



Understanding Society

THE UK HOUSEHOLD LONGITUDINAL STUDY

# Improving the measurement of income, spending and saving in household surveys

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Work in progress: do not cite

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# What we do

1. Make small changes to way ask questions on income
2. Present survey respondents with an editable summary of their income reports during data collection
3. Collect household finance data (incomings, outgoings and changes in net assets) and let households edit inconsistent responses, experimenting with how to collect data on changes in net assets
  - Samphantharak and Townsend (2010), Brzozowski and Crossley (2011); Fricker et al. (2015)
4. Use an app on a smart phone to collect detailed expenditure data



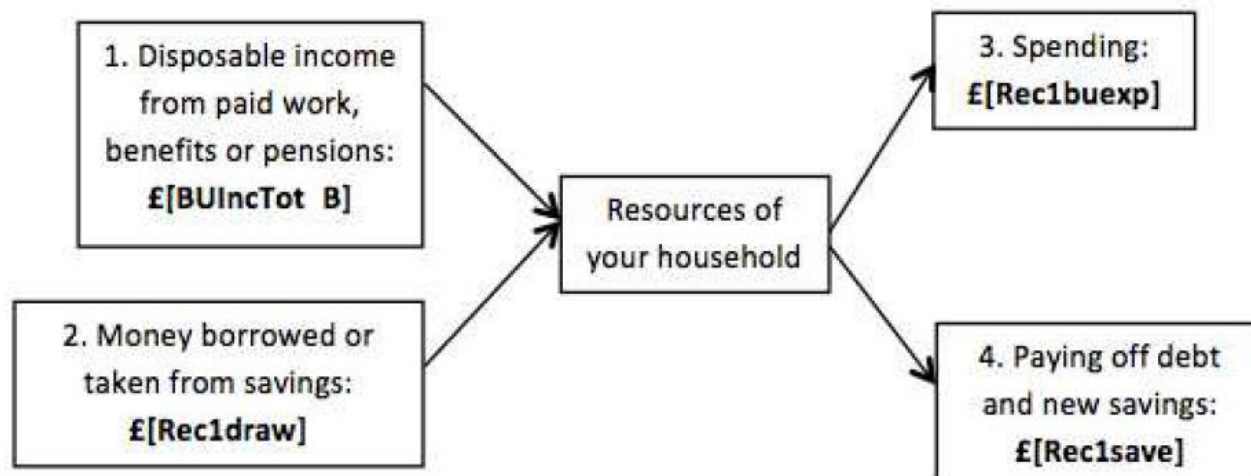
Collecting the full household budget

**Income – spend  $\equiv$  “net saving” or “change in net assets”**

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# Collecting data on household budget: #1

## 1. "Aggregate net flows"



Total incoming money (Box 1 and Box 2):  
 $£[Rec1totin]$  minus

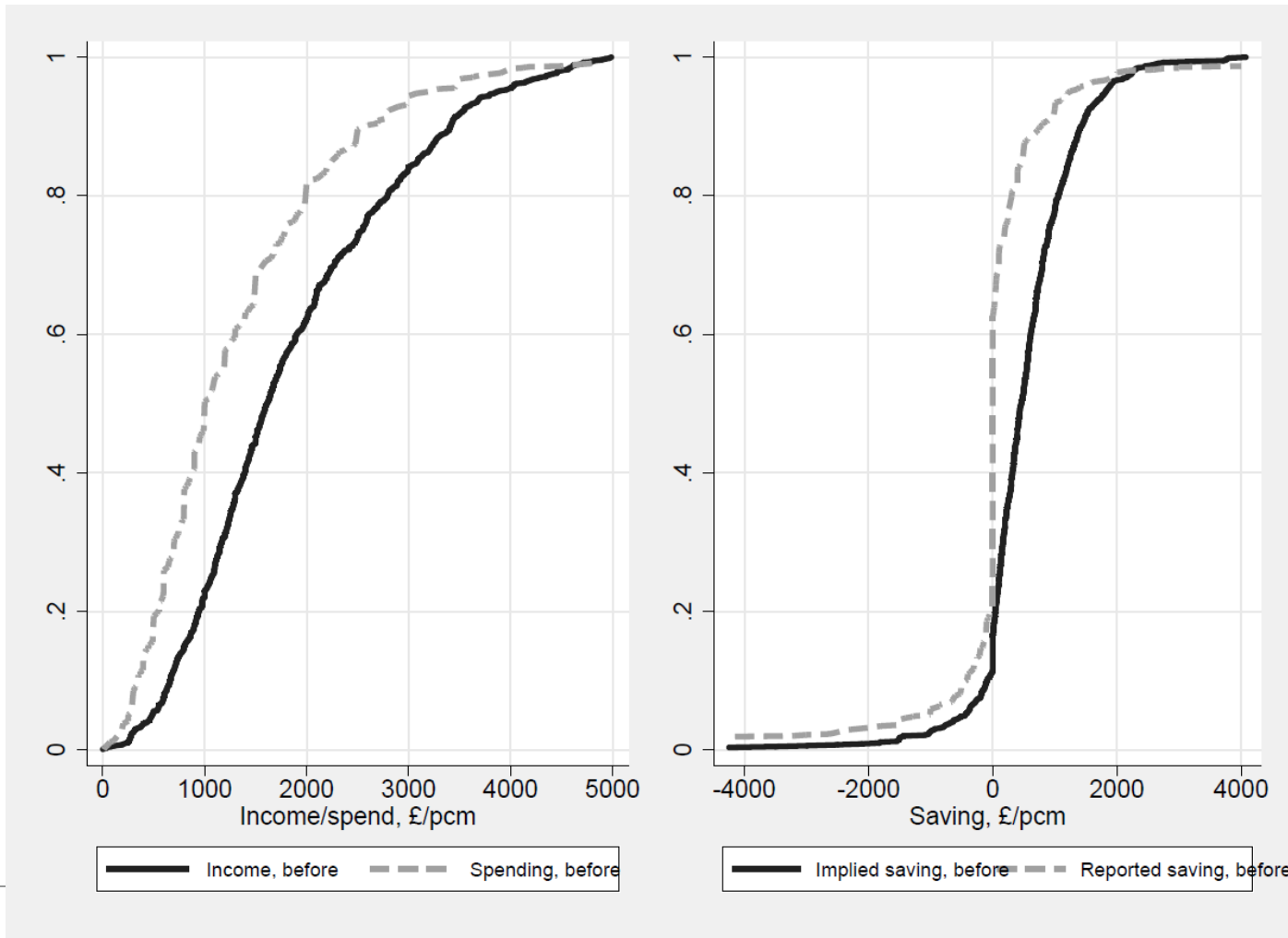
Total outgoing money (Box 3 and Box 4):  
 $£[Rec1totout] = £[Rec1balance]$

