Workshop and Replication: Persistent Poverty in Rural Vietnam — Differential Asset Dynamics and the Role of Ethnic Minorities

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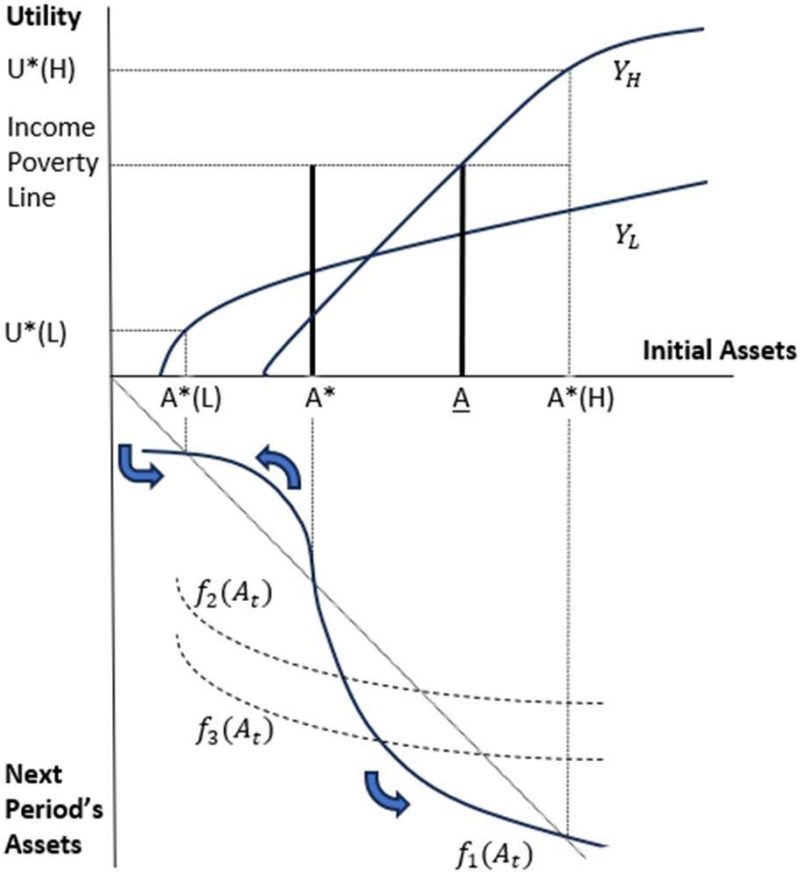
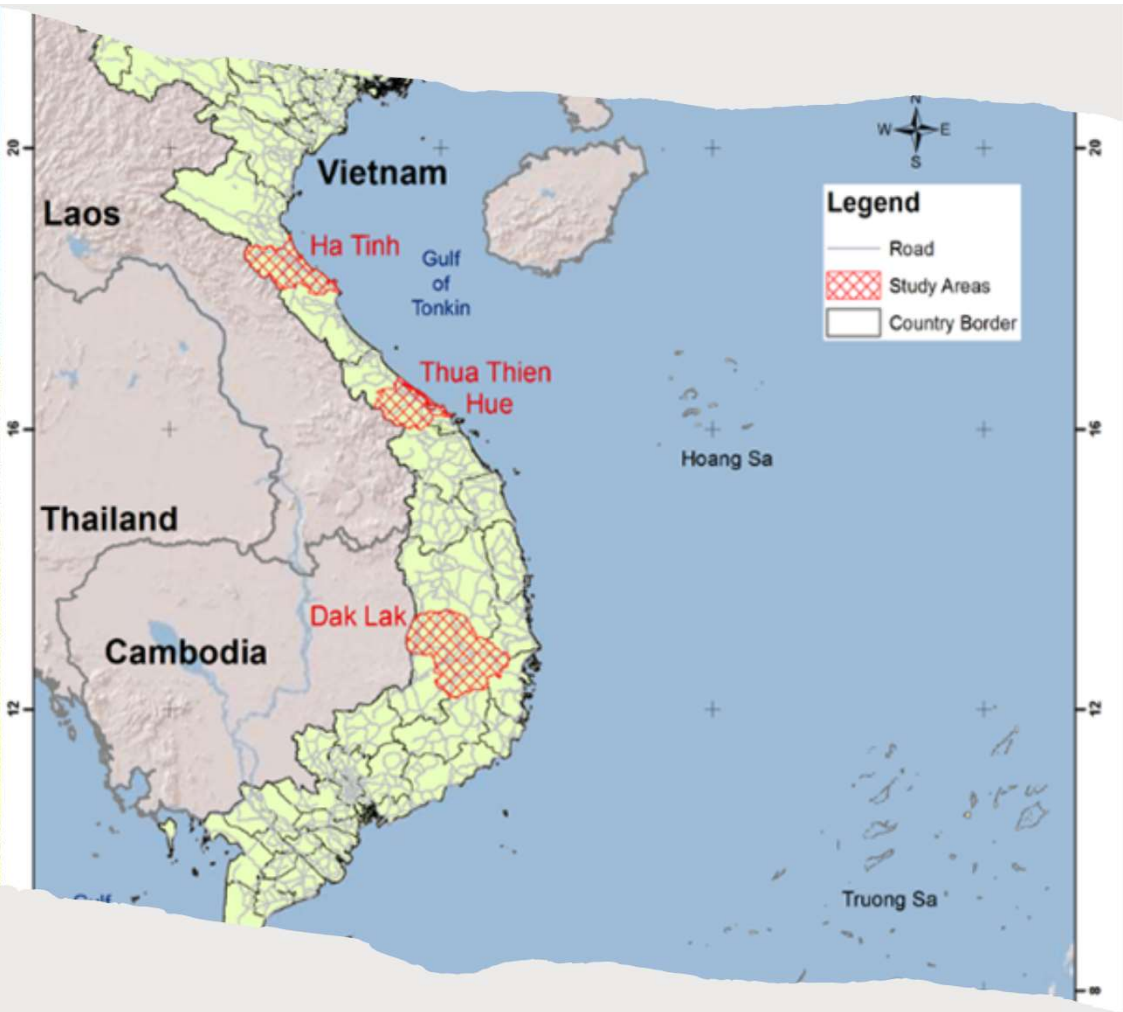
Theoretical framework—convergence and poverty traps



