

Microfinance and Financial Inclusion

Jonathan Morduch
New York University

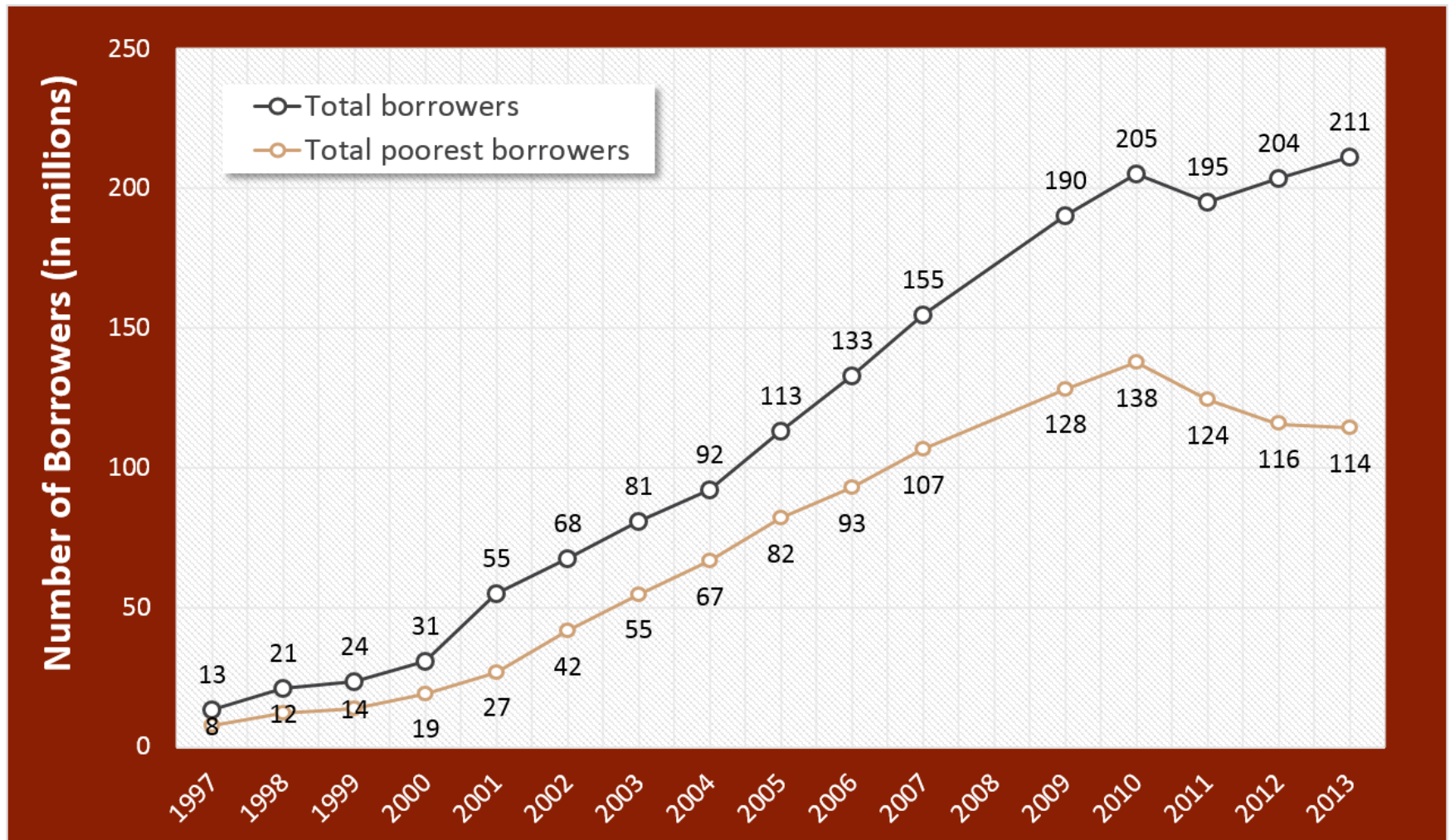
4th IMF Statistical Forum
November 2016

4 statistical views

- 1. People reached:** Microcredit Summit
- 2. Profit/finance:** MIX Market database
- 3. Social and economic impact:** RCTs
- 4. Financial lives:** Financial Diaries

Microfinance as an institutional success

Millions of microfinance customers. Microcredit Summit Campaign.



Customers: Asian, female, not poorest

Microcredit Summit Campaign 2015

Region	No. MFIs	No. Total Clients	No. Total Women Clients	No. Poorest Clients	No. Poorest Women Clients
Sub-Saharan Africa	1,045	15,945,279	8,581,990	8,727,527	5,875,258
Asia and the Pacific	1,119	166,908,164	166,908,164	101,427,062	85,522,494
Latin America & Caribbean	672	17,407,431	10,725,880	2,751,885	2,008,379
Middle East & North Africa	99	5,279,706	2,785,940	1,250,061	908,991
Developing World Totals	2,935	205,540,580	189,001,974	114,156,535	94,315,122
North America & Western Europe	87	168,815	57,000	42,101	23,361
Eastern Europe & Central Asia	76	5,410,152	282,821	112,950	50,218
Industrialized World Totals	163	5,578,967	339,821	155,051	73,579
Global Totals	3,098	211,119,547	189,341,795	114,311,586	94,388,701

90%

54%

45%



- Database includes 3845 institution-years, reflecting 291 million borrower-years.
- Biased toward commercially-focused lenders.
- Sample: 1335 institutions 2005-9.
- Most recent data on MFIs between 2005 and 2009:
 - 930 institutions
 - 80.1 million borrowers.
- **Access to proprietary data**

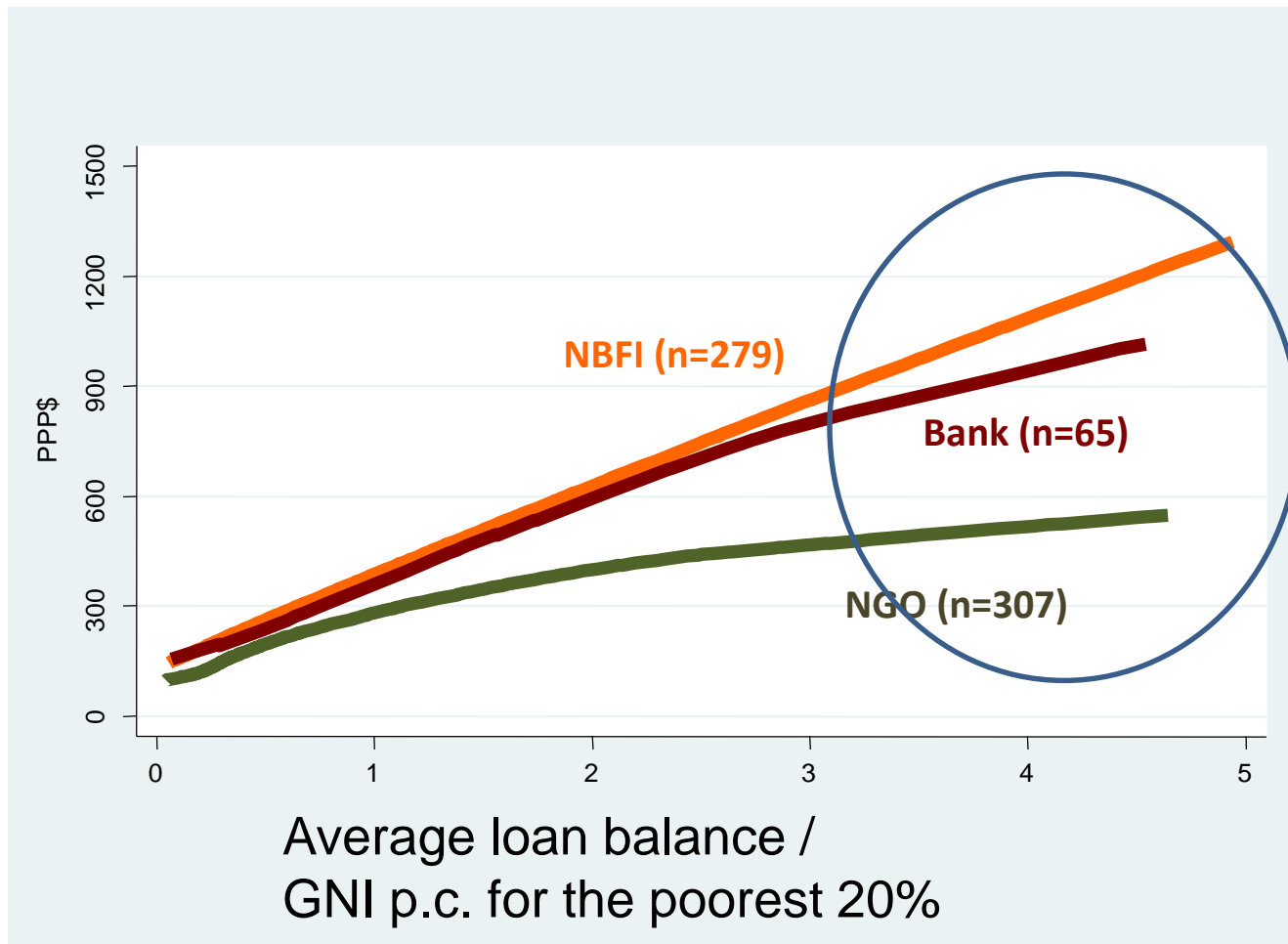
The Microfinance Business Model: Enduring Subsidy and Modest Profit

