Gobierno de Chile

SP Superintendencia de Pensiones

# Programmed Withdrawals: Characteristics and Recent Changes

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# OUTLINE

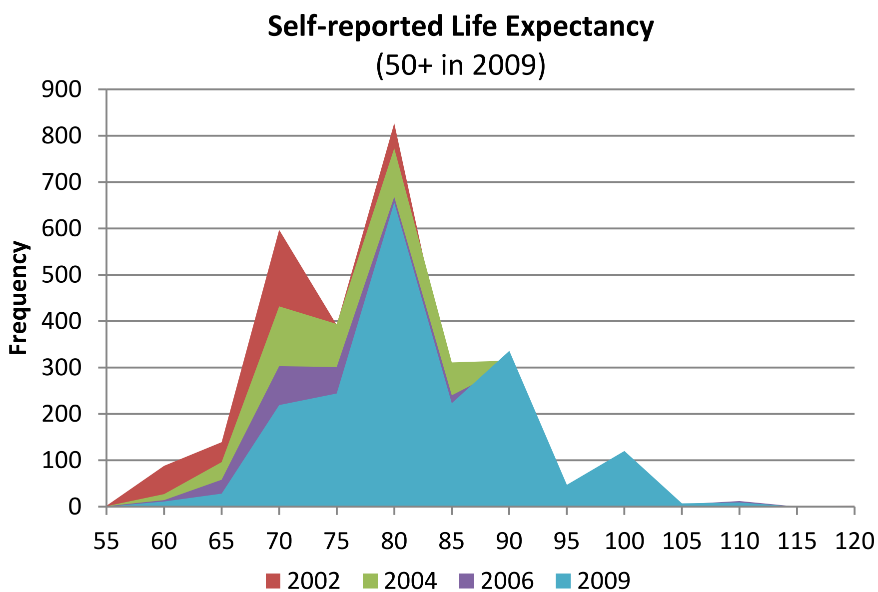
- Income in Retirement
- Retirement Risks
- Programmed Withdrawals
  - Role
  - Formula
  - How it deals with risks
- Other pension products
- Final remarks

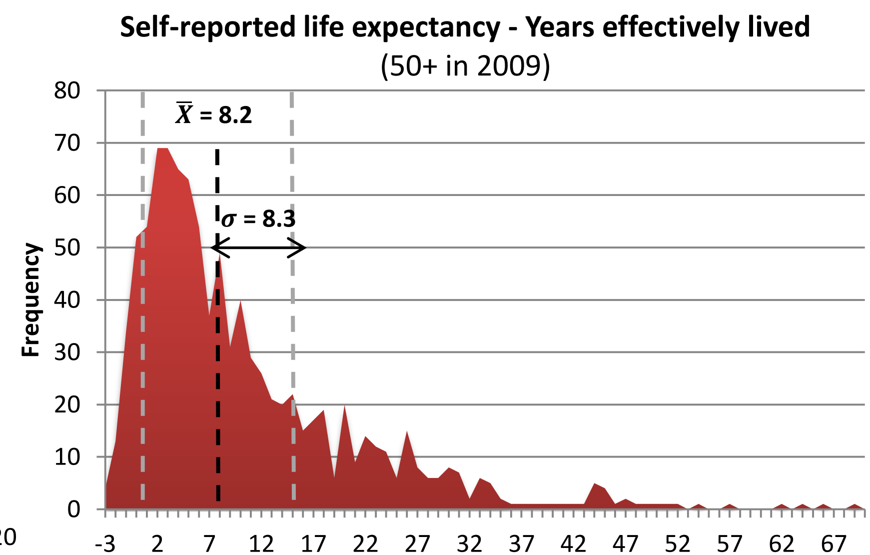
# Income in Retirement

- According to the LCM, individuals should smooth consumption through their lifecycle, even in retirement.
- Further, Milevsky (2011) shows that within the LCM, consumption rate declines with age

# Risks in Retirement

- Longevity risk
  - Individuals should take into account their life expectations and their own longevity risk aversion to choose between pension products
  - But, not everyone can make a proper assessment of LE
    - Life expectations are properly adjusted in time
    - However, 26.8% adjust upwards; 5.2% adjust downwards and 67.9% adjust erratically
    - Further, those who died overestimated their life expectancy in an average of 8.2 years




Source: EPS 2002-2009

# RISKS IN RETIREMENT

- Market risk
  - Individuals should take into account their risk aversion to choose between pension products
  - The design of different pension products should not increase uncertainty beyond market risk
  - It may interact with the longevity risk

