Impacts from increasing the liquidity of private pensions

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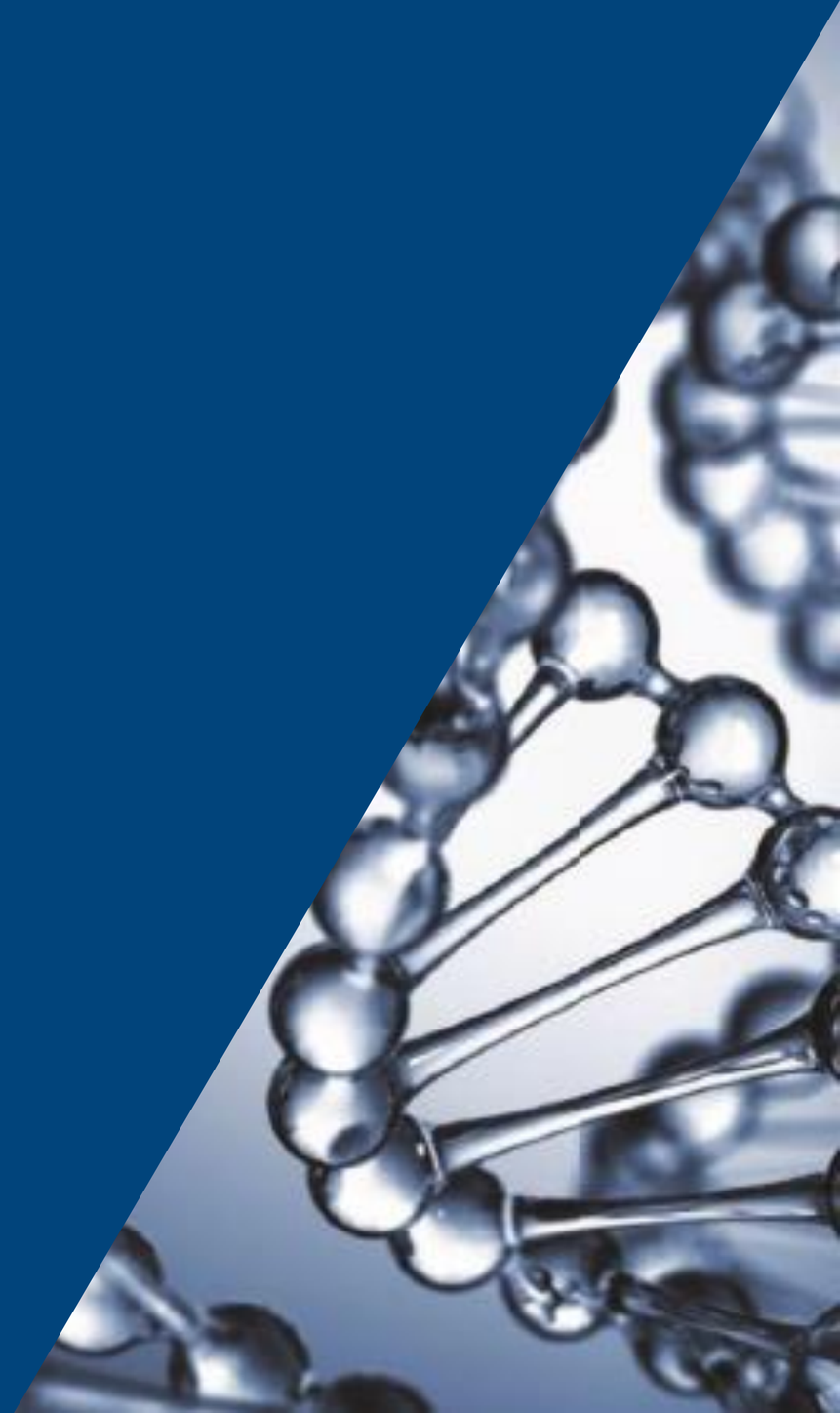

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Introduction

- A feature of private pension design is that they are generally illiquid up until minimum age of access
- Commonly, the access age is before normal retirement age, which can encourage early retirement and potentially higher contributions
    - For example, Australia, Chile, Denmark, Ireland, Israel, Netherlands, New Zealand, Poland, United Kingdom, United States and Turkey all have early access provisions
- However, increased longevity and concerns of savings adequacy are prompting governments to raise the access age to ‘close the gap’ between pension access and normal retirement age.
    - For example, UK recently announced increases in private pension access age from 55-57 (from 2028) to “encourage individuals to remain in work and help ensure pension savings provide for later life” (John Glen, Economic Secretary, HM Treasury, 3 Sept. 2020).

