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Research summary

Delivering improved retirement outcomes at scale

The impact of missing personal information on retirement income strategies.

Vanguard®

Acknowledgements

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Overview

Vanguard's study "*Delivering Improved Retirement Outcomes at Scale: The Impact of Missing Personal Information on Retirement Income Strategies*"[1] seeks to quantify the impacts of incorporating personal and household information in the context of retirement income planning in Australia.

The findings reveal significant gaps in projected individual and household retirement outcomes, based on the depth of personal data used to inform retirement income planning.

This research summary illustrates the key findings from the study by presenting four fictional household personas. For a more technical review of methodology and results, please see the original study.

1 Ankul Daga and Timothy Smart. *Delivering Improved Retirement Outcomes at Scale: The Impact of Missing Personal Information on Retirement Income Strategies*. 2024.

Context

Approximately 16 million Australians have a superannuation account[2], with an estimated three million Australians expected to draw on these savings for retirement in the next decade.[3] Many Australians expect their superannuation fund to automatically optimise their retirement income. However under current settings, superannuation funds are limited in their ability to offer retirement income planning guidance. This guidance may be based on limited personal data and broad assumptions about household finances which may not suit individual needs.

Vanguard's global research consistently shows that retirement income planning is a highly personal and complex process. From household structures and housing status, healthcare needs and caring responsibilities, to everyday expenses – there is typically more diversity and complexity in individual and household needs when people are spending their retirement income, compared to when they are saving for retirement.

A good example of this in Australia is navigating the means-tested Commonwealth Government Age Pension (Age Pension). The Age Pension is one of the three pillars of Australia's retirement income system, along with compulsory superannuation savings and voluntary private savings. It is a critical source of income for many retirees yet calculating Age Pension eligibility and entitlements is complex and can change, depending on variables like asset spend rates, market performance, and household composition.

The most effective way to support retirees with this complexity is comprehensive personal advice that considers the full circumstances of an individual and their household. However the high costs associated with providing this level of advice under current regulations, combined with the limited number of available advisers (15,835 Australian Securities Investments Commission (ASIC) registered advisers as at June 2024[4]), makes it challenging for most Australians to access this level of advice.

As a result, many Australians are left to make complex retirement income decisions without adequate support. What is the cost of this advice gap to Australian retirees? How does it affect retirement income strategies and ultimately, impact retirement outcomes?

Insights from Vanguard's How Australia Retires 2024 survey

These survey findings capture Australians' current attitudes towards and experiences of retirement planning and highlight an opportunity for retirement guidance.[5]

- 40% of Australians have no clear plan for retirement.
- 29% of Australians sought or would seek retirement planning help from a financial adviser.
- 51% of Australians cited cost as a barrier to seeking retirement planning information and guidance from a financial adviser.
- 47% of Australians don't know whether their money will last in retirement.
- 47% of Australian retirees don't know how much they can spend each year in order not to outlive their savings.
- 71% of Australians expect superannuation funds to automatically help members save more and plan for retirement through smart product design and simple guidance.
- 63% of Australians somewhat or strongly agree that their superannuation fund should help them make sure they don't run out of money.

2 Jim Chalmers. *Super must deliver in retirement phase*. Australian Financial Review, December 3, 2023.

3 *Review finds super trustees need to improve retirement outcomes planning*. Australian Securities & Investment Commission., July 18, 2023.

4 Karren Vergara. *How many advisers will Australia have in 2044*. Financial Standard, August 13, 2024.

5 *How Australia Retires 2024*. Vanguard, 2024.

Methodology

This study uses fictional personas representing Australian retirees to simulate individual and household spending patterns under various financial scenarios. The personas reflect a selection of key characteristics to illustrate the impact of incorporating personal information into retirement income studies. Included in the model are Age Pension entitlements, personal financial conditions, partner status, the uncertainty of a household's longevity and the uncertainty of market returns and inflation. The model does not include the effect of taxes as we assume the personas are all retired and hold their superannuation in tax-free account-based pensions - this would limit the effect of tax paid. We also do not include the effect of housing wealth or retirement.

