



RETIREMENT SAVINGS ADEQUACY IN CHILE

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SUPERINTENDENT OF PENSIONS CHILE

OECD-IOPS-NETSPAR RESEARCH SEMINAR

PARIS JUNE 6, 2012



AGENDA

❖ Motivation

❖ Three sources for the analysis of Replacement Rates:

- Effective Replacement Rates for new pensioners (year 2010)
- Pension Projection Model

❖ Future Challenges

- Improve methodology and information given by the Personalized Pension Projection (PPP)
- Pension Simulator
- Promoting voluntary saving



MOTIVATION

- ❖ Interpretation and analysis of RR is not straightforward
- ❖ RR definition depends on the focus of the analysis:
 - Performance of the pension system
 - Consumption smoothing properties in the transition from the accumulation to the des-accumulation phase
- ❖ The shape of income and probability of contributing life-cycle profiles have a significant effect on the RR level
- ❖ From our results, RR measures with respect to the last income received prior to retirement are below 70% for some cases.
- ❖ RR women < RR men
- ❖ RR forecasts < Effective RR 2010



EFFECTIVE RRS FOR NEW PENSIONERS 2010

❖ Data sources:

- Affiliates database(BDA)
- Pensioners Database (SCOMP)
- Representative sample of affiliates 1981-2009 (HPA)

❖ Main assumptions:

1. Monthly Labor income above US\$ 330 (Minimum salary)
2. Retired at legal retirement age: 65 for men and 60 for women
3. Pensioners that retired early not considered
4. Lump sum payments not considered



EFFECTIVE RRS FOR NEW PENSIONERS 2010

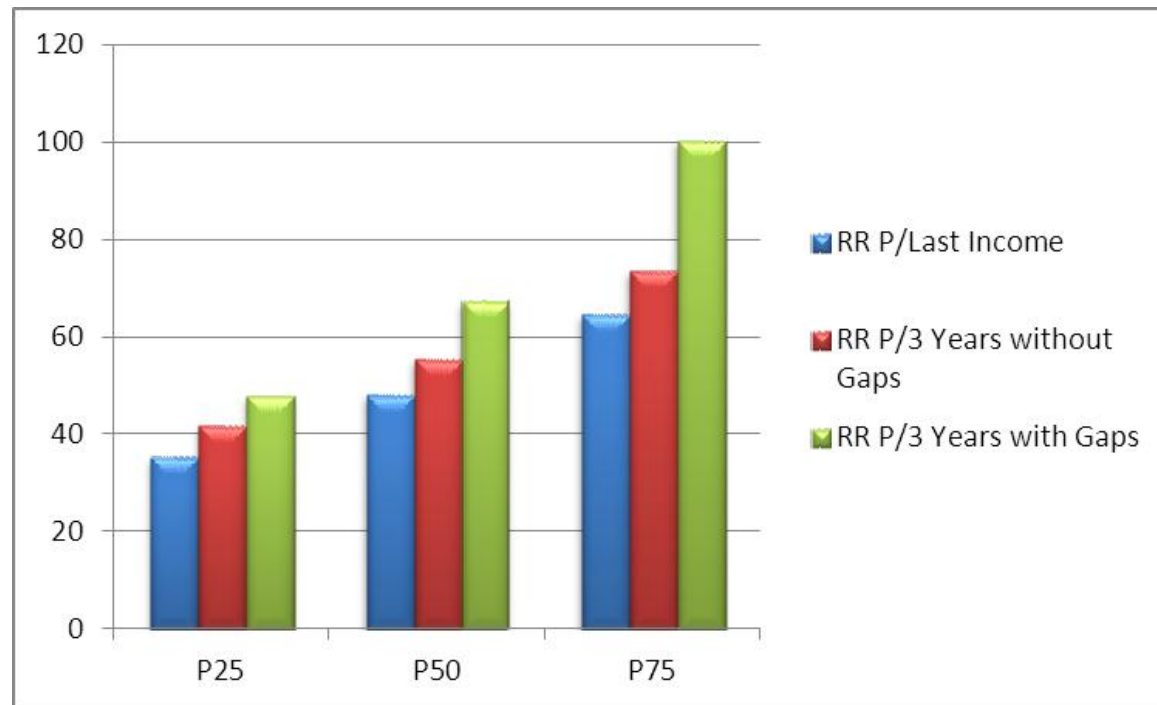
- ❖ Methodology:
 - Capture from the data, pension values and labor income
 - Estimate different RR measures
 - Last income
 - Last 3 years with gaps
 - Last 3 years without gaps

