Combining Survey and Administrative Data

Neri, Spuri, Vercelli

Measuring Households' Exposure to Economic Shocks

Loschiavo, Di Salvatore, Tullio

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Distributional Wealth Accounts and persistence of financial fragility (Neri, Spuri, Vercelli)

- Changes in interest rates may have different effects on different groups of households (savers, borrowers, renters, homeowners), and groups may respond in different ways.
- To assess how monetary policy is transmitted is important for CB to know the distribution of wealth.
- **Distributional Wealth Accounts** attempt to reconcile survey data with aggregate financial accounts.
- Part of a large project coordinated by the ECB with harmonized euro-area data.
- **General issues**: timing, valuation concepts, definitions of assets, etc.
- **Asset-specific issues**: coverage rate of housing, stocks, deposits, etc.

Deposits in the DFA
Neri, Spuri and Vercelli

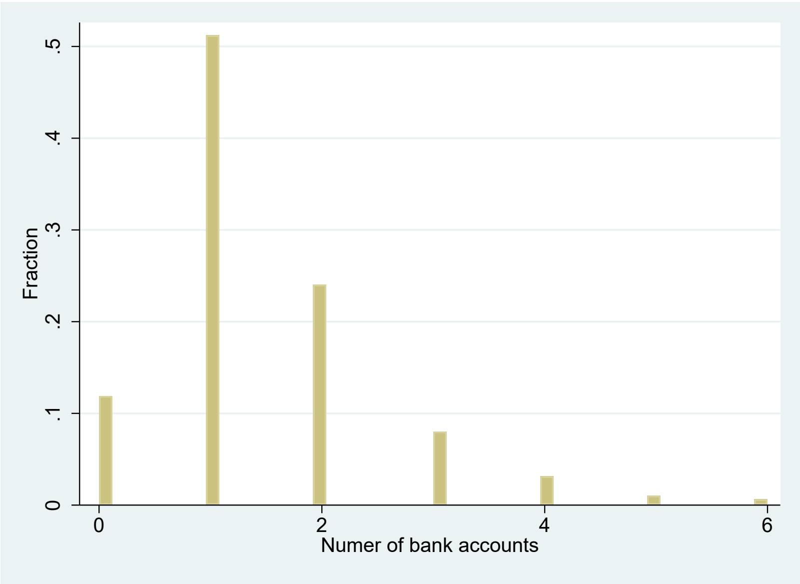
- **Step 1:** administrative data (y, housing, debt) to identify “reliable” respondents in SHIW;
- **Step 2**: aggregate banking data on the distribution of deposits, 2016 SHIW data on fraction held in the main deposit, impute data for less reliable respondents

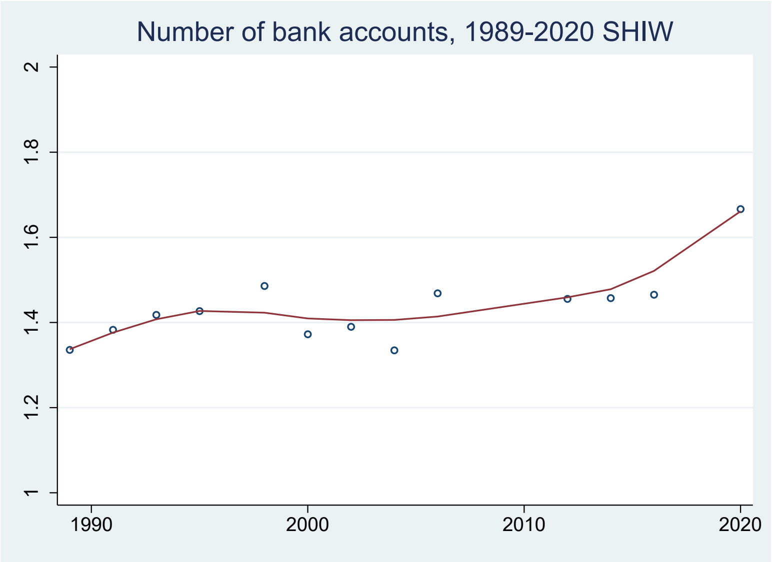
- **Result**: coverage ratio of deposits increases from 45% (ECB method) to 50%. Gini coefficient is stable.

