ACCURIUM

Accurium
SMSF Retirement Insights

Bridging the prosperity gap

Volume 3
August 2015

This paper is the first to provide a report on the changing state of SMSFs during 2014. It shows that SMSF trustees are prepared to work longer to achieve financial security and while they're statistically 'comfortable' in retirement, they have further to go to achieve the prosperous lifestyle that they habitually desire.

For SMSF practitioner use only

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About Accurium

Established in 1980 and now part of the Challenger Limited group, Accurium (formerly Bendzulla Actuarial) provides a range of services to self-managed superannuation funds (SMSFs) in, or transitioning to, retirement with the help of accountants and other SMSF practitioners.

Accurium leads the SMSF market for actuarial certificates, placing it in a unique position to provide analysis on SMSFs in the retirement phase. Accurium supports more than 65,000 SMSFs which are paying pensions and thus require an actuarial certificate, giving Accurium access to an unrivalled amount of information on which to undertake research to assist accountants and SMSF practitioners provide quality service to their clients.

As experts in SMSF retirement, we're committed to passing on the essential tools and information you need for success including our pioneering retirement health**check** service which assists in making sure that your clients are on track to meet their retirement goals.

This SMSF Retirement Insights paper is a thought-provoking study on the changing state of SMSFs.

Executive summary

With the deadline for 2014 SMSF annual returns now passed, Accurium research covering over 65,000 SMSFs shows how the retirement wealth of Australia's SMSF trustees changed over the 2014 financial year.

Accurium's database of SMSFs is one of the largest available and this SMSF Retirement Insights paper provides the first detailed figures to be released for the 2014 financial year.

Accurium's dataset represents SMSF households who are phasing into retirement and, together with our Retirement Adequacy Model, provides unique insights into how well prepared SMSFs are for retirement.

Key highlights

- The median SMSF balance increased by 5.2% during the 2014 financial year to $1,091,000. The increase was driven by investment returns of 8.2% after taking into account contributions and withdrawals over the year for the median SMSF couple.
- Most SMSF couples have a very good chance of enjoying a retired lifestyle equivalent to Association of Superannuation Funds of Australia's (ASFA) Comfortable Retirement Standard (spending $58,444 per year for couples).
- SMSF couples who aspire to more prosperous lifestyles have further to go in setting up the retirement they desire. Based on their SMSF balances, only 28% can be confident of affording a lifestyle costing $100,000 per year for life.
- SMSF couples who want higher levels of confidence of achieving their desired lifestyles in retirement might need considerably more savings. A 65-year old couple would need $591,000 in savings to enjoy the ASFA Comfortable lifestyle with a one in five chance of outliving their savings. However, they would need 35% more capital, or $798,000, in order to reduce that risk to a 1 in 20 chance of falling back on the Age Pension.
- SMSF trustees on average have 84% higher taxable incomes than the average Australian[1] and are prepared to work longer and retire later to achieve financial security. Of the 85,000 individual trustees in Accurium's database who are still contributing to and growing their retirement savings, around 31,000 (or 36%) are over the age of 65.
- Means testing rules that take effect from 1 January 2017 will have relatively little impact on SMSF trustees' ability to fund their retirement. Nonetheless, the Age Pension will still be a very valuable resource for most SMSF trustees, particularly at older ages as their savings are consumed to support spending.

This SMSF Retirement Insights paper highlights the wide range of outcomes for different SMSF trustees based on reasonable assumptions about their lifestyle objectives and risk preferences. It shows how vital it is for SMSF practitioners to know their clients and understand their goals. For example, the difference between a 65-year old SMSF couple wanting a reasonable probability of living at the ASFA Comfortable level throughout retirement, and the same couple wanting to spend $100,000 per year with a high level of certainty is $1.6 million in extra capital at retirement. This range can increase further if the couple also have a bequest motive.

1 ATO: Self-managed super funds: A statistical overview 2012–13.

Introduction

Volume 3 of Accurium's SMSF Retirement Insights series expands on the retirement adequacy analysis provided in Volume 1, issued in October 2014. It delves more deeply into the cash-flow requirements of retirees, particularly in the latter years of their retirement.

Sustainable retirement incomes and the adequacy of the Australian retirement system continue to be a hot topic. Following the deadline for 2014 SMSF annual returns, Accurium has analysed its database of over 65,000 SMSFs to see how SMSF balances have changed over the financial year. This is the first significant release of SMSF asset values for the 2014 tax year. We also provide insights from data in Accurium's online retirement healthcheck software – to better understand the assets held by trustees outside their SMSF.

