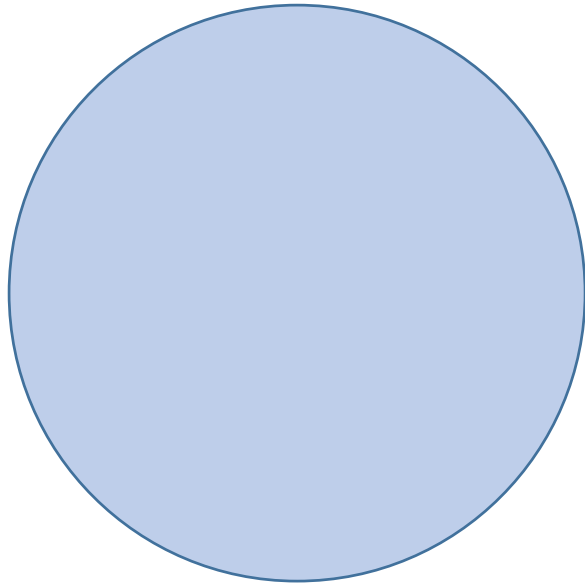


Rethinking Poverty and Finance

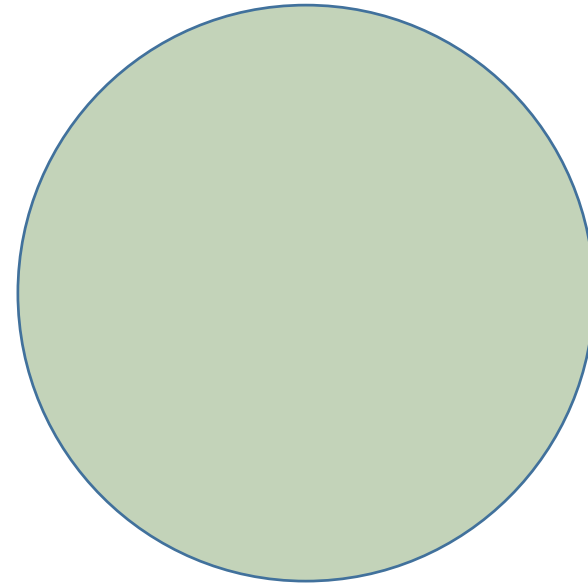
Jonathan Morduch
New York University
February 14, 2023

Dvara-CGAP Conference on Making Credit Work for the Poor, Chennai

Two areas focused on material deprivation



Household finance



Poverty policy

Conventional way of connecting the dots

Poverty = whether your yearly income or yearly expenditure is above the poverty line or not

Finance for the poor = tool to help borrowers cross the poverty line

Why the ideas are worth revisiting

- These are basis of original microfinance messaging
- They are the basis of contemporary microfinance criticism (RCT results, etc)
- They are at odds with empirical understandings

Agenda

1. Rethinking poverty
2. Rethinking (micro)finance
3. Implications for credit for poor people

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A different way of understanding poverty

Poverty at Higher Frequency

Jonathan Morduch (NYU)

Joshua Merfeld (KDI and IZA)

Motivation:

Insufficiency, instability, illiquidity

Insufficiency: Low average earning and spending power is at the root of deprivation, yet only one part. Annual averages can hide and distort experiences of poverty.

Instability: Very low incomes are often accompanied by instability, both across years and within years.

Illiquidity: Challenges to invest, smooth, and spend easily compound challenges.

Insufficiency X Instability X Illiquidity

Seasonality and episodic poverty

- Seasonal poverty is a well-established challenge (Longhurst et al. 1986, Devereux et al 2012, Khandker 2012).
- Recent RCTs revisit seasonality & illiquidity:
 - Fink, G., B. K. Jack, and F. Masiye (2020): “Seasonal Liquidity, Rural Labor Markets, and Agricultural Production,” *American Economic Review*, 110, 3351–92.
 - Breza, E., S. Kaur, and Y. Shamdasani (2021): “Labor Rationing,” *American Economic Review*, 111, 3184–3224.
 - Bryan, G., S. Chowdhury, and A. M. Mobarak (2014): “Underinvestment in a Profitable Technology: The Case of Seasonal Migration in Bangladesh,” *Econometrica*, 82, 1671– 1758.
 - Casaburi, L. and J. Willis (2018): “Time versus State in Insurance: Experimental Evidence from Contract Farming in Kenya,” *American Economic Review*, 108, 3778–3813.

Seasonality and episodic poverty

1. “Seasonal poverty” is kept separate from “poverty”
2. Seasonal poverty is an example of the broader case of instability.
 - Episodic poverty not just in developing countries
 - United States (2009-11):
 - 44% of poverty spells last <4 months
 - 67% of poverty spells last <8 months

Idea: Bring instability into the center of the poverty framework

Data

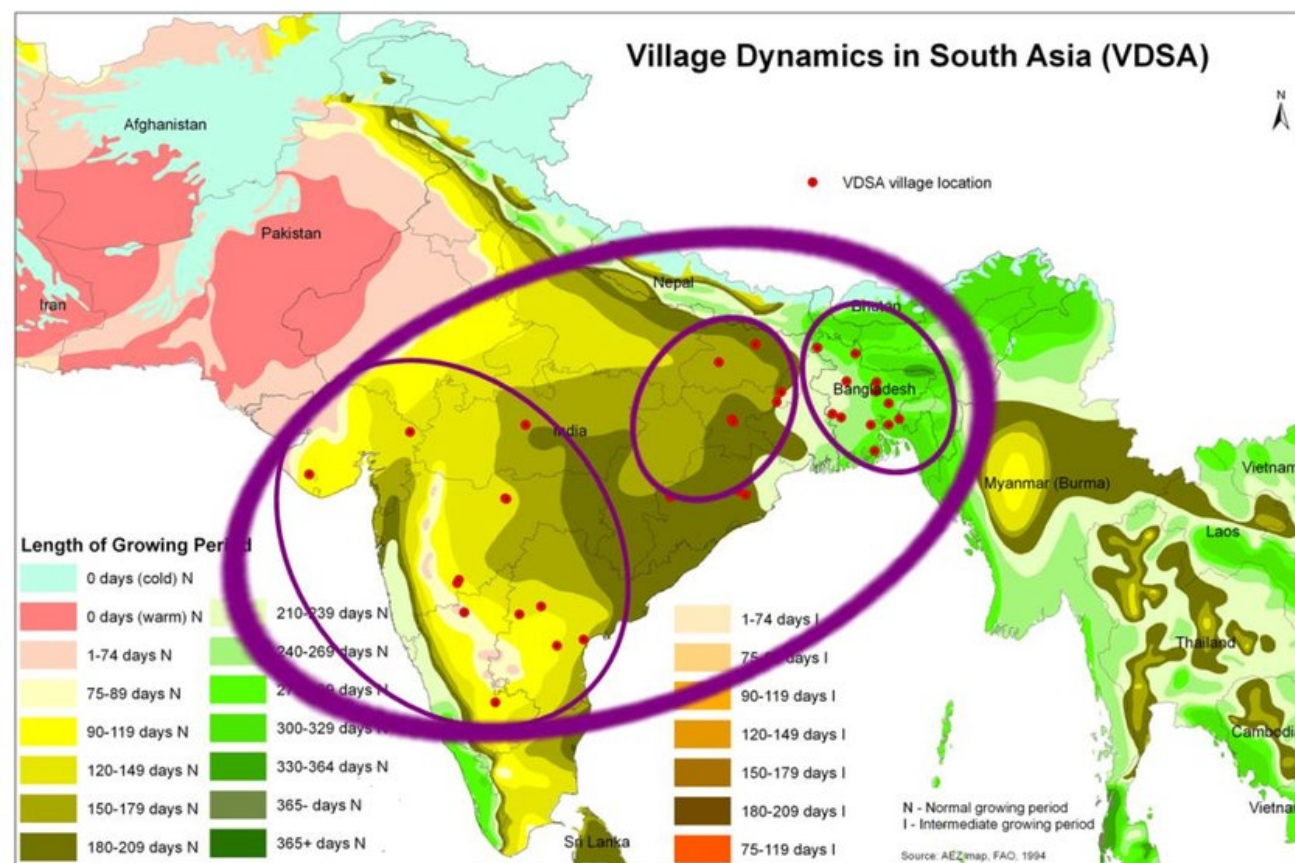
ICRISAT VDSA

ICRISAT's VDSA data from rural India (Village Dynamics in South Asia)

Five years of monthly income/expenditures data

- 1,526 households over 60 months, July 2010 to June 2015.
- Sample here: 30 villages across 15 districts in nine states: Madhya Pradesh, Andhra Pradesh, Gujarat
- Keep all households observed for at least 48 months (4 years). 945 observations.

VDSA villages



Source: Uttam Deb, Cynthia Bantilan, Ranjit Kumar. 2014. Dynamics of Rural Livelihoods in Bangladesh and India: Insights from Village Dynamics Studies Villages. 8th Conference of the Asian Society of Agricultural Economists, Dhaka, Bangladesh.

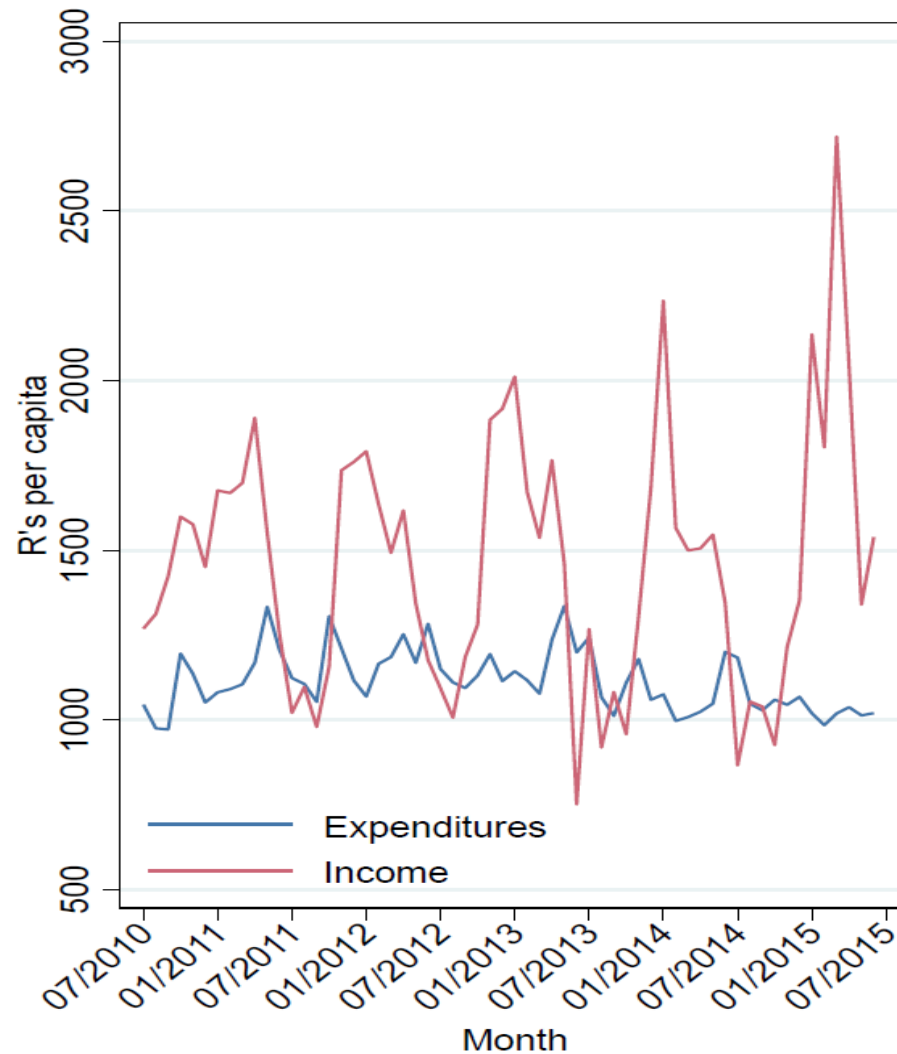
Context

Global extreme poverty is heavily rural

- Of world population living in **extreme poverty** (annual average of \$1.90 per person per day or less):
 - 770 million people
 - 80% live in rural areas
 - 65% of workers (age 15+) are in agriculture
- Of world population living in **moderate poverty** (annual average of \$1.90-\$3.20 per person per day):
 - 1 billion people
 - 76% live in rural areas
 - 52% of workers (age 15+) are in agriculture