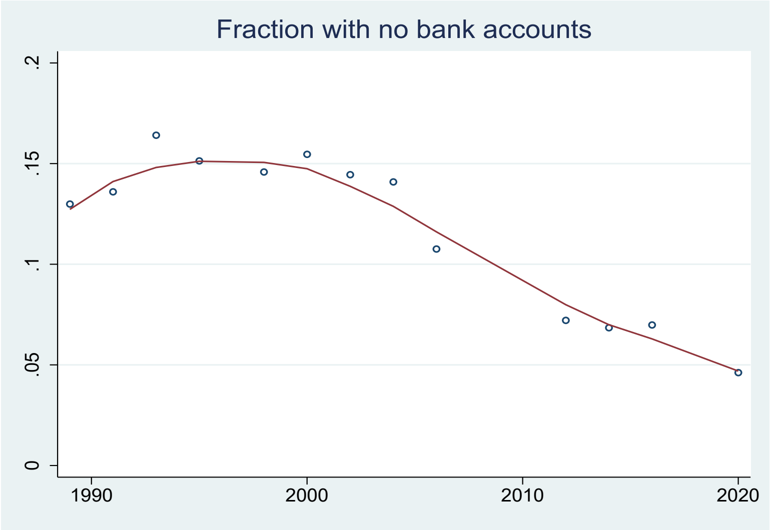
- In administrative data the unit of observation is the bank account, in survey data is the household.

1. Why do many households have multiple bank accounts?
2. Bank accounts speak on the relative economic power within the household (so far, mostly based on income shares of the spouses)

Bank accounts, SHIW 1989-2020







About 35% have more than one bank Account in 2020

Decline of fraction with no accounts

What can we learn from multiple bank accounts?

Accounts are costly. Possible reasons for multiple accounts:

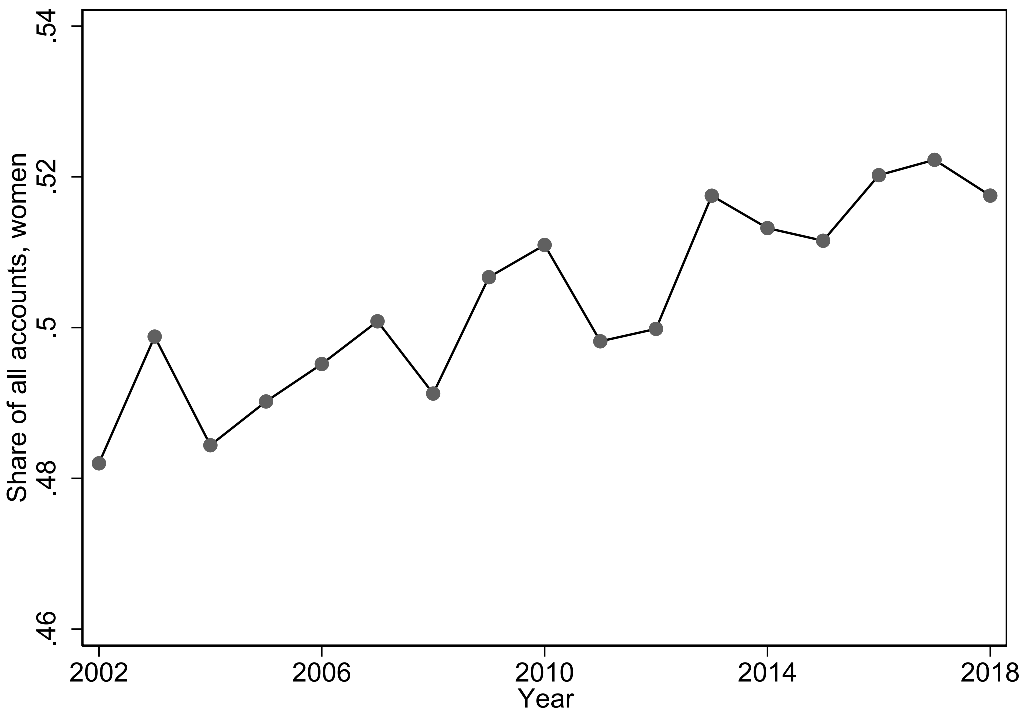
- Privacy concerns (associated with high wealth, preferences)
- Separate business from personal accounts (associated with occupation)
- Avoid having one bank managing all the assets (diversification, risk aversion)
- Convenience (one next to home, one next to the working place)
- Benefit from banks specialization (accounts used to manage other assets)
- Separate wealth within the household (joint vs. individual accounts)

- Information on individual and joint accounts allows to estimate the **share of deposits of each spouse** as indicator of within household wealth inequality.

- This might be associated with diversification, risk exposure, stockholding, etc.

Share of accounts owned by women:

Household Survey of the Dutch National Bank (DHS)



Source: Christelis, Georgarakos, Jappelli (2021)

Negative association between the share of accounts owned by women and the propensity to take financial risks, even controlling for fixed effects.

Financial fragility
Loschiavo, Di Salvatore, Tullio

- Poverty: low permanent income (and consumption)
- **Fragility**: inability to cope with transitory shocks (of different size and persistent) without reducing consumption.

- Important for policy. For instance, to gauge the impact of an increase in interest rate, to target fiscal programs, etc.

- **Static issue:** how many households are fragile? What are their characteristics?
- **Dynamic issue**: is fragility persistent?