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- Impacts of reduced liquidity on retirement savings depend on individual responses:
  - **Contributions**
    - ↓ Life-cycle model hypothesis that people choose an optimal consumption path and increased illiquidity will disincentivize contributions to private pensions
    - – There are no liquidity constraints: borrow against their pension wealth or liquidate assets
    - ↑ Contributions can be a form of commitment devise against excessive savings. Beshears et al. (2020) laboratory experiment found increasing contributions to illiquid accounts over liquid accounts when early access penalties for the former increased
    - ↑ Mechanically, employer-based contributions will increase with any extension in labour force participation
  - **Labour force participation**
    - ↑ Liquidity constraints
    - – There are no liquidity constraints
    - ↑ Increase in the minimum socially acceptable time to retire
  - **Consumption in retirement (draw-down)**
    - ↓ Fewer years to consume retirement savings
    - – Higher rates of consumption to compensate for forced savings due to increased participation/delays to pension

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- In this study, we estimate the impacts of increases in preservation age (access age) of Australian Superannuation from 55-57 via incremental increases between July 2016 and 2018 using ALife data
- As best as we are aware, this is the first study to examine responses to increases in age of access for private pensions internationally
  - Previous studies such as Agarwal et al. (2020) and Bateman et al. (2021) have examined who takes advantage of early access provisions and their potential motivations
- Australian context is important
  - Large affected group: superannuation has almost universal coverage and there are provisions for access without retiring
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Australia's superannuation scheme

- Mandatory employer scheme with minimum employer contribution of 9.5% of regular earnings taxed at a concessional 15% flat rate upon deposit and on returns up to 60
- Voluntary personal contributions are possible, either after tax (bank account) or concessional (salary sacrifice/rebate for self-employed)
- Draw-down upon reaching preservation age can be through lump-sum or through annuity, but there are tax implications prior to 60 (from 60 draw-downs are tax-free)
    - **Lump-sum and retire:** several lump-sum payments possible, tax-free up to $195K then m.t.r. *less* 15%, must declare an intention to retire, can still make contributions
    - **Annuity & retire**: minimum 2% of balance paid each year, taxed at m.t.r. *less* 15%, can no longer make contributions
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Preservation age reform

- Decision to increase the access age from 55 to 60 announced in the 1997 budget
- The implementation of the changes was stepwise
- The stated aim: “… will reduce the gap between the preservation and Age Pension ages, and thus reduce opportunities for ‘double dipping’… will also allow for the accumulation of a larger retirement benefit, and will therefore improve people’s retirement incomes and reduce their dependency on the Age Pension.”

Date of birth	Preservation age	Date cohort first reaches preservation age
Before 1 July 1960	55	Before 1 July 2015
1 July 1960 – 30 June 1961	56	1 July 2016
1 July 1961 – 30 June 1962	57	1 July 2018
1 July 1962 – 30 June 1963	58	1 July 2020
1 July 1963 – 30 June 1964	59	1 July 2022
1 July 1964 or later	60	1 July 2024