# Programmed Withdrawals

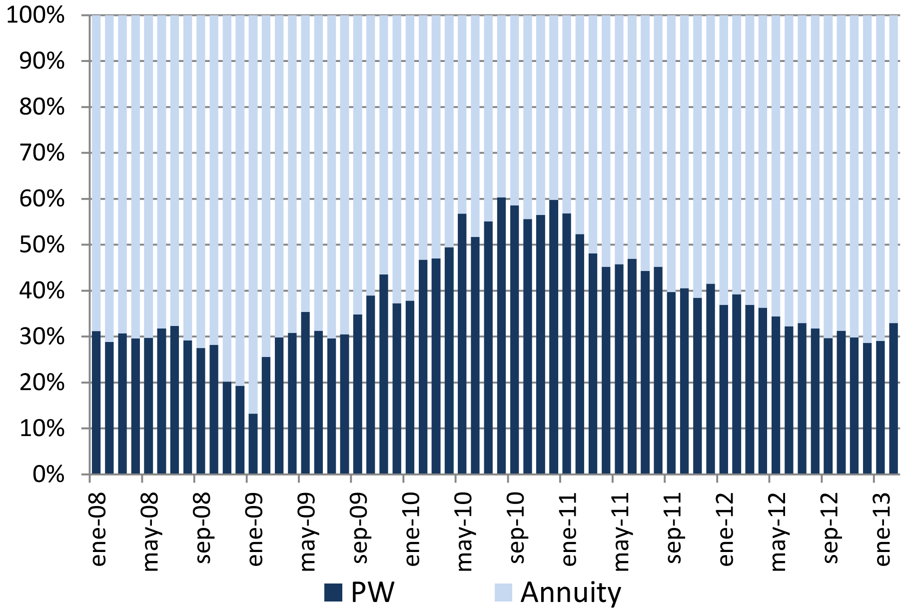
## Role of PW

- Individuals keep property of their savings
- Decision is reversible
- Some individuals have low life expectancy (but does not cover for longevity risk)
- Allows bequest
- Individuals may have other sources of income in retirement, thus no need to cover risks
- Individuals with low degree of risk aversion

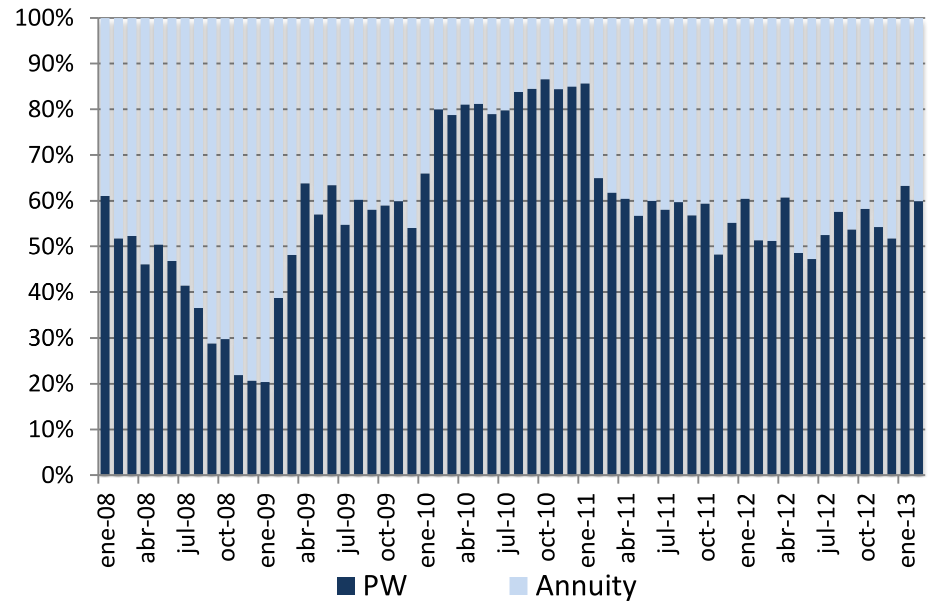
# Programmed Withdrawals

## Role of PW

**New Pensioners , by Pension Product**
Oficial Age




**New Pensioners, by Pension Product**
Early Retirement




- PW chosen by 42% of those who can choose, higher for early retirement
- Choice depends on preferences but also on competitiveness, which is given by the TIRPW. The share choosing PW is not stable, it fluctuates with market conditions which are reflected in the total balance and TIRPW
- Thus, the TIRPW should not to be a source of volatility beyond the markets' volatility

# Programmed Withdrawals

## Formula and Rationale

- For an individual with age *x*, her monthly Programmed Withdrawal (PW) pension for year *t* is given by:

