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Responses to increases in the superannuation preservation age

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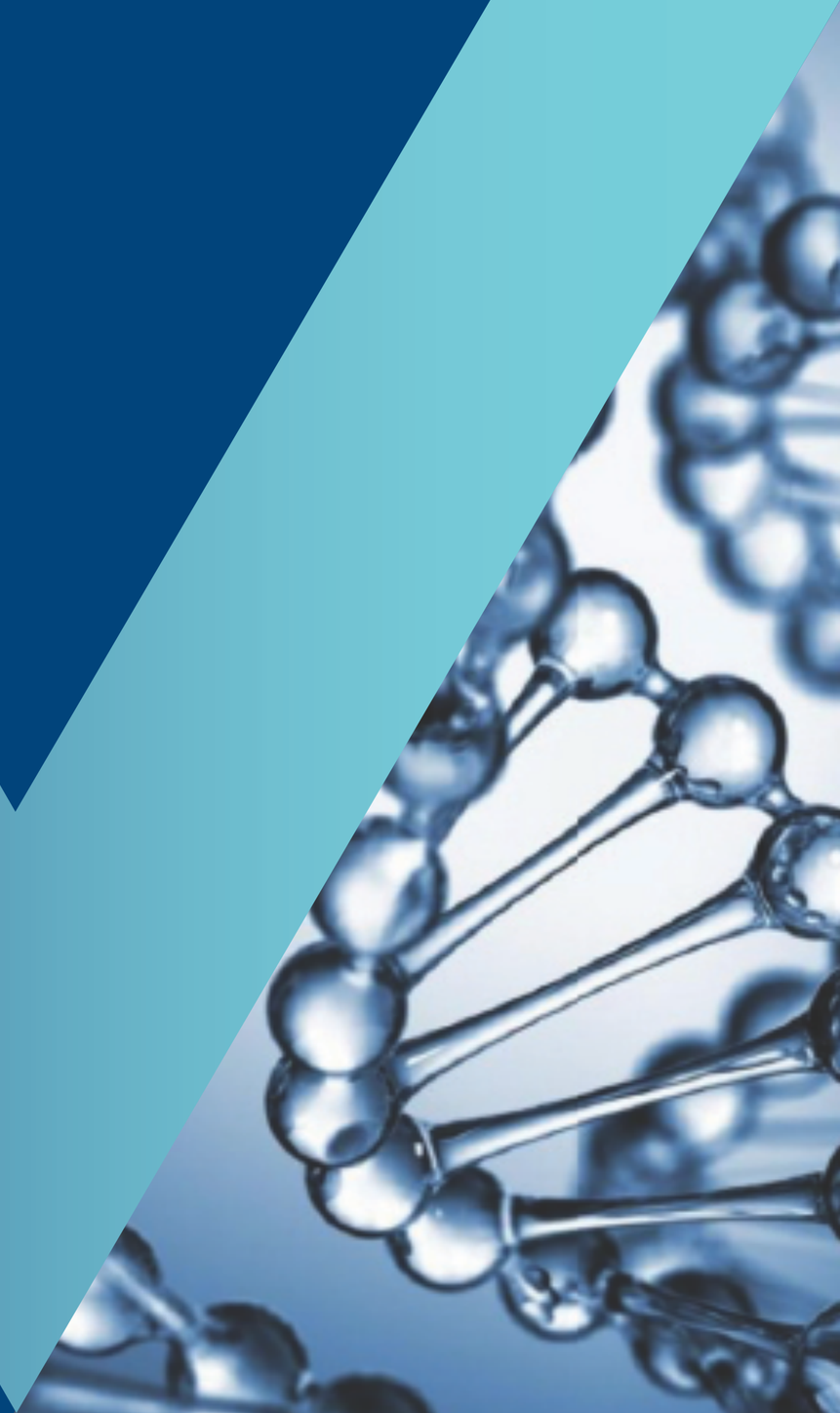

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Motivation

- Private pensions are typically characterised by: (1) illiquidity, whereby individuals cannot access the funds until reaching a minimum access age; and (2) preferential tax treatment to incentivise contributions.
- Literature mostly focuses on preferential tax treatment, especially on how it promotes retirement savings and whether it is effective in reducing fiscal pressure.
- Very little attention on how illiquidity influences individual decisions on contributions, draw-downs and employment. But understanding these implications is critically important in deciding the minimum access age (and in particular whether to increase it against a backdrop of increasing life expectancy and its associated fiscal implications).