Consumption smoothing

Month-to-month income and expenditure variation, ICRISAT VDSA 2010-2015, medians

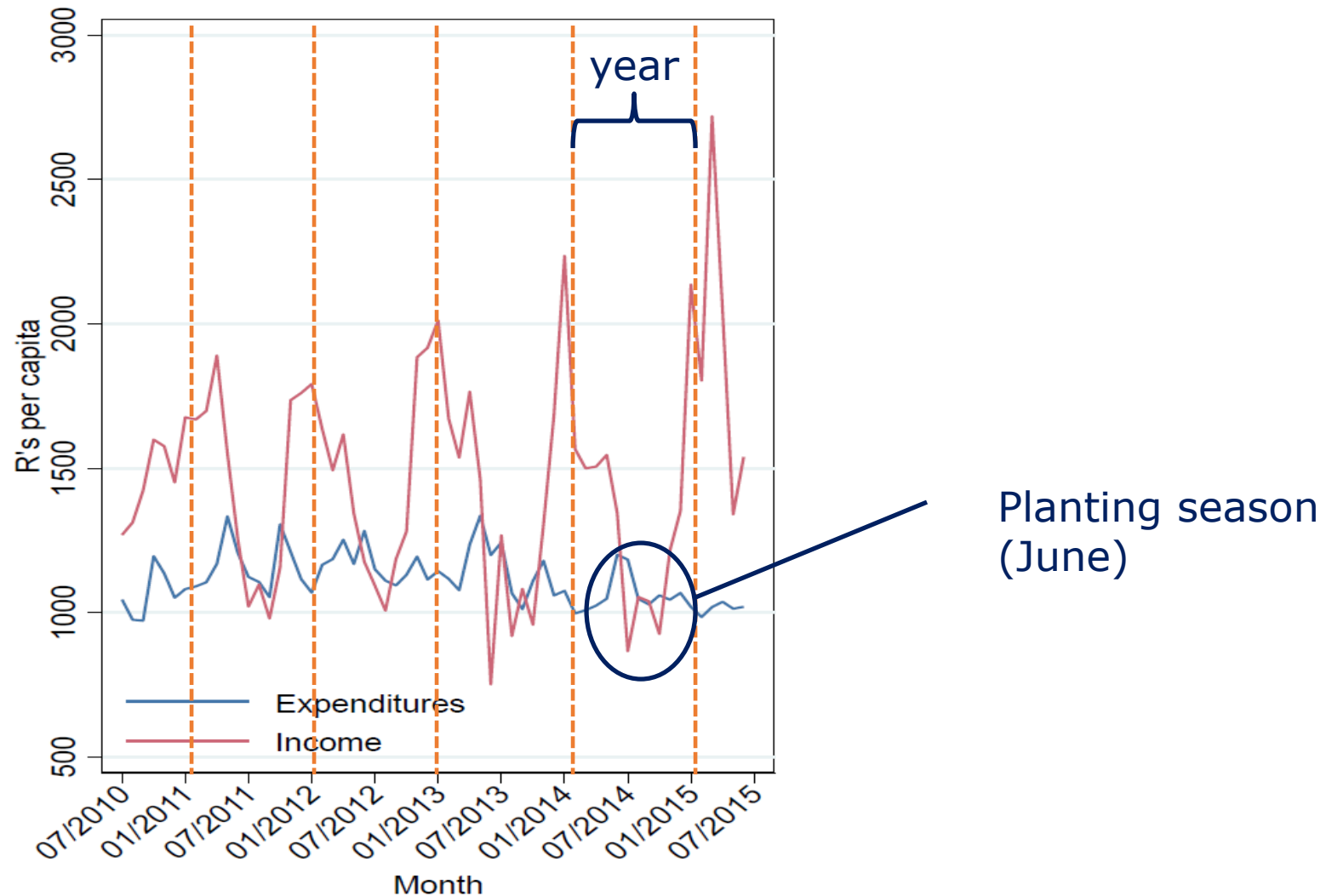


Household income per capita

Household expenditures per capita

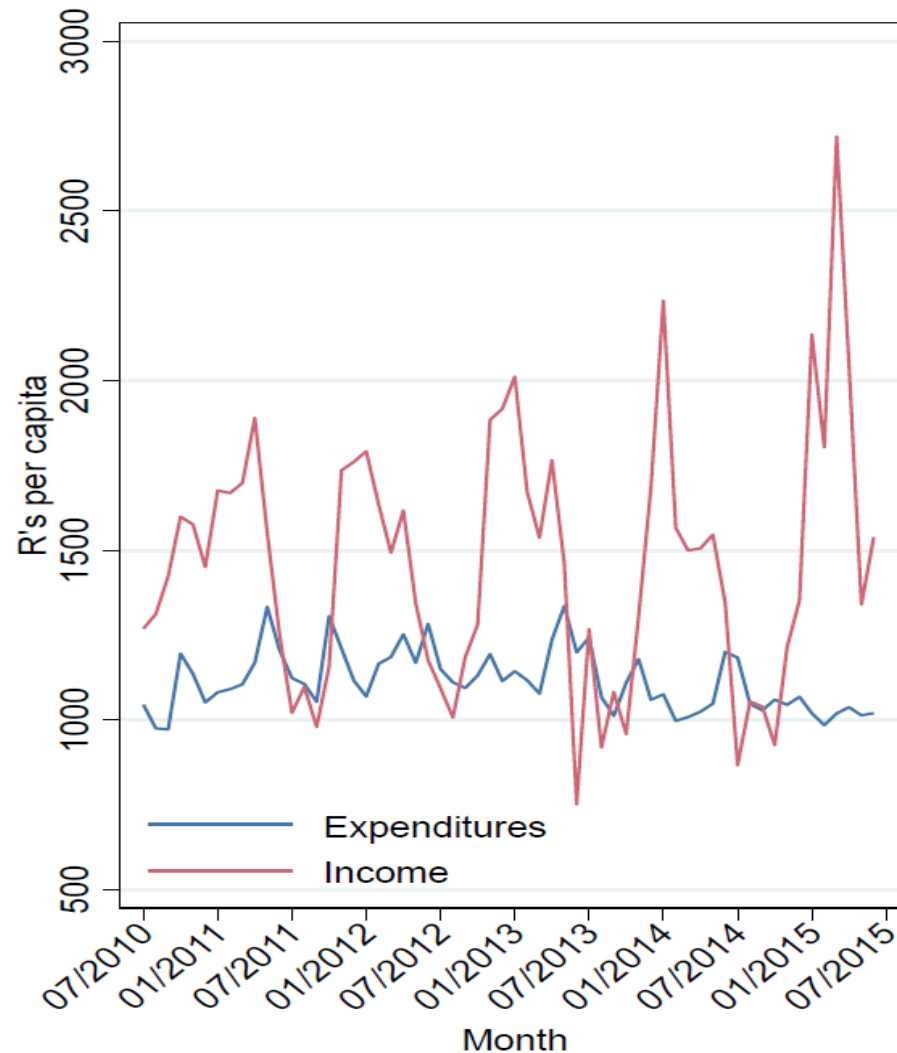
Consumption smoothing

Month-to-month income and expenditure variation, 2010-2015 , medians



Consumption smoothing

Month-to-month income and expenditure variation, 2010-2015 , medians



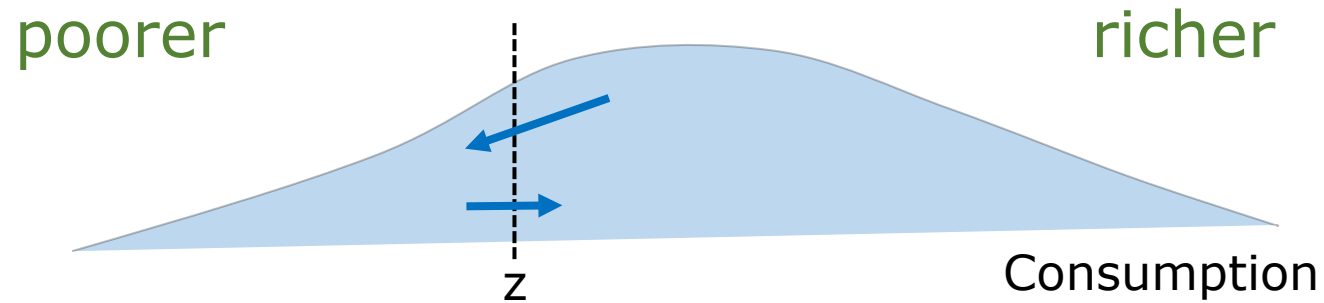
Average CV of household
income per capita = **1.79**