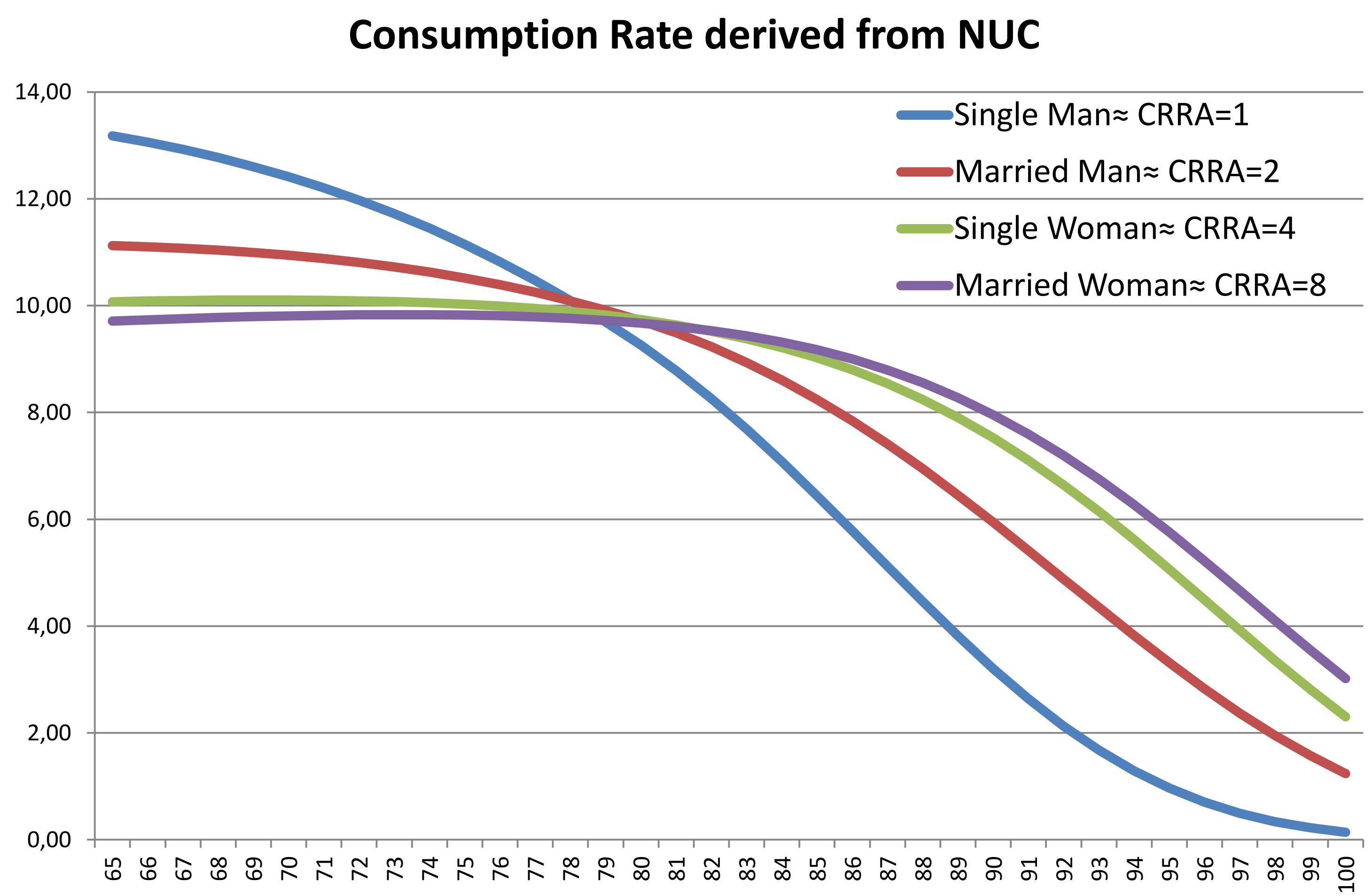
$$PW_{x,t} = \frac{PS_t}{NUC_{x,t} \times 12}$$

*PS*: Individual's pension savings

*NUC:* Necessary Unitary Capital to finance one pension unit

# Programmed Withdrawals

## Spending Rate Behind PW




Assumptions: Observed rate of return for Fund D, TIRPW for 2013, initial pension balance= 2.000 UF, mortality tables from 2009

# Programmed Withdrawals

## Formula and Rationale

- NUC depends on:
  1. Mortality tables (gender and age)
  2. Existence of beneficiaries
  3. Technical Interest Rate of Programmed Withdrawal, TIRPW
     - Forecast for future pension funds' returns
     - TIRPW and NUC are inversely correlated
     - Thus TIRPW and PW are positively correlated