Joint work with Robert Cull, World Bank

Asli Demirgüç-Kunt, World Bank

A major accomplishment: Innovation to reduce cost per customer

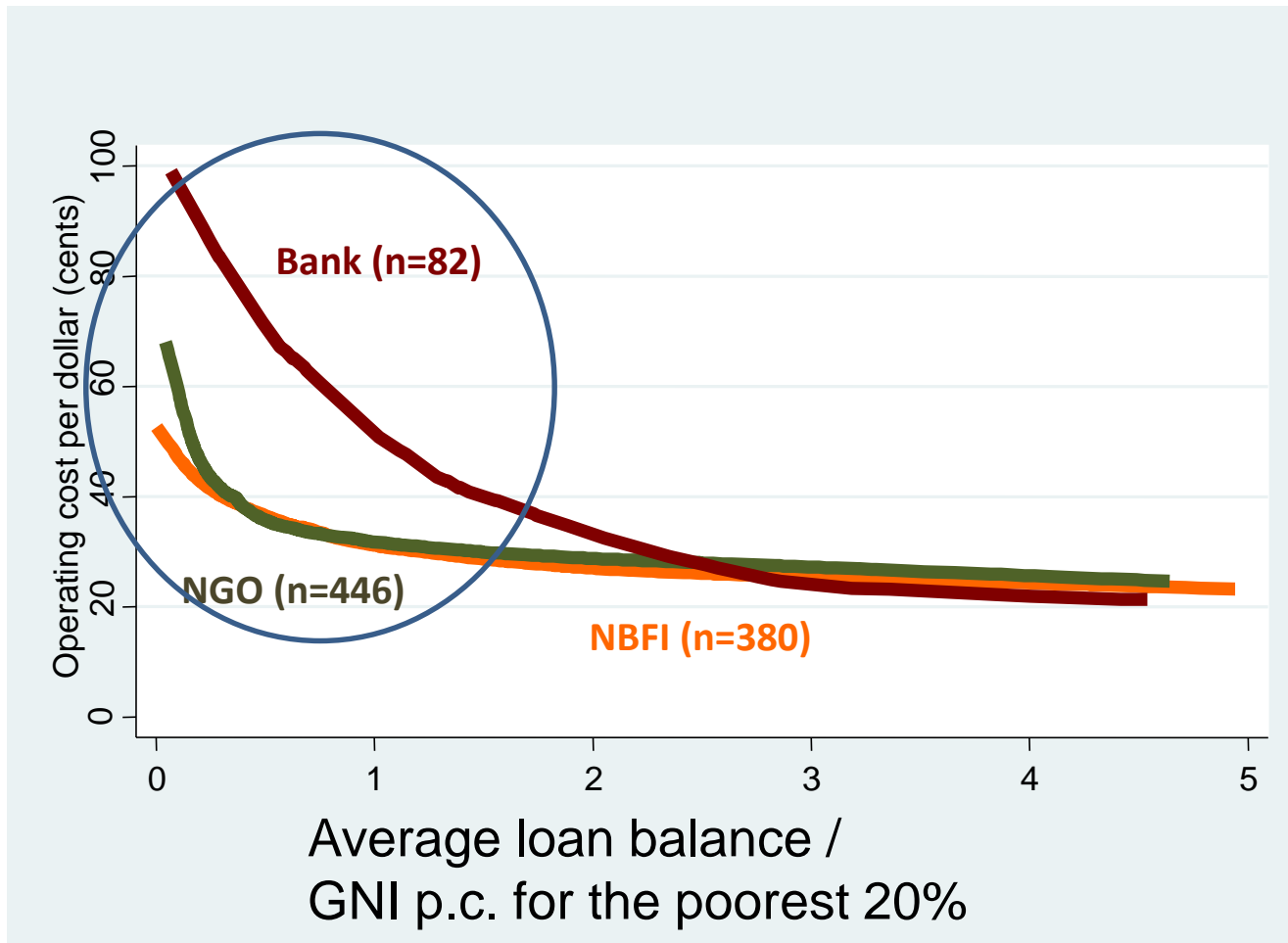
Operating expense per borrower, PPP\$



Large and durable tension:

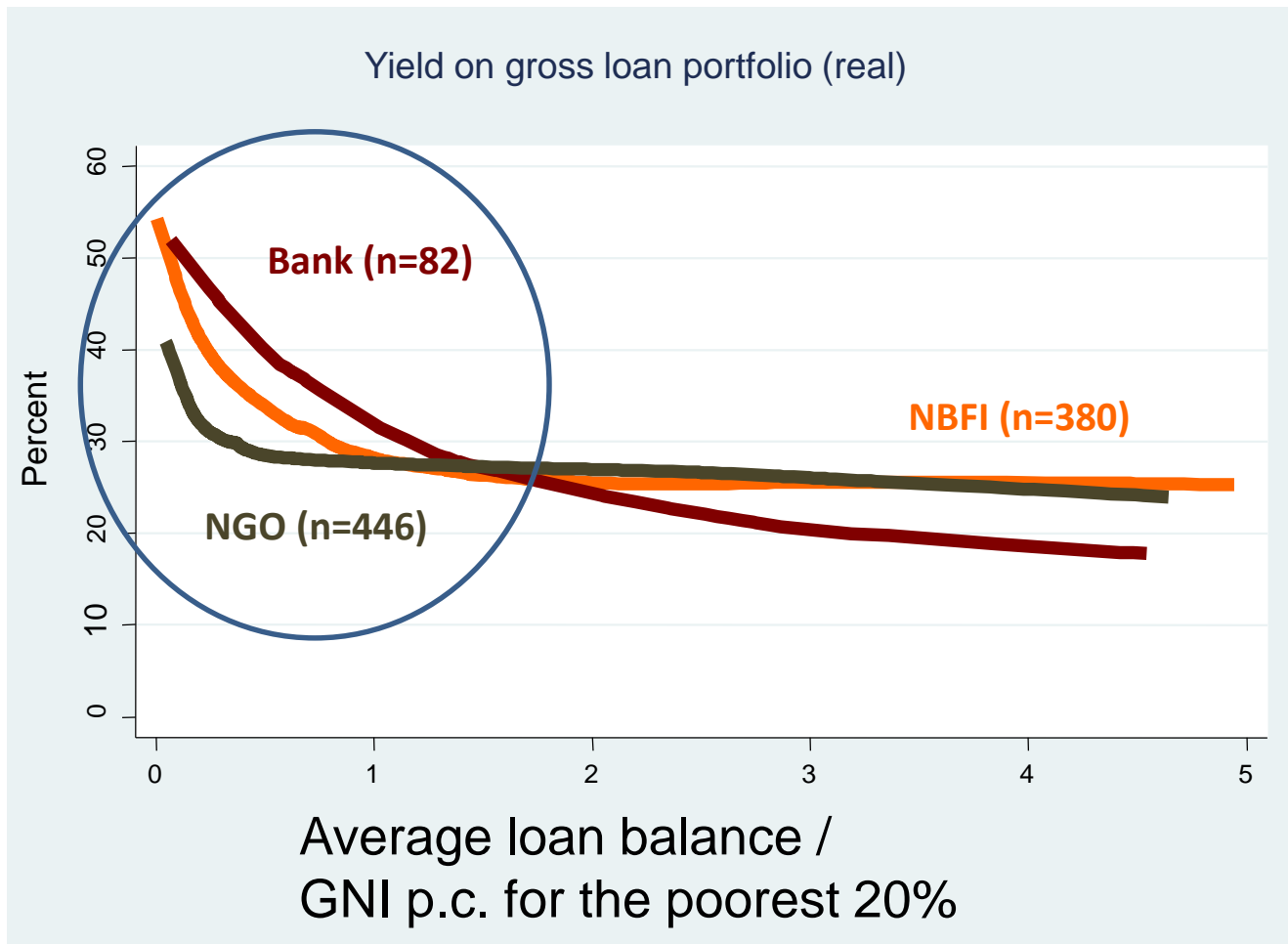
Small transaction sizes mean high cost per unit transacted