} Average CV of household
income per capita = **0.37**

$$CV_C = 21\% CV_Y$$

Increases in measured poverty

Headcount

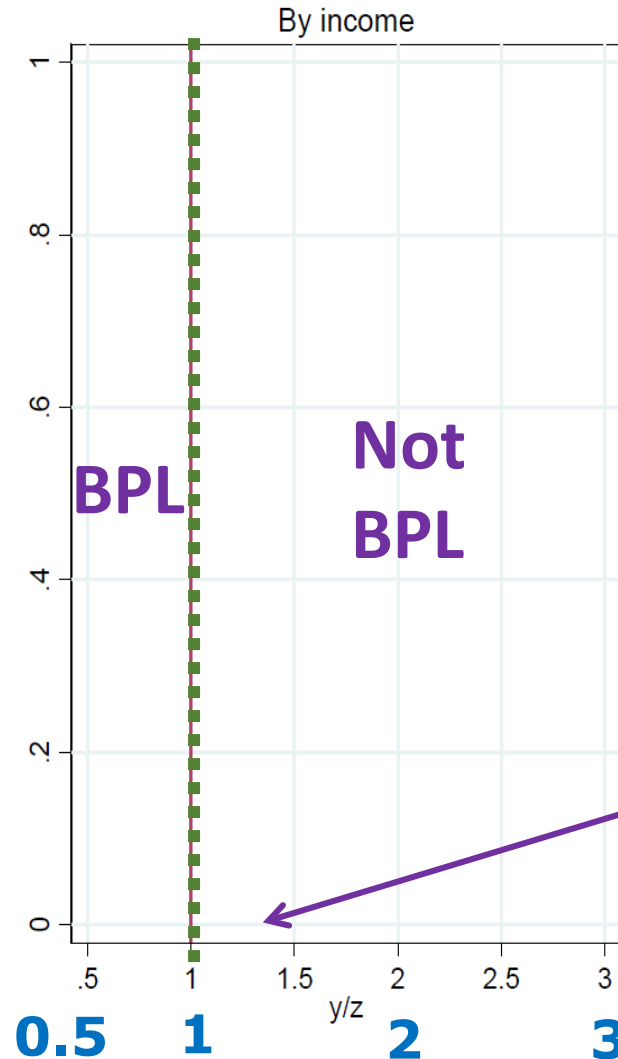


Yearly poor are sometimes not poor

Yearly non-poor are sometimes poor

Always, never, sometimes poor

Monthly poverty by household income per capita

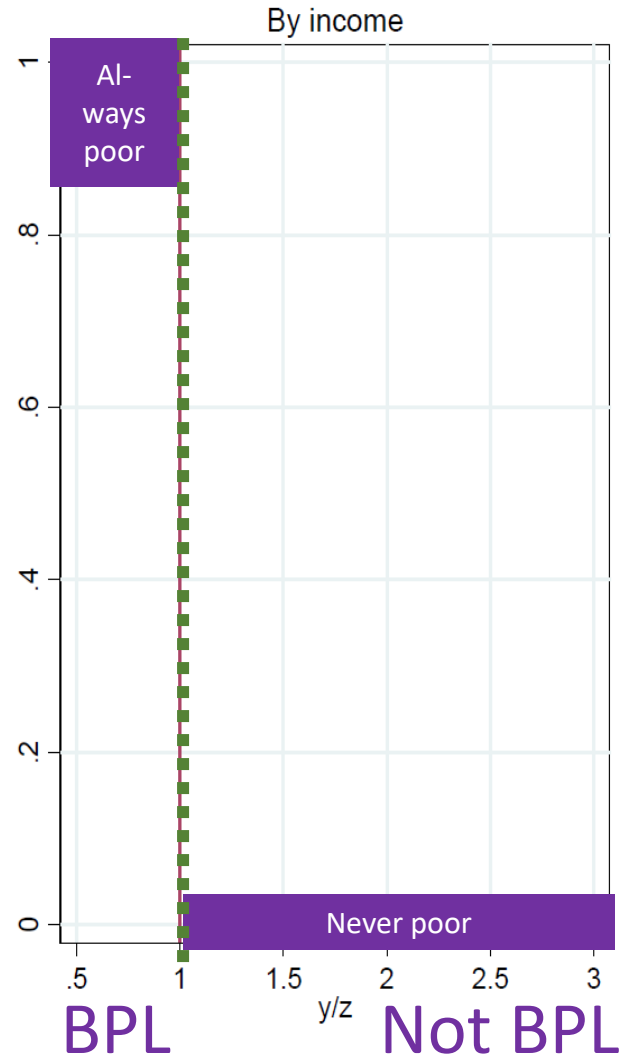


Yearly expenditure as
fraction of poverty line.
BPL if < 1

Always, never, sometimes poor

Monthly poverty by household income per capita

Fraction of
the year
spent
below
poverty line

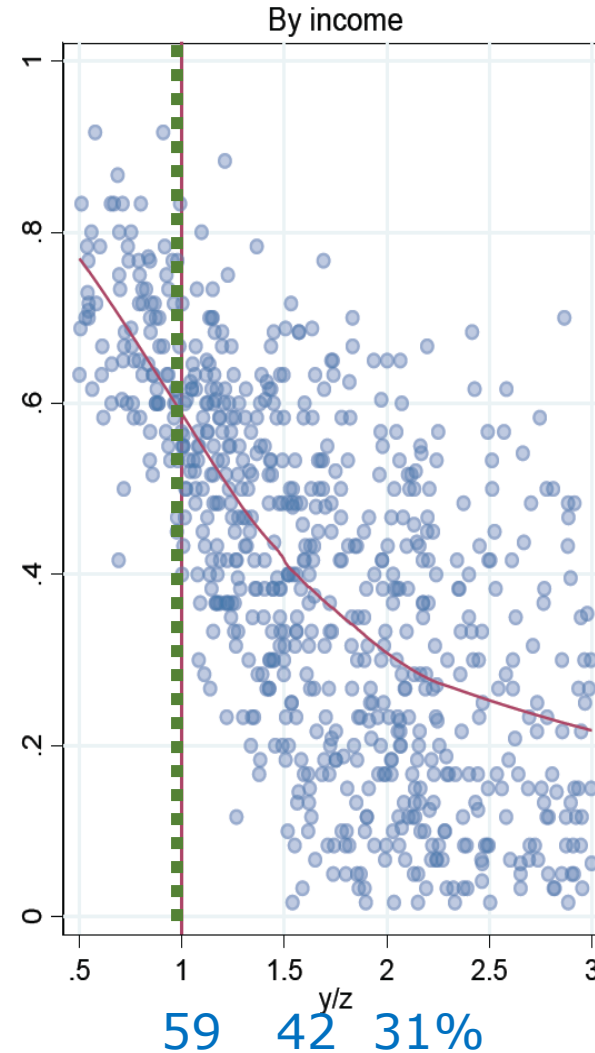
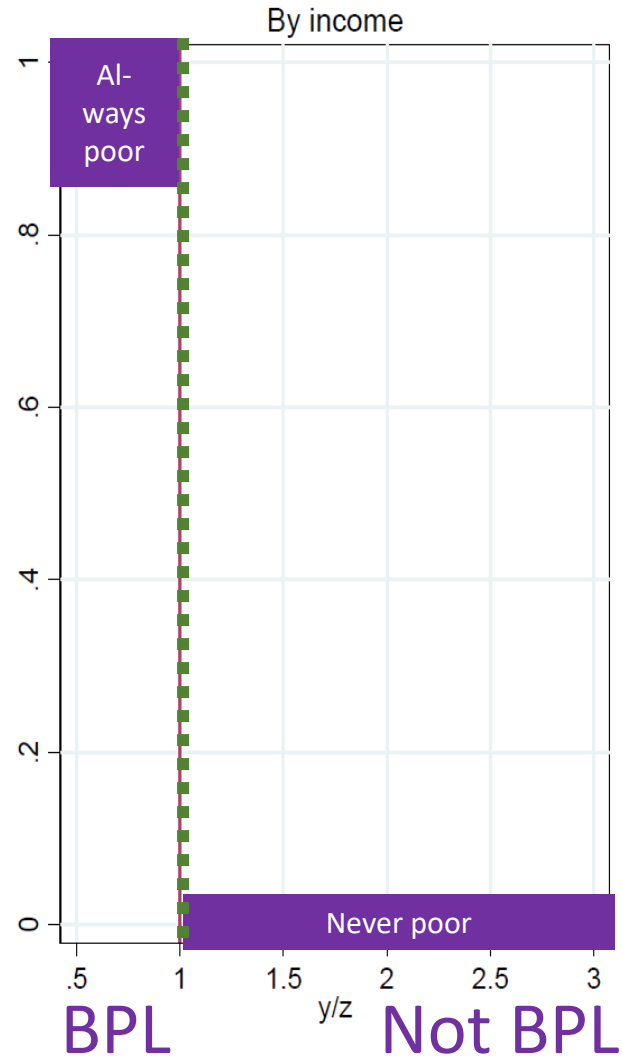


This is the assumption
implicit in poverty
measures based on
annual income or
spending.

Implies stability or
perfect consumption-
smoothing

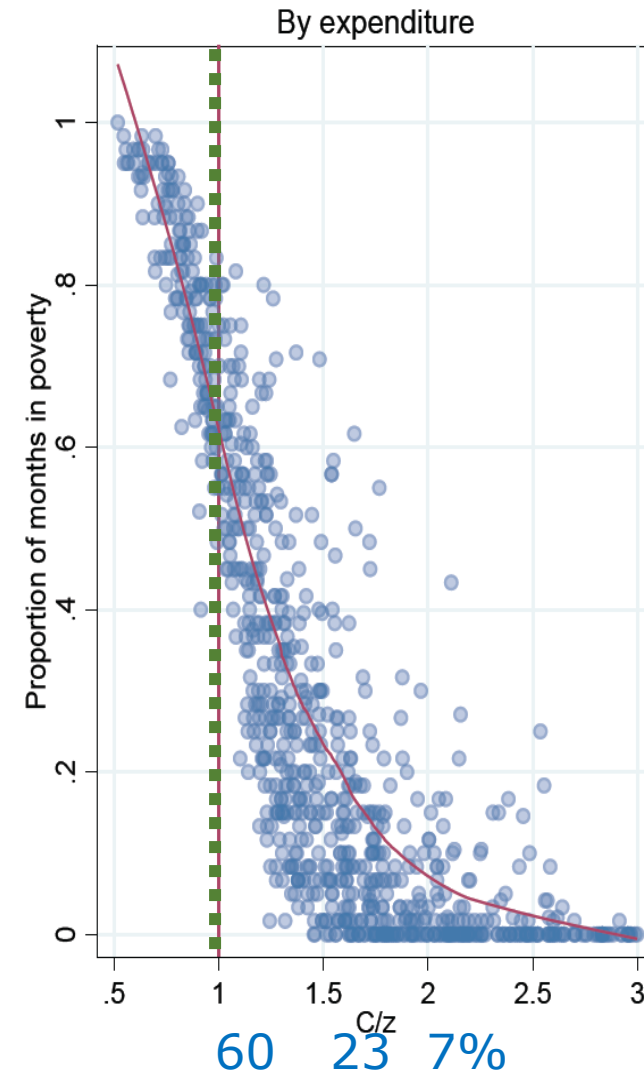
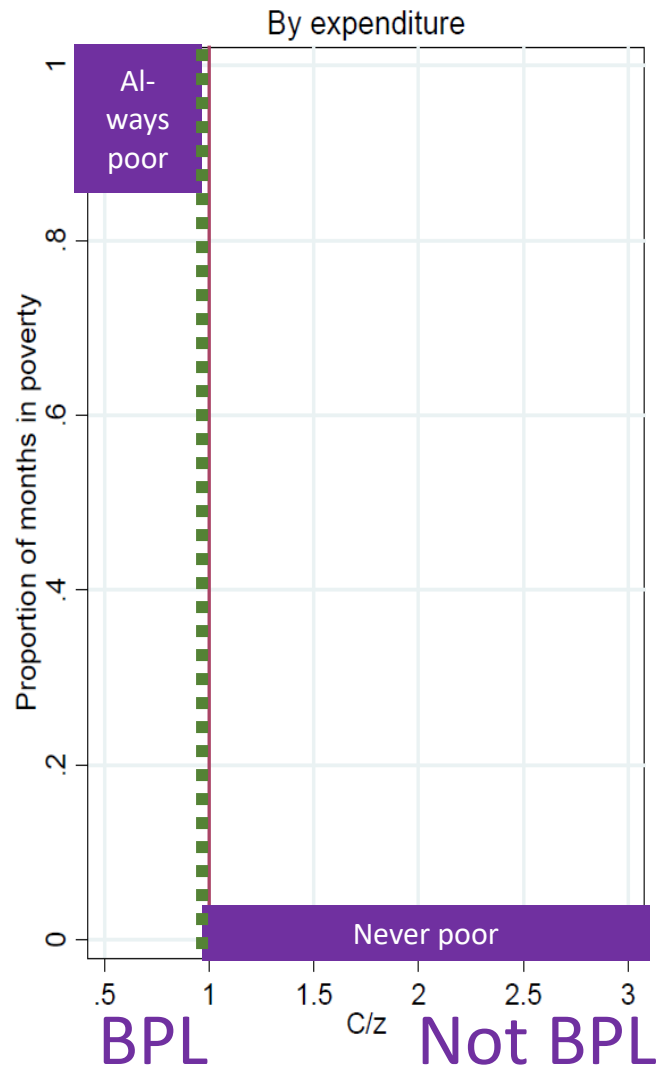
Always, never, sometimes poor

Monthly poverty by household income per capita



Always, never, sometimes poor

Monthly poverty by household expenditure per capita



35.1% of household-months in poverty attributable to households who were *not* poor based on their yearly spending. (Average, 2011-15.)

Why does this matter?

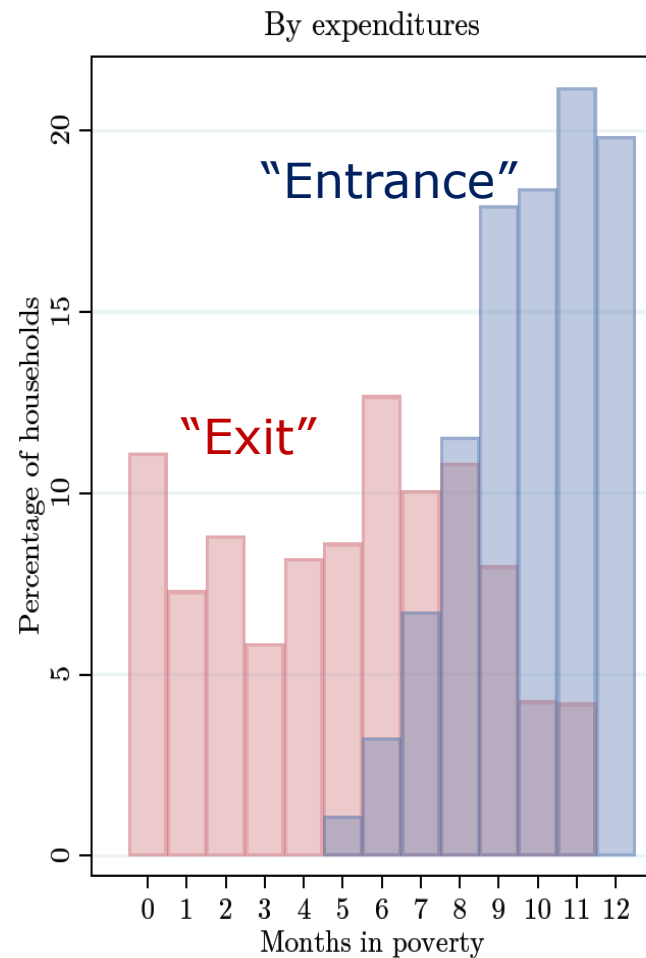
Shows that averages hide poverty. More realistic depiction of challenges of poverty

Beyond averages: Moments of opportunity. Moments of greater deprivation

Consumption smoothing is imperfect but prevalent. Helps explain a major use for finance in reducing experience of poverty

Making credit for “the poor”? Who? When?

