Discussion of "Social Security and Trends in Wealth Inequality" by Catherine, Miller and Sarin

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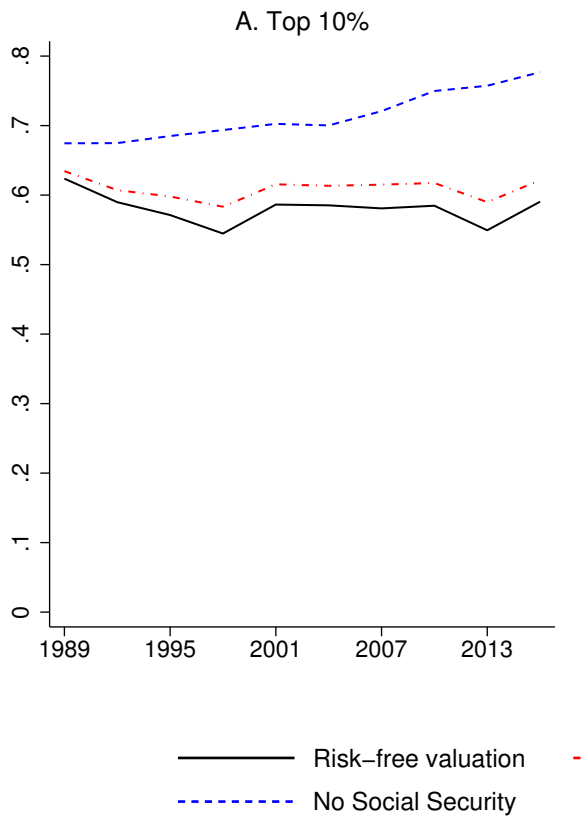
This paper

- Measures individual wealth *inclusive of social security wealth* (a^{SS})
- Finds that once measured that way, wealth concentration:
  1. is lower than under the headline measure
  2. has fallen rather than risen over time



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- Contemporaneous work by Sabelhaus and Volz [SV] does the same. Finds 1., but not 2.

	Top 10 Percent Wealth Shares								
	1995	1998	2001	2004	2007	2010	2013	2016	2019
SCF Published Wealth Shares									
Household Sorting (by Published Wealth)	67.9%	68.6%	69.6%	69.4%	71.4%	74.4%	75.0%	77.1%	76.5%
Household Wealth Shares									
Household Sorting	61.5%	63.3%	64.1%	64.5%	67.1%	68.5%	68.8%	71.5%	71.3%
Household Sorting within Age Groups	55.5%	58.3%	59.5%	59.0%	62.7%	62.2%	63.1%	66.0%	65.9%
Person-Weighted Sorting within Age Groups	52.7%	55.6%	56.6%	56.1%	59.8%	59.2%	59.6%	62.8%	62.3%
Household + Social Security Wealth Shares									
Household Sorting	54.7%	56.7%	57.9%	58.2%	60.3%	60.3%	60.2%	63.6%	63.4%
Household Sorting within Age Groups	48.0%	51.0%	52.9%	52.1%	55.4%	53.8%	54.1%	57.6%	57.6%
Person-Weighted Sorting within Age Groups	45.3%	48.4%	50.0%	49.4%	52.6%	50.9%	50.9%	54.5%	54.1%
Person-Weighted within Age Groups, Resorted	45.1%	48.4%	50.0%	49.2%	52.5%	50.8%	50.7%	54.4%	54.2%

Where this paper fits in the literature

- Part of ongoing work that challenges the assumptions behind Piketty, Zucman, and Saez's [PSZ] measures of wealth inequality:

  1. How should we measure private wealth? eg Smith-Zidar-Zwick
  2. Should we use broader measures of wealth? eg SV, this paper

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- General theme of this work: assumptions matter! Deaton's take:

  "Because distribution is such a controversial topic, these assumptions leave plenty of scope for politically-biased challenges, in which each commentator can choose their own alternatives and get almost any result they choose, inequality is increasing, inequality is not increasing, and everything in between."