Operating expense per dollar lent



Response: raise prices on the low-end

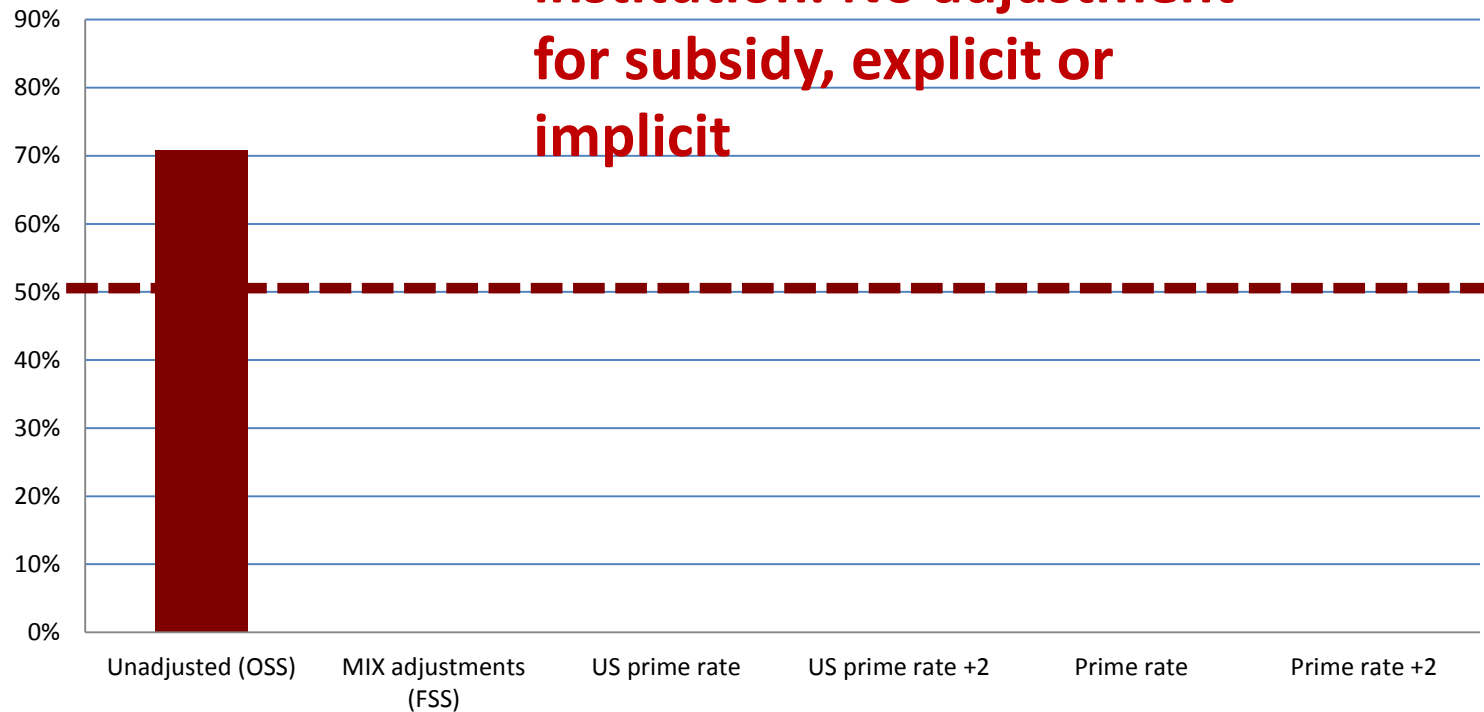
Average real interest rates



What institutions report

% of institutions that are profitable

Profit as reported by institution. No adjustment for subsidy, explicit or implicit



Profit

Accounting profit: Is revenue (including grant income) greater than expenses?

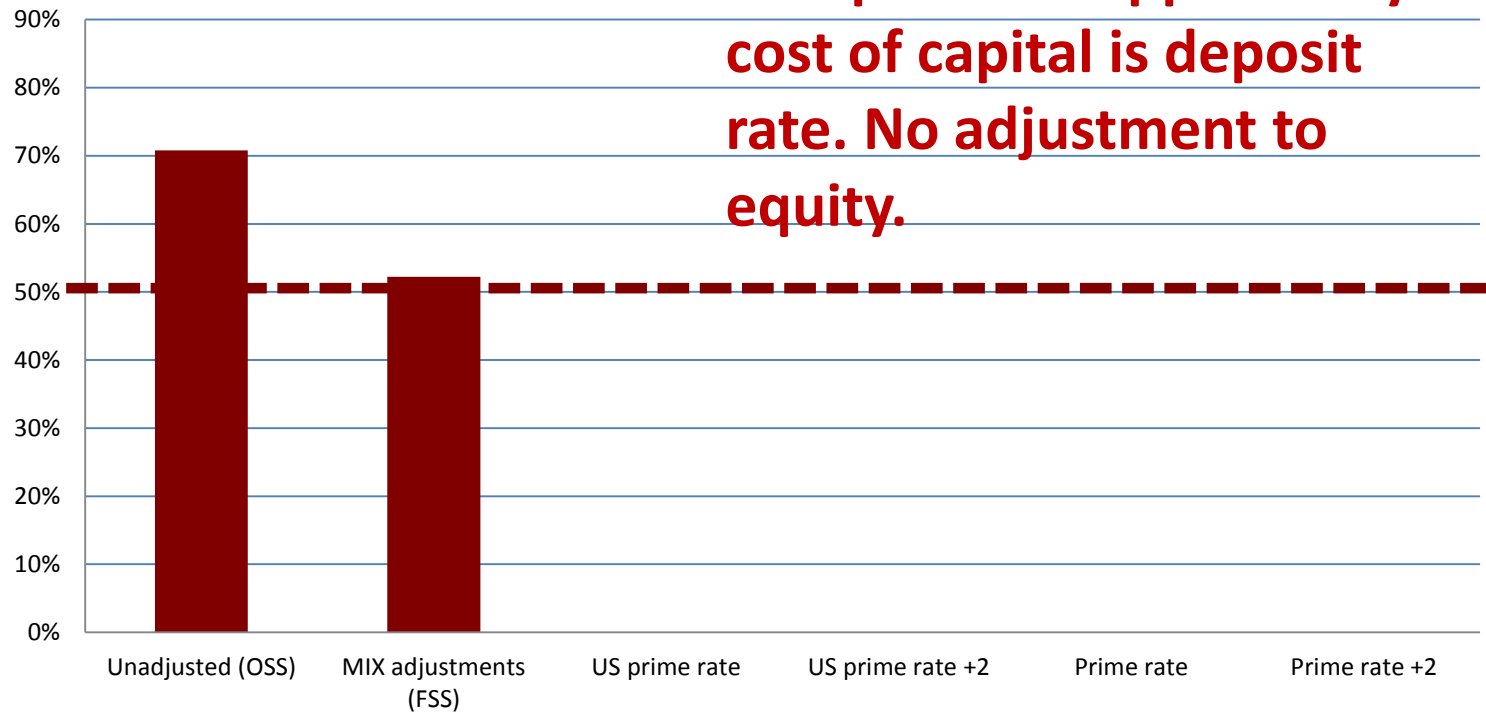
Economic profit: Is business income greater than expenses (valued at the opportunity cost of inputs)

Q: Would institution earn profit if they *operated the same way* but had to pay the market rate of capital?

What the MIX Market reports

% of institutions that are profitable

Adjusted to account for cheap credit. Opportunity cost of capital is deposit rate. No adjustment to equity.



Our adjustments

Subsidy =

Opportunity costs for equity capital

- Profit before tax

+ Adjusted in-kind subsidy

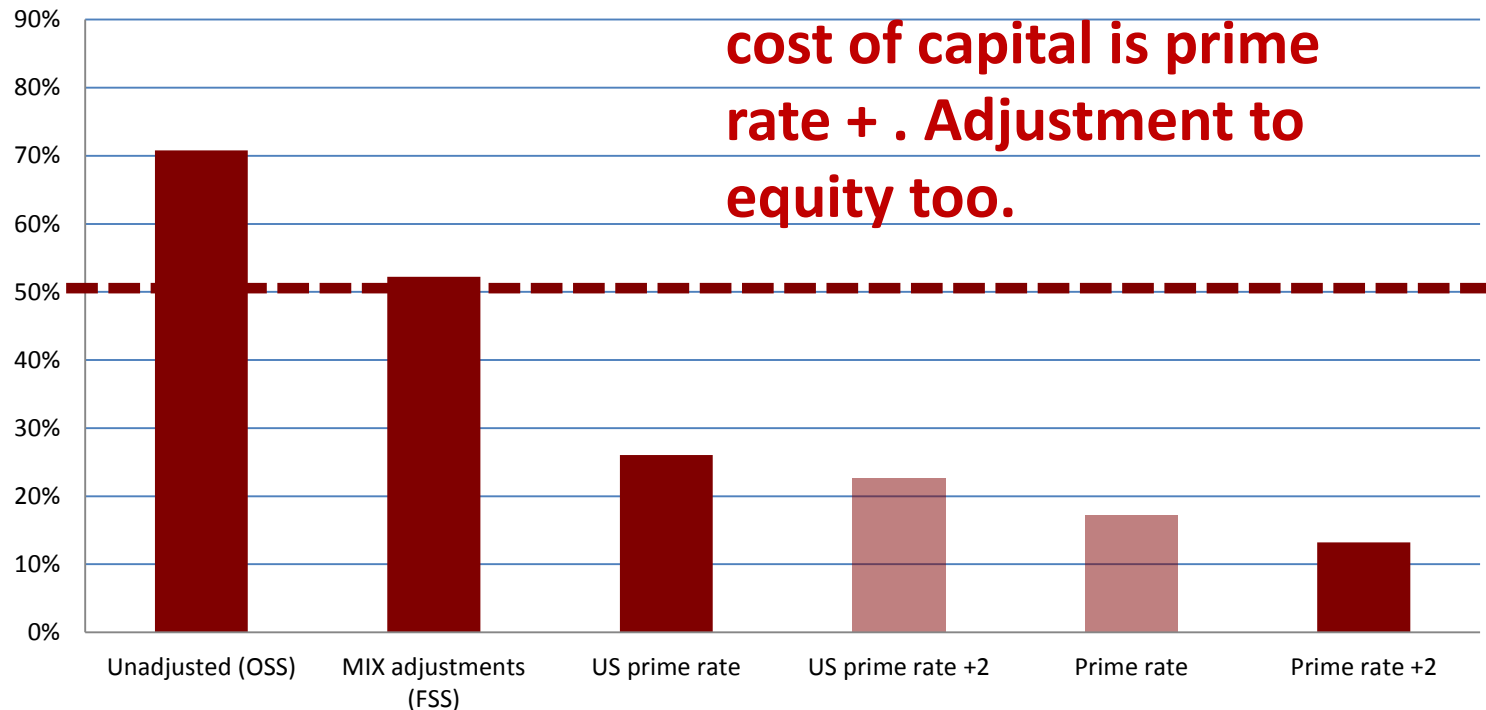
+ Opportunity costs for loan capital (opp. cost of capital - actual paid rate)

