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The impact of projections on superannuation contributions, investment choices and engagement*

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The impact of projections on superannuation contributions, investment choices and engagement

Executive Summary:

Australian workers rely on information from their superannuation funds to ascertain if they are saving enough for retirement. Until recently, most funds gave members only their current balance to go on, leaving to the member the tough problem of translating that balance into a future lump sum or income stream. In 2013, Cbus sent approximately 20,000 members a retirement income estimate (RIE), along with their current balance, for the first time. The goal of the RIE trial was to help members grasp the implications of their current superannuation savings pattern for their retirement wellbeing.

The impact of this new message on members' contributions, engagement, and investment choices was remarkable. We measure this impact by comparing carefully matched groups of Cbus members – a group who received the estimate and an (observationally) identical group who did not. The matched sample groups each include 15,273 Cbus members. Our analysis shows what members did up to end-June 2014, after receiving the RIE for the first time in September 2013. This method allows us to draw inferences about the causal effect of the new communication.

Highlights:

The RIE...

- **motivated additional savings:**
 - The proportion of members making salary sacrifice contributions was 33% higher among those who received the RIE (6.8% c.f. 5.1%);
 - Of those who made a salary sacrifice contribution, members who received the RIE on average sacrificed 32% more than members who did not (\$5,264 c.f. \$3,977);
 - Of those who made voluntary contributions, members who received the RIE on average contributed 35% more than members who did not (\$3,638 c.f. \$2,701).
- **raised member investment choices:**
 - The proportion of members making investment changes was still small, but 33% higher among those who received the RIE (1.3% c.f. 1.0%);
 - Of those who changed their investment settings, the RIE group ended the period with significantly lower defensive allocations (28% c.f. 39%) and higher aggressive allocations (72% c.f. 62%) than the group who did not.

- **raised engagement with Cbus:**
 - About 35% of the RIE group interacted directly with Cbus, compared with about 24% of those who did not get the RIE, meaning that the RIE group interactions were 46% higher;
 - Of those who did interact, the number of interactions was 68% higher among the RIE group (1.68 c.f. 1.03);
 - Advice, administrative/process related interactions and mixed interactions occurred at much higher rates for the RIE group.

Results confirm that, for many members, the RIE is “new” information about savings adequacy that motivates adjustments that can substantially change retirement outcomes.

The impact of projections on superannuation contributions, investment choices and engagement

Background:

Members of most superannuation funds must rely on regular member statements that only show their current account balance to figure out whether they are saving enough. The overwhelming tendency to focus more on the present than the future – the ‘present-bias’ – along with the well-known difficulties people have making forecasts that require compounding, make it likely that members will have poorly formed expectations of their retirement wealth.¹ Conscious of these difficulties, Cbus and some other superannuation funds have begun to show members projected retirement wealth. Australian superannuation funds, with the support of the regulator, ASIC, are among world leaders in this approach - the results of this trial are interesting globally.

Trial:

In 2013, Cbus administered the RIE to 16,162 active members and 2,827 inactive members. Prior to sending the RIE, Cbus excluded certain groups of members in several categories deemed unsuitable for the trial:

- Members younger than 21 and older than 55 (112,016 members)
- Members with overseas addresses (4,260)
- Members who made large contributions – the regulations around the RIE require the projection of all contributions (excluding rollovers) and assume that contributions in the current year will repeat annually until the member's retirement. The projections would therefore repeat any large one-off contributions in the current year which could overestimate members' projected end benefit. Cbus excluded members with post-tax voluntary contributions greater than \$25,000 in the financial year (2,121)
- Members whose accounts recorded fee anomalies (61,323)
- New members who have less than one year of membership in the fund are excluded by RIE regulations (59,357)

These exclusions made 355,083 Cbus members eligible to potentially receive the RIE. From these, approximately 20,000 members were chosen to receive the RIE in 2013.

