Savings, Subsidies, and Sustainable Food Security

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Basis Technical Meeting

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Research Questions

1. **Matched Savings: Impact on Savings, Investment, Assets**
   - Comparison to a "basic saving" (++)
   - Channels:
     - Learning
     - Conditional Cash Transfer
     - Filtering

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2. **Complementarities with Fertilizer Voucher?**
   - Does savings program allow farmers to extend short-term gains from subsidy to the post-subsidy period?
   - Results: negative complementarities

Behavioral Poverty Traps

Dynamic model: discrete Investment + saving constraints

- Fixed cost of fertilizer (?)
  - Evidence in the data?
  - Cost-sharing?
- Discreteness in technology generates poverty traps *for a subset of farmers* (ability, impatience)

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Matched Savings

- Change in equilibrium for some of the farmers in a poverty trap case
- Learning if prior belief on saving account benefits lower than real one.
  - Evidence (anecdotal, data) about this underestimation?

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Empirics

- Baseline data on farmer characteristics
- Dynamics by "type" (3 follow-up surveys)

Negative Complementarities

Interaction VT$\times$MST $< 0^{**}$

- VT+MST not statistically different from control
- Across outcomes: savings, fertilizer, maize production, assets, daily consumption
    - Also on extensive margin (i.e. open account?)

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Non-convexities in aid provision?

- Too much aid is bad? Discourages effort?

Explanation 1: Lumpy Non-Ag I

Farmers who receive MS+V have enough to make non-agricultural investment (house, children, education, traveling, migration)

- MS ad VT along are not enough for these alternative investments
- Fertilizer as "inferior good"

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Testing:

- Comprehensive listing of other assets (including schooling etc...)
- Interaction with involvement in non agricultural activities
- Large one-time depletion in bank administrative data

Explanation 2: Social Pressure

Social Pressure kicks-in only if two aids

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Testing

- Data on transfers and networks?
- Heterogeneity by network intensity?

Explanation 3: Expected Income Targeting + Naiveté

Farmers who receive MS+V achieve their income target, reduce effort, and underestimate "depletion"

- Farmers only exert effort when "expected wealth" at harvest$< \hat{w}$
- MS+V: threshold achieved (in expectation) immediately
- But then "saving constraints" kick-in

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Testing:

- Heterogeneity by "naivet'e" (hyperbolic discounting, procrastination in tasks)
- Eliciting income targeting experimentally (Dupas and Robinson, 2013)?

"Explanation" 4: Balancing

Large point-estimate differences in X_0 MS+V vs. MS

- Maize fertilizer (50%); formal savings (78%)
- Non-significant (huge s.d.)
- Large impact on durables 2 months after MS starts

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Checks

- Show baseline with same form (inverse hyperbolic sine transformation)
- Sensitivity of results to controls

Extra Notes

- 187 or 94 localities?
- ITT impact of MS is very large (given that take-up rate is only 20%)
- p15 "In the treatment groups a large proportion of beneficiaries attended the training": isn't this potentially problematic? More details? Could this explain large ITT results?
- More background on other banks in the area
- More details on "assets"
- Does "total savings" include the matches paid by the bank? (I guess it should not include them)
- "Baseline" survey after voucher randomization?