

# More (Risky) Innovation More (Coordinated) Evidence = More Impact

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Why care?

- We care about access to finance for its own sake!

**No!**

- Because inflows and outflows do not “naturally” line up
  - Over time:  
Seasonal variation, lifecycle, within month, durable goods
  - Over risk:  
Income shocks, consumption shocks
- And then that causes
  - Volatile consumption, lower investment than optimal, and onward...

## Why is it hard to know what to do?

- Knowing what to measure
  - Like pouring water on a table
  - Hard to know which way it will flow
- Showing causation, not correlation
  - Microcredit perfect example of conundrum



## Some Good, Some “Areas for Improvement”

- What is right with financial inclusion?
  - Innovation on costs (specifically transaction costs)
  - Platforms, integration with policy (payments linked), network/market externalities
- What is wrong with financial inclusion?
  - Innovation on “human” design:
    - Credit: [Matching cash flows](#); Psychometrics & much bigger loans
      - Why are these hard to do? Investors/donors? “Ideal” client is afraid of default!
    - [Savings design](#)
      - Consumer protection gaps and risks (zero transaction costs: awesome & scary!)
- What is right with us academics?
  - Thousand flowers bloom
    - Theory-led innovation, market-level, savings/credit/insurance, AI/ML, etc
- What is wrong with us?
  - Thousand flowers bloom!
    - Measurement, [replication](#), fixed costs of research
    - Timing problem: why one year?

## To-Do's for our Space

- Investors/Donors/Doers
  - What does “double bottom line” really mean here?
    - More product design, human-centered, that TAKES ON RISK
    - Do not lose focus on the poorest. Look at America.
    - Share results, good and bad, independently validated
- Researchers
  - More coordination on methods, on measurement in particular
  - More coordination on common platforms
  - More sharing of data
  - More meta-analysis
  - More short-run and long-run (relative to status quo of tons of middle-run)

Thank you!

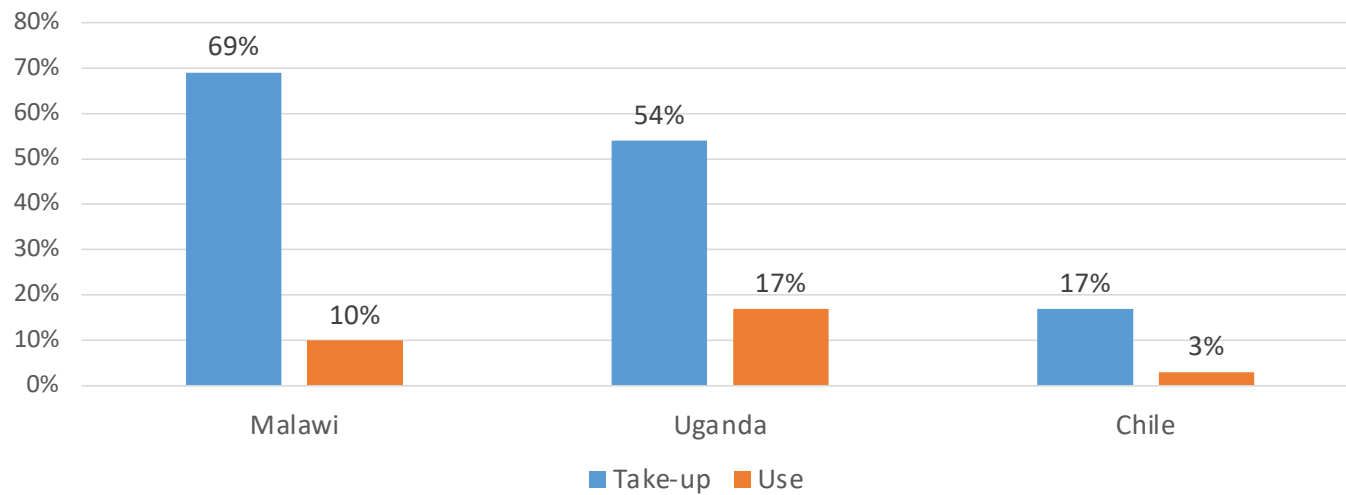
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Does access to savings products → use?