¹ Loewenstein and Elster, 1992; Ainslie, 2001; Hilgert et al., 2003; Eisenstein and Hoch, 2005; Stango and Zinman, 2009; McKenzie and Liersch, 2011; Poterba, 2014; Goldstein et al., 2016; Lusardi and Mitchell, 2017.

Data processing and matched sampling:

Cbus supplied our research team with un-reidentifiable member data covering various time periods, plus additional member investment choice data. The dataset included one series of RIE administration identifiers, relating to the RIE sent in 2013. Cbus supplied these data in several batches during 2018 and 2019 with the last batch arriving in January 2019. As data arrived, we tested, checked and cleaned series to ensure any analysis would be reliable.

After cleaning, we created “treatment” and “control” groups by sample matching. In standard randomised controlled field trials, experimenters assign subjects randomly to treatment or control groups to ensure that systematic differences between people do not contaminate the measurement of the treatment effect. This contamination can occur if the characteristics of the subject affect whether they get the treatment or not. When randomised assignment has not occurred, as in the Cbus 2013 data, we mimic randomisation by drawing “matched” samples from both the treated and the untreated members. In other words, we find pairs of members (one from the RIE group and one who did not receive the RIE), who are as similar as possible by age, gender, current retirement balance and tenure in Cbus. The reasoning behind matching is to ensure the groups that we compare are as identical as possible across all features apart from the RIE. We check the consistency of matching by conducting statistical tests for similarity of the groups.

To reach the final sample of 15,273 members in each of the treatment and control groups, we

1. Included only Cbus members who were not excluded from the experiment (i.e. who met all inclusion criteria);
2. Excluded any inactive Cbus members;
3. Excluded members with current balances above the 95th percentile, that is, with current balance > ~\$220,000;
4. Matched Cbus members who did not receive the RIE one-for-one to members who did receive the RIE on four criteria: age, gender, current retirement balance and tenure.²

The treatment and control samples are summarised in Table 1.

² We used propensity score matching without replacement in Stata.

Table 1: Comparison between Treatment and Control Groups

Age Group	Age		
	Treatment	Control	Total
21-35	5,560 36.40%	5,997 39.27%	11,557 37.83%
35-45	5,099 33.39%	4,672 30.59%	9,771 31.99%
45-55	4,614 30.21%	4,604 30.14%	9,218 30.18%
Total	15,273 100.00%	15,273 100.00%	30,546 100.00%
Age Group	Gender (Male)		
	Treatment	Control	Total
21-35	5,234 34.27%	5,638 36.91%	10,872 35.59%
35-45	4,628 30.30%	4,277 28.00%	8,905 29.15%
45-55	4,113 26.93%	4,073 26.67%	8,186 26.80%
Total	13,975 91.50%	13,988 91.59%	27,963 91.54%
Age Group	Current Retirement Balance		
	Treatment	Control	Total
21-35	\$22,868.34	\$24,410.57	\$23,668.62
35-45	\$56,873.10	\$56,858.54	\$56,866.14
45-55	\$75,846.64	\$76,812.64	\$76,329.12
Total	\$50,225.91	\$50,132.83	\$50,179.37
Age Group	Tenure		
	Treatment	Control	
21-35	5,560 36.40%	5,997 39.27%	
35-45	5,099 33.39%	4,672 30.59%	
45-55	4,614 30.21%	4,604 30.14%	

Results:

The RIE administered in 2013 had a significant impact on superannuation contributions, engagement with Cbus and investment decisions in the period between implementation in September 2013 and the end of the 2013/14 financial year (30 June 2014). The key results are reported in Figures 1 and 2 (contributions), Figure 3 (investment choices) and Figure 4 (interactions with Cbus).

