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Behavioral explanations and solutions to the reluctance of retirees to drawdown wealth

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Outline

- Background – the underspending (in retirement) puzzle
- Study 1 – The impact of income projections on retirement savings decumulation
- Study 2 – Demand for reverse mortgages: can information framing offset behavioral biases
- Reflections

Background – setting the scene

Retirement income landscape - Australia

- **Means-tested public Age Pension.** Comprehensive income and assets tests.
- **Superannuation.** Mandatory employer contributions (11%) – individual account in superannuation (pension) funds. Often supplemented with voluntary contributions (tax concessions).
- **Voluntary saving.** Financial assets, housing (own home, investment), businesses etc.

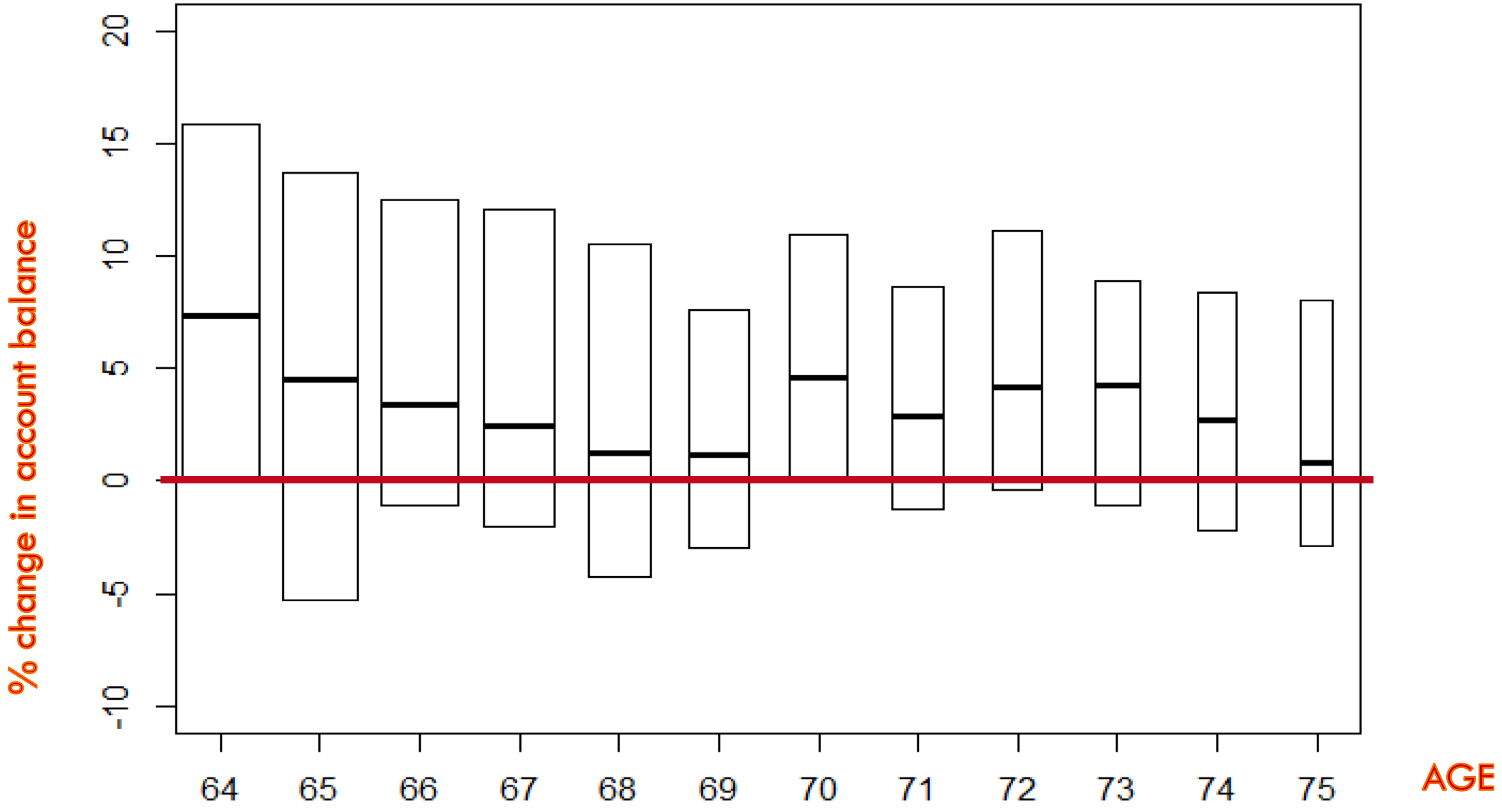
- **In retirement.** Choice of lump sum, account-based pension (phased withdrawal), income stream products (annuities).
  - Almost all take account-based pension (age-based min drawdown - % assets).
  - Subdued take-up of lifetime annuities

Around 80% retirees own home, mostly mortgage free. On average, housing comprises around 2/3 household wealth at retirement.

Public support for health expenses & LTC, private health insurance.

Australian retirees have incentives to over-spend. However, the median retiree adds to their retirement savings.

Percentage change in retirement savings account balance over 11 years



Source: Reeson et al. (2016) Tax data from regulated retirement plans, 2004-14

And the same is true across many pension systems.

Life cycle theory predicts

- Hump-shaped wealth pattern
- Save while working
- Dis-save while retired
- Support consumption smoothing

Empirical observation

- Slow or no decumulation (Börsch-Supan 2003; Love et al. 2009; Poterba et al. 2011; Ooijen et al. 2014; Asher et al. 2017)
- Post-work saving (Reeson et al. 2016; Olafsson and Pagel 2018)

Why?