- ❖ High heterogeneity in the results



EFFECTIVE RRs FOR NEW PENSIONERS 2010 - MAIN RESULTS

RR for Self Financed Pension

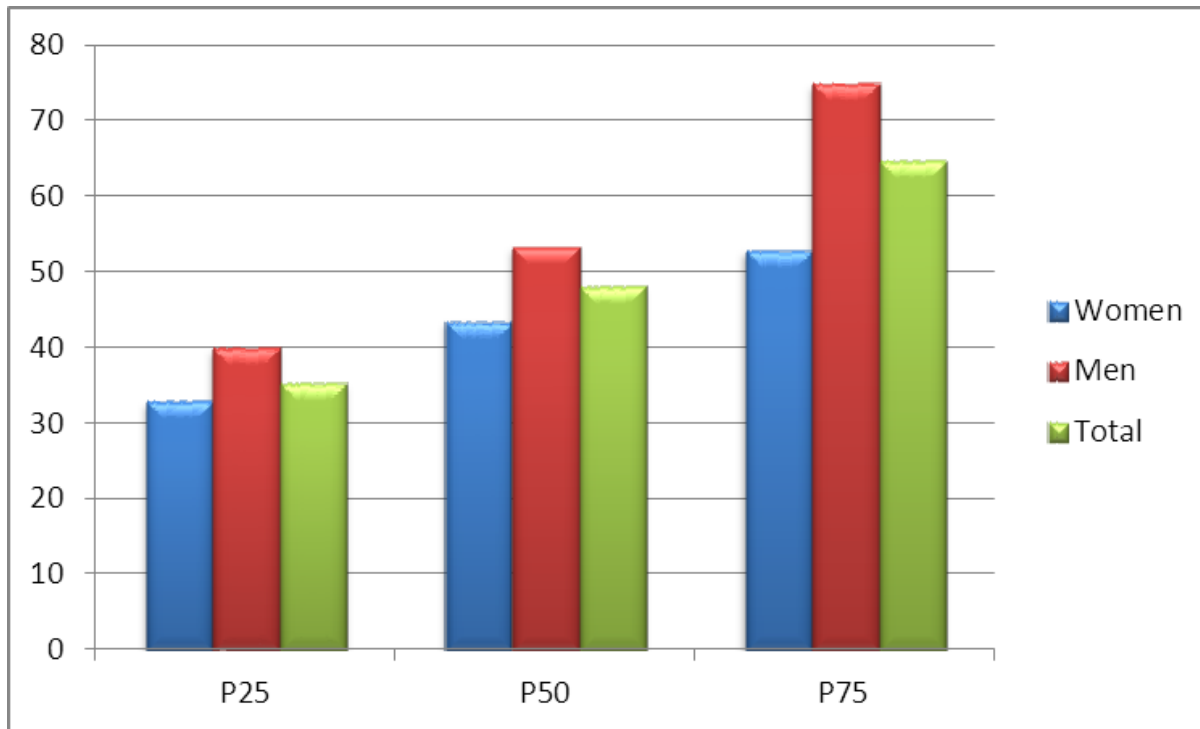


- RR differ significantly depending how it is defined
- If a 3 year period considering the gaps as zero income periods average RR are over 100% for the upper part of the distribution
- If last income is considered RR are significantly lower



EFFECTIVE RRS FOR NEW PENSIONERS 2010 - MAIN RESULTS

Replacement Rates (%) - Last Income (Self-Financed)



- RR are significantly lower for women
- RR with respect to last salary are on average 48% for women and 66% for men



PENSION PROJECTION MODEL: REPLACEMENT RATES FORECASTS

❖ Includes phases 1 and 3 of OECD project

- Phase 1: State, Occupational & Personal pensions as main sources of income to finance retirement
- Phase 3: Computation of Replacement Rates