Figures 1 and 2 illustrate the impact of the RIE on contributions. Overall, the presentation of the RIE encouraged higher rates of salary sacrifice saving, and higher average amounts of salary sacrifice and voluntary contributions. The proportion of members making salary sacrifice contributions was 33% higher among those who received the RIE (6.8% c.f. 5.1%). Of those who made a salary sacrifice contribution, members who received the RIE on average sacrificed 32% more than members who did not (\$5,264 c.f. \$3,977). The proportion of members making non-concessional contributions was 8% lower among those who received the RIE (6.9% c.f. 7.5%), but of those who made non-concessional contributions, members who received the RIE on average contributed 35% more than members who did not (\$3,638 c.f. \$2,701). The differences between the treatment and control groups' averages for these measures are statistically significant. The increase in salary sacrifice contributions are notable because of the effort needed to change this type of contribution. By age, the 45-55 group showed the largest difference in contribution amount between treatment and control and the 21-35 group, the smallest.³ Lower non-concessional contributions and high salary sacrifice contributions by members who received the RIE suggests greater awareness of the tax effectiveness of different contribution types.

Figure 3 reports changes in investment options in the nine months following the presentation of the RIE in September 2013. Very few members changed their investment settings over this period. However significantly more from the RIE treatment group did so compared with the control. Notably, the direction of change of treated members who made an investment switch was towards more risky asset allocations, with 147 of the 193 who made an investment change increasing the risk level of their portfolios. The proportion of members making investment changes was still small, but 33% higher among those who received the RIE (1.3% c.f. 1.0%). Of those who changed their investment settings, the RIE group ended the period with significantly lower defensive allocations (28% c.f. 38%) and higher aggressive allocations (72% c.f. 62%) than the group who did not. We note that these results indicate that Cbus members have not added to investment risk precipitously in response to the RIE, with very few making investment

³ We separated the treatment and control groups by age range to make these comparisons. We do not report age conditional results in detail here.

switches. Furthermore, the conditional final allocation of treated members who did switch was a 30:70 defensive:growth allocation.

Figure 4 reports engagement with Cbus for six types of interactions with the fund. Comparison of the treatment and control groups illustrate that presentation of the RIE encouraged higher rates of engagement between members of Cbus and the fund, particularly for advice, and for admin and processes (i.e., information related to benefit payments; claims; documentation requests; contributions; and rollovers). About 35% of the RIE group interacted directly with Cbus, compared with about 24% of those who did not get the RIE, meaning that the RIE group interactions were 46% higher. Of those who did interact, the number of interactions was 68% higher among the RIE group (1.68 c.f. 1.03). Advice, administrative/process related interactions and mixed interactions occurred at much higher rates for the RIE group. Analysis by age shows that the treatment effects rise as members' ages rise. For example, the average number of interactions of treated members between the ages of 21 and 35 was 1.3 over the period, compared with 2.2 for treated members between the ages of 45 and 55. Results also indicate that for the RIE group men were less likely to interact (but those that did has more interactions) and the likelihood and number of interactions was positively related to account balance and tenure in Cbus. These results are important evidence that member disengagement can be partly ameliorated by clearer communication.

Conclusions and next steps:

Cbus' trial of projections of retirement incomes and lump sums shows that presentation of RIE motivates changes to member behaviour, in terms of higher contributions, some modification of investment choices and increased engagement with Cbus. The analysis so far has measured the RIE impact for the first year of implementation. A remaining question is whether these changes persist over ensuing years, in ways that would make substantial changes to retirement wellbeing.

