Why do People stay Poor?

Evidence on Persistence of Poverty from a Randomized Asset Transfer Programme

Maitreesh Ghatak

(with Clare Balboni, Oriana Bandiera, Robin Burgess and Anton Heil)

London School of Economics

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Introduction

Question

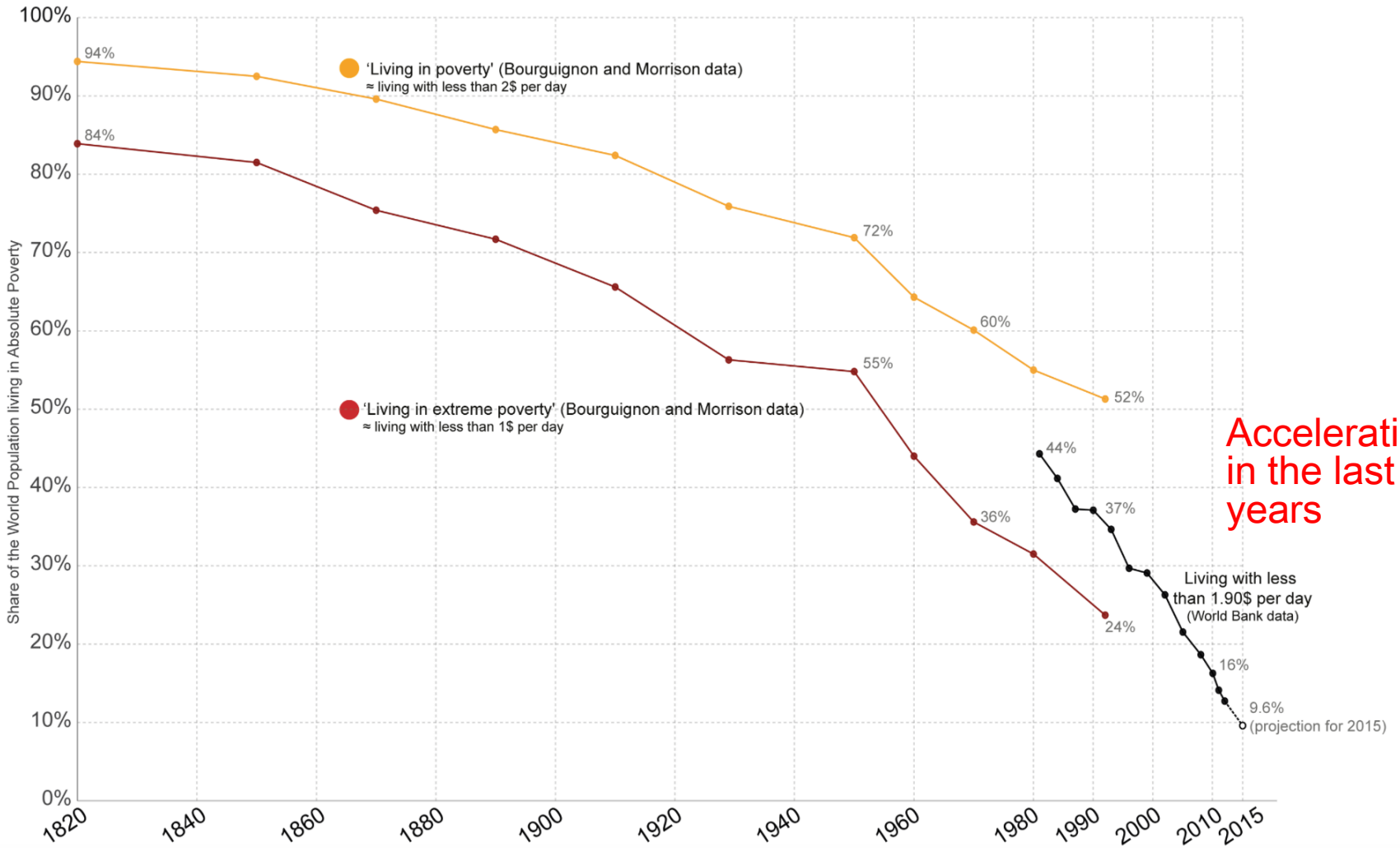
- Is poverty persistent? In particular:
  - Are the poor “stuck” in a trap and need a push to move out of it?

    or
  - Is it a combination of economic fundamentals (productivity, preferences) & slow convergence?
- Derive theoretical predictions and provide a test based on RCT evidence from a one-time asset-transfer programme in Bangladesh where the recipients were surveyed 2, 4, & 7 years after the initial transfer

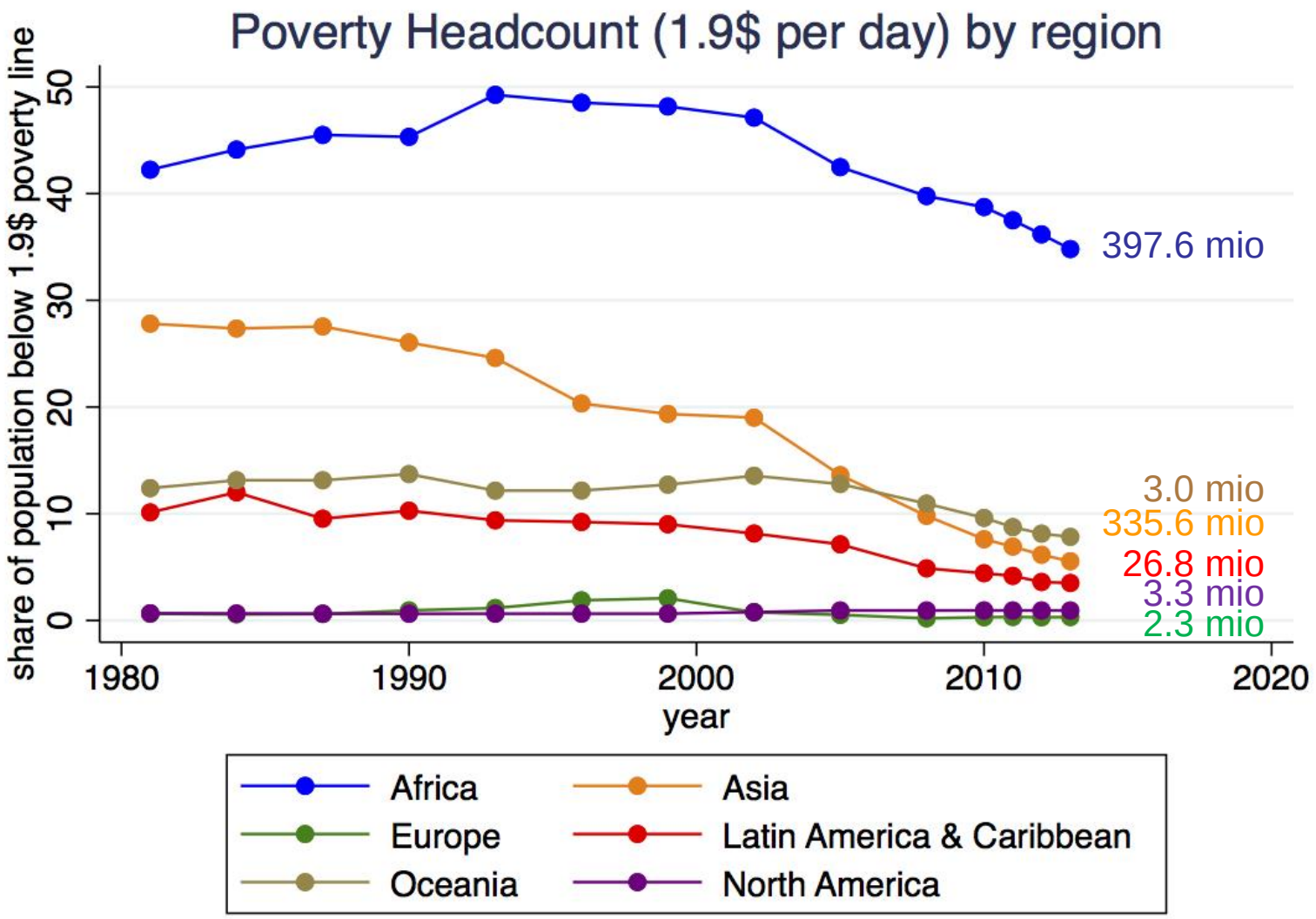
Poverty

- *Global* poor are those whose income falls below the global poverty line, the famous "Dollar A Day" line
  - nowadays $1.90

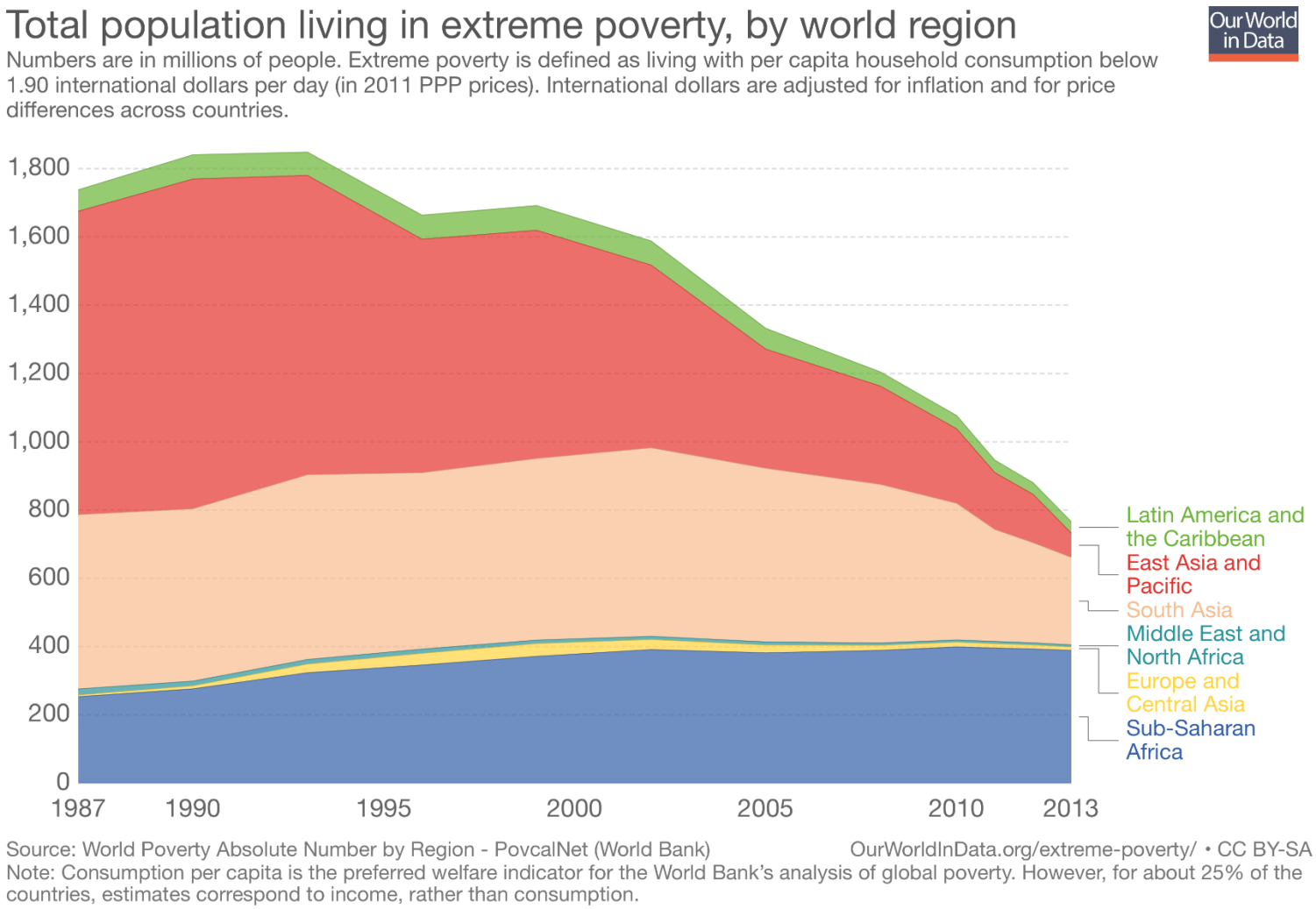
The share of people living in absolute poverty has been dropping steadily in the last 200 years



Poverty has been decreasing but is still high in SSA and SA



But numbers are stable in the poorest regions



Eradicate extreme poverty by 2030 (SDG1)?

- Need to address the “stubborn poverty” problem: a lot of poor people are left behind even as countries grow.
- We need to understand why people stay poor in order to design policies that lift the poorest out of poverty

What causes poverty to persist?
Two standard views – convergence vs poverty trap

Equal access to opportunity, different fundamentals

- People have different fundamentals (productivity, preferences) which determine their occupational choices and earnings
- In the long run people converge to a steady state determined by fundamentals

Unequal access to opportunity, similar fundamentals

- People have different access to opportunity which determine their occupational choices and earnings
- People with the same fundamentals may converge to different steady states, depending on initial endowments

Make precise the assumptions underpinning the two views

Equal access to opportunity, different fundamentals

- People have different fundamentals which determine their occupational choices and earnings
- Convergence to unique steady state occurs if either
  - DRS to factors that can be accumulated

  Or

  - Perfect credit markets

Unequal access to opportunity, similar fundamentals

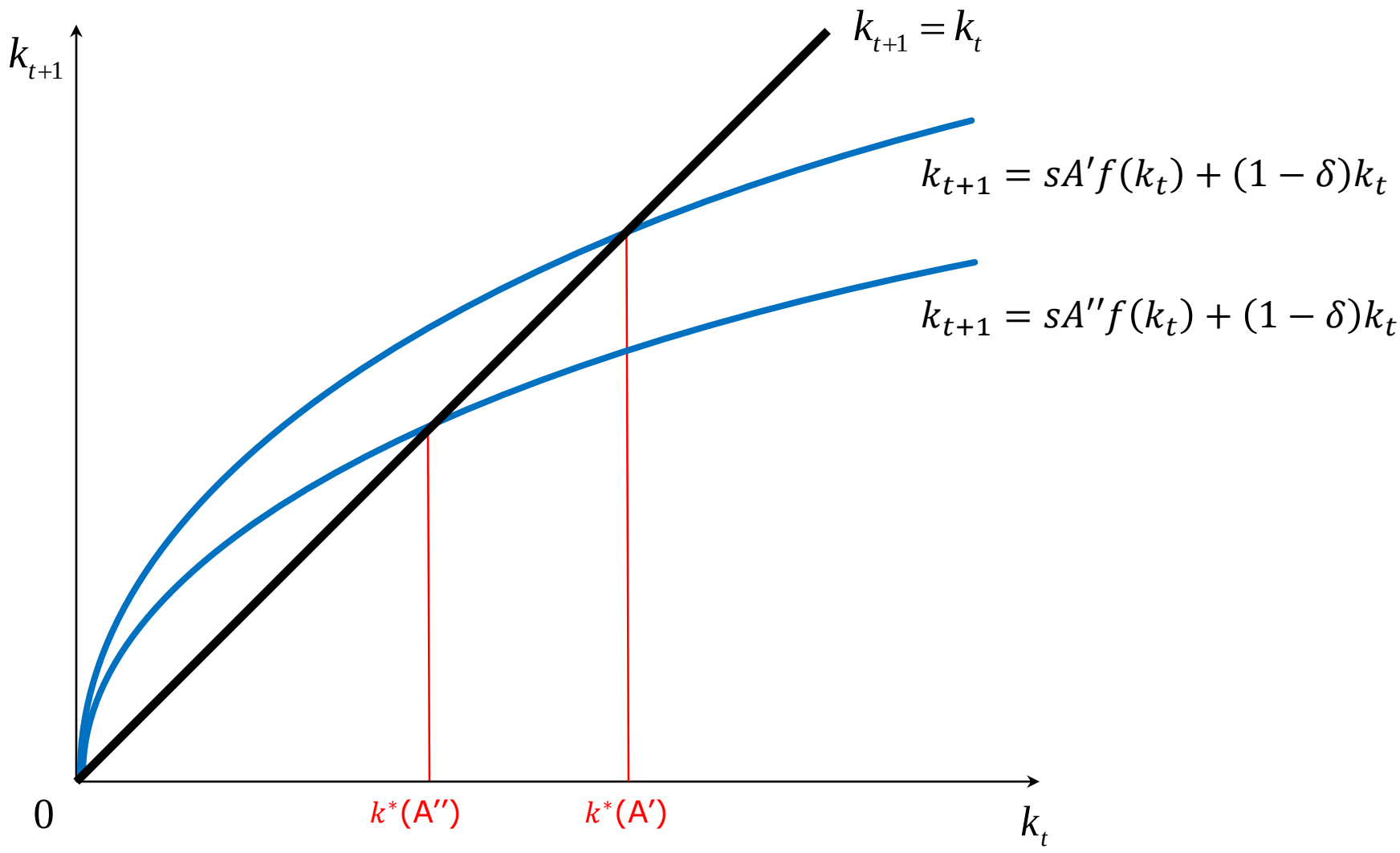
- People have different access to opportunity which determine their occupational choices and earnings
- Multiple steady states may exist if
  - IRS to factors that can be accumulated

  And

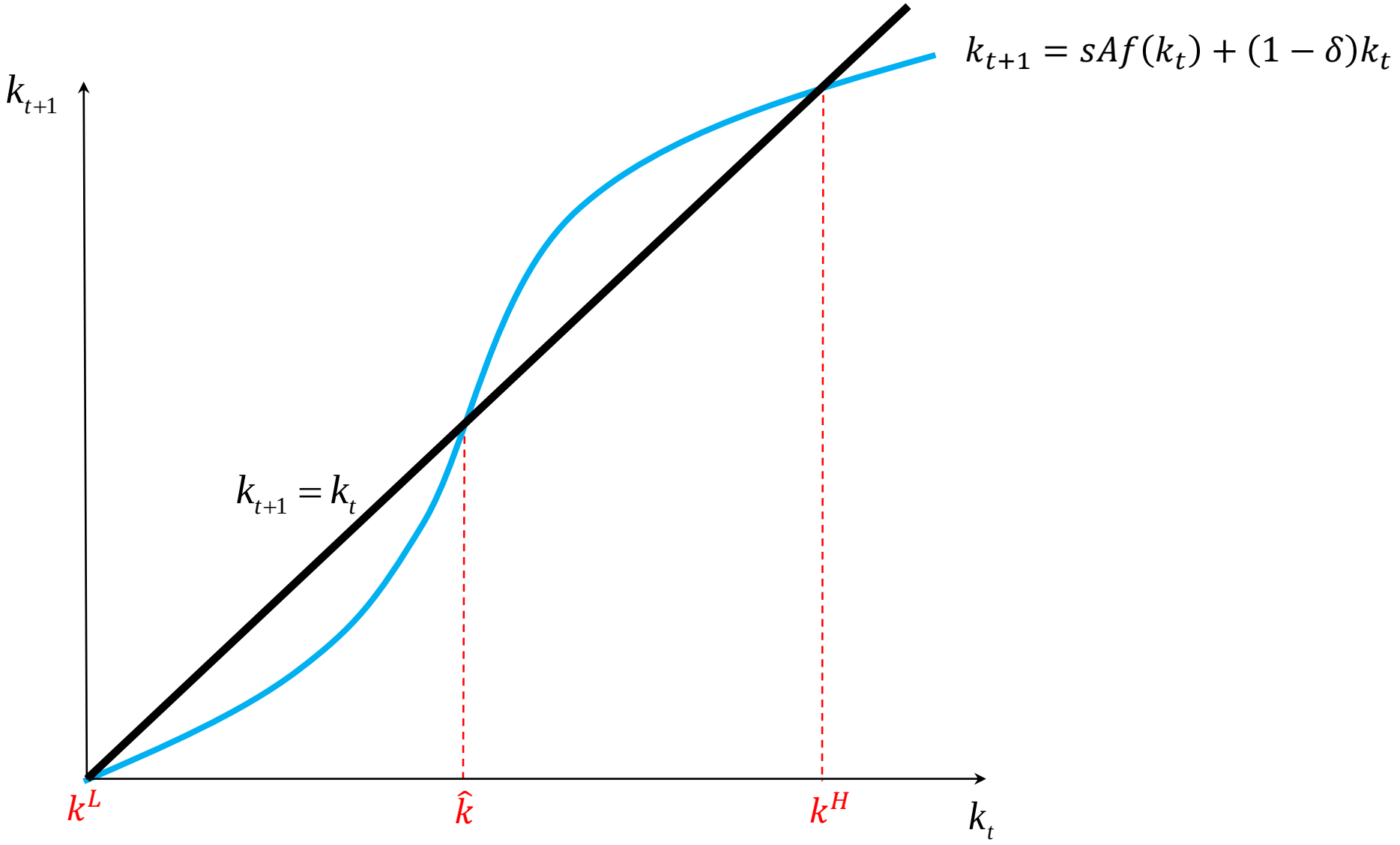
  - Imperfect credit markets

See Ghatak (WBER 2015)

If opportunities do not depend on initial wealth, you need differences in innate traits (A, s) to explain poverty



If opportunities depend on initial wealth, individuals with identical innate traits (A, s) can end up poor or non-poor



Poverty traps are both unfair and inefficient

- Unfair because two people with the same potential end up with different standards of living because of accidents at birth → poorer person faces higher barrier

- Inefficient because productive people who are born poor will not be able to exploit their productive potential and will be replaced by a less productive, richer, person

- Unutilized assets – institutional frictions prevent surplus creation (credit markets, long term labour contracts)

Poverty traps

- The idea of poverty traps (multiple equilibria) has a long history in development theory both macro and micro (Rosenstein-Rodan 43, Nelson 56, Dasgupta Ray 86, Banerjee and Newman 93, Azariadis 96, Azariadis and Stachurski 06, Ghatak 16)
- Empirical investigations include calibrations (Graham and Temple 06) and tests of the underlying assumptions (Kraay and McKenzie 16)

Why do people stay poor?

- Labor is the sole endowment of the poor → the link between jobs and poverty is key
  - over 65% of workers (2bn people) are in low-productivity, informal jobs with low earnings (WB 2013)
  - 98% of agricultural wage employment in India is through casual jobs in spot markets (Kaur 2017)

- Do people stay poor because they are only able to do bad jobs or do they do bad jobs because they are poor?

Evidence

Can the poor do better jobs when given the chance?

- Study by Bandiera, Burgess et al QJE 2017
- Sample over 21k households in1309 villages in rural Bangladesh
- 6% of population defined as ultra-poor (does not even qualify for microcredit)
- The poorest women in **randomly chosen villages** receive a large asset (a cow) with some training

- All ultra-poor in these villages get assigned to treatment or control
- Survey all ultra-poor and near-poor, plus 10% sample of upper and middle class
- 4000 beneficiaries engaged solely in casual labor at baseline
- Near doubling of baseline wealth for the ultra-poor
- Surveyed again in 2009, 2011, and 2014

Casual labor pays less per hour and is available on fewer days

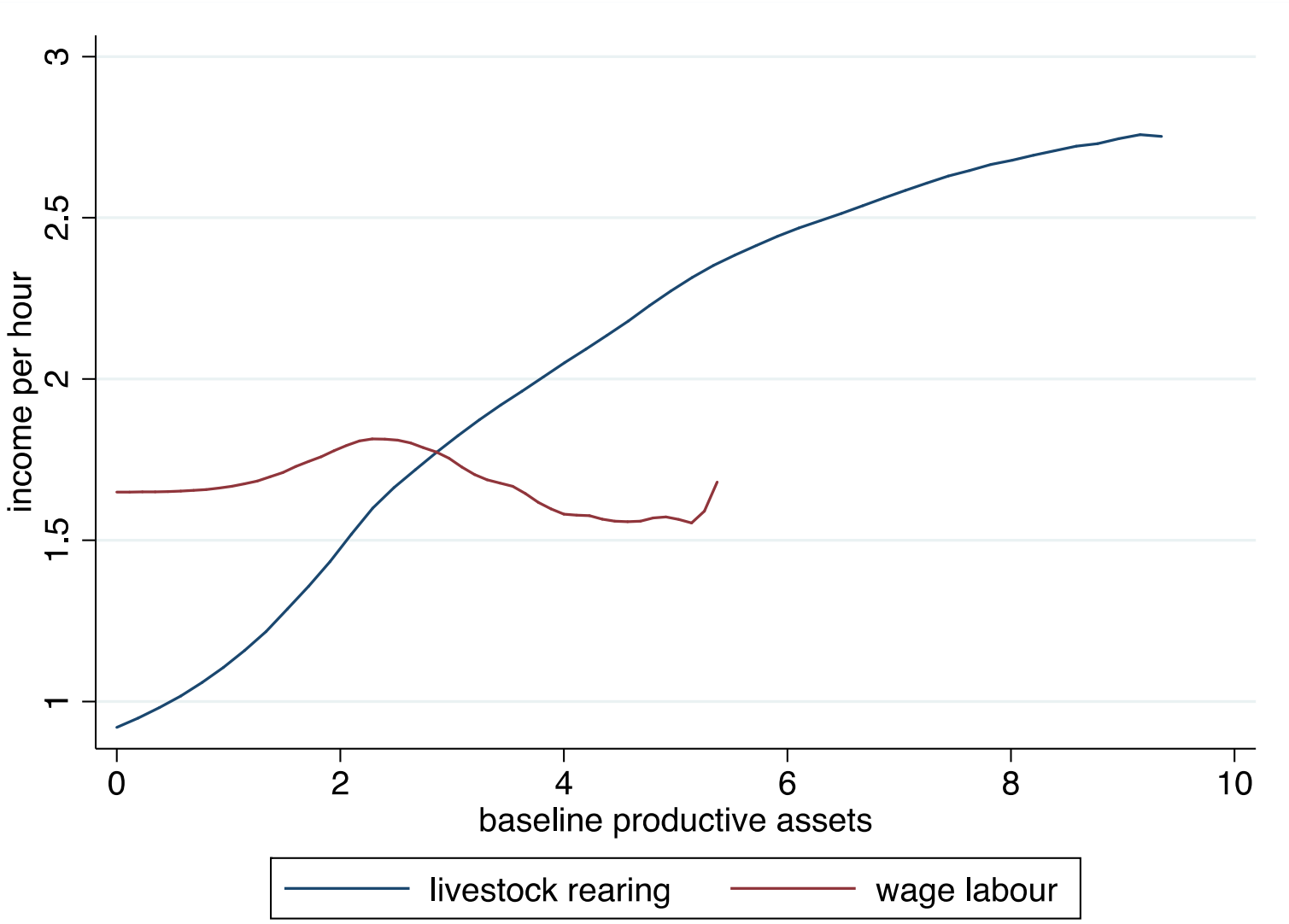
Village Level Statistics, Measured Pre-Intervention

Means, standard deviation in parentheses

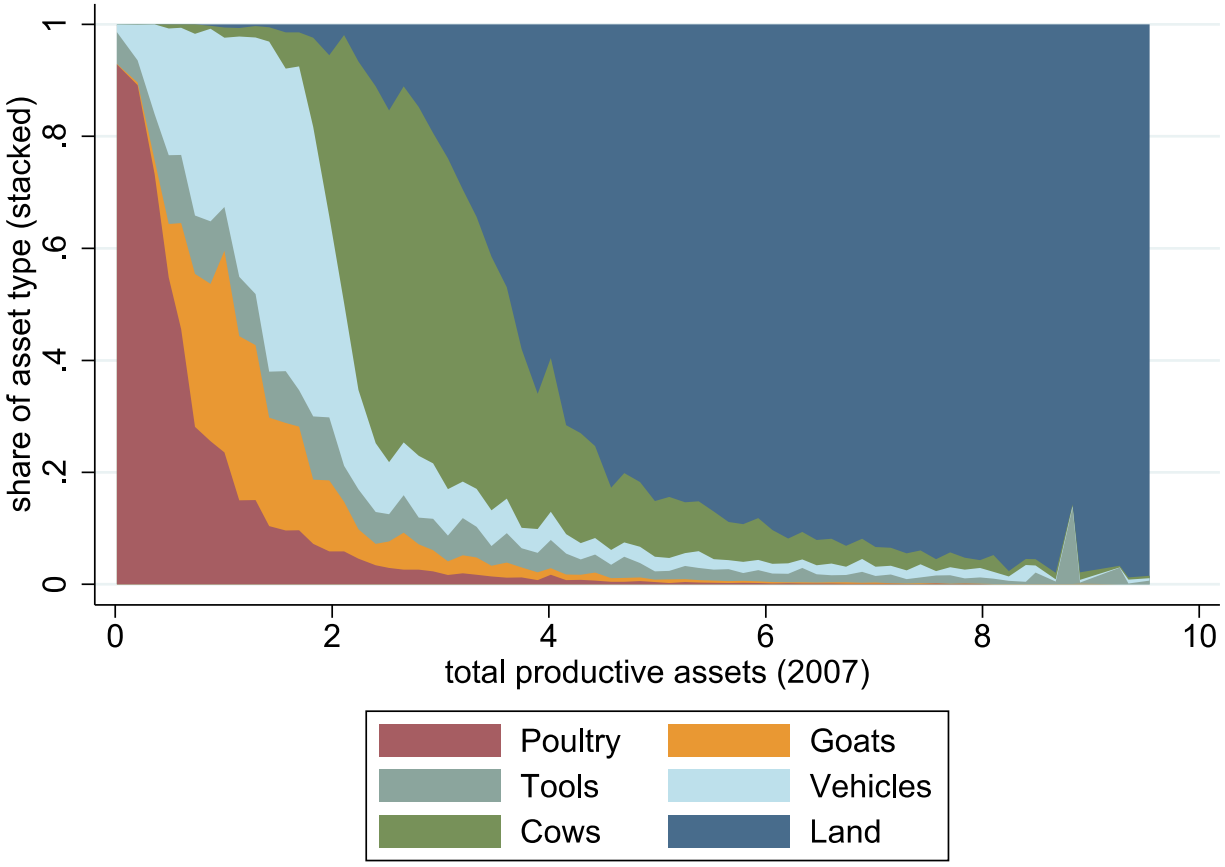
	Casual Wage Labor		Self Employment		
	(1) Agriculture	(2) Domestic Maid	(3) Livestock Rearing [Cows, Goats]	(4) t-test [Col 1 = Col 3]	(5) t-test [Col 2 = Col 3]
Days per year	127	167	334	[.000]	[.000]
	(65.9)	(89.5)	(41.2)		
Hours per day	7.62	7.04	1.83	[.000]	[.000]
	(1.15)	(1.74)	(.771)		
Hourly earnings [USD]	.344	.268	.719	[.000]	[.000]
	(.102)	(.109)	(.779)		

Notes: All statistics are constructed at the village level, using baseline data from both treatment and control villages. The number of villages is 1309. In Column 3, livestock comprises cows and/or goats. To reduce sensitivity to outliers, the hours per day and hourly earnings variables are computed by first taking the median value for each activity in a village, and then averaging these across all villages. Columns 4 and 5 report p-values on a t-test of the equality of some of these outcomes between the two forms of casual wage labor (agriculture and domestic maid work) and livestock rearing. All monetary amounts are PPP-adjusted USD terms, set at 2007 prices and deflated using CPI published by Bangladesh Bank. In 2007, 1USD=18.46TK PPP.