Using Accurium's Retirement Adequacy Model, we consider how allowing for different spending patterns and confidence levels can affect our estimates of the savings retirees need today to support their lifestyle goals. For more detail on the methodologies used and guidance in interpreting the results, see Appendix 2.

How have SMSF balances changed over time?

Over the year to June 2014, the median balance of SMSF trustee couples[2] in our database increased by 5.2% from $1,037,000 to $1,091,000. This net increase reflects a median imputed investment return of 8.2%, after taking into account both contributions and drawdowns (details of SMSF transactions can be found in Appendix 1).

Market performance in recent years is reflected in the median fund balances of SMSF couples in Accurium's database:

Table 1: History of median SMSF balances and imputed investment returns[3]

Year ended	30 June 2010	30 June 2011	30 June 2012	30 June 2013	30 June 2014
Median balance for two member SMSFs	$971,000	$998,000	$973,000	$1,037,000	$1,091,000
Year on year increase in balance	n/a	2.8%	–2.5%	6.6%	5.2%
Median imputed investment return[4]	6.9%	6.5%	0.6%	9.4%	8.2%

Strong imputed investment returns in the past two financial years, in particular, have produced relatively large increases in balances.

How well placed are SMSF trustees for a comfortable retirement?

We have estimated how much SMSF trustee couples would need in their SMSFs in order to afford a lifestyle in line with the ASFA Comfortable Retirement Standard, spending $58,444 each year. We assume that trustees want a reasonable success rate; better than the 50/50 or 'coin toss' that reliance on long-term averages affords. For that reason, we have assumed that they want an 80% probability that they will not run out of savings. Our calculations allow for the part Age Pension that trustees would be entitled to receive depending on the relevant means tests. Recent rule changes that are legislated to take effect from 1 January 2017 are included.

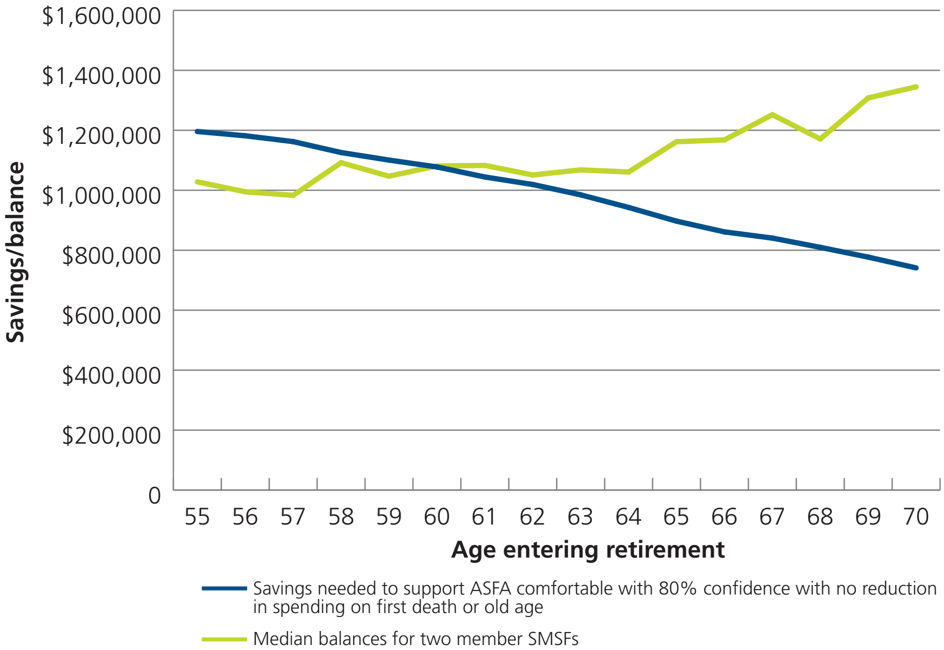
Chart 1 highlights the median assets for SMSF couples of different ages in Accurium's database and the savings they would need to afford the ASFA Comfortable Retirement Standard with 80% confidence. A 65-year-old couple would need $897,000 to achieve the ASFA Comfortable Retirement Standard of living for the rest of their lives with an 80% level confidence. The 2014 median SMSF balance for 65-year-old couples is actually $1,162,000, well above what they require on these measures of lifestyle and risk.