Figure 1: Impact of the RIE on salary sacrifice contributions

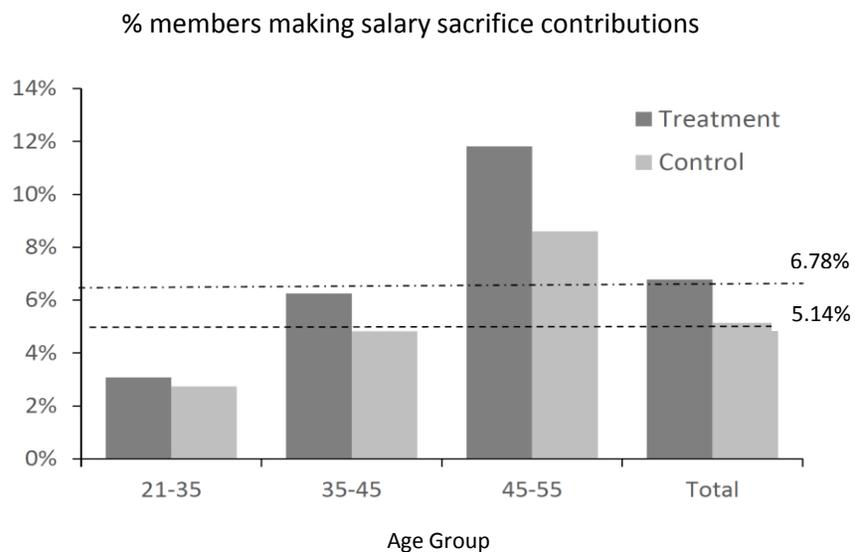


Figure 2: Impact of the RIE on non-concessional contributions

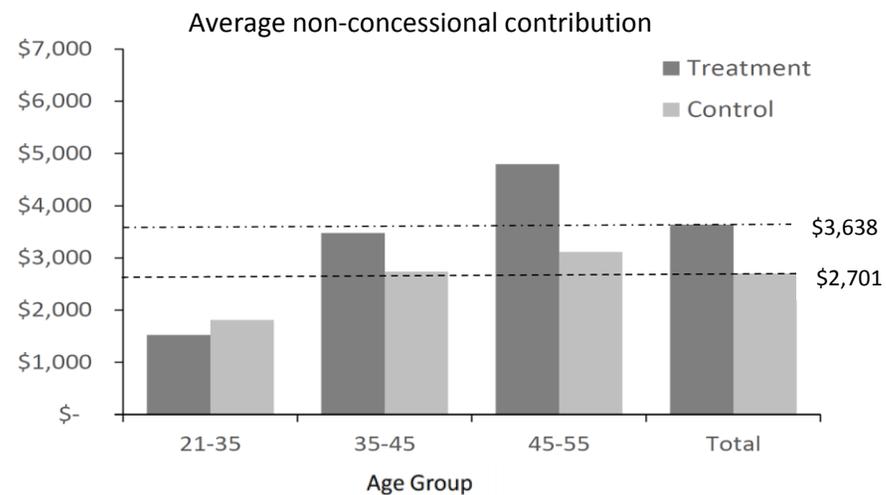
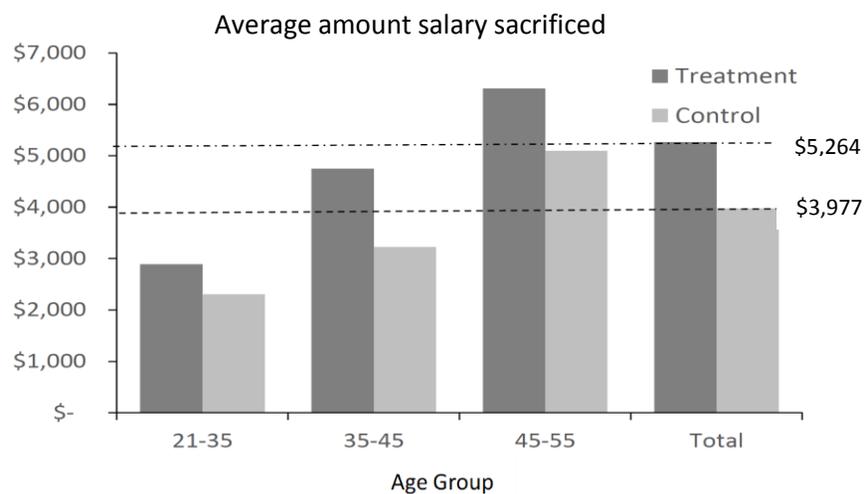
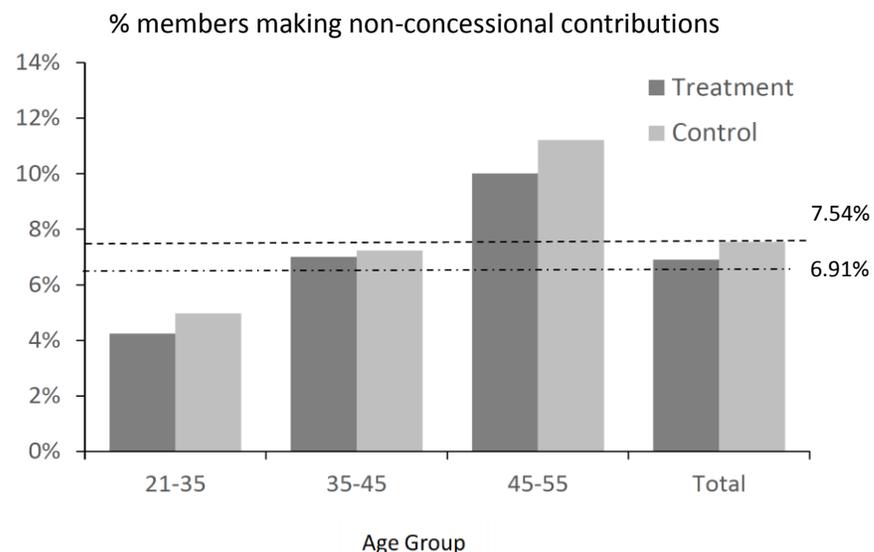