- Households optimize utility, choosing investment and consumption
- Two production technologies Y_L and Y_H
  - Borrowing constraint
  - Autarchic accumulation unattractive
- Non-convex asset accumulation dynamics with
  - Stable poor equilibrium *(A*(L))*
  - Unstable equilibrium *(A*)*
  - Stable non-poor equilibrium *(A*(H))*

(Carter and Barrett, 2006, 191; Naschold 2012, 2034; Barrett, Garg, and McBride, 2016, 306–07)



Methodology

Methodological strategy

- Households own/have access to a set of assets. Estimating the income which they *should* be able to generate with these assets allows for a categorization of households with respect to ***static asset poverty*** (Carter and Barrett, 2006)
- Including accumulation/decumulation of assets facilitates the analysis of asset accumulation dynamics (***dynamic asset poverty***) (ibid.)

Methodology — asset-based income (ABI) [Q1]

- Based on Carter and Barrett (2006), adapted for empirical treatment following Amare and Hohfeld (2016), Adato et al. (2006), and Schulte et al. (2023).

$$\Lambda_{it} = \frac{Y_{it}}{Z_{it}} = \alpha + \sum_{j=1} \beta_j(A_{jit}) + \sum_{jk} \beta_{jk}(A_{jit})(A_{kit}) + \beta_g \eta_{gvt} + \beta_{it}\omega_{it} + \gamma_i + \lambda_{pt} + \varepsilon_{it}$$

	Actual Income < US$1.90	Actual Income ≥ US$1.90
Asset-based income < US$1.90	Structural poor	Stochastic non-poor
Asset-based income ≥ US$1.90	Stochastic poor	Structural non-poor