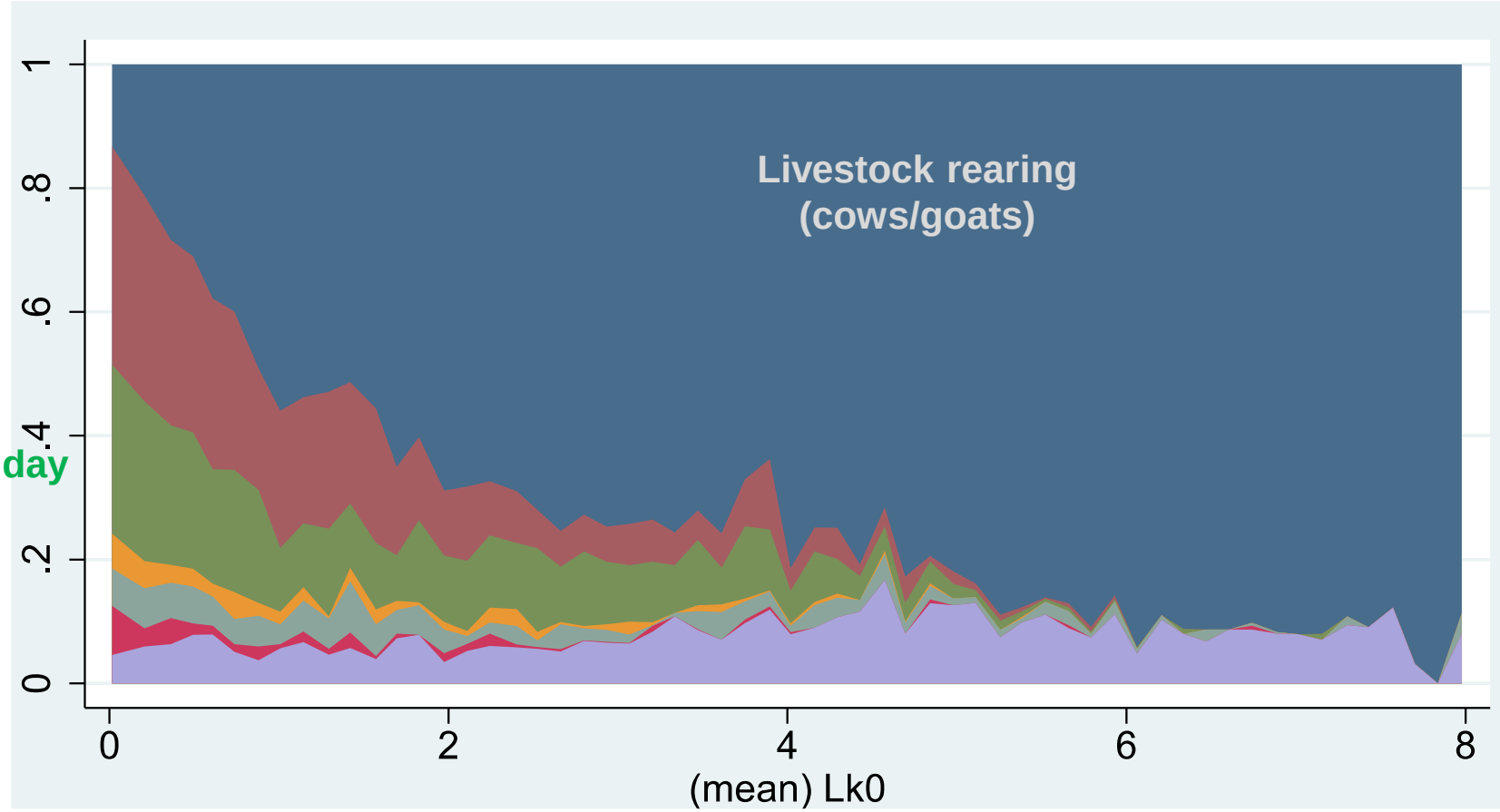
Wage earnings are flat, livestock earnings increasing



More assets → more expensive assets



Occupational choice reflects differences in asset ownership

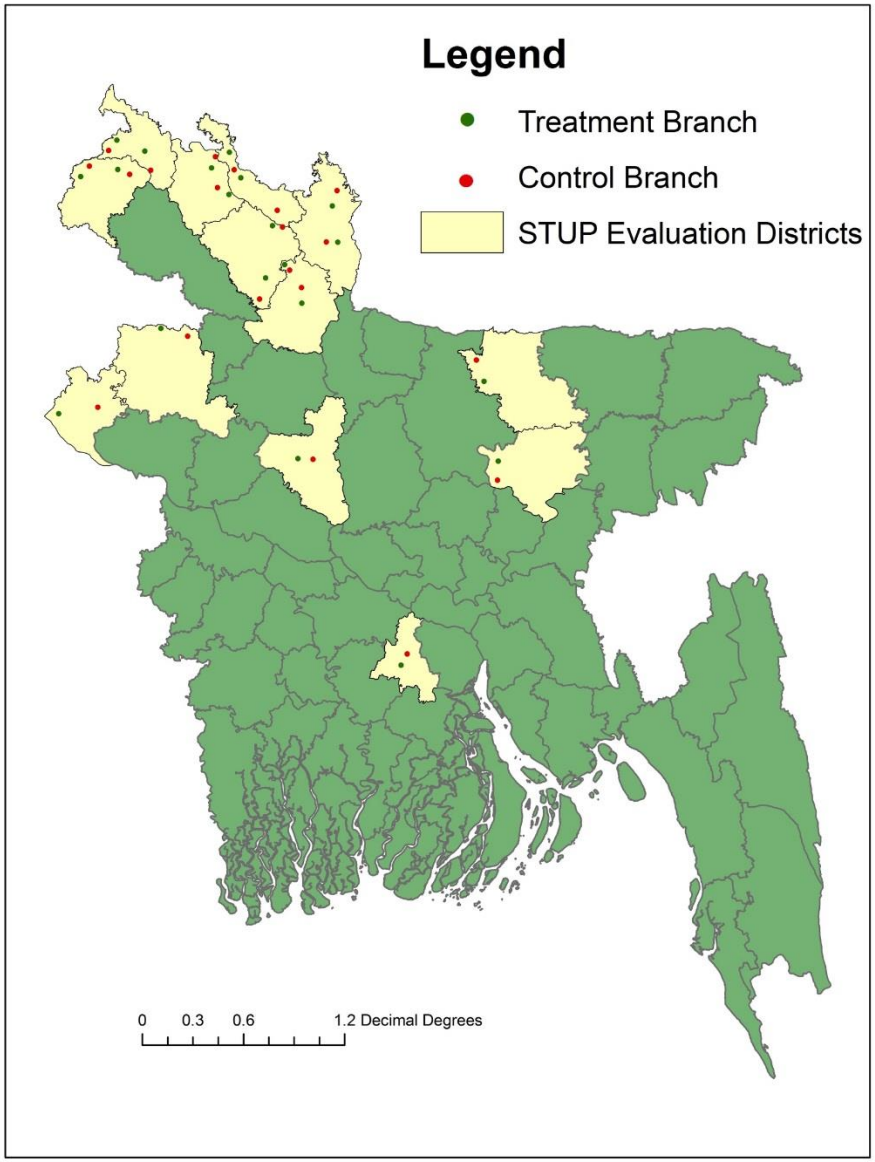


BRAC's Targeting the UltraPoor

- Randomly allocated across areas
- Beneficiaries are the poorest women in these villages
- Program transfers a large asset (a cow) and training
- Value of the asset = 1 year of PCE

Study site: Bangladesh

Lack of demand for casual wage labor, higher grain prices, extreme poverty and food insecurity



Targeting the Ultra Poor

- Eligible: poor women, identified by the communities, verified by BRAC employees
  - On avge, 6 women per community (7% of HHs) are eligible
- Asset menu: livestock, small crafts, small retail..
- Commit to retain it for 2 years, free to sell after that
- Almost all choose a livestock combination
- Value of transfer (9500TK= 140USD)
  - 1X yearly PCE; 2X yearly earnings; 9X savings
- Asset specific training - intensive over first year

Evaluation strategy

- Randomise the programme roll-out across 40 BRAC branch offices (1309 communities) in the poorest areas of the country –stratified by subdistrict
  - 20 treated in 2007, 20 in 2011
  - matched pair randomisation
- Randomise at the branch rather than community level to minimise contamination

Evaluation strategy

- Beneficiaries selected in both treatment and control communities
- Beneficiaries + all other poor + a sample of other wealth classes surveyed in 07,09, 11, 14
- Final sample: 6732 eligible beneficiaries & 16,297 HHs from other classes

Can the poor do better when given the chance?

- four years later after the asset transfer programme…

Labor supply, earnings, expenditures ⇑

	All Labor Activities		Net Earnings	Consumption and Poverty	
	(1) Total Hours Worked	(2) Total Days Worked in the Past Year	(3) Net Annual Earnings	(4) Household Expenditures	(5) Below Poverty Line
Program impact after 2 years	341***	72.4***	1267**	763	-.051
	(67.9)	(10.0)	(543)	(498)	(.046)
Program impact after 4 years	206***	61.1***	1646***	1034***	-.084**
	(73.0)	(12.5)	(541)	(374)	(.038)
Baseline mean	916	247	4463	11677	.525
Four year impact: % change	22.4%	25.0%	36.9%	8.77%	-7.84%
Adjusted R-squared	.072	.069	.079	.046	.035
Number of ultra-poor women	6732	6732	6732	6732	6732
Number of observations (clusters)	20196 (40)	20196 (40)	20196 (40)	18882(40)	18882(40)

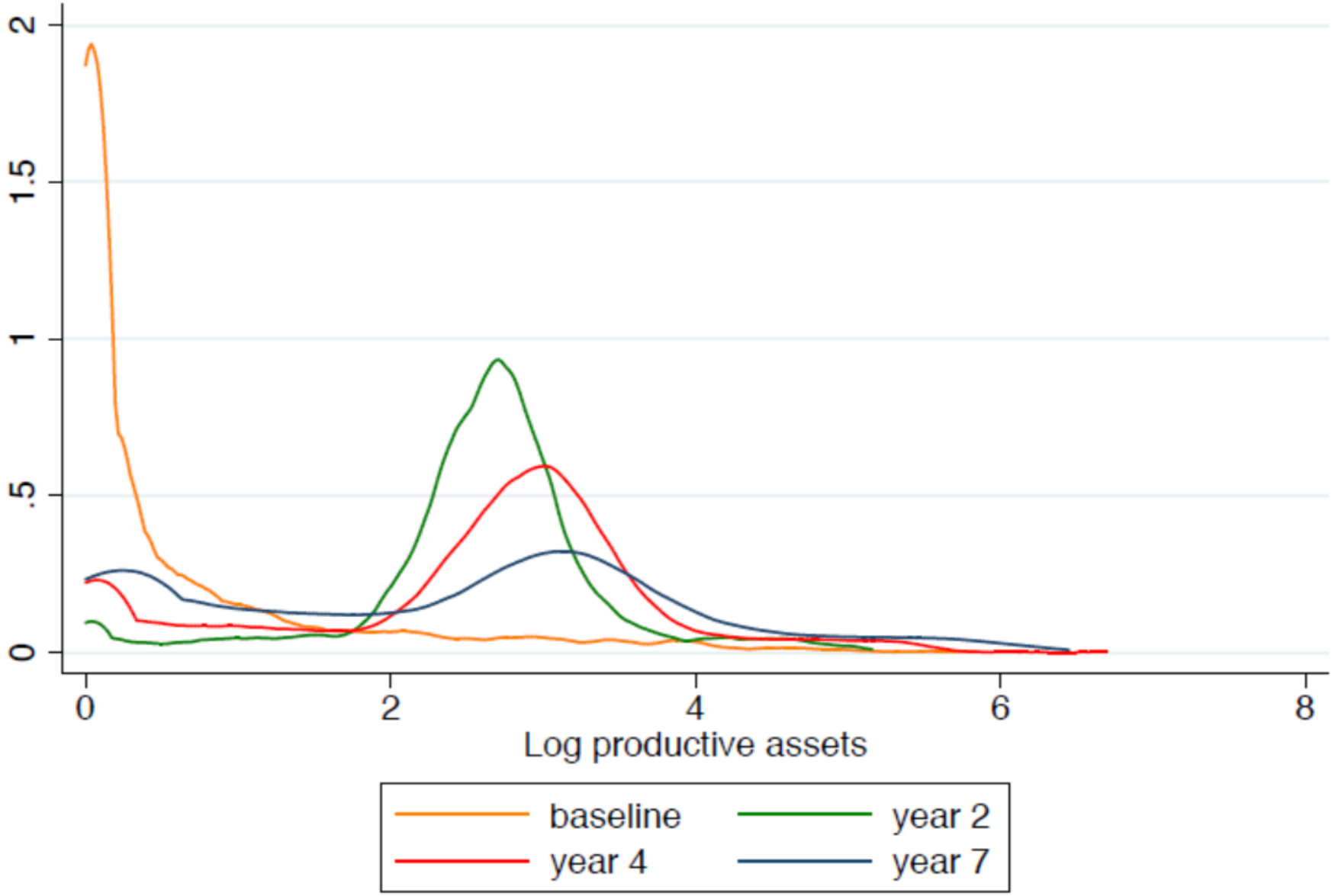
Savings and investment

	Savings		Livestock, Land and Business Assets					
	(1) Household Cash Savings	(3) Household Assets	(4) Value of Cows	(5) Value of Goats	(6) Rents Land	(7) Owns Land	(8) Value of Land owned	(9) Value of Other Business Assets
Program impact after 2 years	983***	254	9200***	656***	.069***	.005	735	476***
	(90.6)	(160)	(427)	(86.3)	(.020)	(.011)	(1389)	(140)
Program impact after 4 years	1051***	880***	10097***	489***	.110***	.026*	7094**	1196***
	(78.4)	(164)	(865)	(93.1)	(.022)	(.012)	(2605)	(220)
Baseline mean [Tk]	121	817	666	125	.058	.068	3221	423
Mean value of assets transfer	-		8566	736	-	-	-	-
Four year impact: % change (net of transfer)	+869%	+107%	+937%	-197%	+190%	+38.2%	+220%	+282%
Four year impact = Initial transfer [p-value]	-		.085	.000	-	-	-	-
Two year impact = Four year impact [p-value]	.530	.009	.194	.015	.054	.005	.002	.000

A poverty trap?

- Using the estimates of earnings the rate of return is 22%
- But the program is expensive: $560 --GDP pc $541
- Cost more than one year worth of consumption and cannot be bought in pieces → poor talented people cannot afford them
- Large transfer allows them to escape the trap
- But for some it is not enough & they fall back
- What determines this - initial endowment level?

Preliminary evidence: some beneficiaries go back



Dynamics

- Heterogeneity in asset accumulation behavior
- What explains that?
- In a poverty trap world, initial endowment should play a key role

This Paper

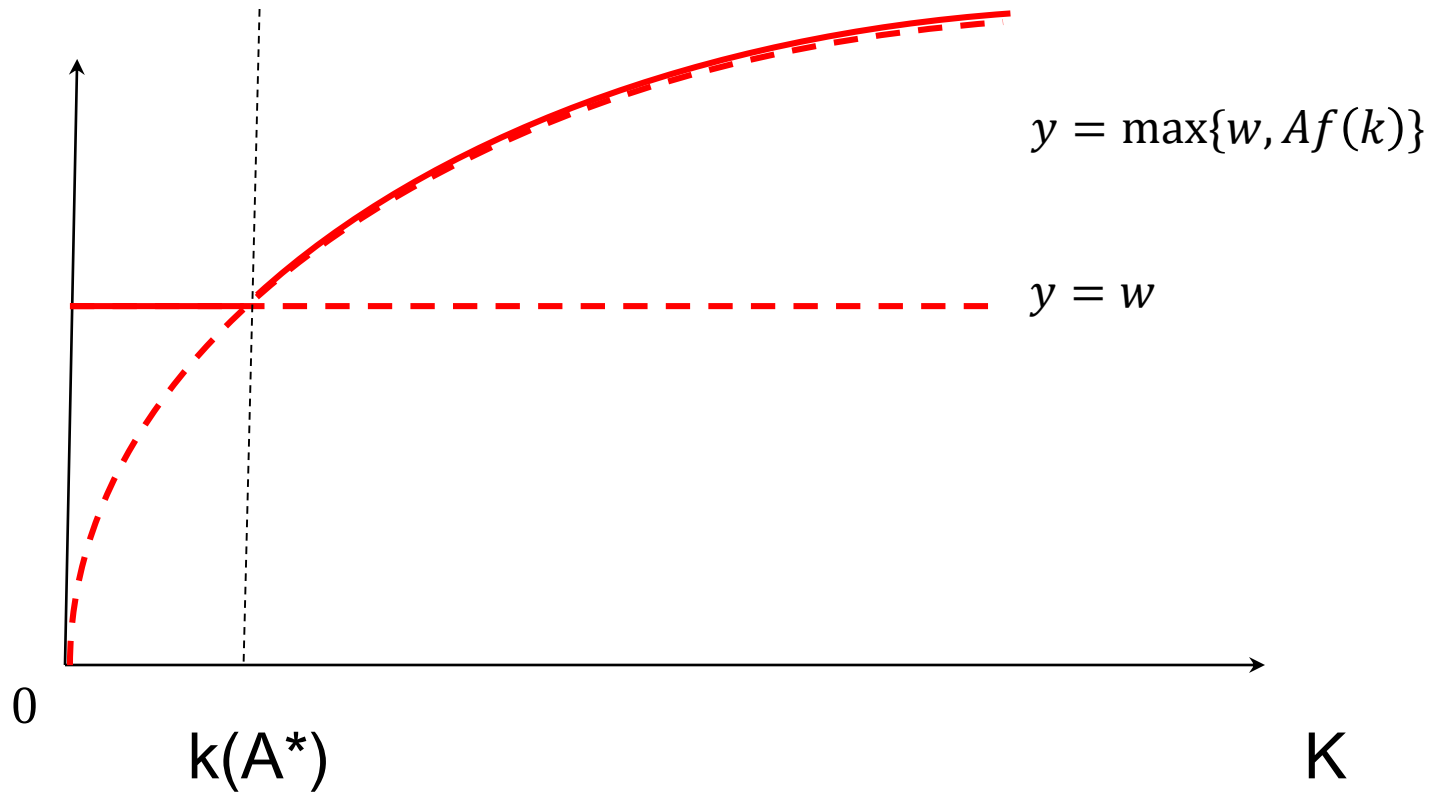
1. Use theory to illustrate how response to exogenous shock to endowments can be used to test between the two views of poverty
2. Implement test using RCT in Bangladesh (Bandiera et al., QJE 2017) tracking 21k HHs across wealth distribution over 7 years
3. Inform the design of policies for poverty reduction

Theoretical Framework

Occupational choice

- Each person i is born with one unit of time, wealth endowment E_i and talent A_i for self-employment
  - 1 is wage labor, pays w
  - 2 is livestock rearing, requires capital K and yields $A_i f(K)$
- Assume occupational choice is discrete
- Can allow for mixing

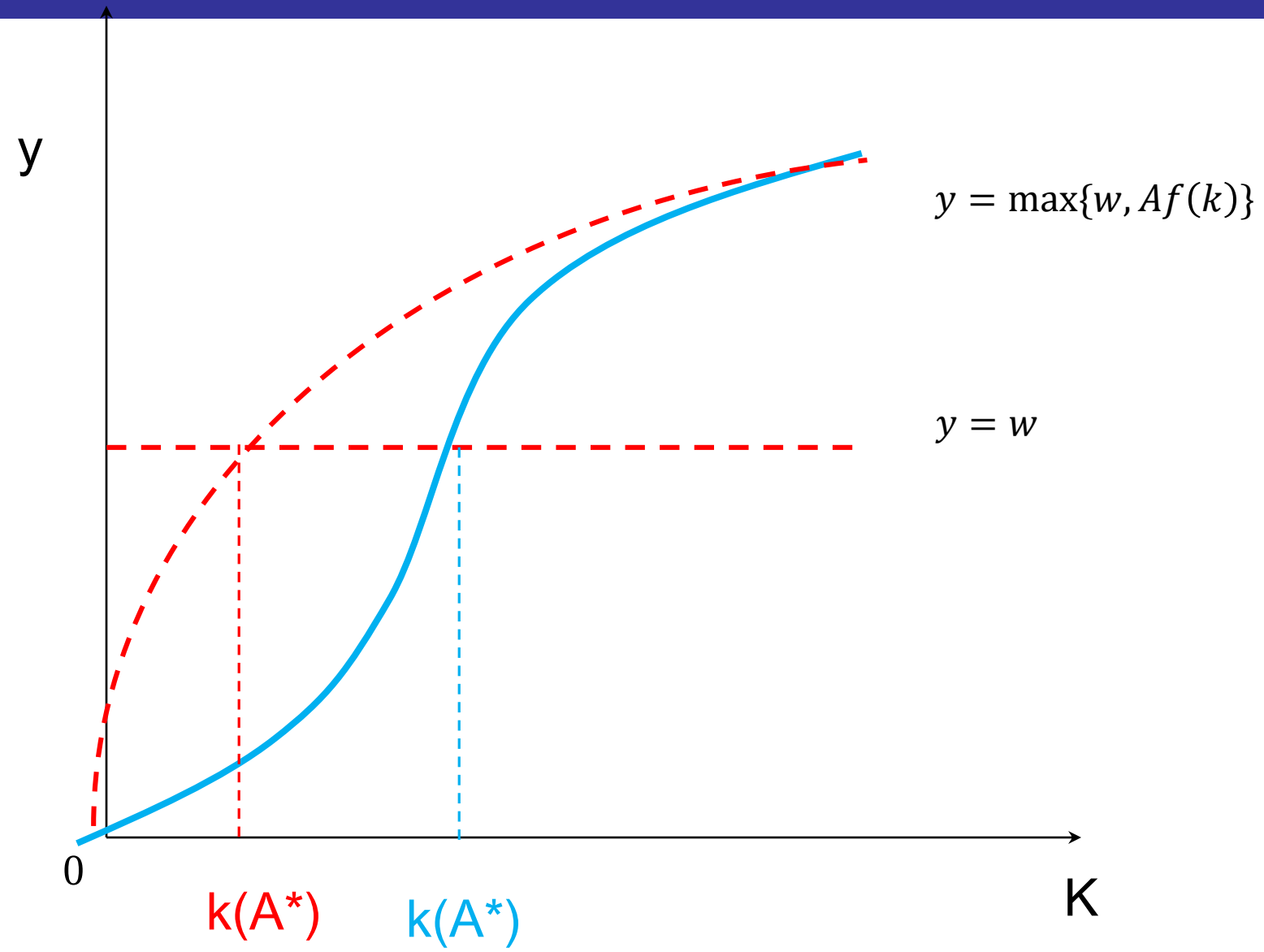
Perfect credit markets + DRS → equal opportunities



No credit markets → poverty trap?