Figure 3: Impact of RIE on investment choices

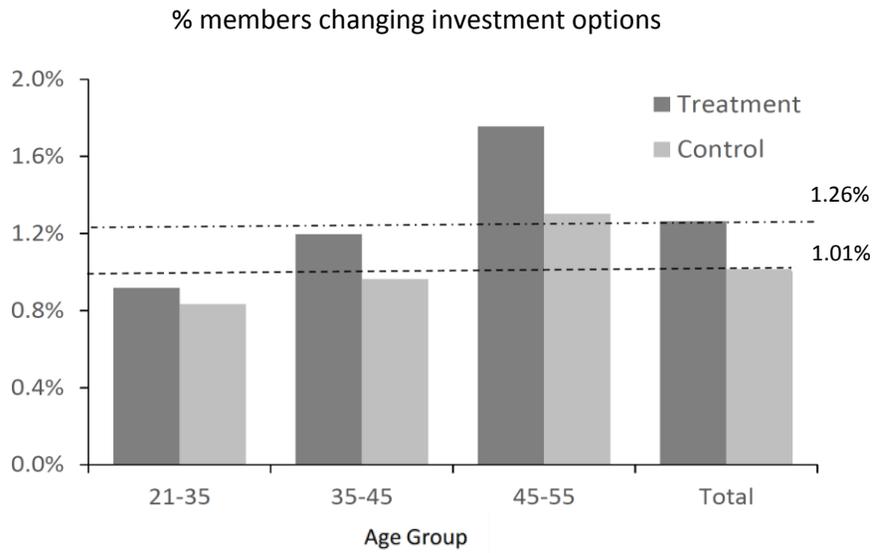
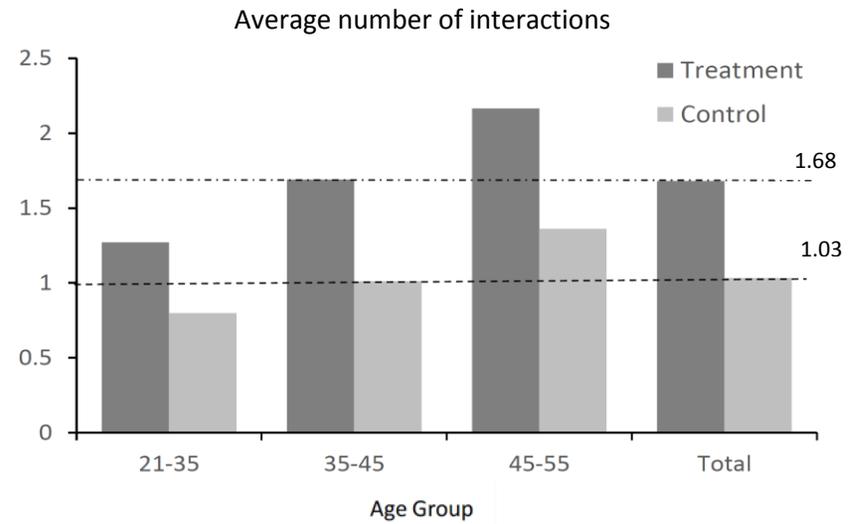
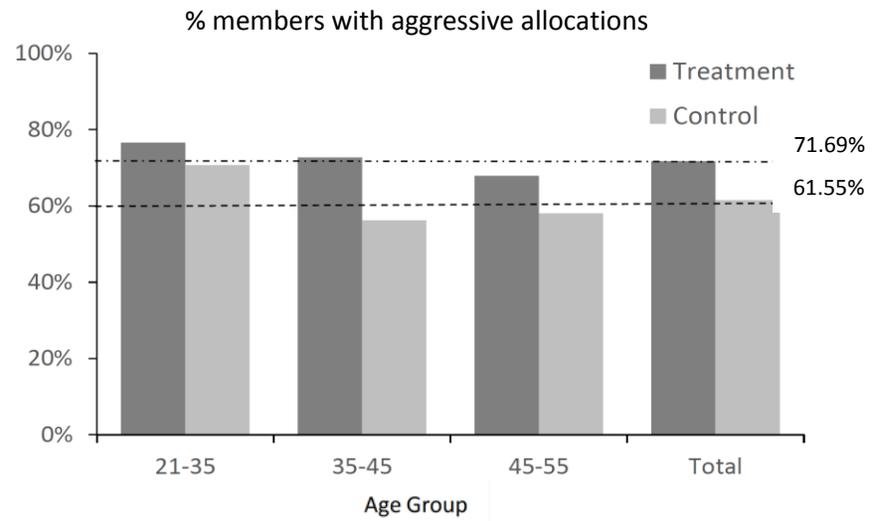