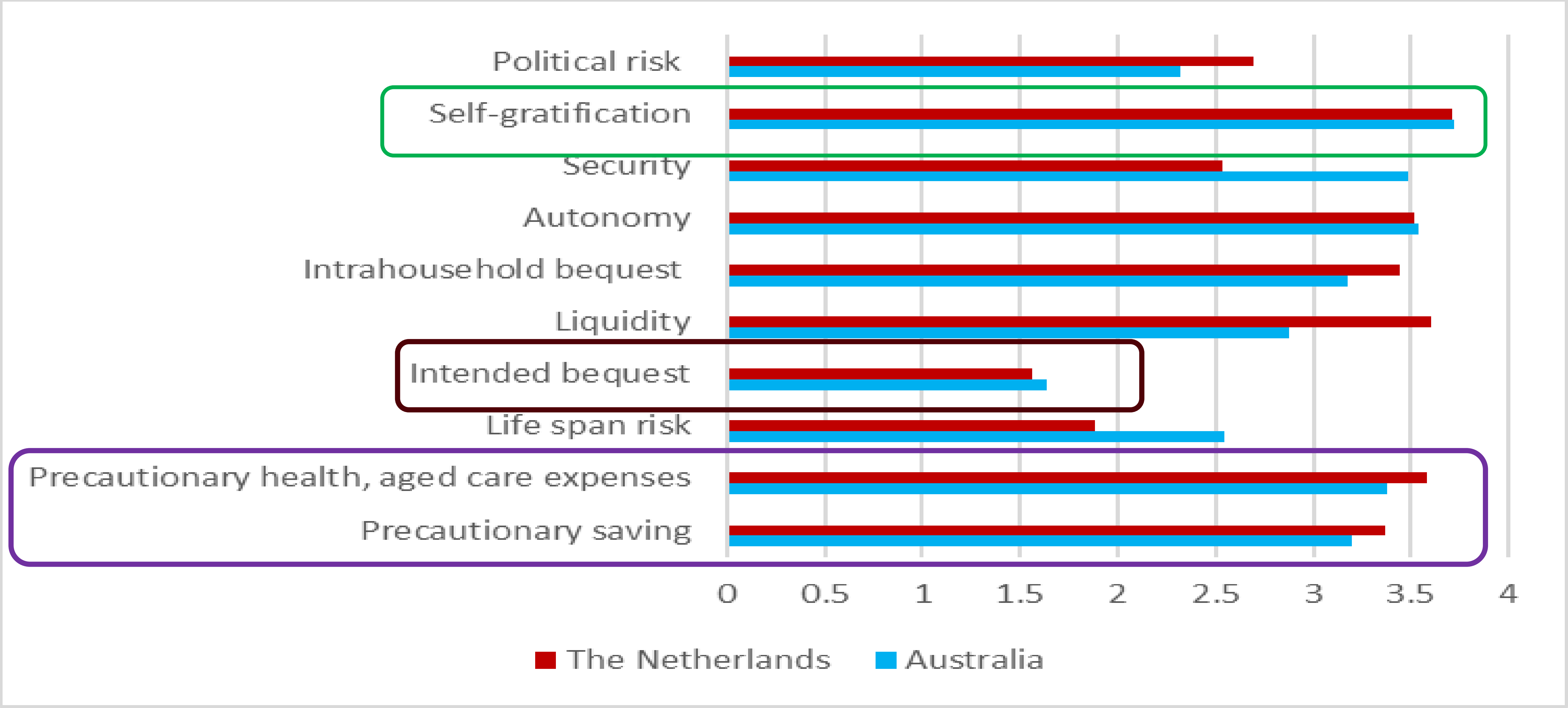
Precaution; health & LTC; maintain lifestyle (Alonso-García et al. 2022)

Bequests and gifts; medical expenses (De Nardi et al. 2015; De Nardi et al. 2021)

Behavioural strategies (Bateman et al. 2017: Alonso Garcia et al. 2021; Balnozan et al. 2020)

Why do retirees continue to save/draw down slowly in retirement?

Average expected importance of saving motives by country (good health treatment)



[Alonso Garcia, Bateman, Bonekamp, Stevens (2022) Journal of Economic Behaviour and Organisation]

Retirement decumulation is ‘hard’. Retirees need help.

What is the problem?

- Need to balance:
  - Financial goals – consumption smoothing and bequest
  - Risk management - longevity, investment, inflation, regulatory, health and disability, contingencies
- Meet psychological challenges – self-control, discounting, loss aversion, psychological ownership (Shu and Shu 2018)

What do people do?

- Revert to ‘rules of thumb’ ?
  - Follow effective defaults
  - Draw fixed dollar amounts
  - Preserve capital and spend earnings

Policy relevance for Australia: Retirement Income Covenant → guide retirees

Study 1: The impact of income projections on retirement savings decumulation

Research team

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Studies show projection of future benefits can help savings

ASIC Regulatory Guide 276 *Superannuation forecasts: Calculators and retirement estimates*

Accumulation projections (Goda et al. 2014; Dolls et al 2018; Smyrnis, Bateman, Thorp et al. 2019, 2021 – Cbus field studies, online experiments)

- Raise vol contributions and engagement
- Reduce present and exponential growth biases
- Provide easier reference points (future income versus current balance) (Goldstein et al. 2016)

Could similar decision support also help spending?

We explore:

1. Whether (income and/or account balance) projections help spending?
2. The role of anchor values in presentation formats.

Essential knowledge

- **Age Pension**: Australia's (means tested) public pension
- **Account-based pension**: type of phased withdrawal product. Minimum annual drawdowns by age (age 60-4%, age 65-5%, age 75-6%, age 80-7%, age 85-9%, age 90-11%, age 95-14%)
- **ASFA** – Association of Superannuation Funds of Australia
- The ASFA Retirement Standard benchmarks the annual budget needed by (single, couple) Australians to fund either a comfortable (ASFA Comfortable) or modest (**ASFA Modest**) standard of living in retirement. It is updated quarterly.

Online experimental survey - superannuation drawdown decisions

1. Sample

1603 pension plan participants

55-67 years old

Three rounds of experiments

Collect survey responses and personal characteristics

2. Conditions

Exp 1: no projection, income projection, wealth projection, wealth + income projection.

Exp 2: low and high anchors for annual spend **+** income projection

Exp 3: test effect of anchor labels.

3. Task

10 choices

"Age" rises from 67 to 91 years

Choose annual amount to withdraw from account balance.

Information updates

Current balance, projected remaining wealth at 92; projected 25-year average income, or both projected wealth and income.

Anchors: low (Age Pension)/high (ASFA Comfortable)

Can lump sum or income projections help spending?

