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Is Household Wealth Sustainable?

An Examination of Asset Poverty Reentry after an Exit

Restoring Household Financial Stability After the Great Recession:
Why Household Balance Sheets Matter
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Asset Poverty

- Measure of poverty based on assets (stocks of financial wealth) rather than income (flows of financial wealth)
- Assets may improve self-sufficiency even in the face of temporary income shortfalls

…but is wealth sustainable?

…under what circumstances?

Research Question

Once a family has accumulated enough assets to exit asset poverty, what factors are related to sustaining the non-asset-poor position?

A family is **asset poor** if they do not have enough net worth to sustain income for three months above the federal income poverty level (Haveman & Wolff 2005)

- 19.6% of US households were asset poor (Ratcliffe & Vinopal 2012, 2010 Survey of Consumer Finances)
- Asset poverty is persistent: 60% of all asset poor households remain asset poor five years later (Caner & Wolff 2004)
- Little is known about the transition between asset poor and not asset poor

+ Why is the transition from asset poor to non-asset poor important?

- Asset poverty is associated with life-cycle stages, but is seen in all age groups. Individuals under 50 tend to save to meet a target wealth-to-permanent income ratio rather than following a life-cycle pattern (Carroll 1997)

- Designing policies for lower-income families to sustain assets requires an understanding of the transition
  - Programs that encourage long-term savings are more abundant for higher-income or higher-asset households
  - Asset eligibility rules of some public benefit programs may de-incentivize asset accumulation (Chen & Lerman 2005)

Structural Barriers to Wealth Accumulation

There exists a threshold—a level of wealth above which households over time can achieve higher standards of living while below which they are likely to fall into a poverty trap (Stevens 1999).

- A threshold can exist if asset returns are locally increasing and there is a barrier to acquisition of high-return assets such as a minimum initial investment (Carter & Barrett 2006).
- A threshold can exist due to imperfect credit and insurance markets. Risk management are more expensive for poor households (Zimmerman & Carter 2003).

Hypotheses

I. There exists an asset threshold above which the risk of future asset poverty decreases, while below which the risk of future asset poverty increases.

II. Households with asset portfolios containing productive assets exhibit a decreased likelihood of future asset poverty.

Model

- We use a **<u>Cox proportional hazard model</u>** to understand the relationship between the duration of the time (t) out of asset poverty and key covariates

- **Independent variable:** hazard rate (or **likelihood of reentering asset poverty**)

Baseline Hazard

$$h(t, M, X, V) = h_o(t)\exp\left(M\beta_1 + X\beta_2 + V\beta_3\right)$$

Hazard rate: rate at which households are likely to reenter asset poverty after a duration of t periods

Parameterized expression that models the ordered duration times

Efron method for tied cases (Efron 1977) and robust standard error estimator (Lin & Wei 1989)

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Data

- Asset module of Panel Study of Income Dynamics
  - Nationally representative, longitudinal
  - Detailed asset module every two years, 1999-2007
  - Some controls constructed based on 1994 module

- Covariates
  - **Variables describing households when exiting asset poverty:** Level of asset accumulation, history of asset poverty, year of exit
  - **Household demographics:** Age, race/ethnicity of head
  - **Household status variables:** Automobile ownership, homeownership, kids in household, education of head, overall health, health insurance, income, single female/male head and interaction with kids, percentage of assets invested in productive assets, non-mortgage debt as a percentage of all assets

Model 1: Household status variables held constant at their poverty exit levels
Model 2: Household status variables included as time-varying covariates (TVC)

Hold constant at their initial level in the TVC model

Sample

Asset Poverty Dynamics in PSID (9,295 obs, 1999-2007)

	Asset Poverty Definition			
	Networth 1	**Networth 2**	**Financial Wealth**	**Liquid Wealth**
Never observed to be in asset poverty	5311 (57.1%)	4278 (46%)	2395 (25.8%)	2819 (30.3%)
Always observed to be in asset poverty	2201 (23.7%)	3302 (35.5%)	4937 (53.1%)	4618 (49.7%)
Observed to have entered asset poverty but have not exited	551 (5.9%)	454 (4.9%)	538 (5.3%)	569 (6.1%)
Exit period cannot be established due to non-response	134 (1.4%)	170 (1.8%)	141 (1.5%)	122 (1.3%)
Observed to have exited asset poverty (exit period can be established)	**1074 (11.6%)**	**1069 (11.5%)**	**1217 (13.1%)**	**1155 (12.4%)**

Networth 2

This definition of assets includes

- Net value of one's home (home equity)
- Non-home real-estate holdings
- Farm and business assets
- Checking and savings accounts
- Other savings (e.g. bond funds)
- Stocks
- Debt (subtracted from total assets)

Networth 1

This definition of assets includes

- **Automobile Ownership**
- Net value of one's home (home equity)
- Non-home real-estate holdings
- Farm and business assets
- Checking and savings accounts
- Other savings (e.g. bond funds)
- Stocks
- Debt (subtracted from total assets)

Financial Wealth

This definition of assets includes

- ~~Net value of one's home (home equity)~~
- Non-home real-estate holdings
- Farm and business assets
- Checking and savings accounts
- Other savings (e.g. bond funds)
- Stocks
- Debt (subtracted from total assets)

Liquid Wealth

This definition of assets includes

- ~~Net value of one's home (home equity)~~
- ~~Non-home real-estate holdings~~
- ~~Farm and business assets~~
- Checking and savings accounts
- Other savings (e.g. bond funds)
- Stocks
- ~~Debt (subtracted from total assets)~~

