Social Security and Trends in Wealth Inequality

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Overview

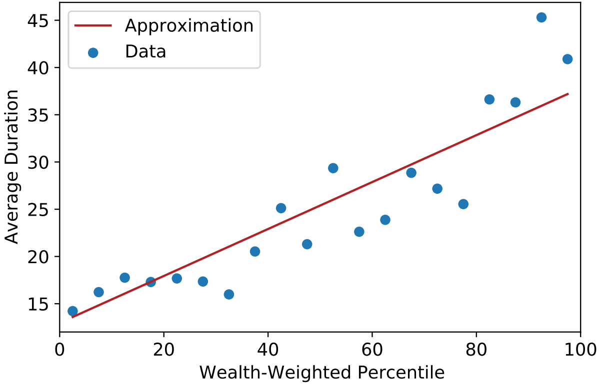
- **Question:** how does accounting for Social Security influence financial wealth inequality?
- **Approach:** Combine SCF data on Social Security benefits with rich model to extrapolate forward for non-retirees.
- **Main Results:**
  - Social Security makes up majority of wealth for bottom 90% of wealth distribution.
  - When SS included, top wealth shares barely rise or fall from 1989 to 2016.
- **My Evaluation:** obviously a great paper, a few points on interpretation.
  - Flat top wealth shares do not necessarily imply flat welfare consequences.
  - SS not the end of the story, building block toward broader mapping between financial and total wealth inequality.

Interest Rates and Financial Wealth Inequality

- Why does accounting for SS change the dynamics of inequality so much?
- Not because it is more progressively distributed than marketable wealth.
- Instead, key is **duration** of financial wealth.
  - Elasticity of asset price with respect to rate change.
- Effect of interest rates on financial wealth driven by **duration heterogeneity.**
  - If all assets have same duration, then interest rates have no effect on fin. wealth inequality.
  - Low interest rates increase financial wealth inequality iff rich have higher durations than poor.

The Effect of an Interest Rate Decline

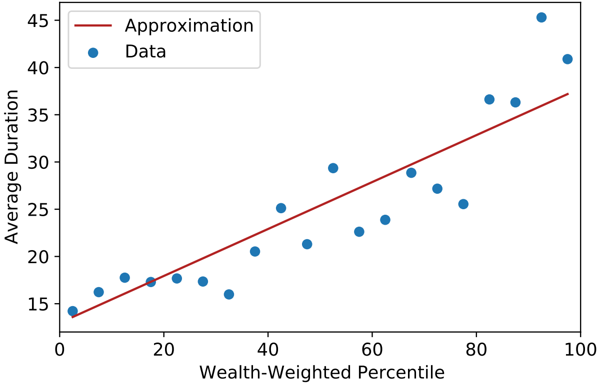
- Greenwald, Leombroni, Lustig, Van Nieuwerburgh (GLLVN): durations are increasing in wealth, so fin. ineq. $\uparrow$ as rates $\downarrow$.



Source: "Financial and Total Wealth Inequality with Declining Interest Rates," Greenwald, Leombroni, Lustig, and Van Nieuwerburgh (2021).

The Effect of an Interest Rate Decline

- Find that decline in rates from 1980s to 2010s can fully explain observed rise in financial wealth inequality.



Source: “Financial and Total Wealth Inequality with Declining Interest Rates,” Greenwald, Leombroni, Lustig, and Van Nieuwerburgh (2021).

How does Social Security Fit In?

- Value of social security claims increase during working life, peaking at start of retirement.
- But **duration** of social security claims are much larger for younger (less wealthy) agents.
  - Payments far in the future are more sensitive to discount rates due to compounding.
- As a result, accounting for social security causes financial wealth inequality to rise less (fall more) when interest rates decline.
- CMS adjust changes in financial wealth inequality for the 1989 - 2016 period:
  - Top 10% share: $+10\%$ to -3.3% after including SS.
  - Top 1% share: $+10\%$ to $+0.6\%$ after including SS.