# Collecting data on household budget: #2

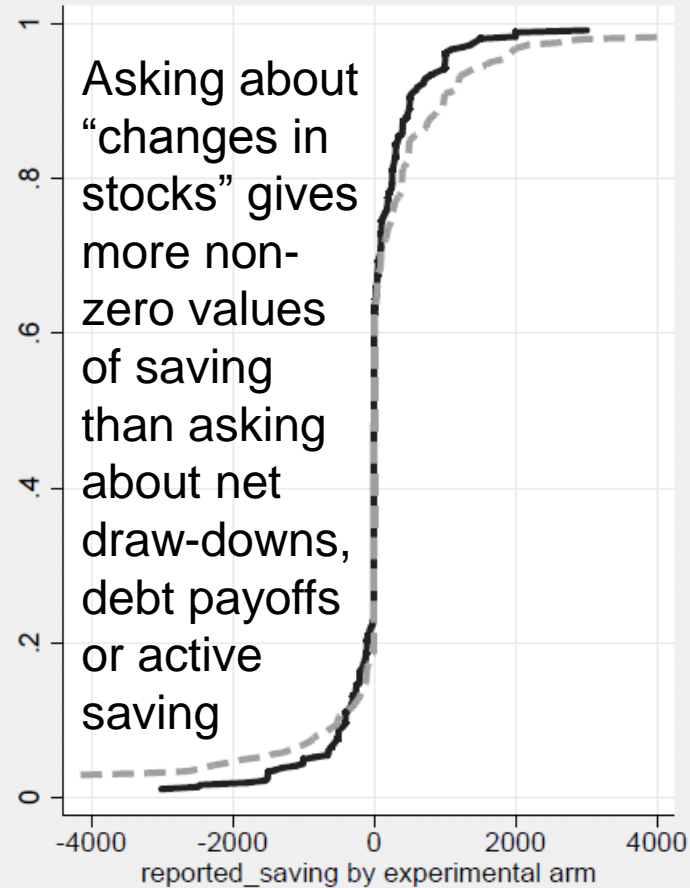
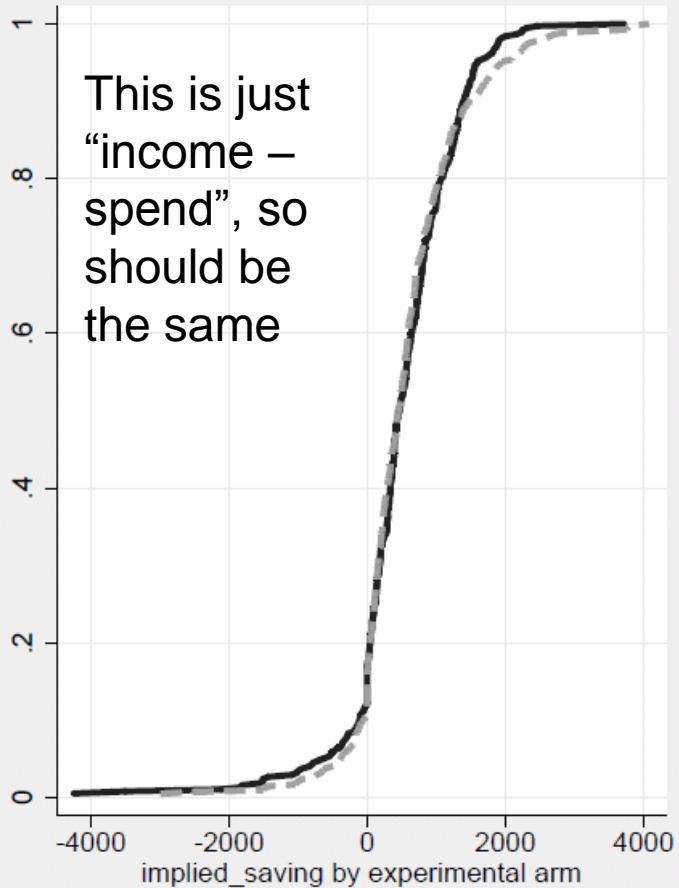
## 2. “Change in individual stocks”

- Income and spending as #1
  - For every savings & debt account, respondents are asked for the balance at the start and end of period
  - From these, calculate “change in net assets”
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# Most BUs initially out of balance...



# Differences in initial saving, by experimental arm



— implied\_saving, flows - - implied\_saving, stocks

— reported\_saving, flows - - reported\_saving, stocks

# Do the 2 methods give similar data before reconciliation?

Measure	P-value of K-S test for equality of distributions across...		
	...experimental allocation	...allocated mode	...realised mode
Income	0.712	0.791	0.000
Spending	0.809	0.891	0.010
Reported change in assets	0.420	0.860	0.302
Implied change in assets	0.378	0.783	0.000
“Imbalance” = implied – reported saving	0.036	0.433	0.011

NB: sample of BUs reporting non-zero values of income and spending (N=838)