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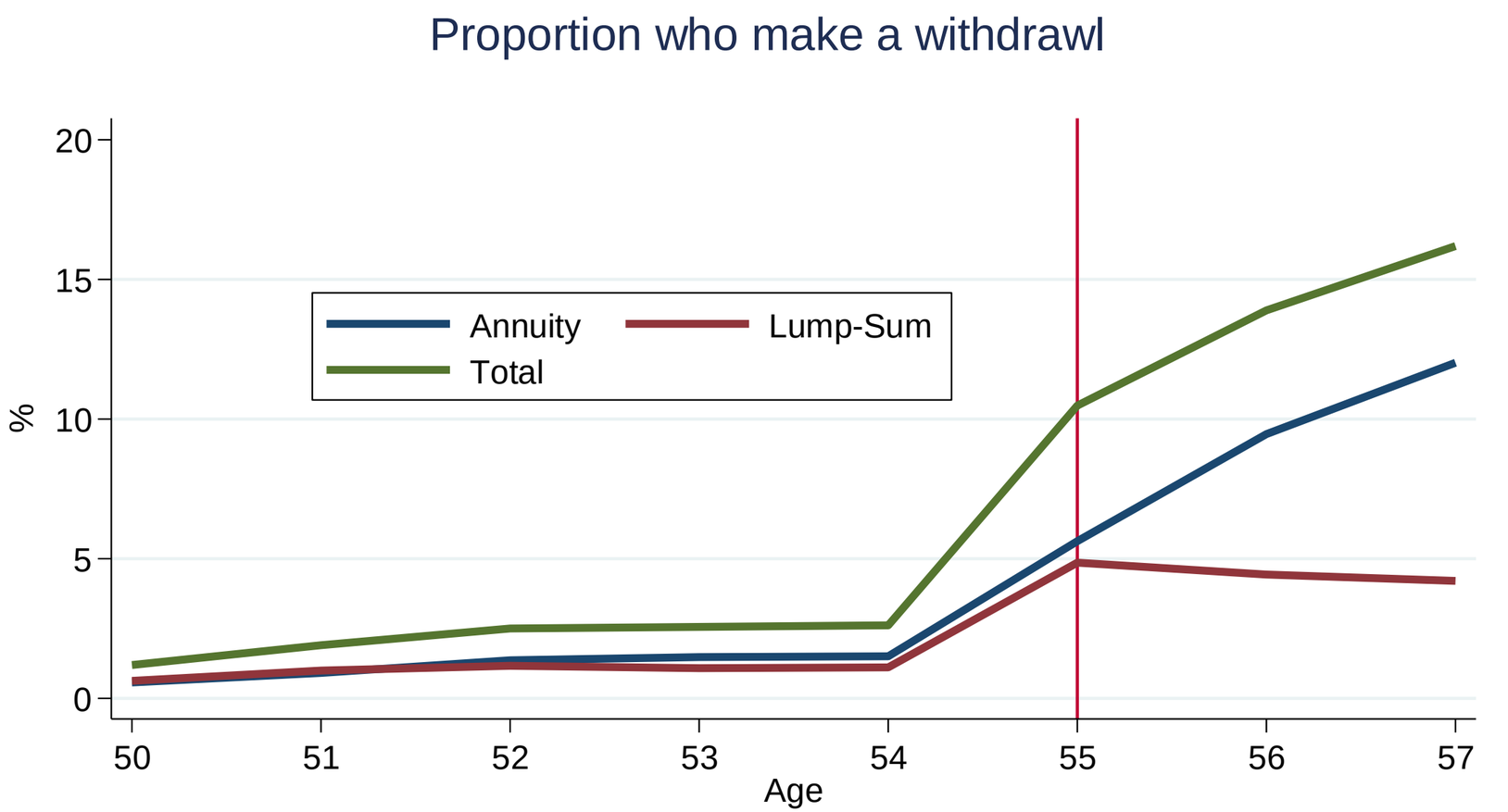
Data

Data source is ‘ALife’, a 10% random sample of the population produced by the ATO, with linked longitudinal unit records of income tax returns (from 1990-91) and superannuation records (from 1996-97). The 2021 release runs up until 2017-18.

Main outcome variables	
Outcome	**Description**
Total superannuation contributions	Mandatory employer contributions + voluntary contributions
Total concessional contributions	Mandatory employer contributions + voluntary concessional contributions (salary sacrifice and deductible personal contribution)
Voluntary after-tax contributions	After-tax contributions
Voluntary concessional contributions	Salary sacrifice and deductible personal contributions
Lumpsum and annuity draw-down	Drawdown information in income tax records prior to age 60
Employment	Indicator of employment income derived using tax records

Descriptive statistics

For those who face a preservation age of 55



Empirical strategy

- We use stepwise jumps in preservation age around birth-date cut-offs, which creates exogenous variation in access age
- We use regression and regression discontinuity approaches, but only presenting regression estimates here
- Regression: use all cohorts observed at ages 50-59 in the data (‘global’ results) and effectively compare people at the same age who face different preservation ages, controlling for cohort and year effects
- RD: exploits discrete changes in the policy environment, by comparing the behaviours of people who were born just before or after the cut-off birth date (‘local’ results).