Networth 2

This definition of assets includes

- Net value of one’s home (home equity)
- Non-home real-estate holdings
- Farm and business assets
- Checking and savings accounts
- Other savings (e.g. bond funds)
- Stocks
- Debt (subtracted from total assets)

General Results

- Variables related to a **decreased** likelihood of asset poverty reentry:
  - Older head of household
  - More years of education
  - Automobile and homeownership
  - Higher income for some definitions of asset poverty
  - Exiting poverty with a higher threshold of assets
  - Acquiring productive assets *after* exiting asset poverty
  - Acquiring health insurance (if previously uninsured) *after* exiting asset poverty

General Results

- Variables related to an **increased** likelihood of asset poverty reentry:
  - A longer history of asset poverty (being asset poor in 1994)
  - Being African American
  - Having a higher debt-to-asset ratio
  - Becoming a single-female-headed household without kids *after* exiting asset poverty

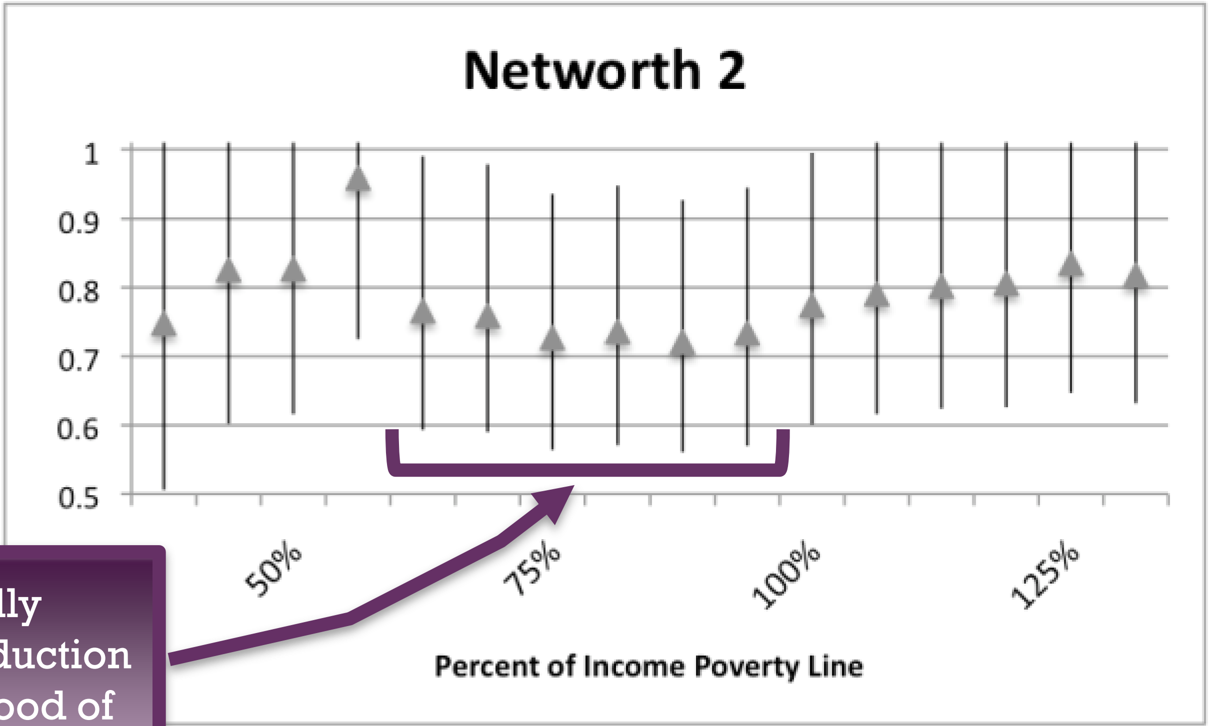
Results

All variables held **constant** at their values at the time of exit from asset poverty

- Asset diversification at the time of exit from asset poverty is unrelated to the likelihood of reentry.
- Households who exited asset poverty with higher debt-to-asset ratios were less successful at staying out of asset poverty.
- Households who exited asset poverty with assets at three times the asset poverty threshold are more likely to stay out of asset poverty.

Is there a threshold effect for asset accumulation?

Estimated Hazard Ratio and Error Bars for Threshold 0.50 through Threshold 1.31



Statistically significant reduction in the likelihood of reentry

Results

Model with **Time-Varying** Covariates (TVC)

- A one percentage point increase in the asset allocation towards "productive assets" decreases the likelihood of reentry by 0.7 percentage points.

- A one percentage point reduction in non-mortgage debt as a percent of assets after an exit reduces the likelihood of reentry by 2.2 percentage points.

- Households who exited asset poverty with assets at least three times the asset poverty threshold are more likely to stay out of asset poverty.

+ Summary

- Asset accumulation greater than or equal to 75 percent of the income poverty line has a statistically significant association with less reentry (supporting Hypothesis I).
- Higher non-mortgage debt-to-asset ratios are associated with an increased likelihood of reentry.
- Households who invested in more productive assets after the exit are more likely to remain out of asset poverty (supporting Hypothesis II)

Policy Implications

- Hitting a target level of assets is not enough. The transition from asset poor to non-asset poor is also important.
- How to create incentives for households to build assets beyond the conventional asset poverty level?
- Financial education is helpful to focus on risk management within the asset portfolio after households have accumulated some assets.