Lump Sum (Account Balance) Projection

Estimated balance at age 92: $100,000

Hypothesis:

Receiving retirement projections would prompt people to increase their withdrawal amount and draw down their retirement savings faster

Income Stream Projection

Estimated average annual payment from age 67 to age 92: $25,000

Exp 1. Participants see their current balance, investment return and mandatory minimum withdrawal amount.

Please review the information below carefully. Assume this is your current situation.

Information about you and your retirement account	
Age	67
Current retirement account balance	$350,000
Annual rate of return	3% p.a.
Minimum withdrawal	$17,500

* Ten choice sets from age 67 (choice 1) to age 91 (choice 10)

No projection, income projection, wealth (lump sum) projection or both

How much of your *retirement account* balance would you like to withdraw this year?

	Level of Withdrawal
●	Minimum
○	Minimum + $5,000
○	Minimum + $10,000
○	Minimum + $15,000
○	Minimum + $20,000

Minimum Option

You may also be eligible for up to $24,550 per year of Age Pension from the government as your *balance* runs down

All see Age Pension information

No projection, **income projection,** wealth (lump sum) projection or both

How much of your *retirement account* balance would you like to withdraw this year?

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●	Minimum
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○	Minimum + $20,000

Minimum Option

You may also be eligible for up to $24,550 per year of Age Pension from the government as your *balance* runs down

Income Stream Projection

If you continue to select this withdrawal level, you will have:

-
- $16,063 per year to spend, on average, from your *retirement account* between the age of 67 and 92

All see Age Pension information ($24,550)

No projection, income projection, **wealth (lump sum) projection** or both

How much of your *retirement account* balance would you like to withdraw this year?

	Level of Withdrawal
●	Minimum
○	Minimum + $5,000
○	Minimum + $10,000
○	Minimum + $15,000
○	Minimum + $20,000

Minimum Option

You may also be eligible for up to $24,550 per year of Age Pension from the government as your *balance* runs down

If you continue to select this withdrawal level, you will have:

- $122,695 left in your account at age 92

Wealth Projection

All see Age Pension information ($24,550)

No projection, income projection, wealth (lump sum) projection or **both**

How much of your *retirement account* balance would you like to withdraw this year?

	Level of Withdrawal
●	Minimum
○	Minimum + $5,000
○	Minimum + $10,000
○	Minimum + $15,000
○	Minimum + $20,000

Minimum Option

You may also be eligible for up to $24,550 per year of Age Pension from the government as your *balance* runs down

If you continue to select this withdrawal level, you will have:

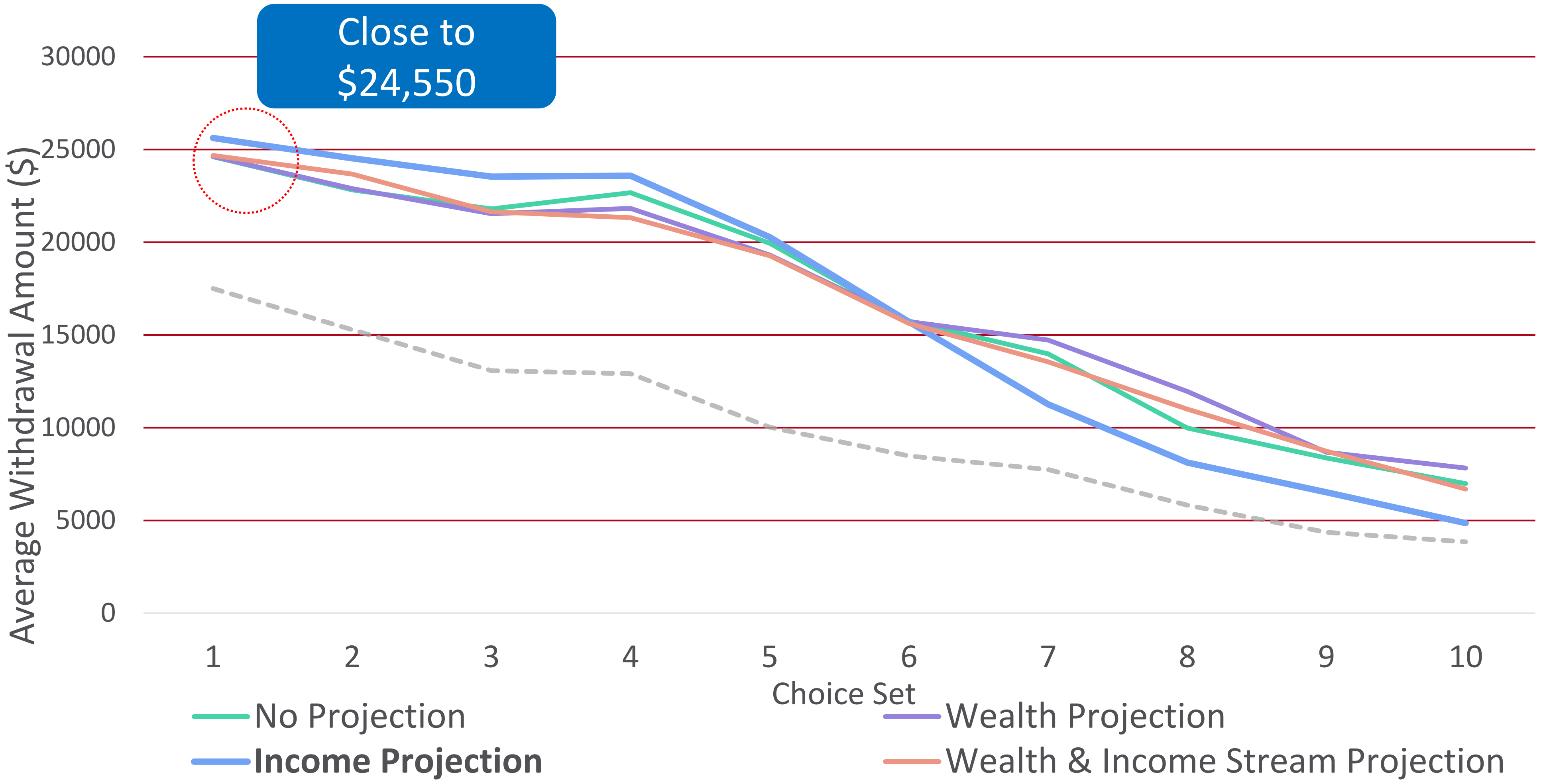
- $122,695 left in your account at age 92
- $16,063 per year to spend, on average, from your *retirement account* between the age of 67 and 92

Wealth Projection

Income Stream Projection

All see Age Pension information ($24,550)

Experiment 1: Average withdrawal amount over time is faster for the income projection.