- In a model with savings, individuals can save their way out of poverty as small investments at low *K* have high returns
- That is, as long as f(.) is concave, *credit market imperfections cannot generate a trap*

IRS at low K increase the minimum viable scale



No credit markets + IRS → poverty trap

- We now have two groups of people for given talent A:

- those for whom $E_i > K(A_i^*)$ → choose optimally
- those for whom $E_i < K(A_i^*)$ → stuck in wage labor

→endowments matter

→some people observed in wage labor actually have $A > A^*$
→ misallocation

Developing a Test for a Pov Trap vs Equal Opp view

- Assume everyone has the same productivity *A*
- Everyone has a given $k_0 \geq 0$
- Everyone is given the same transfer $\Delta > 0$
- Then the transition equation is

$$k_1 = sAf(k_0 + \Delta) + (1 - \delta)(k_0 + \Delta)$$

- We are interested in

$$\Delta_1 \equiv k_1 - (k_0 + \Delta)$$

- Let us define the function

$$g(k_0) = sAf(k_0 + \Delta) - \delta(k_0 + \Delta)$$

- We want to know
  - If $\Delta_1 \equiv g(k_0)$ is positive or negative
  - If Δ_1 is increasing or decreasing in k_0

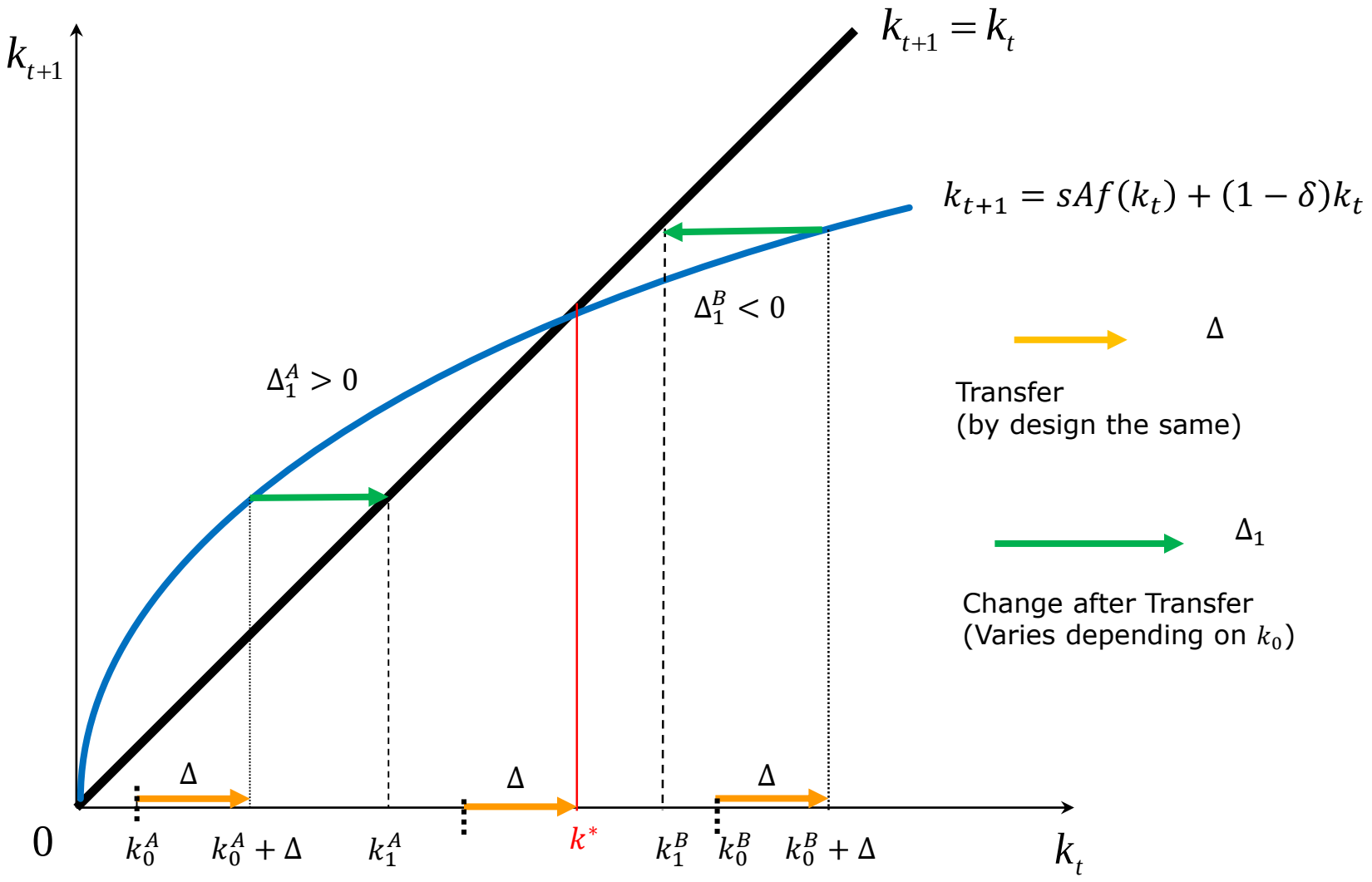
Convergence world

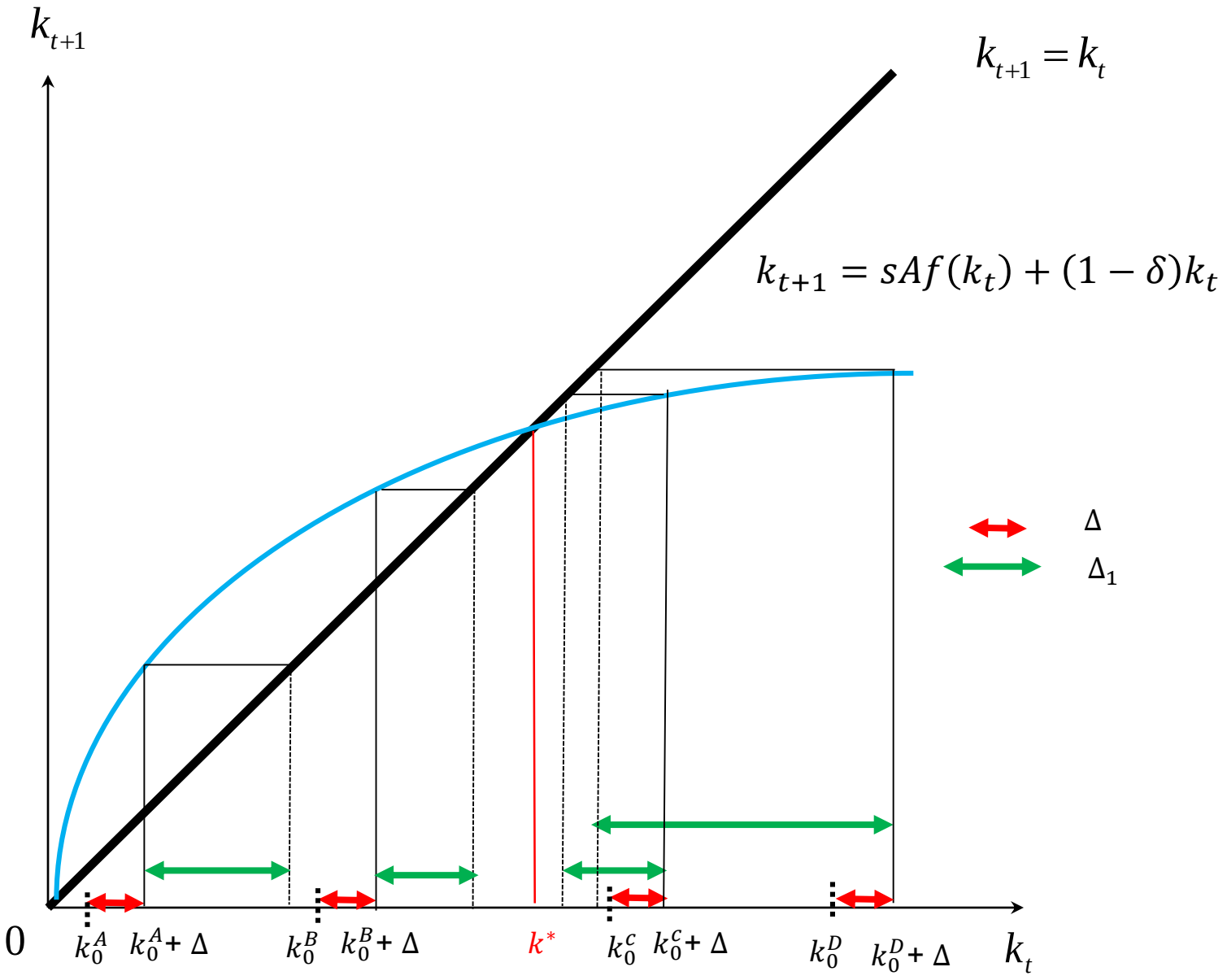
- $g(k_0)$ is strictly concave in k_0
- Depending on the size of Δ one of the following will hold regarding $g(k_0)$:
  - It will first increase, reach a maximum, and then decrease
  - Be decreasing
- It will reach the value 0 at $k_0 = k^*$ (the unique steady state) and after that will become negative

Poverty Trap World

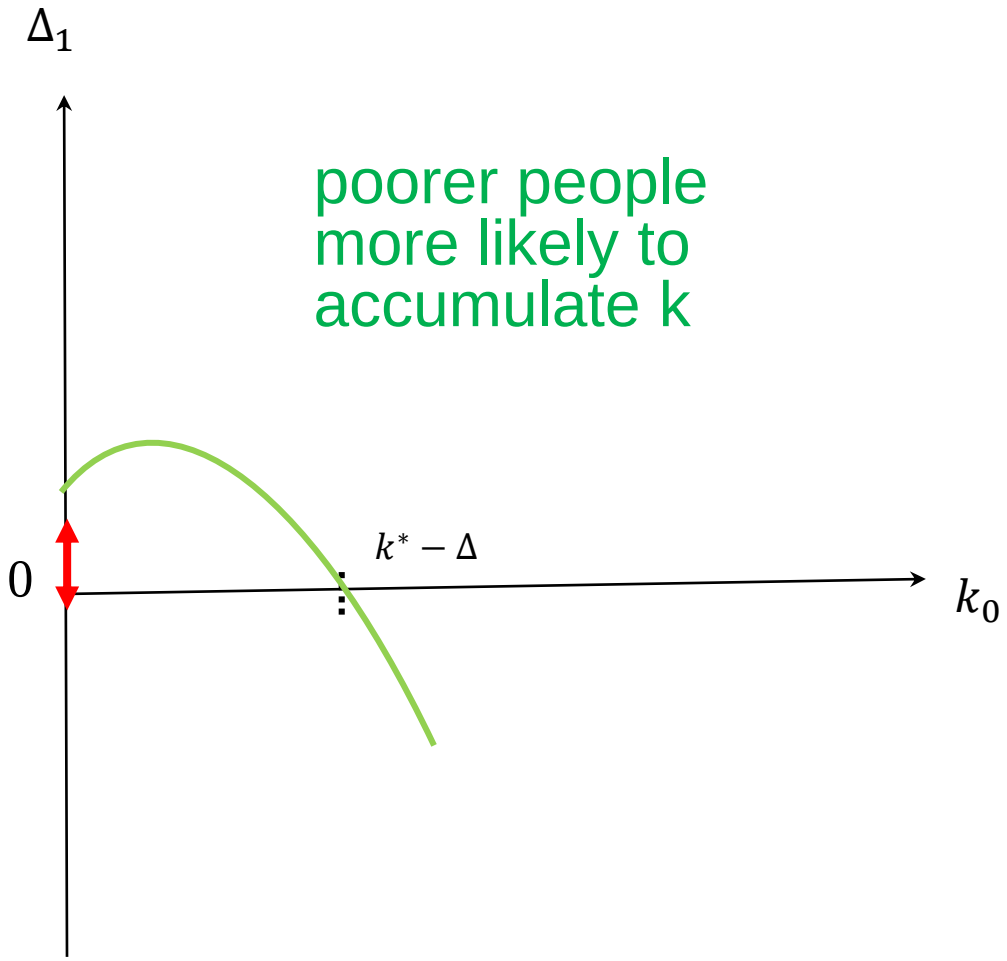
- Let us take the S-shaped production function
- $g(k_0)$ is strictly convex in k_0 for $k_0 \leq \hat{k}$ and strictly concave for $k_0 \geq \hat{k}$
- Also, $g(k_0) < 0$ for $k_0 \leq \hat{k}$
- If the transfer Δ is received for $k_0 = \hat{k} - \Delta$ then the individual reaches the unstable steady state and stays there without further shocks
- However for $k_0 \geq \hat{k}$ the situation is similar to the case of convergence

Response to asset transfer in equal opportunity view



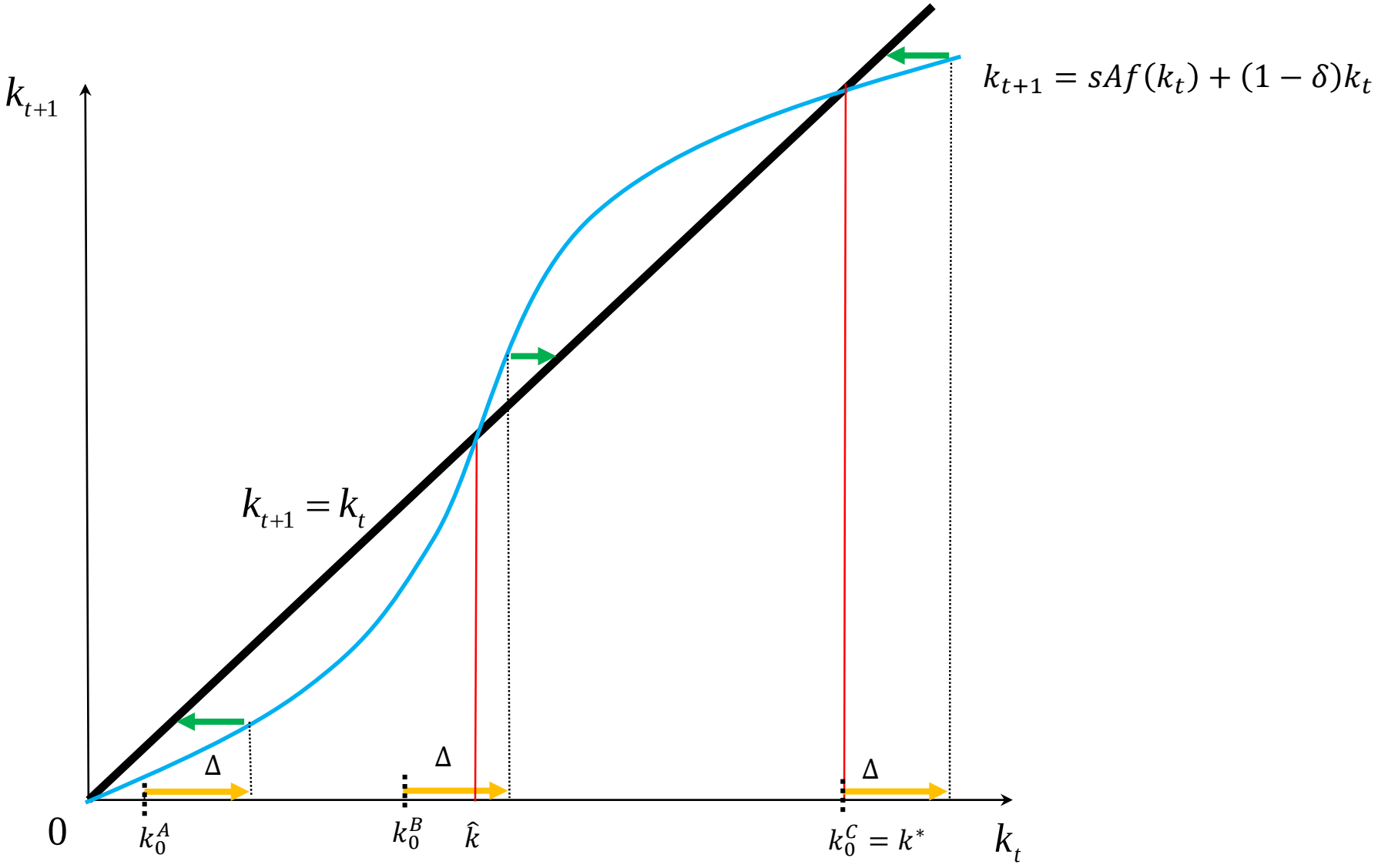


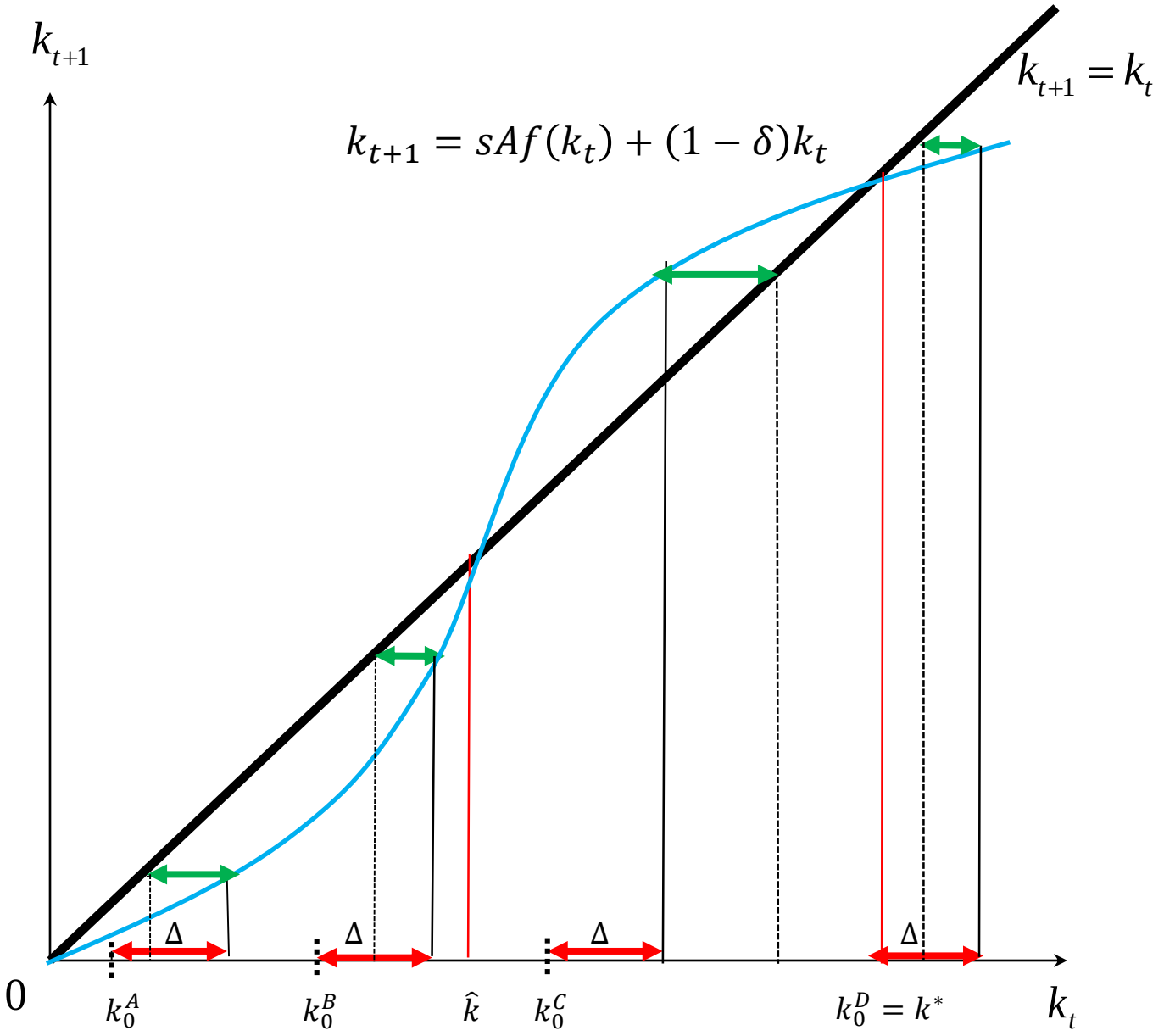
How changes in k depend on k_0



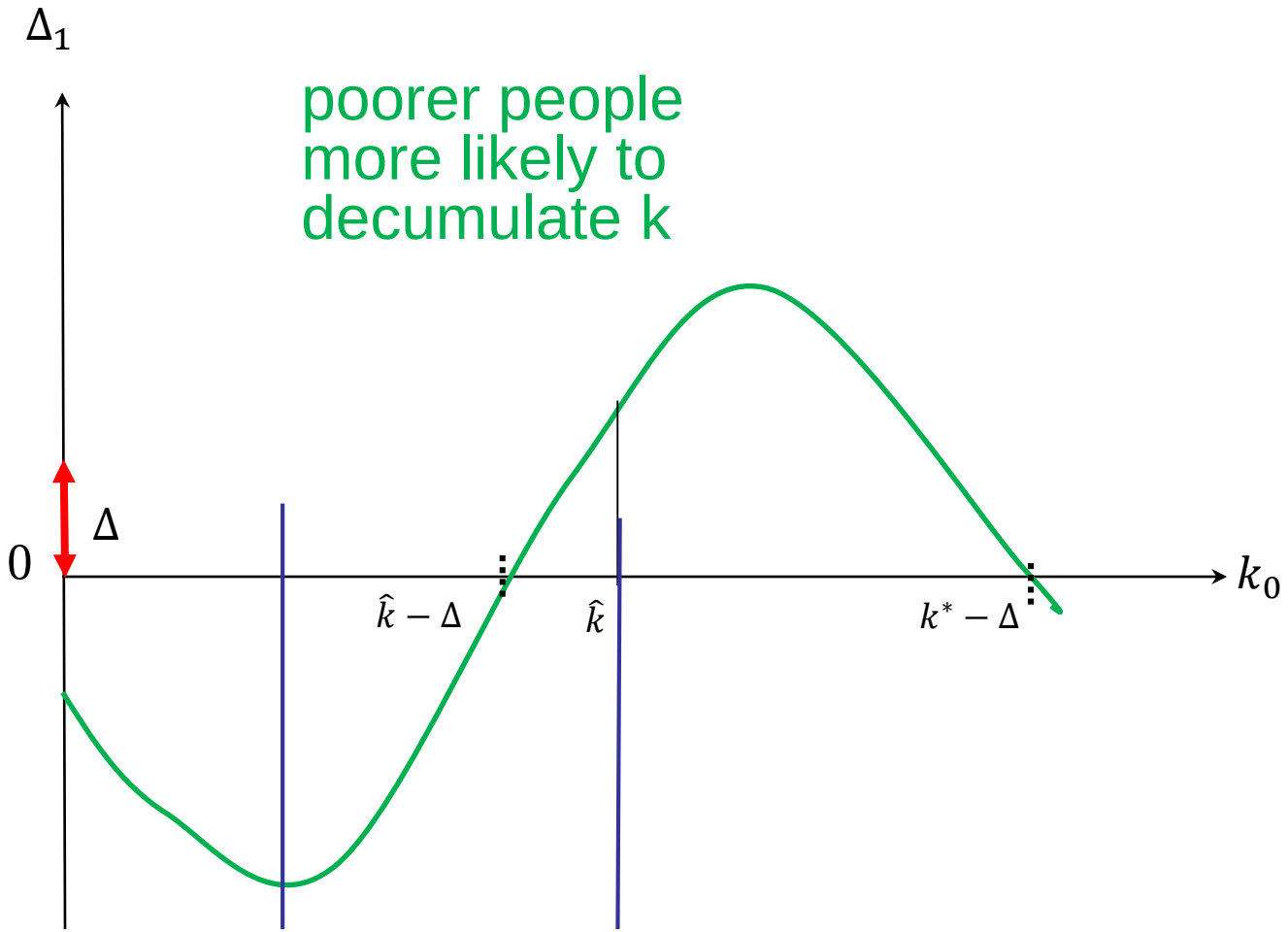
Changes in k plotted against k_0 in Solow world

Response to asset transfer in unequal opportunity view



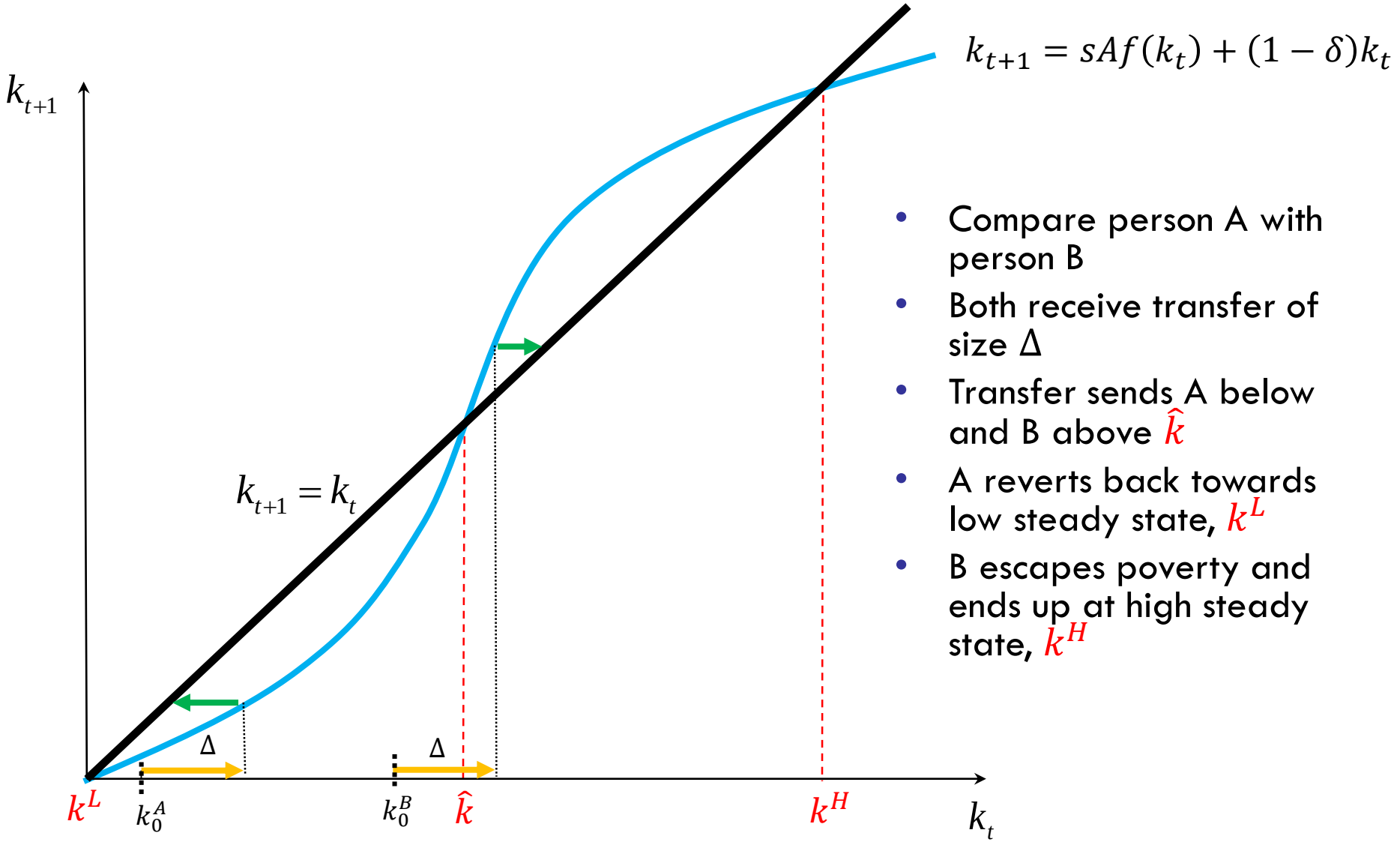


Asset Transfer in Poverty Trap Model



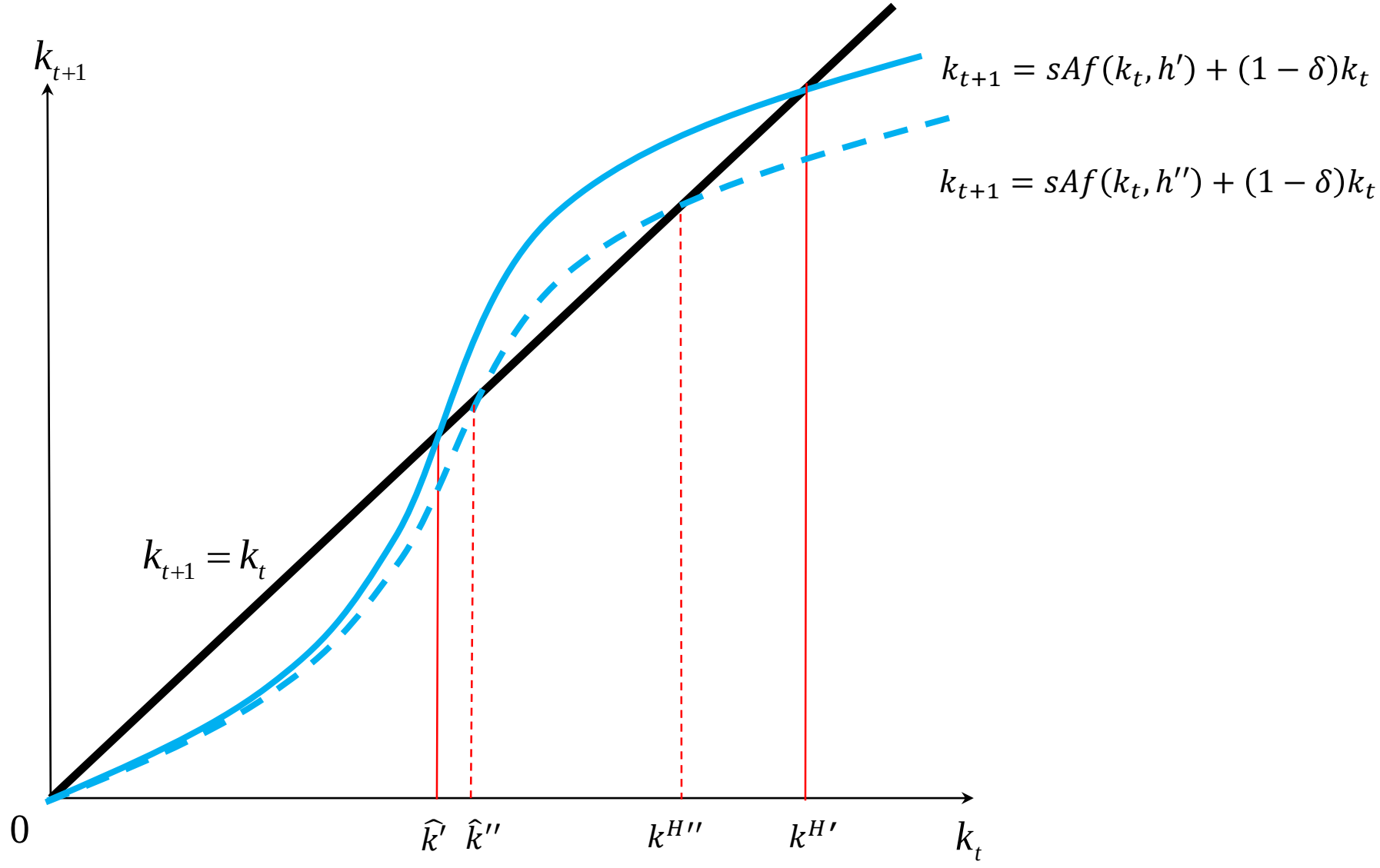
Changes in k plotted against k_0 in Poverty Trap world

