

# Social Pensions: a comment



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Closing the coverage Gap:  
The role of Social Pensions

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# **A comment on Reducing the Coverage Gap: Lessons from Analysis and Policy by John Piggott and Bei Lu**

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Two main points:

## **1. Taxation and Means Testing**

- Universal vs Targeted first Pillar
- Potential effects on savings
- Only feasible in developed countries with well defined fiscal systems.

## **1. Dual pension system for rural workers**

1. Coverage: targeted social pensions (less impact than universal social pensions).
2. Eligibility considerations (age?, income?)
3. Not big problem in the LR for a country growing that fast

# Some quick comments

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- Contributory (minimum pension) vs non-contributory social pensions (social benefit or assistance)
  - *[In Spain, social non-contributory pensions represent only 2% of total expenditure on old age pensions.]*
- Objectives of social pensions: efficiency vs equity trade-off (intra or intergenerational)
- Labor Supply incentives of social (minimum) benefits/pensions (see discussion to D. Robalino)
- Non-means tested vs means tested (only totally feasible in developed countries with well defined fiscal systems)
- Generosity of the system (ratio contributions to pensions)
- *Coverage gap* (generation 0 lunches for free): again efficiency vs equity trade-off.

***For medium and developing countries: the problem in the medium to long run seems to be more in the contribution side than in the social pension side even for China***

# A comment on Social Pensions, Savings and Labor Supply by David Rabalino

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- **Strategy:** LC model with employment uncertainty simulated by DP techniques.
  - Obs1: I do not get how you obtain the estimated (calibrated) parameters for the model.
  - By social pensions do you really mean MP?
  
- **Main results/points:**
  - Social (minimum) pensions reduce savings, reduce labor supply and induce retirement:
  - A lot of evidence on this fact across countries, but little formal evaluation + evidence on the welfare consequences.
  - Evaluation of the effect of Social pensions on individual behavior, but no welfare implications!?

*If time allows... I'm going to present evidence about an evaluation of LS and WELFARE implications of MP for the Spanish case (ref: JAE 2007)*

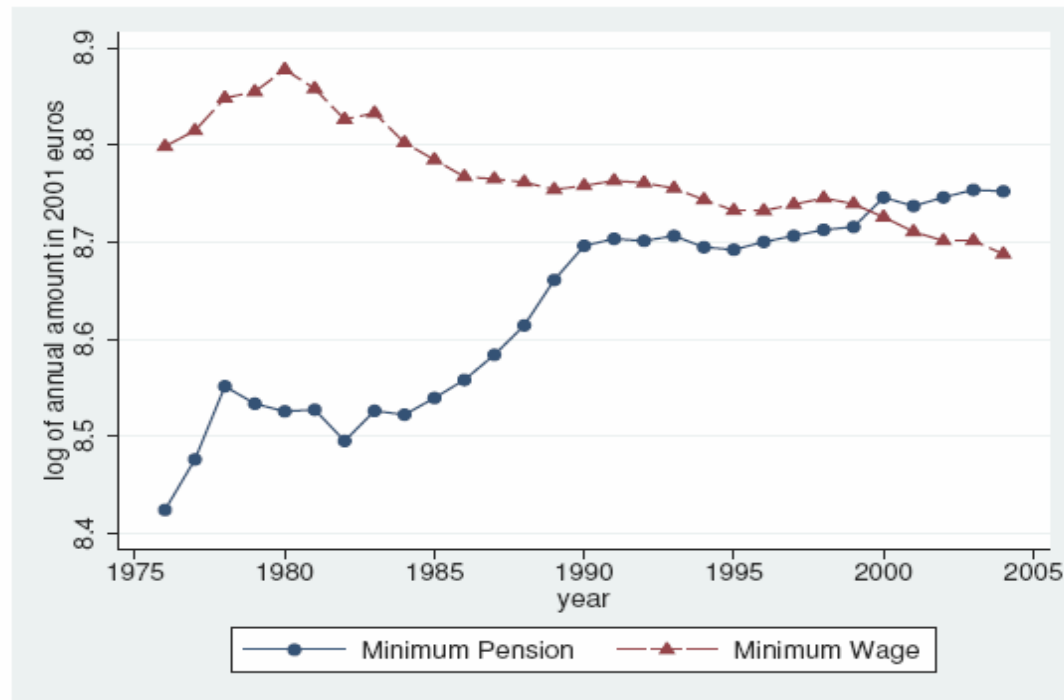
# The case of Spain: MP generosity

In 2007:  $PM_{+65} = 108\%$  of SMI;  $92\%$  of average pension.