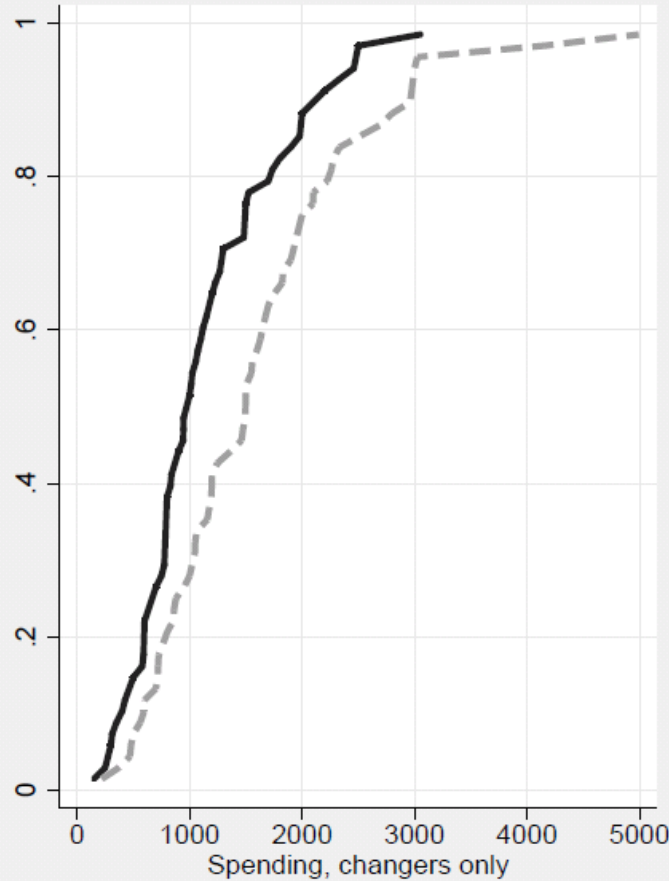
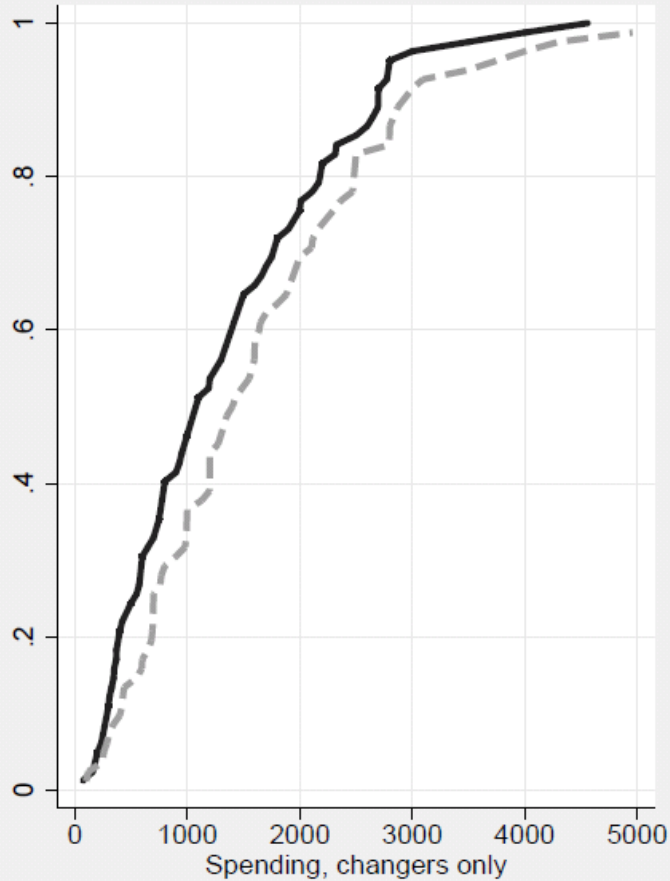


# What changed (by experimental allocation)?

	Aggregate net flows	Change in gross stocks
“In balance” before	0.22	0.24
“In balance” after	0.39	0.37
Total	402	436
<i>Of those initially out of balance:</i>		
balance changed	0.45	0.36
abs(balance) fell	0.43	0.32
income changed	0.15	0.16
spending changed	0.24	0.18
“change in assets” changed	0.24	0.22
Total	312	330

NB: sample of BUs reporting non-zero values of income and spending (N=838)

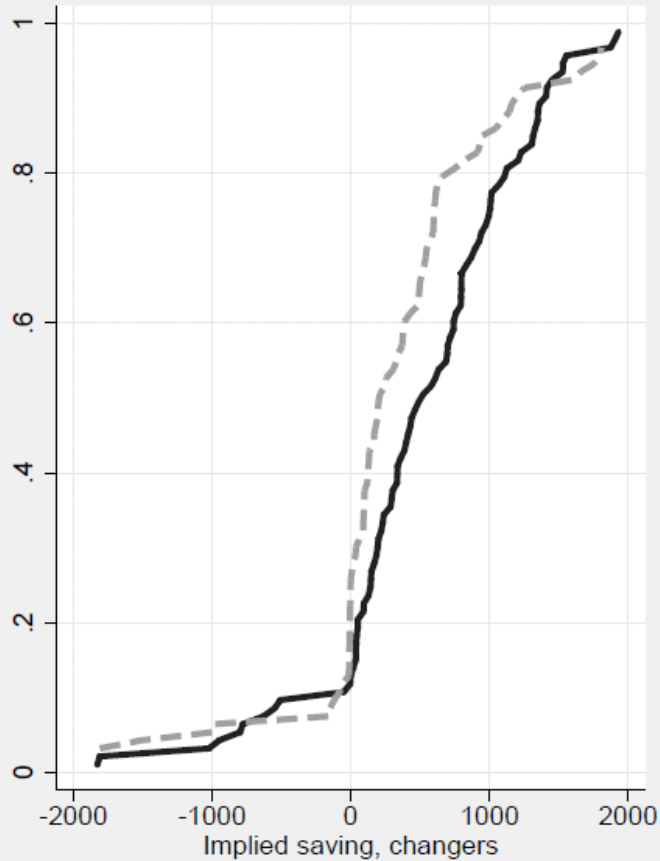
# Spending increased... (NB income didn't change)



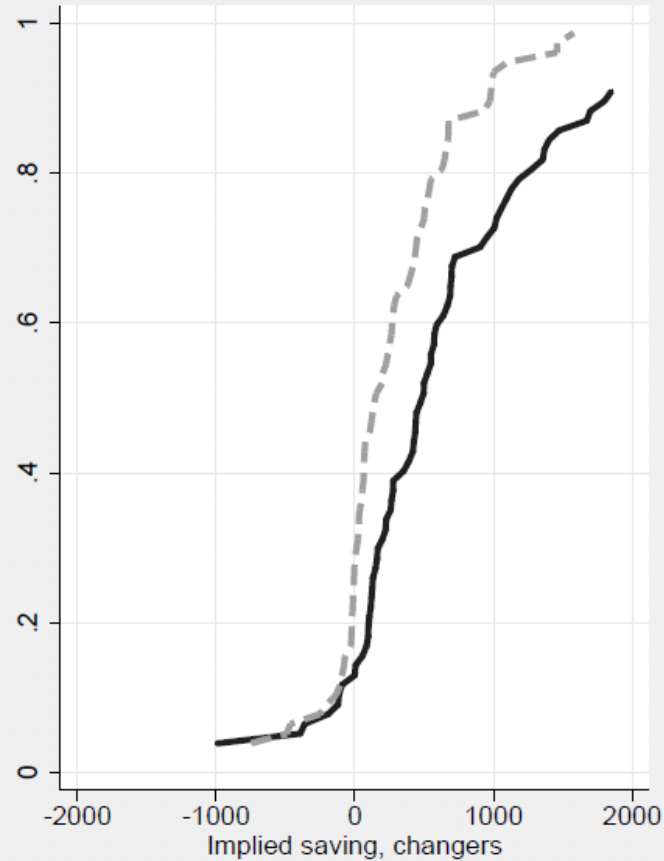
— Spend, before    - - - Spend, after, 1

— Spend, before    - - - Spend, after, 2

...so implied saving (“inc-spend”) fell...