  → longevity and market risk do interact

# Programmed Withdrawal

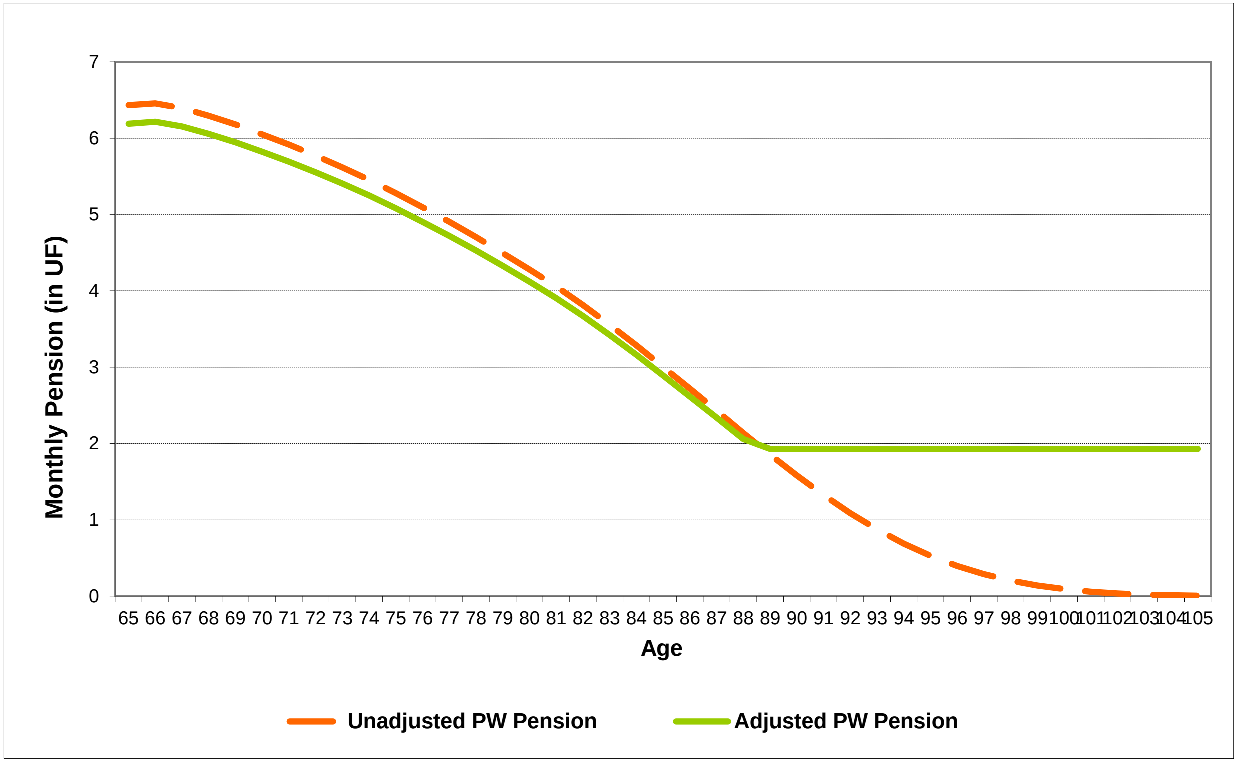
## TIRPW

- It should forecast expected returns of pension funds
- It should not be too generous (over spending) nor too conservative (not competitive with annuities)
- Current Methodology:
  - The TIRPW vector is the result of summing the real term structure plus a risk premium. It includes market expectations.
  - It is calculated once a year and held fixed for that period.
  - It uses data of 1 month for the real term structure and of 11 months for the risk premium.
- Issues :
  - Excessive volatility across years:
    - vector vs. single rate. Plus, easier to understand
    - recalculate more frequently.
    - sample period to estimate: trade-off between depth of the market and markets' best prediction.

# Programmed Withdrawals

## ADJUSTMENT FACTOR TO REDUCE LONGEVITY RISK

- Reduction in the PW pension to guarantee a floor for pension payments (30% of first payment) until age of 105.
- This adjustment factor is applied to all retirees who do not qualify for the the solidarity pillar.



# How to Mitigate Risks Going from the Accumulation to the Payout Phase

- Pension products available
  - We do offer different 4 pension products:
    1. PW
    2. Annuities (simple and with special coverage conditions)
    3. Temporary Income with Deferred annuity
    4. PW along with Annuity
  - But individuals take mainly 1 and 2
    - Lack of knowledge? Among pensioners, no more than 20% of pensioners declares to know PW or Annuities. Only around 6% knows TIDA and 4% knows PW with Annuity. Among those who know their pension product,11% declares to have chosen it because didn't know about other products.
    - Inertia?
    - Pension advisors do not offer them? Some evidence that product 4 is the hardest to trade.

# FINAL REMARKS

## MORE AND BETTER INFORMATION TO MEMBERS:

- Pensions simulator: it allows the individual to project her pension considering her own participation in the labour market, voluntary savings, retirement age and investment strategies
  - → It provides a range for the pension amount, thus a sense of the investment risk
  - →It recorded 10.000 monthly visits

- Pension advisors: Incentives are set for them to advise pensioners according to their characteristics and preferences
  - A higher proportion of pensioners advised by them choose the highest pension as compared with those advised by IC salesmen

- Working on improvements to the pension quotation system's certificate

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