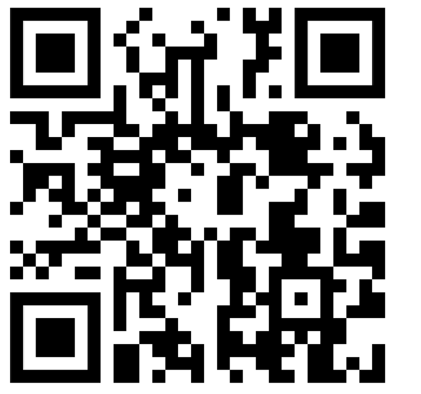
Effiency versus insurance: The role for capital income taxation in privatizing social security



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Motivation

With **longevity**, **taxing capital** (income) interesting: savings ↑ → response to taxation ↓

1. For DB pensions, longevity ↑:
   → deficit (taxes) ↑ → efficiency ↓
   → pensions & insurance ≈
2. For a reform to DC pensions, longevity ↑:
   → transitory deficit, but LR efficiency ↑
   (with funding: transitory deficit ↑↑)
   → pensions & insurance ↓ → savings ↑

Pensions literature:
Welfare ↓ so infer insurance ≫ efficiency
Not studied: direct effects of fiscal policy

What we do

OLG model with stochastic incomes, US

Baseline: US system with AIME (redistributive)
Reform: Individual DC, 50% funded

Our questions
Q1: Is it ok to raise τ_k? ⟵ transitory
Q2: Is it ok to reduce τ_k? ⟵ permanent
Q3: Does it matter for reform if we use τ_k? **Yes!**

Our contribution
- tax on capital income gains
- decompose welfare = insurance + efficiency
- compare across fiscal closures
- study political support

Results in a nutshell

1. DC & 50% funding + τ_k → welfare ↑:
   - low τ_k elasticity of savings
   - τ_k boosts efficiency *more* than τ_c
   - insurance motive actually rather small

   ⟶ Nishiyama & Smetters is **NOT** universal
2. Public debt often "buys" political support
3. Welfare gains and political support only sometimes overlap

Results robust to higher risk aversion and secular stagnation

Model

Households: uncertain lifetimes, uninsurable earnings risk, pay taxes, contribute to pensions.
Government: collects taxes, covers public spending, balances pension system and services debt.
Firms: perfectly competitive.
Baseline pension system: AIME

- regressive replacement rate ⇒ insurance
- pensions remain high
- longevity ↑ ⟶ deficit ↑ (permanent)

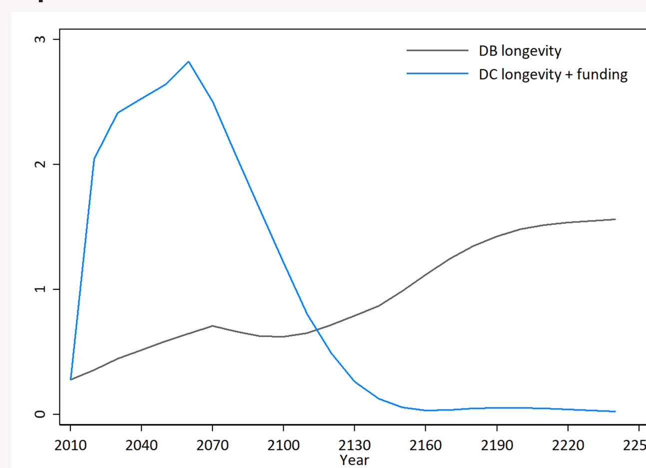
Reformed pension system: DC + funding

- individual pension accounts ⇒ no insurance
- longevity ↑ ⟶ pensions ↓ ⇒ savings ↑
- funding generates deficit in short run

Incomplete assets markets, risk free interest rate.

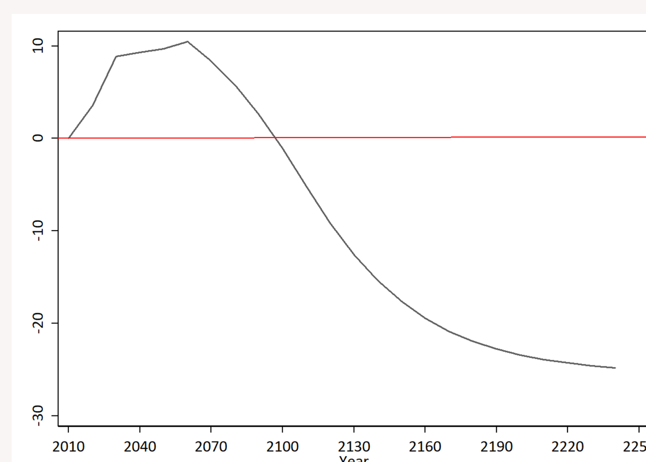
Pension deficit & taxes

pension deficit as % of GDP



Baseline: gradually deficit ↑, effect permanent,
Reform: deficit ↑ transitory, in LR pension is fiscally neutral.

