Pricing in Microinsurance Markets

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Outline

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• Motivation and Objective

• Approaches to Pricing Risks in Microinsurance Markets

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Introduction

Microinsurance: • Similar to insurance in developed insurance markets
  • Fundamental distinction is the protection of *low-income people*
    • Small insured sums
    • Small premiums
    • Different environment (e.g. infrastructure)

Markets: • Microinsurance markets primarily in Asia, Africa, Latin America
  • High growth rates in recent years but still low market coverage
Motivation and Objective

Motivation:

- Data restrictions challenge pricing of risks with microinsurance
- Premium estimates biased in some unknown way
- Two pricing schemes prevail
  - High risk loading due to uncertainty
  - Adaption to willingness to pay

Necessity of improving precision in premium estimation

Objective:

- Investigation of potential approaches for more accurate microinsurance pricing
Approaches to Pricing Risks in Microinsurance Markets
Approaches to Pricing Risks in Microinsurance Markets

- **Survey techniques**
  - Experts, household and provider surveys

- **Information technology**
  - Advances in IT increases the available data (e.g. weather data)

- **Cooperative data pools**
  - Aggregating existing data and making it publicly available
Approaches to Pricing Risks in Microinsurance Markets

- **Bayesian methodologies** – credibility models
  - Adjusting estimates over time – experience rating
  - Incorporation of multiple sources of information

- **Bootstrap methodologies**
  - More robust estimation of risk-loadings from small samples

- **Transition approaches**
  - Utilization of data from other regions
  - Adaption based on a set of parameters (e.g. mortality tables)
  - Facilitators: meso-level institutions (e.g. United Nations, actuarial associations)
Approaches to Pricing Risks in Microinsurance Markets

- **Risk capital**
  - Higher initial equity capital decreases risk-loadings (see Bühlmann, 1985)
  - Approach for supporting start-up and small microinsurers

- **Adapting products**
  - Structuring products as simple as possible
  - Limit risk exposure – amount insured, period of coverage, perils covered
  - Index insurance
Implications and Future Research

• **Implications:**
  (1) Data restrictions limit precise pricing with microinsurance
  (2) Increased pricing precision necessary for sustainable market development
  (3) Approaches exist that may alleviate data restrictions

• **Future Research:**
  (1) Empirical testing of approaches in real-world settings
  (2) Consideration of behavioral approaches
Thank you for your attention!
Selected References
