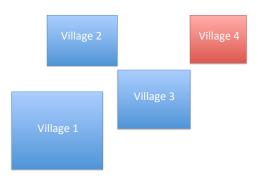
• What we know about its effects is (mostly) based on microeconometrics

## Point They Make

 Microevaluations miss out on potentially important GE effects of microfinance

## Point They Make

 Microevaluations miss out on potentially important GE effects of microfinance



## Point They Make

- Microevaluations miss out on potentially important GE effects of microfinance
  - o "shock" is small in size, geographic scope and has low persistence...
    - GE effect through prices miniscule
    - factor flows (bw locations) neutralize GE effects
    - time horizon too short for all adjustments to take place

## Methodology

• Build structural "schumpetarian model" linking macro and finance

"Banker (finance) stands between those who wish to form new combinations (entrepreneurs) and the possessors of productive means (wealth holders). He is essentially a phenomenon of development, (...) he makes possible the carrying out of new combinations (...)", Schumpeter (1934)

# Methodology

- Key features of the model:
  - 1. People have ideas (z) and choose occupation:
    - $\circ$  as entrepreneurs form 'combinations':  $zk^{\alpha}l^{\theta}$
    - o as workers supply 1 unit of labor
  - 2. Financing is limited by enforcement constraint

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

# Methodology

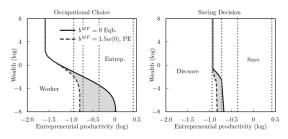
- Key features of the model:
  - 1. People have ideas (z) and choose occupation:
    - $\circ$  as entrepreneurs form 'combinations':  $zk^{\alpha}l^{\theta}$
    - o as workers supply 1 unit of labor
  - 2. Financing is limited by enforcement constraint

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

⇒ Microfinance is an innovation to "enforcement"

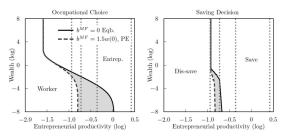
$$k \le \max\{a + \bar{b}(z, a; \phi), a + b^{MF}\}$$

#### Mechanism



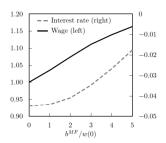
- Two key effects:
  - 1. MF adds 'combinations' = reduces 'conjestion of inputs'
    - job creation (higher wages), mixed effect on productivity
  - 2. MF lowers savings & agg. capital (two channels)

#### Mechanism



- Two key effects:
  - 1. MF adds 'combinations' = reduces 'conjection of inputs'
    - job creation (higher wages), mixed effect on productivity
  - 2. MF lowers savings & agg. capital (two channels)
  - ⇒ Partial equilibrium effects very different from GE

#### Mechanism



- Two key effects:
  - 1. MF adds 'combinations' = reduces 'conjestion of inputs'
    - job creation (higher wages), mixed effect on productivity
  - 2. MF lowers savings & agg. capital (two channels)
  - ⇒ Partial equilibrium effects very different from GE

# Comments/Issues

#### 1. Lack of Entrepreneurial Risk

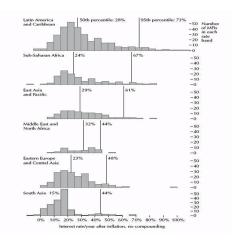
- Agree w/ authors microfinance is innovation of enforcement
- But data suggests it might be actually 'overly rigid'
  - $\circ \ \ \mathsf{default} \ \mathsf{rate} << 5\%$
  - o anecdotal evidence: seems people do all they can to repay

#### 1. Lack of Entrepreneurial Risk

- Agree w/ authors microfinance is innovation of enforcement
- But data suggests it might be actually 'overly rigid'
  - $\circ$  default rate <<5%
  - o anecdotal evidence: seems people do all they can to repay
- In broader context the lack of flexibility is relevant
  - $\circ$  imagine entrepreneurs do NOT know z, and risk is an issue

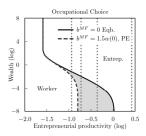
## 2. Possibly Nonlinear Pricing of Loans?

Despite low defaults sth still makes these loans costly



## 2. Possibly Nonlinear Pricing of Loans?

- Despite low defaults sth still makes these loans costly
  - o suggests nonlinear pricing may be at play when MF kicks in
  - $\circ$  possible that the middle region is different in other ways (not just low z)



## 3. Why Loan Exclusivity/Crowding Out

• Note that credit markets internalize 'incentive externality'

$$k \le \max\{a + \bar{b}(z, a; \phi), a + b^{MF}\}$$

## 3. Why Loan Exclusivity/Crowding Out

• Note that credit markets internalize 'incentive externality'

$$k \le \max\{a + \bar{b}(z, a; \phi), a + b^{MF}\}\$$

• Not clear the constraint should not be different:

$$k \le a + \bar{b}(z, a; \phi) + b^{MF}(z, a; \text{other eligibility crit.})$$

#### 4. "Macro-" finance in Broader Context

- In this theory " $\phi$ " is exogenous: Implies India is poor forever!
  - Newly developed class of development theories sees "\( \phi' \) as endogenously determined through investment in enforcement infrastructure (e.g. Besley Persson (2009) and Drozd and Serrano-Padial (2014))
  - Accords well with recent survey evidence: Bloom et al. point out that contract enforcement is key impediment to growth
- Suggests in broader context additional mechanisms may be at play:
  - Story: "Macro-"finance inject exogenous enforcement, generates more tax revenue, spurs investment in legal infrastucture, spurs growth

# Drozd and Serrano-Padial (2014)

- ullet CSV theory featuring ex ante accumulation of "verification capacity" X
  - o constraint implies limited commitment to verfication strategy

$$P = \frac{X}{1 - \Psi}$$

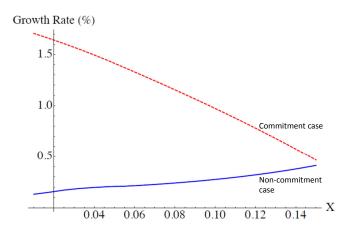
# Drozd and Serrano-Padial (2014)

- ullet CSV theory featuring ex ante accumulation of "verification capacity" X
  - o constraint implies limited commitment to verfication strategy

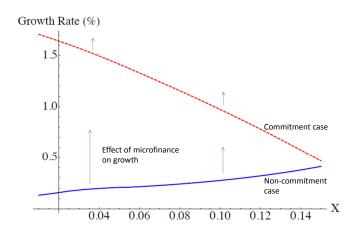
$$P = \frac{X}{1 - \Psi}$$

- Theory allows to study generalized BP model:
  - o principal raises taxes to provide public good and invest in X
  - o implications for rate of growth studied
  - o committment / non-commitment case compared

## Effect of "Macro-" finace on Growth



#### Effect of "Macro-" finace on Growth



# THANK YOU!