We test the joint H0 that (i) there is a threshold and (ii) the program pushes some above and leaves others below



- Compare person A with person B
- Both receive transfer of size Δ
- Transfer sends A below and B above $\hat{k}$
- A reverts back towards low steady state, k^L
- B escapes poverty and ends up at high steady state, k^H

Role of Training? Shifts the threshold down & high s.s. up

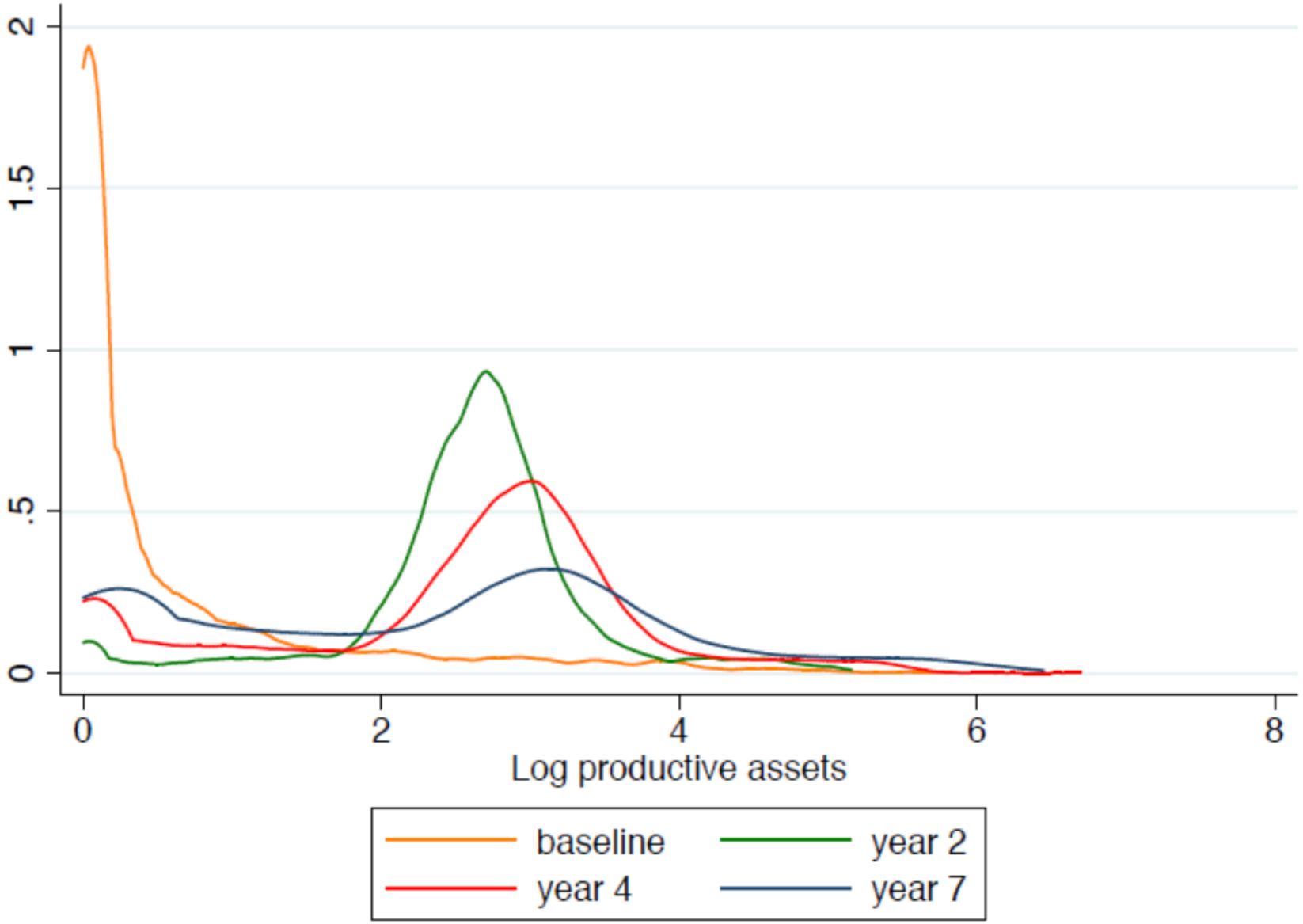


Empirical Analysis

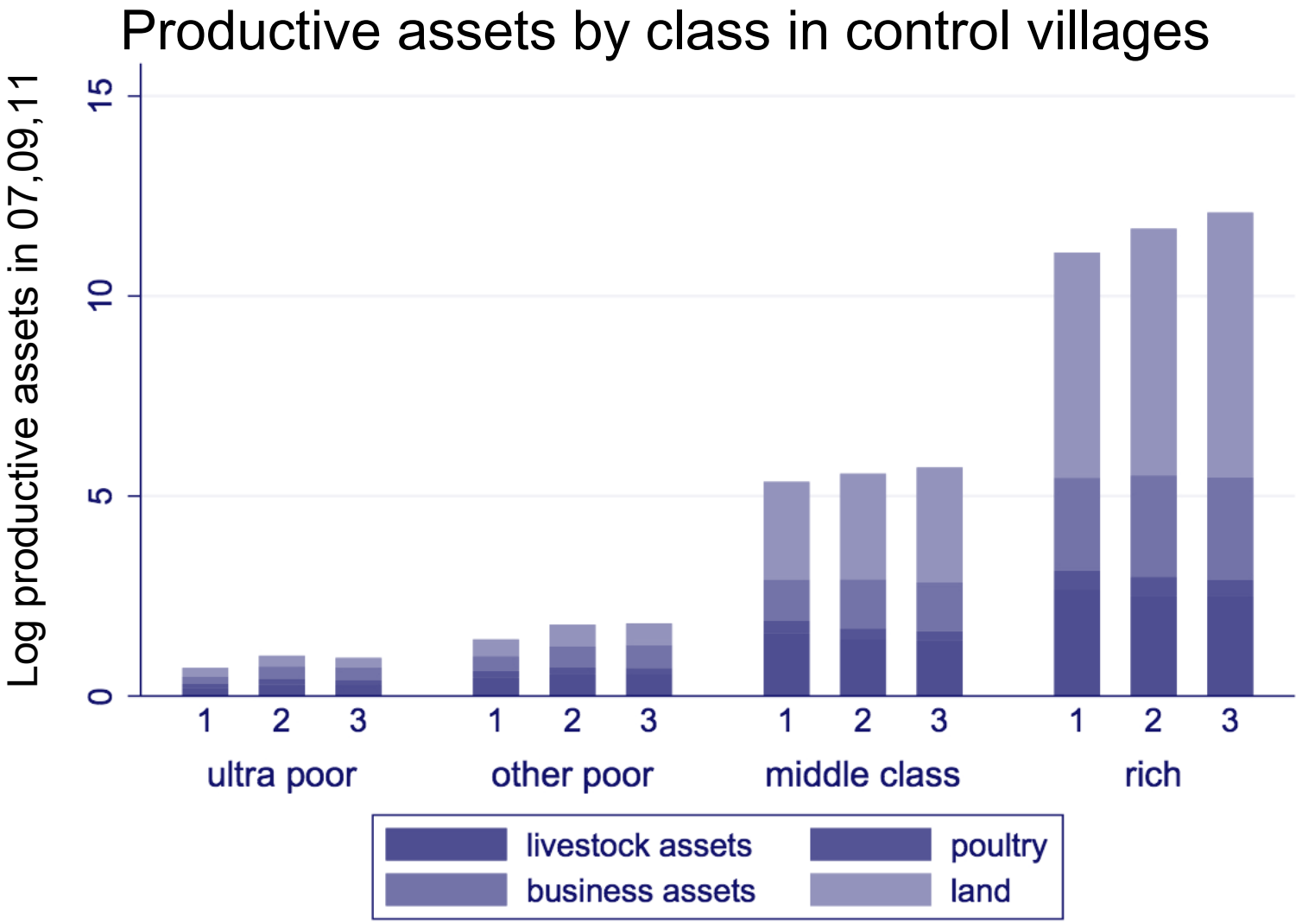
We use BRAC's Targeting the Ultrapoor Program

- K shock: Asset transfer worth 1 year of PCE
- 4k HHs received the program at the same time
- By design all get a package of similar value
- But they start with different assets at baseline

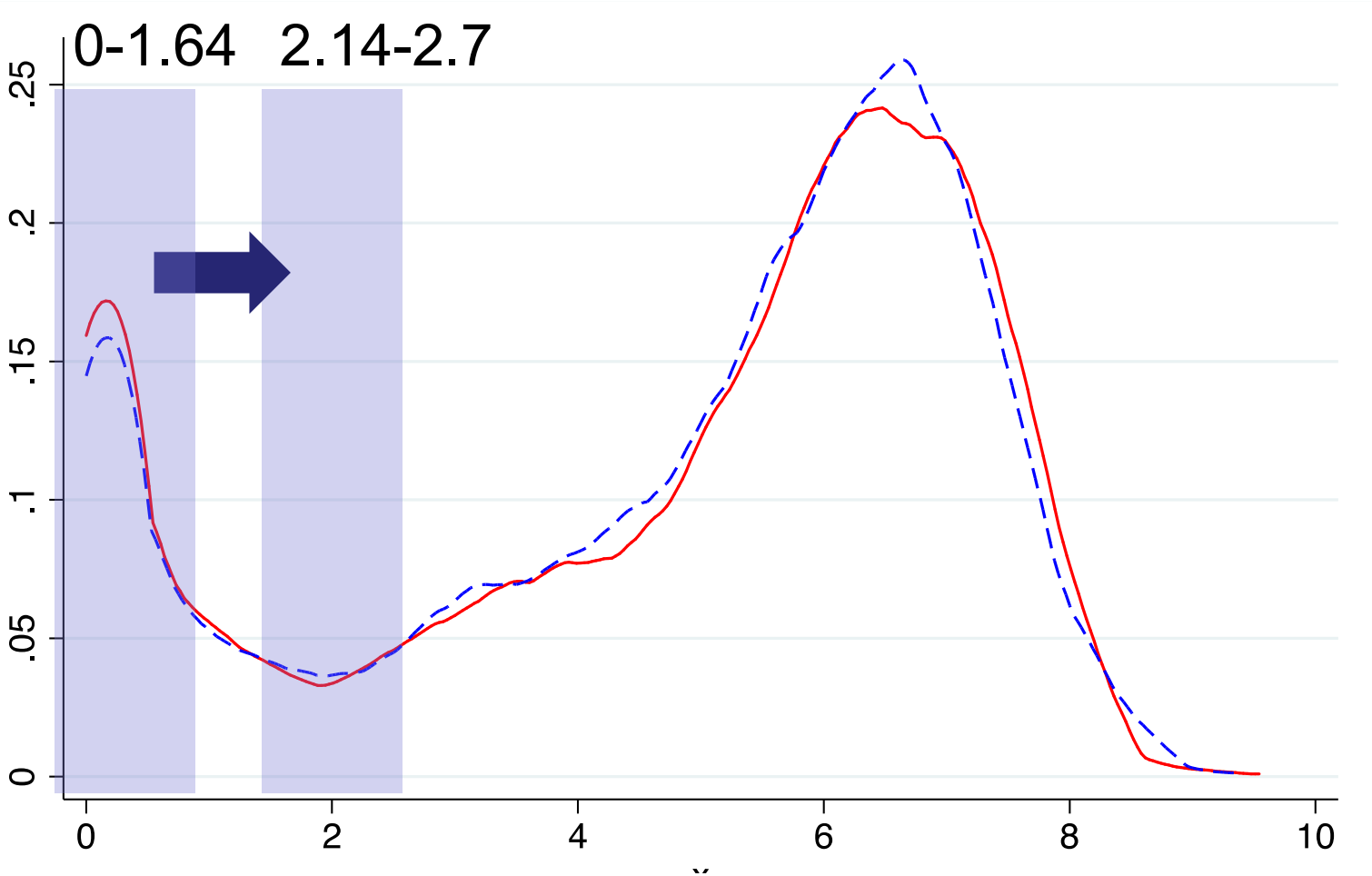
Preliminary evidence: some beneficiaries go back



counterfactual: no TUP, no change



The program moves the poorest into the lowest density area – if there is a threshold it must be here



Note: the value of the transfer is unusually large, x5 typical microloan

Our test

- While the asset is the same, beneficiaries differ slightly in their asset holdings at baseline
- We can use these differences to estimate the transition equation between k(1) and k(0)

- Under the null that f() is concave and variation in k0 is due to idiosyncratic shocks then $dk(1)/dk(0)<0$ or $dk(1)/dk(0)>0$ for all levels of k(0)
  - that is convergence to a common stable steady state

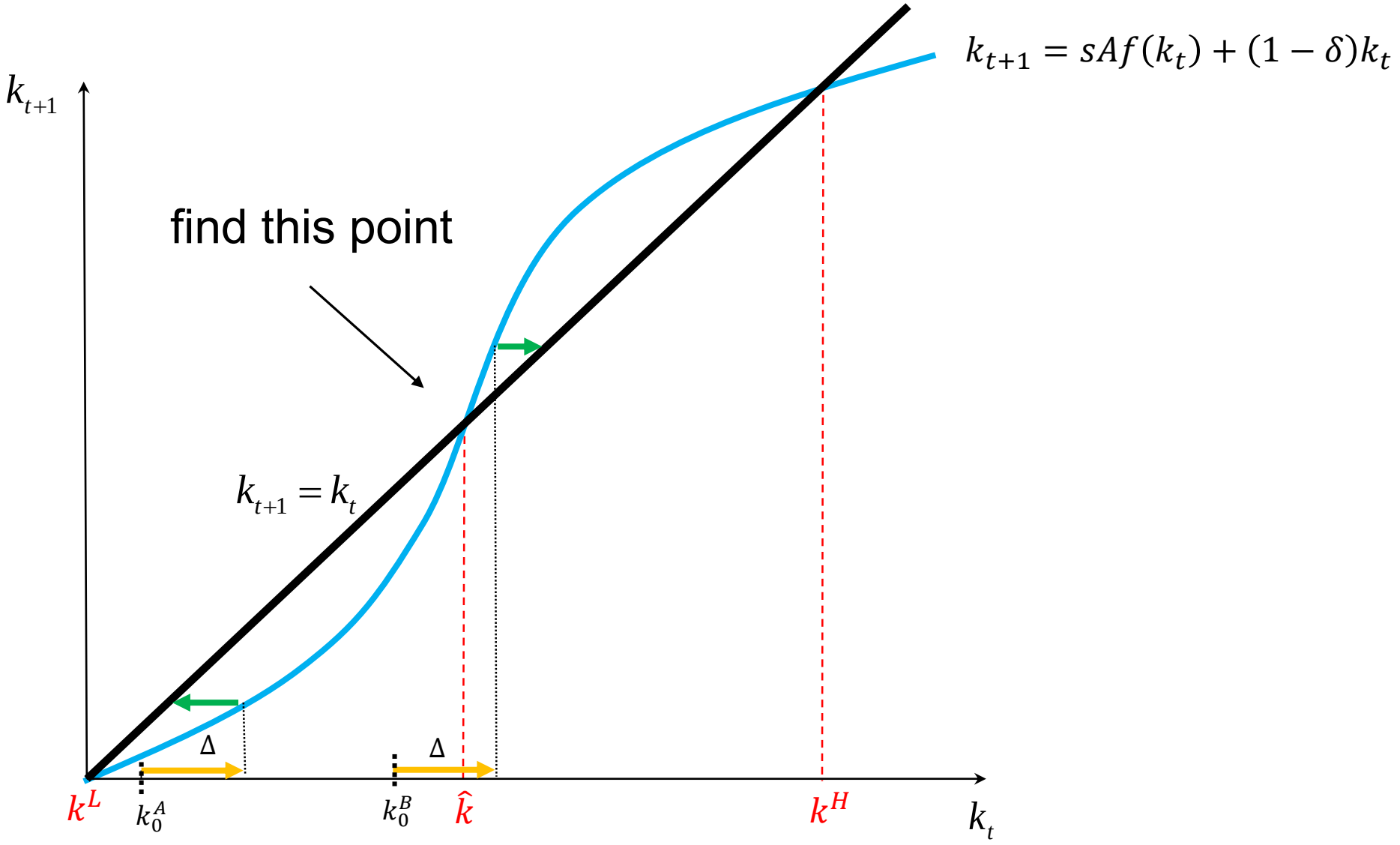
Identification

- The test hinges on whether k(0) is correlated with individual productivity or other factors that shape productivity
- Our strategy has two prongs
  - Use the features of the program to estimate productivity
  - Use a simple model to derive the null under the assumption of a positive correlation between (1) k0 and productivity, (2) k0 and the effect of the program

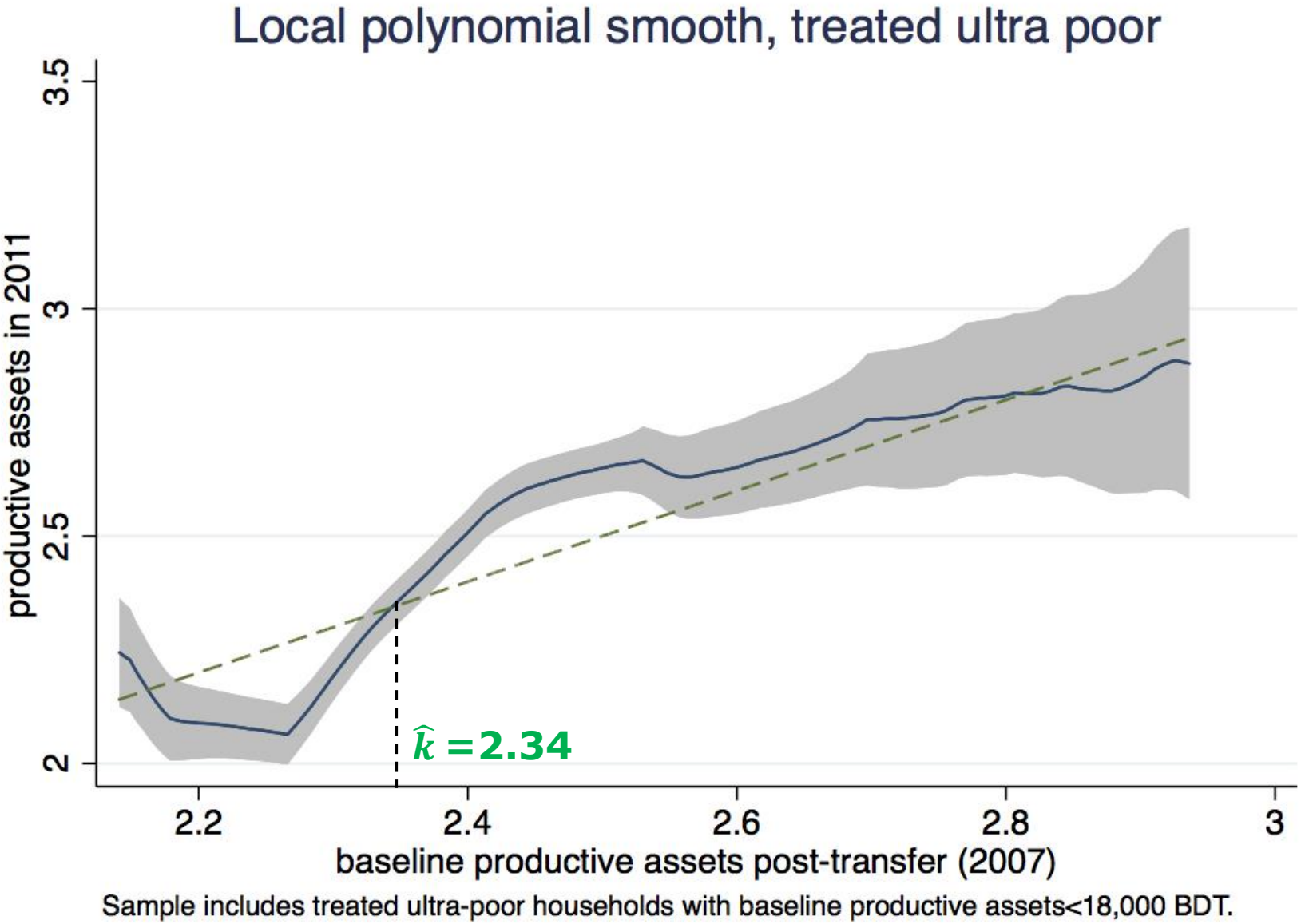
Identifying the threshold

- Level of K such that those below fall back into poverty and those above escape
- This is identified by:
  - estimating the transition equation for K
  - finding the point, if any where it crosses the 45 line from below
- Note: this estimates an average threshold

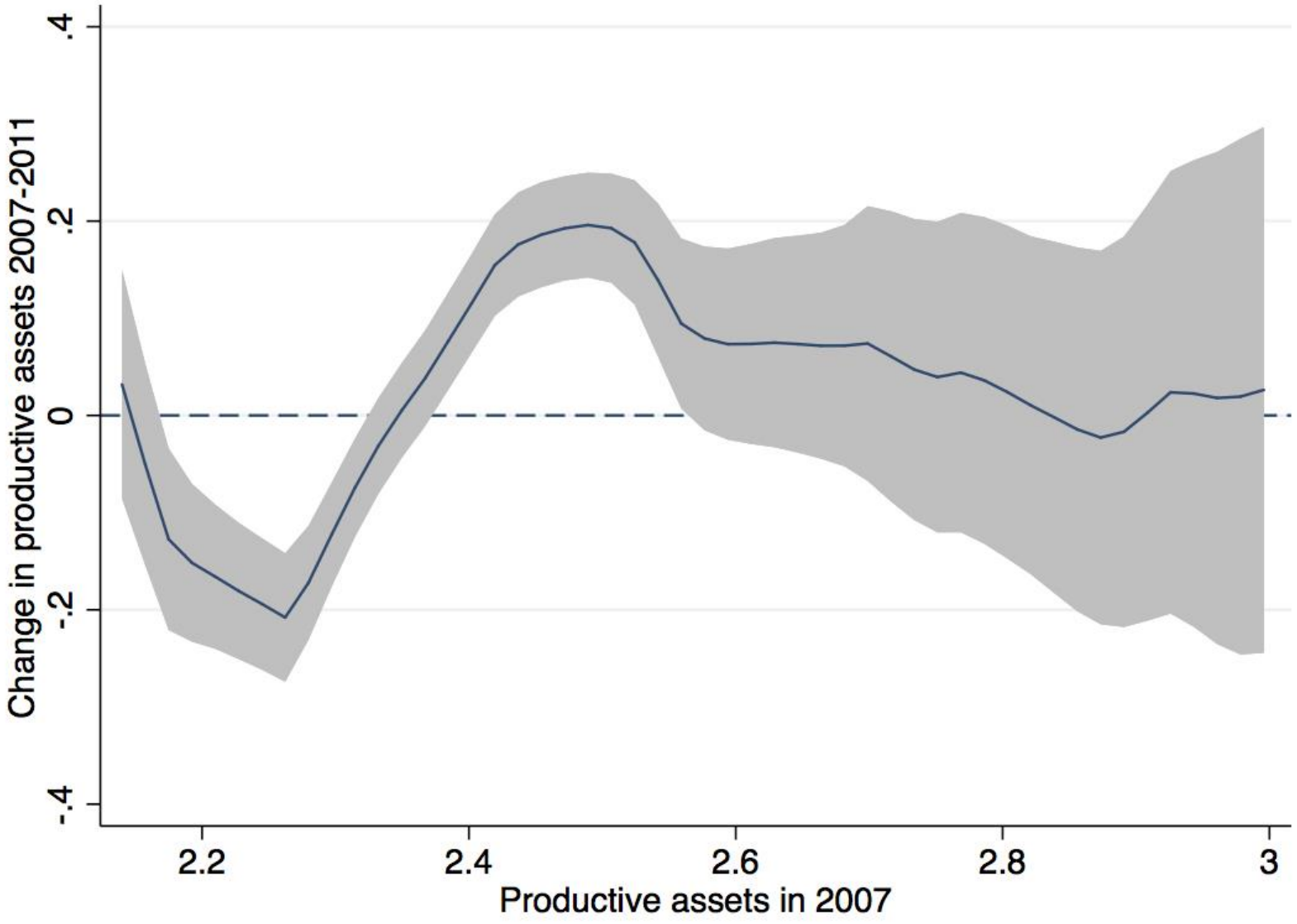
The transition equation



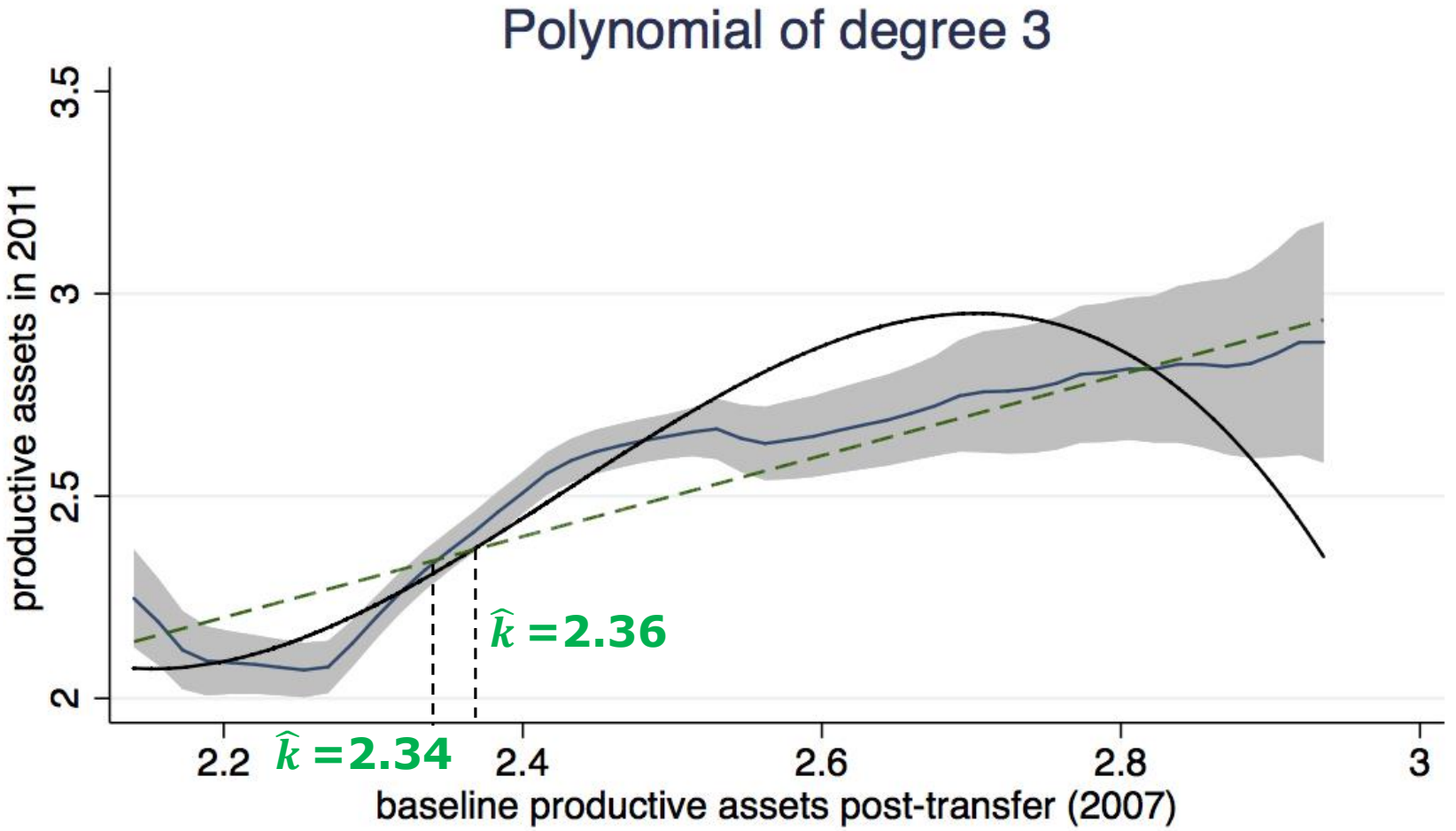
Non-parametric Identification of Transition Equation- Level