Key issues:

- What is a reasonable definition of financial fragility?
- What is the role of insurance and credit markets (both formal and informal)?
- What can be done to improve households' resilience to shocks?

Definition of financial fragility

(1) Ad hoc indicator: $(y, debt, assets)$

Easy to measure on the basis of resources and observable variables. Does not require assumptions about consumption or income process.

Often measured as (interest payments / y) , or (debt / y).

(2) **Consistent with intertemporal models of consumption**.

People have a «**target wealth**» to insure consumption from income shocks.

Fragile households are those whose wealth is well below their target. They have received a sequence of negative shocks and did not have time to recover. Requires:

- assumption about the consumption model;
- income process (e.g., transitory vs. permanent shocks);
- operational measure of target wealth.

Persistence of financial fragility

(1) Fragility in the short and in the long-run;

(2) Heterogeneity of fragility (over time, across socioeconomic groups)

(3) Comparison with income and wealth mobility;

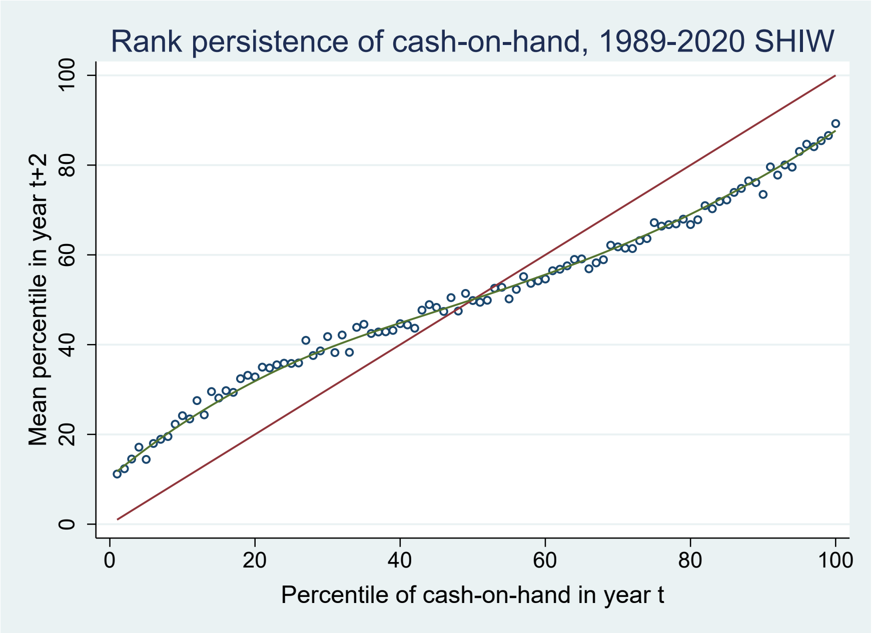
(4) Upward vs. downward fragility:

- what are the chances of remaining fragile?
- what are the chances of escaping fragility?
- what are the characteristics and chances of becoming fragile?

One indicator of fragility that might be appealing is mobility of the **Cash-on-hand distribution** (monthly income + liquid assets).

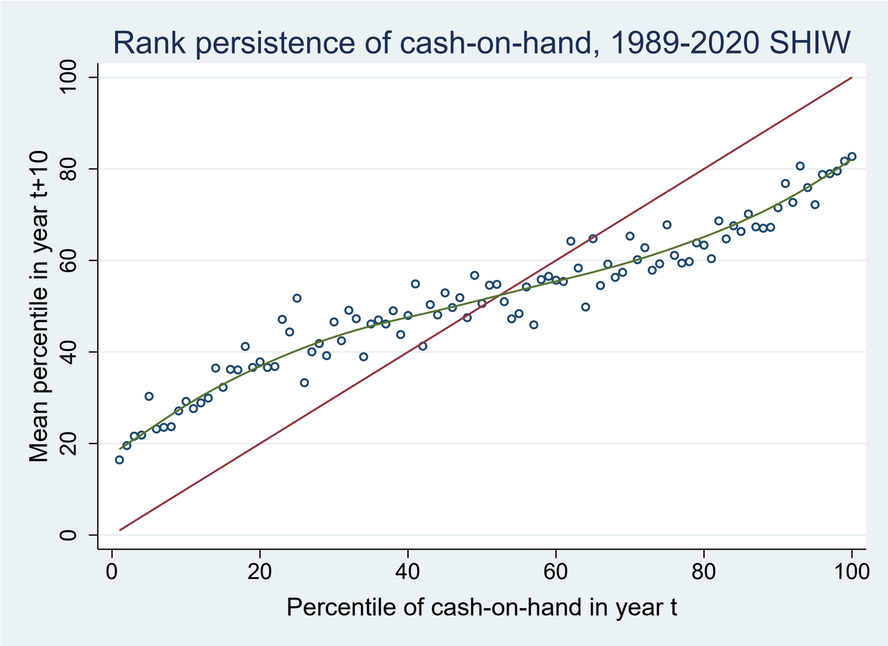
Alternative: mobility of (**Cash-on-hand / Permanent income**), as an indicator of the ability to smooth income shocks and insure consumption.