For this study, it is assumed that the personas have the following household preferences:

- The personas do not have a specific spending target for retirement but prefer to balance maximising spending with having certainty in spending based on a moderate aversion to risk.
- The personas want to avoid running out of money in retirement, but also value spending more while they are more likely to be alive.
- The personas do not intend to leave money to future generations or charity, but want to ensure that, if currently a couple, the surviving partner will maintain a standard of living at two-thirds of that of the combined couple if one person passes away.

These examples are illustrative only and are based on the factors and assumptions stated. They should not be taken to contain or provide an estimate or forecast of retirement outcomes.

Helena

Age: 67 years old
Household structure: Single
Superannuation savings: $250,000
Private savings: None
Housing status: Renting
Employment status: Retired

Wei

Age: 67 years old
Household structure: Single
Superannuation savings: $500,000
Private savings: $100,000
Housing status: Owns home
Employment status: Retired

Ali and Maryam

Age: Both are 67 years old
Household structure: Couple
Superannuation savings: $500,000 per person
Private savings: None
Housing status: Owns home
Employment status: Retired

Liam and Noah

Age: 62 years old (Liam) and 67 years old (Noah)
Household structure: Couple
Superannuation savings: $500,000 (Liam) and $250,000 (Noah)
Private savings: $100,000
Housing status: Owns home
Employment status: Retired

Source: Vanguard analysis using the Vanguard Capital Markets Model® for market returns and the Australian Government Actuary Australian Life Tables 2015 - 17 for household longevity (https://aga.gov.au/publications/life-tables/australian-life-tables-2015-17).

IMPORTANT: The projections or other information generated by the Vanguard Capital Markets Model (VCMM) regarding the likelihood of various investment outcomes are hypothetical in nature, do not reflect actual investment results, and are not guarantees of future results. Distribution of return outcomes from the VCMM are derived from 2,000 simulations for each modelled asset class in AUD. Simulations are as of 1 July 2024. Results from the model may vary with each use and over time.

The study examines three approaches to retirement income strategies to explore the quality of retirement outcomes given prevailing behaviour and current policy arrangements. It applies the personas across the three approaches to test the impact of incorporating different levels of personal and household information into retirement income strategies.

1. '**Minimum withdrawals':** Regardless of their personal financial circumstance, a retiree withdraws only the legislated minimum drawdowns from their retirement income account.

2. '**Superannuation fund best efforts guidance (super fund best efforts)':** Guidance from a hypothetical superannuation fund that has limited visibility of a member's financial picture and does not accurately factor in information such as partner status, age pension eligibility, or assets held outside superannuation.

3. '**Full information':** An optimised strategy that incorporates comprehensive individual and household information.

Throughout the analysis, the focus is on spending, so it is assumed that assets are invested in a balanced portfolio in all spending strategies. The balanced strategy is invested in 50% growth assets and 50% defensive assets.

The modelling outcomes are assessed using a standard academic model of preferences which is broadly aligned with superannuation's Retirement Income Covenant (RIC).[6] The RIC came into effect in July 2022 to broaden the industry's focus beyond the retirement savings accumulation phase to retirement income or spending phase. The RIC requires superannuation trustees to formulate a retirement income strategy to improve long term outcomes for members in or approaching retirement.

The results are presented in terms of annual "certainty equivalent income" so that the overall value of each retirement income strategy is able to be compared. "Certainty equivalent income" is a theoretical, guaranteed annual income that the household would receive for life, which provides the same level of satisfaction and security as implementing a strategy that could have different levels of income in each year. This is assessed based on the preferences of the personas.

6 *Superannuation Industry (Supervision) Act 1993, Section 52 (8A).* Australian Government.