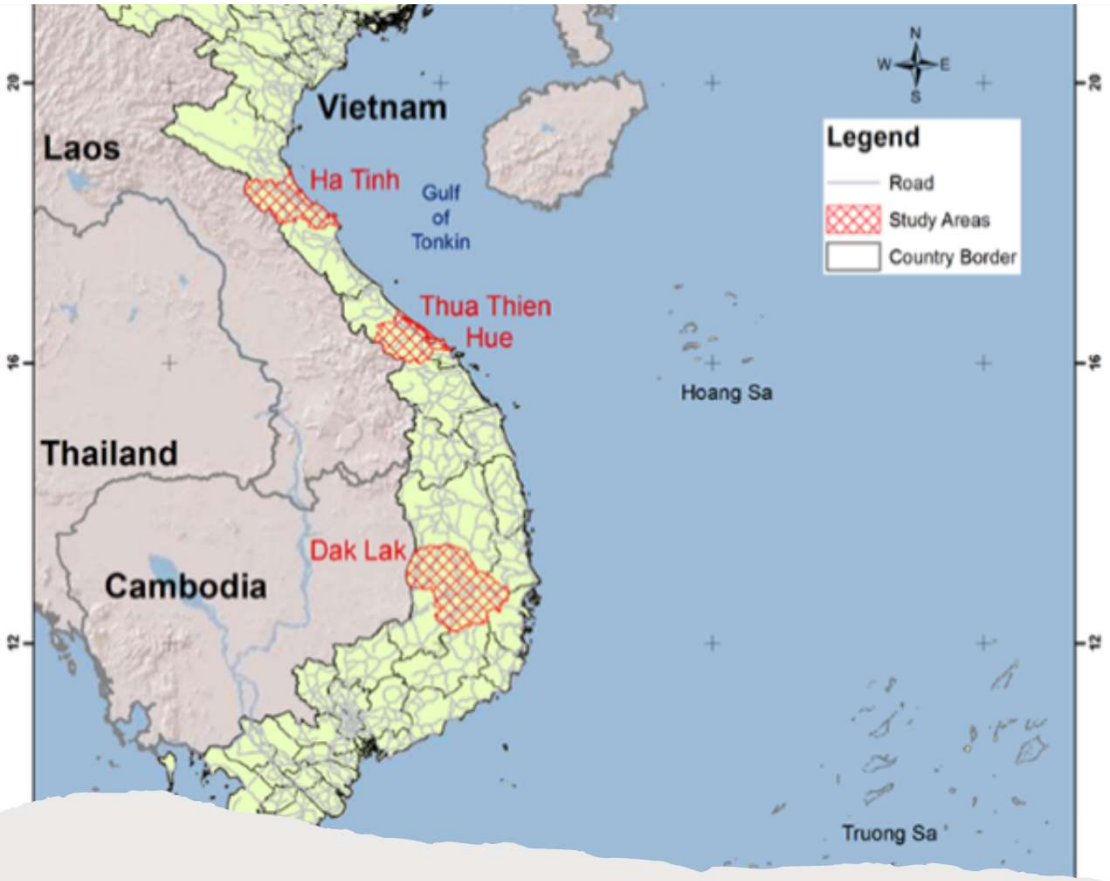
Methodology — nonparametric and parametric estimators of asset dynamics

- To analyze the asset dynamics of households, Walelign et al. (2021) suggest a nonparametric estimation using local polynomial smoothing. ***Asset holdings today in dependence of past holdings***:

$$A_{i,t} = f\left(A_{i,t-1}\right) + \varepsilon_{i,t}$$

- Fourth-degree parametric regression can also be applied to analyze the ***growth function of assets*** (ibid.):

$$A_{i,t} - A_{i,t-1} = \beta_0 + \sum_{j=1}^{4} \beta_j A_{i,t-1}^{j} + \delta X_{i,t-1} + \varepsilon_{i,t}$$