- Take-up of savings products is relatively high
  - Around 60-100% in J-PAL affiliates' studies
  - Demonstrates demand for a secure place to save
- But 50% of accountholders: no deposits in past 12 months (Findex 2015)

Ashraf et al., 2010 (Philippines); Beaman et al., 2014 (Mali); Brune et al., 2015 (Malawi); Dupas and Robinson, 2013 (Kenya); Karlan et al., 2014 (overview); Karlan and Linden, 2014 (Uganda); Kast and Pomeranz, 2014 (Chile); Prina, 2015 (Nepal)

In a three-country study:  
Opened free savings accounts → But did NOT use them





# What are some reasons people may not save?

- First shall we ask what is “enough”?
  - High transaction costs
  - Behavioral constraints
    - Inattention
    - Time inconsistency
    - Over optimism
  - Social demands
  - Lack of trust and regulatory barriers
  - Information and knowledge gaps
- 
- BUT: biggest issue isn’t “validating” any one of these
  - They are ALL undoubtedly right, somewhere, for some people, at some point in time....
  - How do you design policy around this? How do you target, deliver, etc?



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# Motivation for Flexible Lending

- In “real-world” high-end finance: match cash flows
- Microcredit, traditionally:
  - Limited (but positive) impact on average
  - Fixed repayment starting right after disbursement
  - Borrowers adjust by (assuming credit constrained):
    - Holding back cash
    - Not making highest risk-adjusted return investment
- Specific questions:
  - Will it affect **who** borrows? (levels, observables, unobservables ie risk)
  - Will it increase risk for the bank?
  - How will it impact businesses (investments, activities, and profits)?
  - Do customers value the flexibility?
  - Does mental health & stress improve?

## Types of flexibility

	Type of targeted liquidity needs	
	<u>planned</u>	<u>unplanned</u>
Longer repayment intervals	x	x
Grace period at start of loan (only)	x	
Skip installment and extend loan	x	x
Skip installment and pay within original duration	x	x
Repayment schedule tailored to income process <i>ex-ante</i>	x	

Note: variation w/r/t pass or grace period on entire installment or principal only.  
(Behavioral argument that principal-only payments likely better.)

# Give Me a Pass

- Joint with Lasse Brune and Xavi Gine
- Pass for bad month (and then extend maturity date)
- No selection effects (separately randomized selection/contract)
- No change in profits
- Investment slightly shifted (interpretation?)
- Positive feedback! Stress aggregate null, some components improved
- Delinquency went up, after original loan term

# Measurement / Expectations

- Beliefs on investments key, not well known
- High risk high return?
  - We do not know the reality
  - We do not know what people think is reality
  - Both are key
- Sometimes investments are risk-reducing!
- Huge issue also for the social protection “Graduation” space
  - How do low-income households choose new livelihoods?

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# Big Loans to Small Businesses

Bryan, Karlan & Osman, *AER*

- 4x loans vs 2x, no default (Egypt)
- Average effects mildly positive
- Masked huge heterogeneity driven by over-optimism from battery of psychometric questions
- Main takeaway:
  - Yes, exciting result
  - Dire need of replication, for both validation & learning

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# Messages to Encourage Savings

- Karlan, McConnell, Mullainathan & Zinman, *Management Science*
- 3 Countries: Peru, Bolivia, and Philippines
  - Decently large average effect
- More unanswered than answered questions
  - No long term tracked
  - Limited within-study variation
  - Replication
  - Next?
    - Go global (much more “n”, a bit more “x”)
    - Go granular (much more precise “x”)
    - Much akin to Catch-22 of biz training (Fischer & Karlan, 2015 *AEA P&P*)

# Go Global

- 9 replications/extensions

During treatment: 17.5M observations

After treatment: 16.8M observations

1.8M unique individuals



**Messaging Replication**  
Design Summaries by Site

**Dominican Republic      Ghana      Colombia Study 1      Mexico      Mexico Study 2      Mexico Study 3      Colombia Study**

