



# DIFFERENCES IN PENSION OUTCOMES ACROSS SOCIOECONOMIC GROUPS

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# Introduction

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- Decumulation strategy
  - The 'best' strategy is difficult to define
- Post-retirement factors influencing pension outcomes
  - Life expectancy
  - Withdrawal rules
  - Anti-selection in annuity markets
  - Public pensions
  - Tax rules
- How can pension policy promote equitable outcomes for pensioners given differences in life expectancy in particular?



# Approach

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- Develop indicators to capture the value of time, savings, wealth and income
- Assess six jurisdictions given the specific pension rules in place
  - Canada, Chile, Great Britain, Korea, Mexico, United States
- Assess low, average and high income
  - 50%, 100% and 150% average income to indicate low, average and high socioeconomic groups



# Retirement ratios

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- Value of time
  - The number of years spent contributing to pensions divided by the life expectancy at the age of retirement
- Life expectancy at age 65
  - Largest differences observed for Korea (males, 4.4 years) and Mexico (females, 3.4 years)
- If all groups work from 20 to 65, low income groups work up to 0.7 years more than high income groups per year spent in retirement
  - If entry age varies, this increases to 1 additional year
- Difference in retirement age of up to six years to equalise ratios
  - Retirement age necessarily higher for women, even if differences across groups are smaller



# Asset payout ratios

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- Value of savings
  - the present value of pension income over the expected time spent in retirement divided by the assets accumulated at retirement
- Higher for high socioeconomic groups because they take their pension longer
- Annuities can result in the highest ratio even for low income groups
- But the largest differences for options involving annuities (either alone or in combination with programmed withdrawals)
  - This can be reduced by allowing for enhanced annuities
- Programmed withdrawals tend to benefit females given the rules in place
  - Unisex limits, earlier retirement, mortality assumptions



# Pension wealth ratios

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- Value of expected total pension received relative to salary
  - Private pension, total pension, net pension
- Higher for higher socioeconomic groups where relative contributions are equal
  - This is reversed in Mexico where low income groups have higher contributions
- Public pensions reverse this relationship for all jurisdictions assessed
  - Progressivity is effective in reducing relative inequalities
- Progressive taxation also reduces the relative disadvantage of low income groups
  - Lower impact than public pensions



# Total net income ratios

Jurisdiction	Low Earner	High Earner
Canada	0.63	1.23
Chile	0.65	1.37
Great Britain	0.78	1.20
Korea	0.60	1.32
Mexico	0.95	1.27
United States	0.60	1.30

- Change in relative income inequality in retirement
  - Average pension income in real terms over the expected time spent in retirement for each group relative to the average pension income for the average individual
- Pre-retirement gross income ratios
  - Low earners 50% of average, high earners 150%
- Post-retirement net income ratios
  - Low earners > 60% of average
  - Progressivity in public pensions and tax reduces relative income inequalities



# Policy implications

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- Allowing for enhanced annuities would reduce the implicit tax paid by low income groups
  - Reducing differences in financial outcomes across groups
- Flexibility in payout can be valuable, as a given option is not always the best in all cases
  - Programmed withdrawal for low income groups/women
- Progressive public pensions and tax can address relative financial inequalities in pension outcomes
  - Are such policies sufficient to address these differences?
- Flexibility in retirement age will be needed to address non-financial inequalities
  - Time in retirement
  - Healthy life expectancy





# Looking forward: technology and enhanced annuities

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- Why are enhanced annuities not common?
  - Uncertainty around assumptions
  - Unpopularity of annuities
- Big data could address both of these...
  - More data and new variables on which to base mortality assumptions
  - Targeted products/advertising to those who would benefit most
- ...but not without risks
  - Loss of risk pooling and social solidarity
  - Inadvertent discrimination and learned bias
- Upcoming policy discussions will ask how far is too far to take segmentation in pricing insurance and annuities



THANK YOU!

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