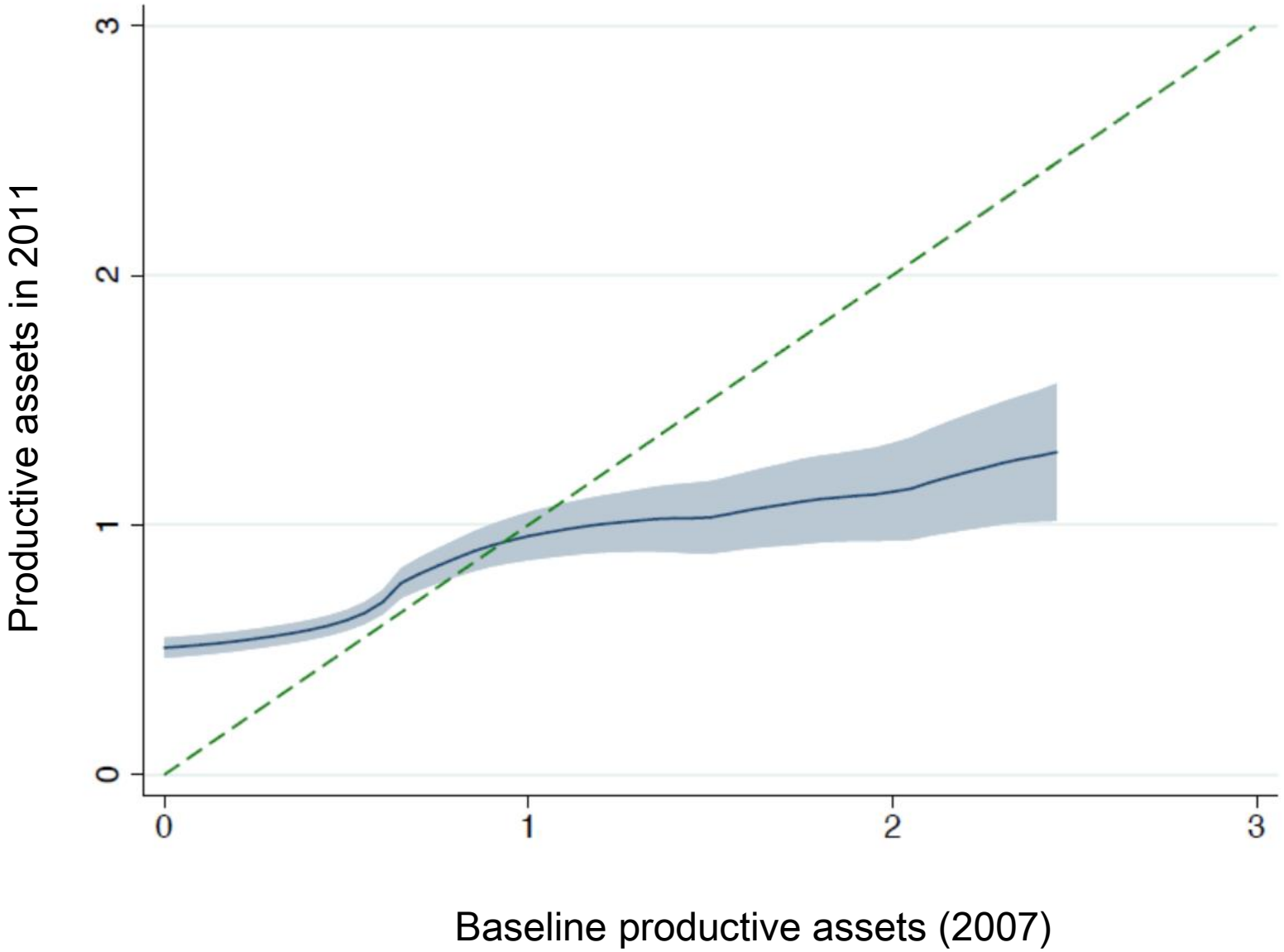
Response to asset transfer in data – Change



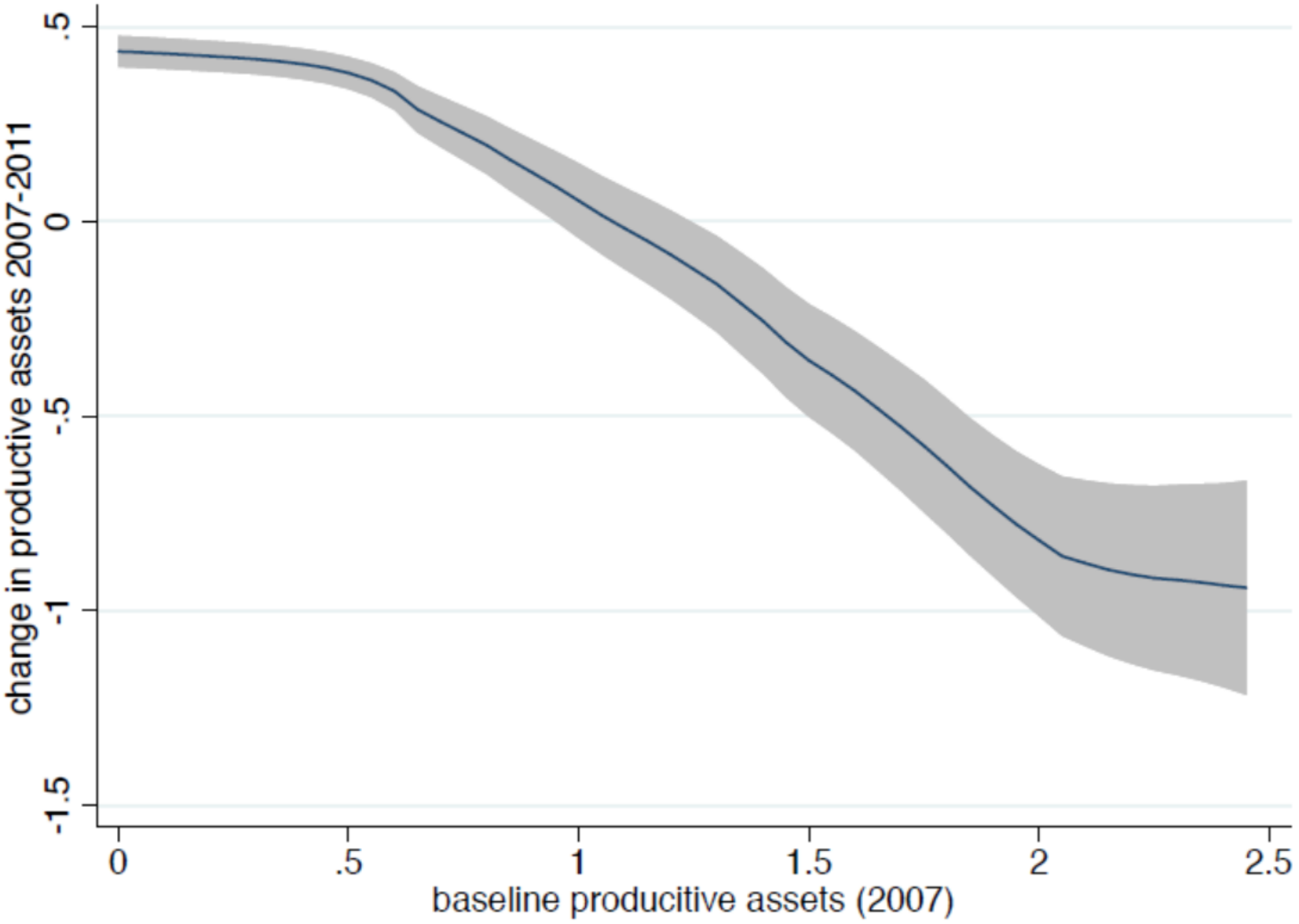
Parametric identification



Transition equation for control group



Change in capital as function of baseline capital - control group



What do we learn from this exercise? 1

- Does the pattern we see in treatment identify a poverty trap as opposed to being driven by shocks that would have occurred anyway?

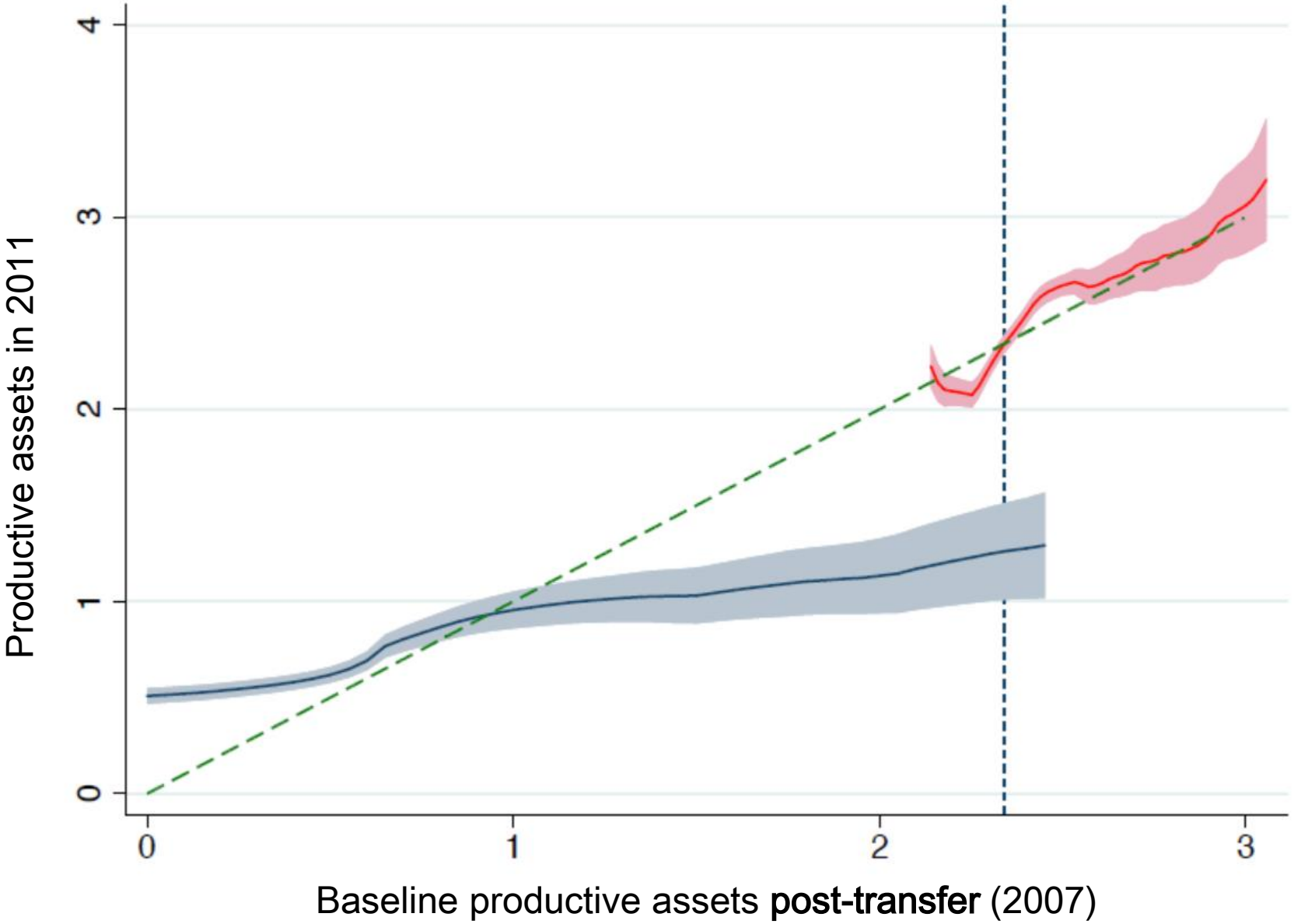
- Without looking at controls we cannot say whether the fact that people below $\hat{k}$ lose k whilst those above accumulate more is due to the fact that $\hat{k}$ is an unstable SS or rather to the fact that a negative (positive) shock hit all the people with $k < \hat{k}$ or $k > \hat{k}$).

- But when we look at controls we see precisely the opposite pattern.

What do we learn from this exercise? 2

- Note that this does not imply that controls live in a Solow world.
- Rather, we observe them around the stable SS, hence the pattern of mean reversion that is consistent with Solow.
- In other words we cannot identify poverty traps from controls because by definition $\hat{k}$ is unstable so we never observe people around it.

Placebo (red) vs Treatment (blue) - Levels



How do we interpret this figure? 1

- There is a "jump" in the transition equation of the treatment group at points of overlapping support on the horizontal axis.

- The control individuals with the biggest k_0's and the treatment individuals with the lowest k_0's seem to have the same initial capital (inclusive of transfer for treatments) and yet for these two groups, k_1 seems different by a discrete amount.

- This could be because of the effect of training.

How do we interpret this figure?

- These two groups are also systematically different

- The treatment individuals with the lowest $k_0 + \Delta$ must have been among the poorest before the transfer, and the control individuals with the highest k_0 were the richest.

- At each point in time the capital of individual i is equal to her SS level of capital (which depends on her fundamentals) plus the net effect of shocks up to that point.

How do we interpret this figure?

- Beneficiaries in both treatment and control are selected to have a very low level of SS capital at baseline, and the programme aims to shift that SS.

- To comply with the selection criteria, someone with high k_0 in control must be losing k in the following years to return to the low SS.

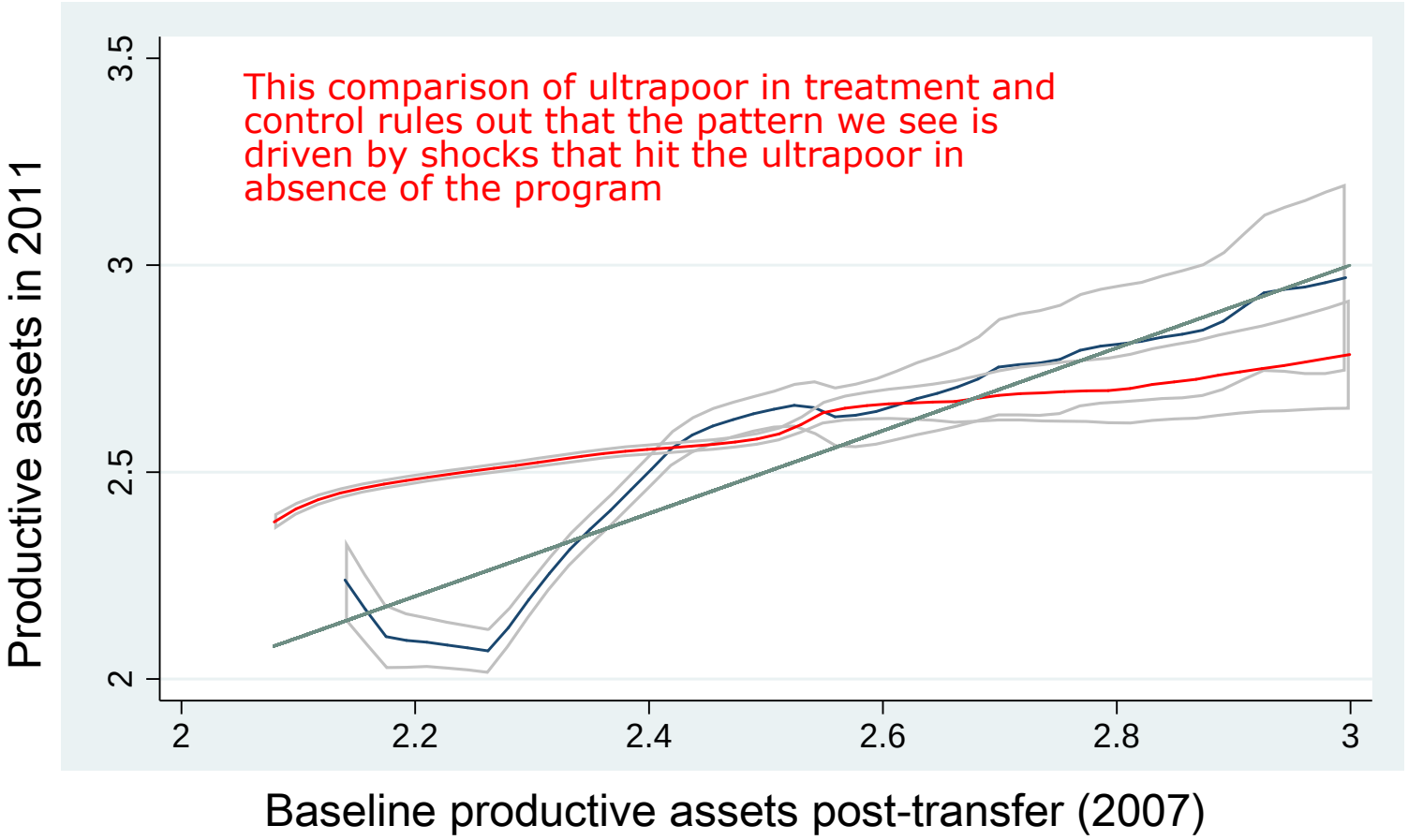
- For instance this could be a recently widowed woman who is well above her SS capital at 0.

How do we interpret this figure?

- This is not comparable to someone with the same k after transfer in treatment because these were the poorest before the transfer so in absence of the transfer they would have accumulated k to get to their SS.

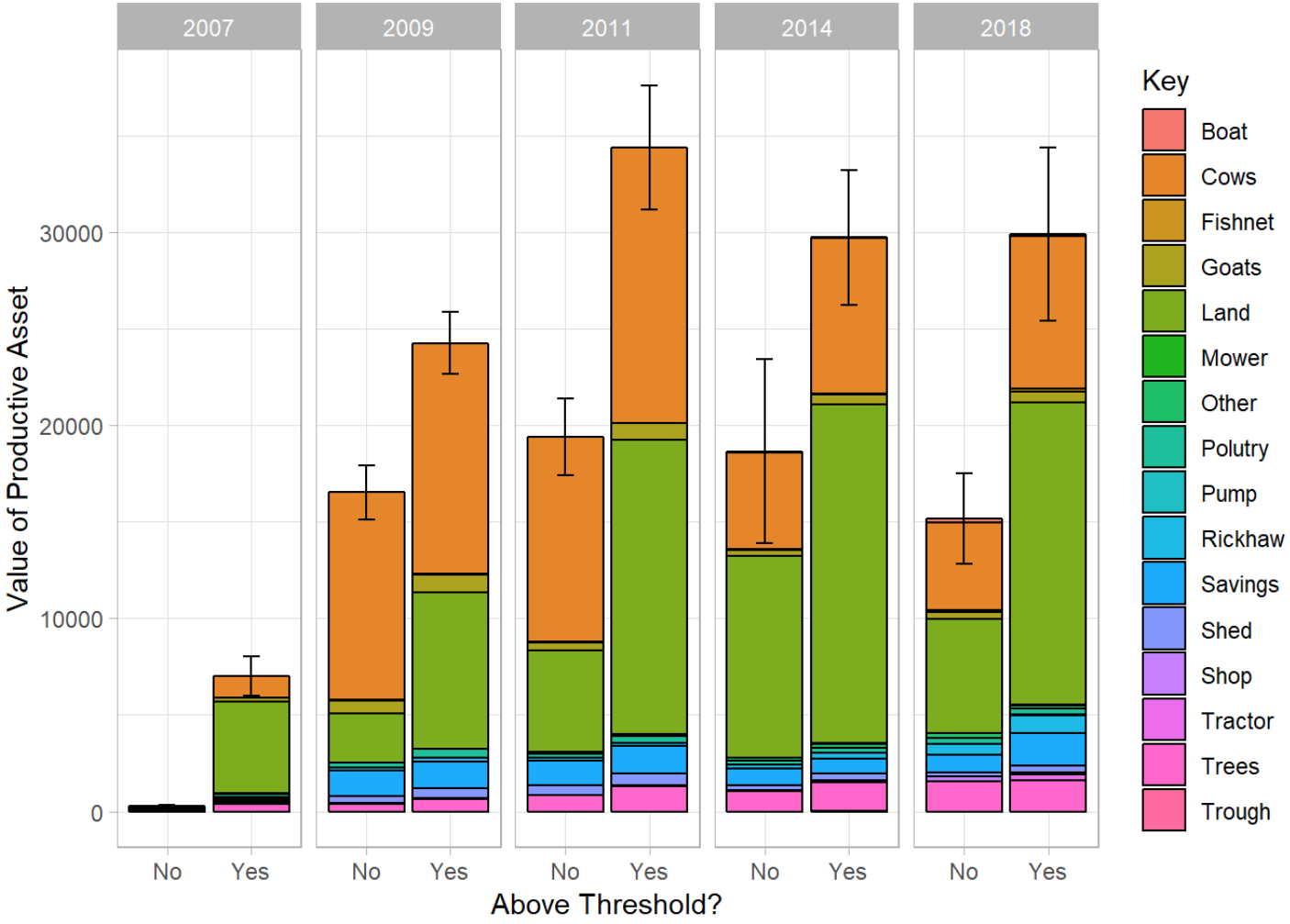
- To compare like with like we have to shift the controls up by the amount of the transfer, which has the problem though that by construction they cannot lose assets

Placebo (red) vs Treatment (blue) - Levels



Control artificially “given” same transfer in both years

11 years later: those below the threshold do not catch up



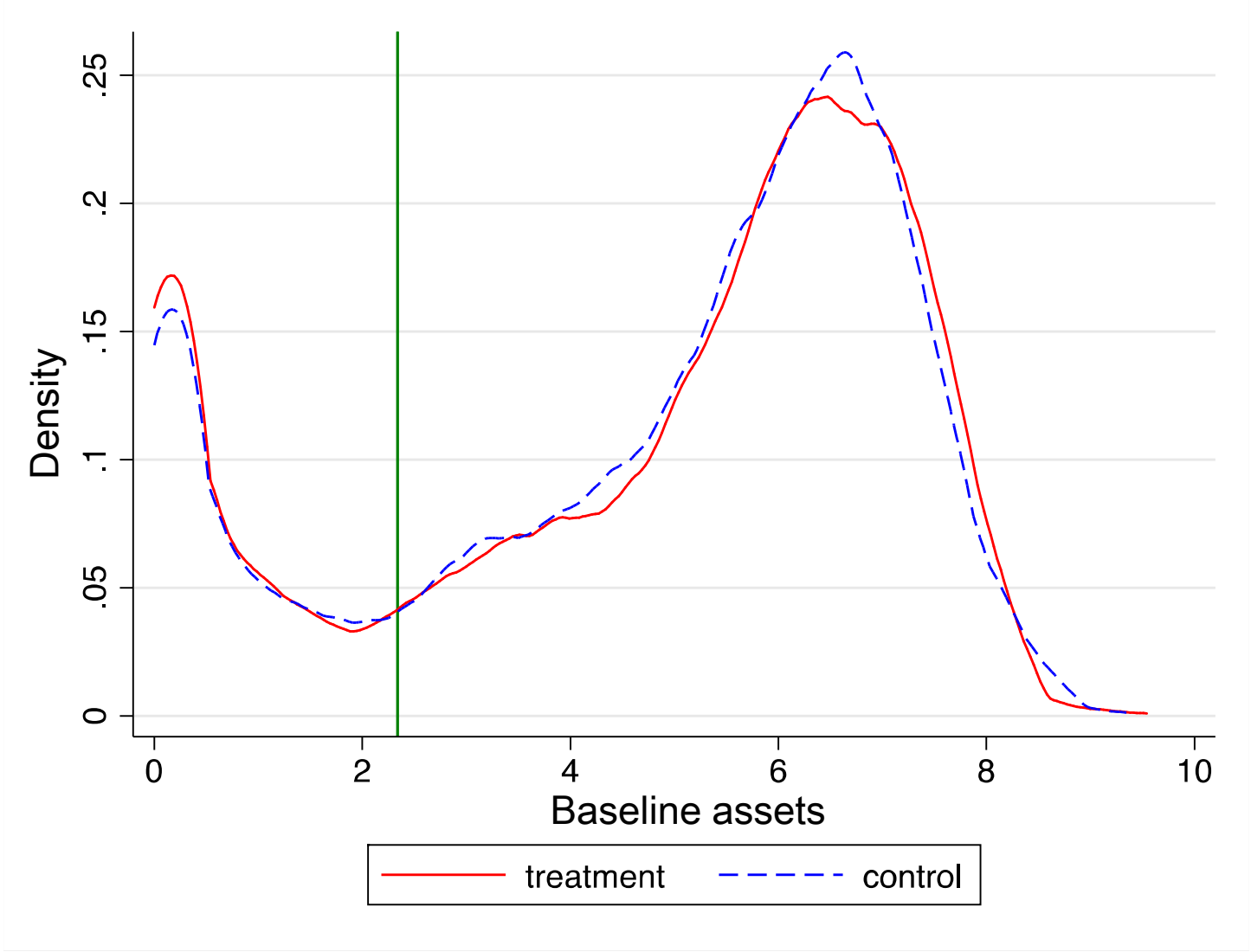
Further Implications of the poverty trap argument