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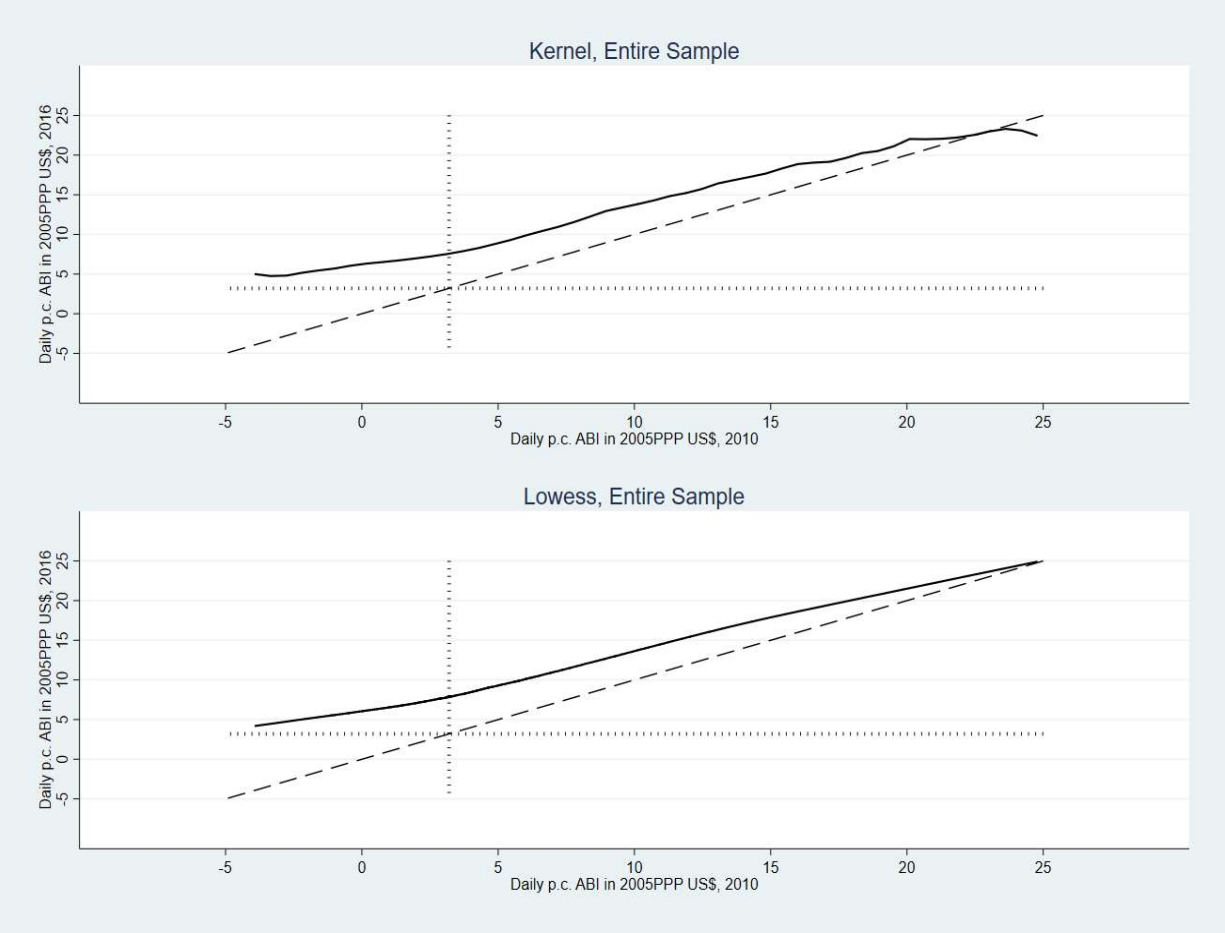
Results

Results — structural poverty

Poverty Rates	2010	2013	2016
Threshold: US$1.90			
Structural Poor	14.7%	10,4%	0,7%
Structural Nonpoor	63.4%	74.2%	90.6%
Stochastic Poor	7.9%	9.1%	7.9%
Stochastic Nonpoor	14.0%	6.3%	0.7%

- ***Strong decrease*** in structural poverty rates
- Exit from poverty seems stable, as indicated by the increase in structural nonpoor
- Overall, only 8.6% poverty rate in 2016

Results — asset dynamics, nonparametric



- Most households are located above the 45-degree-line. This shows that they held more assets in 2016 than in 2010.
- The asset paths cross the 45-degree-line only once: This indicates that households accumulate assets up to this point.
  - ➢ "Convergence growth"

Results — growth in ABI

	OLS ABI Growth 2010-2016	FE ABI Growth 2010-2013-2016
Lagged ABI Linear	-0.472***	-1.404***
Lagged ABI Squared	0.044***	-0.018*
Lagged ABI Cubic	-0.001	0.001
Lagged ABI Forth Poly.	0.000	-0.000
Covariates		
HH Head Age	-0.013	0.104
HH Head Age^2	-0.000	-0.001*
HH Head Female	-0.369	0.430
HH Head Minority	-1.302***	-1.054*
Share of Children	-2.658***	-0.869
HH Size	0.681***	-0.411***
HH Education	0.020	0.055
HH SPO	-0.559*	0.064
HH Experienced An Economic Shock	-0.412	-0.004
HH Experienced An Environmental Shock	0.830***	-0.109
HH Experienced A Health Shock	-0.454*	0.257*
Thua Thien Hue	0.767***	
Dak Lak	1.813***	
2016		2.870***
Thua Thien Hue * 2016		0.528***
Dak Lak * 2016		1.995***
Constant	4.749***	8.653***

** p < 0.05, ** p < 0.01, *** p < 0.001. Source: Own calculation using TVSEP 2010-2016 Thailand Vietnam Socio-economic Panel data.*