tax rates difference

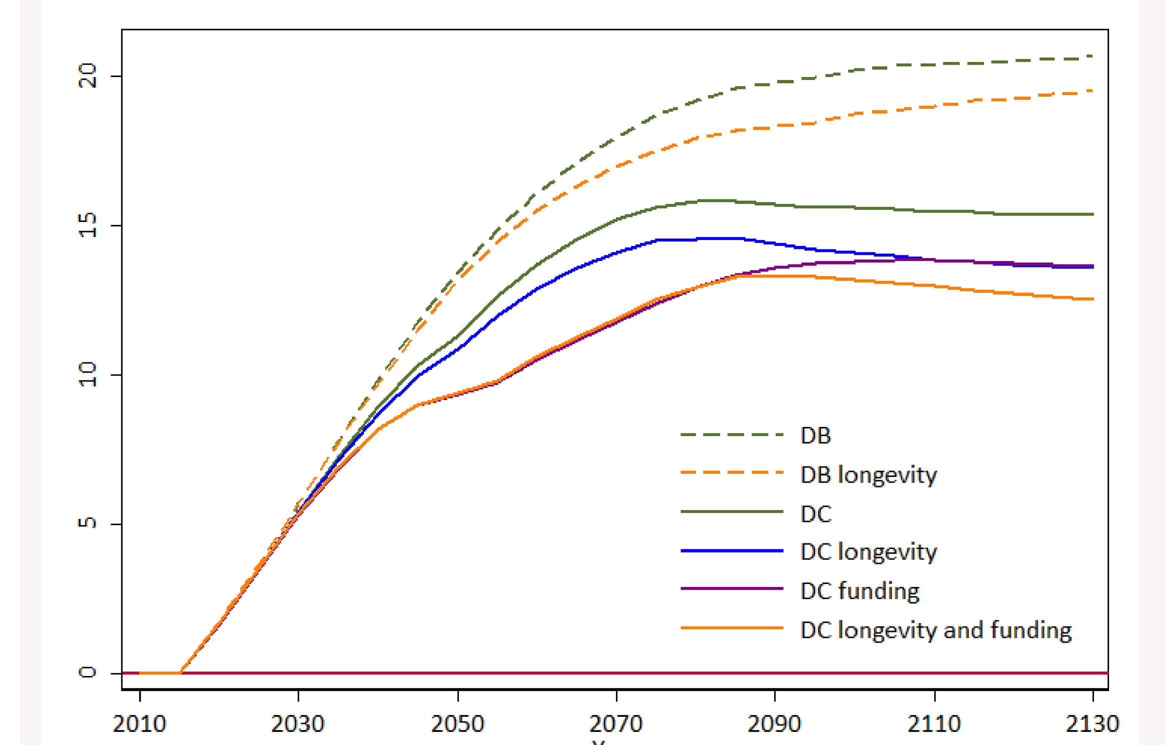


Reform - Baseline
τ_k ↑ in SR when capital less elastic,
τ_k ↓ in LR ⇒ efficiency boost.

Response of k to τ_k decrease

Each element in our puzzle **reduces** τ_k **elasticity** of savings.