Experiment 2: Test low (Age Pension) and high (ASFA comfortable standard) anchors

Please review the information below carefully. Assume this is your current situation.

Information about you and your superannuation	
Age	67
Current superannuation balance	$350,000
Annual rate of return	3% p.a.
Minimum withdrawal	$17,500

How much of your superannuation balance would you like to withdraw this year?

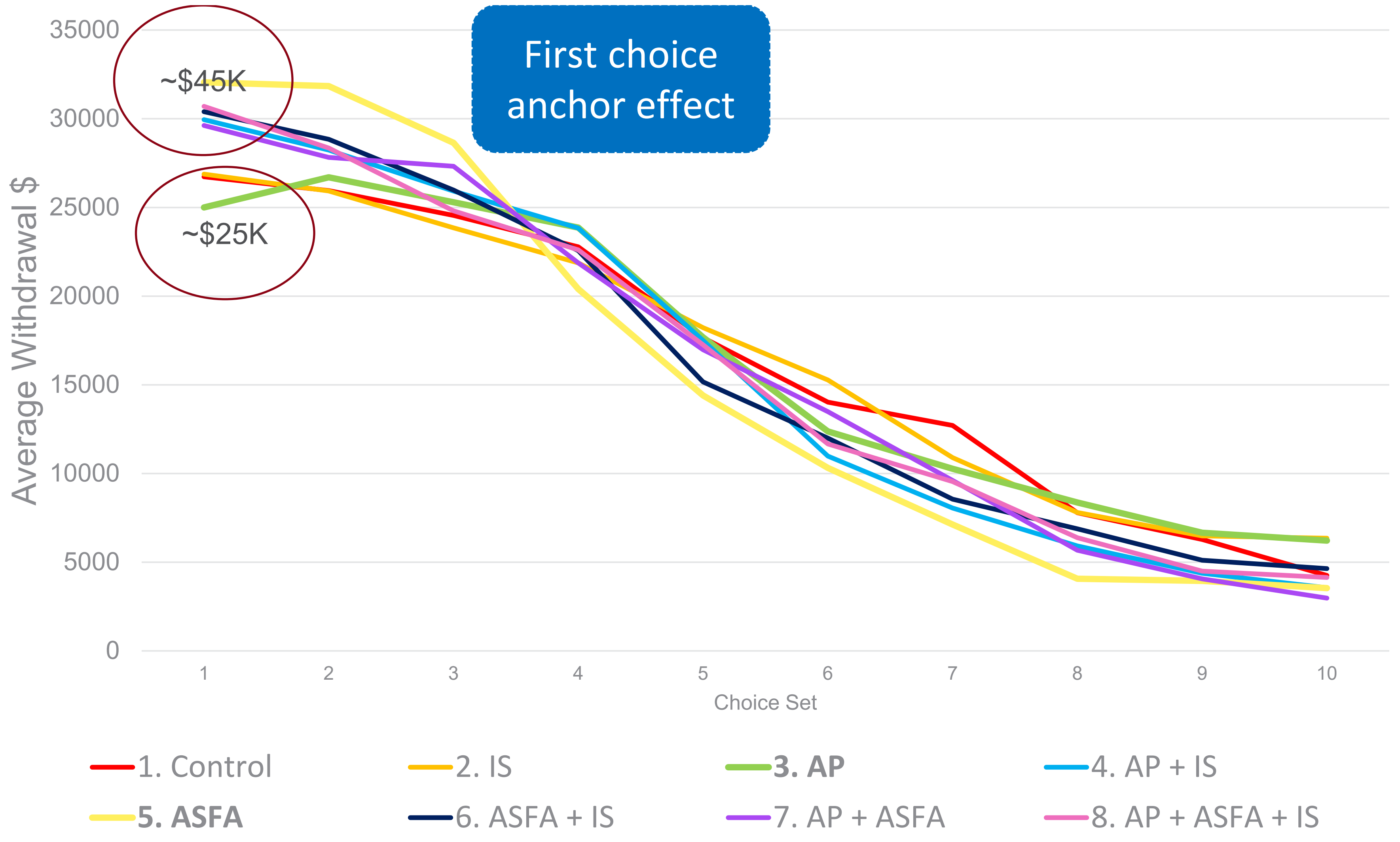
	Level of Withdrawal
●	Minimum
○	Minimum + $7,500
○	Minimum + $15,000
○	Minimum + $22,500
○	Minimum + $30,000
○	Minimum + $37,500

If you continue to select this withdrawal level, you will have:

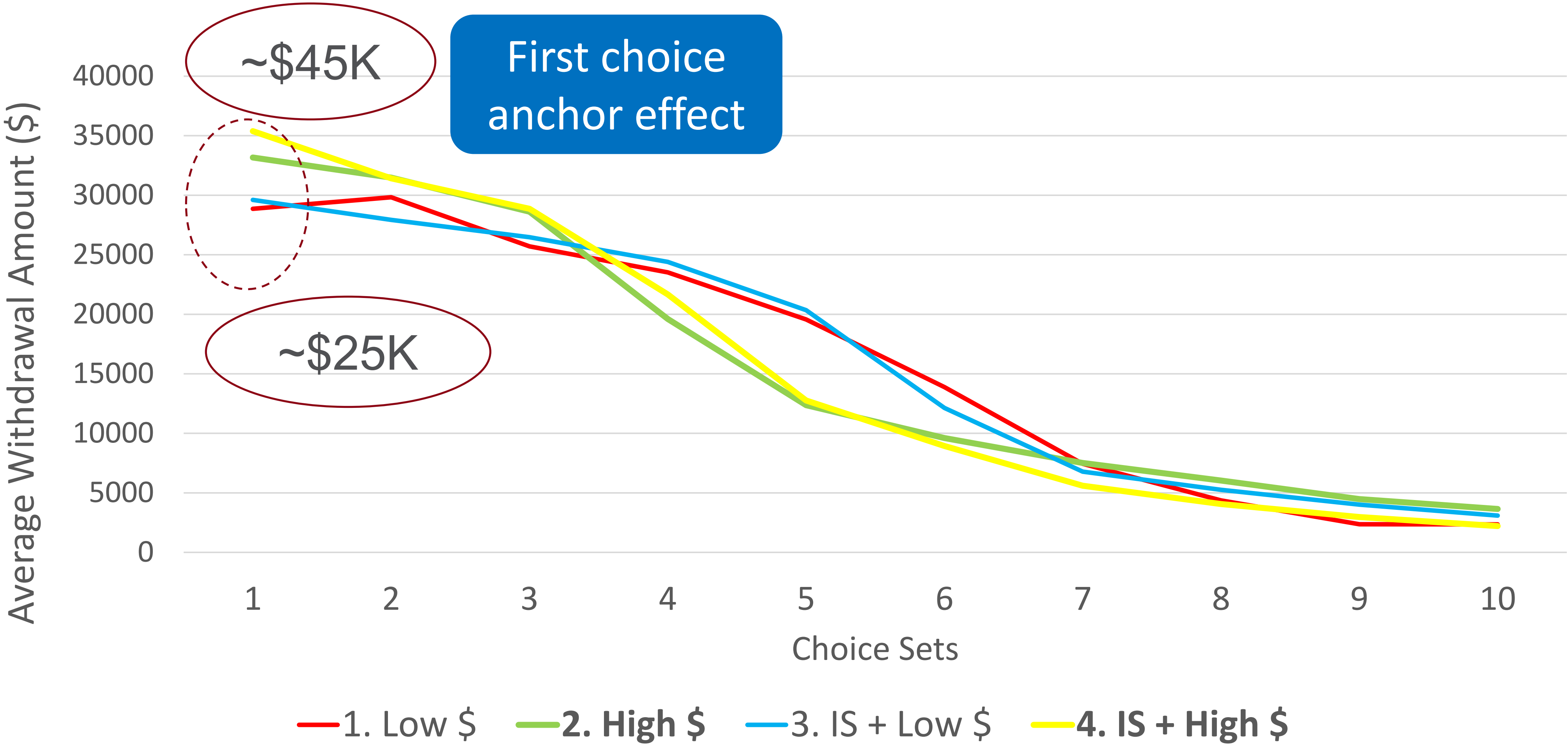
- $16,063 per year to spend, on average, from your superannuation between the age of 67 and 92

- You may also be eligible for up to $24,550 per year of Age Pension from the government as your superannuation runs down
- The Association of Superannuation Funds of Australia (ASFA) recommends that the minimum annual cost of a comfortable retirement is $45,239

Experiment 2: Test low (Age Pension) and high (ASFA comfortable standard) anchors → High anchor induces faster withdrawals.



Experiment 3: Remove anchor labels → A high anchor causes higher withdrawals at first choice



Impact of demographics and personal characteristics on drawdown decisions

- Education and Employment
- Assets and Income
- Marital status
- Financial responsibility
- Ethnicity

- Superannuation balance
- Financial literacy and numeracy
- Superannuation knowledge
- Bequest, precautionary motives
- Risk attitude

Financial literacy, numeracy
and
Financial responsibility

→ associated with faster drawdown

Summary: Members need assistance with retirement income drawdown.

- Self-insurance for longevity/health/disability and (effective) default drawdown are typical
  - Likely leads to a more meagre and anxious older age than necessary?

- Providing projections and anchors can influence rates of drawdown
  - Interaction with any kind of information moves people away from minimum drawdown
  - Income stream (+ Age Pension) anchor raises drawdown
  - Income stream (+ Higher [ASFA Comfortable]) anchor raises drawdown more
  - Size of spending targets (anchors) matter

Study 2: Demand for reverse mortgages: Can information framing offset behavioral biases?

Research team

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Retirement wealth comprises more than pension savings: drawdown of other wealth also subdued