What does it mean to “exit” and “enter” poverty?



Expected to look like:



Despite “exit”: Almost half of households are poor for ≥ 6 months.

Households “not poor” for 2 years, still poor ≥ 3 months.

Poor last year, not this year

Not poor last year, poor this year

Predictive power: lasso

Weight and child height

Table 7: Selecting the best predictors of anthropometrics through lasso

	Weight		Height	
	(1) All	(2) lasso	(3) All	(4) lasso
Monthly poverty	−0.066*** (0.015)	−0.049*** (0.011)	0.100 (0.134)	
Lagged monthly poverty	−0.055*** (0.015)	−0.051*** (0.009)	−0.357** (0.148)	−0.235*** (0.064)
Quarterly poverty	0.018* (0.011)		−0.183 (0.112)	
Lagged quarterly poverty	0.018 (0.011)		−0.059 (0.120)	
Annual poverty	0.001 (0.005)		0.076 (0.052)	
Lagged annual poverty	−0.008 (0.006)		−0.027 (0.062)	
Mean spell length	0.000 (0.004)		−0.047 (0.041)	
Lagged mean spell length	0.012*** (0.004)	0.008*** (0.002)	0.006 (0.048)	
Max spell length	0.005** (0.002)	0.005*** (0.001)	0.023 (0.024)	
Lagged max spell length	−0.003 (0.003)		0.020 (0.028)	
Observations	13,554	13,554	2,954	3,037

Notes: All variables are demeaned (by individual) such that lasso is selecting covariates by mimicking individual fixed effects. Anthropometrics is only collected once each year in July. Each survey “wave” is from July to June of the following year. As such, poverty in the “current” year is actually in the future when considering anthropometrics. For this reason, the “current” poverty measure is for the previous 12 months, while the “lagged” poverty measure is for the 12 months prior to those months.

* p<0.1 ** p<0.05 *** p<0.01

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- 2. Rethinking (micro)finance**
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Microfinance logic gives a partial view

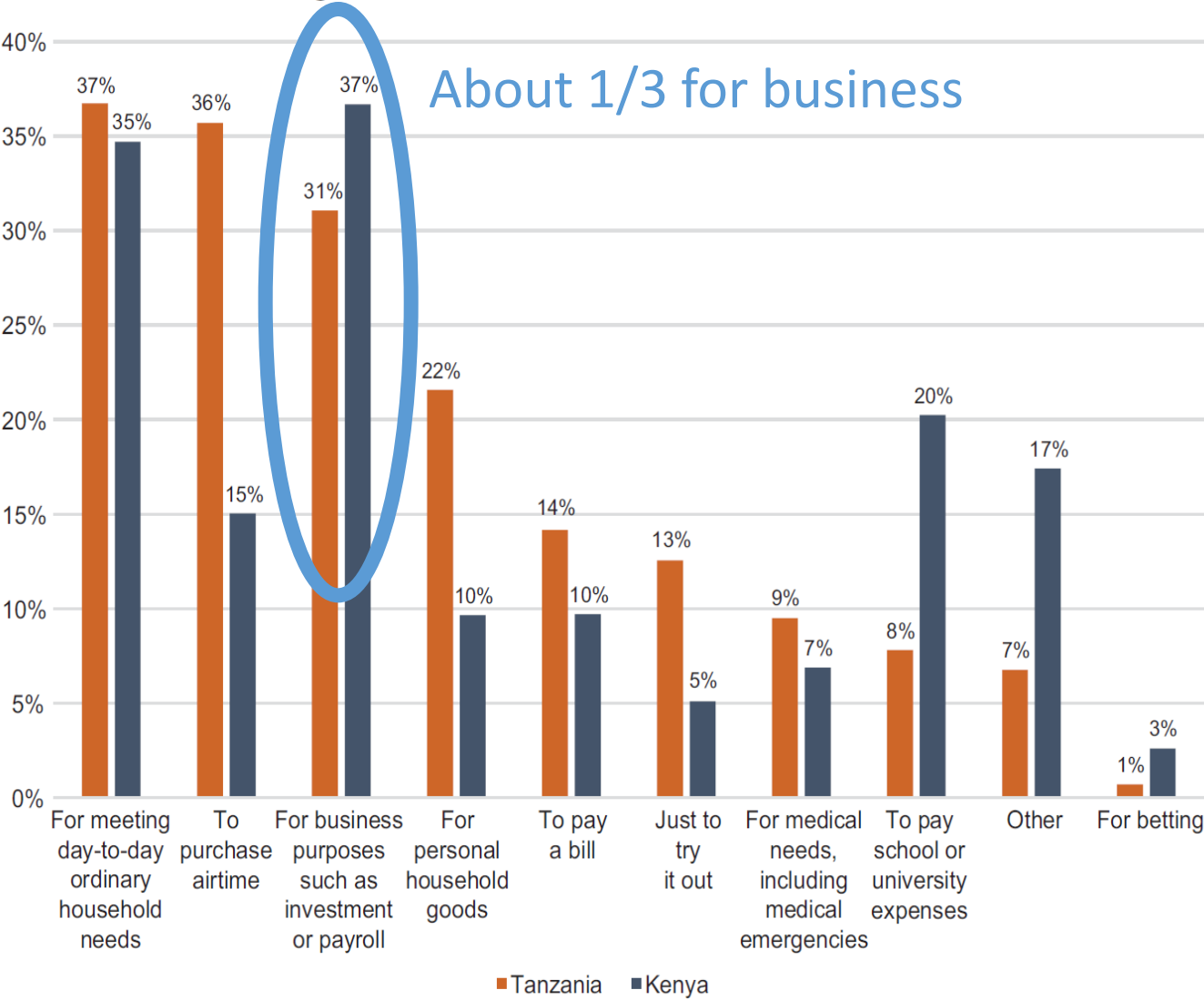
Lending for business vs consumption

Original logic: Everyone is an entrepreneur. Everyone wants business loans. People will have cash flows from profits, enabling loan repayment.

But: Evidence shows that people have general needs for liquidity and often do not borrow for business

Digital credit in Kenya and Tanzania, CGAP 2018.

FIGURE 5. Uses of digital credit



Source: National phone survey of N=3,150 in Kenya, of whom 1,037 have used digital credit, and national phone survey of N=4,574 in Tanzania, of whom 1,132 have used digital credit. Both surveys were conducted June-August 2017 and weighted to be representative of phone owners. Multiple responses were allowed.

Microfinance logic gives a partial view

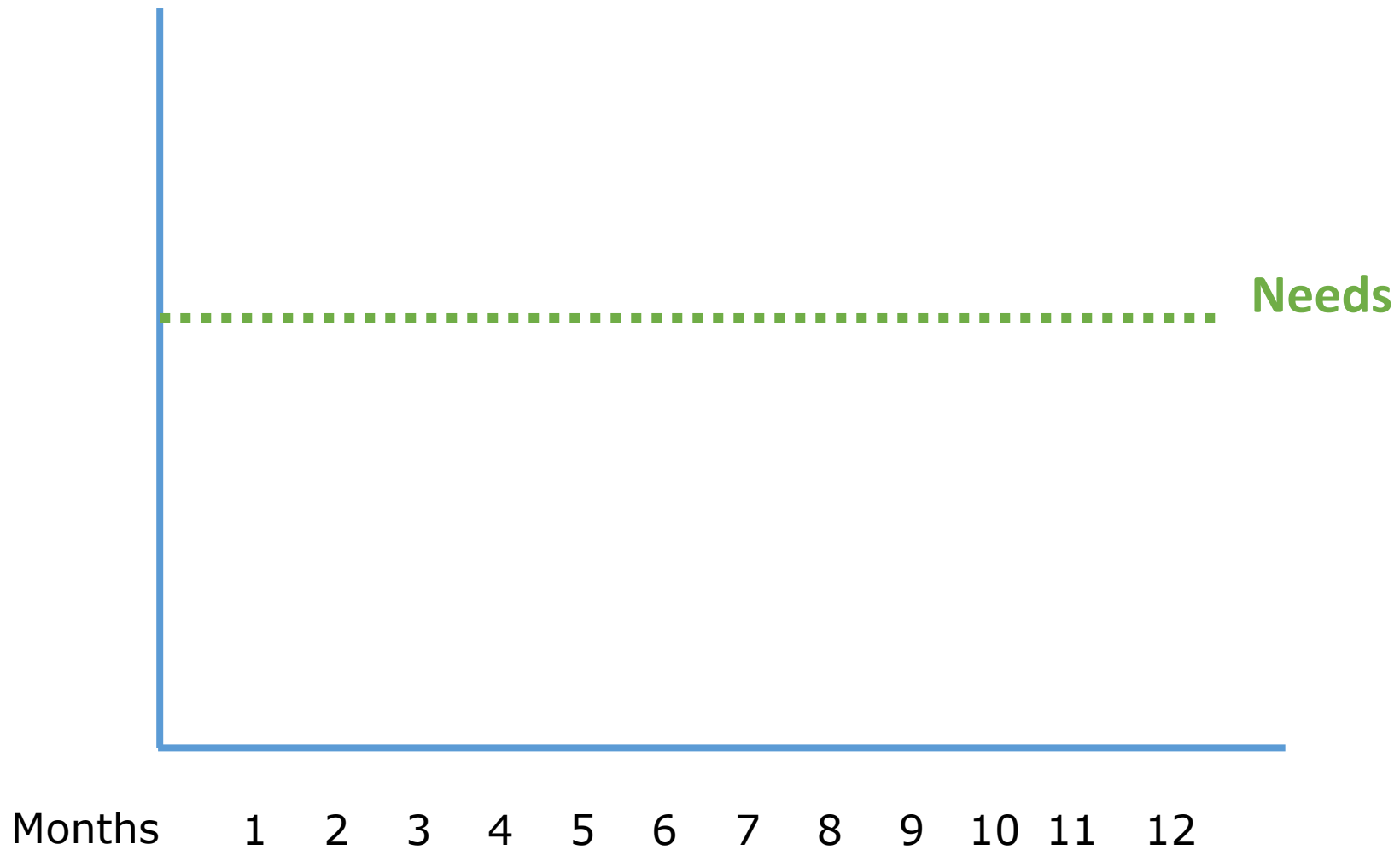
Ex ante vs Ex post moral hazard

Original narrative: *Ex ante* moral hazard is the biggest challenge for lenders. People won't work hard enough or will take too many risks since they're investing other people's money and have not secured debt.