2 A typical SMSF is defined in this SMSF Retirement Insights paper as having two members who form a couple. Based on Accurium's data, 70 per cent of all SMSFs are two member funds. The data used in this SMSF Retirement Insights paper are extracted from Accurium's client database in aggregate only and are not based on any personalised, individual data.

3 Sourced from Accurium's database of SMSFs with two members.

4 Imputed investment returns are calculated net of administration expenses and gross of income tax (for further details on the methodology for calculating returns see Appendix 2).

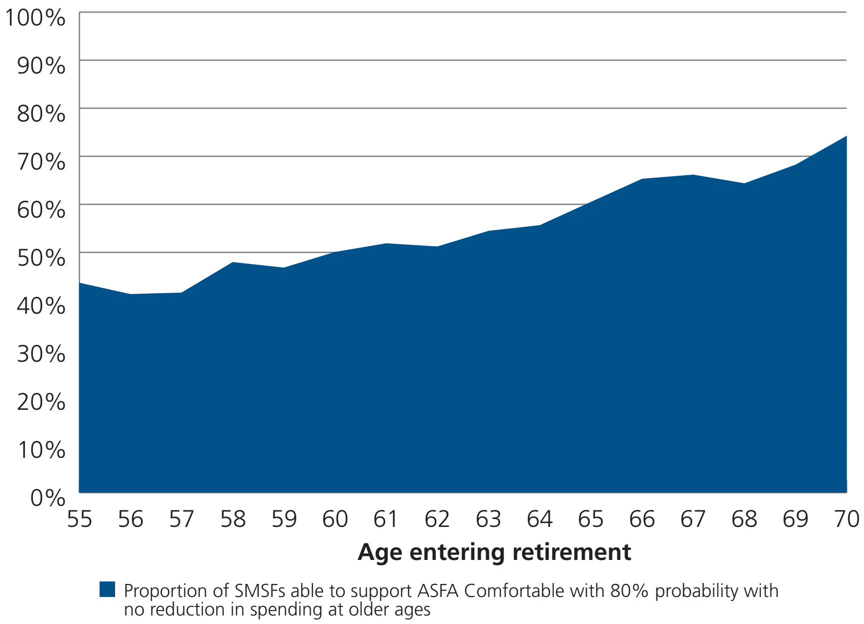
Chart 1: Savings required for ASFA Comfortable Retirement Standard with 80% confidence vs median balance[5]



The results show that, from age 60, SMSF couples with the median balance have more than enough in their SMSF to afford this lifestyle with a reasonable level of confidence. This is a slight improvement from Volume 1 of our SMSF Retirement Insights which found that couples with the median balance could afford this lifestyle from age 62, based on 2013 balances.

Chart 2 demonstrates that most SMSFs couples will be reasonably confident of achieving the ASFA Comfortable Retirement Standard throughout retirement, provided that they wait until their 60s to retire. It shows the proportion of two member SMSFs in our database that would have a probability in excess of 80% of being able to spend in line with the standard for the rest of their lives.

Chart 2: Proportion of SMSF couples reasonably confident of achieving the ASFA Comfortable Retirement Standard



5 Tables containing figures in this chart are included in Appendix 1

Spending patterns in retirement

In calculating the figures above, and those in Volume 1, we followed common practice and considered a spending profile that increased each year in line with inflation. In practice, real life spending patterns often differ from this. Anecdotes support the concept of lower spending as retirees age and this is supported by research in the US.[6]

Widows and widowers

Typically, one member of a couple passes away before the other. The budget for the surviving spouse is typically lower than that for the couple. The Age Pension payment rates reflect this. A single pensioner receives about two-thirds of what a couple does.

Spending in old age

People's lifestyles often change in retirement. Many report of a more active phase in the early years of retirement where spending levels are higher. In later years, spending on holidays and leisure activities often falls as retirees become less active, however, health and aged care costs may increase.

In recognition of this, ASFA have carried out research[7] into the evolving spending needs of older retirees. Their analysis shows that the spending needs for a comfortable standard of living are around 10% lower at age 85 than at age 65. Much of the difference is due to reduced spending on leisure activities, offset to some degree by increased medical costs. The ASFA Comfortable Retirement Standard for different demographics are shown below:

ASFA Comfortable Retirement Standard	Couple	Single
Retirees aged around 65	$58,444 p.a.	$42,569 p.a.
Retirees aged around 85	$53,424 p.a.	$38,075 p.a.