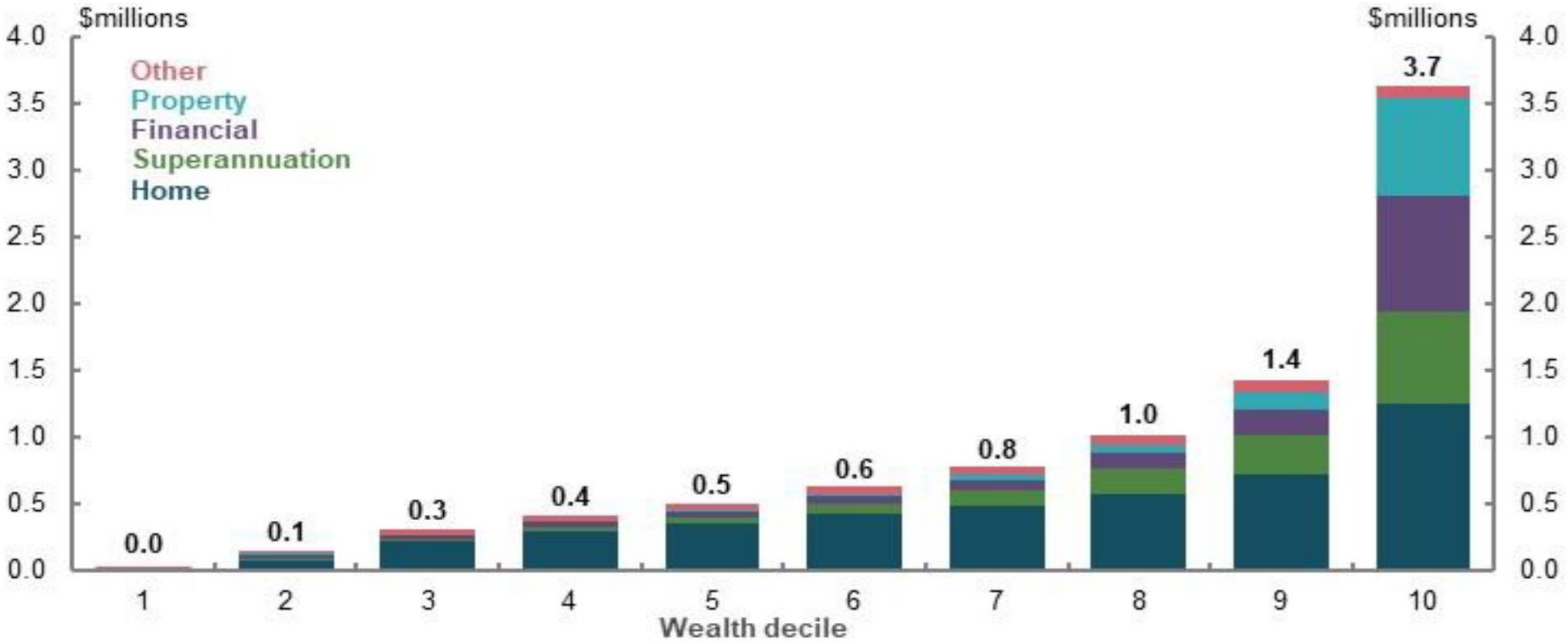


Chart 1B-6 Equivalised household wealth by asset type, for retirees - Retirement Income Review, Final Report (Treasury, 2020), p83

Australian policies to facilitate use of housing assets to support retirement

- **Downsizer contributions** (to superannuation account). $300K.

- **Home reversion** (sell part of house)

- Private **reverse mortgage** (borrow using house as collateral).

- Publicly provided reverse mortgage **HEAS** (**H**ome **E**quity **A**ccess **S**cheme)

Australian policies to facilitate use of housing assets to support retirement

- **Downsizer contributions** (to superannuation account). $300K.

  4,500 used scheme in first 3 years

- **Home reversion** (sell part of house)

- Private **reverse mortgage** (borrow using house as collateral).

  10s of 1000s of contracts

- Publicly provided reverse mortgage **HEAS** (**H**ome **E**quity **A**ccess **S**cheme)

  6,500 current participants

Why is take-up so low?

… when reverse mortgage products

- Allow older homeowners to liquidate and consume home equity without relocating, facilitate ‘ageing in place’
- Can provide (supplementary) retirement income to ‘asset-rich/income poor’
- Can finance health/aged care costs
- Allow bring forward of bequests

Academic Literature

Lifecycle models:

US (e.g., Davidoff, 2009, 2010, 2015; Nakajima and Telyukova, 2017; Cocco and Lopes, 2020; Achou, 2021).

Canada (Michaud and St Amour, 2023)

Australia (Hanewald et al., 2016; Shao et al., 2019; Andreasson and Shevchenko, 2021; Koo et al., 2022).

Reverse mortgages (on their own and combined with LTCI, annuities) can be welfare enhancing.

Models predict a higher demand for reverse mortgages among individuals with lower levels of financial wealth relative to housing wealth, weaker bequest motives.

Empirical/surveys:

Jefferson *et al.* (2017) for Australia; Davidoff et al., (2017) for the US; Fornero *et al.* (2016) for Italy; Dillingh et al., 2017 for the Netherlands; Hanewald et al., (2020) for China; Fong et al., 2023 for Singapore; Choinière-Crèvecoeur and Michaud (2023) for Canada

Low reverse mortgage demand can be explained by:

- low product awareness
- lack of understanding of a complex product
- high costs
- aversion to debt
- bequest motives (mixed)
- intergenerational expectations

We investigate whether information framing can enhance interest in/demand for reverse mortgages?

Specifically, information framing to address

- Product complexity
- Mental accounting
- Narrow choice bracketing

Experimental survey

Online via Pureprofile, May 2020; 948 Australian homeowners aged 60-80

Randomly assigned to 1 of 5 information treatments

Reverse mortgage (**Equity Release Product A)** choice task

Equity release product choice task

Please read this information carefully

Assume that you are now offered Equity Release Product A described earlier. The product allows you to borrow up to $400,000 of your home value and the loan amount can be taken as a lump sum, a regular income stream, a line of credit or a combination of these options. The current interest rate for Equity Release Product A is 5.15% p.a. An establishment fee of 1.5% of your loan amount is charged at the beginning of the agreement.

Assume that any Age Pension you receive (if eligible) is not affected by payments from Equity Release Product A.

How much (if at all) would you borrow from your home using Equity Release Product A?

Please use the slider below to indicate the amount you would choose to borrow. You can position the slider anywhere on the line, but you need to move it at least once before you can continue. **If you DON'T want to borrow from your home, please place the slider at $0**. The **outcome** of your decision will appear in a table below.

$400,000

Equity Release Product A:

$0 **$400,000**

Outcome		
1. Amount you choose to borrow	**$400,000**	
2. Use of loan amount	Income from Equity Release Product A, in addition to other income you receive in retirement such as the Age Pension (if eligible) OR	Up to **$48,880** per year for 10 years
	A payout as a lump sum from Equity Release Product A OR	Up to **$394,000**
	A line of credit from Equity Release Product A OR	Up to **$394,000**
3. Your projected home equity after 10 years (at age 90, assuming you take out your chosen loan amount)	Percentage of home equity remaining	**51%**
	Value of home equity	**$682,990**

Incentivised product knowledge quiz

Questions to collect demographics, preferences, financial competence etc

Information treatments

T1. Non-technical **Product Description**

T2. **Case Study**

To address complexity

T3. **Mental Accounting Offset**

Assets to support retirement include superannuation, financial assets AND the home

T4. **Broad Choice Bracketing**

Prompt to consider likely expenditures in retirement & whether easy/difficult to cover

T5. **Combined T3 and T4**

T1. Product Description

Equity Release Product

Equity Release Product A is a type of loan that allows you to borrow money using the equity in your home as security. The loan can be taken as a lump sum, a regular income stream, a line of credit or a combination of these options.

Interest is charged like any other loan, except you don't have to make repayments while you live in your home - the interest compounds over time and is added to your loan balance. You remain the owner of your home and can stay in it for as long as you want.