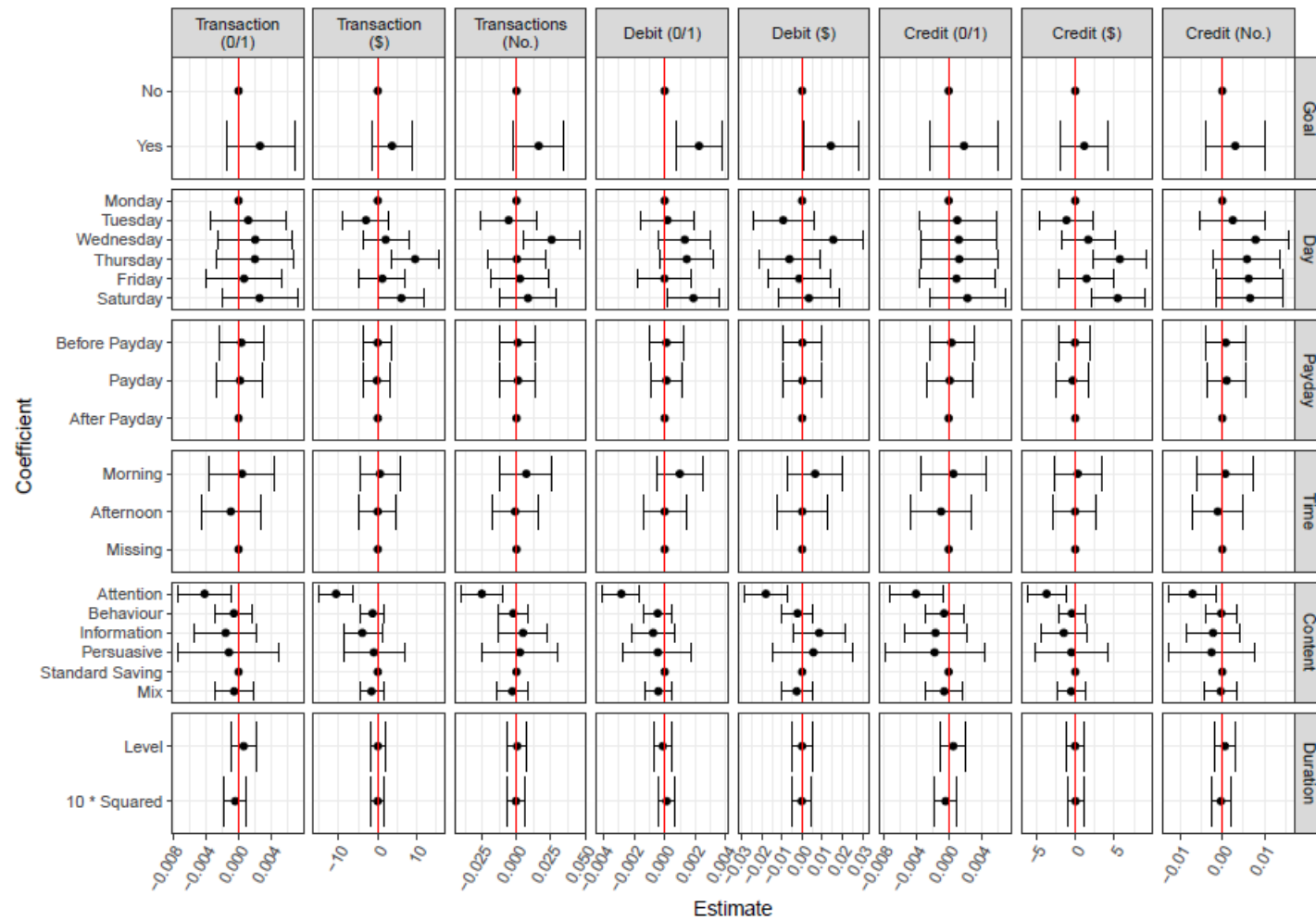
**Treatments: Content**

Simple Reminder to Save		X	X	X	X	X	X
Attention: Gains from Saving							
Attention: Make a Deposit							
Attention: Reduce Current Expenses							
Attention: Planned Future Expenses							
Attention: Unplanned Future Expenses							
Attention: Reminder of Financial Literacy Training							
Attention: Savings Goal	X	X	X	X	X	X	
Information: Financial Literacy							
Information: How to Use Account		X		X	X		
Persuasive: Cross-sell Product		X					
Persuasive: Social Proof							
Behavior: Retirement Vivid and Present			X	X			X
Behavior: Retirement Visible and Common			X	X			X
Behavior: Loss Reduction			X	X			
Message alludes to holiday						X	

	Before Treatment	During Treatment			After Treatment		
	Mean	Control Mean	ATE	p-value	Control Mean	ATE	p-value
<b>Inactive</b>							
Transaction (0/1)	0.0002	0.0071	0.0043	0.0000	0.0288	0.0099	0.0000
Transaction (\$)	0.0015	1.7539	0.6465	0.0000	15.7962	4.6049	0.0000
Transactions (No.)	0.0003	0.0133	0.0088	0.0000	0.0415	0.0143	0.0000
Debit (0/1)	0.0001	0.0015	0.0001	0.3833	0.0016	-0.0003	0.0000
Debit (\$)	0.0002	0.0033	0.0001	0.7794	0.0039	-0.0005	0.1639
Credit (0/1)	0.0154	0.0063	0.0042	0.0000	0.0279	0.0100	0.0000
Credit (\$)	16.5549	1.2350	0.5294	0.0000	15.2041	4.6946	0.0000
Credit (No.)	0.0001	0.0100	0.0088	0.0000	0.0376	0.0149	0.0000
<b>Active</b>							
Transaction (0/1)	0.3786	0.3068	0.0767	0.0000	0.4892	0.0406	0.0000
Transaction (\$)	114.8472	128.0487	2.8061	0.3495	327.7966	20.7067	0.0000
Transactions (No.)	1.1535	0.9133	0.1387	0.0000	0.7162	0.0817	0.0000
Debit (0/1)	0.0951	0.0913	-0.0276	0.0000	0.0380	-0.0101	0.0000
Debit (\$)	0.5167	0.3834	-0.0757	0.0000	0.0972	-0.0224	0.0000
Credit (0/1)	0.5648	0.2799	0.0856	0.0000	0.4729	0.0444	0.0000
Credit (\$)	303.0814	74.7192	13.5591	0.0000	312.8383	23.0059	0.0000
Credit (No.)	0.6602	0.5309	0.2194	0.0000	0.6185	0.1049	0.0000