Real growth rates:

**1990/2007: 1.1%**

**2004/2007: 3.86%**

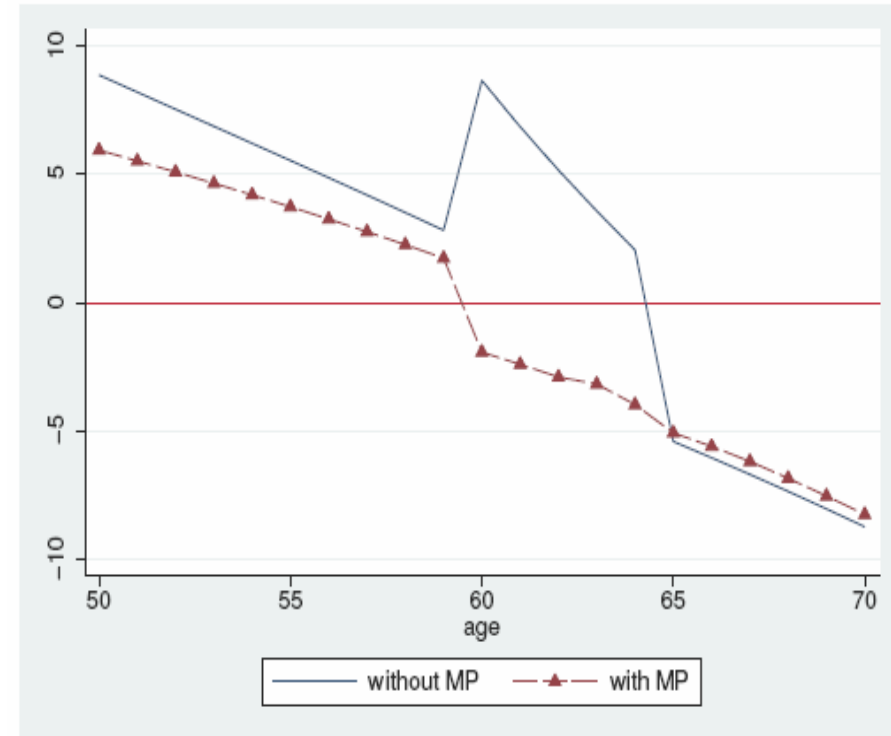
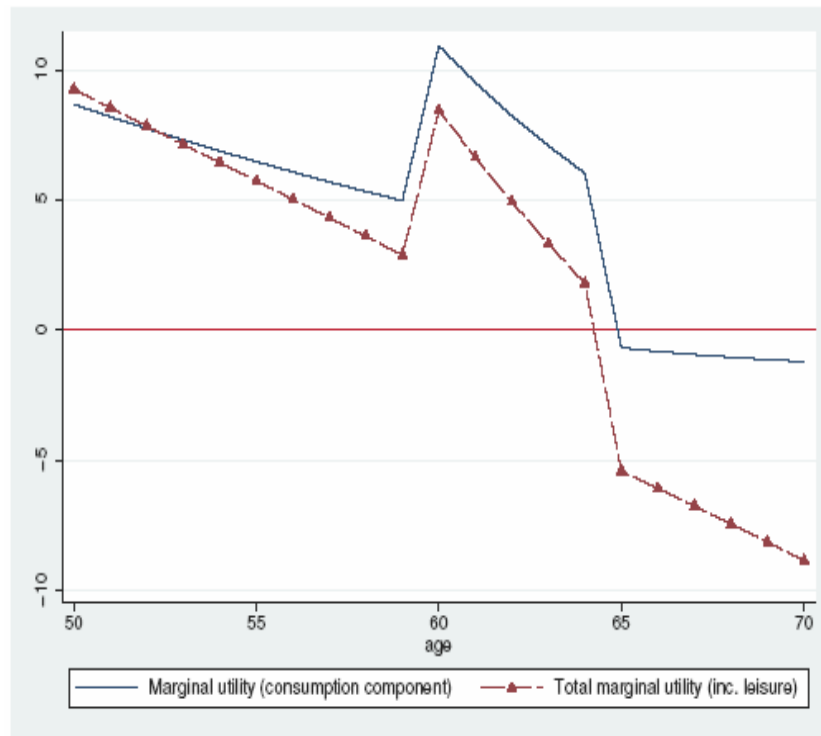