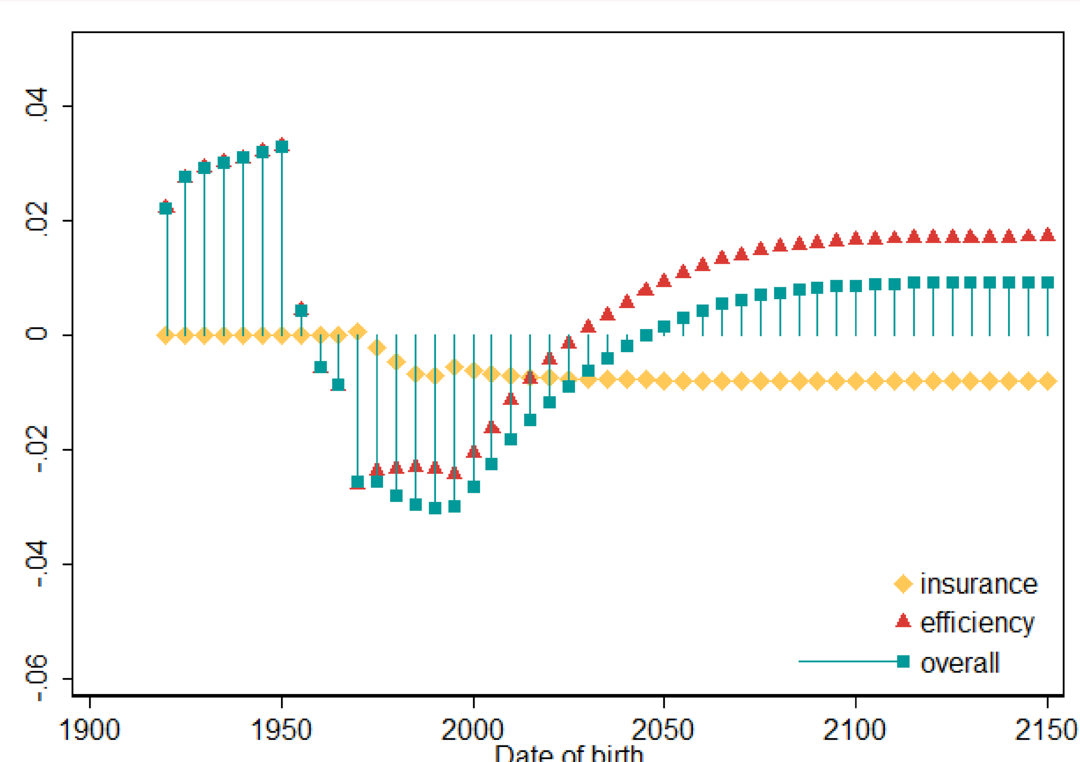
- longevity ↑ ⇒ assets ↑
- pension ↓ ⇒ private assets ↑
- redistribution ↓ ⇒ precautionary savings ↑



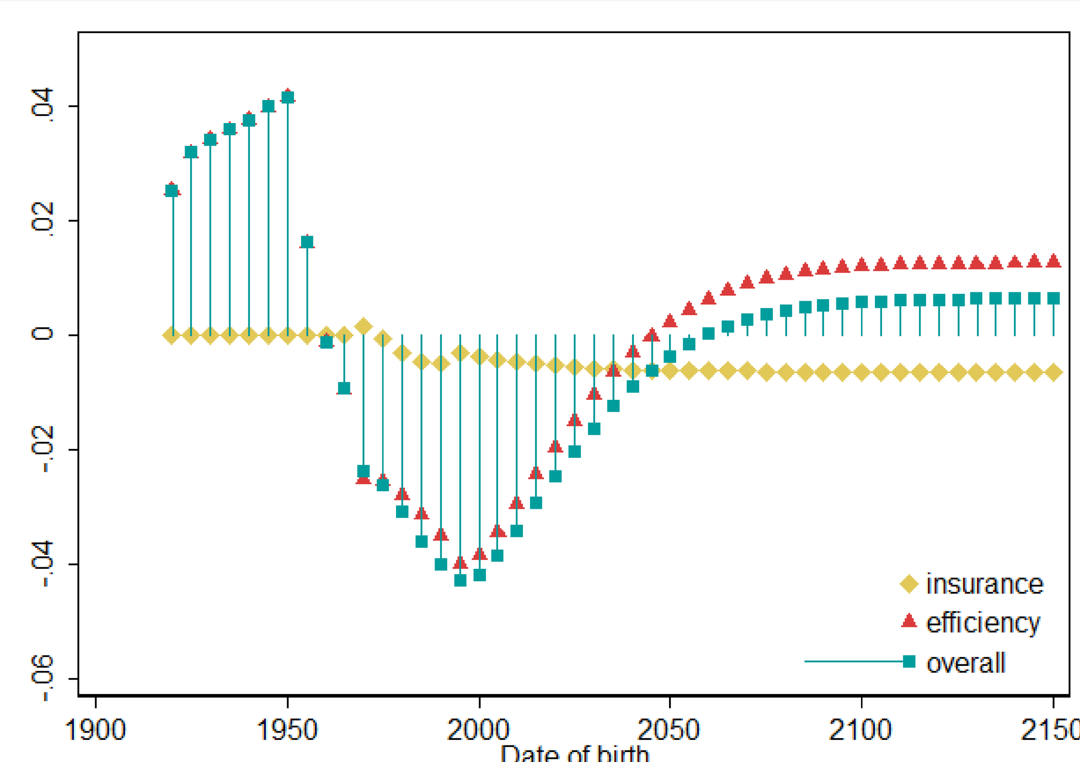
Result 1: welfare increase as efficiency ≫ insurance with τ_k

