

Investments in Agriculture but Trapped in Poverty: Evidence based on Panel Data Analysis from Vietnam

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Motivation

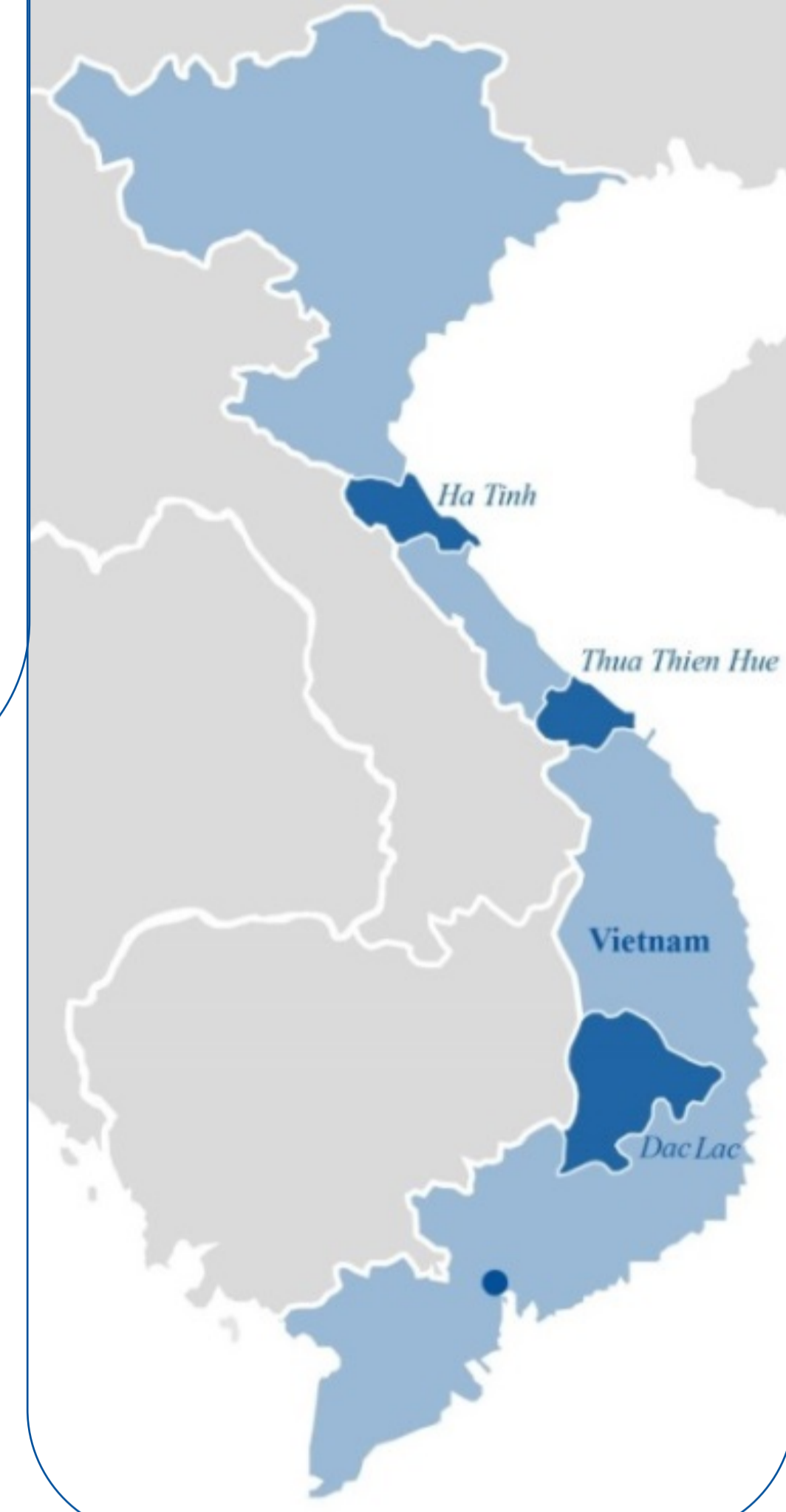
- Poverty remains a substantial problem in Vietnam – especially in rural areas
- Investment decisions have long-term impacts on households' income and consumption patterns
- However, little empirical evidence is available at the microeconomic level

Research Questions

- 1) Do rural households in Vietnam follow a specific investment pattern?
- 2) Do investments in productive assets offer a way out of poverty for rural households in Vietnam?

Panel Data

- Longitudinal data set (TVSEP): 2010 and 2013
- 1,795 households living in rural areas
- Comprehensive household questionnaire



Methodology

Matched Difference-in-Difference model (M-DID) used to control for observed and unobserved variables

- Evaluating the impact of agricultural investments on changes in the poverty status over time
 - Kernel-Based Matching (KBM)
 - Foster-Greer-Thorbecke (FGT) poverty indices using a national poverty line based on consumption