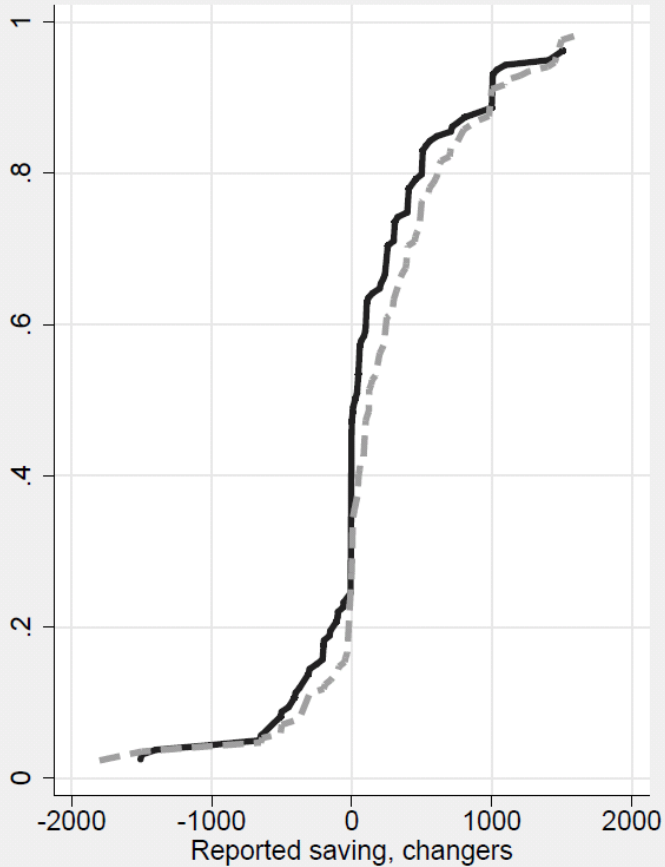


— Imp. saving, before - - - Imp. saving, after, 1

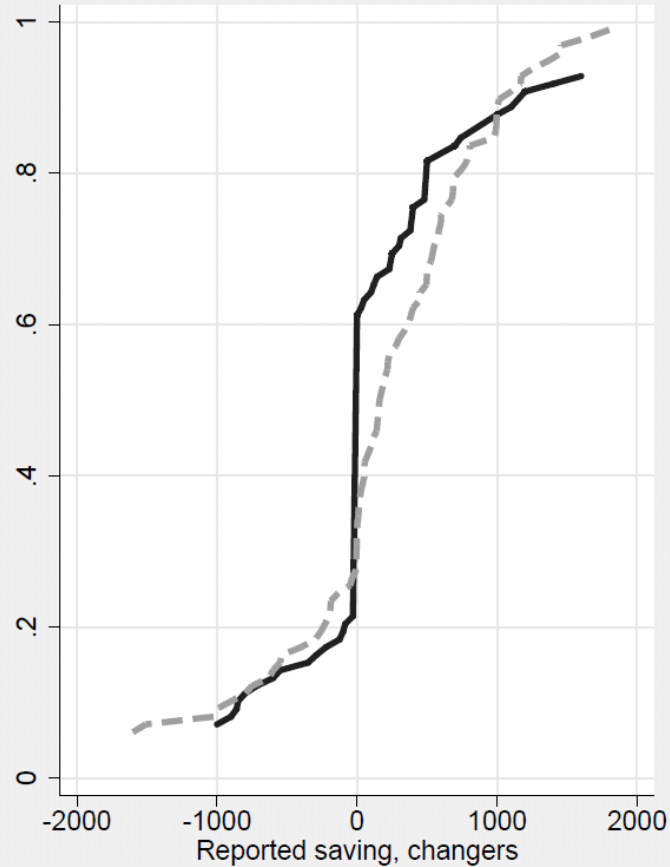


— Imp. saving, before - - - Imp. saving, after, 2

# Reported saving (mostly) rose...

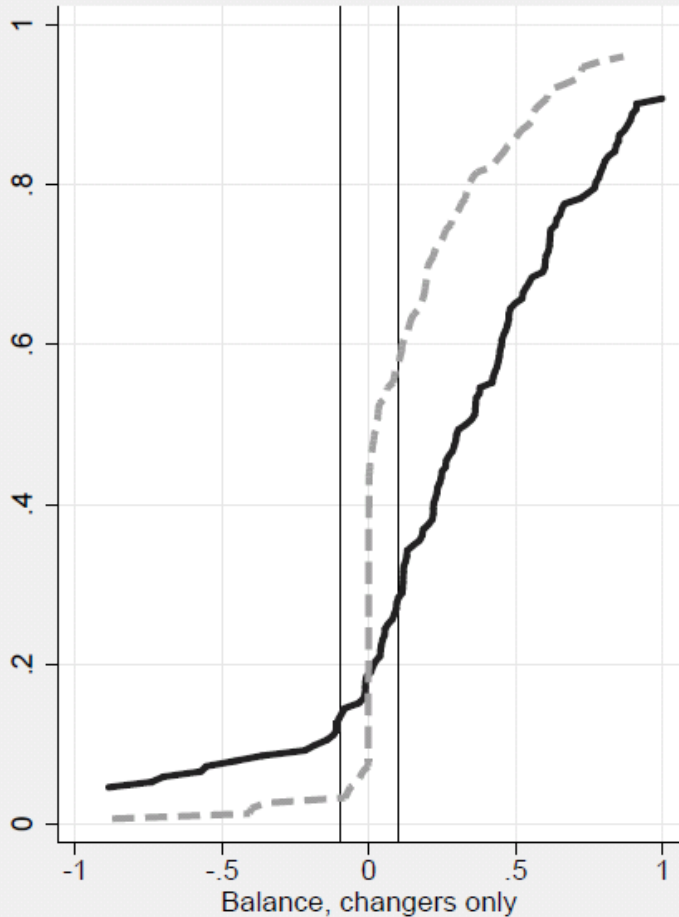


— Rep. saving, before - - - Rep. saving, after, 1

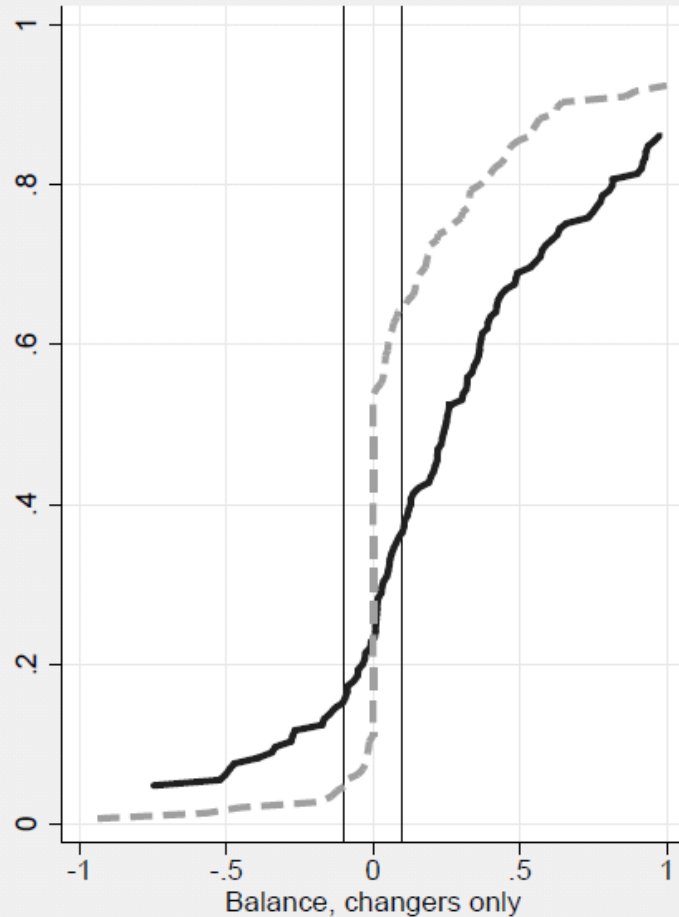


— Rep. saving, before - - - Rep. saving, after, 2

...so more were “in balance”  
(i.e gave consistent data)