Study results

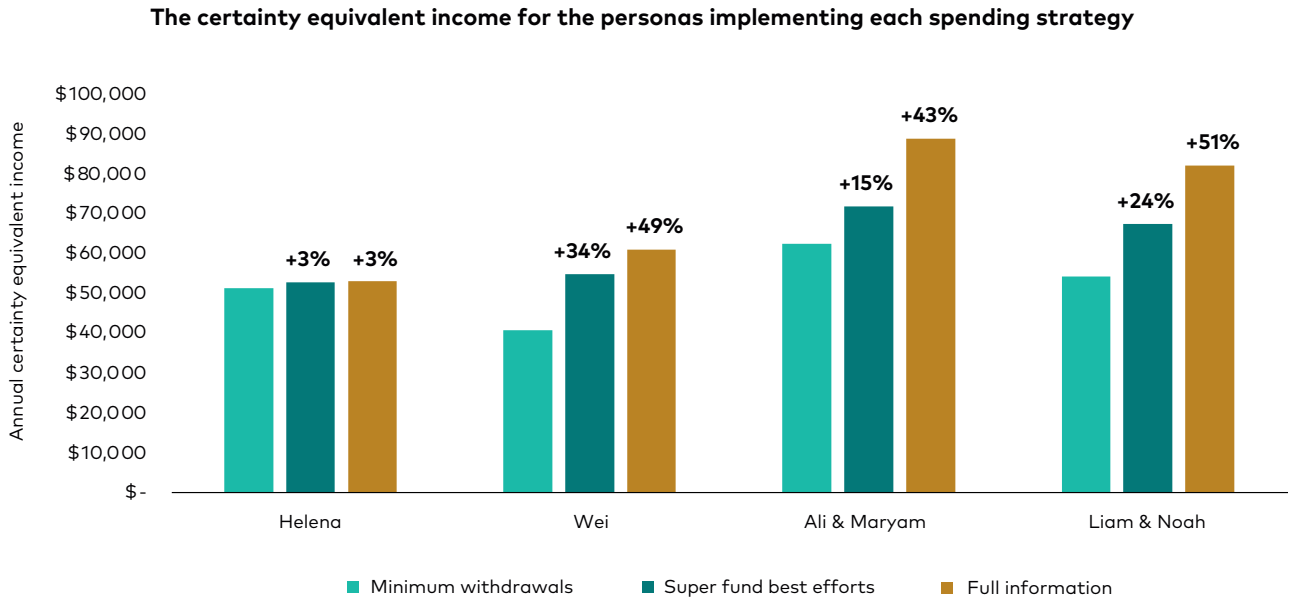
The more personal and household data that goes into a retirement income strategy, the better the outcomes.

The results show that both the super fund best efforts and full information strategies significantly improve retirement outcomes compared to general rule-of-thumb approaches like minimum withdrawals. This is typically because minimum withdrawal approaches don't consider interactions between different income streams such as the Age Pension. However super fund best efforts may still leave substantial value on the table for retirees with more complex financial circumstances, highlighting the importance of personal information in optimising retirement income strategies.

Figure 1 shows that even super fund best efforts can improve outcomes relative to a rule of thumb. However as a person's financial situation increases in complexity, so too does the potential value a full information strategy can bring.

FIGURE 1

Super fund best efforts guidance can improve retirement outcomes relative to rule of thumb approaches, but cannot maximise potential financial value for retirees with complex financial circumstances compared to full information approaches.



Source: Vanguard calculations in AUD as at 1 July 2024 based on VCMM. All percentages have been rounded up to the nearest whole number for simplicity and clarity.

Notes: The results are presented in terms of annual "certainty equivalent income" so that the overall value of each retirement income strategy is able to be compared. "Certainty equivalent income" is a theoretical, guaranteed annual income that the household would receive for life, which provides the same level of satisfaction and security as implementing a strategy that could have different levels of income in each year. This is assessed based on the preferences of the personas.

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Case study: Helena

Retirement income strategies based on general rules and information often lead to suboptimal retirement outcomes.

In the case of Helena, a retired, 67 year old single female who has $250,000 in superannuation and is renting, the results show that the status quo of the minimum withdrawal approach can be improved with super fund best efforts to deliver a benefit equivalent to a 3% ($1,470) increase in certain annual income.

This improvement is despite the superannuation fund having to rely on certain assumptions due to the limited personal information they have available. Given the simple nature of this household's financial circumstances, the full information strategy offers marginal improvement to the super fund best efforts guidance, achieving a further increase of less than 1 percentage point ($250), to deliver a $1,720 increase in certain equivalent annual income compared to the minimum withdrawal approach. This suggests that retirees with simple financial circumstance may be able to improve their expected retirement outcomes without the need for comprehensive advice.