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Sources of variation in the analysis sample

(1 if age < preservation age, 0 if age ≥ preservation age)

Birth cohort	*Preservation age*	*Age*									
		50	51	52	53	54	55	56	57	58	59
1 July 1949 – 30 June 1950	55	1	1	1	1	1	0	0	0	0	0
1 July 1950 – 30 June 1951	55	1	1	1	1	1	0	0	0	0	0
⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮	⋮
1 July 1958 – 30 June 1959	55	1	1	1	1	1	0	0	0	0	0
1 July 1959 – 30 June 1960	55	1	1	1	1	1	0	0	0	0	0
1 July 1960 – 30 June 1961	55	1	1	1	1	1	0	0	0	0	0
1 July 1961 – 30 June 1962	56	1	1	1	1	1	1	0	0	0	0
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1 July 1963 – 30 June 1964	58	1	1	1	1	1	1	1	1	0	0
1 July 1964 – 30 June 1965	59	1	1	1	1	1	1	1	1	1	0
1 July 1965 – 30 June 1966	60	1	1	1	1	1	1	1	1	1	1
1 July 1966 – 30 June 1967	60	1	1	1	1	1	1	1	1	1	1
1 July 1967 – 30 June 1968	60	1	1	1	1	1	1	1	1	1	1

No data (yet) for dark-shaded cells. Light-shaded cells reflect the ‘affected ages’ for which estimation is possible

Regression model

$$y_{jt} = \theta C_j^2 + \delta_t + \alpha_a + \gamma_k \sum_{k=-1}^{1} I\left(age_{jt} < Pres_j + k\right)$$

y_{jt}= outcome of interest (such as total superannuation contributions) for financial-year birth cohort j in financial year t

C_j= birth cohort: 1(1/7/1949 – 30/6/1950), …, 19(1/7/1967 – 30/6/1968)

$\delta_t =$ year fixed effect $(t = 2008/09, \ldots, 2017/18)$

$\alpha_a =$ age fixed effect $(a = 50, \ldots, 59)$

age_{jt} = age of birth cohort j in year t

$Pres_j =$ preservation age of cohort j

$k =$ lags and leads that allow estimation of responses before and after affected ages;

Sample: Birth cohorts: 1/7/1949 to 30/6/1968; Ages: 50-59; Years: 2008-09 to 2017-18.

Regression results: impacts on contributions
(Effect of a one-year delay in pension access, 55-56 & 56-57)

	Total contribution	Total concessional contributions	Voluntary after-tax contributions	Voluntary concessional contributions
Year prior to affected ages (k = -1)	-124.6 (-0.38)	-64.1 (-0.61)	-60.4 (-0.21)	-66.2 (-0.90)
At affected age (k = 0)	-831.8* (-2.27)	-24.6 (-0.28)	-807.2* (-2.30)	-95.3 (-1.51)
Year after affected age (k = 1)	-615.1 (-1.01)	-170.6 (-1.23)	-444.5 (-0.77)	-193.5* (-1.97)

Regression results: impacts on drawdown

(Effect of a one-year delay in pension access , 55-56 & 56-57)

	Total draw-down intensive margin	Total draw-down extensive margin	Lump sum intensive margin	Lump sum extensive margin	Annuity intensive margin	Annuity extensive margin
Year prior to affected year (k = -1)	324.7 (1.08)	0.0065*** (3.46)	-5.83 (-0.02)	0.0035** (2.90)	330.5* (2.32)	0.0043** (2.85)
Affected year (k = 0)	-3083.5*** (-6.78)	-0.041*** (-17.20)	-2607.2*** (-6.17)	-0.024*** (-13.55)	-476.2** (-3.10)	-0.022*** (-12.27)
Year after affected year (k = 1)	440.9 (0.68)	-0.013*** (-3.39)	831.4 (1.47)	0.0043 (1.61)	-390.5 (-1.36)	-0.018*** (-5.92)

Regression results: impacts on employment
(Effect of a one-year delay in pension access , 55-56 & 56-57)

	Employed
Year prior to affected age (k = -1)	0.0089* (1.97)
Affected age (k = 0)	0.0042 (1.08)
Year after affected age (k = 1)	0.014* (2.24)

Tentative conclusions

- A one-year increase in the preservation age is associated with small reductions voluntary contributions of around $800 or about 5% reduction relative to the mean contribution
  - Consistent with life-cycle model predictions of optimal savings with liquidity constraints
  - Could also reflect mental accounting - people do not treat private pensions and more liquid assets as substitutable
- A one-year increase in the preservation age is associated with reduced draw-down of around $3,000 in the affected ages, but no rebounding increase due to forced savings
  - This is despite a means-tested public pension that would incentivize a rebounding increase in draw-down
- There does appear to be a weak positive employment response, which is consistent with the liquidity constraint/mental accounting hypothesis or socially desirability
- Overall, our results suggest that increases in the private pension age of access should increase retirement savings and reduce public pension reliance

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Further work

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- Sub-group analysis
  - High-income versus low-income groups
  - Investigate heterogeneity of impacts across types of employment
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