Our paper

- Investigate how the illiquidity created by the minimum access age affects economic behaviour, and in particular contributions to and drawdowns from retirement savings accounts and employment/retirement decisions.
- Identification comes from increases in the Australian superannuation preservation age from 55 to 60 that were announced in 1997 and began taking effect in July 2015.
- (We think) this represents the first study to estimate the impacts of restricting the *deaccumulation* of *private pension* benefits on contributions, draw-down and employment.

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

Hypotheses

We have in mind the following hypotheses:

- **Liquidity hypothesis**: Increasing the preservation age reduces the liquidity of superannuation, making it less desirable. This will reduce contributions prior to reaching the preservation age. Both contributions and drawdowns are expected to increase post preservation age (when it becomes a liquid asset).
- **Forced saving hypothesis**: Some individuals are forced to accumulate more private pension wealth than optimal. These individuals do not make voluntary contributions before or after reaching the preservation age. When they reach the preservation age, they will increase drawdowns.
- **Commitment hypothesis**: Increasing the preservation age increases the strength of the private pension as a commitment device for saving. This will encourage contributions prior to reaching the preservation age. Contributions will decrease on reaching the preservation age and drawdowns will increase.

Data and outcomes examined

Data source is the ATO's 'ALife' dataset, which contains longitudinal income tax records (from 1990-91) and superannuation records (from 1996-97)

Main outcome variables	
Outcomes	**Description**
Total superannuation contributions	Includes Superannuation Guarantee, concessional and non-concessional contributions
Non-concessional contributions	All components of after-tax contributions
Concessional contributions	All components of concessional contributions: Superannuation Guarantee, salary sacrifice, deductible personal contribution
Voluntary concessional contributions	Salary sacrifice + deductible personal contributions
Drawdowns, and lumpsum and annuity components of drawdowns	Imputed using drawdown information in tax records, and proportioning rules for superannuation withdrawals
Employment indicators	Derived using tax records.

Empirical strategy

- An important feature of the reform is that the preservation age takes stepwise jumps around cut-off thresholds of birth dates, creating exogenous variation in the preservation age for identification.
- We use three estimation methods: difference-in-differences (DiD; ‘global’ estimates); regression discontinuity (RD; ‘local’ estimates); and event study analysis
- DiD: use all of the data 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.

Sources of variation

(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
1 July 1950 – 30 June 1951	55	1	1	1	1	1			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
1 July 1962 – 30 June 1963	57	1	1	1	1	1	1	1	0	0	0
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.

Difference-in-differences framework

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

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 preservation age;

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 increase in the preservation age)

	(1) (includes only k=0)	(2)	(3)	(4)	(5)
	Total contribution	Total contribution	Concessional contribution	Non-concessional contribution	Voluntary concessional contribution
Effect in the year prior to reaching the (previous) preservation age (k = -1)		-124.6 (-0.38)	-64.1 (-0.61)	-60.4 (-0.21)	-66.2 (-0.90)
Effect in the year that reached the (previous) preservation age (k = 0)	-1011.8** (-2.84)	-831.8* (-2.27)	-24.6 (-0.28)	-807.2* (-2.30)	-95.3 (-1.51)
Effect in the year after reaching the (previous) preservation age (k = 1)		-615.1 (-1.01)	-170.6 (-1.23)	-444.5 (-0.77)	-193.5* (-1.97)

Regression results: impacts on drawdown

	(1)	(2)	(3)	(4)	(5)	(6)
	Drawdown (total), intensive margin	Drawdown extensive margin	Lump sum intensive margin	Lump sum extensive margin	Annuities intensive margin	Annuities extensive margin
Effect in the year prior to reaching the (previous) preservation age (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)
Effect in the year that reached the (previous) preservation age (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)
Effect in the year after reaching the (previous) preservation age (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

	(1)	(2)	(3)
	Employed	More than one job (proxy for changing jobs)	Number of jobs
Effect in the year prior to reaching the (previous) preservation age (k = -1)	0.0089* (1.97)	0.0028 (0.71)	0.014 (1.47)
Effect in the year that reached the (previous) preservation age (k = 0)	0.0042 (1.08)	0.0028 (0.68)	0.011 (1.17)
Effect in the year after reaching the (previous) preservation age (k = 1)	0.014* (2.24)	-0.0017 (-0.31)	0.011 (0.86)

Summary of main findings

Contributions:

- Affected cohorts contribute less – approx. $800 – at the affected ages (the ages where would have been at the preservation age but for the policy change). There are also no anticipation effects (no effects at earlier ages).