Suppose $\hat{k}$ is an unstable steady state

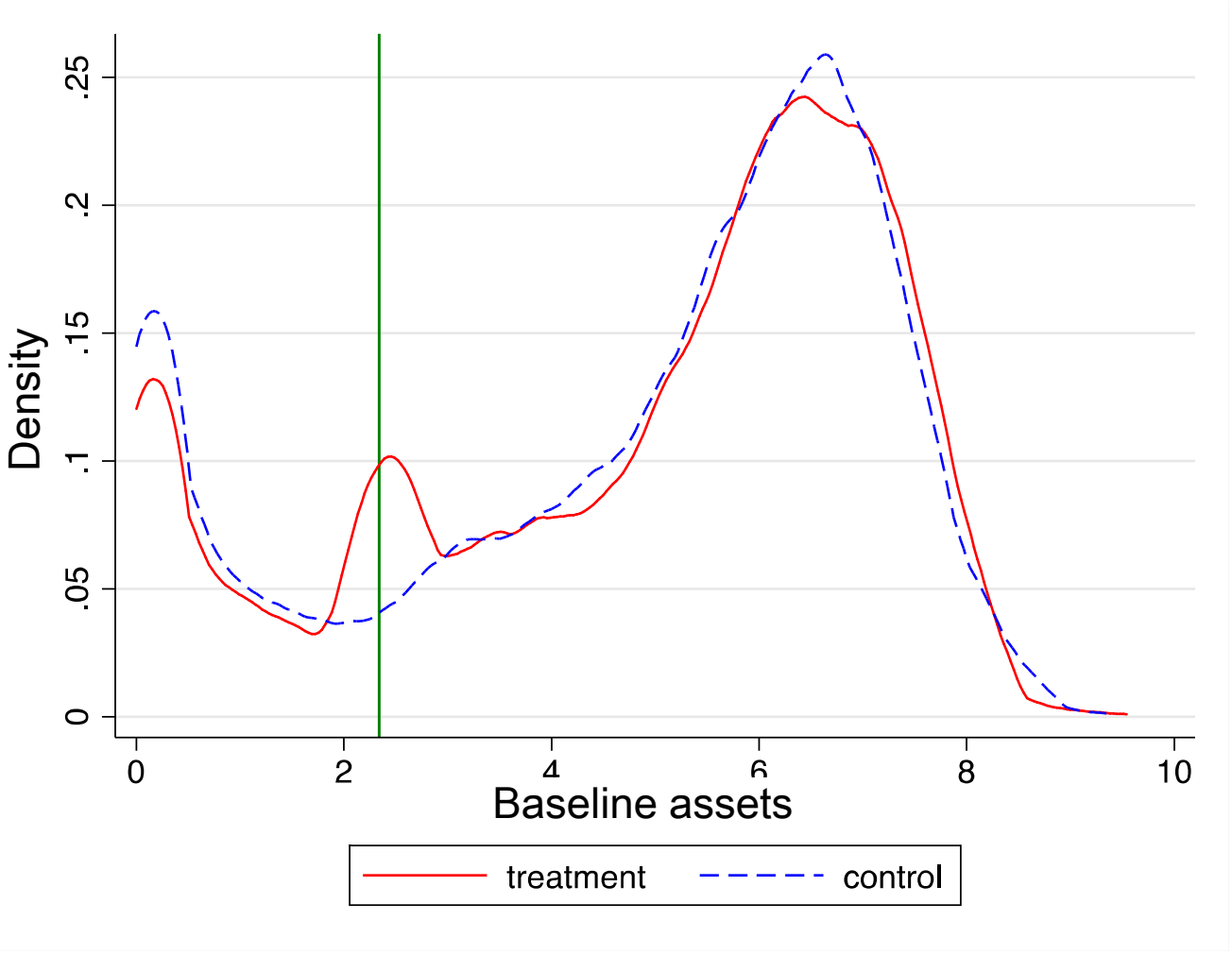
1. In equilibrium there should be no-one around it: people are either at the low or at the high SS

2. People brought by the program to the left of $\hat{k}$ should lose assets, those to the right should accumulate

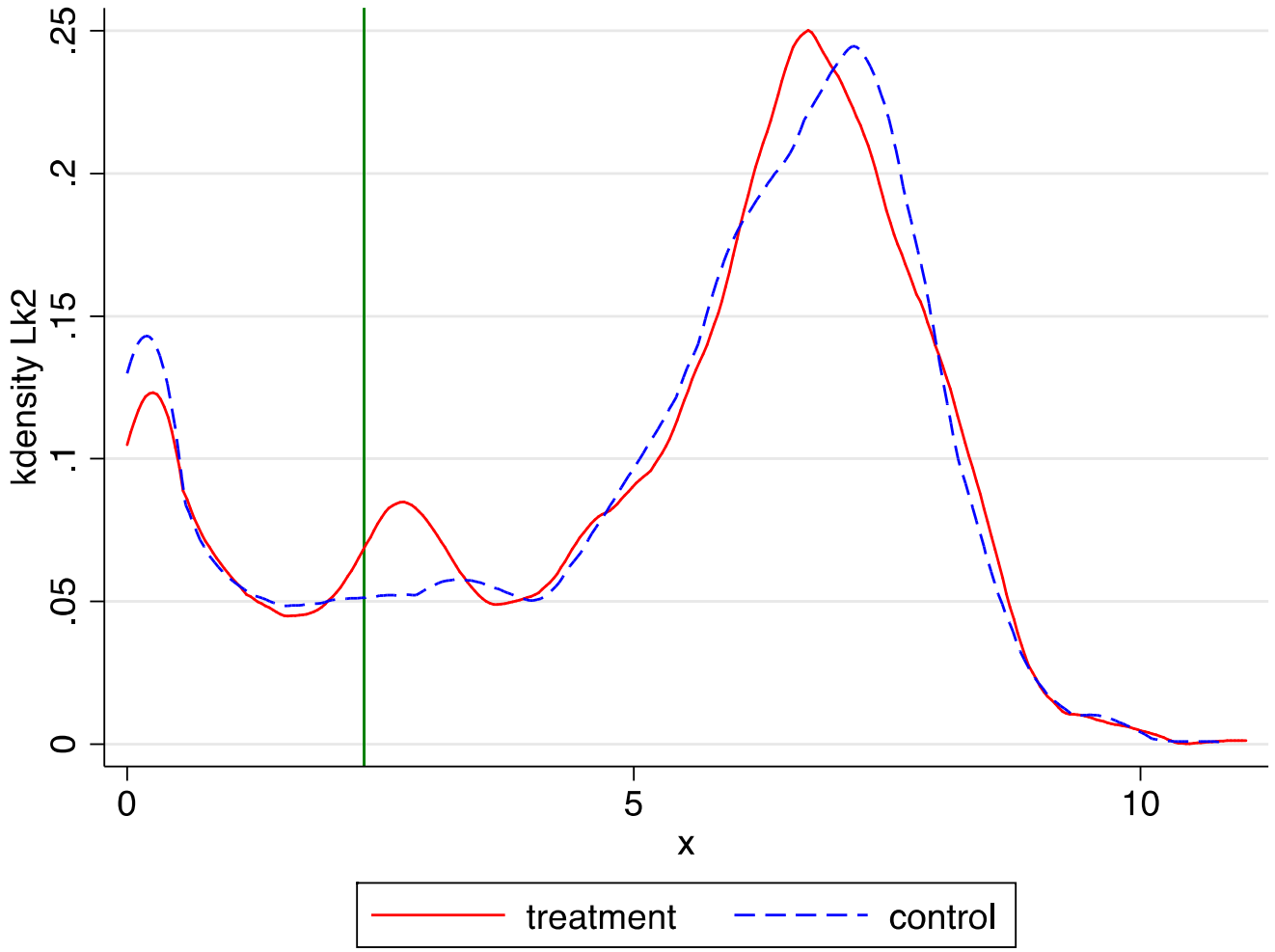
At **baseline** the distribution of assets is bi-modal and density around the threshold is low



After 2 years, some of the ultra-poor have crossed $\hat{k}$



After 4 years, more of the ultra-poor have crossed $\hat{k}$



Identification checks

Set-up

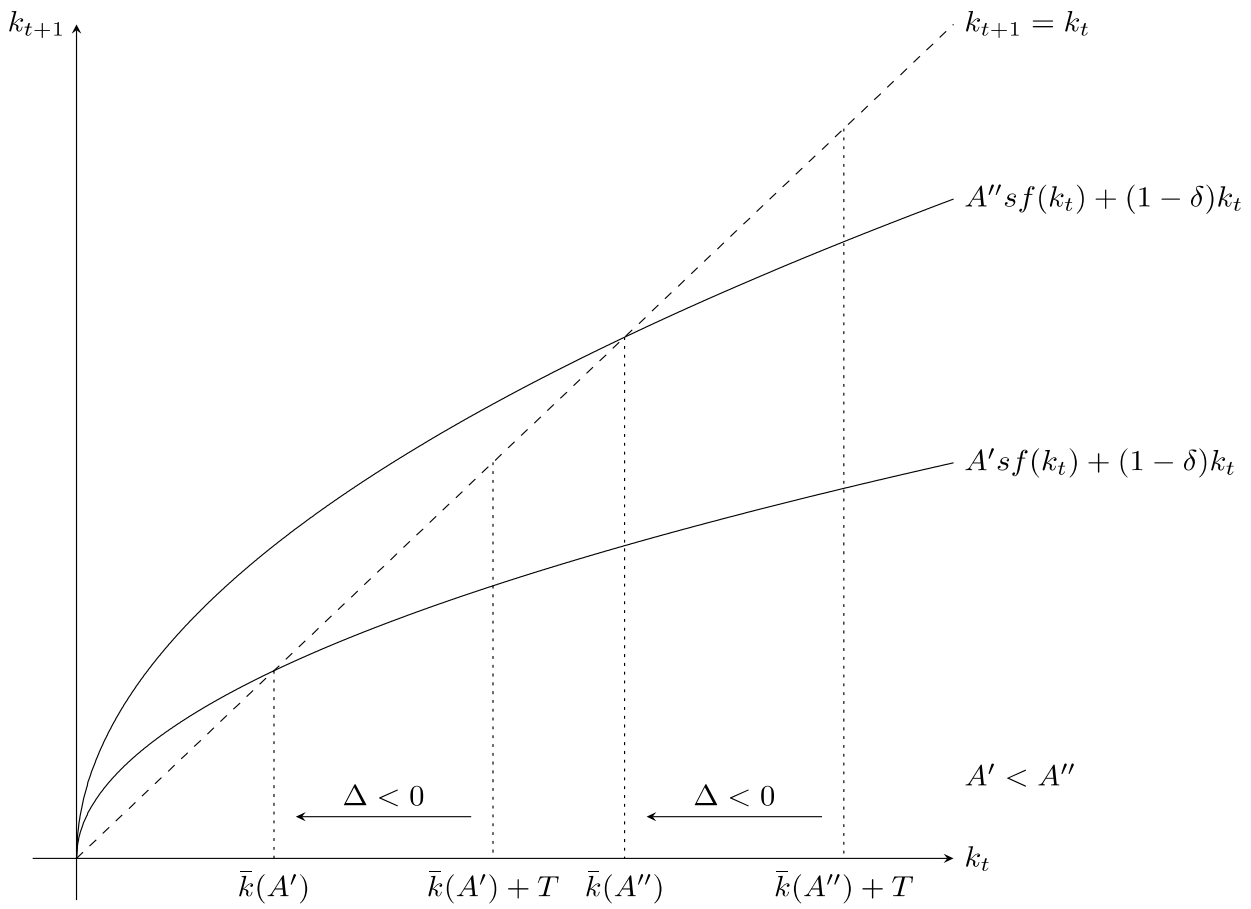
- Denote the labor earnings of individual i by $E_i = A_i f(k_i)$ where
  - k is accumulable and observable physical capital
  - A i comprises all other factors that affect earnings and are complementary to k , including innate talent and accumulable human capital (health, skills, etc).

- Textbook capital accumulation

- $k_{t+1} = g(A, k_t) = sf(A, k_t) + (1- \delta) k_t$

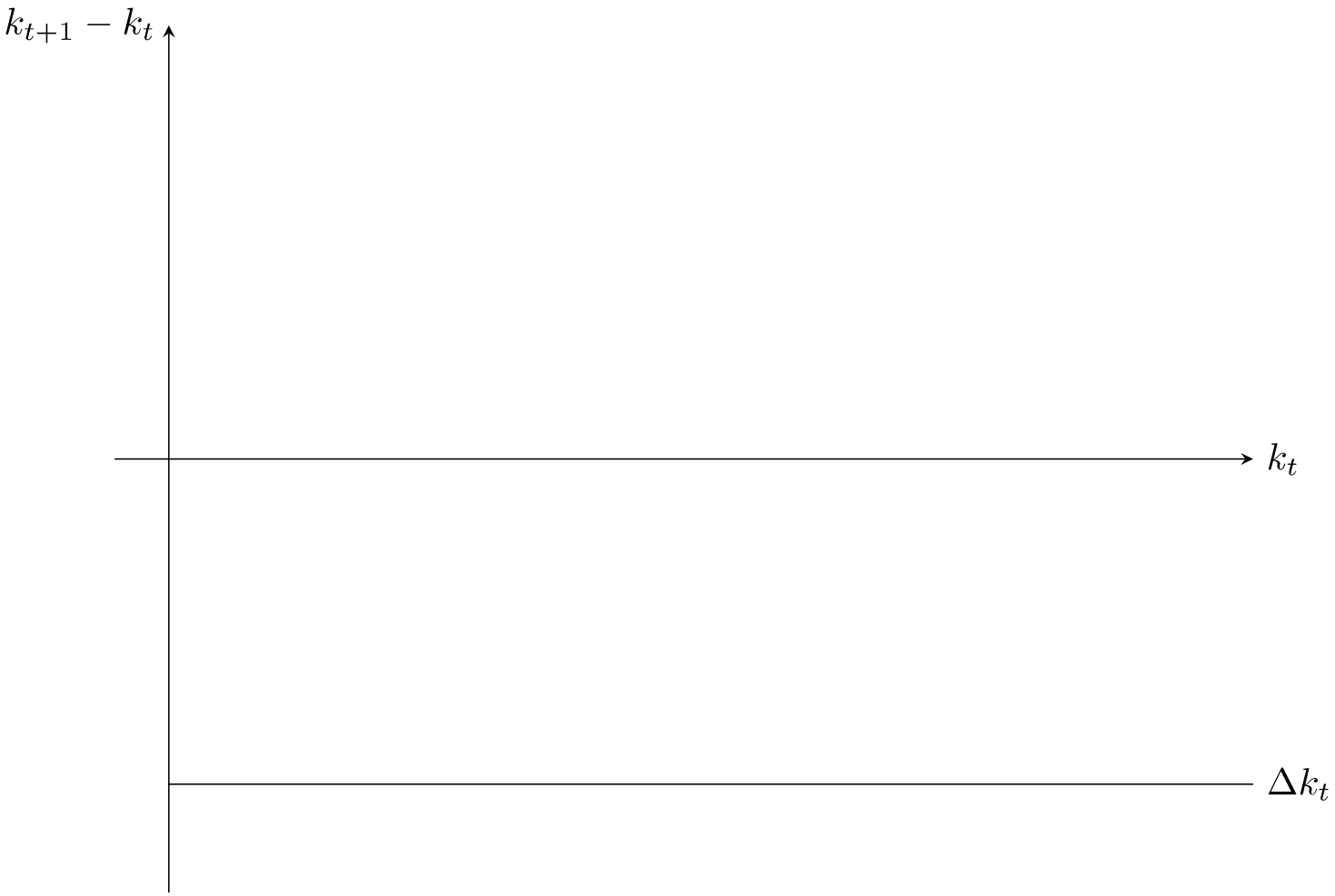
  - where s is a constant saving rate and δ is a constant depreciation rate.

Case 1: cov(k0,A)>0, program leaves SS unchanged

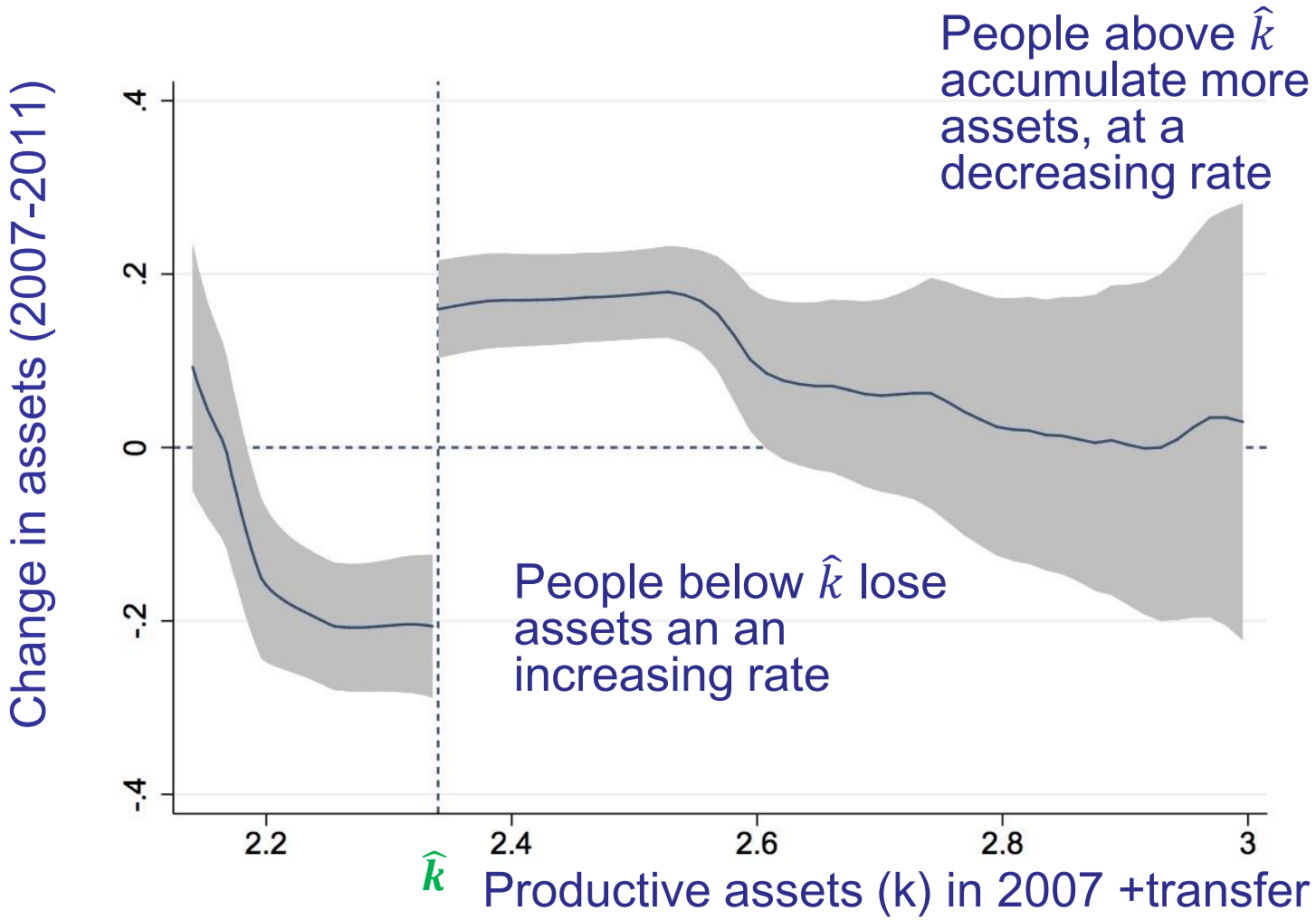


All beneficiaries lose K to return to their own SS

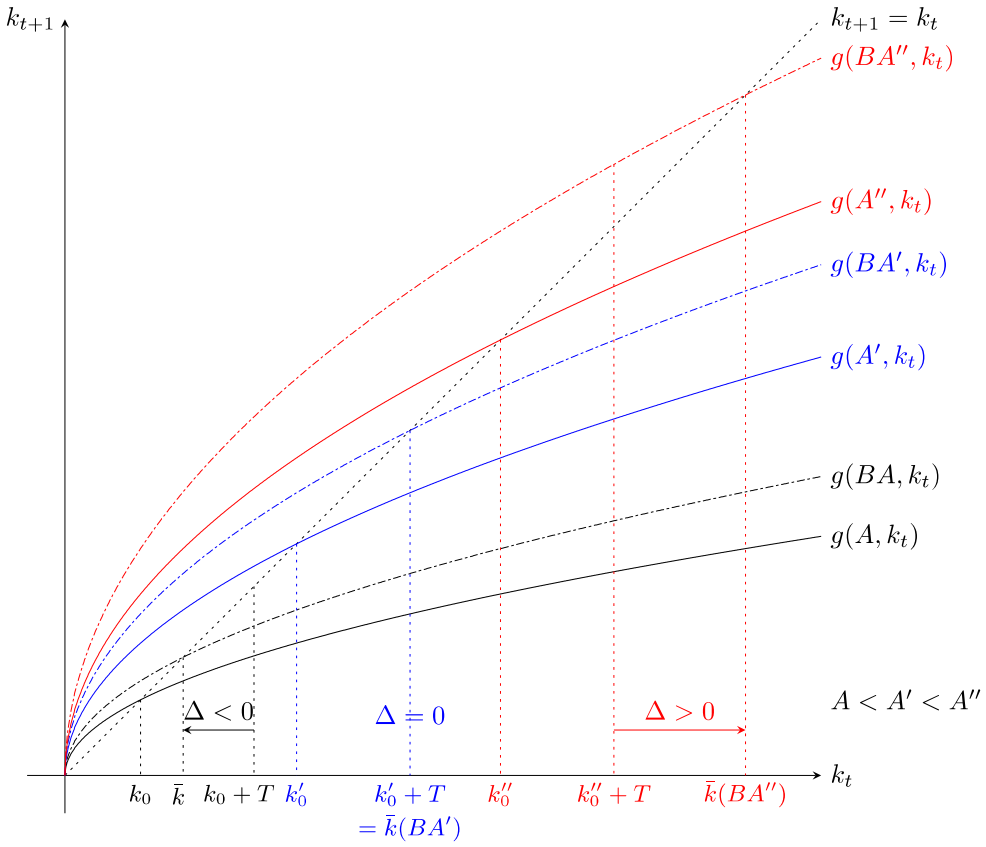
Δk under the null, in theory



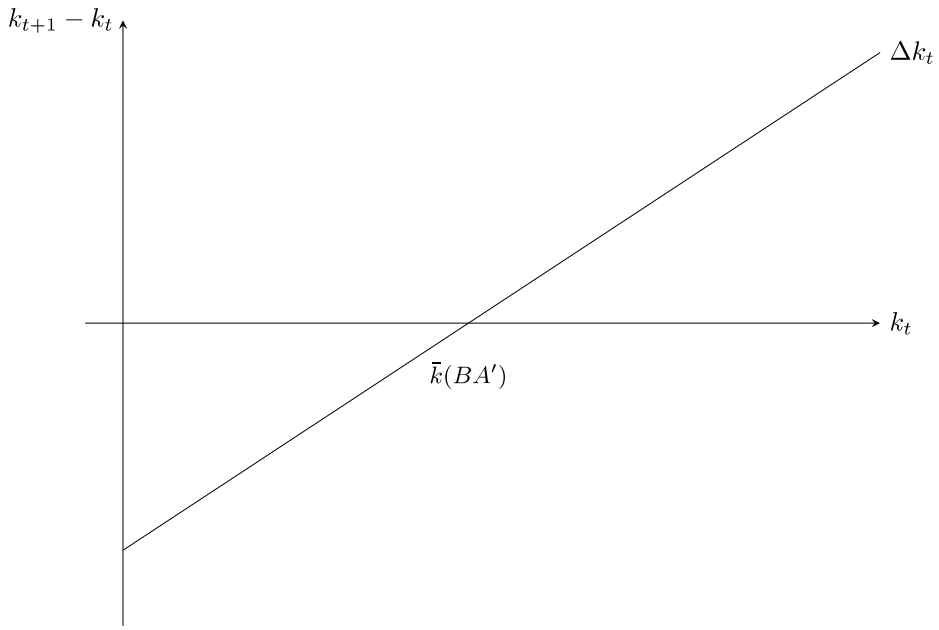
Δk, in data


People above $\hat{k}$ accumulate more assets, at a decreasing rate
People below $\hat{k}$ lose assets an an increasing rate
Change in assets (2007-2011)
.4
.2
0
-.2
-.4
2.2
2.4
2.6
2.8
3
$\hat{k}$
Productive assets (k) in 2007 +transfer

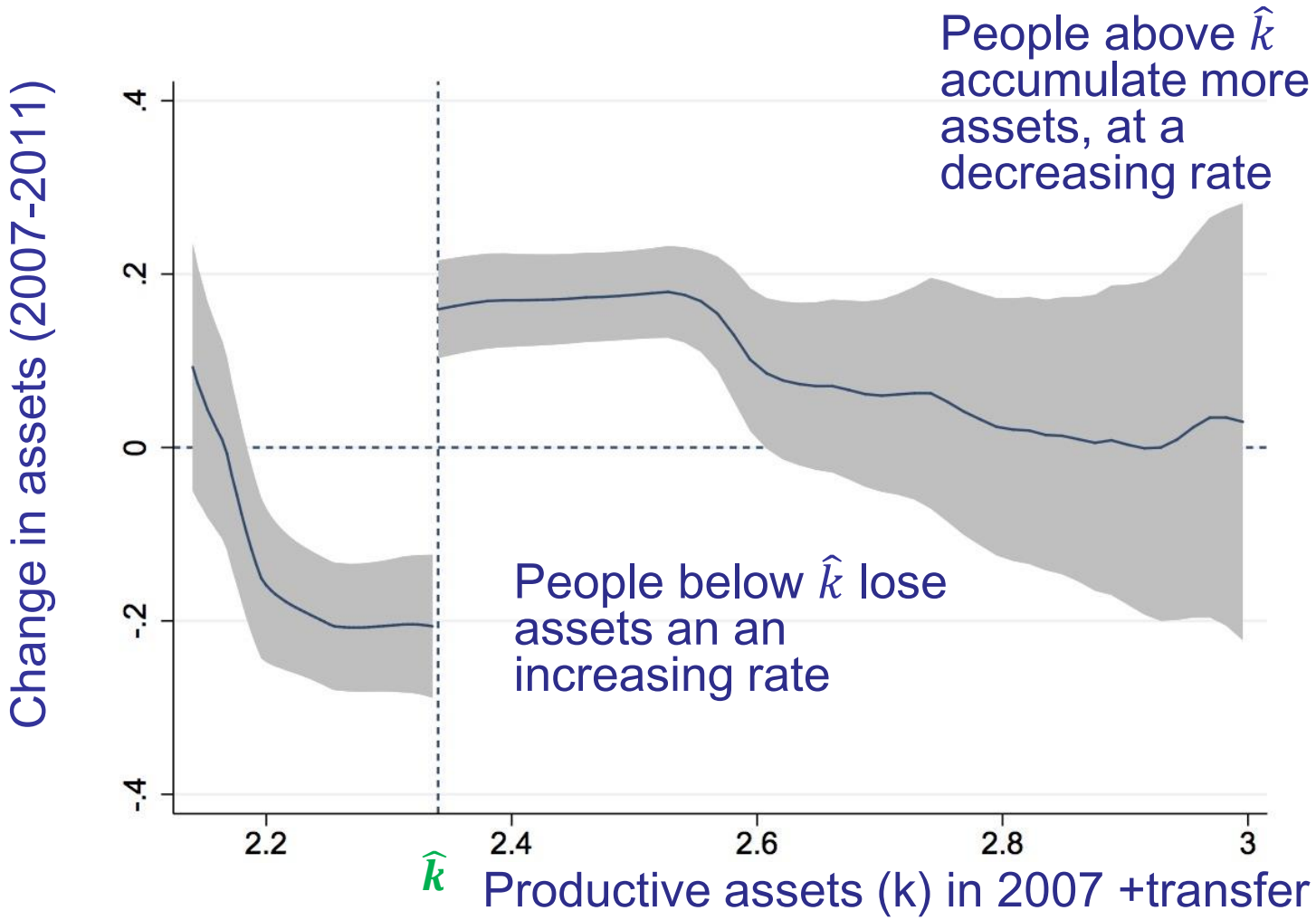
Case 2: cov(k0,A)>0, program shifts SS, more for higher A