# Second Level Regression - After Treatment (Full Sample)



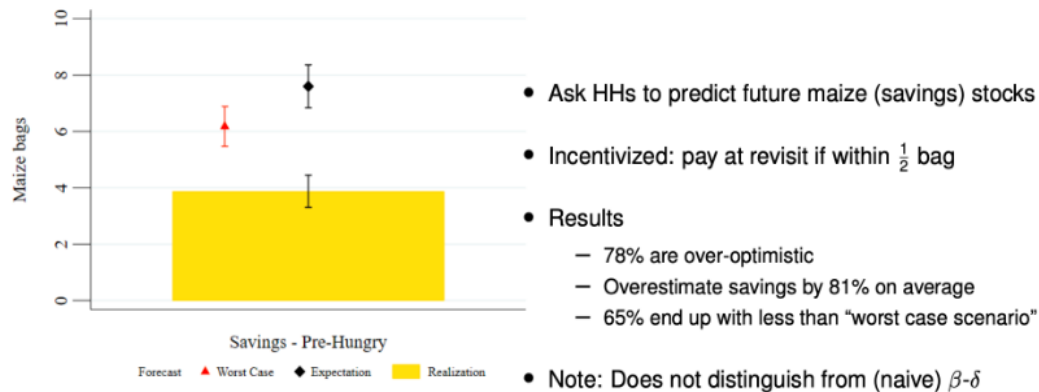
# Go Granular

- “Retrieval Failures in Consumption Smoothing: A Field Experiment on Seasonal Hunger” (Augenblick, Jack, Kaur, Masiye, Swanson)

## MOTIVATING FACT

### Experienced agents have skewed beliefs about the future

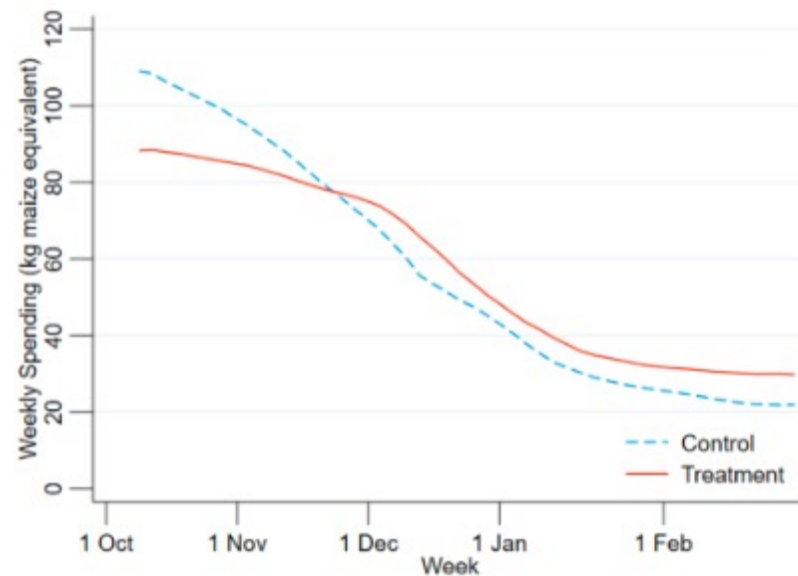
How much savings will you have in 3 months?



Notes: N=202 households, Control group, Incentivized savings forecast

### Simple intervention in Zambia: Retrieve and apply info on expenses (no external guidance)

- Individuals increase "remembered" expenses by 20-60%
- Immediate decrease in willingness-to-pay for luxury goods
- Flatter spending profile over year
  - 15% less spending in early months
  - Enter "hungry season" with 1 month more of available savings
  - Allows for more spending in later months
  - 9% increase in next year's harvest (increased farm investment)



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