Drawdowns:

- Increasing the preservation age reduces drawdowns at the affected ages (approx. $3,000 at affected ages), with no evidence of a subsequent (offsetting) increase in drawdowns.

Employment

- Some evidence of positive employment effects at the affected ages.

Further work

- RD estimations
  - -Results are qualitatively very similar to the global estimates but are yet to be finalised.
- Event study analysis
- Sub-group analysis
  - -High-income versus low-income groups
  - -Investigate heterogeneity of impacts across types of employment
  - -Investigate heterogeneity by level of superannuation balance

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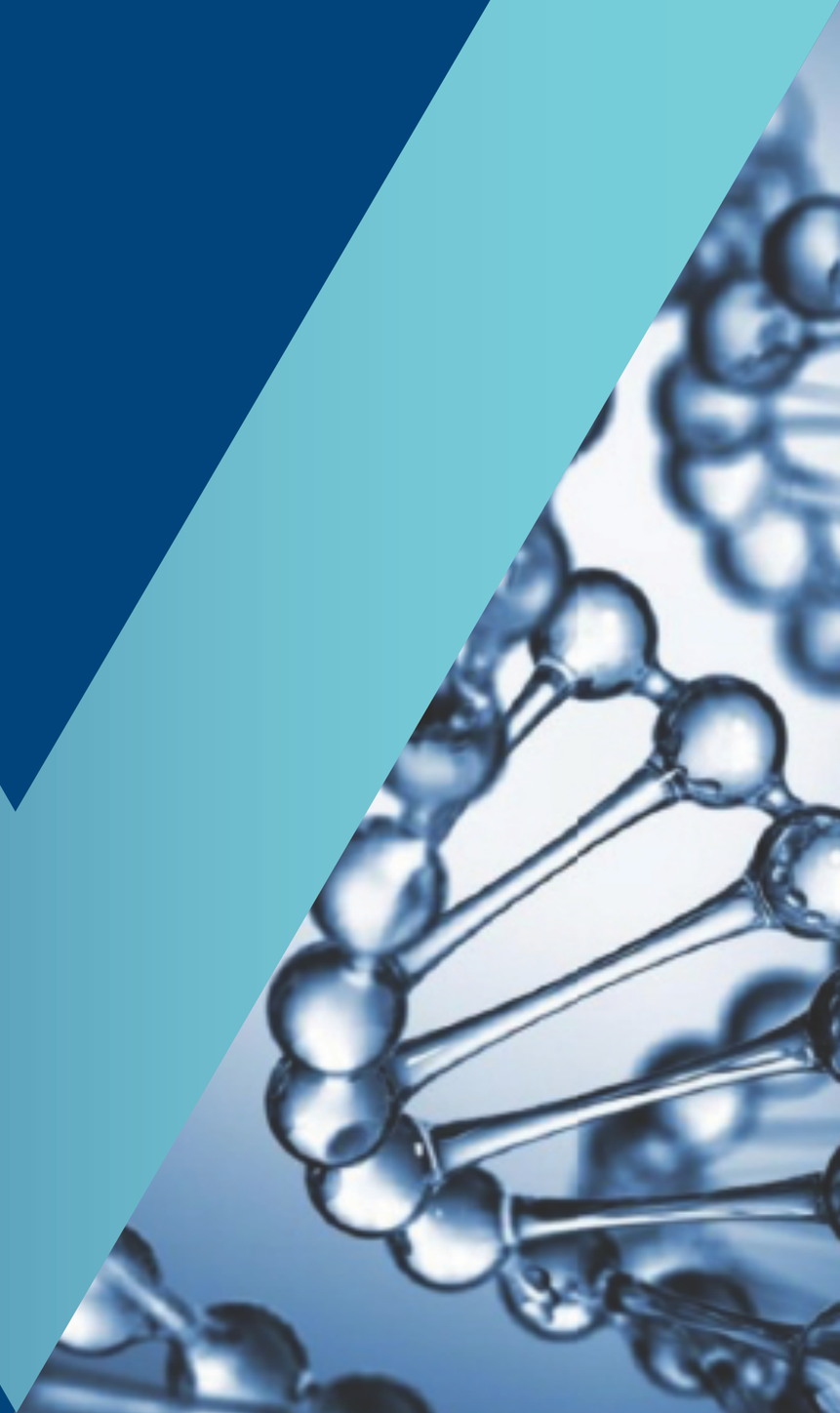

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