Interpreting Changes in Inequality

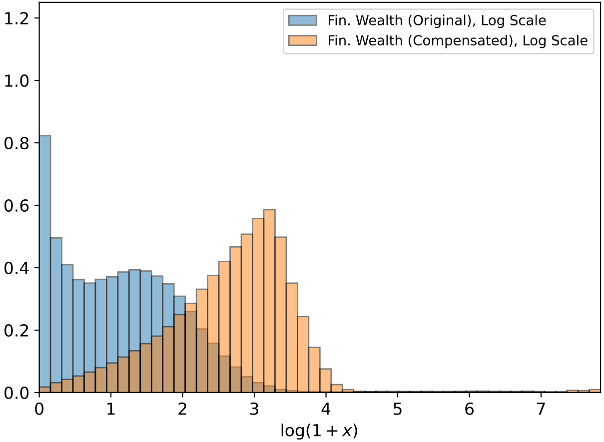
- If financial wealth inequality was flat after accounting for SS, does that mean that welfare effects of falling rates were even over the wealth distribution?
  - Need appropriate benchmark.
- GLLVN argue for natural benchmark: what wealth change would be required to afford your **old consumption plan**?
- Accounting: financial wealth equal to PV of excess consumption

$$\underbrace{a_0}_{\text{financial wealth}} = \underbrace{\sum_{t=0}^{\infty} R^{-t} c_t}_{\text{PV of consumption}} - \underbrace{\sum_{t=0}^{\infty} R^{-t} y_t}_{\text{PV of income}} = \underbrace{\sum_{t=0}^{\infty} R^{-t} (c_t - y_t)}_{\text{PV of excess consumption}}$$

- Although these are equal in levels pre-shock, they are not equally sensitive to changes in rates, leaving agents exposed.

Interpreting Changes in Inequality

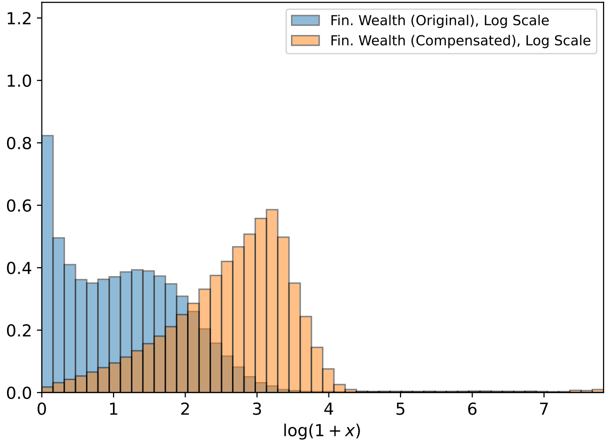
- GLLVN: what would the distribution look like if we adjusted financial wealth a_0 so that everyone could afford their old consumption plan?



Source: GLLVN (2021)

Interpreting Changes in Inequality

- Resulting distribution (in orange) much less unequal than original wealth distribution.
- Top 1%, 10% shares would need to fall by 13%, 16% following 1980s - 2010s drop.

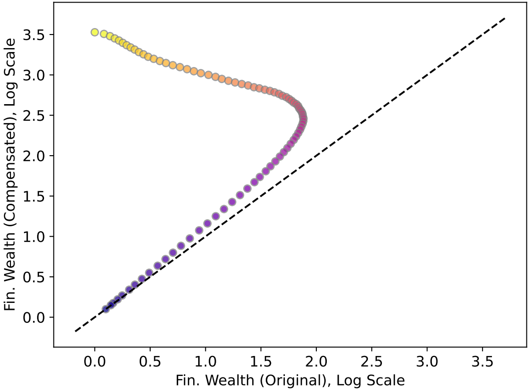


Source: GLLVN (2021)

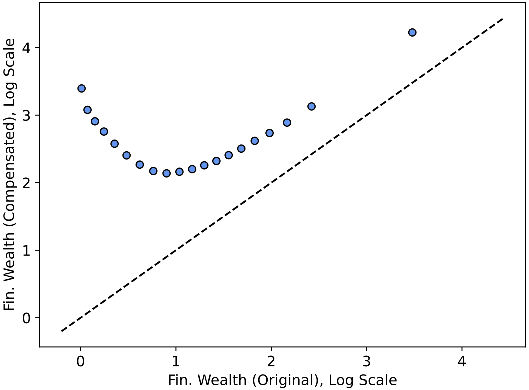
Interpreting Changes in Inequality

- What's behind this pattern? Age dynamics. (Plots below from GLLVN.)
- Young save in middle age, consume in old age, so duration of ex. consumption very high.