67 year old retired single female with $250,000 in superannuation, renting.

Super fund best efforts guidance improves retirement outcomes by **3%** ($1,470) compared to minimum withdrawal approach.

Full information strategy offers similar improvement, **3%** ($1,720) compared to minimum withdrawal approach.

Simple financial circumstances can be improved without the need for comprehensive advice.

Case study: Wei

Failing to incorporate personal financial information may see retirees miss out on making the most of their retirement.

Wei is a retired, 67 year old single male with $500,000 in superannuation and an additional $100,000 in private savings. Super fund best efforts could substantially improve Wei's retirement outcomes compared to the minimum withdrawal approach to deliver a 34% ($13,950) increase in equivalent certain annual income.

By incorporating personal information about Wei that is typically unavailable to a super fund - such as the additional $100,000 Wei has in private savings - a retirement income strategy based on full information could improve Wei's equivalent certain annual income by a further 15 percentage points ($6,030) to achieve a total increase of 49% ($19,980) compared to the minimum withdrawal strategy.

67 year old retired single male with $500,000 in superannuation, owns his home and has $100,000 in private savings.

Super fund best efforts guidance improves retirement outcomes by **34%** ($13,950) compared to minimum withdrawal approach, but misses incorporating private savings.

Full information strategy which has visibility of private savings can improve retirement outcomes by a **further 15 percentage points** ($6,030) compared to the super fund best efforts guidance, and **49%** ($19,980) compared to the minimum withdrawal approach.

Case study: Ali and Maryam

Retirement income strategies based on limited personal information can have worse consequences for couples than singles.

The study identifies a considerable gap in expected outcomes when comparing the level of personal information used in retirement income strategies for couple versus a single. Naïve strategies and assumptions leave couples worse off than full information strategies.

In the case of Ali and Maryam, the results show the experience of a household when the retiree has a retired partner of the same age (67 years old) who also has $500,000 in superannuation savings and owns their home. For Ali and Maryam, super fund best efforts could deliver a 15% ($9,440) increase in certainty equivalent annual income compared to the minimum withdrawal approach.

This is despite the super fund needing to make assumptions. However super fund best efforts cannot close the gap to the full information strategy which delivers a 43% ($26,550) increase compared to the minimum withdrawal approach.

The gap in value between strategies in this case study is due to the super fund best efforts consistently mis-estimating Age Pension eligibility. This is because, typically, a superannuation fund has limited to no visibility of a member's circumstances, including their household structure. In addition, the hypothetical superannuation fund can only guide the primary member's spending, and not the spending of the full household. As a result, Ali and Maryam's income streams aren't working together to meet their household's retirement spending goals.

Both 67 years old and retired, each with $500,000 in superannuation, they own their home.

Super fund best efforts improves retirement outcomes by **15%** ($9,440) compared to a minimum withdrawal income strategy.

Full information strategy improved retirement outcomes by a **further 28 percentage points** ($17,110) compared to the super fund best efforts guidance, and **43%** ($26,550) compared to the minimum withdrawal approach.

Gap due to misestimating Age Pension eligibility and limited visibility of household structure.

Super fund best efforts cannot coordinate full household spending.

Case study: Liam and Noah

As a household's financial complexity increases, so does the potential value retirement guidance can bring.

Figure 1 shows the experiences of a retired couple, Liam (aged 62 years old, $500,000 in superannuation) and Noah (aged 67 years old, $250,000 in super), who own their own home and have private savings of $100,000. Super fund best efforts can improve their expected outcomes in terms of certainty equivalent annual income by 24% ($13,220) relative to just withdrawing and spending at the minimums.

When key personal and household information, such as partner status and age, home ownership and additional assets is considered, a full information approach delivers a larger increase in certainty equivalent annual income of 51% ($27,780) compared to the minimum withdrawal approach. This is mainly due to the limited personal information available to assess Age Pension eligibility across the full household or guide the spending of the full household under the super fund best efforts approach.

