Tailoring Financial Advice and Sales Agent Incentives to Enhance Consumer Welfare?

Chris Barrett, Tagel Gebrehiwot Gidey, Glenn Harrison, Nathaniel Jensen, Karlijn Morsink, Hyuk Harry Son, and J. Todd Swarthout

February 27, 2024

Can we tailor advice and incentives to enhance welfare?

Are consumers able to choose financial products that enhance their welfare?

- Rapid expansion of access to finance
- Low levels of financial literacy of consumers
- Increasing complexity of financial products

Evidence shows that consumers often choose suboptimal products

- Sydnor (2010), Abaluck and Gruber (2011), Handel (2013) and Bhargava et al. (2017)

Behavioural interventions may improve targeted behaviour Coffman et al. (2017), Byrne et al. (2018), Brandon et al. (2019), Allcott and Knittel (2019)..

- ...but may not increase consumer welfare Ambuehl et al. (2022), Harrison, Morsink, & Schneider (2022)?

To what extent can tailored advice and welfare-incentives for agents improve consumer welfare?

Consumer Welfare from Index-Based Livestock Insurance (IBLI)?

Product

- Satellite-based index of relative forage scarcity (NDVI) that is designed to protect loss of durable assets.
- Despite the fact that the product is designed to minimize basis risk, basis risk is still substantial (Chantarat et al., Harrison et al. 2022).
- **Consumer welfare from IBLI is in expectation heterogeneous** and depends on a combination of herder characteristics and product attributes (Clarke 2016, Jensen et al. 2016).

Impact on observables

- Several studies find **positive short-run and long-run impacts of IBLI on household outcomes** (e.g., Jensen et al., 2017, Matsuda et al., 2019, Tafere et al., 2019, Barrett et al 2024).
- Substantial **disadoption** and **low understanding** of the product are observed.

Research Questions

1. To what extent does the provision of **tailored advice** to pastoralists about expected consumer welfare from purchasing **or not purchasing** insurance generate welfare gains?

2. To what extent do **incentives for insurance agents** need to be aligned with tailored welfare advice to generate welfare gains (Solomon S. Huebner in Stone (1960))?

What we do

Experimental Design

- A cluster-randomized controlled trial with 2,416 pastoralists in 240 zones in Borena, Ethiopia
- The zones are randomly assigned into three treatment groups:
  - T1: No tailored advice for pastoralists + Sales incentive for agents (Status quo)
  - T2: Tailored advice for pastoralists + Sales incentive for agents
  - T3: Tailored advice for pastoralists + Welfare incentive for agents

Data

- Administrative data from insurance company
  - Individual level insurance sales
  - Insurance agent incentives
- Surveys: baseline, midline 1, midline 2, endline
  - Herder & insurance agent survey
- Lab-in-the-field experiments to elicit risk preferences and subjective beliefs

Study Setting

Intervention: Tailored advice

- The tailored advice is calculated based on an Expected Utility Theory (EUT) model of expected consumer surplus (ECS) using:
  - Individually elicited risk preferences
  - Real-time herd size
  - Real-time subjective expectations about losses, weather shocks, and basis risk

- Calculate the ECS from purchasing IBLI for each potential share of herd size in real time

- And we select the share which generates the highest ECS
  - Share$= 0$: we advise the herder not to purchase insurance
  - Share> 0: we advise the herder to purchase insurance.
  - No significant difference: we inform the herder that our advise is inconclusive.

Intervention: Insurance agent incentive

- Standard sales incentive (status quo):
    - Commission of 8% of the total insurance premium sales
    - Bonus increasing in size conditional on the total insurance premium sales (capped at $33).