# The effect of MP on retirement and welfare: targets and strategy

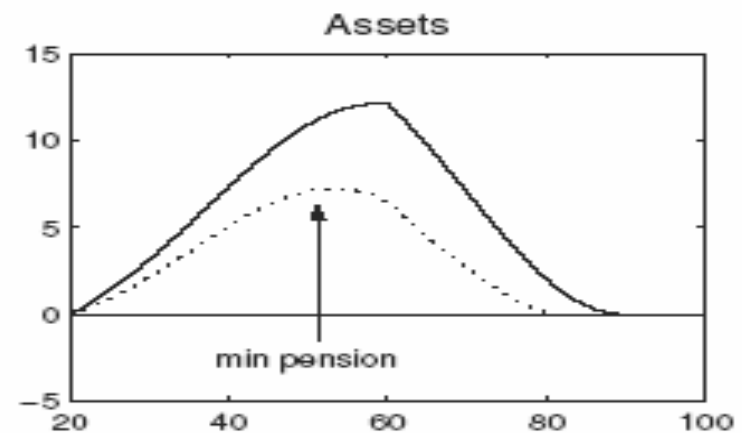
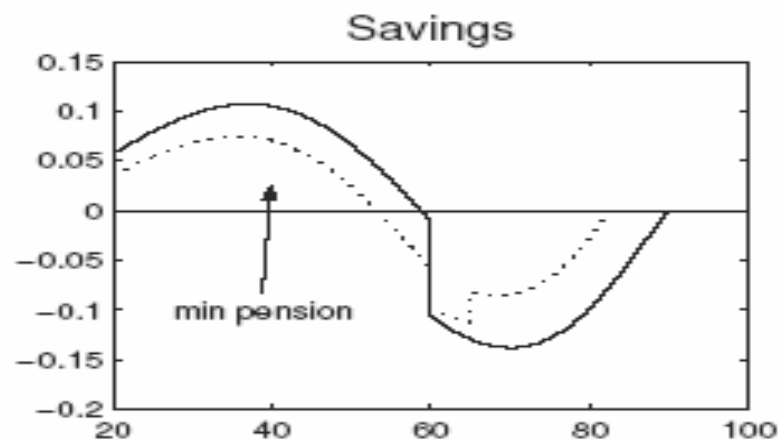
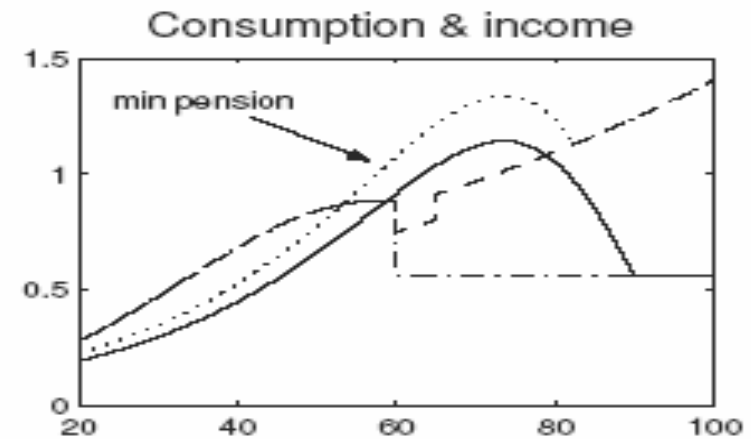
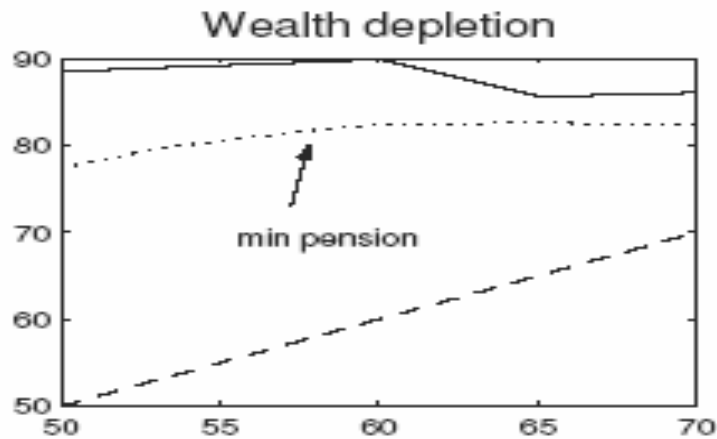
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- To evaluate the impact of *contributive* **Minimum pensions** on the **retirement** behavior of senior workers in Spain.
- To analyze changes in the rules designed to reduce the implicit incentive towards early retirement.
- To analyze the **welfare consequences** of **MP**.
  