Liam (62 years old, $500,000 in superannuation), Noah (67 years old, $250,000 in superannuation), they own home and have $100,000 in private savings.

Super fund best efforts improves retirement outcomes by **24%** ($13,220) compared to a minimum withdrawal income strategy.

Full information strategy improved retirement outcomes by a **further 27 percentage points** ($14,560) compared to the super fund best efforts guidance, and **51%** ($27,780) compared to the minimum withdrawal approach.

The limited personal information incorporated in super fund best efforts hinders Age Pension eligibility assessment and coordination of full householder spending compared to the full information strategy.

A deeper dive into methodology: Liam and Noah's experience

This section draws out Liam and Noah's experience to illustrate how the study arrives at the certainty equivalent income values and why certain approaches are likely to deliver retirement income that is more highly valued by a household. **Figure 2** shows projected retirement income and balances in one of the 2,000 projected paths, where each path forecasts a different set of returns, inflation and longevity.

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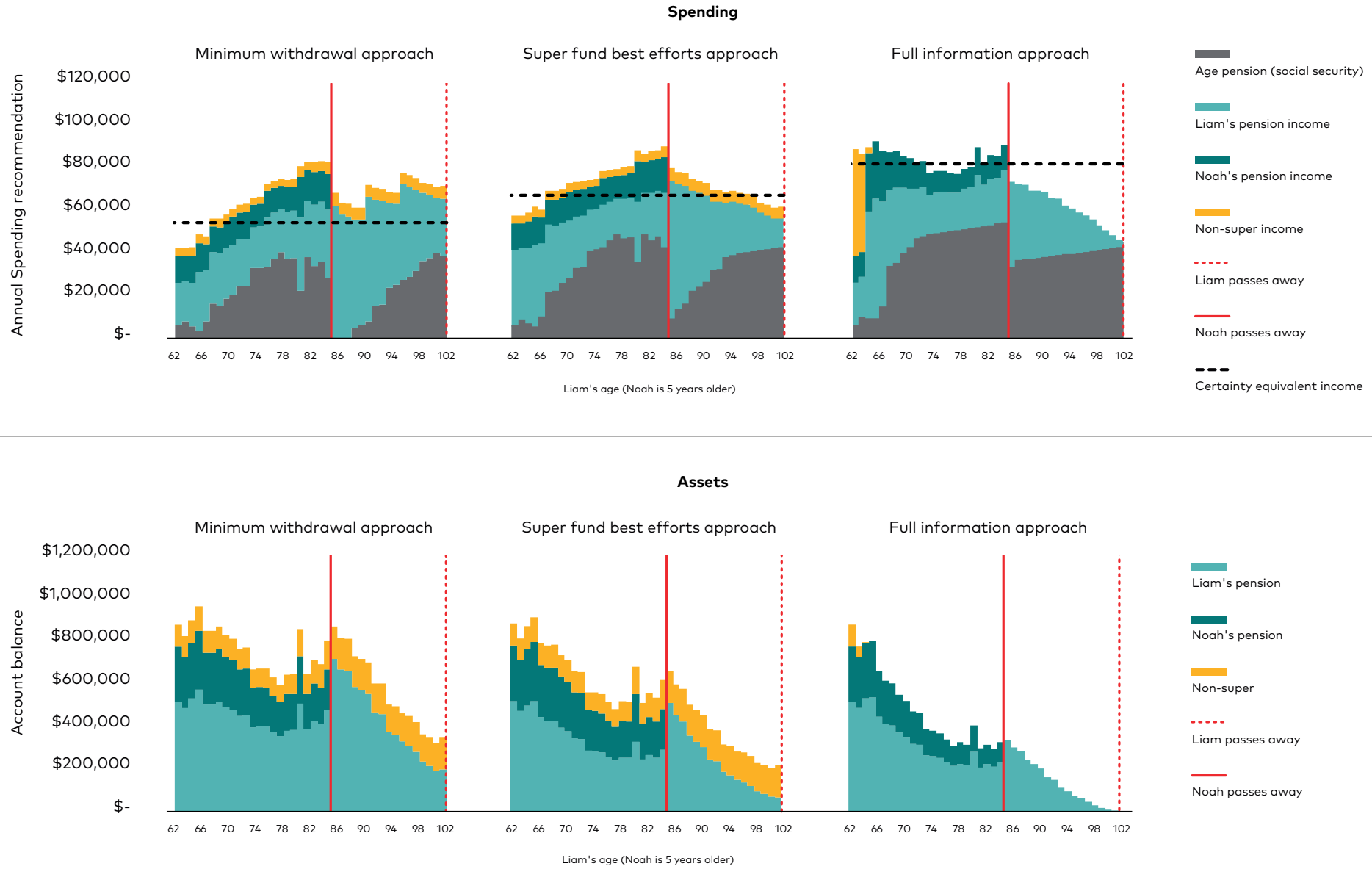
Figure 2 Examples of Liam and Noah implementing various approaches to spending and assets given the same market returns and longevity