❖ Sources of Information (data up to 2009)

- Survey data: SPS-panel
 - Administrative data
- } linked at the individual's level

❖ PPM projects from 2009 to 2030



PENSION PROJECTION MODEL: REPLACEMENT RATES FORECASTS

❖ Main assumptions:

- Real rate of return 5%
- Real earnings grow 2%
- Retirement age: Everyone claims at legal retirement age
- Everyone claims an annuity. Annuity rate: 3.5%. Official sex-specific life expectancy tables are used
- Benefits at the Individual's level (not Household level)
- Safety net (Solidarity Pillar): benefits are assigned according to means-testing.
- No behavioral changes



PENSION PROJECTION MODEL: REPLACEMENT RATES FORECASTS

❖ Methodology

- The model uses panel data to estimate 2 life-cycle aspects:
 1. Labor market participation, coverage in the pension system and earnings
 - estimated simultaneously by maximum likelihood with unobserved heterogeneity
 2. Civil status and children (number and year of birth)
 - Civil status: based on observed probabilities by sex, age groups and education-level, assuming a degree 1 Markov chain
 - Children: estimate number of children in each t
- project these variables from 2010 to 2030
- Using these estimations, pensions are estimated
 - i. Self-financed
 - ii. With solidarity pillar (including the Child Subsidy, CS, for women)

❖ Sensitivity Analysis

- Retirement age:
 - Everyone claims at legal retirement age
 - Early retirement: everyone that is eligible. Eligibility is re-evaluated each year



PENSION PROJECTION MODEL: RESULTS

		Legal Retirement Age/No voluntary Savings Average earnings last 3 years, without gaps				% above poverty line self- financed	% above poverty line with first pillar
		RR self- financed	RR first with pillar	RR with first pillar +CS	% RR>=65%		
All		38%	55%	57%	20%	44%	83%
Sex	Men	59%	72%	72%	38%	70%	99%
	Women	26%	45%	48%	9%	29%	74%
Age in 2009	35-54	37%	53%	55%	19%	42%	80%
	55-64	45%	67%	68%	26%	54%	99%
Earnings distribution	20% lowest	16%	45%	49%	5%	10%	68%
	60% mid	42%	58%	59%	23%	46%	85%
	20% highest	52%	57%	58%	29%	81%	95%

- ❖ Projected RR are lower than current RR with the average last 3 years salary
- ❖ Solidarity pillar increases pensions form men and women significantly, more the latter
- ❖ After the solidarity pillar most of the population would be above poverty line..



PENSION PROJECTION MODEL: RESULTS

		Early Retirement Age/No voluntary Savings Average earnings last 3 years, without gaps			
		RR self- financed Legal	RR self- financed Early	% RR>=65% Legal	% RR>=65% Legal
All		38%	36%	20%	15%
Sex	Men	59%	50%	38%	23%
	Women	26%	25%	9%	8%
Age in 2009	35-54	37%	36%	19%	15%
	55-64	45%	38%	26%	16%
Earnings distribution	20% lowest	16%	16%	5%	4%
	60% mid	42%	39%	23%	15%
	20% highest	52%	49%	29%	24%

- ❖ If early retirement is considered as soon as requirements are complied:
 - Projected RR are significantly lower for men and higher income people.
 - Percentage above 65% RR is lower, specially in the case of generations closer to retirement.



PENSION PROJECTION MODEL: RESULTS

❖ Summary of Results

- RR is very sensitive to definition
- Self-financed RR at legal retirement age is 38% and 85% of average earnings without and with gaps, respectively
- Lower for early retirement
- Much higher for men than women, at least double
- Between 15% and 46% of population has $RR \geq 65\%$ (depending of definition of earnings and retirement age)
- Effect of first pillar
 - It increases RR in between 15 and 42 percentage points (depending of definition of earnings)
 - It reduces poverty to a third



