The impact of pension projections on retirement saving intentions

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Outline

- Background
- Experimental study
- Results
- Discussion
Background
Australian arrangements

- Public Age Pension + mandatory superannuation (9.5% employer contribution) + tax concessions for voluntary contributions
- Voluntary contributions made by approx. 25% superannuation fund members
- Annual statements must include information on: contributions, investment income, taxes, fees, CURRENT BALANCE
- Superannuation/pension forecasts voluntary, provided subject to and ASIC regulatory guide
Superannuation/pension forecasts subject to ASIC Regulatory Guide RG229

- Provided as statement (or via calculator), no required presentation format
- Must include projected lump sum balance AND projected annual income stream (and be provided with the regular statement – which includes current account balance)
- Assumptions - investment earnings, fees, annual income stream:
  - real investment return of 3% pa
  - assume fees over past 12 months apply
  - use specified annuity factor to produce estimated income stream
ASIC Regulatory Guide RG229 (cont)

- Assumptions - member specific factors
  - contributions over past 12 months continue
  - retirement age of 67
  - annual income stream, assume and show income payments for 25 years from age 67
  - insurance premiums over past 12 months apply
  - inclusion of Age Pension (Pillar 1 means-tested state pension) optional ➔ if included must follow assumptions about coverage
  - excludes other superannuation accounts
ASIC Regulatory Guide RG229 (cont)

- Assumptions - factors external to member
  - benefit projections expressed in today’s dollars
  - current tax conditions and other legal factors remain unchanged

- ASIC view → the purpose of the annual retirement estimate is ‘not to give an exact prediction of a member’s end benefit’, but to provide an ‘accessible starting point’ so members get more involved in saving enough to ensure they have the retirement lifestyle they want
Academic interest in pension projections

- Increasing prevalence of DC plans

- DC plans report current balances, yet plan members vulnerable to ‘present-bias’, influenced by ‘reference points’, lack skills in compounding to make forecasts

- Concerns about low engagement/interest and inadequate savings

- Are pension projections effective? Do they change behaviour? To save more? To work longer? Do they increase interest/engagement?
Options for benefit information on member statements

- Current balance
- Current balance + projected balance (lump sum)
- Current balance + projected income stream
- Current balance + projected balance (lump sum) + projected lump sum
Academic literature on impact of benefit projections

- Do pension projections increase saving? US field study (Goda et al. 2014) → participants who received planning information and projections of their monthly income saved more. Similar results for pension projections (Chile, Germany).

Experimental study: the impact of pension projections on retirement saving intentions
Key research questions

- What is the impact of benefit projections:
  - lump sum (account balance) projections versus income projections (relative to current balance only)?
  - both types of pension projections together (relative to current balance only)?

- Previous studies considered a single choice – what happens for a sequence of saving decisions?

- What is the impact on plan members of different ages?
Experimental study

Online survey (2017), 1,615 Australians, not retired, age 25-57

Allocated to 4 age groups: 25-30, 31-39, 40-48, 49-57

Allocated to 4 treatment groups: superannuation/pension benefits presented as
- Current balance
- Current balance + lump sum projection
- Current balance + income projection
- Current balance + lump sum projection + income projection
[Projections calculated as under Australian regulations]

Experimental task
Participants asked to make hypothetical decisions → choose % of ‘discretionary’ income to save in 10 successive choices leading to retirement
Participants asked to choose % of ‘discretionary’ income to save in 10 successive choices leading to retirement.

Information about participant:
- Age
- Annual income
- Compulsory contribution
- Net income
- Living expenses
- Estimate of ‘left over’ (discretionary) income

Information about benefits:
- Current balance
- PLUS
- Projected balance
- OR
- Projected income
- OR
- Projected balance + Projected income

What percentage of leftover income will you save this year?
- 0%
- 25%
- 50%
- 75%
- 100%
- Custom amount

Updated benefit information:
- Presented with impact of extra saving intention
- Confirm saving intention (or not)
Participants asked to choose % of ‘discretionary’ income to save in 10 successive choices leading to retirement

Information about participant
- Age
- Annual income
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- Current balance
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What percentage of leftover income will you save this year?
- 0%
- 25%
- 50%
- 75%
- 100%
- Custom amount

Updated benefit information
- Presented with impact of extra saving intention
- Confirm saving intention (or not)

Repeat choice 9 times → provides a feedback loop
Example: Information provided to participants – for each of 10 periods

Please review the information below carefully. It describes the situation of a typical person of this age. If this were your situation, would you save some of your left over income into your superannuation fund? If so, how much extra would you save this year?