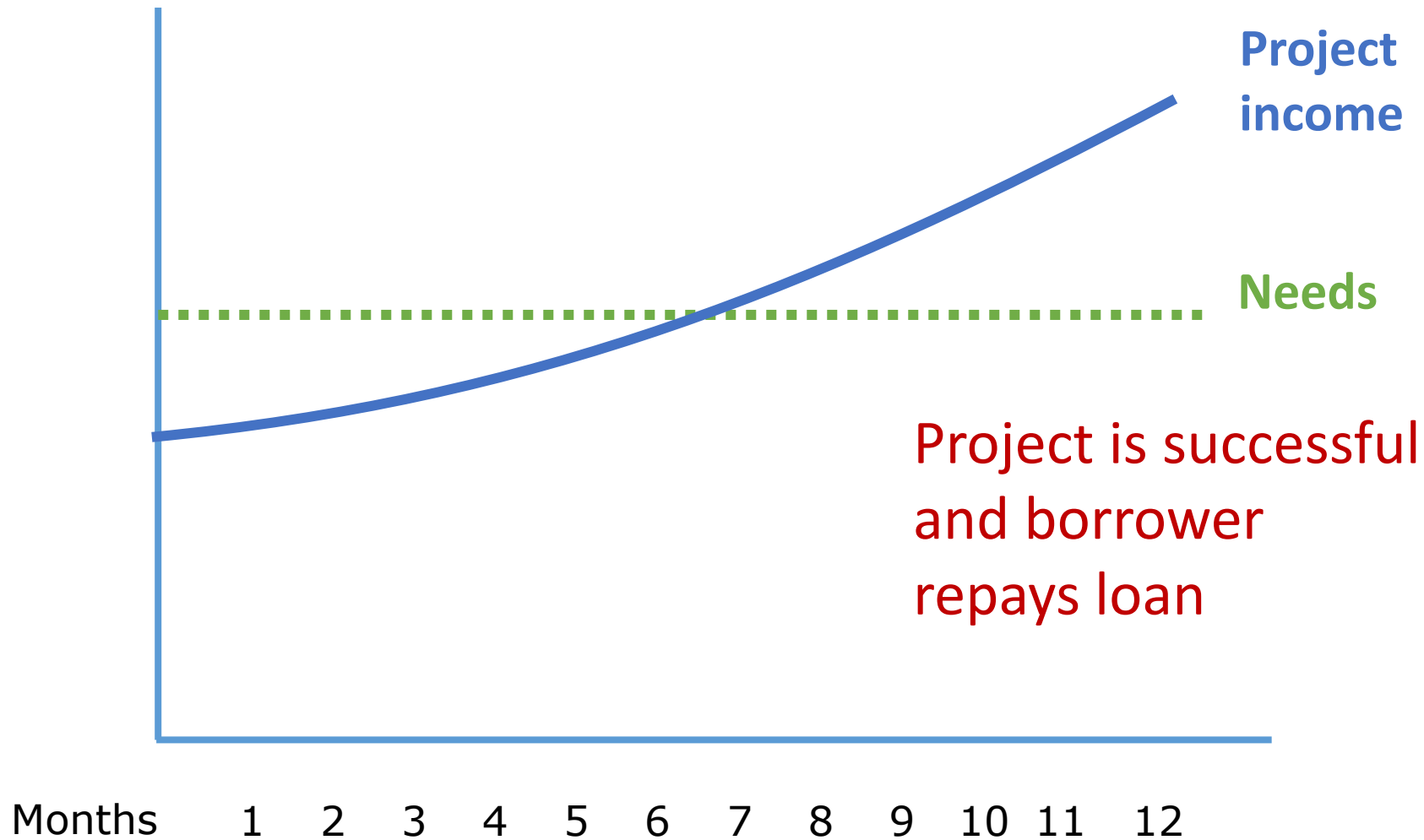
The solution is joint liability, dynamic incentives, other forms of discipline.

But: Often the problem is *ex post* moral hazard, and even that is misconstrued. The challenge for lenders is getting *priority to be repaid* when borrowers get into trouble.

Well-being over the year

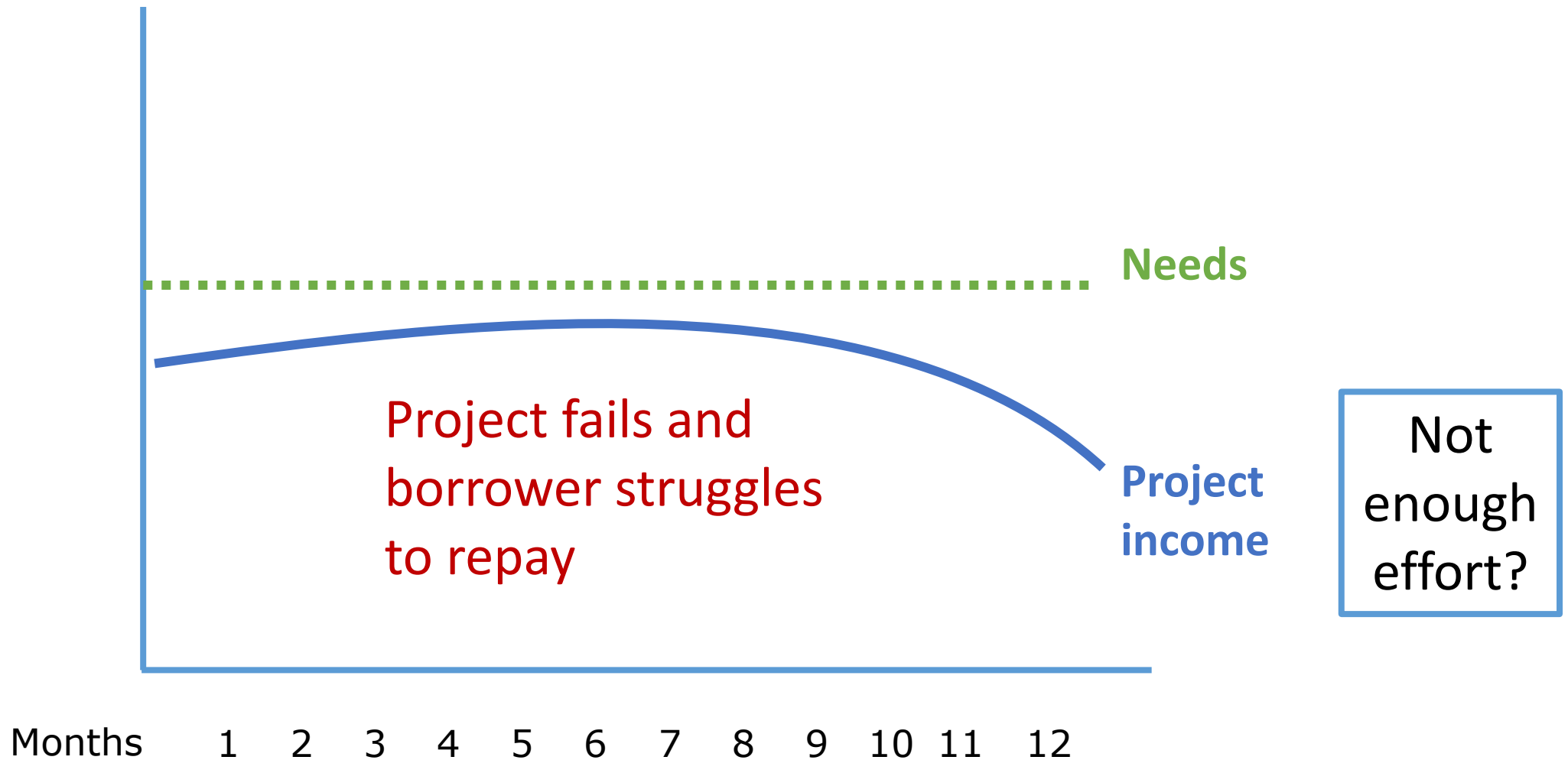


Well-being over the year



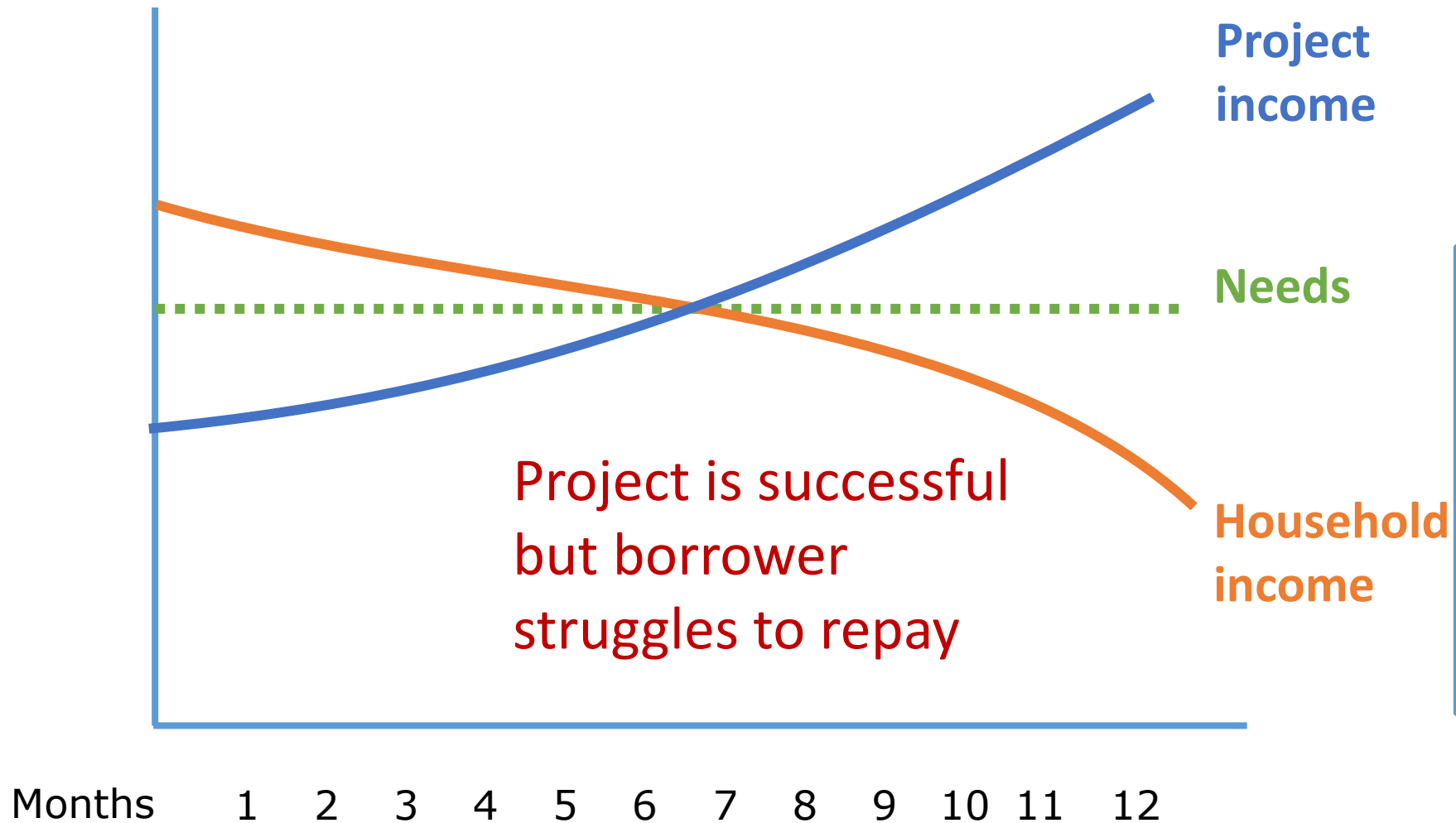
Well-being over the year

Ex ante moral hazard?