Source: Vanguard calculations in AUD as at 1 July 2024.

1. Liam and Noah:
Minimum withdrawals approach

In this path, Liam, currently 62, lives to age 101. Noah, currently 67, lives to age 89, when Liam is 84. Throughout the analysis, the focus is on spending, so it is assumed that assets are invested in a balanced portfolio in all spending strategies. The balanced strategy is invested in 50% growth assets and 50% defensive assets.

Real returns were reasonably strong at 5% annualised, but the sequence of returns matter. An example of this is during the period when Liam was aged 80 and 81. Here, a strong return was followed by a year of poor returns.

Spending the required minimum withdrawals from their account-based pension sees Liam and Noah's spending increase as their retirement progresses, even though they would have preferred it to be smooth. In their first year of retirement spending is $42,580, yet in 20 years time, when they are in their 80s, it is projected to be $82,750. This reflects that the minimums do not integrate well with the age pension, which increases as the household ages and spends down their assets.

When Noah passes away in this path, there is a reduction in spending, but spending is still higher than two-thirds of what they were spending as a couple. This, along with the substantial assets retained at Liam's death despite no bequest motive, suggests Liam and Noah were underspending early in retirement, and could have enjoyed a higher standard of living earlier in retirement.

- In this example path, Liam and Noah's spending increases as they age, from $42,580 in the first year to $82,750 after 20 years when they reach their 80s.
- Minimum withdrawals don't align well with the Age Pension leading to underspending early in retirement.
- Liam's spending does fall after Noah passes away but remains high relative to their preference of spending two thirds of what the household was spending as a couple (when they become a single).
- Substantial assets are left once Liam passes away, indicating the couple could have enjoyed a higher standard of living earlier in their retirement.

2. Liam and Noah:
Super fund best efforts approach

If Liam is to follow the guidance of his hypothetical super fund's best efforts, the household is expected to experience a retirement that is better aligned with their preferences, as reflected by the higher certainty equivalent income line.

The superannuation fund does not have access to Liam's information beyond his age and super balance but will attempt to make a spending suggestion that better aligns with smooth spending. The research assumes that the superannuation fund makes assumptions that reflect ASIC's Retirement Income Estimate guidance[6], that there is a partner, who is the same age, has the same superannuation balance and where the household owns a home and has no additional assets. These assumptions do not reflect Liam and Noah's circumstances now, and will be incorrect as their retirement evolves. For example, the super fund assumes that Noah is also aged 62 which would incorrectly suggest that he is not currently eligible for the Age Pension.

Further, Noah is not receiving guidance, so it is assumed that he is withdrawing and spending the minimum withdrawal amounts. This means that the household's spending plan is not considering all income streams. As a result, while spending is initially higher at $57,930 with the super fund best efforts compared to spending the minimums only, spending with the super fund best efforts also increases substantially through retirement to reach $88,220 after 20 years.

- The household experiences a retirement better aligned with their preferences.
- The superannuation fund assumes both partners are the same age, have the same super balance, own a home, and have no additional assets - but this doesn't reflect the household's actual circumstances.
- Initial spending is higher at $57,930 but increases substantially to $88,220 after 20 years.
- Noah follows the minimum withdrawal approach, so the household's spending plan doesn't consider all income streams.

