Index insurance for agriculture in Ethiopia

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Insurance for the Rural Poor

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Agricultural risk, household coping strategies and the potential of formal insurance products and indexed insurance in rural areas of a developing country

Motivation

- Selling insurance?
- Convincing that there is a market out there
- Untapped but worth developing

Plenty of risk….

Households reporting a particular event or shock affecting their wealth or standard of living considerably in last four years, Ethiopia 2006

(Young lives data)

Plenty of uninsured risk…

	Urban	Rural
Any shock?	**67**	**86**
Illness in family	22	31
Price shocks	21	38
Job loss	18	6
Death in family	15	14
Theft/crime	13	14
Livestock death	6	36
Land eviction	6	3
Crop pests	6	40
Drought	5	44
Rain/flood	3	22
Frost	1	12

Most rural societies – risk is part of life

- Adjust their livelihoods (risk ~~~~~~~~~~~)
  - Avoid costly inputs, go for safe activities etc

- Are cautiou~~~~~ ~~~ of investments and assets (risk coping,
  - Keep liquid assets, small stock, grain etc

- Support each other in communities
  - Informally ~~~~~~~
  - Use equbs, churches
  - More formally via *iddirs*

LESS RISK BUT ALSO LOWER RETURN

LOWER RETURN ON SAVINGS

SMALL RISK POOL SO COSTLY

Why not go out and just sell?

- Trust: they part with their money
- Understanding: they don't understand insurance?
- Data: actuarial data, models
- Profits and Costs: selling, verification, payouts

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What rural markets?

- Health
- Life
- Livestock
- Crops and Climate
- (Price)

Understanding Niche

When can formal insurance be profitable?

- When formal insurance has comparative advantage over other protection
  - The CCC: Covariate, Correlated, Catastrophic
  (may compete with Government Social Protection)
- Defined "platforms" for delivery (to reduce cost)
- Low cost verification and other data problems

Platforms for delivery?

- MFIs: 2 million rural customers, mostly in group lending schemes, probably insured in one way or another
- Cooperatives: input supply delivery system
- Iddir: 90% of Ethiopian population in insurance groups
  - And do more: Property (40%), illness (30%), fire (28%), death of cattle (24%), harvest (14%)

… They can be agents or simply insured party

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Health in rural areas?

- Hospital costs often 'catastrophic'
- Most schemes in the world appear health financing rather than health insurance schemes
- Scope for iddir-based delivery
- Evidence:
  – Often big stimulus required from 'social insurance broadening' in rural settings
  – Then use this as platform
    - Ghana
    - India

Rural Life

- Pretty catastrophic, not covariate
- Data issues less problematic (actuarial models and verification)
- In many other countries, basis for broadening:
  - E.g. Market for formal insurance in South Africa
- MFI platform (credit life but also more)
- Iddir platform!

Agriculture?

- Typical advice: stay away from it, unless government guaranteed
- Problems:
  - All CCC = so niche
  - But costly verification of harvest losses or animal deaths
    - Heterogeneity
    - Costly monitoring
    - Lots of small farmers so high transaction costs
- Cenfri report: "at least 2 ha land and/or 10 cattle"

Problem 1: Data

- Harvest….
- However: key source of loss = climatic
  - Design products linked to index that can be 'cheaply' monitored
  - If index below or above threshold, pay
  - Can be in small tranches, linked to one peril or more, with multiple thresholds
  - Still data problem – but more scope to overcome (weather data, satellite data, area-yield index, etc.)
  - NOTE: basis risk is problem (is this the loss?)

Problem 1: Data

- Increasingly experience with index based products
  - From the US, to Mongolia to India
  - and to Ethiopia
- Underwritten by international insurance companies

Problem 2: Platform

- Cooperatives or MFIs

  - link it to input supply, e.g. loans for inputs

  - but payout based on index not loss

- Iddirs!

  – Understand insurance, and have been broadening insurance for many other risks

- Using them as agents or as insured party

Conclusion

- Clear niche for insurance for the rural poor
- Including for crops and livestock
- Plausible model is partnership with institutions with spread in rural areas
  - MFI/Cooperatives
  - Iddirs