### Information about you:

<table>
<thead>
<tr>
<th>Age:</th>
<th>30</th>
</tr>
</thead>
<tbody>
<tr>
<td>Annual income:</td>
<td>$61,900</td>
</tr>
<tr>
<td>Compulsory (Employer) Superannuation Contribution:</td>
<td>$5,900</td>
</tr>
<tr>
<td>Income after tax:</td>
<td>$50,200</td>
</tr>
<tr>
<td>Annual living expenses:</td>
<td>$37,700</td>
</tr>
<tr>
<td>Income left over:</td>
<td>$12,500</td>
</tr>
</tbody>
</table>

### Information about your superannuation:

| Current superannuation balance: | $16,200 |
| Estimated superannuation balance at age 67: | $503,500 |
| Estimated superannuation balance as an annual payment made for 25 years from age 67: | $28,900 each year |
Example: Information provided to participants – for each of 10 periods (cont)

<table>
<thead>
<tr>
<th>Per cent of left over income saved</th>
<th>$</th>
</tr>
</thead>
<tbody>
<tr>
<td>0%</td>
<td>$0</td>
</tr>
<tr>
<td>25%</td>
<td>$3,100</td>
</tr>
<tr>
<td>50%</td>
<td>$6,200</td>
</tr>
<tr>
<td>75%</td>
<td>$9,400</td>
</tr>
<tr>
<td>100%</td>
<td>$12,500</td>
</tr>
<tr>
<td>Custom amount</td>
<td>$</td>
</tr>
</tbody>
</table>

**Updated information about your superannuation:**

<table>
<thead>
<tr>
<th></th>
<th>Before Extra Contribution</th>
<th>After Extra Contribution</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current superannuation balance:</td>
<td>$16,200</td>
<td>$19,300</td>
</tr>
<tr>
<td>Estimated superannuation balance at age 67:</td>
<td>$503,500</td>
<td>$512,900</td>
</tr>
<tr>
<td>Estimated superannuation balance as an annual payment made for 25 years from age 67:</td>
<td>$28,900 each year</td>
<td>$29,500 each year</td>
</tr>
</tbody>
</table>
Results
For a single choice, income stream projections lead to slightly more saving than lump-sum projections...

...but both income and lump sum projections lead to more savings than either projection alone

<table>
<thead>
<tr>
<th>Percentage increase in retirement balance from first choice.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Marginal effect over current balance condition p&lt;0.1 <em>; p&lt;0.05 <strong>; p&lt;0.01</strong></em></td>
</tr>
<tr>
<td>Projected lump sum</td>
</tr>
<tr>
<td>Projected 25 yr income</td>
</tr>
<tr>
<td>Projected lump sum and income</td>
</tr>
</tbody>
</table>
What happens for a sequence of saving decisions?

Average percentage of discretionary income saved by treatment

- Current balance
- + Lump Sum Projection
- + Annuity Projection
- + Lump Sum and Annuity Projection
Over successive choices, the **combination** of lump sum and income projections leads to more saving

...but the effects of income and lump sum projections separately are not statistically significant

<table>
<thead>
<tr>
<th>Percentage increase in retirement balance after 10 choices.</th>
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</table>

*Higher saving if higher education, more knowledge of the retirement saving system, lower risk aversion, higher bequest intention, lower financial literacy.*
An explanation: combined projections: reference dependence and positive feedback

- Lump sum feedback is large relative to income
- Lump sum + income feedback = reference dependence + reinforcement
- Projections affect younger respondents more than older
  → Younger get the benefit of longer compounding periods

<table>
<thead>
<tr>
<th>Growth in projections: 35 years; saves 100% of “left-over” income</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Choice 1</strong></td>
</tr>
<tr>
<td>Income projection</td>
</tr>
<tr>
<td>Lump sum projection</td>
</tr>
</tbody>
</table>
There are wide variations in the patterns of saving

<table>
<thead>
<tr>
<th>Patterns of saving</th>
<th>% participants</th>
</tr>
</thead>
<tbody>
<tr>
<td>no new saving</td>
<td>22%</td>
</tr>
<tr>
<td>constant &gt;0%</td>
<td>10%</td>
</tr>
<tr>
<td>increasing</td>
<td>17%</td>
</tr>
<tr>
<td>decreasing</td>
<td>8%</td>
</tr>
<tr>
<td>variable</td>
<td>43%</td>
</tr>
</tbody>
</table>
Discussion
Discussion: key results

- Single choice: income projections lead to (slightly) more saving than lump sum projections \(\rightarrow\) but both projections together lead to more saving than one alone

- Sequence of choices: plans that show BOTH lump sum and income projections together are likely to encourage higher levels of saving
  - Reference dependence/feedback from both projections is complementary
  - Income projections influence younger more than older
Discussion: other findings

- The experimental design helps decision to consider saving more for retirement
  - Estimate of discretionary income addresses affordability
  - Presentation of outcomes addresses complexity around ‘compounding’
- Irrespective of benefit format (current balance, projected balance, projected income) merely inviting plan participants to save more increases saving intentions
- Wide variation in saving intentions suggests help to ‘boost’ savings (via benefit projections) better approach than ‘default’ voluntary contribution rate or higher ‘mandatory’ contributions
Questions