6 *Regulatory guide 276, Superannuation forecasts: Calculators and retirement estimates*. Australian Securities & Investments Commission, September 2024.

3. Liam and Noah
Full information approach

In the full information approach, where Liam and Noah's latest and accurate financial circumstances are incorporated into spending, the path shows how spending from all potential sources is effectively integrated into an income that best aligns with the household's preferences. It is known that Noah is eligible for the Age Pension now, even though Liam is not eligible for the first five years of retirement, and spending from assets is increased to reflect this.

Spending in the first year is $88,970, much higher than in alternative strategies, yet still $86,000 after 20 years, allowing the couple to find a balance between having a high standard of living now and into the future. The strategy also adapts to Noah's death, and sees assets depleted as Liam reaches an advanced age given that the household doesn't have any legacy plans.

- Liam and Noah's accurate financial circumstances are incorporated into spending.
- Noah's Age Pension eligibility is considered, and spending from assets is adjusted accordingly.
- First-year spending is $88,970, much higher than other strategies, and remains at $86,000 after 20 years.
- The strategy adapts to the change in household structure following Noah's passing, and depletes assets as Liam reaches an advanced age, given no legacy plans.

Key insights

- Comprehensive, professional personal advice, such as a personalised retirement plan developed in consultation with an adviser, is the most effective way to improve retirement outcomes, especially as financial circumstances increase in complexity.
- Retirees who practice basic rule of thumb retirement income strategies, such as spending legislated minimum superannuation withdrawals, are most at risk of experiencing suboptimal retirement outcomes.
- A hypothetical superannuation fund's best effort guidance, such as that possible under the current regulations, can improve retirement outcomes relative to leaving retirees to make their own decisions.
- The gap in outcomes relative to a super fund best efforts and a strategy incorporating full information emphasises the pivotal role of advisers and the value of personal information in delivering optimal retirement income strategies.
- Incorporating more personal and household information, particularly for retirees who are part of a couple, allows for more adaptable retirement income strategies that can respond to shifts in key variables, such as evolving Age Pension eligibility and entitlements.
- With the support of appropriate consumer guardrails and protections, a more personalised approach to guidance from superannuation funds could better address the significant diversity in individual and household circumstances, needs, preferences and risk profiles that impact retirement outcomes.

Conclusion

The study shows significant disparities in individual and household outcomes, depending on the level of personal information incorporated into retirement income strategies.

The findings demonstrate the potential value that greater personalisation can bring to retirement spending planning. They also support a shift towards incorporating a more personalised approach to superannuation fund guidance delivered at scale to facilitate a broad uplift in retirement outcomes.

By sharing this study, we hope to encourage further consideration from policymakers and industry on safe and effective ways to expand access to the broad spectrum of guidance and advice to improve retirement outcomes for millions of Australians.

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The VCMM projections are based on a statistical analysis of historical data. Future returns may behave differently from the historical patterns captured in the VCMM. More importantly, the VCMM may be underestimating extreme negative scenarios unobserved in the historical period on which the model estimation is based.

The Vanguard Capital Markets Model® is a proprietary financial simulation tool developed and maintained by Vanguard's primary investment research and advice teams. The model forecasts distributions of future returns for a wide array of broad asset classes. Those asset classes include U.S. and international equity markets, several maturities of the U.S. Treasury and corporate fixed income markets, international fixed income markets, U.S. money markets, commodities, and certain alternative investment strategies. The theoretical and empirical foundation for the Vanguard Capital Markets Model is that the returns of various asset classes reflect the compensation investors require for bearing different types of systematic risk (beta). At the core of the model are estimates of the dynamic statistical relationship between risk factors and asset returns, obtained from statistical analysis based on available monthly financial and economic data from as early as 1960. Using a system of estimated equations, the model then applies a Monte Carlo simulation method to project the estimated interrelationships among risk factors and asset classes as well as uncertainty and randomness over time. The model generates a large set of simulated outcomes for each asset class over several time horizons. Forecasts are obtained by computing measures of central tendency in these simulations. Results produced by the tool will vary with each use and over time.

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