Preferred opp cost of capital = local prime rate

What economics/finance suggests

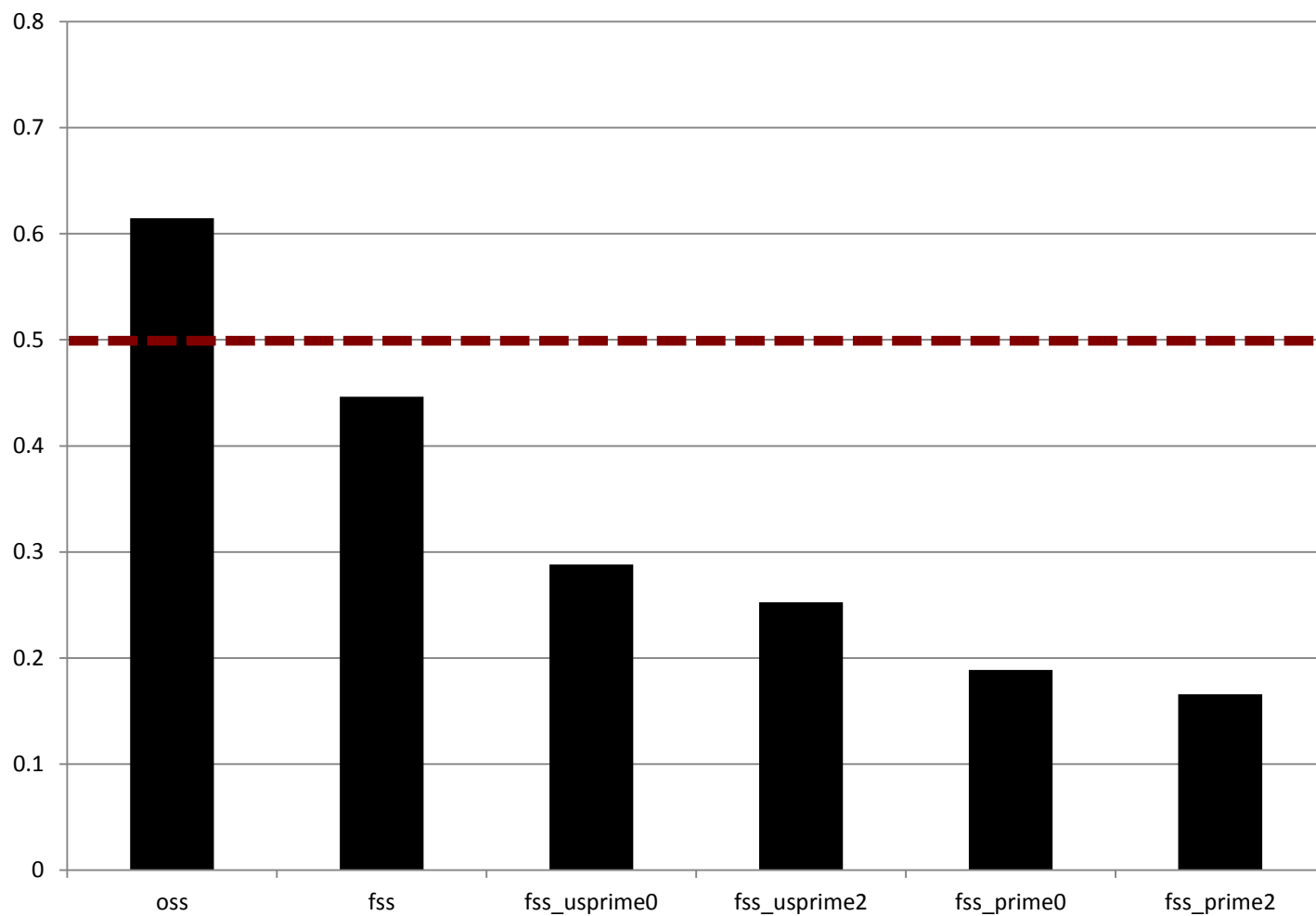
% of institutions that are profitable

Adjusted to account for cheap credit. Opportunity cost of capital is prime rate + . Adjustment to equity too.



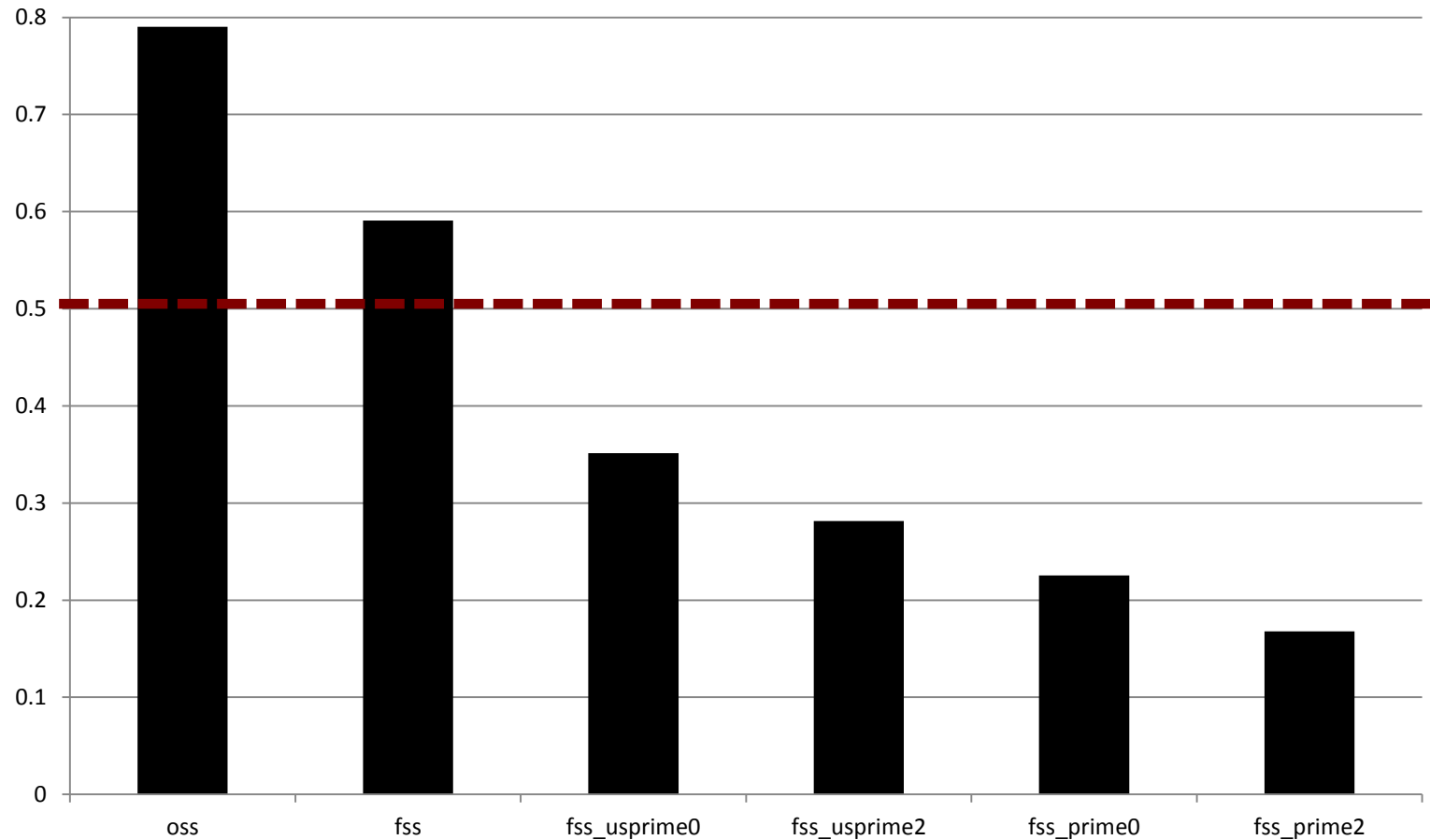
Younger institutions (under 10 years)

