

# 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
- > govn'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.

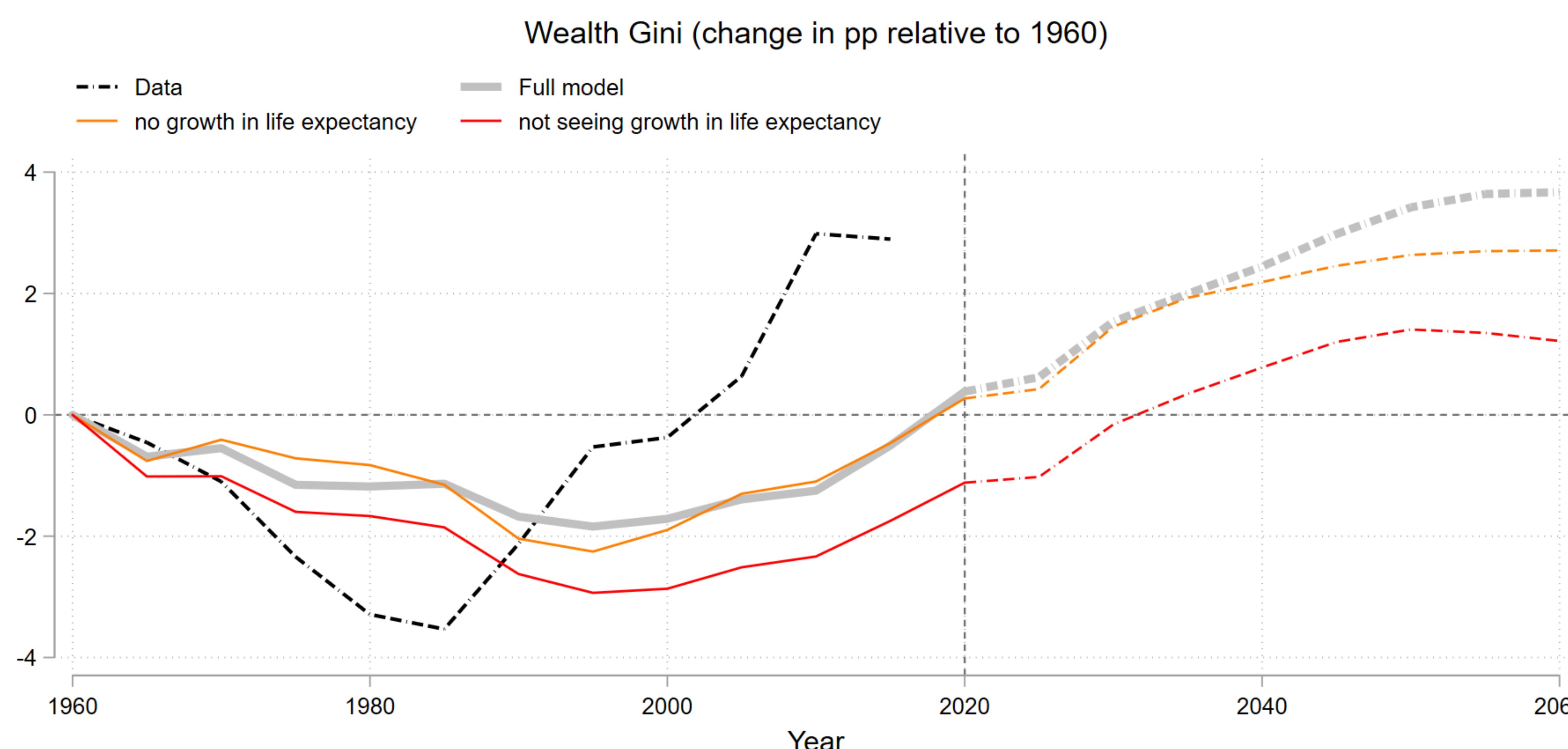
They pay Social Security contributions, labor income, capital income, and consumption taxes.

**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?