Discussion of "Social Security and Trends in Inequality" (Sylvain Catherine, Max Miller and Natasha Sarin)

Francisco Gomes
London Business School and CEPR

September 2020

Motivation

- Previous research: increase in wealth inequality over the last 25 years.
- This paper:
  - Estimates/computes social security wealth at the individual level.
  - Revises the wealth inequality calculations after combining marketable wealth with social security wealth.
  - Conclusion: **wealth inequality has actually remained fairly constant or has even decreased** (over the same period).

Motivation

- Previous research: increase in wealth inequality over the last 25 years.
- This paper:
  - Estimates/computes social security wealth at the individual level.
  - Revises the wealth inequality calculations after combining marketable wealth with social security wealth.
  - Conclusion: **wealth inequality has actually remained fairly constant or has even decreased** (over the same period).
- Income inequality is lower than wealth inequality. Social security benefits are a progressive function of income so "their inequality" should be even lower.
- Quantification is difficult and that's where this paper comes in.
  - Starting with observation that social security wealth has increased significantly over this period.
- For the most part the analysis in the paper is **very careful**.

Discount Rates

- Naturally the results are sensitive to the choice of discount rates.
- The authors make a convincing case for their term-structure (instead of the one used by the SSA).
- The risk-adjustment only considers correlations with the stock market. The most important risk is the risk that future contributions will increase and/or future benefits will decrease.
  - Section 7.4 explores these using scenario analysis, but this is not the same as discount rate adjustments (as we tell our students).

Discount Rates

- Naturally the results are sensitive to the choice of discount rates.
- The authors make a convincing case for their term-structure (instead of the one used by the SSA).
- The risk-adjustment only considers correlations with the stock market. The most important risk is the risk that future contributions will increase and/or future benefits will decrease.
  - Section 7.4 explores these using scenario analysis, but this is not the same as discount rate adjustments (as we tell our students).
- Risk-adjustment is computed from the perspective of an investor who holds a diversified portfolio of social security claims. Should be computed from the perspective of each individual:
  - Correlation much less important, more about background risk.
  - Not just about different numbers, this would imply **higher discount rates for the poor than for rich**.

Adding social security wealth

- Two issues:
  - Why should we add social security?
  - Why include social security benefits that have not yet been earned?
- First one is easy: it's wealth, end of story!
- The second one is more debatable and including these weakens the arguments used to defend the first.

Adding social security wealth

- Two issues:
  - Why should we add social security?
  - Why include social security benefits that have not yet been earned?
- First one is easy: it's wealth, end of story!
- The second one is more debatable and including these weakens the arguments used to defend the first.
- "The difference between the PV of SS cash-flows assuming additional years in the labor force and the PV assuming workers never work going forward is zero as long as future contributions are fairly priced".
  - But they are not fairly priced at the individual level! (progressivity).
  - So you are adding more wealth for the poor than for the rich.
- Why don't we include the PV of future labor income as well?
  - It is the same logic and **crucially** the expected social security benefits are only earned if the labor income is earned in the first place!

Adding social security wealth (cont.)

- "In a counter-factual world without Social Security, private wealth would rise (...). Tax reforms (...) to fund additional transfers could cause an increased in measured wealth inequality".

Adding social security wealth (cont.)

- "In a counter-factual world without Social Security, private wealth would rise (...). Tax reforms (...) to fund additional transfers could cause an increased in measured wealth inequality".
  - This argument is appealing, but is it indeed correct?
- Simple 2-period setting, 2 (types of) agents: rich (R) and poor (P).
- Interest rate is zero, no uncertainty, and discount factor is 1: optimal consumption is the same in both periods.
- Initially there is no social security:
-

	Income		Consumption		Wealth
	$t = 1$	$t = 2$	$t = 1$	$t = 2$	$(t = 1)$
Rich	100	0	50	50	50
Poor	10	0	5	5	5

Adding social security wealth (cont.)

- "In a counter-factual world without Social Security, private wealth would rise (...). Tax reforms (...) to fund additional transfers could cause an increased in measured wealth inequality".
- Simple 2-period setting, 2 (types of) agents: rich (R) and poor (P).
- Interest rate is zero, no uncertainty, and discount factor is 1: optimal consumption is the same in both periods.
- Initially there is no social security:
-

	Income		Consumption		Wealth
	$t = 1$	$t = 2$	$t = 1$	$t = 2$	$(t = 1)$
Rich	100	0	50	50	50
Poor	10	0	5	5	5

- Add social security: 40% replacement for P (4) and 30% for R (30).
- So we need to collect 34 in taxes.
  - If we take 4 from P and 30 from R there is no progressivity.
  - So lets take all 34 from R.

Adding social security wealth (cont.)

- With SS, consumption, (net-of-tax) income and wealth become:

	Income (net)		Consumption		Wealth
	$t = 1$	$t = 2$	$t = 1$	$t = 2$	$(t = 1)$
Rich	66	30	48	48	18
Poor	10	4	7	7	3

Adding social security wealth (cont.)

- With SS, consumption, (net-of-tax) income and wealth become:

	Income (net)		Consumption		Wealth
	$t = 1$	$t = 2$	$t = 1$	$t = 2$	$(t = 1)$
Rich	66	30	48	48	18
Poor	10	4	7	7	3

- Comparing wealth in both cases:

	Wealth		
	Rich	Poor	Rich/Poor
No Social security	50	5	10
Social Security	18	3	6

- Social security:
  - Is progressive.
  - Crowds out private wealth accumulation as the authors state.
  - **Measured wealth inequality falls**.

Summary

- Really nice paper.
- Extends commonly used measures of wealth inequality by adding social security wealth and shows that this makes a **big difference**!
- Very careful analysis:
  - Add differences in survival probabilities to the baseline case.
  - Consider differences in discount rates between rich and poor/liquidity constrained.
- On a more conceptual level:
  - Report a first set of results with already earned social security benefits only. (Almost) nobody can argue against these.
  - Then you report the current results, but probably need to add expected future labor income as well for consistency.