— Balance, before    - - - Balance, after, 1

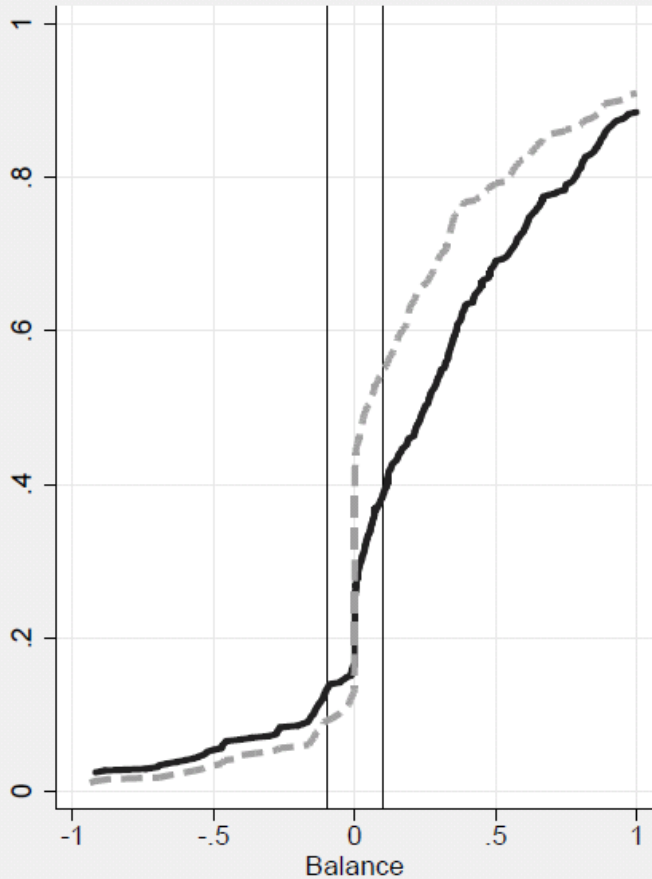


— Balance, before    - - - Balance, after, 2

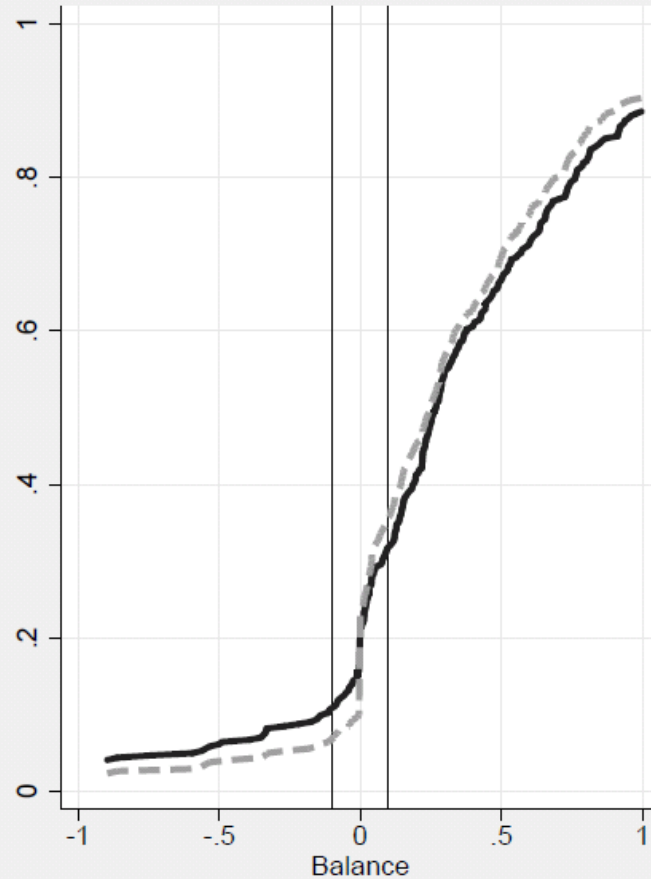
# Time to answer questions

	Time to complete BU finance module (secs)			
	Allocated mode	with controls	Realised mode	with controls
Constant (omitted: single adult, f2f, net flows)	257	n/a	258	n/a
Survey mode and experimental arm:				
...f2f, gross stocks	+61*	+74**	+95***	+102***
...web, net flows	-33	-19	-32	-10
...web, gross stocks	+2	+22	-42	-16
Family type:				
...couple but one adult answers	+76**	+45*	+97***	+64**
...couple and both present	+165***	+138**	+166***	+141***