Impact of spending patterns of required retirement savings

Allowing for future changes in spending habits can have a significant impact on the level of savings retirees need to meet their desired lifestyles. We used our Retirement Adequacy Model to assess the amount of savings a retired couple would need to achieve different levels of spending throughout their retirement. Specifically, we have allowed for real expenditure to fall:

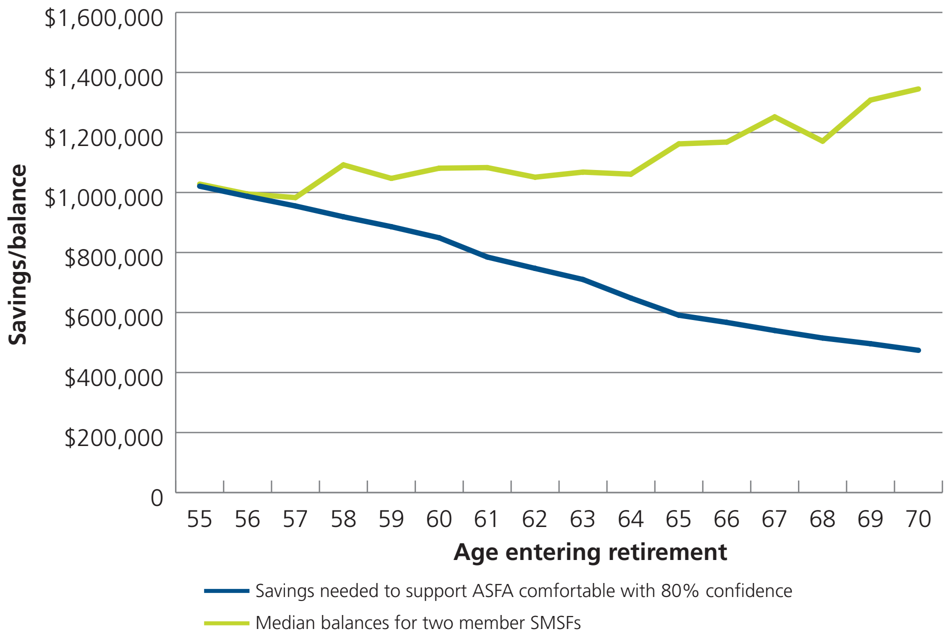
- 30% when the first member of the couple passes away, and
- 10% when they reach age 85.

Chart 3 shows the impact of allowing for these spending patterns on the retirement savings that an SMSF trustee couple would need to afford the ASFA Comfortable Retirement Standard with 80% confidence:

6 Blanchett, David. 'Estimating the True Cost of Retirement'. Morningstar White Paper 2013

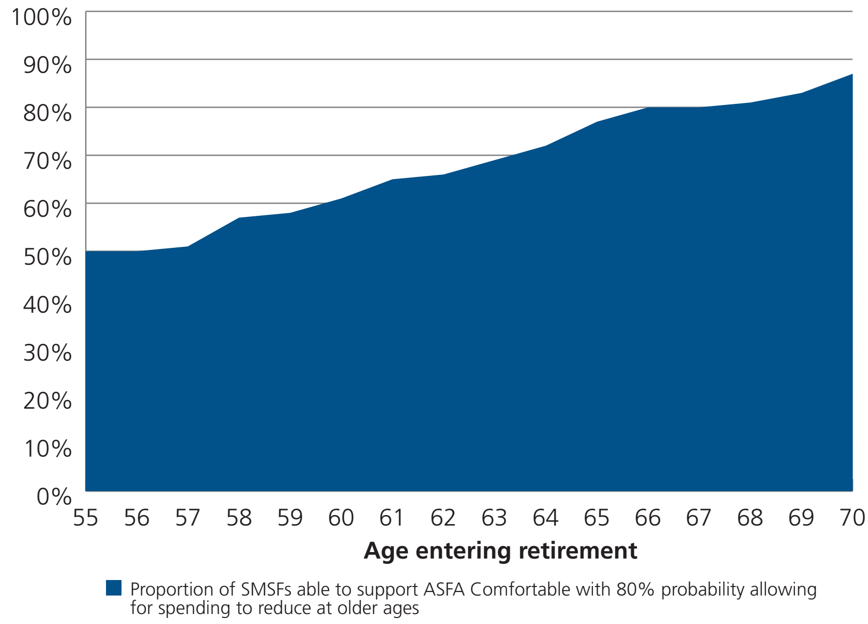
7 'Spending patterns of older retirees: New ASFA Retirement Standard', ASFA January 2015

