

The Life-Cycle Dynamics of Wealth Mobility

by Richard Audoly, Rory McGee, Sergio Ocampo and Gonzalo Paz-Pardo

Discussion by: Fabrizio Perri
Federal Reserve Bank of Minneapolis



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Disclaimer: The views expressed herein are mine and not necessarily those of the Federal Reserve Bank of Minneapolis or the Federal Reserve System

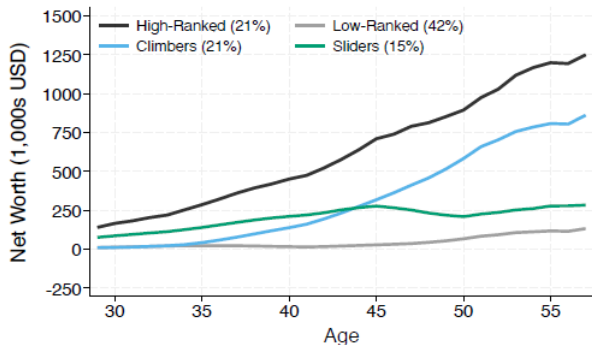
Outline

- ▷ Brief summary
- ▷ A look at US data
- ▷ What drives wealth mobility (accumulation/decumulation)?
- ▷ Conclusion

Summary

- Panel of 1960–64 birth cohort of all Norwegians, from 1993 (age 30) to 2017 (age 55)
- Data on income, wealth, usual demographics and parental background
- Wealth is unequally distributed but as people age they move along the distribution
- Document 4 distinct patterns of wealth mobility:
 - top dwellers
 - bottom dwellers
 - climbers
 - sliders
- Who are these types?
- Lessons for heterogenous agents macro models

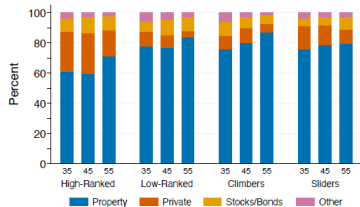
The patterns of life cycle wealth accumulation in Norway



- ▷ Overall wealth grows for everybody, but at different rates and points in the life-cycle
 - ▷ **Top dwellers:** start at the top, grow wealth throughout life cycle at around 8%
 - ▷ **Sliders:** start near the top but grow wealth at only 2% throughout
 - ▷ **Climbers:** start at the bottom (no wealth), by age 40 have some wealth and then grow 8/9% for rest of life
 - ▷ **Bottom dwellers:** start at the bottom, fail to accumulate any wealth until late 40s, then grow but its too late!

Who is in the 4 groups?

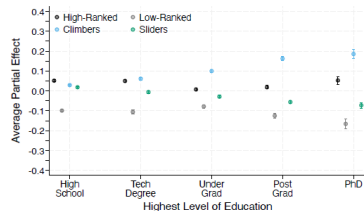
(A) Portfolio composition by age



(A) Parental wealth rank



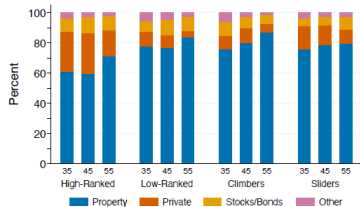
(B) Educational attainment



- ▷ Top dwellers: start with a business, high parental wealth, high real estate appreciation
- ▷ Sliders: start with smaller business, low financial assets, less real estate appreciation
- ▷ Climbers: more likely to have high education, high real estate appreciation
- ▷ Bottom dwellers: no high parental wealth

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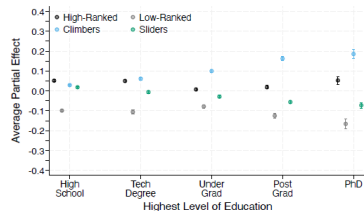
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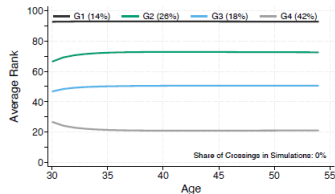
Question: is the rural/urban residency divide driving the differences between climbers and sliders?