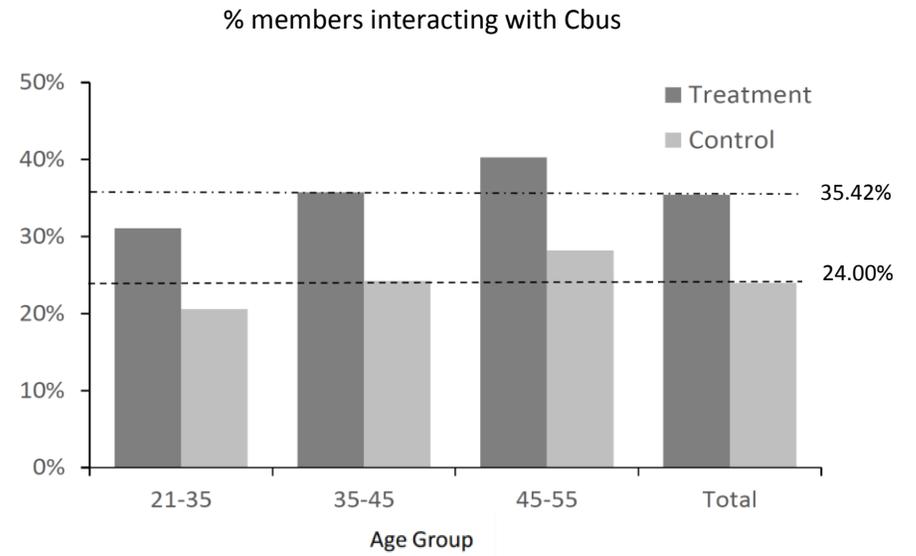


Figure 4: Impact of RIE on interactions with Cbus



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