Δk under the null, in theory



Δk, in data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.4
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-.4
2.2
2.4
2.6
2.8
3
$\hat{k}$
Productive assets (k) in 2007 +transfer

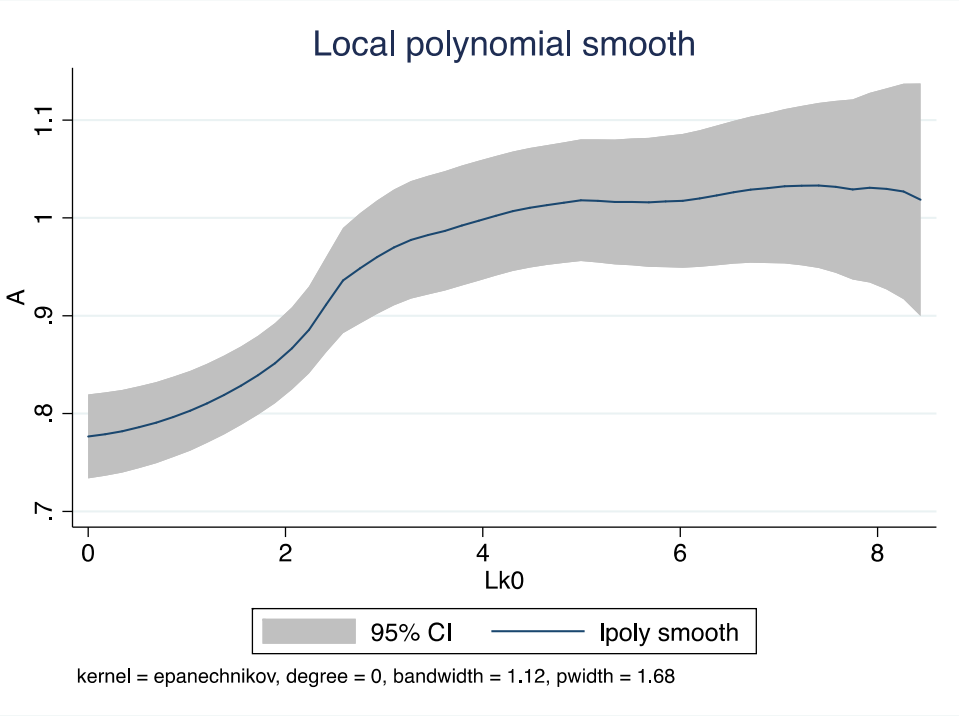
- The alternative explanation is that we're in the convergence world and A is somehow related to baseline capital. Individuals with low baseline capital have low A, and hence a low steady state, with they revert back to after the transfer. Individuals with high baseline capital have high A, hence high steady state, which they hadn't fully converged to before the transfer, but the transfer accelerates their convergence and their experience further positive change in assets after the transfer.

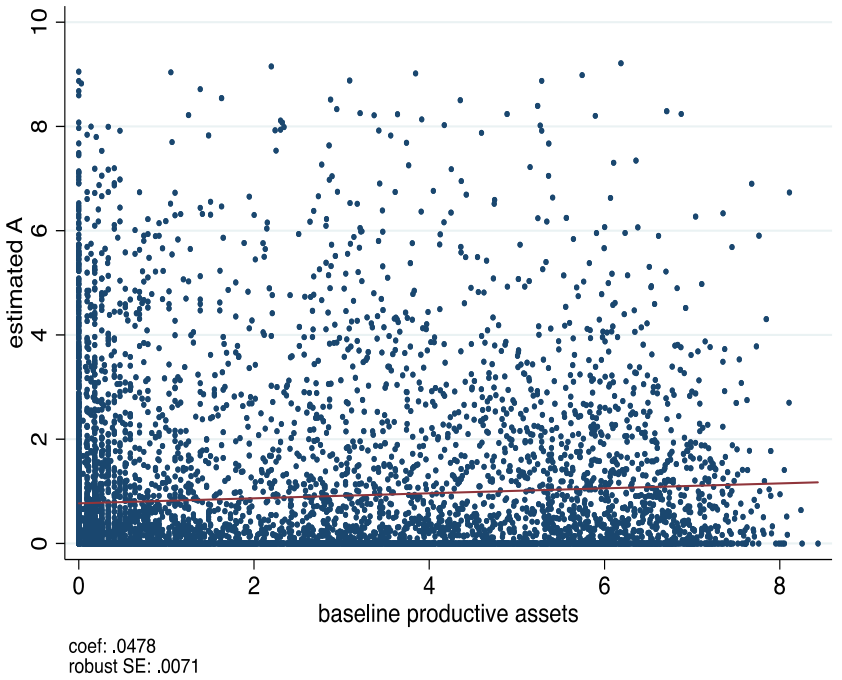
- If this explanation was true, we would expect to see the change in assets to be increasing steadily in baseline assets, starting with negative change at low levels of baseline assets. Instead, we find the change to be decreasing in baseline assets below k^ and then the discontinuous jump. For this to happen in the alternative explanation above, the relationship between A and baseline capital would have to follow a similar pattern, which is unlikely.
- Could make a similar point re. relationship of baseline assets & the human capital transfer (training) if human capital & assets are compl

Estimating A

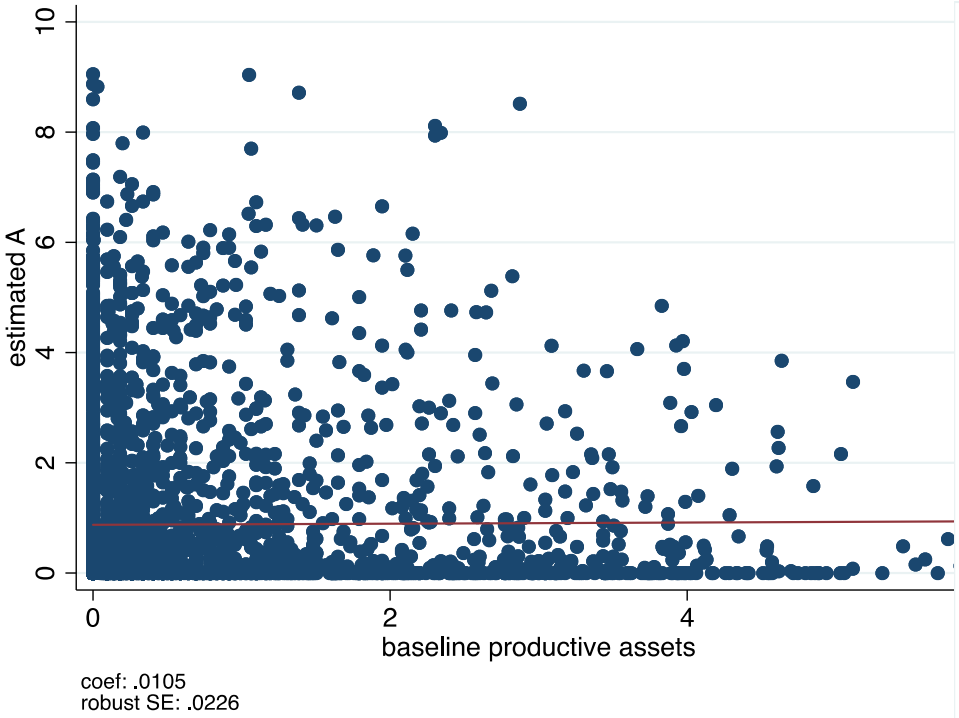
- Whilst ability or talent for livestock rearing cannot be measured directly, the fact that the program requires all beneficiaries to work with the asset for two years eliminates the usual selection bias and allows us to estimate it.
- We do so by computing the ratio of their realised livestock income to the value of livestock income predicted for the individual using a parameterised production function.

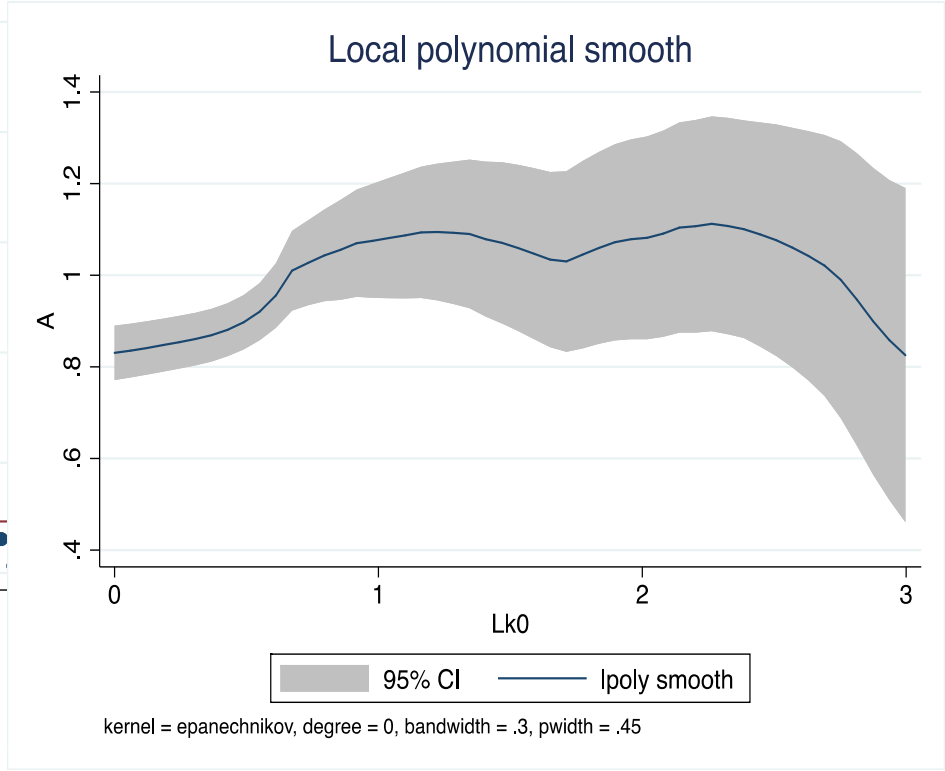
The correlation is positive over the full support of K0



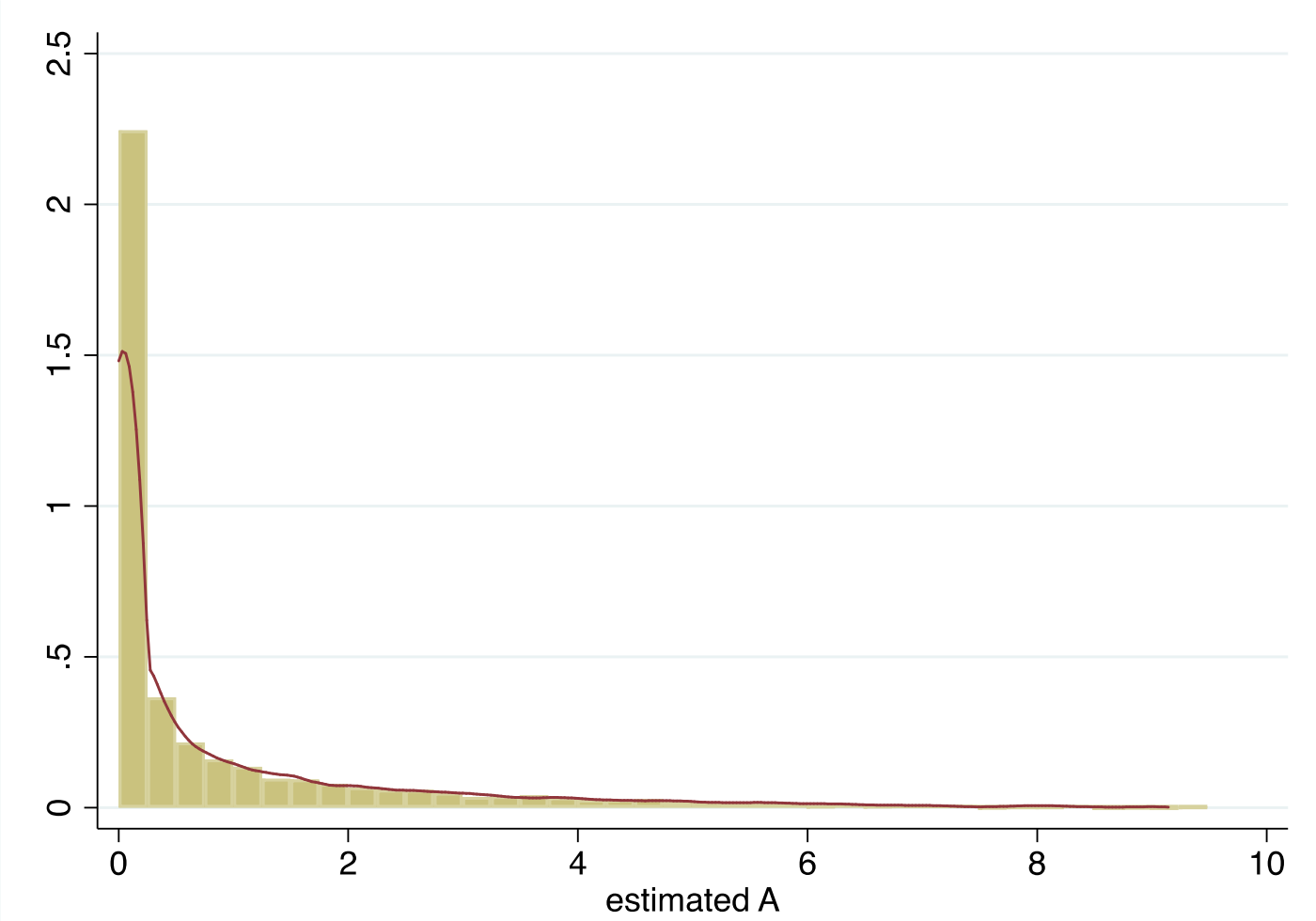


The correlation is zero over the relevant range



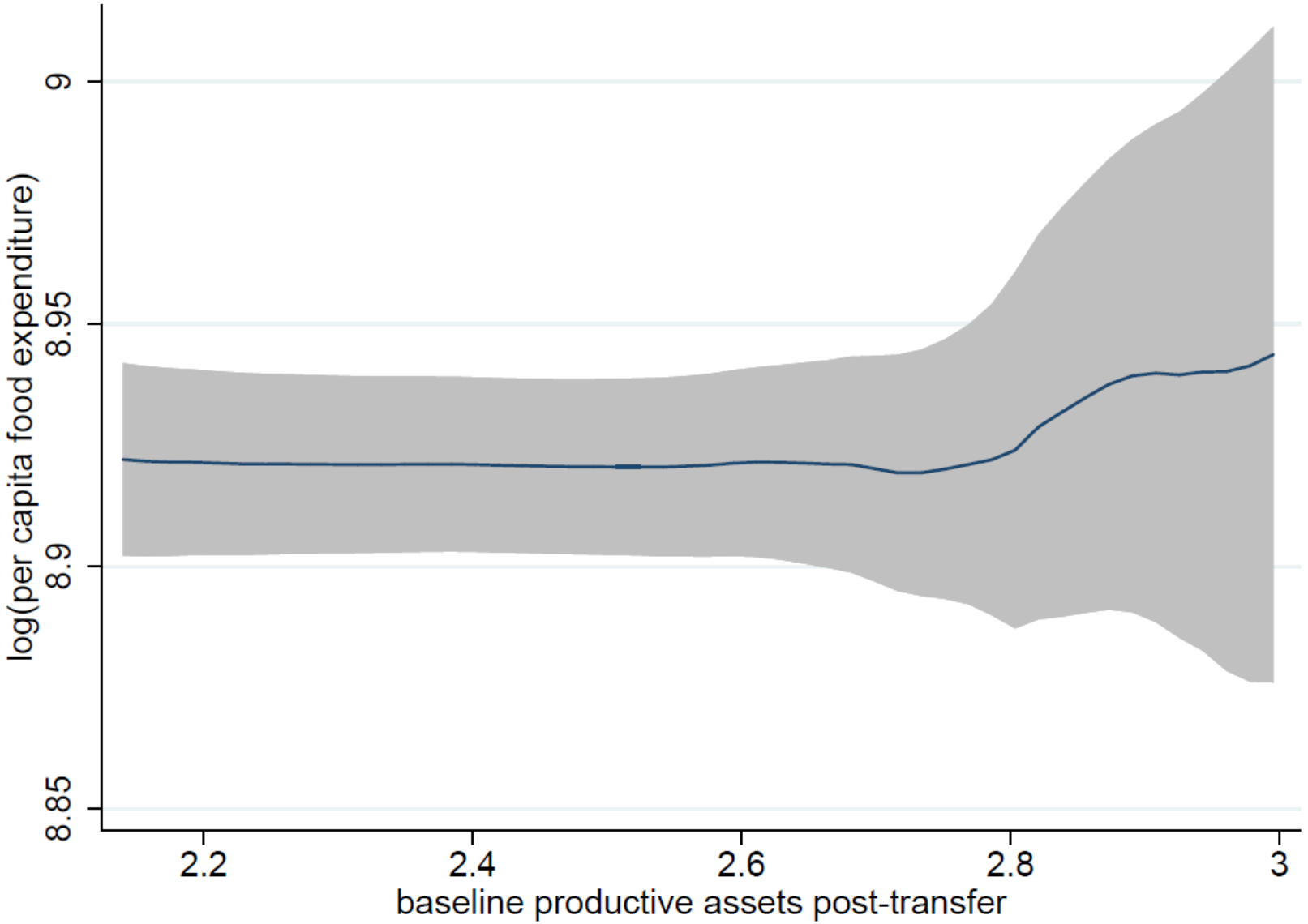


A is not bi-modal

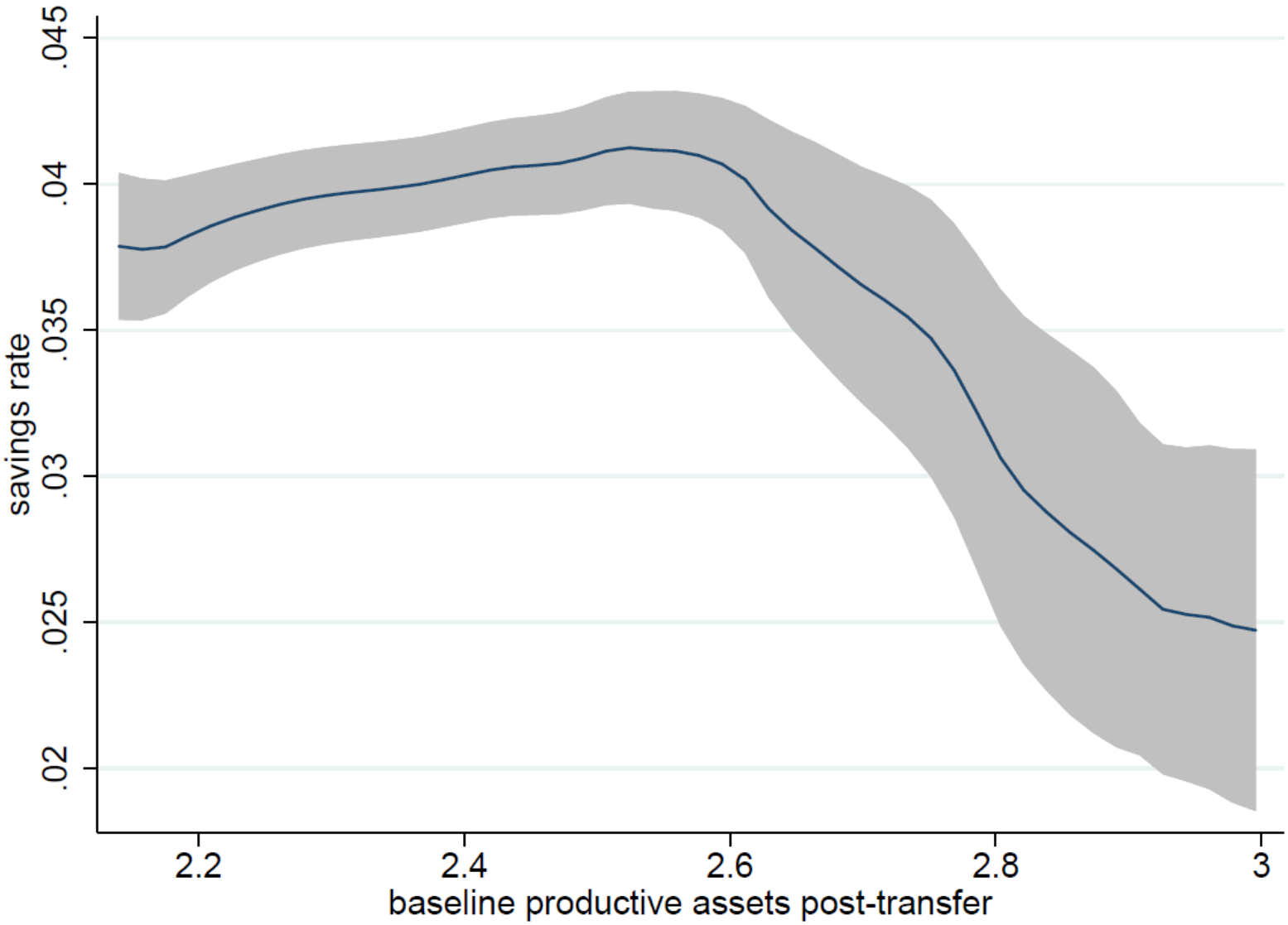


Mechanisms behind the Discontinuity

Not a nutrition poverty trap



Not a savings poverty trap



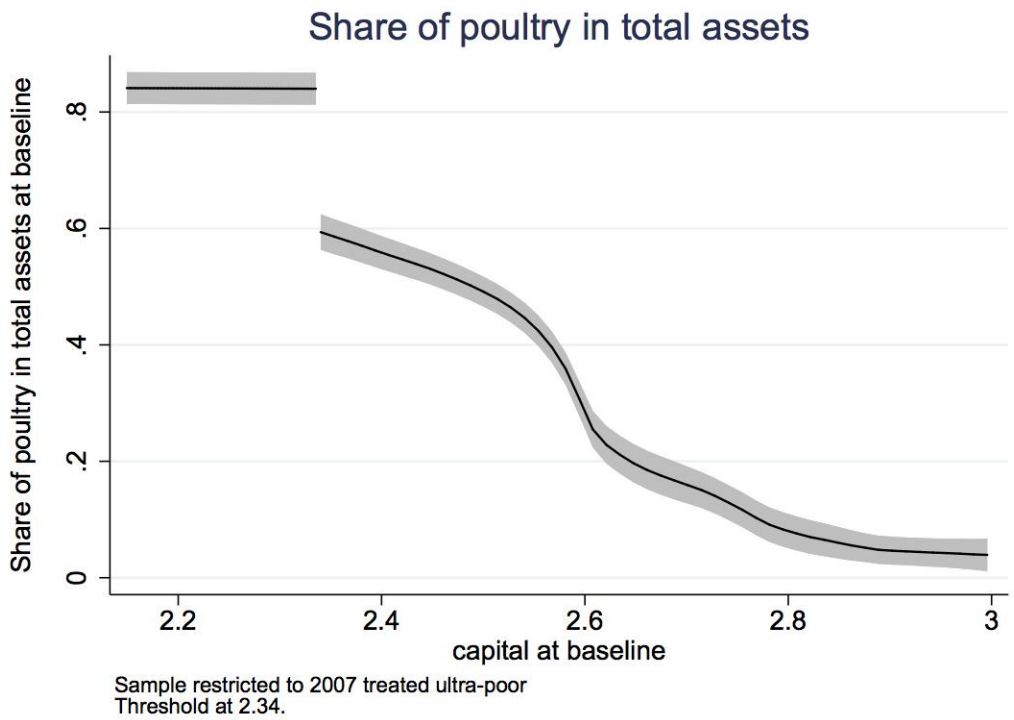
Regressions: preferences and human capital

VARIABLES	(1) Savings Rate	(2) Risk Aversion	(3) Discount Rate	(4) Body Mass Index	(5) years of schooling, main female respondent
Baseline productive assets	0.0139	-1.434**	-0.0934	0.0678	-0.298
	(0.00934)	(0.724)	(0.233)	(1.338)	(0.868)
(Baseline productive assets)^2	-0.00196	0.212*	0.00862	-0.00769	0.0415
	(0.00138)	(0.114)	(0.0365)	(0.213)	(0.137)
Above Threshold	-0.000724	-0.0313	-0.0199	-0.137	0.0758
	(0.000535)	(0.0767)	(0.0284)	(0.111)	(0.0828)
Constant	-0.0188	4.774***	1.672***	18.33***	1.005
	(0.0142)	(1.057)	(0.342)	(1.944)	(1.267)
Observations	3,385	3,556	3,556	3,340	3,540
Mean of dependent variable	0.00299	2.532	1.481	18.37	0.575

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

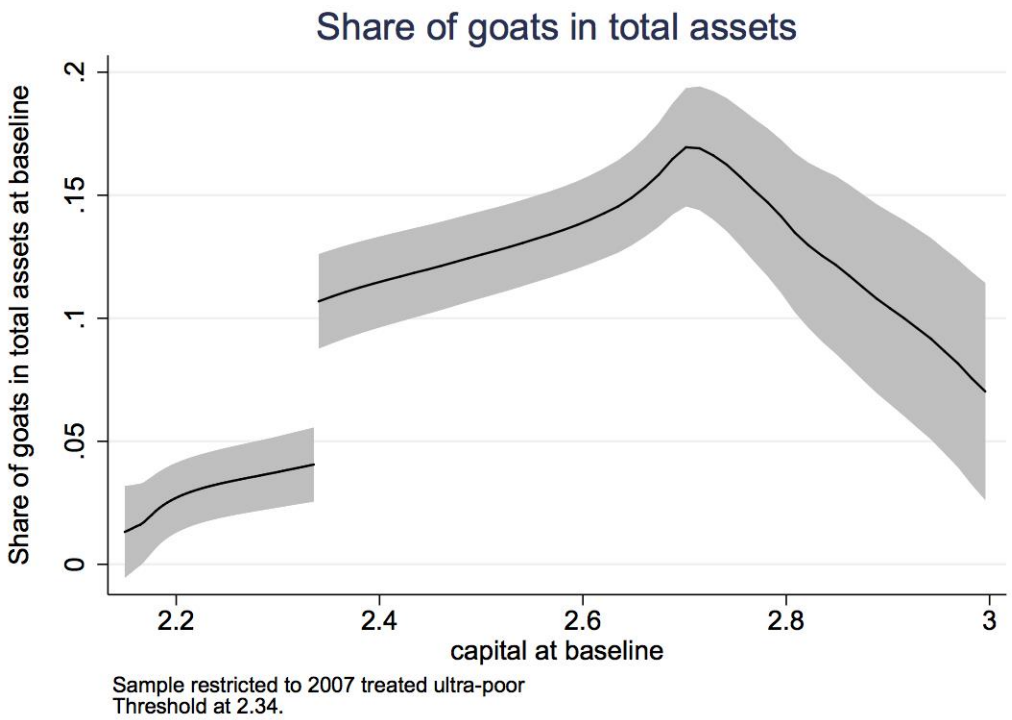
Regression discontinuity around threshold of 2.34. Standard errors are clustered at the spot ID level. Risk aversion is measured on a scale of 1 to 4 with higher values corresponding to lower risk aversion. Discount Rate is a binary variable indicating whether the respondent prefers a payment of 250Tk in 1 month over 200Tk now.