- Welfare incentive:
    - Designed to maximize incentives for the VIP if the herder adheres to the tailored advice
    - And to decrease the VIP incentive gradually as the herder's purchase decision differs from the tailored advice
    - The average expected incentive per pastoralist in each zone was designed to be similar in all zones
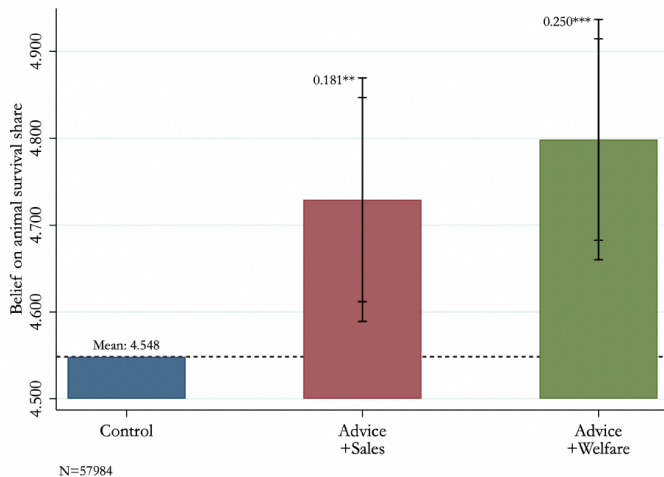
Did herder purchase IBLI or not?
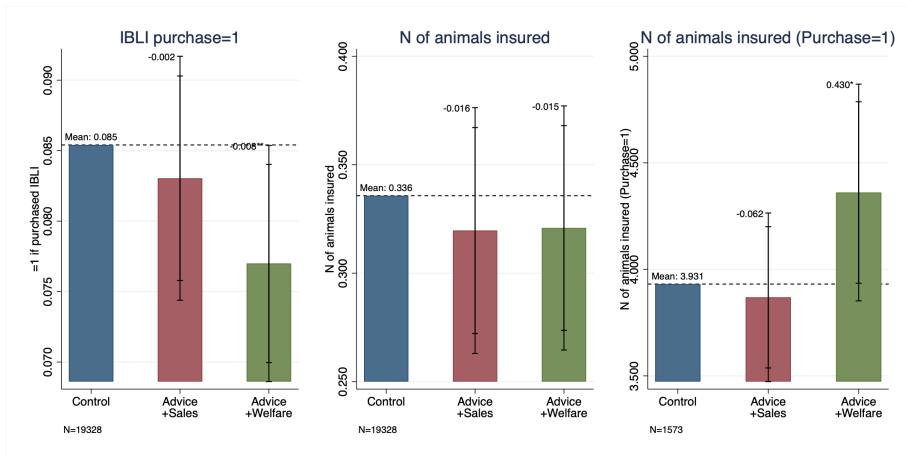
Did a herder follow the advice?
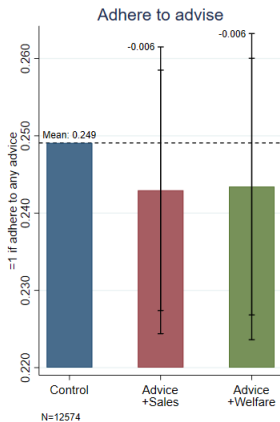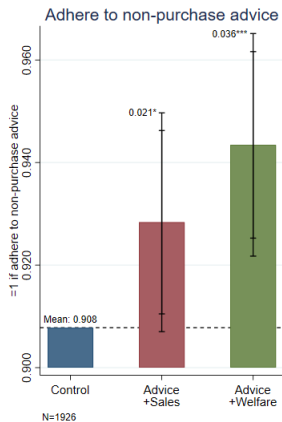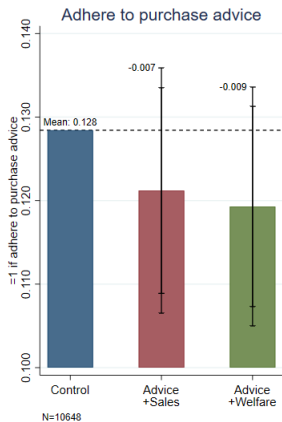
Herders updated beliefs about their own livestock's survival

N=57984

Herders reduced their trust in insurance agents