Discussion of *Optimal Income Redistribution* by Ábrahám, Brendler and Cárceles

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Usual disclaimer applies

The paper

Model with overlapping generations of life-cycle workers

- ex-ante heterogeneity due to education and permanent earning ability (2x2 types)
- ex-post heterogeneity due to highly persistent idiosyncratic productivity shocks

Carefully calibrated US progressive labor income tax and PAYG pension system, reflecting also some important details (earning caps, minimum pensions, etc.)

Human capital accumulation via learning-by-doing, early retirement option, mortality risk differing with ex-ante heterogeneity, intergenerational linkages (bequests)

Key contribution: Considers **joint** reforms of the tax-and-transfer and pension system

Reforms evaluated / optimized with respect to social welfare functions with differing generational weights (current generation vs future generations)

Unconstrained or constrained (no cohort worse off **on average**)

Neatly exposes distributional conflicts both across and within generations

Key results

Unconstrained CG and FG criteria favor switching to a **regressive** pension system while leaving income tax progressivity almost unchanged

Constrained CG and FG criteria favor setting pension system progressivity to around 1 and a reduction of income tax progressivity

Pension system generosity is a tug-of-war across generations:
CG prefer large PAYG pension system, FG prefer small pension system

Optimal policy

	Joint policy			CEV, %	
	$\bar{\lambda}_{SS}$	λ_{SS}	λ_I	Alive	Future
Status Quo	0.413	1.420	0.216	–	–
Objective: Long Run Welfare (**FG**)					
– Unconstrained	0.227	0.488	0.221	-3.519	2.314
– **No cohort is worse off**	0.404	1.084	0.169	0.203	1.111
Objective: Current Generations (**CG**)					
– Unconstrained	0.800	0.40	0.184	7.426	-6.730
– **No cohort is worse off**	0.531	1.303	0.140	2.558	0.106

- There exist reforms of the pension system that make all current and future cohorts, on average, better off (regardless of the SWF)

Pension system: insurance & redistribution

Pension / annuity provides insurance against

1. Longevity risk (outliving private assets)
2. Private asset return sequence risk (unsatisfactory rates of return late in life)

Can also provide redistribution

3. Within generations (progressivity)
4. Across generations (generosity)

PAYG system in the paper addresses 1., 3. and 4. (2. not possible w/o asset return risk)

If the economy is dynamically efficient, PAYG system is welfare deteriorating in the absence of 1. and 3. (rationalizes FG choice of small pension system)

One-off increase in generosity is a transfer to the current generations at the expense of future generations (rationalizes CG choice of large pension system)

Absence of 2. biases preferred generosity downward under all criteria

Pension system: distortions

Assuming identical rates of return between private assets and pension system and ignoring liquidity constraints, a system with progressivity of 1 would be **fully neutral**, provided that the workers internalize the link between contributions and pensions

Deviations from the fully neutral benchmark can be captured as an “implicit tax”, measuring the wedge between what is paid in and out (in expectation), and its impact on incentives to adjust labor supply: Fehr and Habermann (2008)

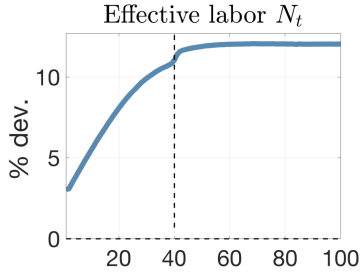
Reducing progressivity alleviates implicit tax distorions (rationalizes constrained choice)

A regressive pension system may turn an implicit tax into **subsidy** for the high-earners

With endogenous labor supply and human capital accumulation, it might be optimal to tilt labor supply toward high-earners (rationalizes unconstrained choice)

Labor supply: intensive and extensive margin

1. Would be nice to see hours worked profiles by age across groups against data
2. How much of the adjustment below is due to
   - intensive margin (increase in hours worked)
   - extensive margin (deferring early retirement)
   - “efficiency” margin (increase in human capital)



Labor supply: intensive and extensive margin

Would we expect the response of increased hours worked by prime-age, full-time employed males, or rather transitions from inactivity / part-time work toward full time work among other population groups?