- **Strategy:**
  - Build a model of individual behavior (LC).
  - Revealed preference: estimate the unobserved parameters.
  - Provide answers via simulation.

# (MU) Incentives for the medium wage earners (left) and the 10th percentile wage earners (right). With and without MP

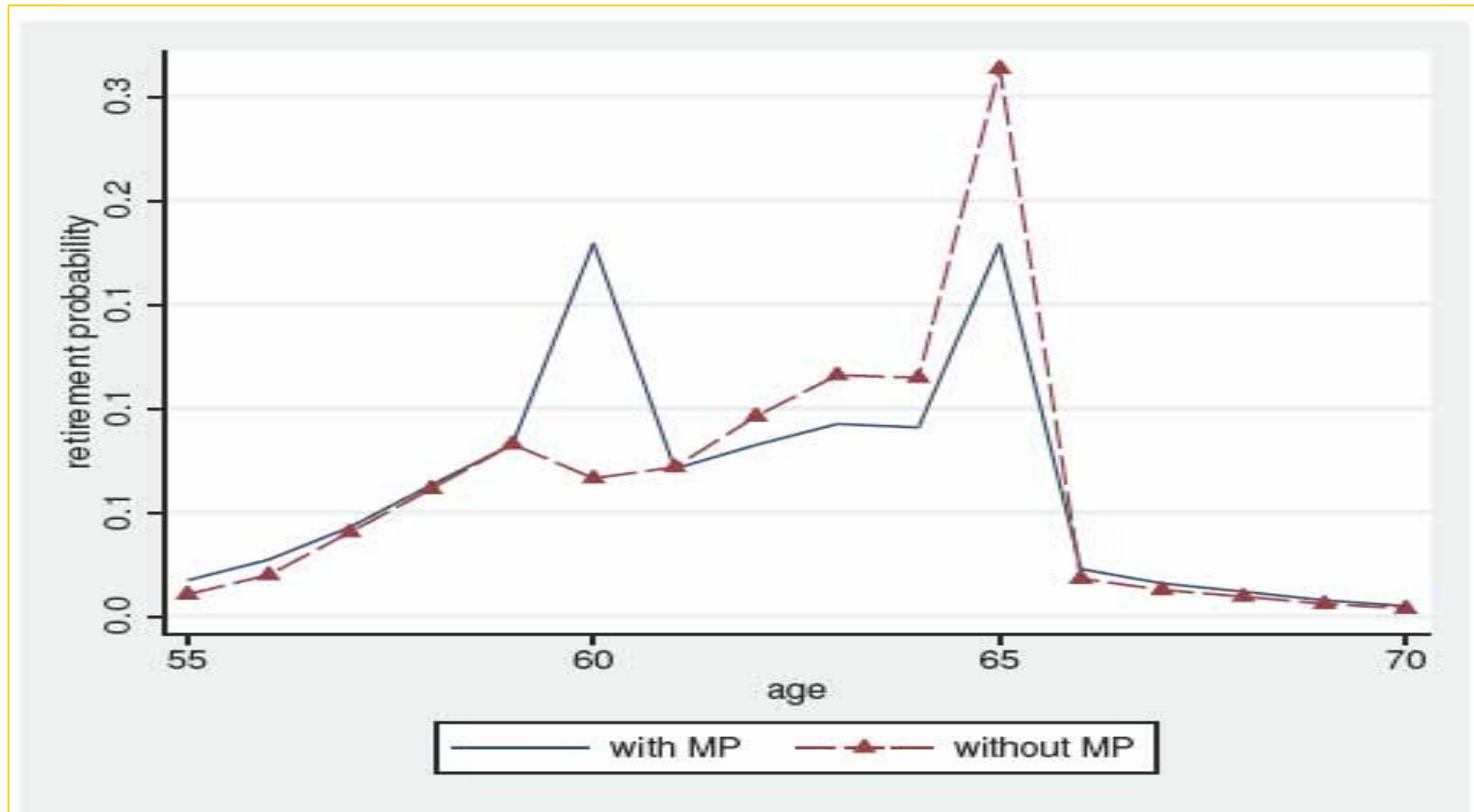


# Life impact of Minimum Pensions (similar to Robalino's)





## The effect of MP on Retirement hazard.



## Welfare impact of MP

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- Evaluate the generosity of the current system by computing its average internal rate of return  $\check{r}$ .
- Compute the contribution rate needed to keep  $\check{r}$  constant in a system without MP (letting individuals adjust their optimal LC behavior to the new environment).
- Compute the equivalent variation associated with the elimination of MP, keeping the average generosity constant.
  - *IE. WE ASK HOW MUCH IS THE INDIVIDUAL WILLING TO PAY TO AVOID THE ELIMINATION OF PMIN.*

## Welfare evaluation (II)

Table 2: EV of eliminating pmin by age of retirement, education and wage level (- signs indicates gains from eliminating pmin)

age	High Education			Average Education		
	Q 1/3	Q 2/3	Q 3/3	Q1/3	Q 2/3	Q 3/3
58	2.5387	-0.1021	-0.1021	3.4280	-0.1024	-0.1024
59	2.4966	-0.1027	-0.1027	3.3692	-0.1030	-0.1030
60	2.4568	-0.1032	-0.1032	3.3133	-0.1035	-0.1035
61	-0.1016	-0.1016	-0.1016	-0.0923	-0.1020	-0.1020
62	-0.1009	-0.1009	-0.1009	-0.1013	-0.1013	-0.1013
63	-0.0999	-0.0999	-0.0999	-0.1003	-0.1003	-0.1003
64	-0.0997	-0.0997	-0.0997	-0.1001	-0.1001	-0.1001
65	-0.0990	-0.0990	-0.0990	-0.0995	-0.0995	-0.0995

$$\text{indiv } i \text{ EV : } V_i^{mp}(c_i^{mp}(1 - \theta_i), \tau_i^{mp} | \varsigma^{mp}) = V_i^*(c_i^*, \tau_i^* | \varsigma^*)$$

On average, minimum pension increase welfare by 0.6% of the lc consumption of the median worker;

## Welfare evaluation (III)

age	High Education			Average Education		
