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

Krzysztof Makarski  Joanna Tyrowicz  Oliwia Komada

NBPI, FAME, GRAPE Warsaw School of Economics

University of Warsaw

Warsaw School of Economics

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 τk? → transitory
Q2: Is it ok to reduce τk? ← permanent
Q3: Does it matter for reform if we use τk? Yes!

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

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

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

Response of k to τk decrease
Each element in our puzzle reduces τk elasticity of savings.
• longevity ↑ ⇒ assets ↑
• pension ↓ ⇒ private assets ↑
• redistribution ↓ ⇒ precautionary savings ↑

Result 1: welfare increase as efficiency ≫ insurance with τk
τk: higher efficiency gains than with consumption tax τc
Insurance loss similar across taxes (also other taxes), and rather small (also with higher risk aversion)

Result 2: political support
Capital tax + smoothing with public debt convinces pivotal cohorts to support pension reform.
τk & debt + τk

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 renders 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 ↑ ⇒ τk 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.