# Fewer in balance if on web (RHS) (realised mode)



— Balance, before    - - - Balance, after, 1



— Balance, before    - - - Balance, after, 3

# Findings so far

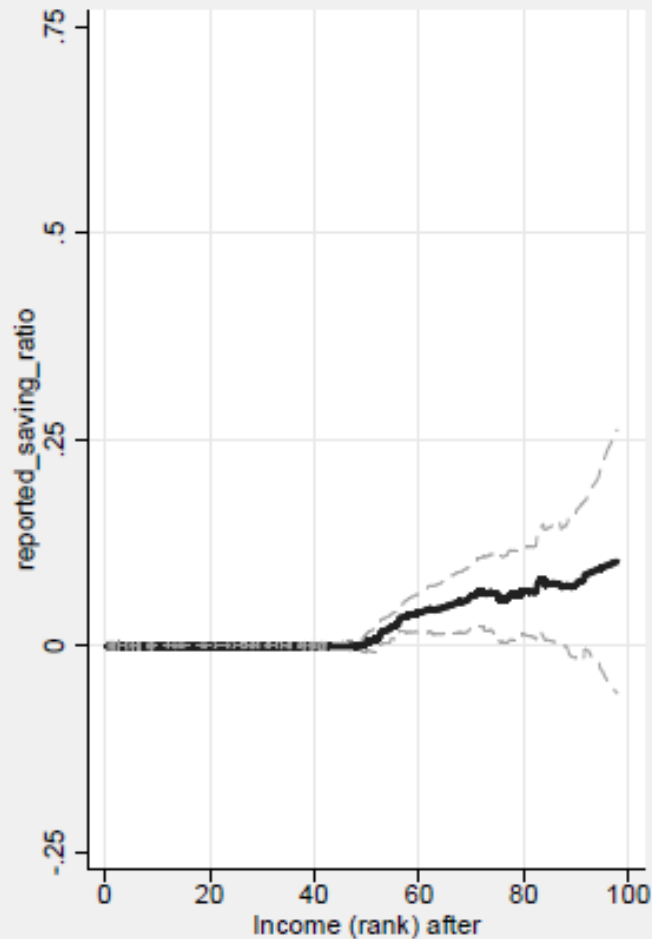
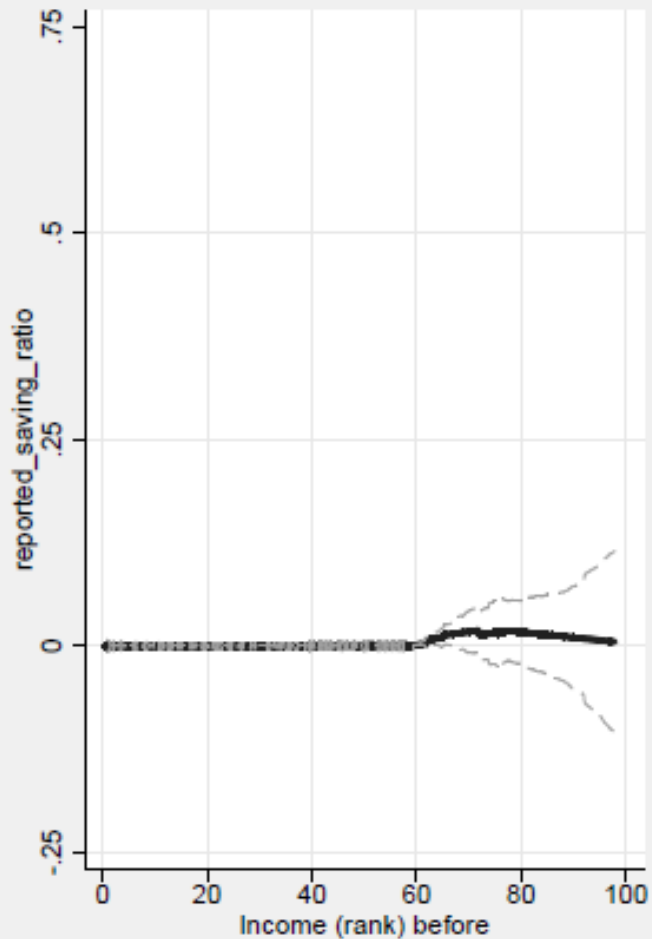
- Initially, most BUs report inconsistent household budgets
- Reconciliation improves % in balance by c15 ppts, and reduces size of imbalances
  - Revisions to spending, and changes in assets
  - Mean & median “balance” > 0 after revisions
- Reconciliation more effective in F2F



What does this tell us about the savings function?

