



What shapes the U.S. wealth distribution? Longevity vs income Inequality

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Why? Demography matters!

Colossal rise in life expectancy (**longevity**)

- ↑ lifetime wealth [permanent]
- ↑ % of individuals at peak wealth [transitory]

Wealth inequality ought to rise.

Scenarios (calibrated to the US)

Calibration to match USA economy in 1960. Initial steady state in 1935. Transition with perfect foresight.

Variance of productivity shocks rises for subsequent birth cohorts.

Full model features changes in

- **Longevity:** historical mortality data + UN projection until 2100.
- **Fertility:** historical births data + US Census projection until 2060.
- **Technology:** TFP growth and labor share.
- **Fiscal policy:** tax rates, progressivity of labor income tax, govt. purchases, debt/GDP.

S1: No growth in life expectancy

- Mortality risk fixed at its 1960 level.
- Consistent (counterfactual) demographic structure.

S2: Not seeing growth in life expectancy

- Individuals perceive mortality rate as in 1960.
- Demographic structure as in the data.

This paper

Two objectives:

- Quantify the role of rise in LE for wealth inequality in an **OLG model**.
- Horse race between **demography** and **policy**.

+ Policy experiments.

In the initial steady state

Wealth inequality driven by **income risk** and **life-cycle savings**.

Negligible role of discount factor shocks and return risk.

	Gini	Top 10% share
Discount factor shocks	0.21%	0.82%
Income risk	28.05%	74.01%
Return risk	0.00%	0.01%
Life-cycle	28.63%	48.79%

Contribution of various channels for steady state wealth inequality

Model with multiple mechanisms of redistribution

Government collects taxes and issues debt to finance government purchases, operates PAYG DB social security.

Redistribution via:

- > progressive labor income tax (as in Benabou, 2002)
- > progressive social security (AIME).
- > taxes on consumption and capital income are flat
- > gov'n't purchases do not enter utility

Model with multiple sources of uncertainty

Individuals risk averse, choose consumption and leisure, retire at age 65 and receive pension.

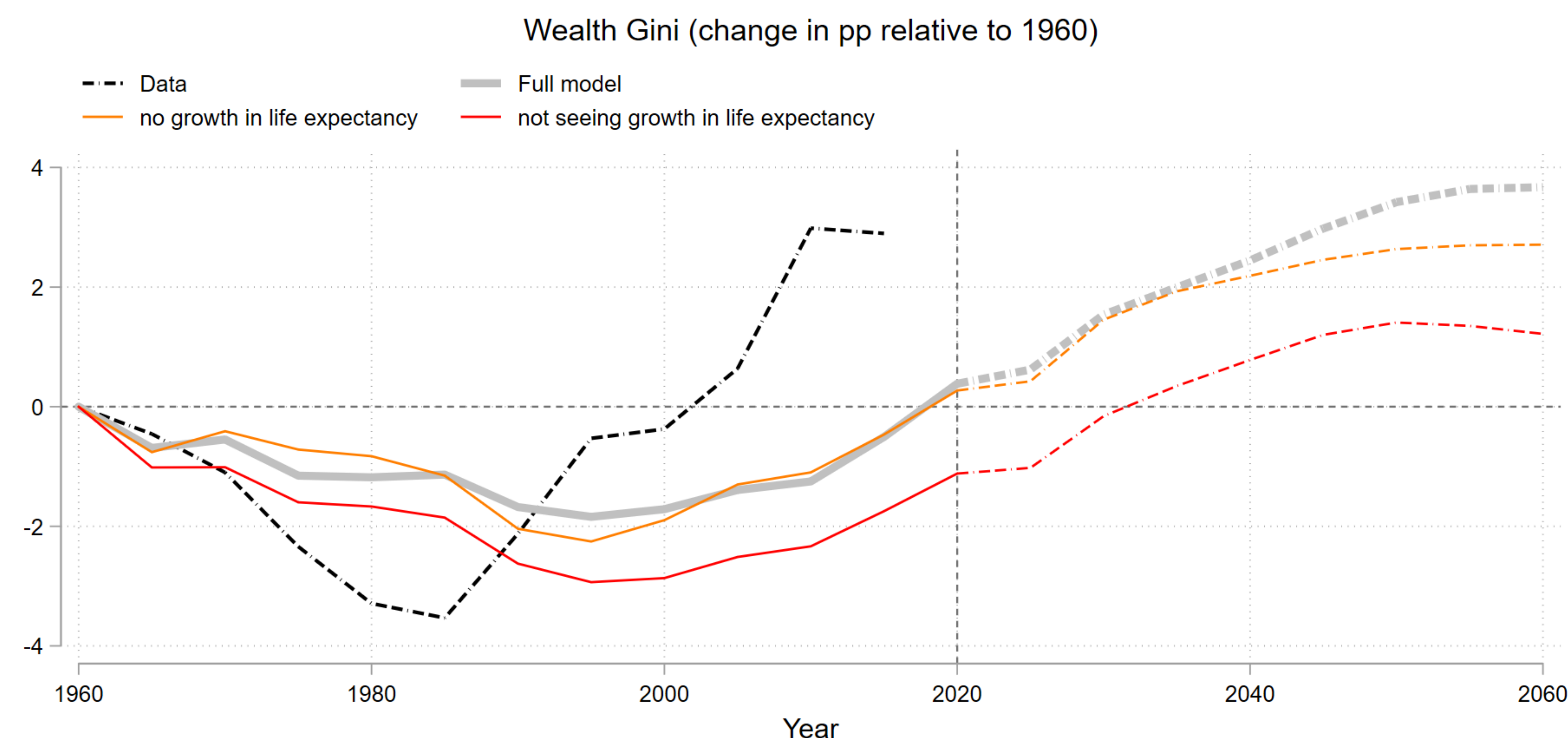
They pay Social Security contributions, labor income, capital income, and consumption taxes.

Uncertainty at all stages of life:

- > lifetimes with **stochastic** survival.
- > earnings due to **idiosyncratic productivity** shocks.
- > capital incomes due to **idiosyncratic discount rates**.
- > capital incomes due to **idiosyncratic returns**.

Production: standard Cobb-Douglas function with capital and labor.

Longevity and wealth inequality



Conclusions: change needed?

Rise in **longevity** is a **big** part of the rise in wealth inequality.

Relatively **minor** role of changes in tax system (not shown here).

These forces will continue to operate.

Work in progress: what kinds of policy can affect wealth inequality?