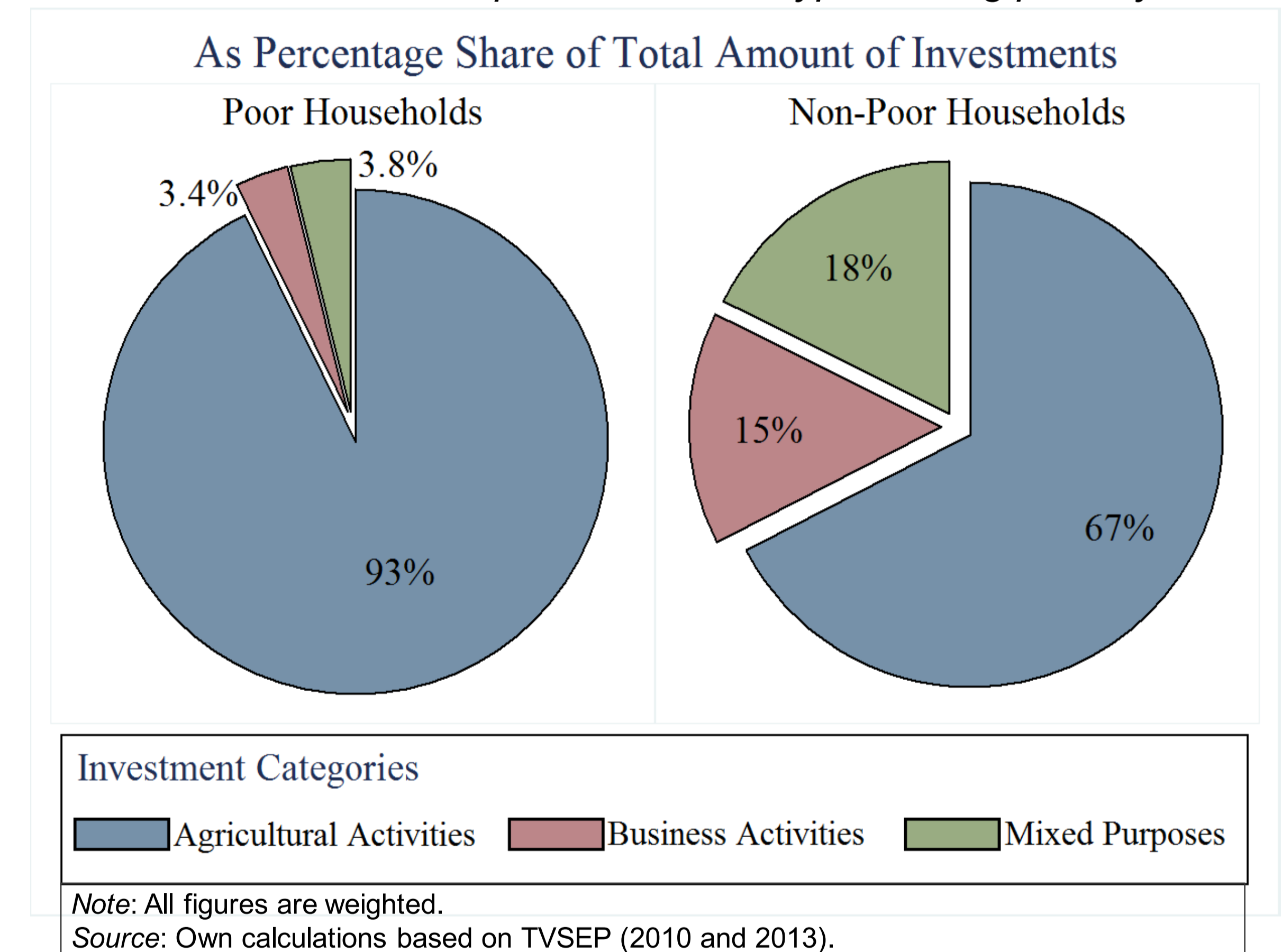
Investment Patterns

	2007-2010 (Wave 3 – 2010)	2010-2013 (Wave 5 – 2013)
Share of households (in %) that have undertaken investments	29.5	24.0
among non-poor households	34.1	26.4
among poor households	19.3	13.8
Average number of investments per household	1.50	1.35
Average amount of investments per household (in USD, 2005 PPP)	2,982	2,912
among non-poor households	3,328	3,088
among poor households	1,630	1,489

Note: All figures are weighted.
Source: Own calculations based on TVSEP (2010 and 2013).

- Low levels of investments in productive assets
- Welfare level influences...
 - Probability to invest
 - Choice of investment category
 - Number and amount of investments

Total investment amount per investment type among poverty status



Way Out of Poverty? – Only Partly!

M-DID estimates of the impact of investments in agriculture on poverty reduction:

Poverty Indices	2010 (before)			2013 (after)			Diff-in-Diff
	Non-Investor Household (HH)	Investor HH	Diff (T-C)	Non-Investor HH	Investor HH	Diff (T-C)	
Among households living below the poverty line of US \$2.26 (2005 PPP) per person per day based on consumption in 2010 (Poor households) [89 treated households (T) matched with 413 control households (C)]							
Poverty Headcount (P_0)	1	1	0.000	0.426	0.337	-0.089* (0.051)	-0.089 * (0.051)
Poverty Gap (P_1)	0.290	0.278	-0.012 (0.024)	0.122	0.101	-0.020 (0.021)	-0.008 (0.030)
Poverty Severity (P_2)	0.118	0.110	-0.008 (0.016)	0.051	0.044	-0.006 (0.013)	0.002 (0.019)

Notes: Kernel-Based-Matching with common support and bandwidth 0.06. Standard errors are in brackets and bootstrapped (100 replications).
*, **, *** significant at 10 per cent, 5 per cent, and 1 per cent, respectively. Own calculations based on TVSEP (2010 and 2013).

- Investments in agriculture can significantly reduce the poverty headcount ratio
- On the other hand, agricultural investments do not have any significant effect on diminishing the depth or severity of poverty
 - Investments undertaken by the poorest household fail to meet the level of profit maximization

- Better-off households can escape the poverty trap on the basis of productive investments
- Other households remain trapped in poverty because of limited resources and insufficient access to credit
 - **Economic inequality (consumption) within rural areas is likely to increase**