Implications for macro models

▷ Model 1: Ayiagari (1994)

$$w_{i,t+1} = w_{i,t}(1 + r) + sy_{it}$$

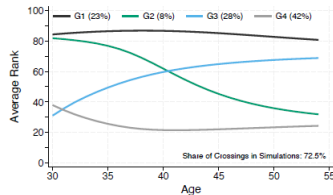
$$y_{i,t} = \rho y_{i,t-1} + \varepsilon_{i,t}$$



▷ Model 2: Benhabib and Bisin (2018)

$$w_{i,t+1} = w_{i,t}(1 + r_i) + sy_{it}$$

$$y_{i,t} = \rho y_{i,t-1} + \varepsilon_{i,t}$$



- ▷ Data: big differences in wealth growth (Top dwellers/climbers v/s bottom dwellers/sliders)
- ▷ Realizations of standard AR income process do not display enough growth differences to generate differences in wealth growth, need heterogeneous r_i
- ▷ The patterns highlighted support models with substantial heterogeneity in returns to wealth!

How different is life cycle wealth mobility in Norway from US?

- ▷ Need a long panel, tax data not easy to access and not great info on wealth
- ▷ SCF does not have long enough panel
- ▷ PSID! Heathcote et al. (2023) show that PSID does well in matching aggregate wealth and wealth inequality

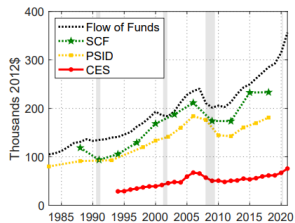
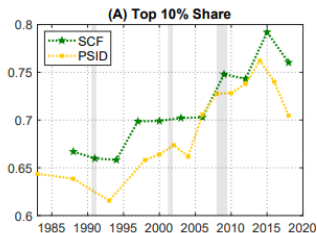
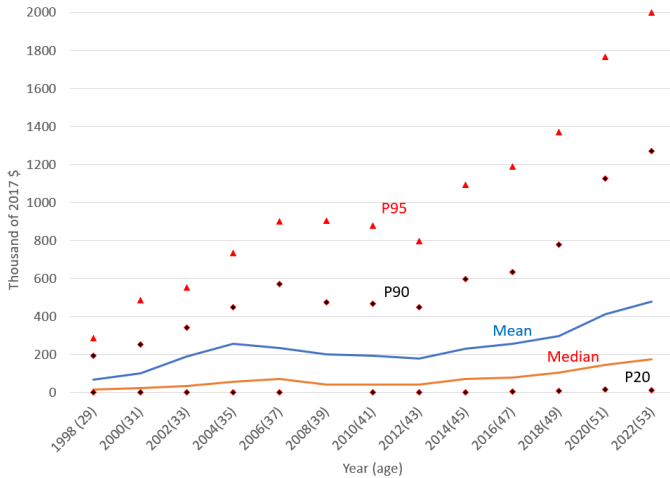


Figure 5: Household wealth per capita



- ▷ Caveats: attrition, misses the very top, small sample

The wealth distribution of the 1965-1974 birth cohort in PSID

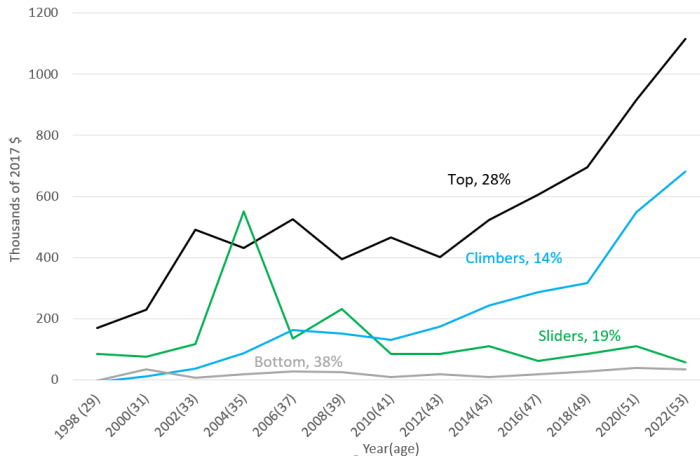


- ▶ 1965-1974 birth cohort: 2191 households in 1998, of which 708 have continuous (bi-annual) wealth data until 2022
- ▶ Wealth very unequally distributed at all ages, large fraction of negative and zeros, and few very high values (true in US and Norway)
- ▶ Wealth distribution does not fan out over the life cycle, as bottom grows more strongly than top (true in US and Norway)
- ▶ In US 20% of households in the mid 50s hold no wealth!