Chart 3: Savings required for ASFA Comfortable Retirement Standard with 80% confidence and allowing for spending to reduce at older ages vs median balance



The amount of savings needed is significantly lower when we allow for couples' spending patterns to change over their retirement. For a 65-year-old couple wanting the ASFA Comfortable Retirement Standard lifestyle, the savings needed today are around one-third lower if they are happy for their spending to reduce in later years. In fact, when we allow for spending to reduce at older ages, SMSF couples with the median balance can be reasonably confident of affording a comfortable retirement from as young as 55. Chart 4 shows the proportion of SMSF couples in our database who are in this position.

Chart 4: Proportion of SMSF couples reasonably confident of achieving the ASFA Comfortable Retirement Standard, allowing for spending to reduce at older ages



The spending needs of each household should be considered separately, but for the purposes of this paper, we have adopted the above spending profile for the analysis presented in the remaining sections.

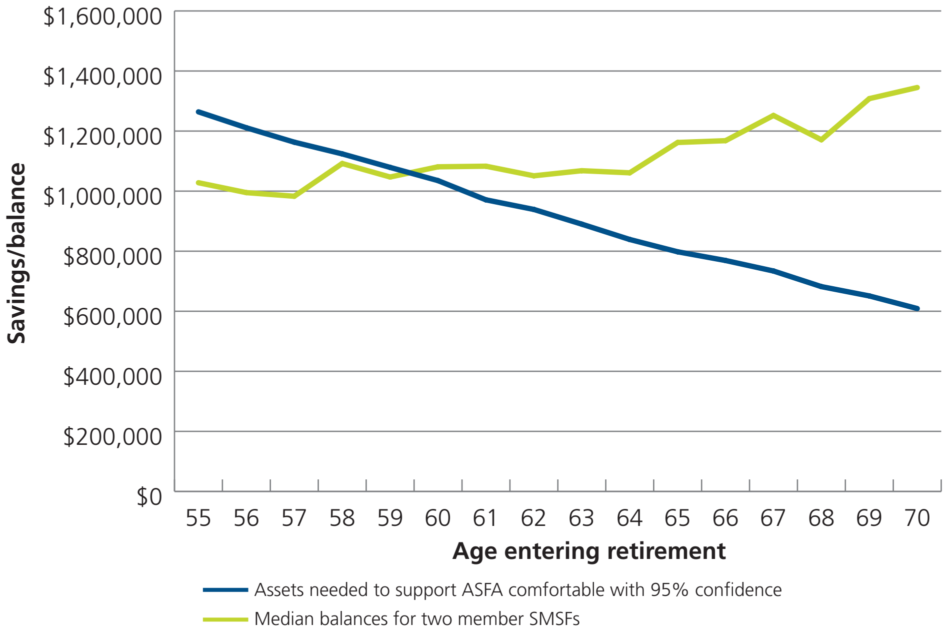
How confident do retirees want to be that their savings will last for life?

We have assumed that a reasonable expectation is a retirement spending plan that has an 80% probability of success; where success means having enough to continue the intended lifestyle until both members of a couple pass away. Put another way, it assumes the retirees are comfortable with a one in five chance that they will either have to cut their spending below their desired lifestyle or be solely reliant on the Age Pension.

Many retirees might want an even greater level of certainty than this. Some will have a minimum lifestyle standard that they consider to be essential. Our modelling can analyse a full range of outcomes for retirees and predict the savings needed for a desired lifestyle, with differing levels of confidence. Taking the lead from standard statistical methodologies, a high level of certainty could be regarded as having a 95% probability of success. This still has a one in twenty chance of failure.

Greater certainty comes at a price. More savings are needed if SMSF couples want a higher level of certainty of achieving their desired lifestyle throughout retirement. Chart 5 shows the savings required to afford the ASFA Comfortable Retirement Standard for life with 95% certainty, compared to the median SMSF balances in our database. A 65-year-old couple would need just under $800,000 so they are still on track if they want greater certainty of achieving the ASFA Comfortable Retirement Standard lifestyle.