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- **This discussion**: consider the conceptual basis for this measure of wealth, highlight the importance of assumptions

A model to frame conceptual issues

- Consider a simple general eqbm OLG model with social security
  - Special case of Auclert-Malmberg-Martenet-Rognlie
- Everyone works to age T^{ret}, then gets SS, dies at age T
- Population growth rate n. Assume stationary distn: $\pi_j \propto \left(\frac{1}{1+n}\right)^j$
- SS payroll tax rate τ while working, benefits tr_j indexed to wages
- Assume no growth in productivity. Maximization problem:

$$\max \quad \sum_{j=0}^{T} \beta^j \frac{c_j^{1-\sigma}}{1-\sigma}$$

$$c_j + \frac{1}{1+r} a_{j+1} = w\left((1-\tau) l_j + tr_j\right) + a_j$$

$$a_0 = a_{T+1} = 0$$

Individual budget constraint and SSW

- Intertemporal budget constraint for individual of age j:

$$\sum_{s\geq j}^{T}\left(\frac{1}{1+r}\right)^{s}c_s = \underbrace{a_j}_{\text{Private wealth}} + \underbrace{w\sum_{s\geq j}^{T}\left(\frac{1}{1+r}\right)^{s}(tr_s-\tau l_s)}_{\text{Social security wealth } a_j^{SS}} + \underbrace{w\sum_{s\geq j}^{T}\left(\frac{1}{1+r}\right)^{s}l_s}_{\text{Human wealth } a_j^{H}}$$

- Piketty and co. measure a_j
- Paper argues wealth should be $a_j + a_j^{SS}$, goes on to measure a_j^{SS}
- Big difference: $\sum_j \pi_j a_j^{SS}$ is over 2 times GDP in 2016
- But is a_j^{SS} wealth?

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- But is a_j^{SS} wealth?
  - It looks like *private wealth*: similar life-cycle pattern as a_j
  - But: it is not liquid; (mostly) not bequeathable; not a choice variable
  - Also very different from GE perspective (more on this next)

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- But is a_j^{SS} wealth?
  - It is a part of *total* wealth $a_j + a_j^{SS} + a_j^{H} \rightarrow$ closer to welfare metric
  - But: What about human wealth a_j^{H} and *its* role in inequality?
  - Why take a cross-sectional measure? $j = 0$ more correct.
  - Why not c inequality directly? eg Krueger-Perri, Aguiar-Bils, ...

Sensitivity to discounting

$$a_j^{SS}(r) \equiv w \sum_{s \geq j}^{T} \left(\frac{1}{1+r} \right)^s (tr_s - \tau l_s)$$

- Short-duration liability + long-duration asset $\rightarrow$ (usually) $\downarrow$ in r!
  - Historical decline in r inflates a_j^{SS}, accounts for paper's main findings
  - Discounting change over time appears to be main difference with SV

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- But what is correct r to use here?
  - Use nominal term structure + CPI forecasts, TIPS term structure
  - But model of future earnings has idiosyncratic risk: using risk-free discounting isn't consistent with this
  - Paper does correct r for aggregate risk (nice!), but correction for idiosyncratic risk is equally important, and much harder

General equilibrium: dynamic inefficiency

- Assume government has zero debt, budget constraint

$$0 = \sum_{j=0}^{T} \left(\frac{1}{1+n} \right)^{j} (tr_j - \tau l_j) = \frac{a_0^{SS}(n)}{w}$$

- In particular, newborn social security wealth is

$$a_0^{SS}(r) < 0 \quad \Leftrightarrow \quad r > n$$

- In dynamically efficient economy, a_j^{SS} starts negative, grows with j
- Fig 11: barely the case in 1989, and not at all in 2016.
  - Sign of dynamic inefficiency? Welfare improving social security!

General equilibrium: asset market clearing

- Let neoclassical firms produce using $Y = K^{\alpha} \left(\sum \pi_j L_j\right)^{1-\alpha}$
- Asset market clearing (determines GE r):

$$\frac{\sum \pi_j a_j}{Y} = \frac{K}{Y} = \frac{\alpha}{r + \delta}$$

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  - In general, removing SS will cause r to fall, crowding in K and mitigating the increase in A

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- Model also predicts that demographic change itself (eg, caused by decline in n) *causes* the r decline by shifting π_j [Auclert et al]

Conclusion

- Thought-provoking paper that challenges our take on inequality
- Places social security and demographics at center of debate on wealth measurement, where they should be
- Well written and well executed, with mostly reasonable assumptions
- Can clarify the conceptual basis for measuring wealth this way, and make statements about counterfactuals more precise, by drawing on insights from general equilibrium OLG models