Well-being over the year

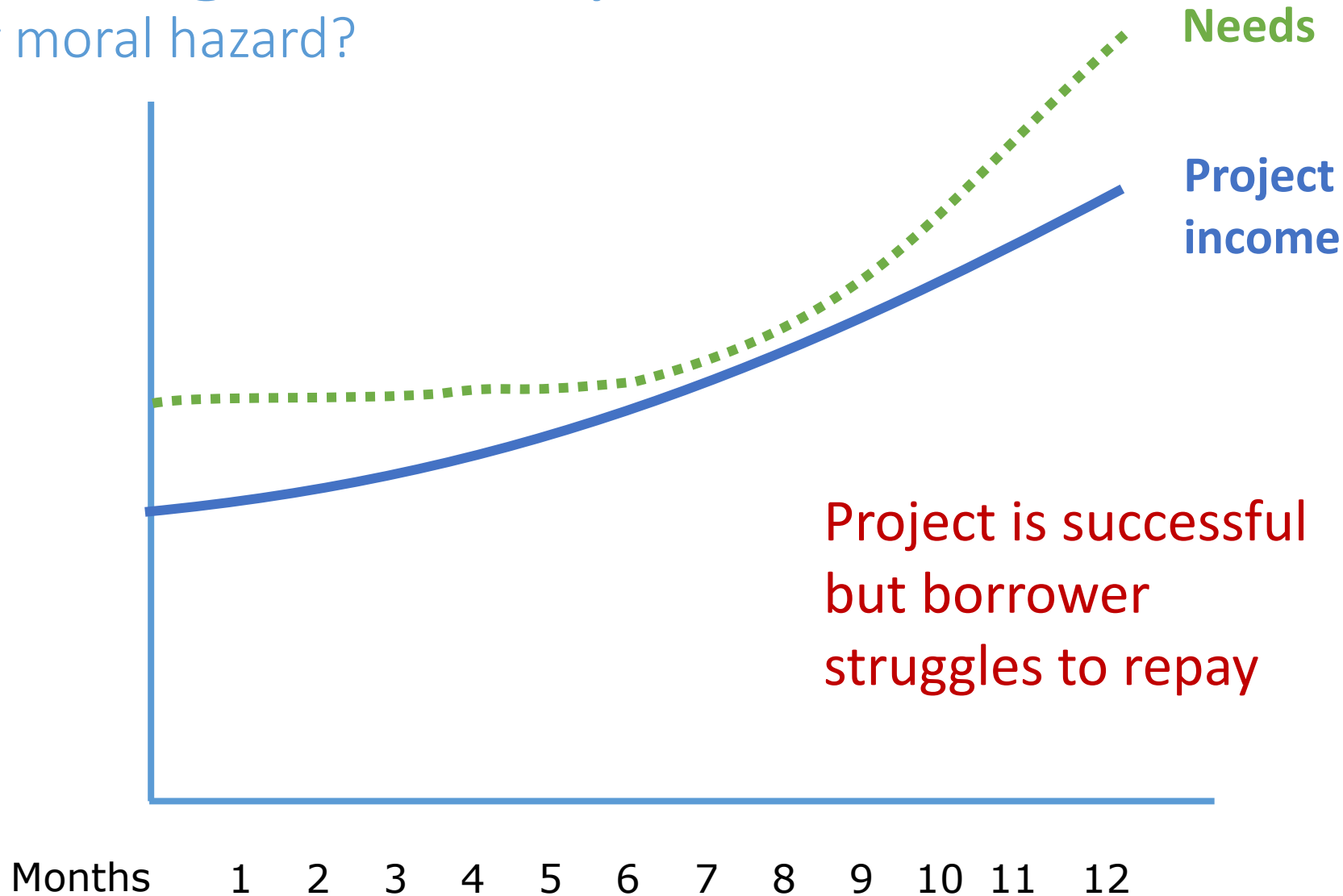
Ex post moral hazard?



Hard times:
Does lender get priority?

Well-being over the year

Ex post moral hazard?



Hard times:
Does lender get priority?

“What Happens to Microfinance Clients who Default? An Exploratory Study of Microfinance Practices”

Jami Solli with Laura Galindo, Alex Rizzi, Elisabeth Rhyne, and Nadia van de Walle
The Smart Campaign / Center for Financial Inclusion, January 2015

Evidence from Peru, India, and Uganda, 2015.

“Most serious defaulters are in financial distress and often in the midst of other life crises. A sick child, spouse, or parent needs expensive medical treatment. Another borrower’s entire crop was lost due to drought. Another elderly borrower was robbed of her goods while exiting from a two-hour bus ride to the market.”

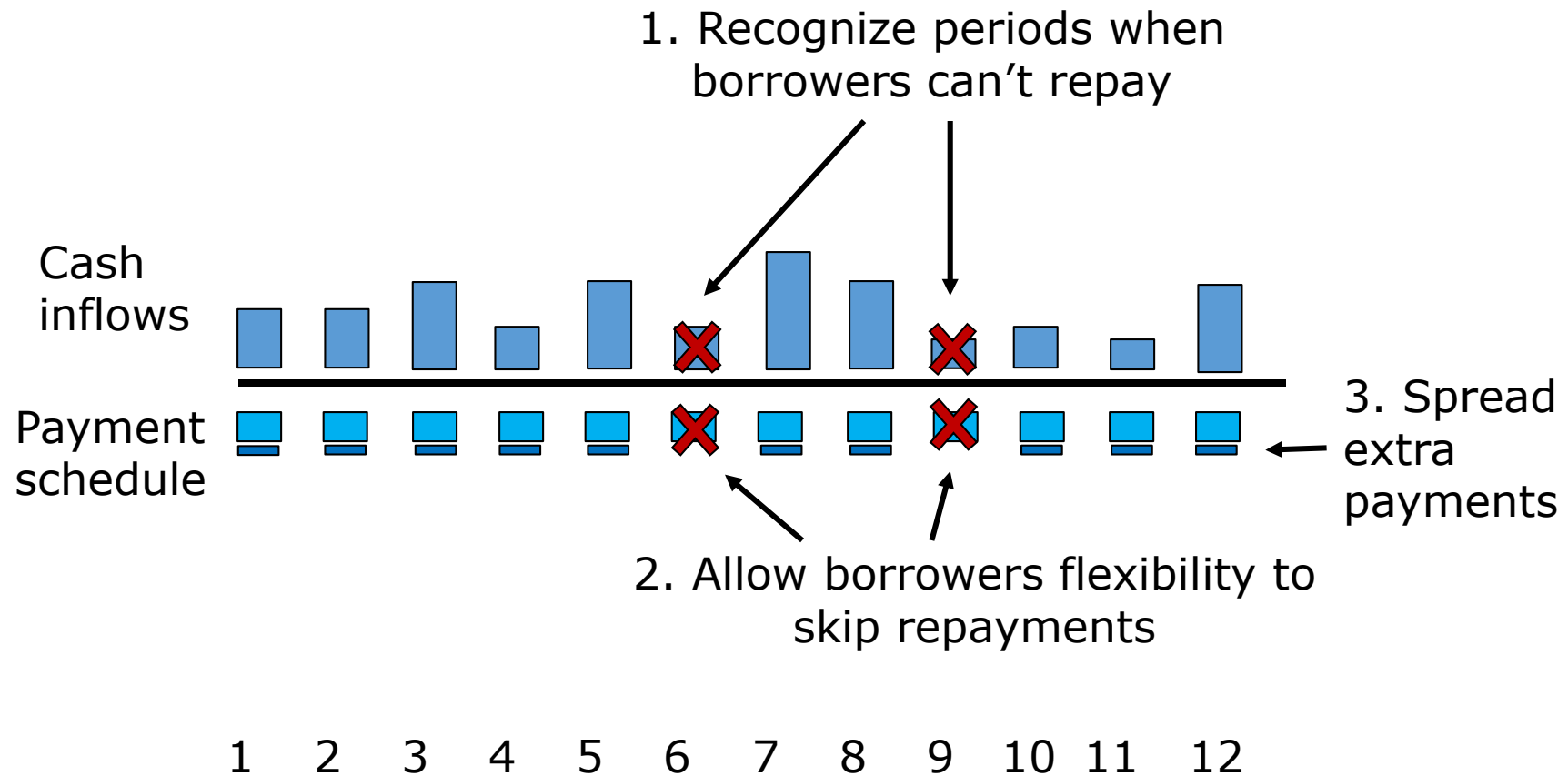
“Defaulting customers are already likely to be full of anxiety because their lives are not working as planned.”

Agenda

1. Rethinking poverty
2. Rethinking (micro)finance
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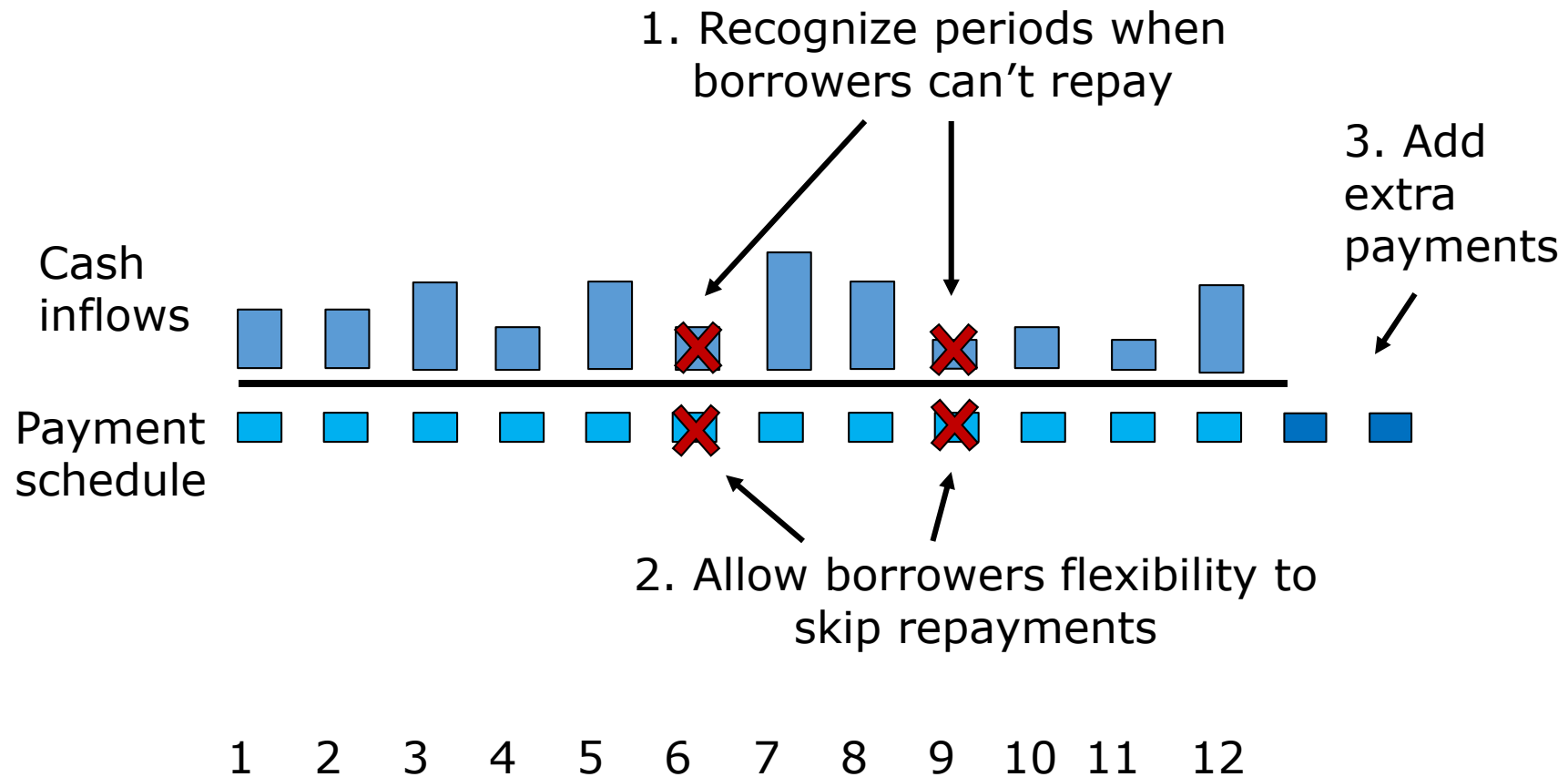
Optimal repayment schedule

Depends on cash flow patterns



Optimal repayment schedule

Depends on cash flow patterns



BRAC Bangladesh RCT: Borrowing results

- Borrowing from BRAC: up by 15% compared to the control sample.
- Borrowers extend 74% more loans or transfers to their social networks.
- Borrowers have
 - higher household income (17%),
 - more household assets (25%),
 - and own more land (26%).
- Tradeoff for lender? Likelihood of default falls among eligible microfinance clients (35%). More likely to remain as BRAC borrowers.

Battaglia, M, Gulesci, S and Madestam, A (2021), "Repayment Flexibility and Risk Taking: Experimental Evidence from Credit Contracts", JPAL working paper.

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“Many a lender who started out softhearted soon realized that having flexible, or ‘soft’ strategies led to rising risk. The loss of any single loan is a small threat, but many defaults can destroy the business.”