Percentage profitable, n=284



Older institutions (10 years +)

Percentage profitable, n=680

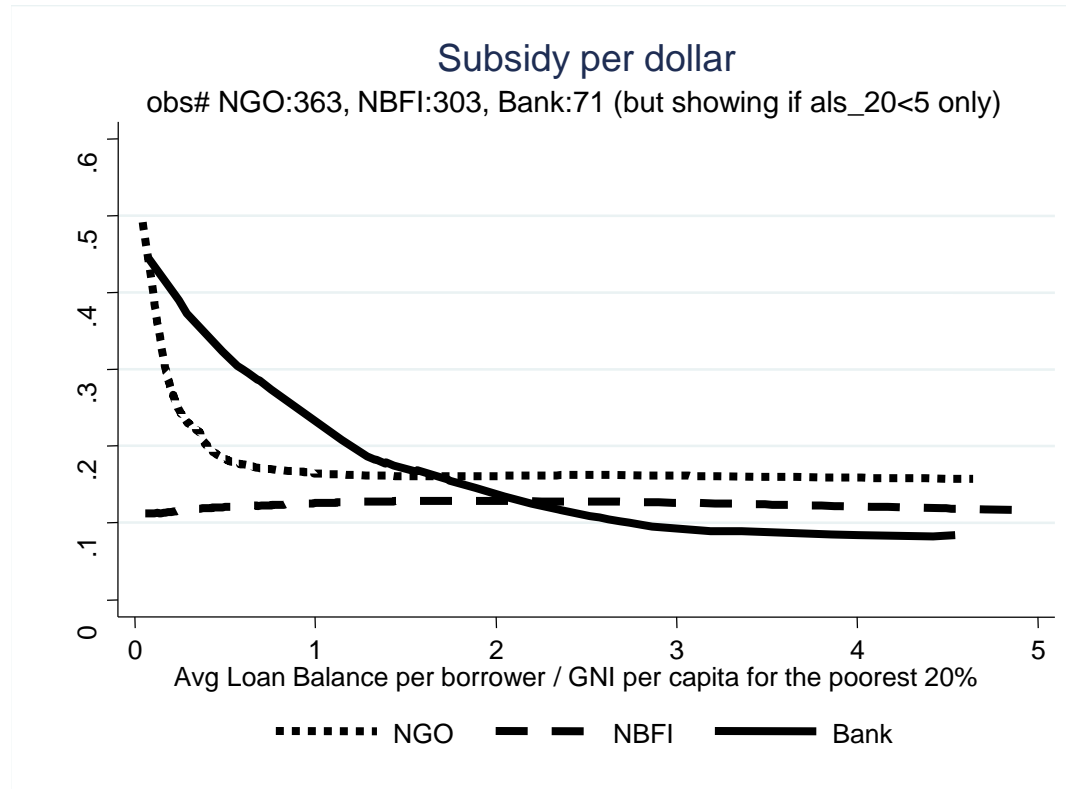


**Subsidy is badly allocated
(from a social perspective)**

Fairly flat: Subsidy per dollar lent

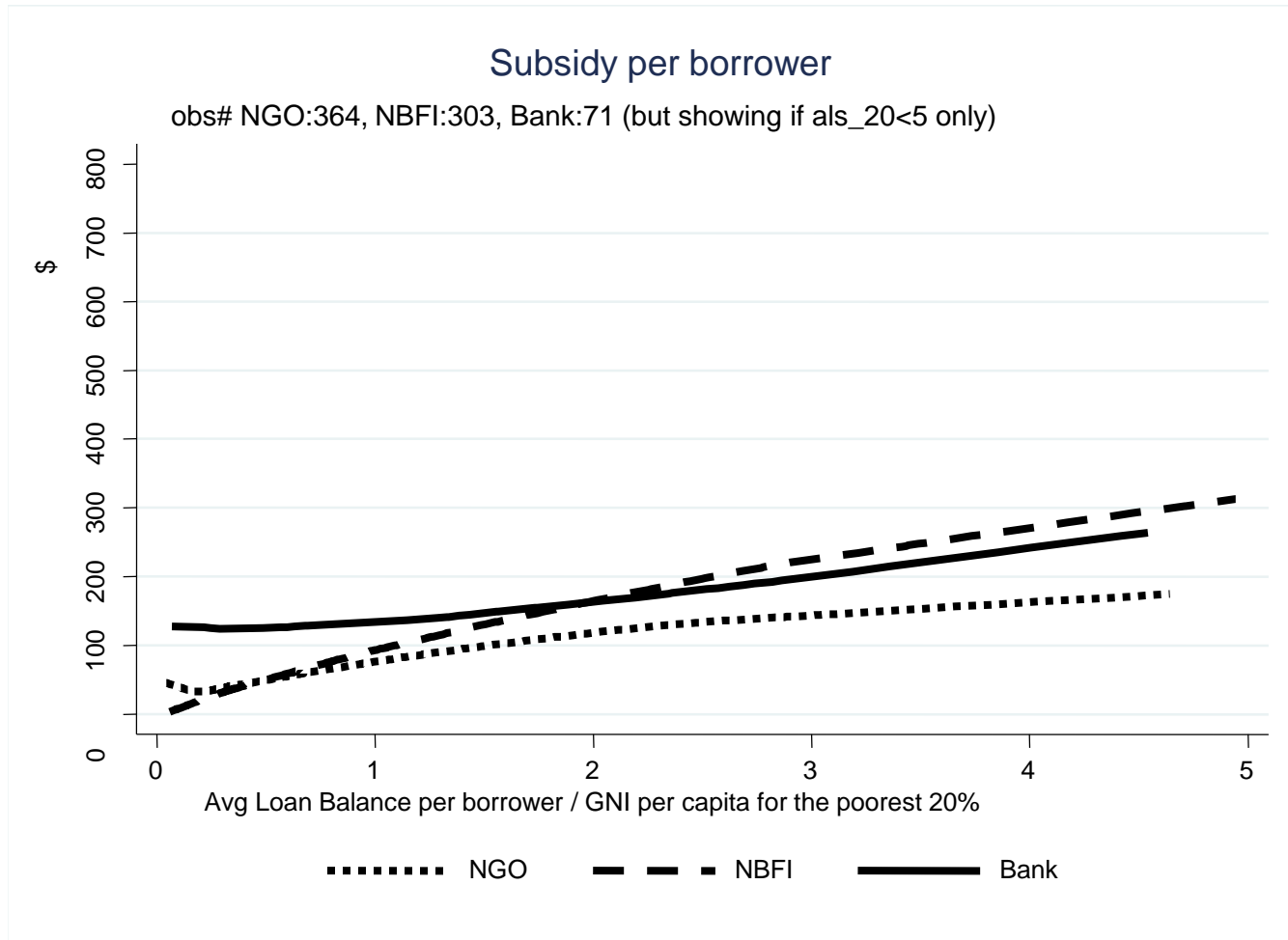
γ =local prime (obs = 972)

Subsidy
per dollar



Upward sloping: Subsidy per borrower

γ =local prime



Simple subsidy math

	Loan size	Subsidy per dollar lent	Implicit subsidy per loan
NGO	\$200	20%	\$40
Bank	\$1400	10%	\$140