Conclusion

- ***Structural poverty is declining overall***, which is in line with the country-wide trends on poverty
- On the surface, all households are expected to ***leave poverty eventually***, as there is no general poverty trap
  - Non-parametric results indicate convergence at high levels of income
  - Parametric results do not indicate non-linearities

➢ ***See tomorrow's presentation of my paper to learn more about differences between income groups and ethnicities***

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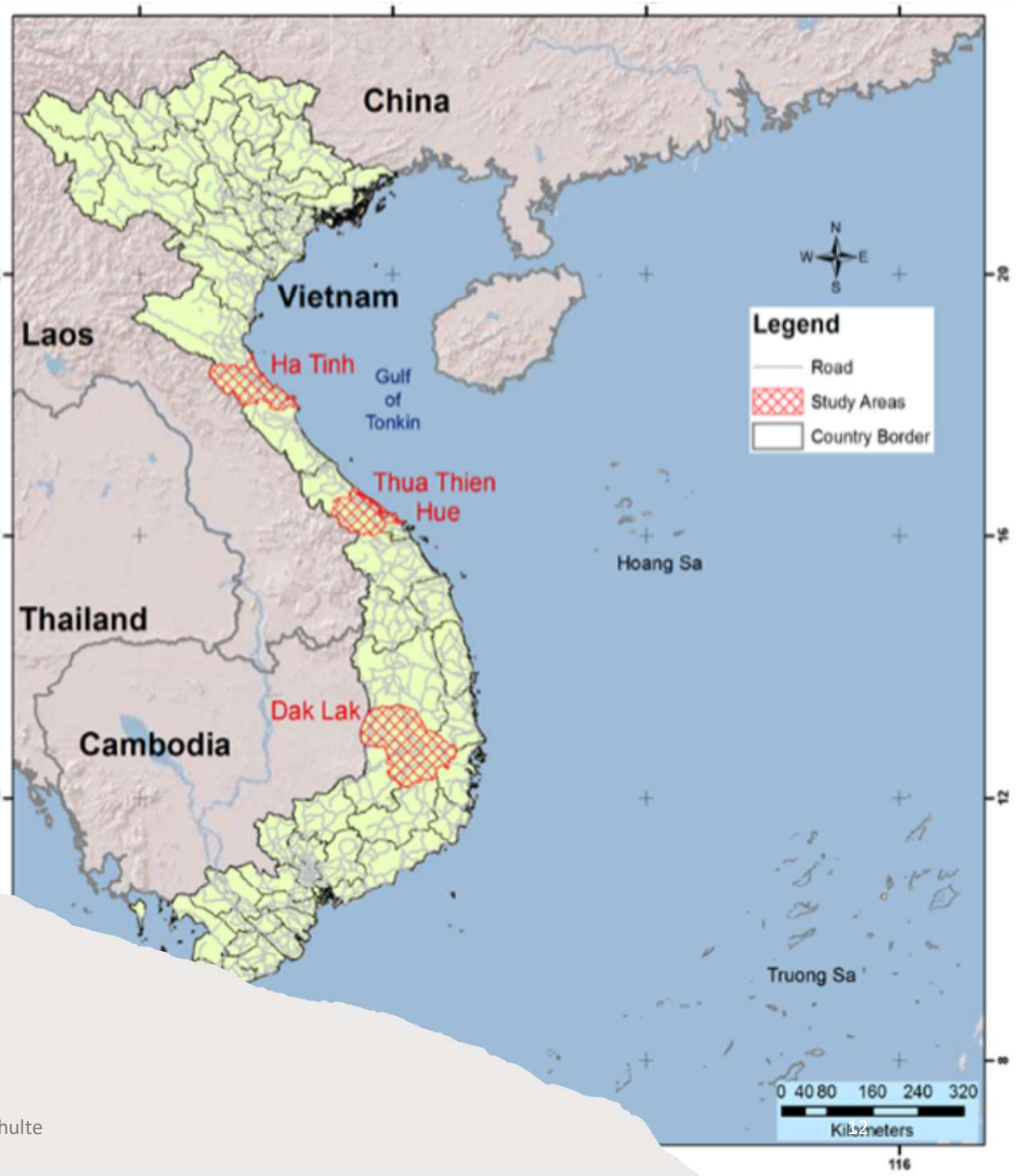

Thank you for your attention! Questions and discussion

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