The Lender's Logic

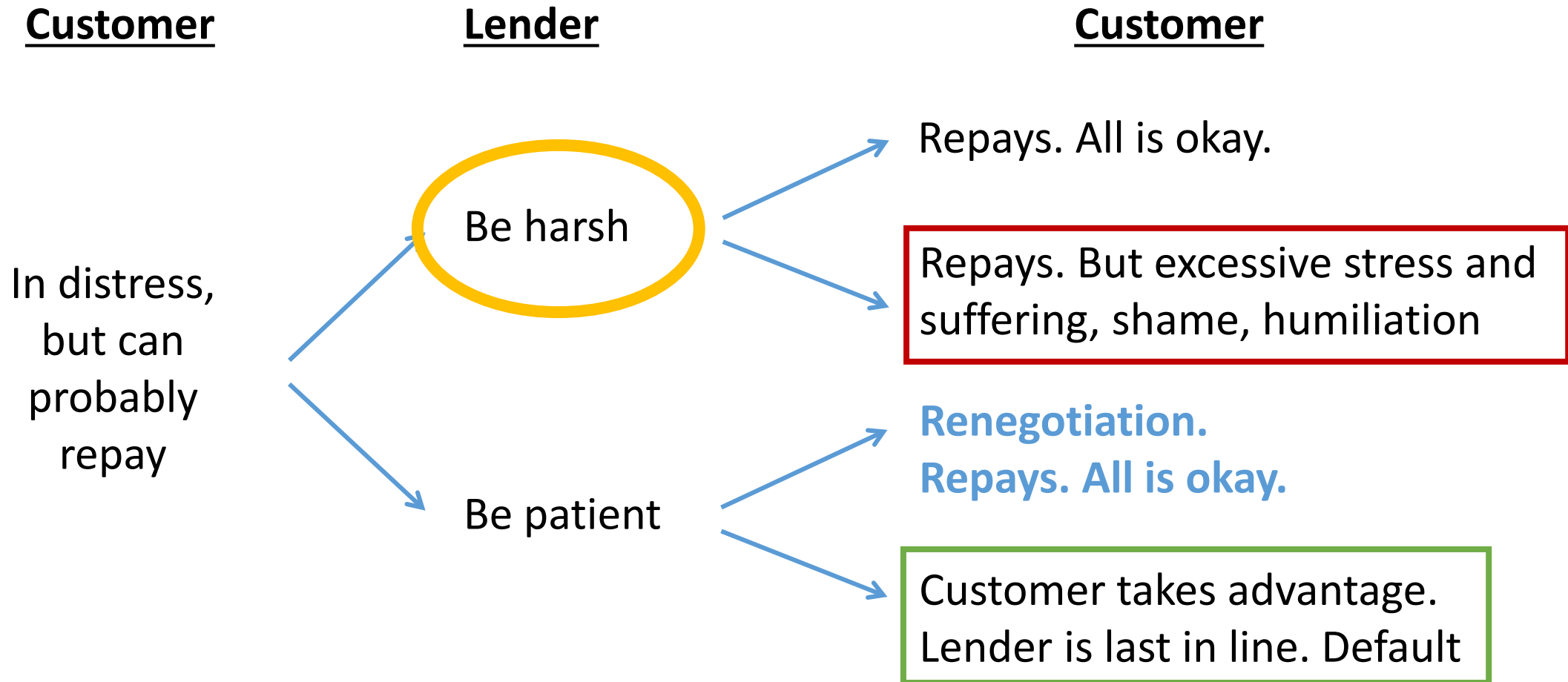
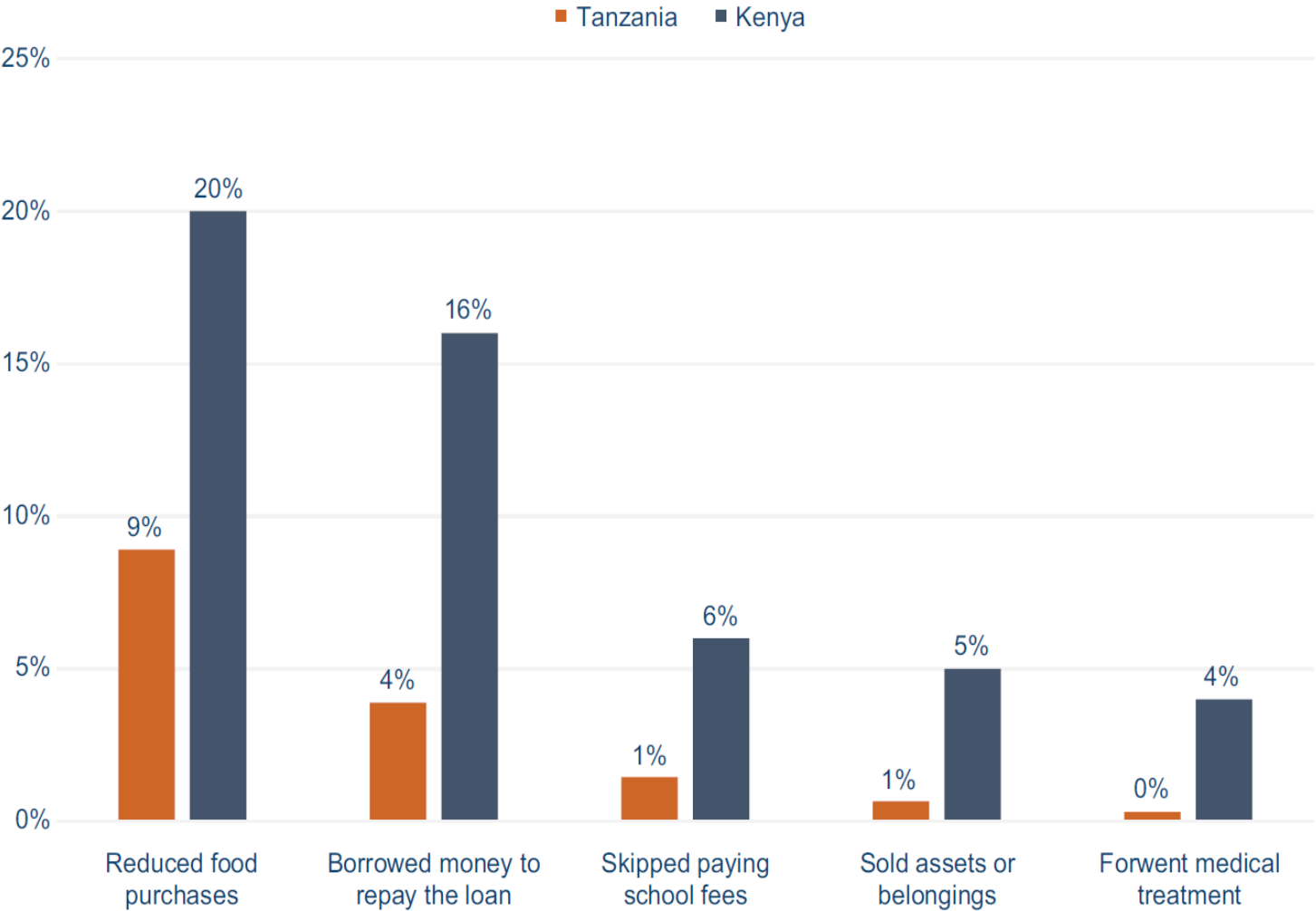
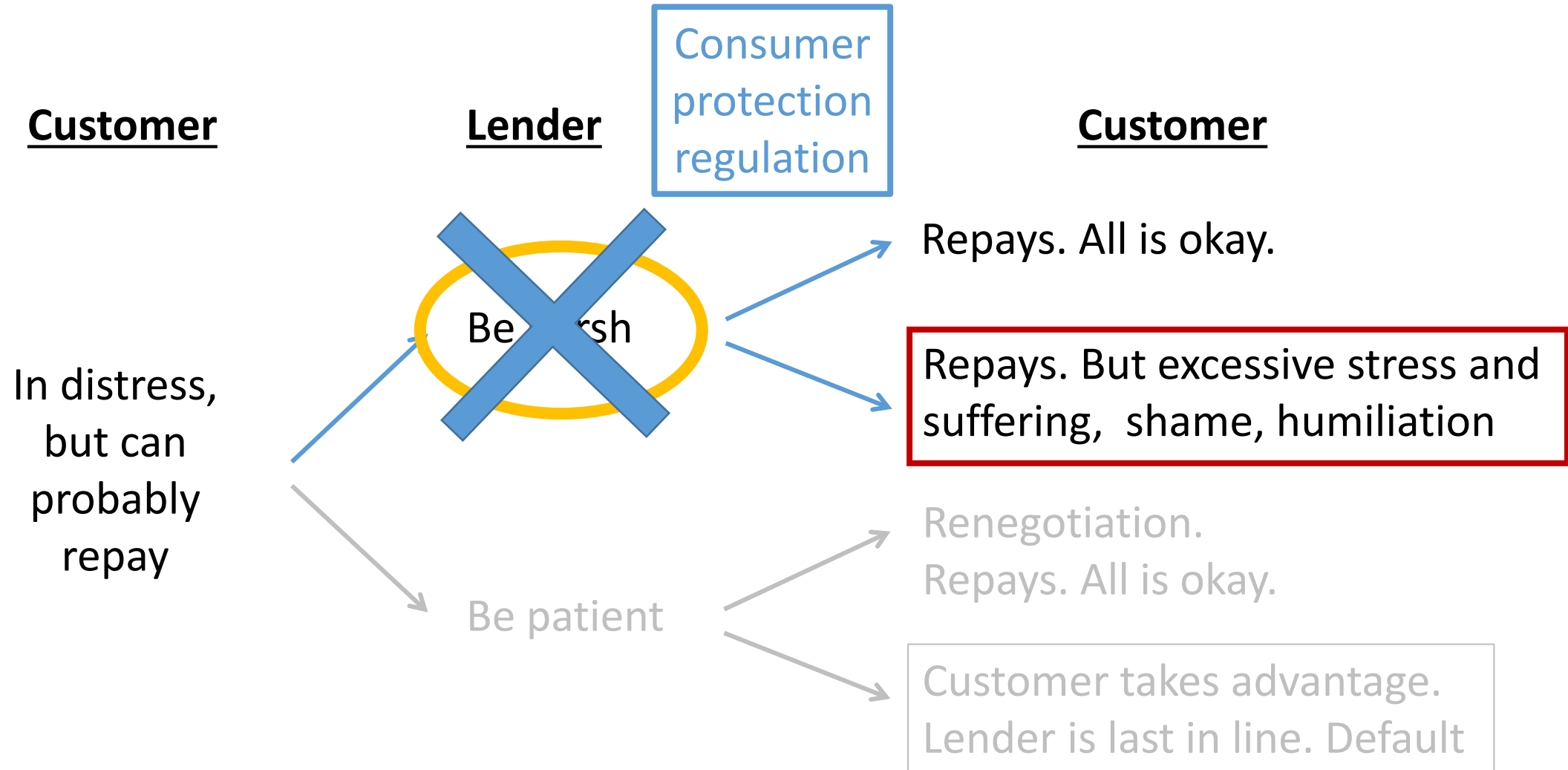