Mobility of the cash-on-hand distribution: 2-year vs. 10-year persistence



$$R_t = 20 + 0.67 R_{t-2}$$

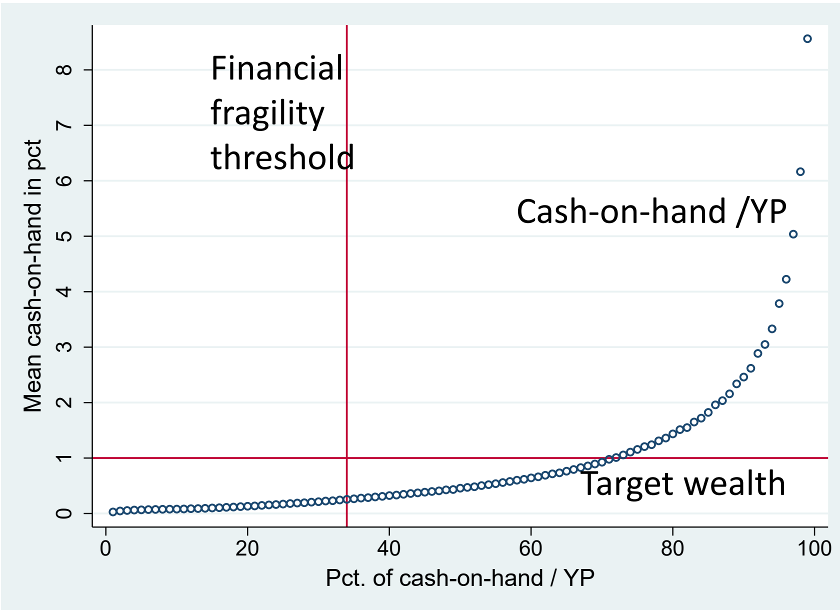
More mobility at the bottom, mean reversion at the top.

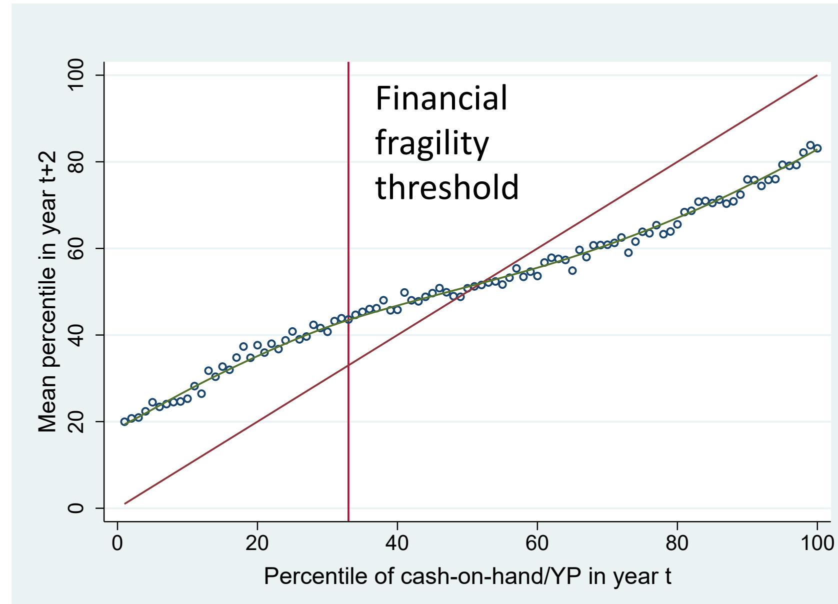


$$R_t = 26 + 0.52 R_{t-10}$$

More mobility in the long-run (curve is flatter)

Mobility of Cash-on-hand /YP distribution





$$R_t = 22 + 0.56 R_{t-2}$$

- Use **buffer stock model** to estimate realistic value of (Target Wealth/YP): **1 in the example**
- Consider significant deviations of (Cash-on-hand/YP) from target wealth: 3M of YP in the example
- Compute **short / long-run** (absolute / relative) persistence below the fragility threshold.
- Study heterogeneity of initial conditions (debt, interest payments, committed expenses, etc)

Interesting topics

- Data on **multiple bank accounts** can shed light on financial behavior and effect of the division of wealth within the household on asset allocation.

- **Persistence of financial fragility** (both upward and downward) useful to gauge resilience to economic shocks, given the environment in which people operate (credit and insurance markets, initial conditions, etc) and to study the short and long-run impact of policy interventions.