You must repay the loan in full (including interest and fees) when you sell or move out of your home or, in most cases, if you move into aged care, or die.

While no income is required to qualify, credit providers are required by law to lend you money responsibly, so not everyone will be able to obtain this type of loan.

You may continue in 20 seconds

T2. Product Description + Case Study to address Complexity

Example

The following example illustrates how Equity Release Product A works.

Judy and Michael are a retired couple both aged 70. They both have superannuation and jointly own their own home in Keilor, Victoria and have no other savings. They receive some Age Pension.

The couple want to live more comfortably in retirement. They use their house as security to take out Equity Release Product A. They take the loan amount as a combination of a lump sum and a regular income stream.

These arrangements will not affect the Age Pension they receive.

When the couple move out and sell the property, they will use the payment to repay the loan. The couple or their estate will retain the difference if the proceeds are greater than the loan. The couple or their estate never have to pay more than the value of the house to repay the loan.

T3. Product Description + Case Study + Information presentation to address Mental Accounting

Household assets and debts

Below are some assets and income sources people can rely on to cover their expenditures in retirement.

Which of the following do you own?

	Own	Do not own
Own home		
Superannuation		
Financial assets such as **cash** including bank accounts, currency, CDs, notes; **fixed interest** investments such as bonds, debentures, term deposits and; **equities** such as shares, units in trusts, mutual funds, warrants, convertibles, derivatives		
Investment properties and private businesses such as farms and family businesses		
Other assets		

Plus – Case study highlights that they can use **their home**, the Age Pension and superannuation assets to cover their expenses in retirement.

T4. Product Description + Case Study + Information presentation to address Narrow Choice Bracketing (by emphasising consumption needs)

Expenditure in retirement

Below are some expenditures people make in retirement.

Please think about your retirement and report in the Table below.

- **Which of these expenditures can you easily cover in retirement?**
- **Which of these expenditures are difficult for you to cover in retirement?**
- **Which of these expenditures are not relevant for you to cover in retirement?**

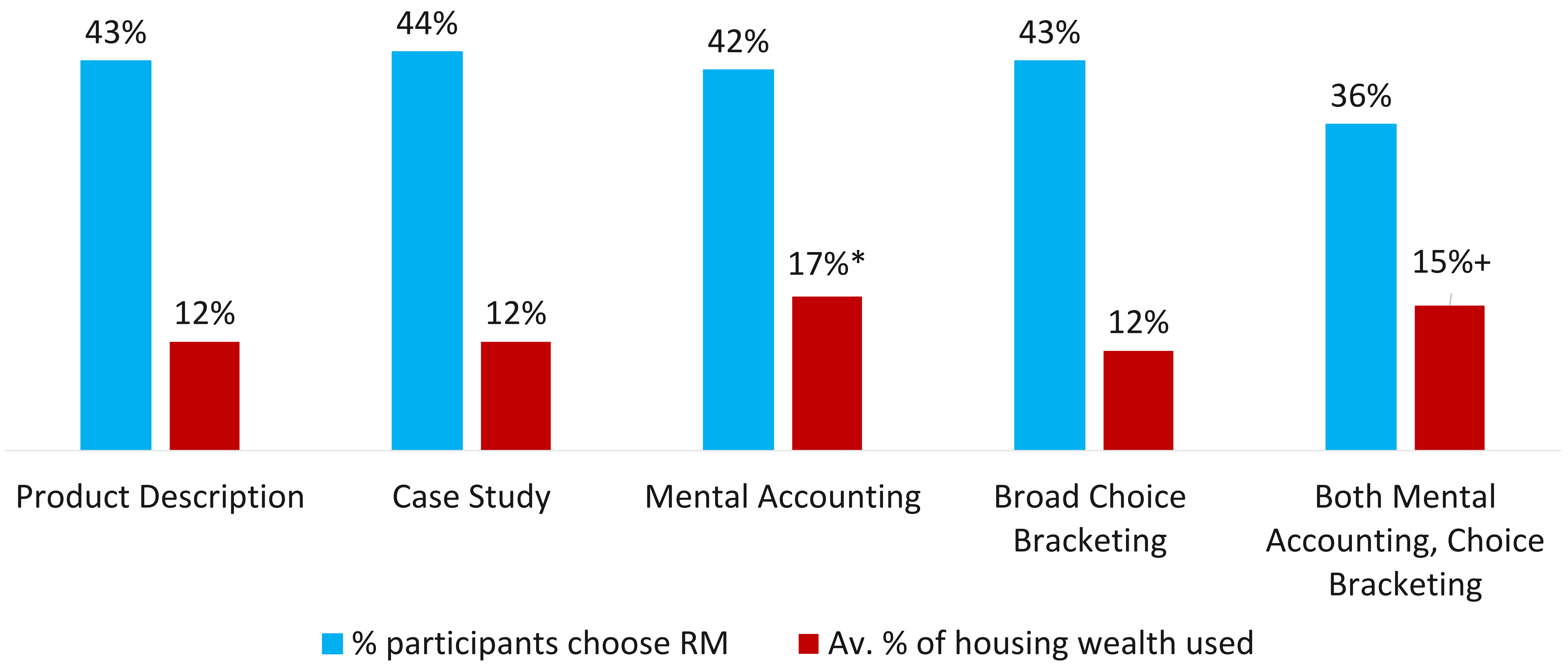
	Easy	Difficult	Not relevant
Regular expenses (on items such as food, clothing, transport, council rates, utility bills, household goods and services, leisure activities)			
Repay your home loan and/or other debts			
Renovate your home			
Support family members (such as providing home deposits or paying educational expenses)			
Pay for health insurance and/or medical expenses			
Pay for aged care, either in-home care and/or residential care			
Pay for holidays and travel			
Other (Please specify:)			

Plus - Case study highlights **potential expenses in retirement** in addition to regular items, such as age-friendly home renovations.

Features of our sample

- Only 20 from sample of 948 had a reverse mortgage, but 69% had heard of a similar product
- High subjective product understanding: 35% completely understood, 43% mostly understood.
- Good objective understanding: 21% answered 6/6, 82% answered 4/6.