Bottom line: Subsidy per borrower

Alternative cost of capital = local prime interest rate

Most recent observations 2005-2009

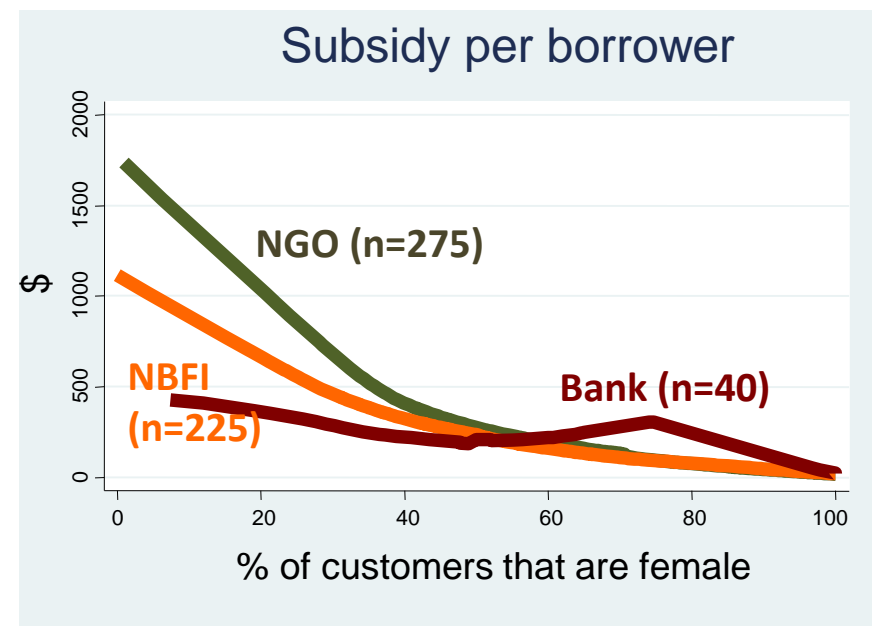
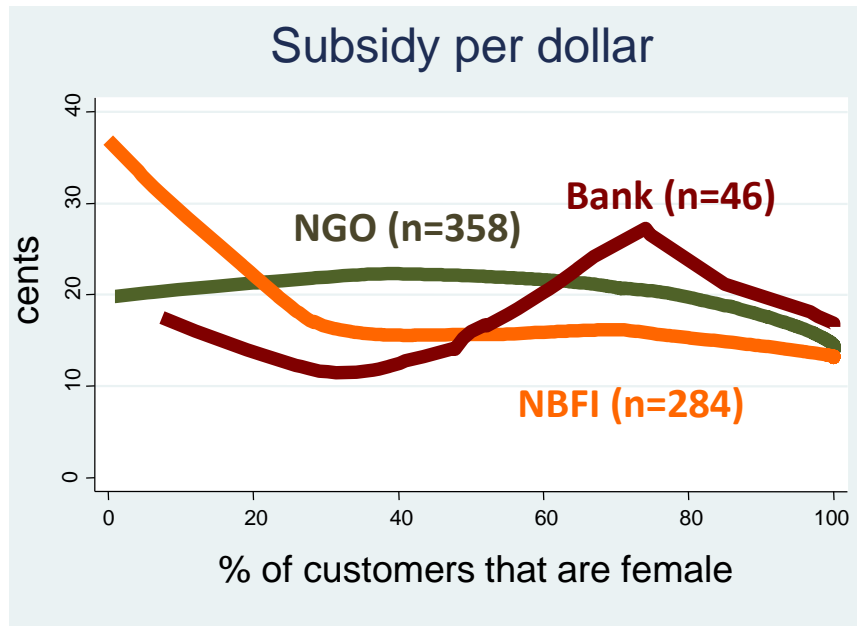
	Mean	25th percentile	Median	75th percentile	Obs
Full sample	132	0	26	102	1002
For-profit	178	0	14	107	365
Bank	275	20	93	417	72
NBFI (for-profit)	201	0	22	117	221
Not-For-profit	108	0	32	98	629
NGO	101	3	23	75	371
NBFI (non-profit)	133	10	51	147	92

Small **High**

Adjustment for market returns to equity

Subsidy and gender: by institution

Women receive less subsidy than men

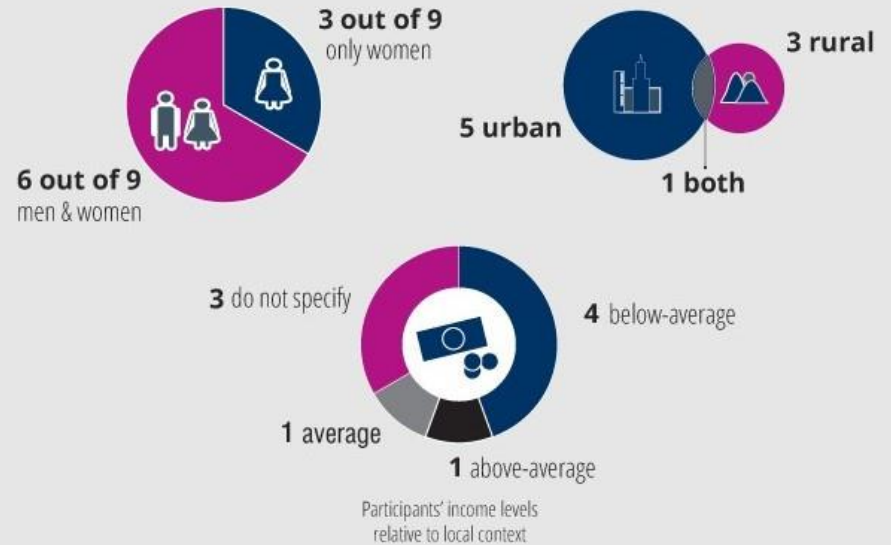


Modest subsidy, modest impacts

WHERE



WHO



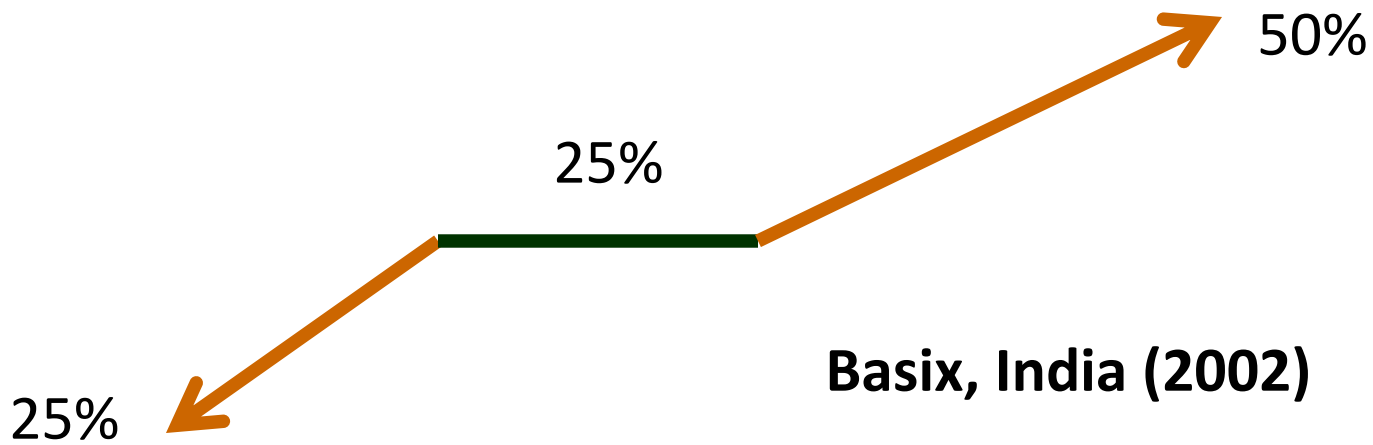
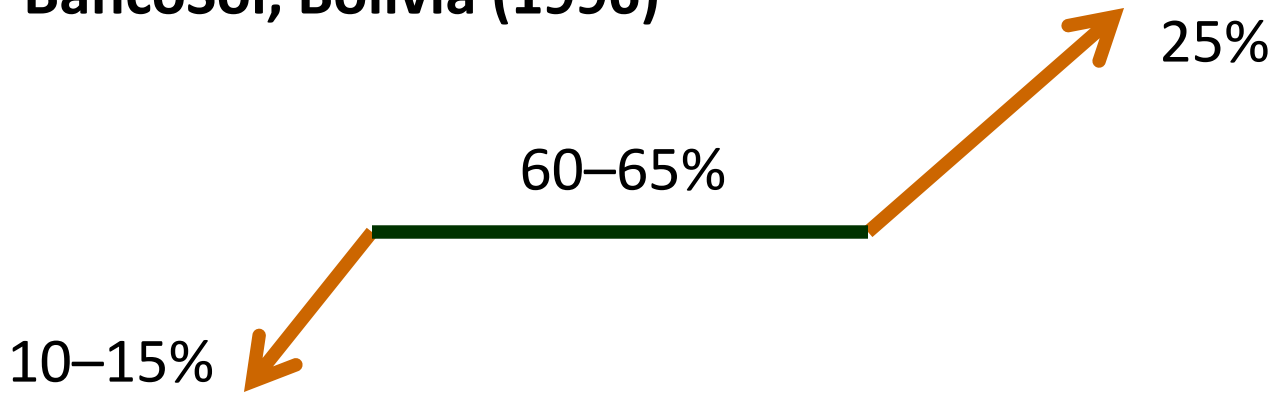
RESULTS

■ Increase ■ No change □ Not measured

	REVENUES	INCOME	CONSUMPTION
① Mexico	Increase	No change	Increase
② Morocco	Increase	No change	No change
③ Bosnia-Herzegovina	No change	No change	No change
④ South Africa	No change	Increase	Increase
⑤ Pakistan	No change	No change	No change
⑥ India	No change	No change	No change
⑦ Mongolia	No change	No change	Increase
⑧ Philippines 1	No change	No change	No change
⑨ Philippines 2	No change	No change	No change

Expert views: what to expect?

BancoSol, Bolivia (1996)



Basix, India (2002)

Spandana

Banerjee, A. V., Duflo, E., Glennerster, R., & Kinnan, C. (2015). "The miracle of microfinance? Evidence from a randomized evaluation," *American Economic Journal: Applied Economics*, vol 7(1): 22-53.