	Q 1/3	Q 2/3	Q 3/3	Q1/3	Q 2/3	Q 3/3
58	13.5220	-0.2308	-0.2308	13.9952	-0.2314	-0.2314
59	13.4186	-0.2321	-0.2321	13.7802	-0.2328	-0.2328
60	13.2362	-0.2334	-0.2334	13.6807	-0.2341	-0.2341
61	7.7155	-0.2298	-0.2298	8.8084	-0.2306	-0.2306
62	3.3081	-0.2281	-0.2281	4.1861	-0.2289	-0.2289
63	0.2378	-0.2258	-0.2258	0.9270	-0.2267	-0.2267
64	-0.2222	-0.2254	-0.2254	-0.2142	-0.2263	-0.2263
65	-0.2239	-0.2239	-0.2239	-0.2249	-0.2249	-0.2249

Table 3: Equivalent variation of pmin elimination, projecting historical growth rates of minimum pensions

# Appendix

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## APPENDIX C: WELFARE IMPACT OF MINIMUM PENSIONS

Individual  $i$ -equivalent variation,  $\theta_i$ , is the size of a parallel shift in his/her optimal consumption profile under the current system,  $c_i^{mp}$ , that makes him/her indifferent to the simultaneous (i) elimination of the minimum pension and (ii) reduction in the contribution rate that keeps the average generosity constant. Formally:

$$V_i^{mp}(c_i^{mp}(1 + \theta_i), \tau_i^{mp} | \zeta^{mp}) = V_i^*(c_i^*, \tau_i^* | \zeta^*)$$

where  $V_i^j$ ,  $c_i^j$ ,  $\tau_i^j$  and  $\zeta^j$  stand for life cycle utility, consumption, optimal retirement and contribution rate under system  $j$ . The current system ( $j = mp$ ) includes real-world contribution rates and minimum pensions. In the alternative system  $j = *$  minimum pensions are absent and contributions are reduced to  $\zeta^*$  (a rate that guarantees the same average generosity in the absence of minimum pensions). We measure the average generosity under system  $j$  by the average internal rate of return:  $\bar{r}^j = \int_i r(i)^j dP(i)$ , with  $P(i)$  denoting agent- $i$  measure. The  $r(i)$  are defined in a standard way (the rates that match the expected discounted value of life cycle pension benefits and contributions).