On average 42% of survey participants stated would take a reverse mortgage [Equity Release Product A], using an average 13% of housing assets



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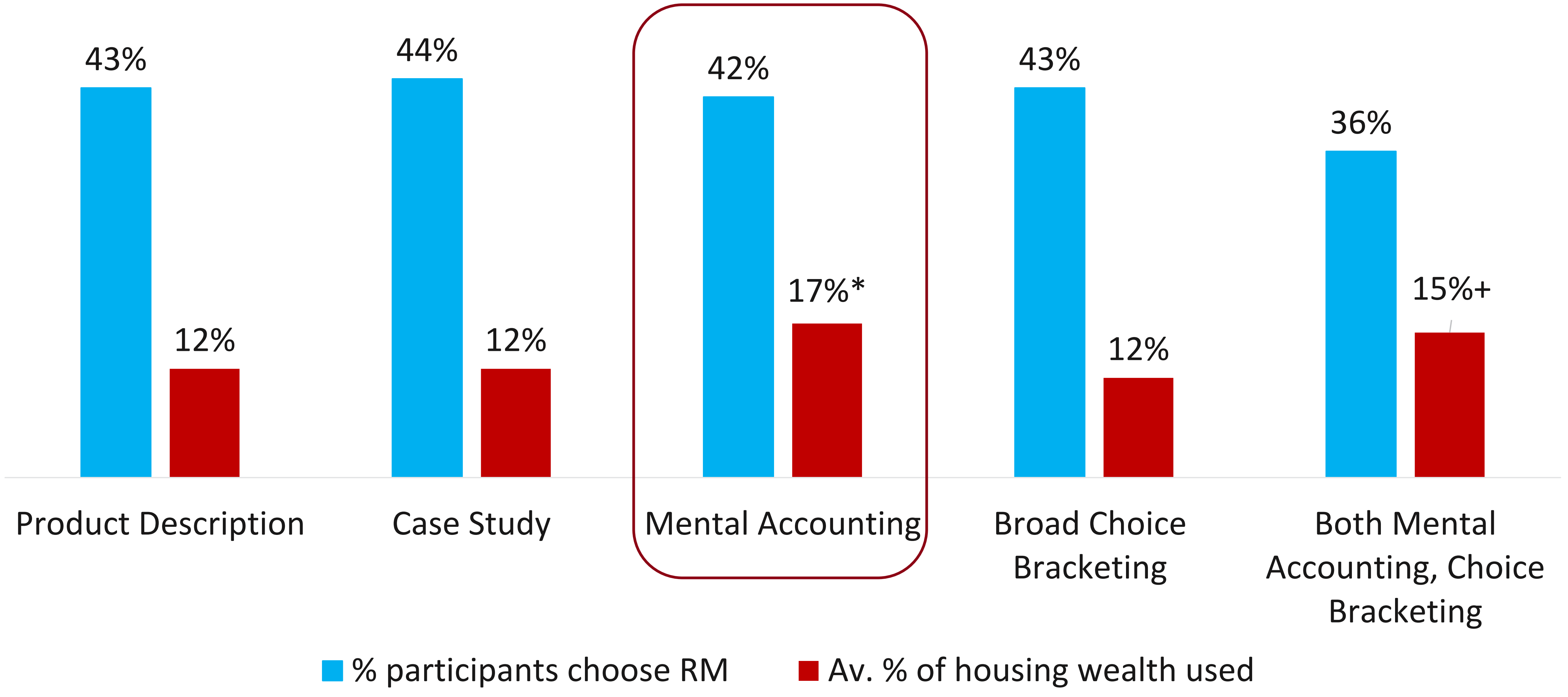

Influence of Mental Accounting Treatment confirmed by regressions

	Would you borrow from your home using Equity Release Product A? (0/1)	How much would you borrow? (% max LVR)
(Base: Case study)		
Intercept	3.5600**	0.2107*
Mental Accounting Offset	-0.1297	0.0435**
Broad Choice Bracketing	-0.2434	-0.0188
Mental Accounting + Broad Choice Bracketing	-0.0546	-0.0009

Controls for household finances, demographics, preferences, financial competence

*, **, *** refers to significance at 10%, 5%, 1%

Influence of Mental Accounting Treatment confirmed by regressions

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Controls for household finances, demographics, preferences, financial competence

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What matters for demand for Equity Release Product A

Borrowing from home (Extensive margin) associated with:

Household finances
Household income (-ve**)
Experiencing financial stress (+ve**)
Preferences
Planned bequest (+ve*)
Prepared to take risk (+ve**)
Debt averse (+ve**)
Demographics
Age (-ve**)
Retired (-ve**)
Female (-ve*)
College education (+ve**)
Product understanding, perceptions, fin literacy
Perceive product unattractive (-ve***)
Poor understanding of product (+ve**)
NO TREATMENT EFFECTS

Higher borrowing from home, conditional on purchase (Intensive margin) associated with:

Household finances
Experiencing financial stress (+ve*)
Don't need RM for regular expenses (-ve***)
Preferences
-
Demographics
Female (-ve**)

Product understanding, perceptions, fin literacy
Perceive product unattractive (-ve***)

SIGNIFICANTLY HIGHER BORROWING FROM HOME IN MENTAL ACCOUNTING OFFSET TREATMENT

Conclusion

- Demand for Reverse Mortgage (Home Equity Release Product A) associated with economic/rational factors (household finances, demographics, preferences) and product perceptions. NOT behavioural factors.
- Behavioural factors have a greater role in the amount of home equity released (conditional on purchase). Specifically, information framing to OFFSET MENTAL ACCOUNTING.
- Evidence base for information presentation and communication by REGULATORS, GOVERNMENT POLICY, FINANCIAL ADVISERS, PENSION/SUPERANNUATION FUNDS, WEALTH MANAGEMENT INDUSTRY

Next steps

Continue to develop information formats and decision tools to help retirees with wealth decumulation decisions

- Longevity awareness and demand for lifetime annuities
- Home Equity Access Scheme - HEAS (reverse mortgage offered by the government, linked to Age Pension eligibility)
- Long-term care costs

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