τ_k: higher efficiency gains than with consumption tax τ_c
insurance loss similar across taxes (also other taxes), and rather small (also with higher risk aversion)

τ_k



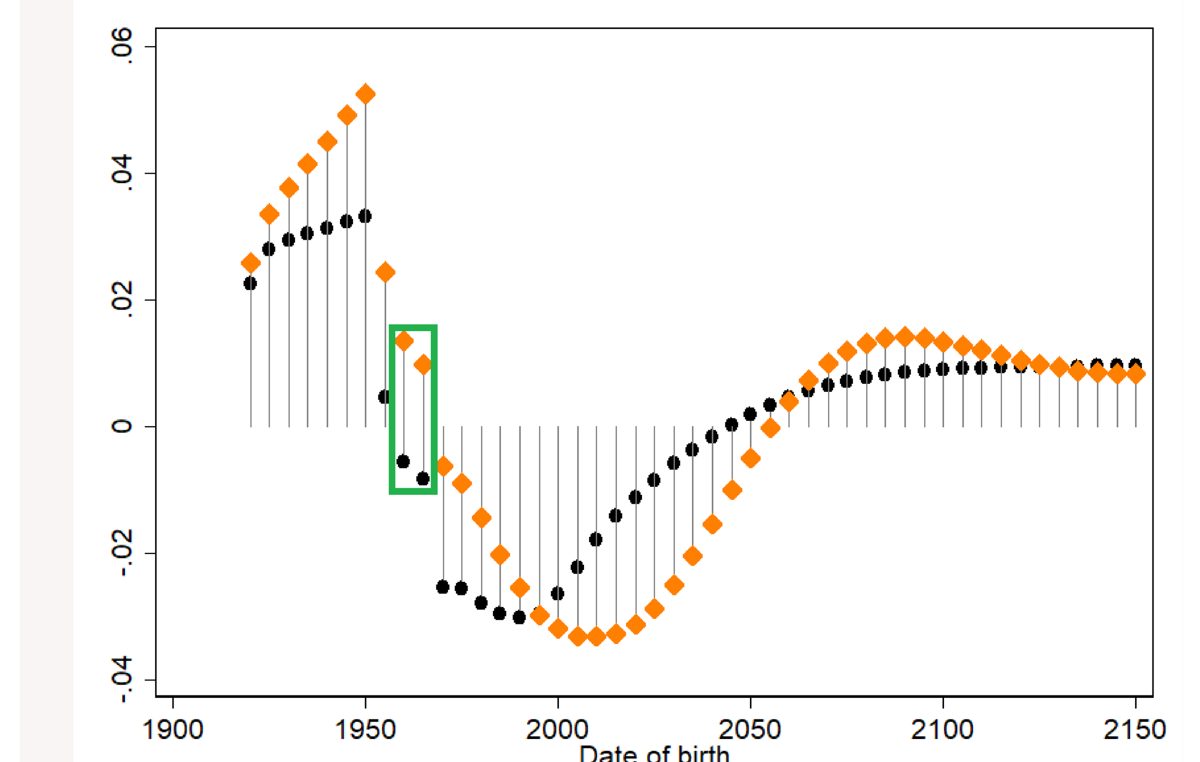
τ_c



Result 2: political support

Capital tax + smoothing with public debt convinces pivotal cohorts to support pension reform.

τ_k & debt + τ_k



Result 3: welfare vs. support

1. **Closures with political support** are not necessarily the ones with the largest long-term welfare gains.
2. High **political support** for closures rendering reforms **detrimental to welfare** (eg. adjustment of replacement rate).

Summary

1. Insurance loss ≪ efficiency boost if reform accompanied by appropriate closure.
2. Distribution of fiscal cost and gains makes capital tax attractive closure.
3. Longevity + pension ↓ + redistribution ↓ ⇒ savings ↑ ⇒ τ_k elasticity of savings ↓.

Caveats of this literature:

1. In baseline pension system contribution treated as tax. In reform treated as implicit savings. Labor has a roughly 10% reaction to reduced distortions.
2. Savings have a roughly 10% reaction to longevity.