Figure 2
Lifetime Hours in the Pure Intensive Margin Model

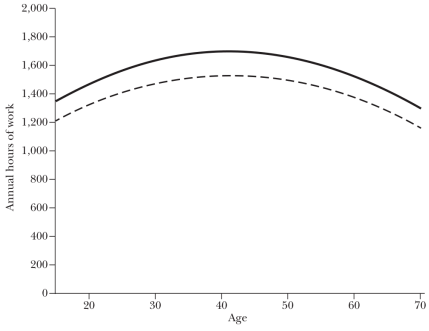
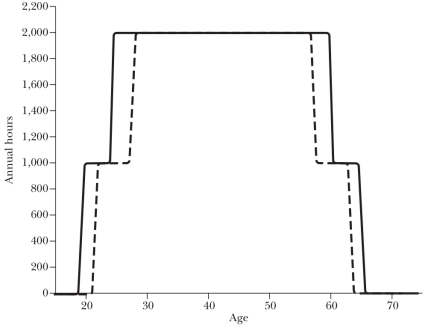
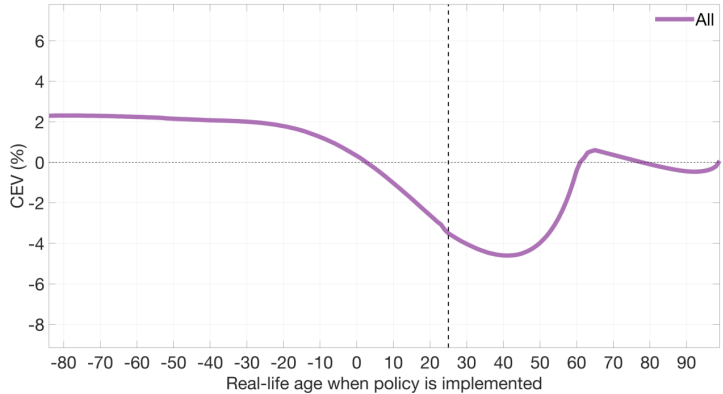


Figure 4
Lifetime Hours in the Hybrid Model



Rogerson (2024)

Welfare effects by cohort (CEV, %)



- Reform benefits future cohorts at the welfare cost of current generations

Policy instruments

The reform is a permanent, unexpected change in three policy parameters:

- income tax-and-transfer progressivity
- pension system generosity (“average” replacement rate)
- pension system progressivity

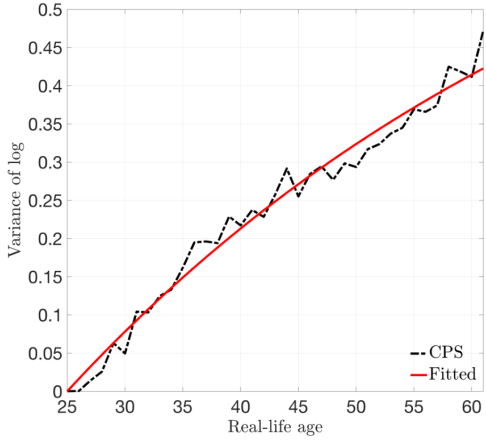
Both the government budget and social security budget are always balanced via:

- “average” income tax
- social security tax

Results in “concentration” of reform burden / gain on current workers

See how much of this effect can be “smoothed out” via public debt

Model fit: Residual variation in earnings

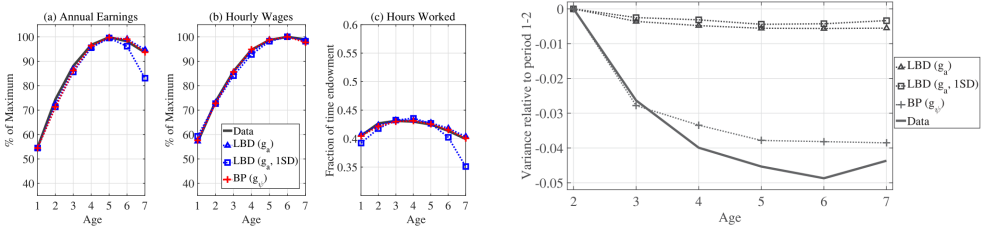


- Idios. shocks match well the increase of earnings heterogeneity over the life-cycle

Role of human capital accumulation

Blandin (2018) contrasts learning-by-doing (LBD) vs Ben-Porath (BP) human capital accumulation schemes with heterogeneity in learning ability

- Both can be calibrated to match the evolution of hourly wages & hours worked
- Both can generate (endogenously) increasing variance of earnings over lifetime
- Only BP can generate higher variance in earnings **growth** for younger workers



Optimal top marginal tax rates are much lower under BP (human capital accumulation requires sacrificing leisure / earnings) vs LBD (learning and earning is simultaneous)

Before joining labor force

Agents appear in the model at age 25 and with exogenous education status

Such reforms impact educational choices

Can model it using the Ben-Porath model with the trade-off
between increased human capital vs deferred entry into labor force

Will matter for both labor supply and capital accumulation incentives

Wealth distribution

De Nardi (2004): Aiyagari model generates wealth Gini $\approx$ income Gini (< 0.4)

- $+$ lifecycle (Huggett): wealth Gini increases to 0.67
- $+$ intentional bequest motive: wealth Gini increases to 0.74
- $+$ productivity inheritance: wealth Gini increases to 0.76
- compare with 1989 SCF: wealth Gini around 0.8

The model should reasonably well approximate actual wealth distribution (excluding very rich): please show it

Would also like to see the distribution of bequests

References

Blandin, A. (2018). Learning by Doing and Ben-Porath: Life-cycle Predictions and Policy Implications. *Journal of Economic Dynamics and Control*, 90(C):220–235.

De Nardi, M. (2004). Wealth Inequality and Intergenerational Links. *The Review of Economic Studies*, 71(3):743–768.

Fehr, H. and Habermann, C. (2008). Risk Sharing and Efficiency Implications of Progressive Pension Arrangements. *Scandinavian Journal of Economics*, 110(2):419–443.

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