Spandana (India) evaluation

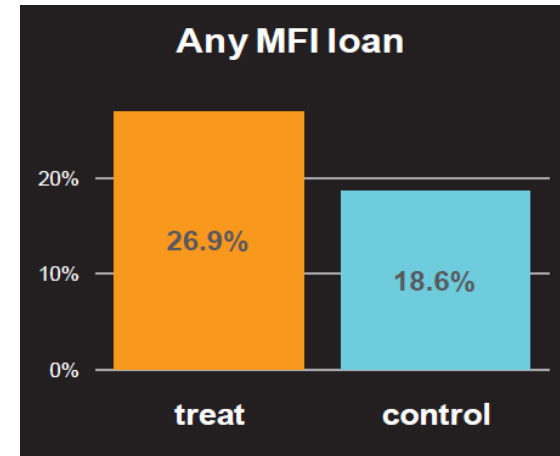
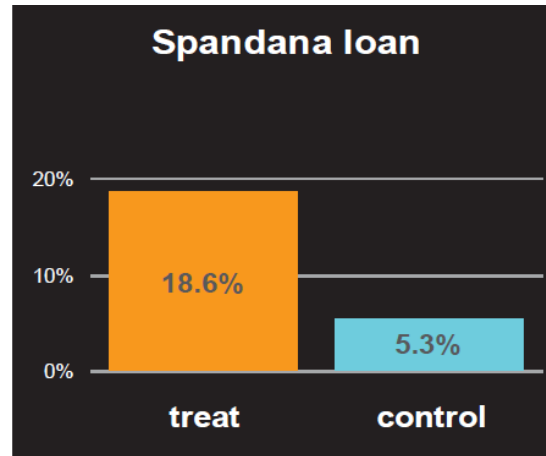
Abhijit Banerjee: “Assessing the Current Crisis in Microfinance and Avoiding the Next One”

- Spandana: Traditional microcredit program
 - Group liability
 - Weekly or monthly repayment
 - Starting loan is Rs. 10,000 (~\$250)
 - Interest rate changed over the period but was around 12% per year (nondeclining balance; ~24% APR)
- Spandana was already a large MFI
- Not previously operating in Hyderabad.
- Agreed to randomly phase in operations in Hyderabad.

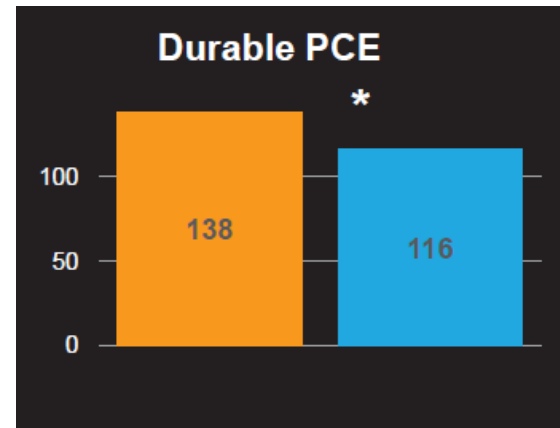
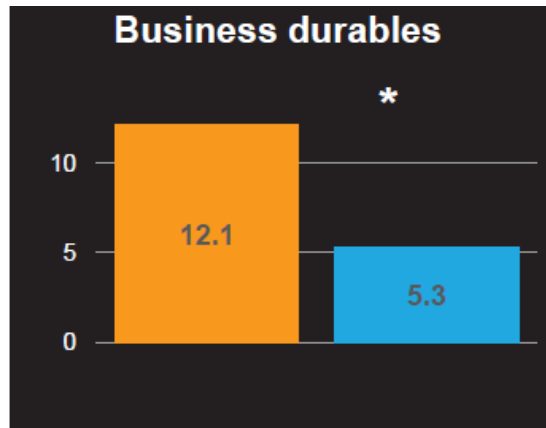
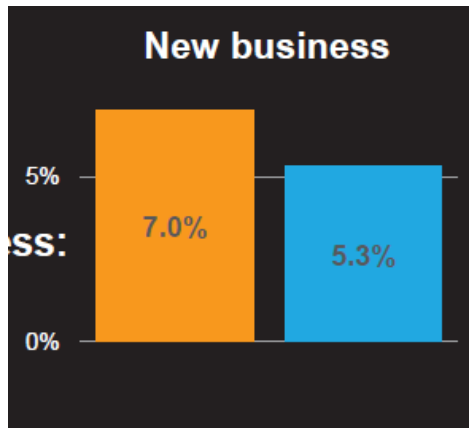
Spandana (India) evaluation

Abhijit Banerjee: "Assessing the Current Crisis in Microfinance and Avoiding the Next One"

Low loan take up



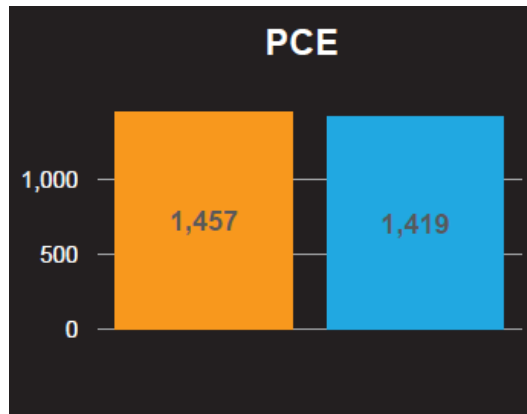
Impact on business



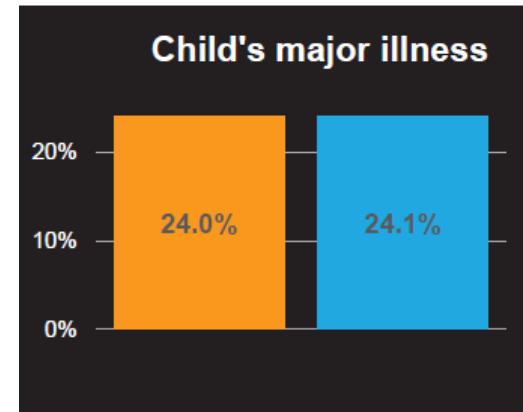
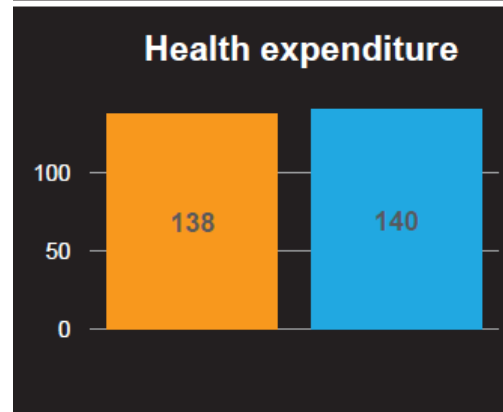
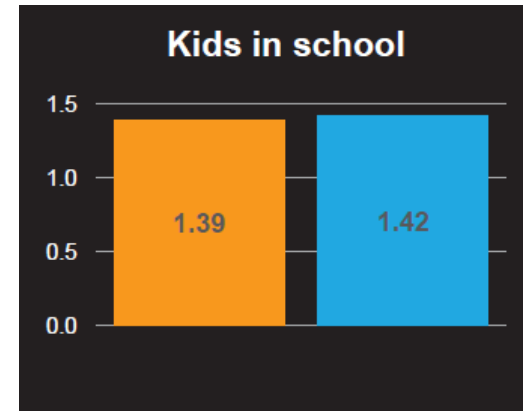
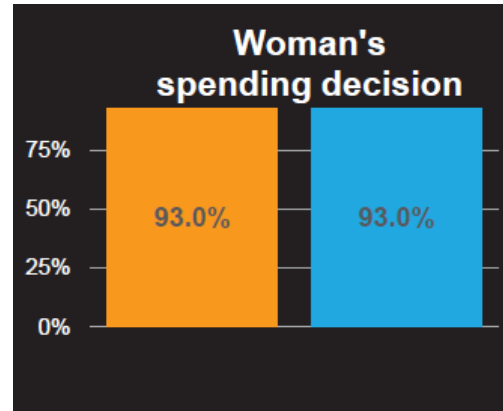
Spandana (India) evaluation

Abhijit Banerjee: "Assessing the Current Crisis in Microfinance and Avoiding the Next One"

But...



Per capita expenditure



Impacts – an assessment

- **Marginal** (impacts on expanding to new customers)
 - Gives little sense of **infra-marginal** impacts (impacts on existing, core customers)
 - **Not clear how to map** from marginal to infra-marginal in same place, or from one place to another

Financial Diaries

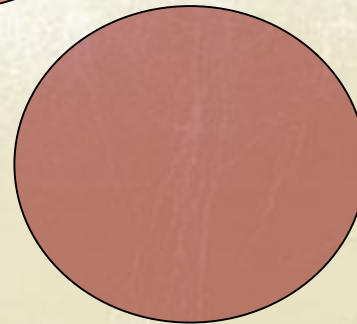
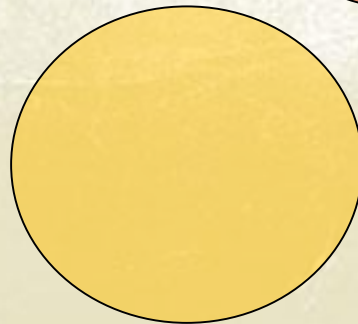
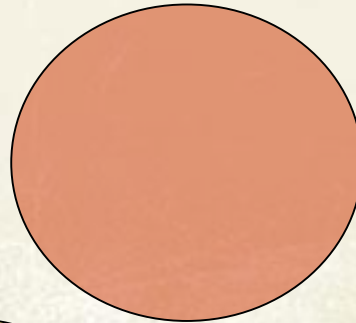


Household surveys that track penny by penny how poor households in India, Bangladesh and South Africa manage their money.