FIGURE 11. Actions taken to repay loans

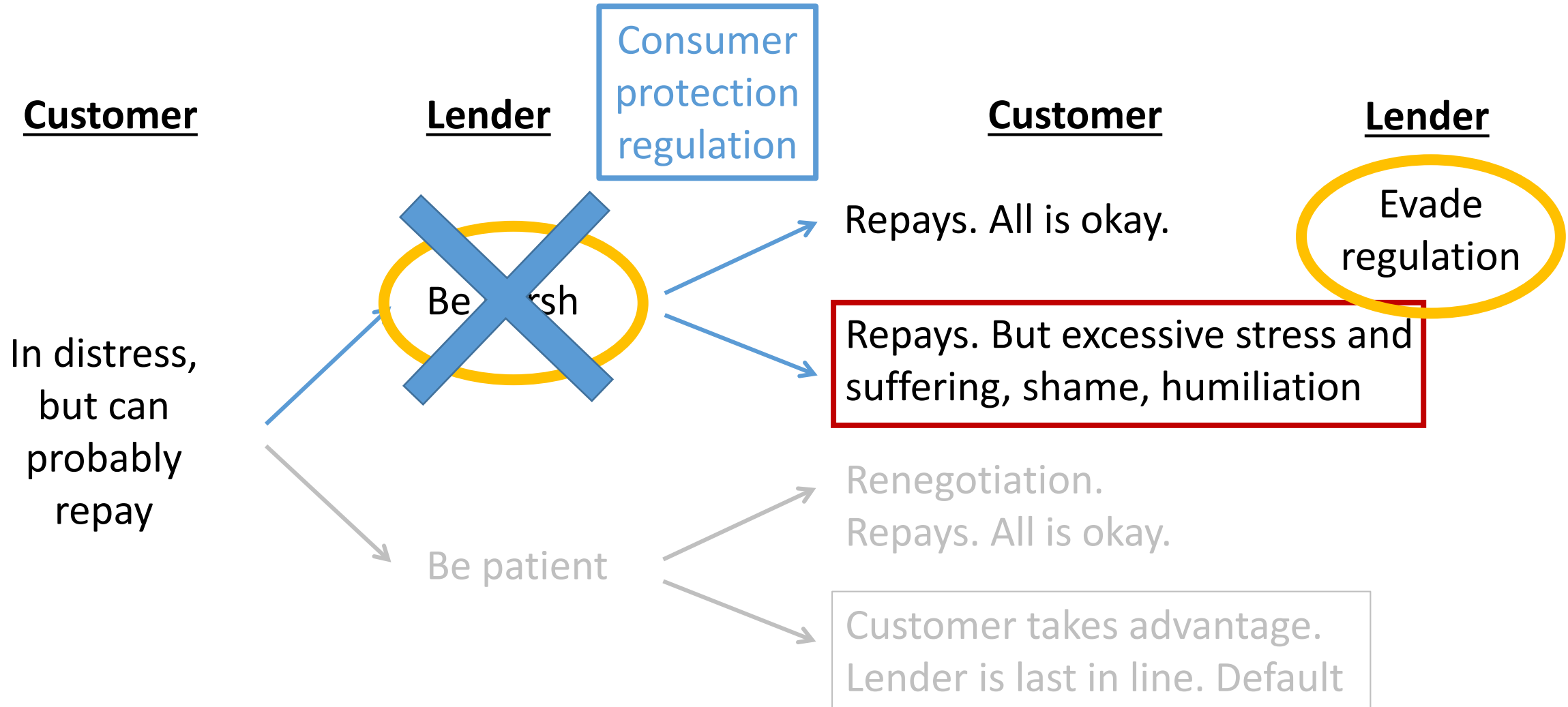


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The Regulator's Logic



The Lender's Response to the Regulator's Logic



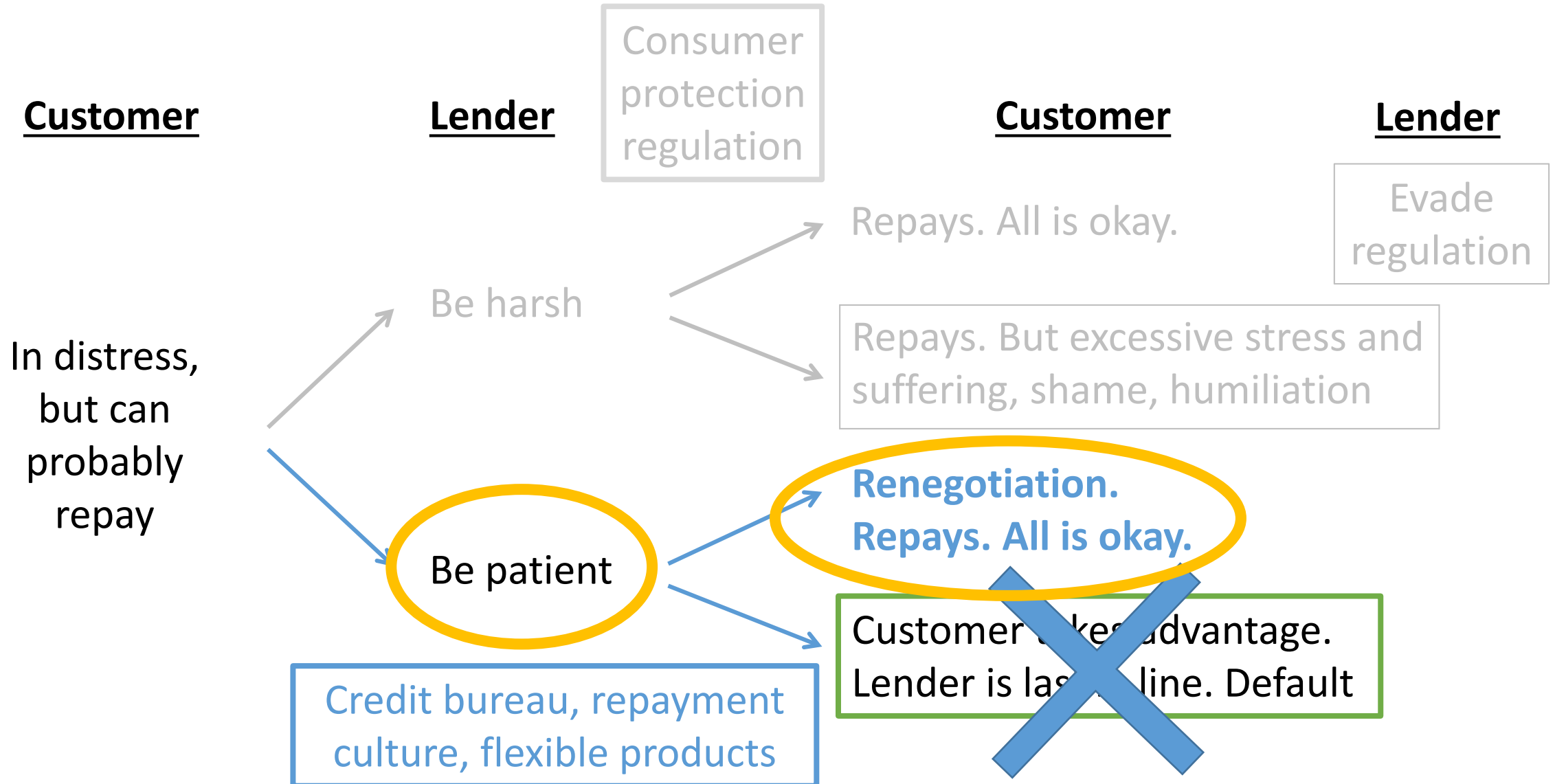
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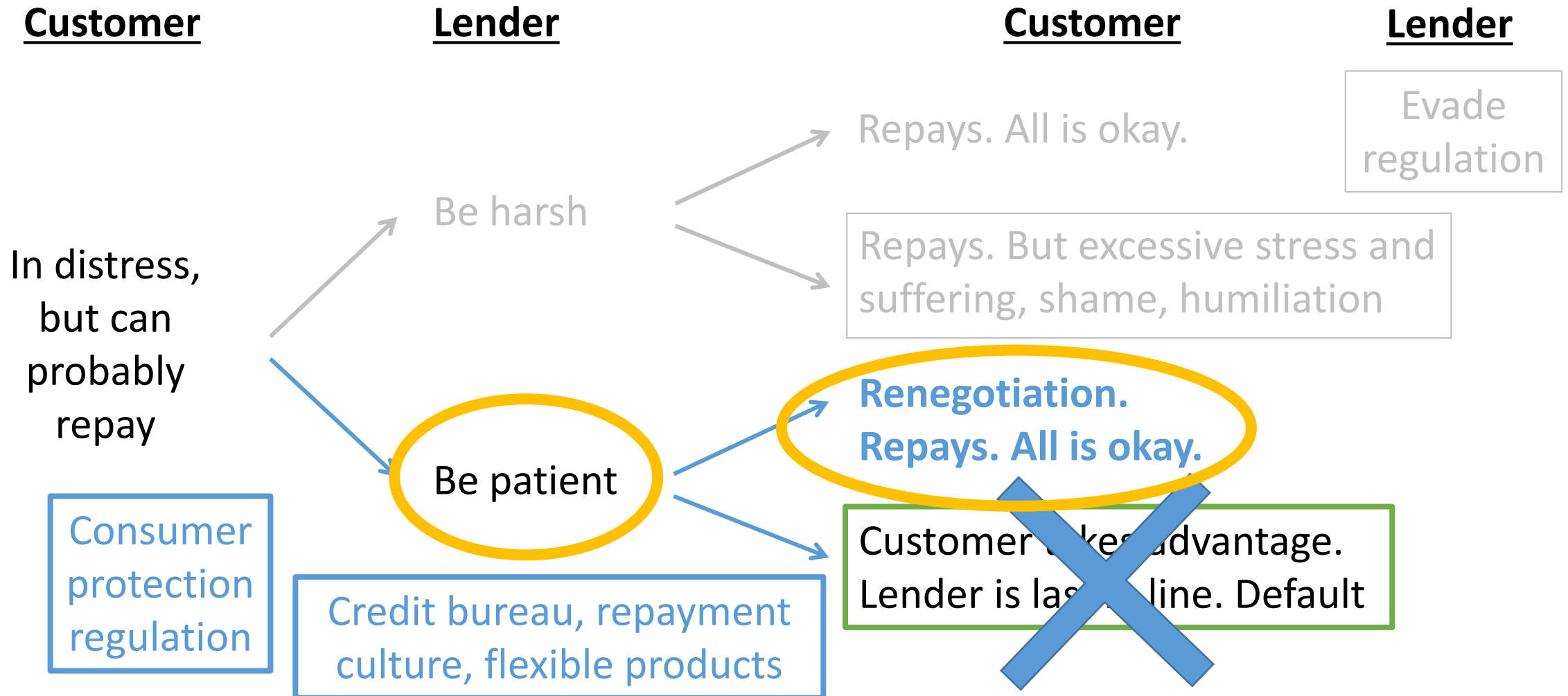
“Humane collections can happen when a country has three things: good regulators, a credit bureau that works well, and a culture that upholds fulfillment of debt obligations.

“When these features are weak or one or another is missing, lenders are pushed by the demands of the market (such as the need to avoid being the last in line to collect) into harsh practices.”

How to shift to a better outcome?



How to shift to a better outcome?



Reflection

Need good regulation

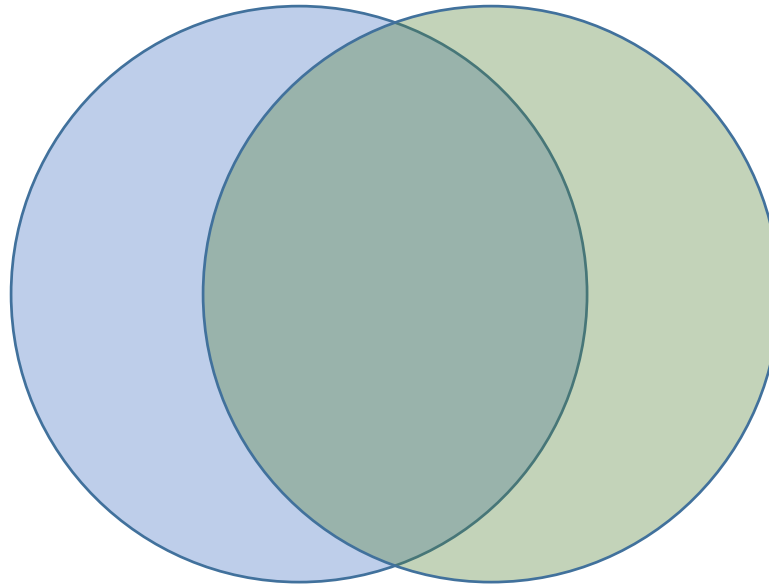
Need good regulation that will have force

Being harsh can be a rational strategy for lenders. Need to shift incentives.

Options

1. Put lots of resources into monitoring and enforcement
2. Create incentives that address lenders' fears and sustain fairer outcomes:
 - Culture of repayment and accountability
 - Credit bureaus
 - Flexible products

Thank you!



Household finance

Poverty policy