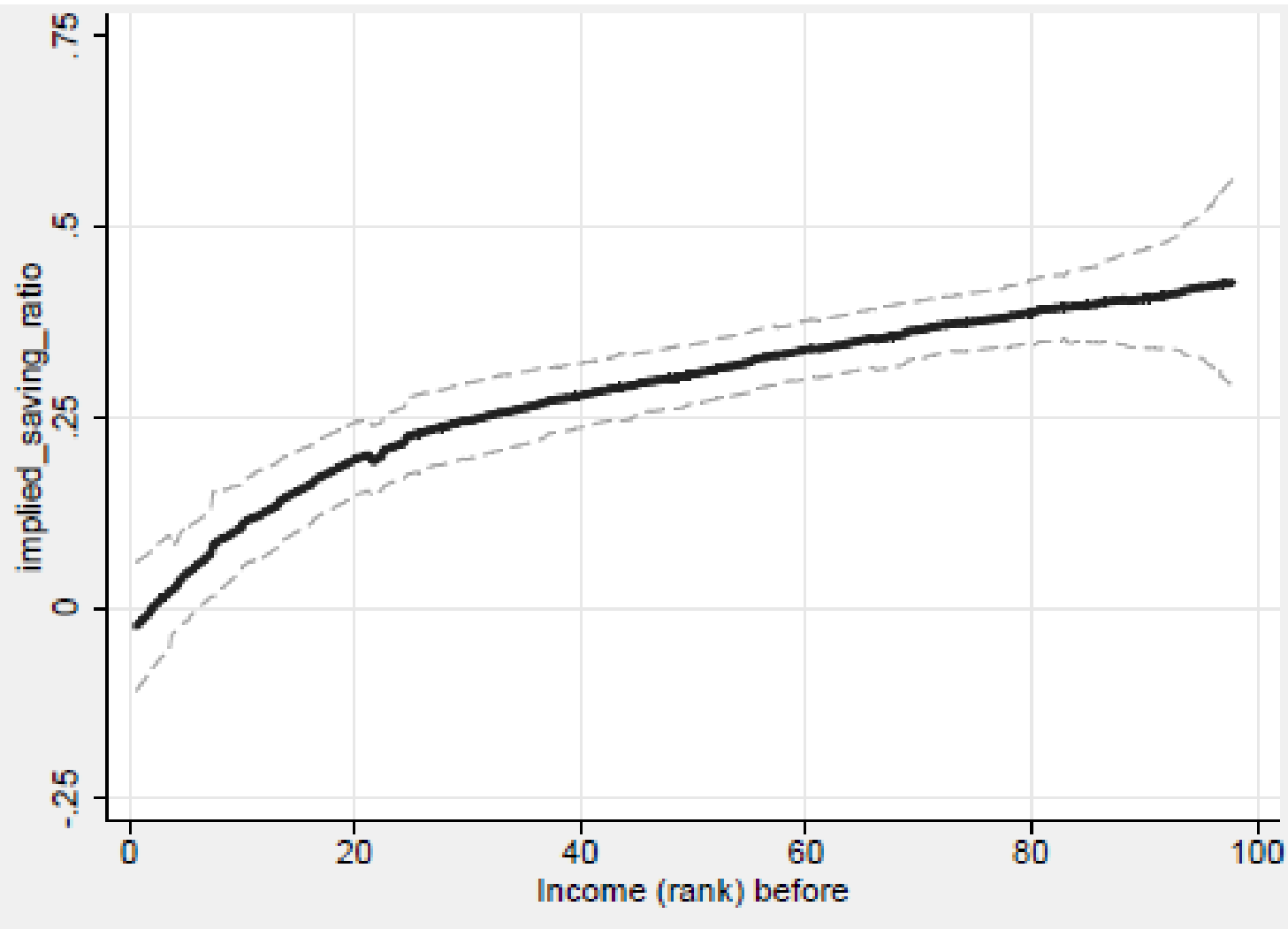


# Problem: most BUs report no saving, even after reconciliation...

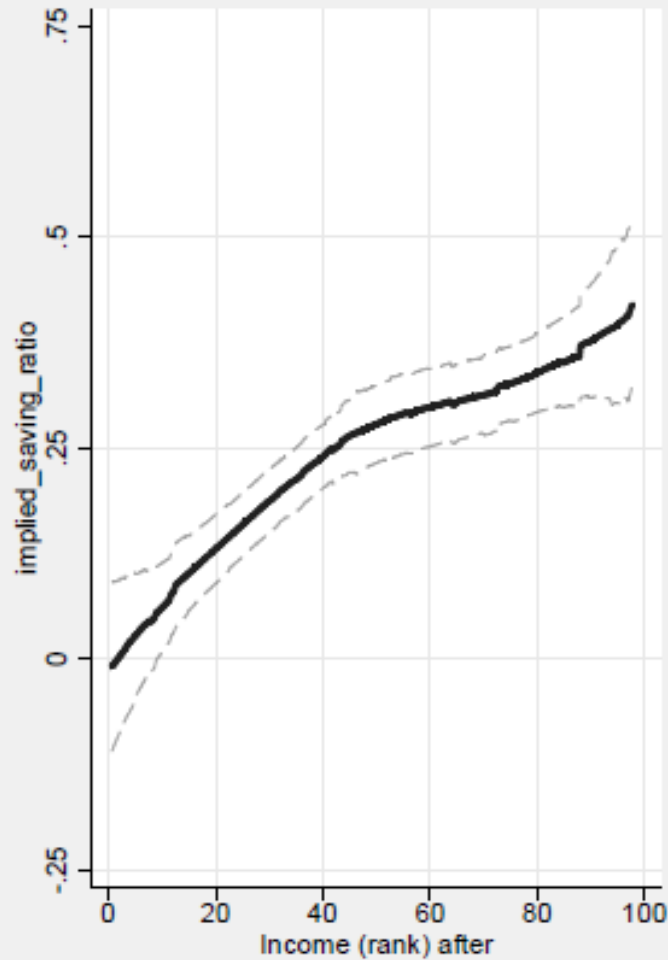
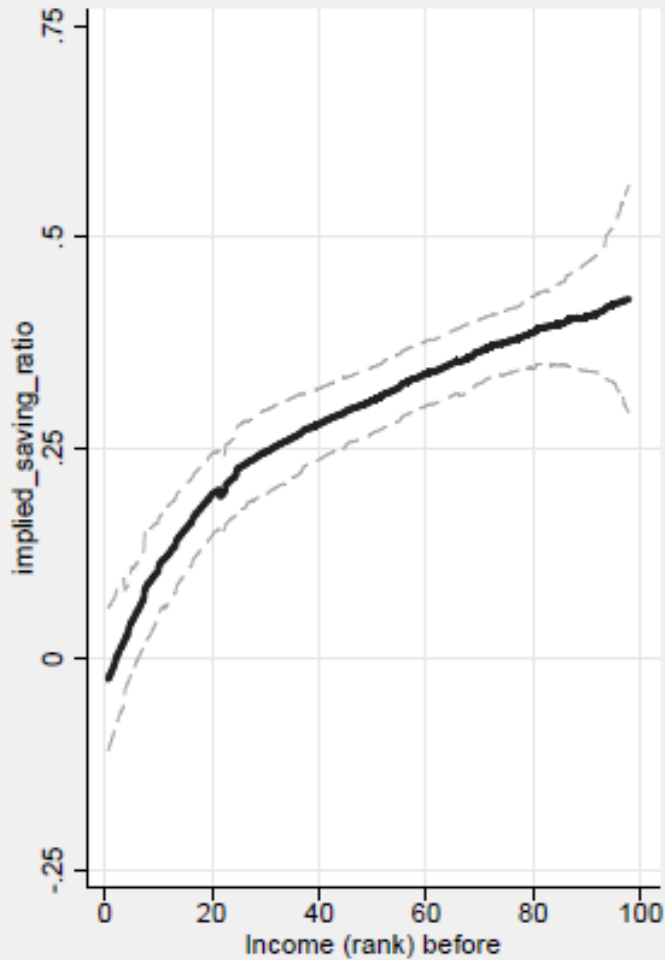


Locally-weighted  
quantile (median)  
regression of  
saving rate on  
(age-adjusted)  
income rank, plus  
s/e bands.

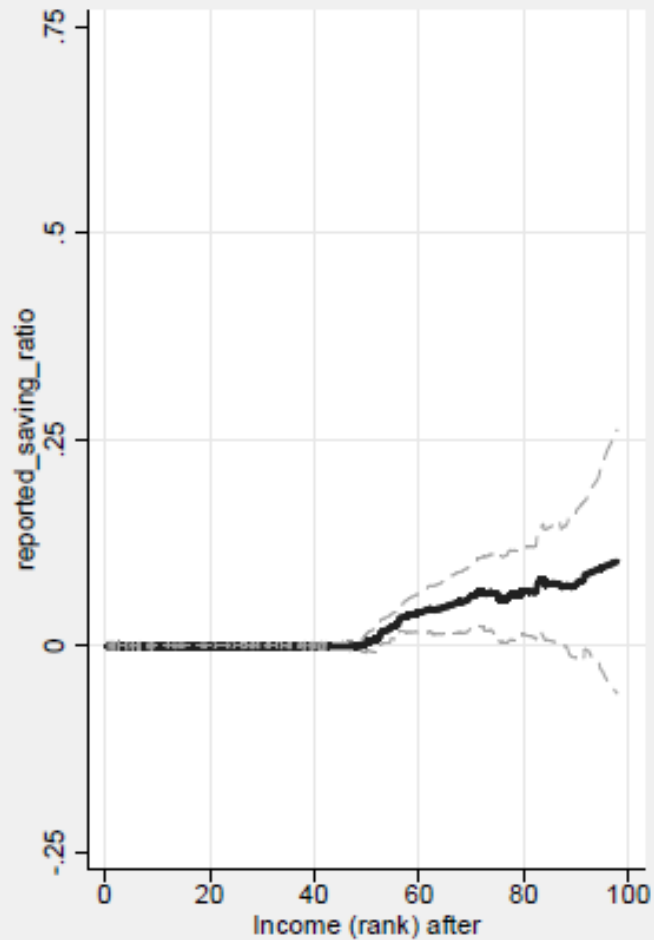
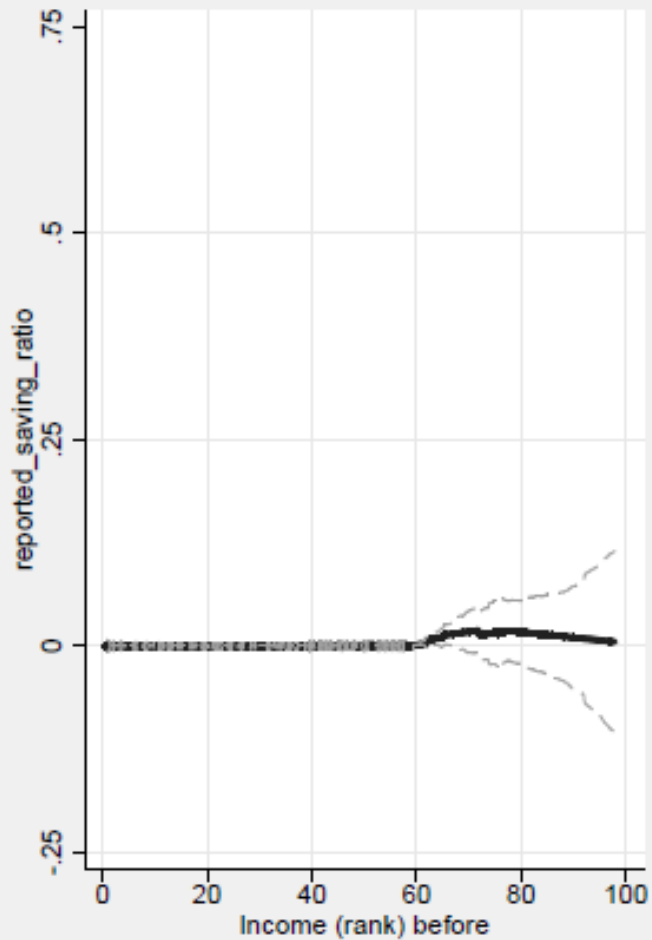
...although most report income  $>$  spending, implying saving  $> 0$