Being poor isn't just about low incomes

The poor face a “triple whammy”

Low incomes



**Lack of
appropriate
financial tools**

**Irregular and
unpredictable
incomes**

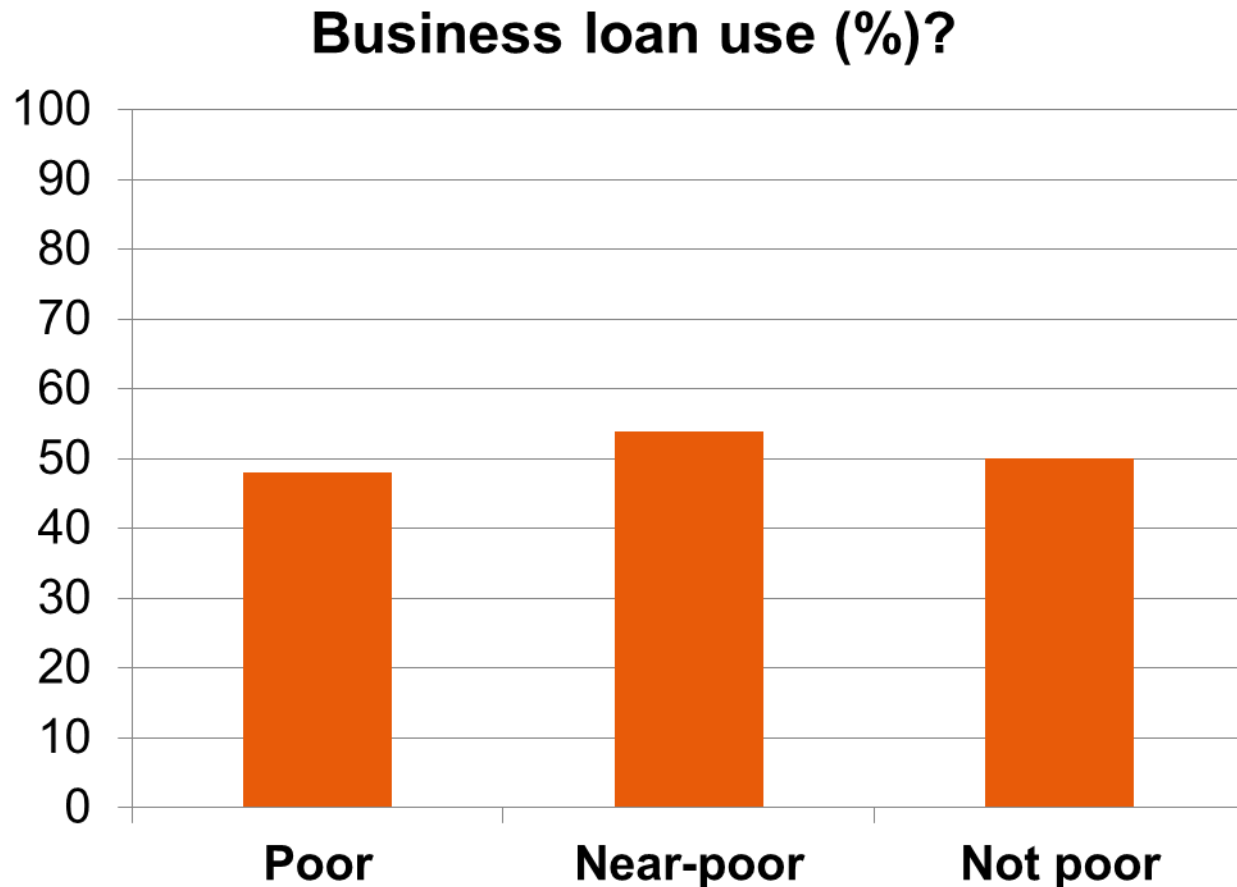
Biggest financial needs

Portfolios of the Poor (2009)

3 needs that drive much of the financial activity:

1. **Managing basics:** Cash-flow management to transform irregular income flows into a dependable resource to meet daily needs
2. **Coping with risk:** Dealing with the emergencies that can derail families with little in reserve
3. **Raising lump sums:** Seizing opportunities and paying for big-ticket expenses by accumulating usefully large sums of money

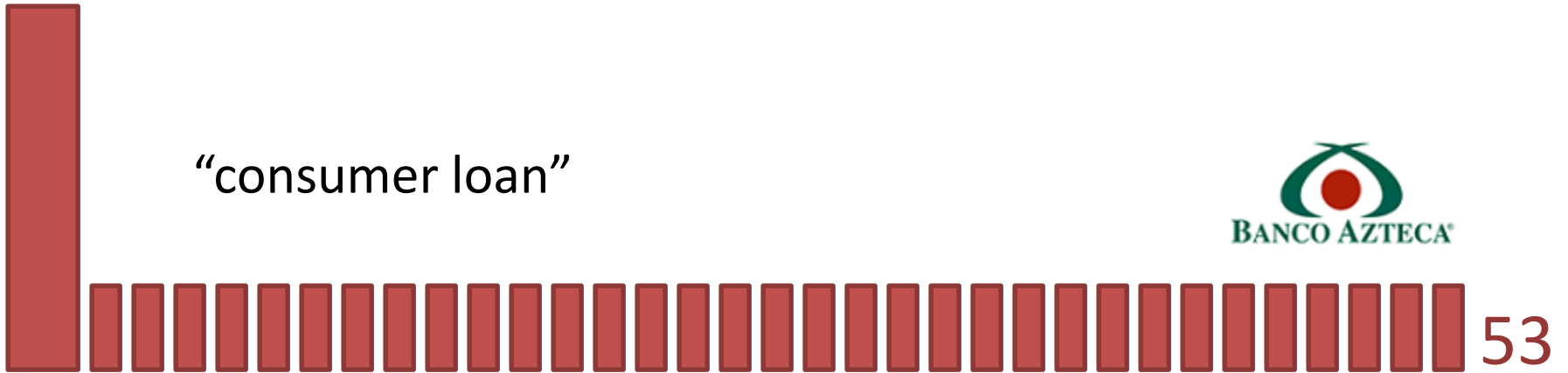
Are most loans for business investment? Evidence from **Indonesia**



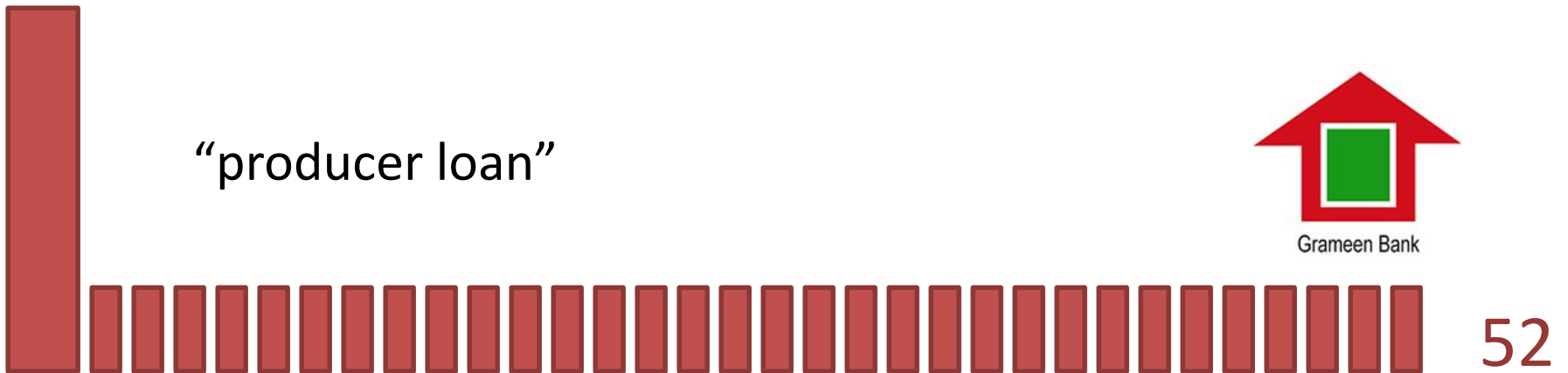
Don Johnston and Jonathan Morduch, *The Unbanked: Evidence from Indonesia*. *World Bank Economic Review* 2008.

Installment lending

“consumer loan”



“producer loan”



Taking consumer finance seriously...

- Allows micro-lenders to serve people with **jobs**
 - hospital orderlies, nannies, cooks, factory workers, drivers, agricultural laborers, construction workers, clerks, craft workers, and others.
- Allows micro-lenders to (openly) meet the wider needs of entrepreneurs.



Summary

- Remarkable institutional success
- Not a widespread commercial success
- Not focused so sharply on the poor
- Modest impacts but modest subsidies
 - Possibly favorable cost-benefit ratio
- Next steps: build from recognition of households' broader financial needs, especially consumer finance/saving

Thank you

www.financialaccess.org
www.usfinancialdiaries.org