FUTURE CHALLENGES

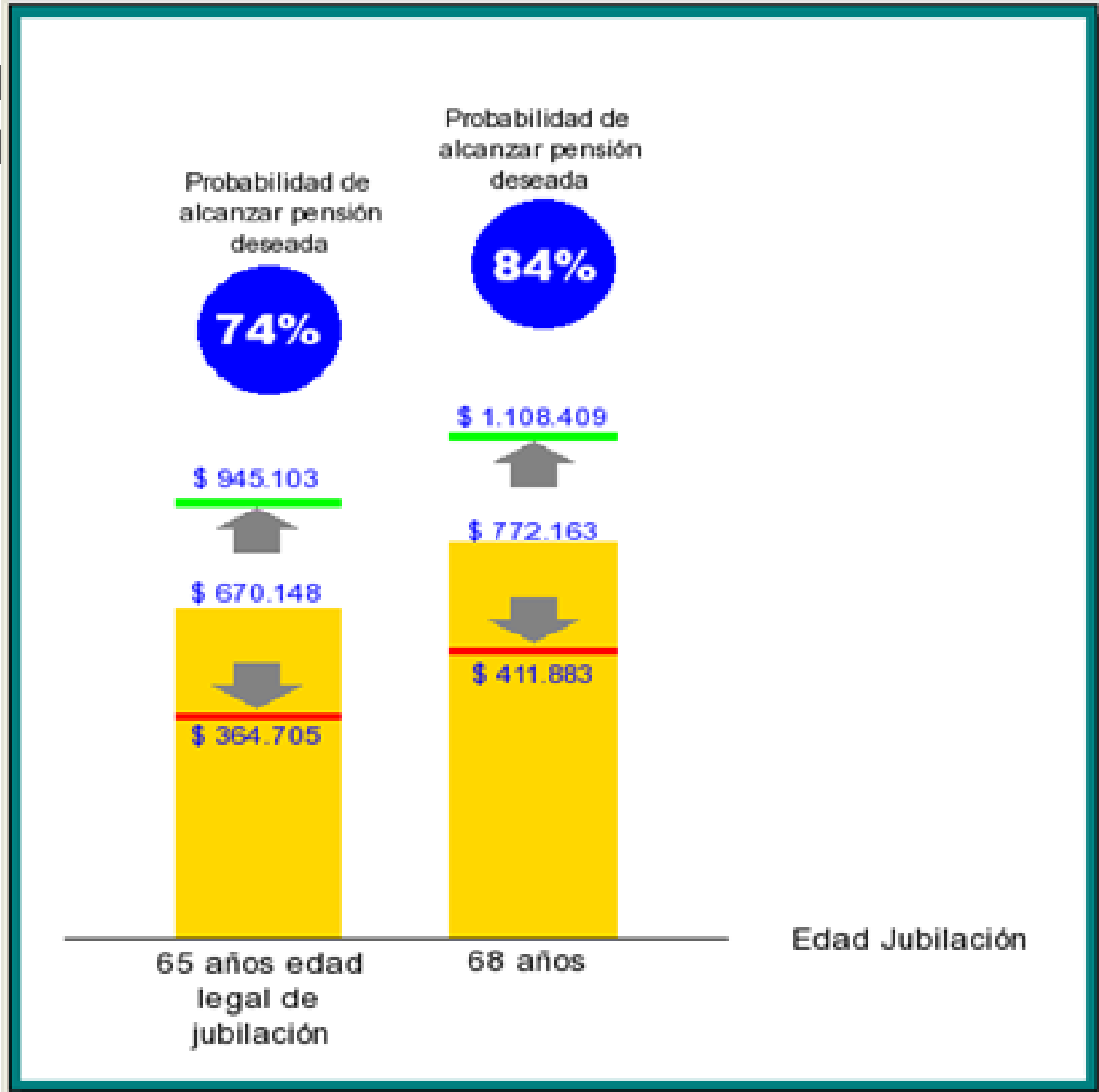
- ❖ Methodology changes and new information available to affiliates
 - Informative campaign: brochures, educational videos, information stands in the Work Direction regional agencies, SP web site update.
 - New Personal Statement June 2012
 - PPP update and improvements (normative change)
 - Public version of the SP Pension Simulator
 - Consistency amongst simulators SP, AFPs and PPP (normative change)

- ❖ How to inform Replacement Rates for the System

- ❖ Study on how to increase Voluntary Savings (occupational)



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