Chart 5: Savings required for ASFA Comfortable Retirement Standard with 95% confidence, allowing for spending to reduce at older ages vs median balance

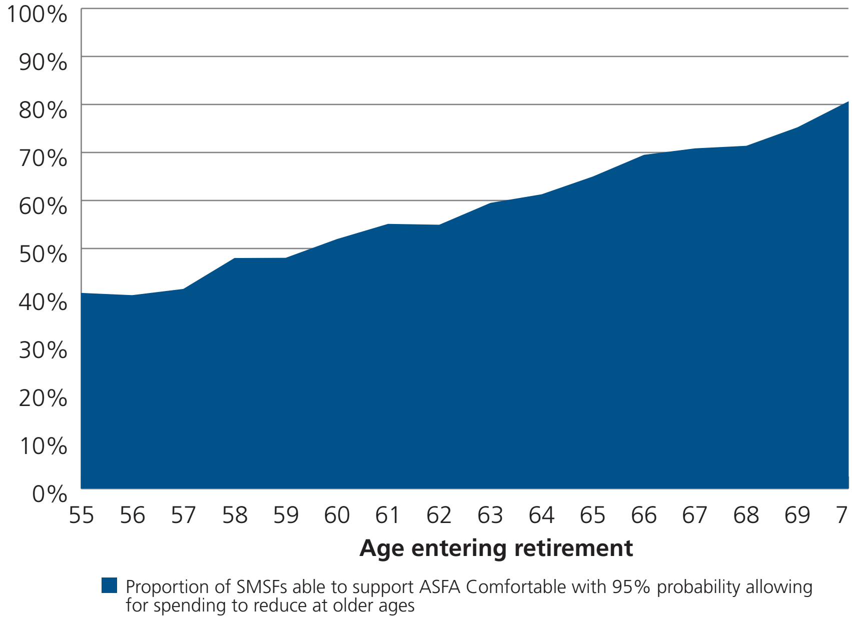


Couples with median SMSF balances would need to wait until age 60 before their balances are sufficient to sustain the ASFA Comfortable Retirement Standard with 95% confidence.

Higher savings cannot provide 100% certainty. There is always a residual chance with market-based investments that SMSF trustees will outlive their nest eggs and have to rely solely on the Age Pension if their retirement plan is not successful. Market risks can combine with longevity risk and the cost of living a long time, to consume all the retirement savings.

Chart 6 shows the proportion of SMSF couples in our study who can be more confident of achieving the ASFA Comfortable Retirement Standard lifestyle. It shows that around two-thirds of 65-year-old SMSF couples in our database have sufficient assets in their SMSFs to afford this lifestyle with 95% confidence.

Chart 6: Proportion of SMSF couples who can afford ASFA Comfortable Retirement Standard with 95% confidence, allowing for spending to reduce at older ages



What about those who aspire to a more prosperous retirement?

SMSF trustees are, on average, wealthier than the population as a whole. Indeed, the Australian Taxation Office (ATO) statistics[8] show that the average SMSF trustee has taxable income 84% higher than the average Australian. Higher living standards are likely to be carried over into retirement, so SMSF trustees should plan for higher levels of spending if they wish to continue their current lifestyle.