(a) By Age



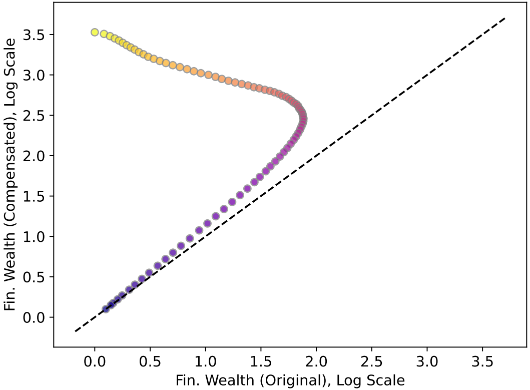
(b) By Fin. Wealth



Interpreting Changes in Inequality

- Young dominate low-wealth portion of distribution.
- So low-wealth HHs need more wealth to afford old consumption plan.

(a) By Age



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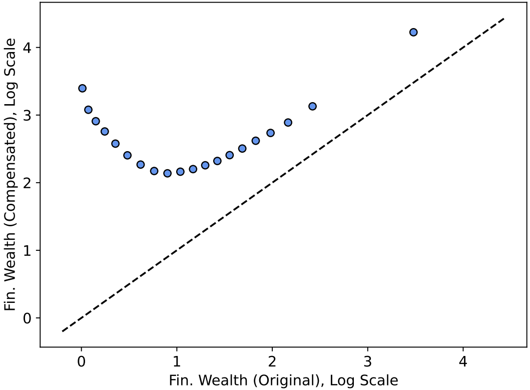
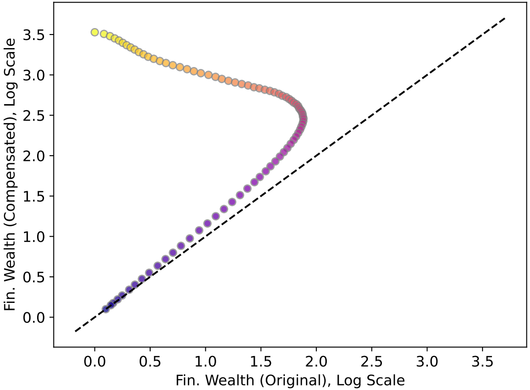


Interpreting Changes in Inequality

- Takeaway: social security helps protect low-wealth young from rate declines.
- But flat inequality is not sufficient to fully compensate, would need to **fall**.

(a) By Age



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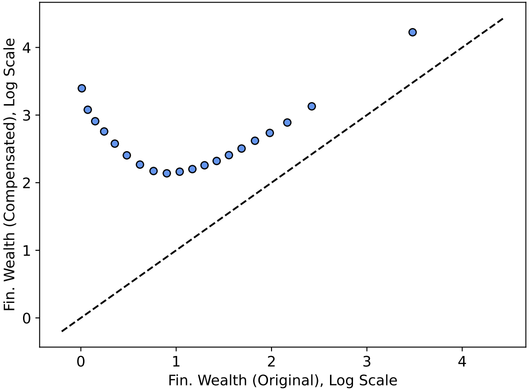

Next Steps

- CMS make a persuasive argument that SS wealth is a relevant part of household wealth.
- But I think we can go further.
  - What really matters is **total wealth**, present value of consumption.
  - Includes not just SS, marketable wealth, but also labor income.
- This paper represents a major building block in this agenda with careful measurement of SS cash flows (present and future) and their valuations.
- Main suggestion: publish key summary statistics (value, and especially **duration** of SS claims) so that we can build them into measures of total wealth inequality!

Conclusion

- Fantastic paper, big contribution to the literature.
- Key to effect of interest rates on financial wealth inequality is duration heterogeneity.
  - Accounting for SS decreases inequality bc duration of SS claims higher for low-wealth young.
- Finding that inequality did not rise does not necessarily mean that low-wealth HHs were not harmed by falling rates.
  - GLLVN: financial wealth inequality would need to fall for agents to afford old consumption plans.
- SS wealth is an important piece of total wealth, but so is labor income.
  - Let's keep working to put the whole picture together.