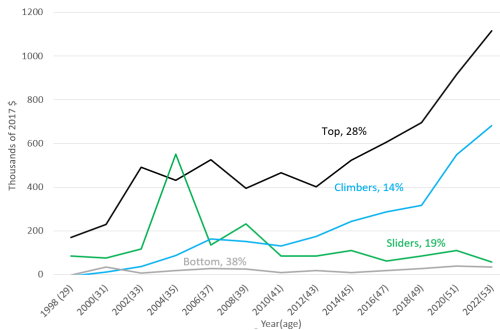
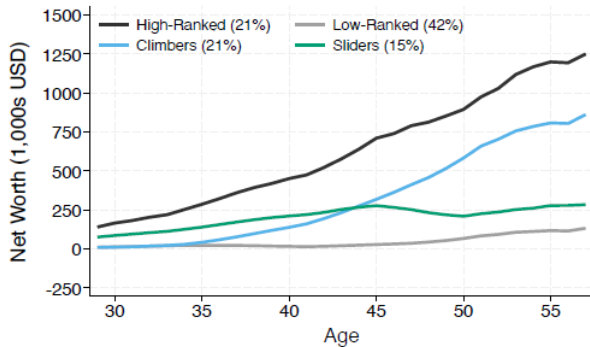
Wealth mobility over the life cycle in the PSID 1965-1974 birth cohort

▷ Simplistic definition of groups

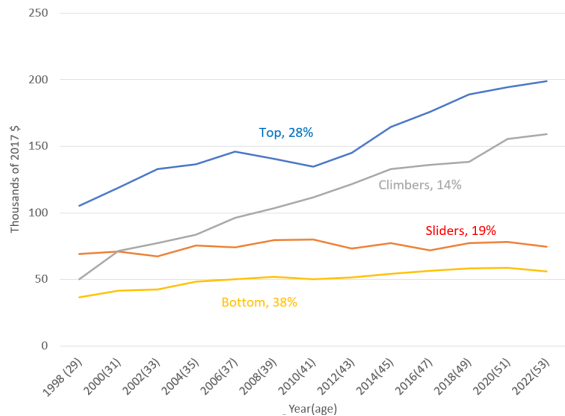
- ▷ **Top Dwellers:** above median in 1998 and 2022
- ▷ **Sliders:** above median in 1998 and below in 2022
- ▷ **Climbers:** below median in 1998 and above in 2022
- ▷ **Bottom dwellers:** below median in 1998 and 2022



Quite similar patterns across countries



What drives differences in wealth growth?



▷ Total money income over the life cycle

- ▷ The groups with fast growing wealth (Top and climbers) also have fast growing income (and higher income levels)
- ▷ Less evident in Norway than in the US (sliders have no income growth in US, positive income growth in Norway)
- ▷ Can heterogeneous Income (growth) Profiles (Guvenen, 2007) with different saving rates explain the US wealth mobility patterns?

Putting some numbers

$$w_{i,t+1} = w_{i,t}(1 + r) + s_i y_{it}$$

$$y_{i,t} = (1 + g_i) y_{i,t-1}$$

w_0, y_0 given

- Take w_0 and y_{it} from data and set
- $s = 15\%$ for top and climbers
- $s = 1\%$ for bottom and sliders
(difference in saving rates connected
to differences in income levels)
- $r = 3\%$ for all

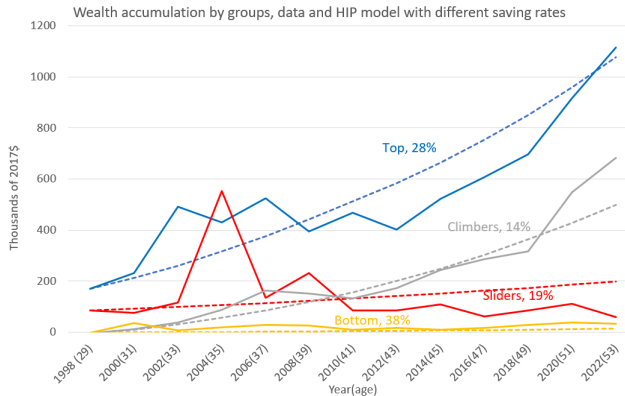
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- ▷ Take w_0 and y_{it} from data and set
- ▷ $s = 15\%$ for top and climbers
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(difference in saving rates connected to differences in income levels)
- ▷ $r = 3\%$ for all
- ▷ Differences in income growth and saving rates can go a long way explaining differences in wealth accumulation (at least in the US)!



Conclusions

- Excellent paper: great data and datawork
- A clear contribution in understanding drivers of wealth dynamics across the distribution
- Manages to explain and illustrate the economic findings very well without burdening the reader with too many technical details
- Still not clear to me whether differential returns are really needed to explain wealth dynamics (at least in the US)