Asset composition differs: fewer chickens

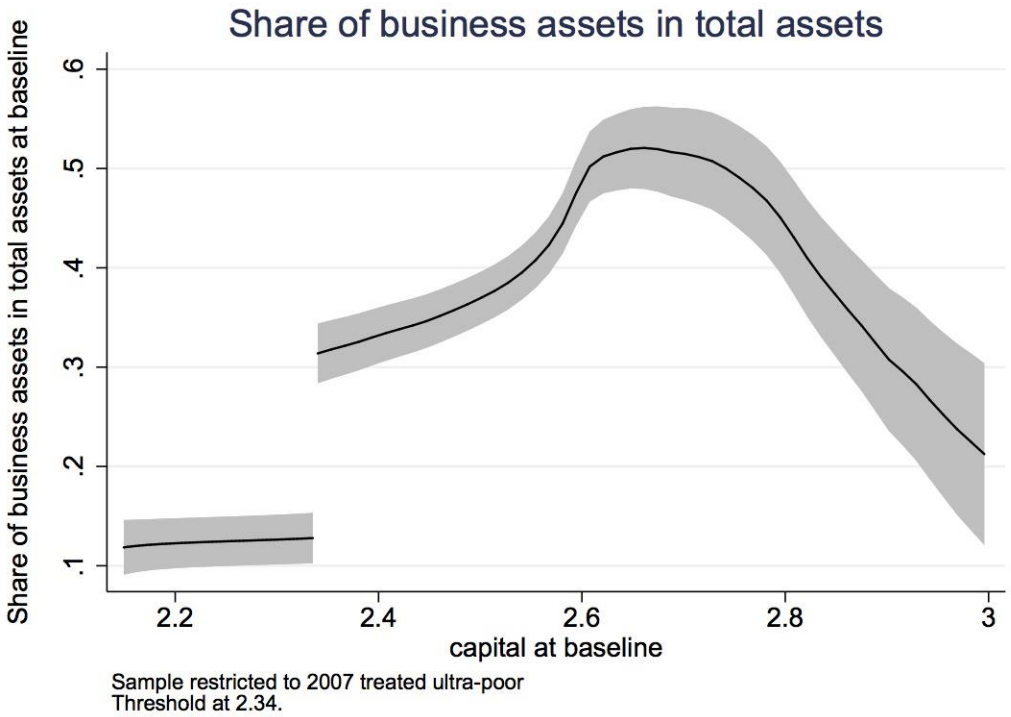


20%
DROP

More goats


Share of goats in total assets
Share of goats in total assets at baseline
0
.05
.1
.15
.2
2.2
2.4
2.6
2.8
3
capital at baseline
Sample restricted to 2007 treated ultra-poor
Threshold at 2.34.

More business assets (esp rickshaw and boats)



20%
HIKE

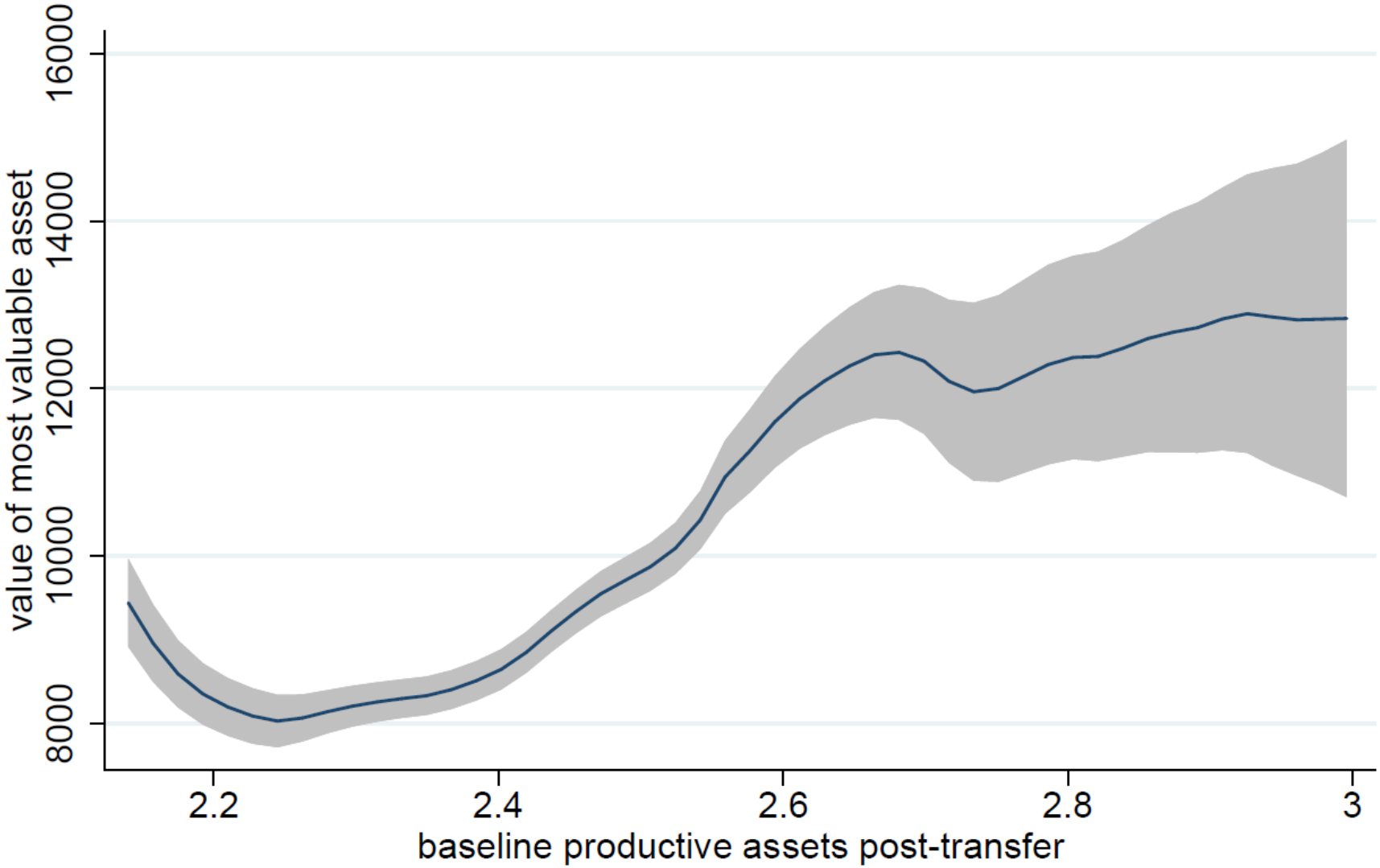
Regressions: composition of capital

VARIABLES	(1) Value of homestead land owned	(2) baseline share of poultry in total assets	(3) baseline share of goats in total assets	(4) baseline share of business assets in total assets
Baseline productive assets	13,375***	-0.390***	-0.0643***	-0.205***
	(2,715)	(0.0218)	(0.00785)	(0.0161)
Above Threshold	670.2	-0.323***	0.0970***	0.289***
	(889.5)	(0.0264)	(0.0124)	(0.0249)
Constant	-25,407***	1.730***	0.182***	0.592***
	(6,163)	(0.0542)	(0.0195)	(0.0420)
Observations	3,556	2,007	2,007	2,007
Mean of dependent variable	8239	0.483	0.0859	0.270

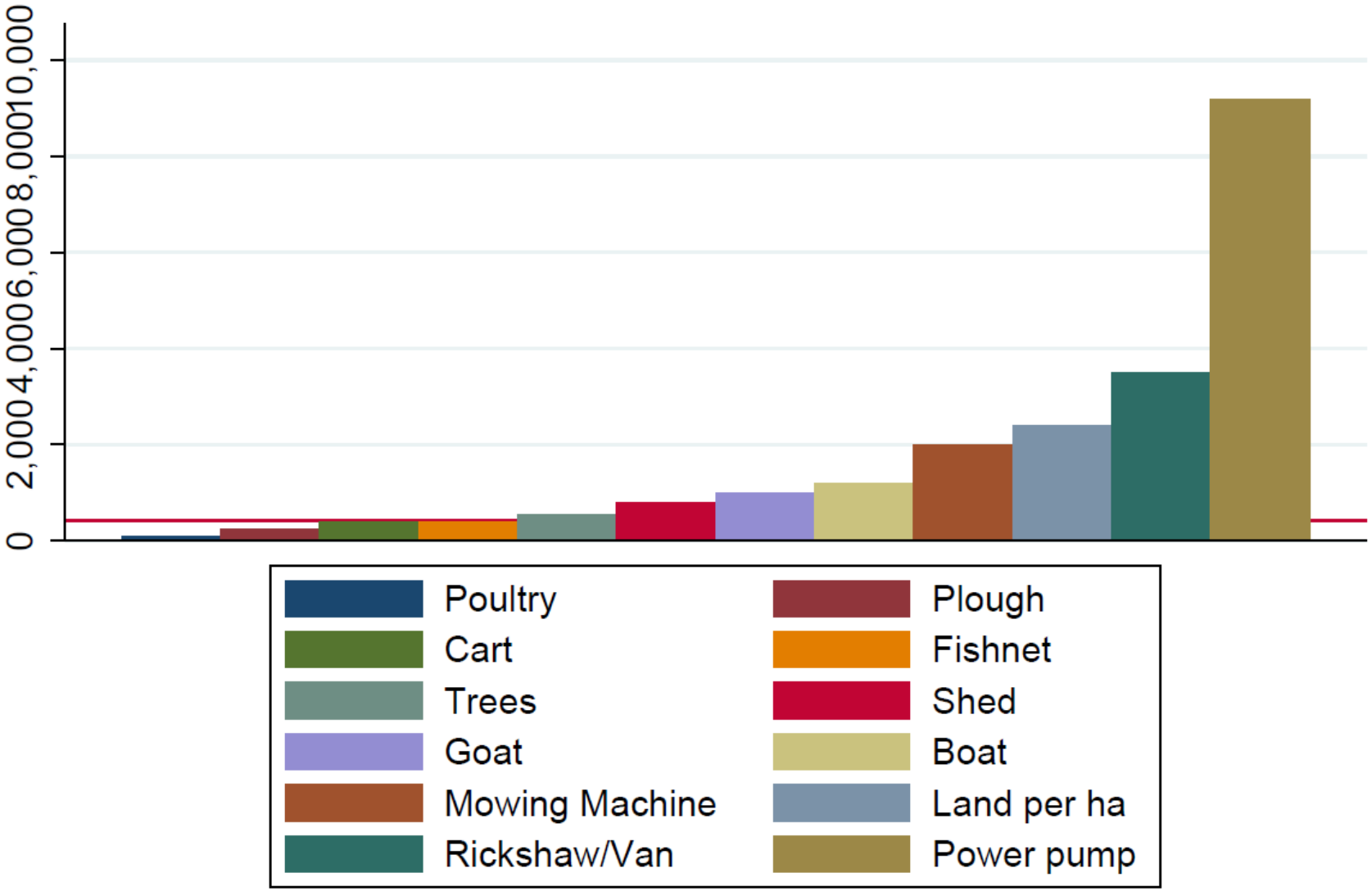
*** p<0.01, ** p<0.05, * p<0.1

Regression discontinuity around threshold of 2.34. Standard errors are clustered at the spot ID level. Capital shares are calculated as a fraction of total baseline productive assets.

An indivisibilities poverty trap



Asset Unit Prices



Omitted Tractor, Shop premises, and Cows for easier readibility. Tractor unit value: 47,500 BDT. The red horizontal line at 422 BDT indicates the value of the povertry threshold minus the median cow value.

Policy

Taking stock

- Evidence that rural poor are locked into low productivity occupations
- Sufficiently large transfers of productive assets (and training) can allow households to change occupation sustainably
- Those households who are elevated above a poverty threshold save and invest year after year and diversify into other assets (e.g. land)

- Alternative approach: Address households' autarky by infrastructure investments to reduce marketization/trade costs and allow rural households/regions to trade

The evidence in one slide

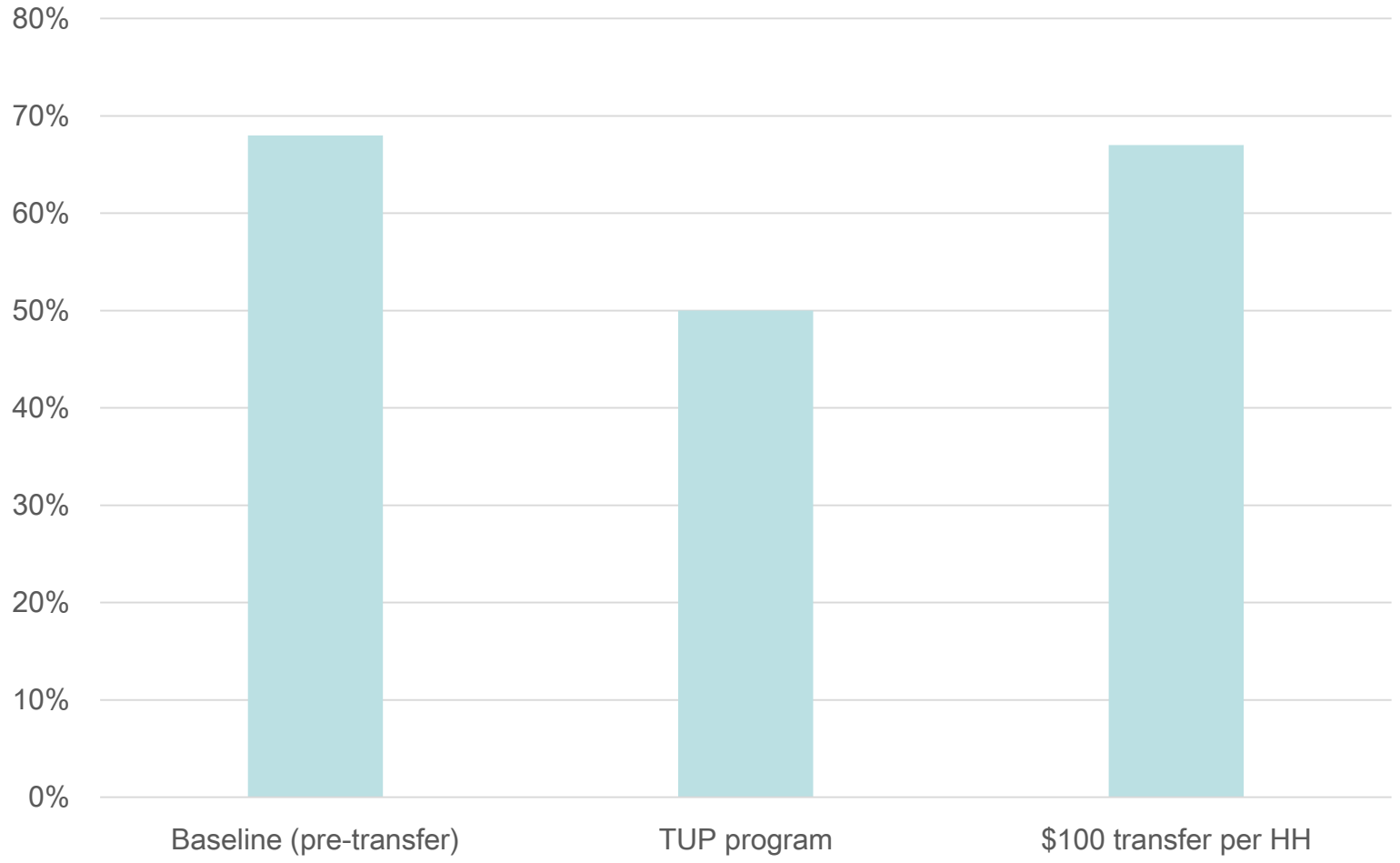
- Microfinance is cheap (even profitable) but ineffective at allowing access to more remunerative occupations (Meager 18, Banerjee et al 15)
- Vocational training programs typically have low take up if not they are effective, but expensive (McKenzie 17, Alfonsi et al 18)
- Large assets & cash grants are effective at promoting occupational change, but expensive (Banerjee et al 15, Blattman et al 14,16, Bandiera et al 17)

Policy implications

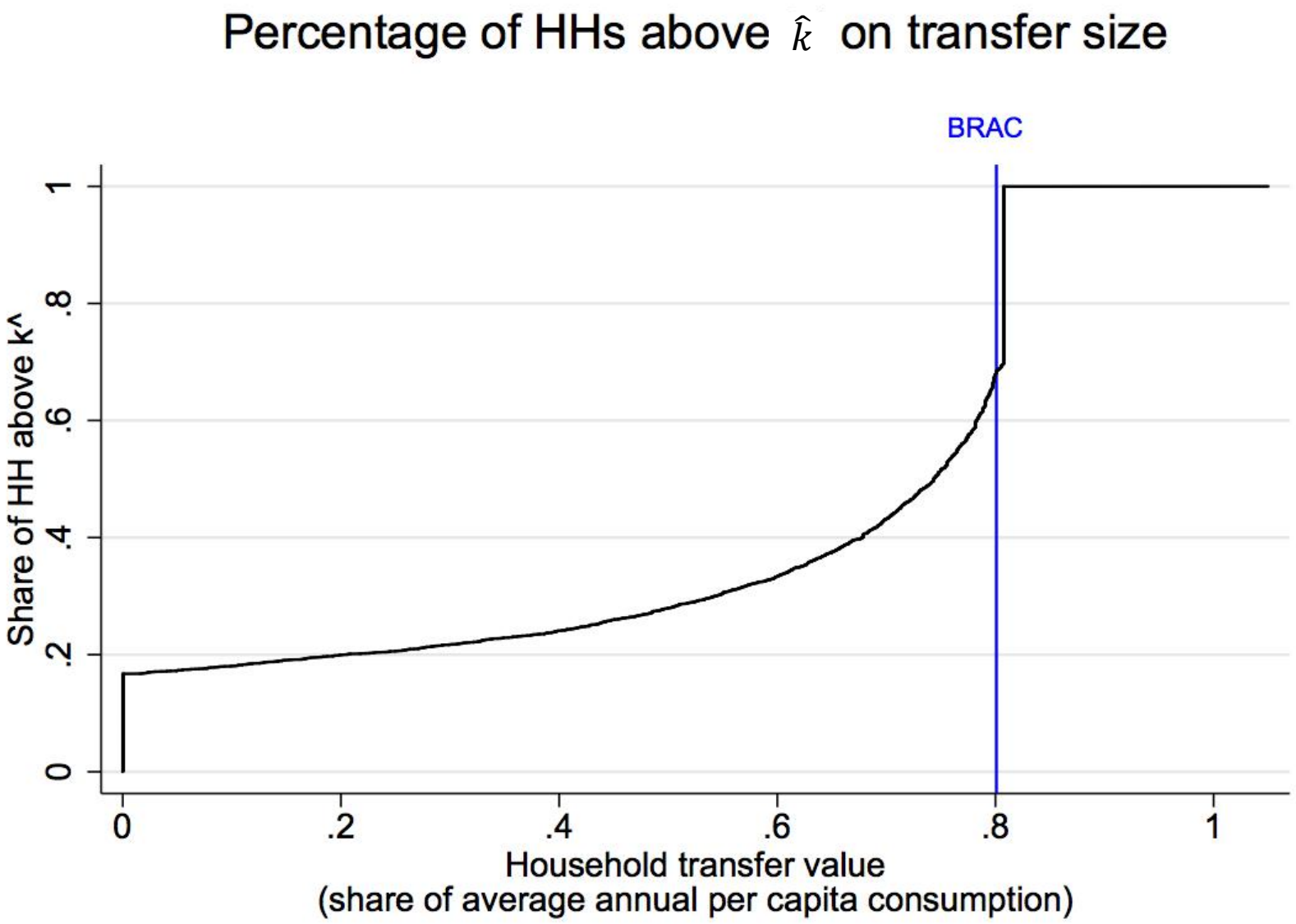
- The existence of a poverty threshold implies that only transfers large enough to push beneficiaries past the threshold will reduce poverty in the long run
- Smaller transfers might increase consumption for a short period but will have no long lasting effects
- Micro-loans are typically <$200, which might explain the disappointing effects of microfinance

Share misallocated under different policies

Misallocated = unconstrained optimal to work in livestock but productive assets below unstable steady state k^



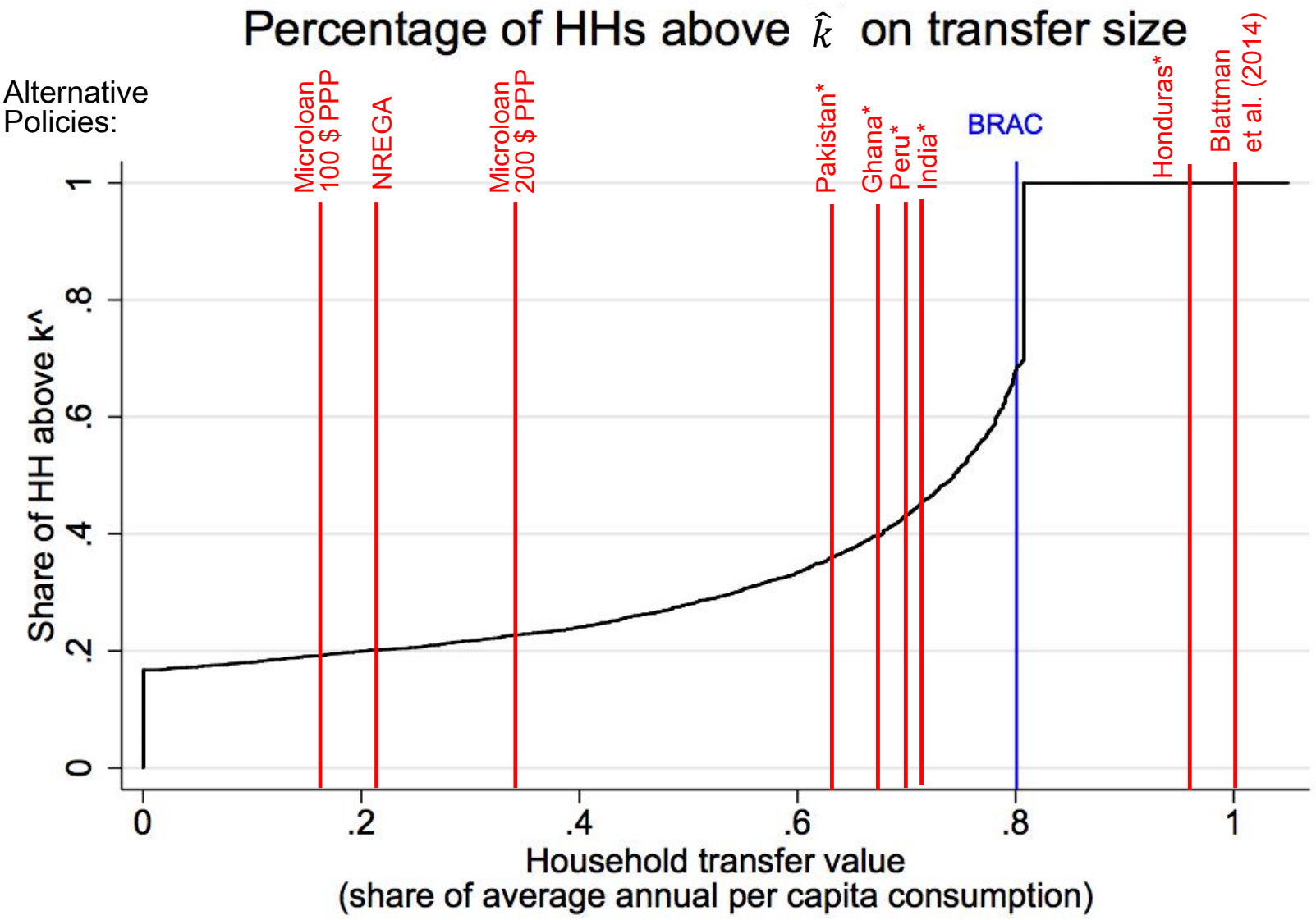
A big problem requires a big solution



- The black line is the cumulative distribution of the baseline asset-threshold gap plus a shock randomly drawn from the control group.
- It depicts the share of people above the threshold after everyone receives an asset of value x and a random shock. The random shock is calculated as the difference between yr4 and baseline productive assets of control households and randomly assigned to treatment households.

- The transfer value on the x- axis is scaled to display the transfer size as a share of annual per capital expenditure of the treated ultra-poor, which is 11668.7 in our sample.
- The horizontal lines are placed at the transfer values of different programs, also expressed as the share of average annual per capita expenditure. In each case, average annual per capita expenditure is calculated in the sample of the respective study.

A big problem requires a big solution



* Country names refer to study sites in Banerjee et al. (2015)

- The figure shows that relatively large asset transfers (around the value of one year of per capita consumption) are required to elevate everyone above the poverty threshold. It also relates this to the size of some well-known transfer programs.

Conclusions

- Key conclusion – misallocation of talent
- Poor people are not unable to take on more productive employment activities – they just lack the needed capital
- Program releases this constraint – those closer to the threshold cross it and move out of poverty, those further away sink back into poverty, effects maintained after 11 years
- Key policy conclusion – need big push policies to tackle persistent poverty
- These policies need to focus on tapping into the abilities and talents of the poor rather than just propping up their consumption

What's special about our setting

- Transfer is large for the beneficiaries but small for the economy

- Bring them to the unstable SS
- But no GE (report total transfer cows as % of cows at baseline)

Is this specific to our setting?

- Consider indivisible expenditures corresponding to a similarly large proportion of PCE for the poor in the US:
  - 25th %ile of US household income in 2017 was $30,000
  - This is very close to average annual budgets needed to attend US universities in 2017-18 ($25,290 – $50,900)

Benchmarking to global poverty counts

- 2015 global number living below $1.90 per day: 735.9 million
- 2015 net aid flows from member countries of the Development Assistance Committee: $131.6 billion
- By comparison, extending the $1120 combined cost of the programme to all of the 735.9 million extreme poor in the world would cost $824.2 billion

thank you