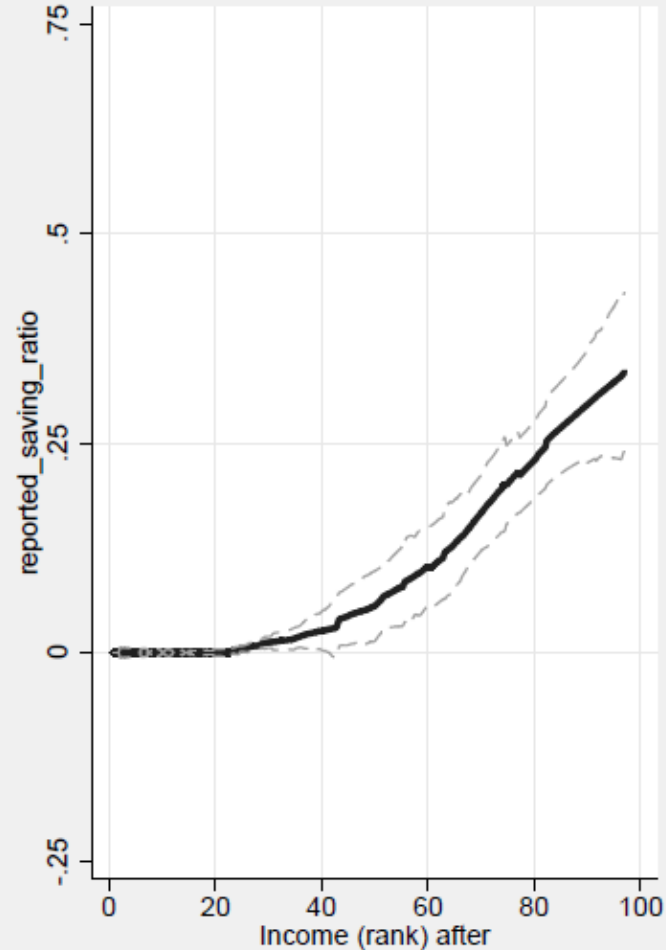
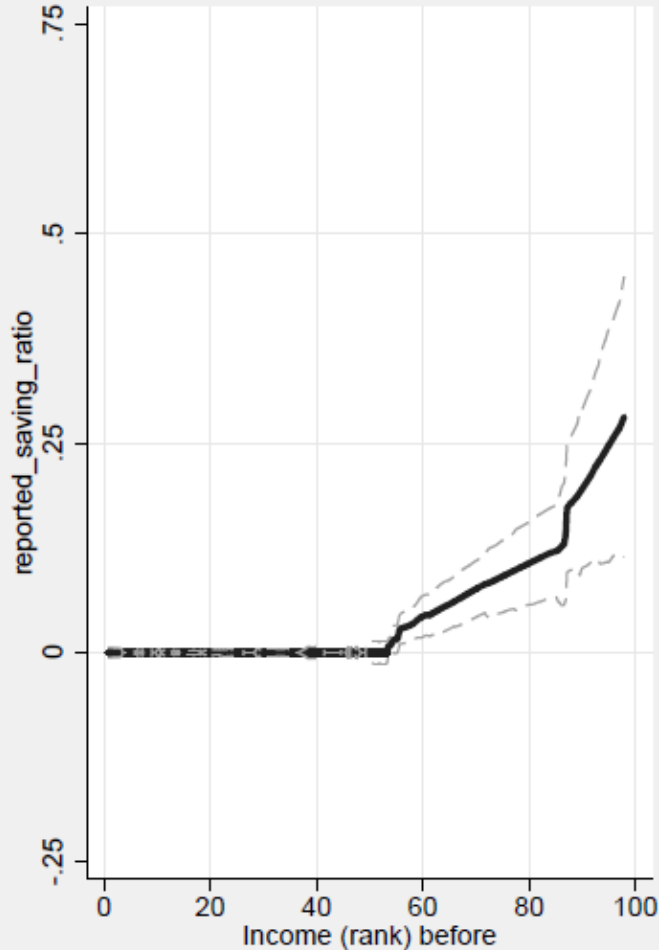
# Reconciliation slightly lowers the (implied) saving rate...



# Reminder: reported saving tends to be zero...



...but is much greater if “in balance” (c30% of sample)



# What have we learned?

- People are not very good at reporting their household finances
  - Giving people the opportunity to adjust inconsistent answers on their monthly household finances increases the % who report consistent data (0.24 to 0.38)
    - ...but most BUs still report inconsistent data
  - Little difference between asking about saving flows or changes in stocks of assets/debts, although going through each account takes longer (f2f only)
  - Reconciliation leads to higher reported spending and reported saving, and is more effective f2f
  - The rich probably do save more than the poor, but saving levels on average remain unclear
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