



Microinsurance - Applications and Innovations

CAS In Focus Seminar
October 2, 2017

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Microinsurance

Created to help low-income and underserved populations.

Defining characteristics

- affordable premiums
- easy to understand policy terms
- simple and fast claims processing
- innovative and accessible distribution channels
- follows generally accepted insurance principles



Potential Demand

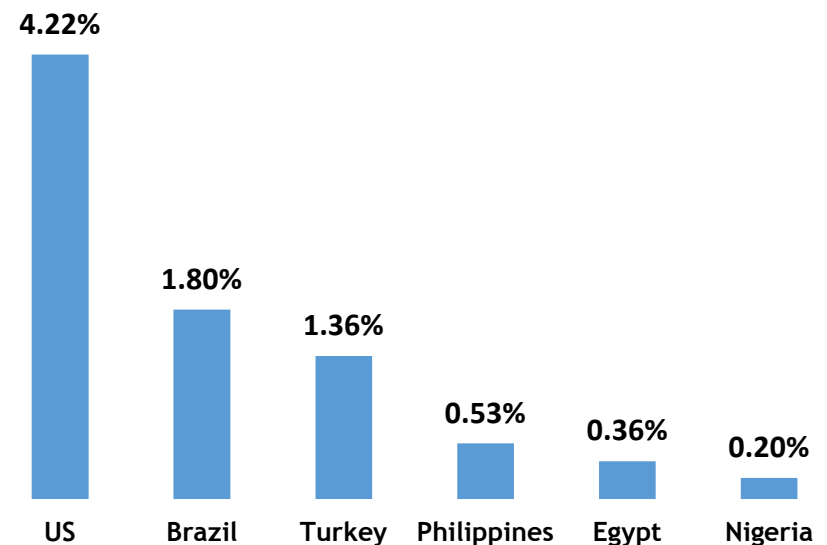
~ 4 billion at base of pyramid
with over 1 billion living on
less than \$2 a day

The mobile phenomenon

- 557m (46%) unique subscribers in Africa as of 2015, projected to grow to 725m (54%) by 2020. Nigeria added 3 million subscriptions in Q1 2017 alone, India added 43 million.
- Philippines has 50.9m (50%) unique subscribers, annual growth at about 5%, 3 in 10 covered by microinsurance.

Source: GSMA Intelligence,
Swiss Re sigma No 3/2016
Philippines Insurance Commissioner
Pew Research Center

Insurance Penetration - Non-life
premium as % of GDP



Developing Markets Examples

Agriculture/Crop Insurance for Farmers

- Agriculture typically largest economic sector
- Typically insure against weather-related perils and market risks
- Relies on parametric triggers
 - Payouts can be automatically triggered and computed when threshold is reached, using measurements (such as temperature or rainfall) taken by nearby weather stations
- Technology Enabled
 - Payment distributed through mobile phones
- Benefits
 - Income protection, prevent sale of assets when times are bad, capacity to invest in more lucrative farming activities



Mature Markets Examples

Mature markets have adopted many lessons learned from microinsurance in development markets

- Small sums insurance
- Simple product design
- Easy to access distribution channels



Mature Markets - InsurTech

Many InsurTech startups today share similar characteristics with microinsurers. Both are created for underserved demands, but InsurTechs more often operate in mature insurance markets in order to meet the unique and different challenges there.

New Contract Types

- Swipe On and Off, Drones

New Industries

- On-Demand Economy, New Exposure Base

Blockchain and Artificial Intelligence as Enablers

- Index-triggered/Smart Contracts

Millennials



Creating a Microinsurance Product

- Who is the insured?
- What events/risks should be insured?
- How to pay claims?
- How to distribute the product?
- How to price the product?
- What is the profit from microinsurance?



Challenges

- Lack of awareness and client education
 - Distribution channels, cost effective products
 - Lack of talent capacity
 - Country specific regulatory/political environments
 - Lack of reliable data, cat risks
-
- Microinsurance programs have fallen short of market expectations for a number of reasons:
 - Unrealistic expectations
 - Multiple masters
 - Competing priorities



Principal Challenge: Distribution

- Common Delivery Channels
 - Financial Institutions or NGOs
 - Community Based Organizations
 - Retailers
 - Mobile
 - Employers
- Distribution insights from mature markets may not be transferrable to the microinsurance market
- Specific challenges for microinsurance market:
 - Scarcity of disposable income
 - Lack of financial education
 - Lack of data



Distribution: Effective Partnerships

- In a partnership formed to deliver microinsurance, each partner must increase the program's value
- Four basic critical success factors:
 - Clear and consistent understanding of the business problem among all partners
 - Alignment of interest
 - Trust and long-term commitment
 - Product that provides value to the target market
- Partners need to share in the venture rather than advance their own interests



How can actuaries help?

- Rate-Making
- Product Design
- Reserving and Risk Management

Key Differences Between Microinsurance and Traditional Actuarial Role

- Start-up mentality
- Greater opportunity for collaboration
- Opportunity to play multiple roles
- Difficulty in obtaining historical data
- Credibility of historical data



Measuring Success – Profit and Social Impact

- Value - KPIs such as incurred claims ratio
- Viability - pricing as if at intended scale, social investment ratio
- Scale - Covariance, percent population exposed, growth ratio
- Efficiency - incurred expense ratio, leveraging partnerships and bundling
- Relevance - alignment of coverage and community needs, poverty/rural outreach ratio
- Indemnification - basis risk, new data sources, multi-scale indices
- Quality of Life - difficult to quantify, transparent sales ratio, utilization of value-added services
- Implications for Actuaries



Thank You
Questions?

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