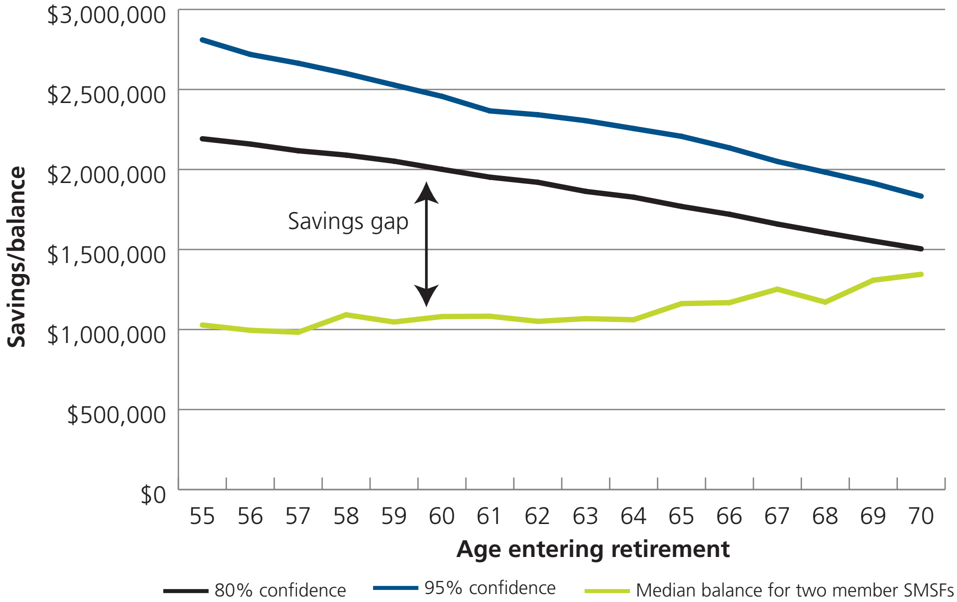
Using Accurium's Retirement Adequacy Model, we have estimated the savings needed to afford a spending level of $100,000 p.a. for life in retirement. This spending level is broadly supported by SMSF Association research which found that, on average, trustees think they will need $1,838 per week ($95,576 p.a.) in retirement.[9] Our modelling also allows for retirees' spending needs to change in the latter stages of retirement (as described above) and is shown at both an 80% and a 95% confidence level.

Here the picture is less rosy; SMSF couples at all ages in our study with median balances do not have sufficient assets in their funds to support spending at $100,000 p.a. for life with 80% confidence. The median balance for a 65-year-old couple of $1,162,000 is significantly less than the $1,769,000 needed for a $100,000 a year lifestyle with 80% confidence. Chart 7 shows the savings gap between the assets required to afford this lifestyle with different levels of confidence and the median SMSF balances.

8 ATO: Self-managed super funds: A statistical overview 2012–13

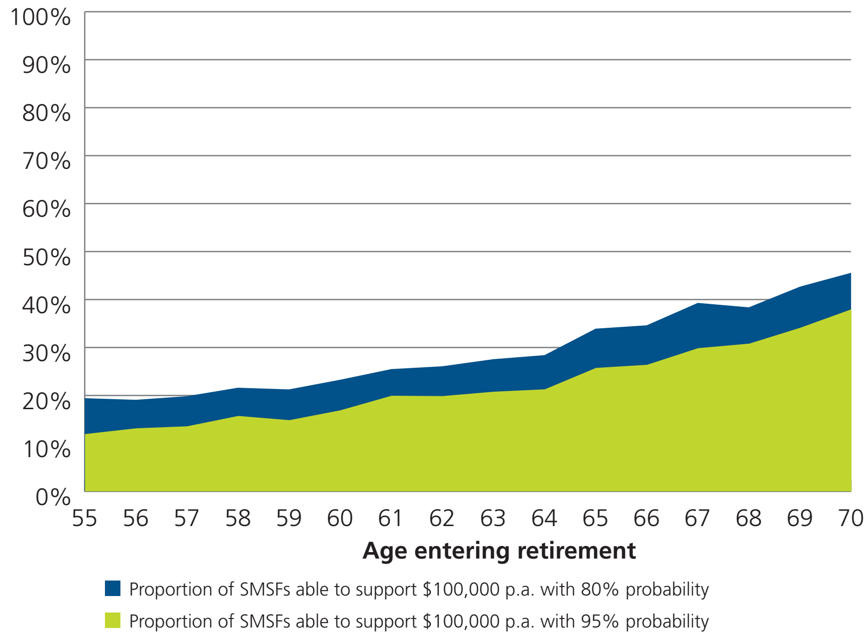
9 SMSF Association: Intimate with Self-Manage Superannuation – An annual study of Self-Managed Superannuation Funds 2015

Chart 7: Savings needed to support $100,000 p.a. in retirement with different levels of confidence vs median SMSF balances



While the median SMSF couple can't be confident of spending $100,000 a year for the rest of their lives based on their fund balances, some wealthier SMSF couples still can. Chart 8 shows the proportion of SMSF couples in our study who are able to afford $100,000 p.a. with differing levels of confidence.

Chart 8: Proportion of SMSF couples able to afford $100,000 p.a. in retirement with differing levels of confidence



SMSF trustees who aspire to more prosperous lifestyles have further to go in setting up the retirement they desire. Based on their SMSF balances, only 28% of the couples in our database aged between 55 and 70 can be confident of affording a lifestyle costing $100,000 per year for life if they retired today.

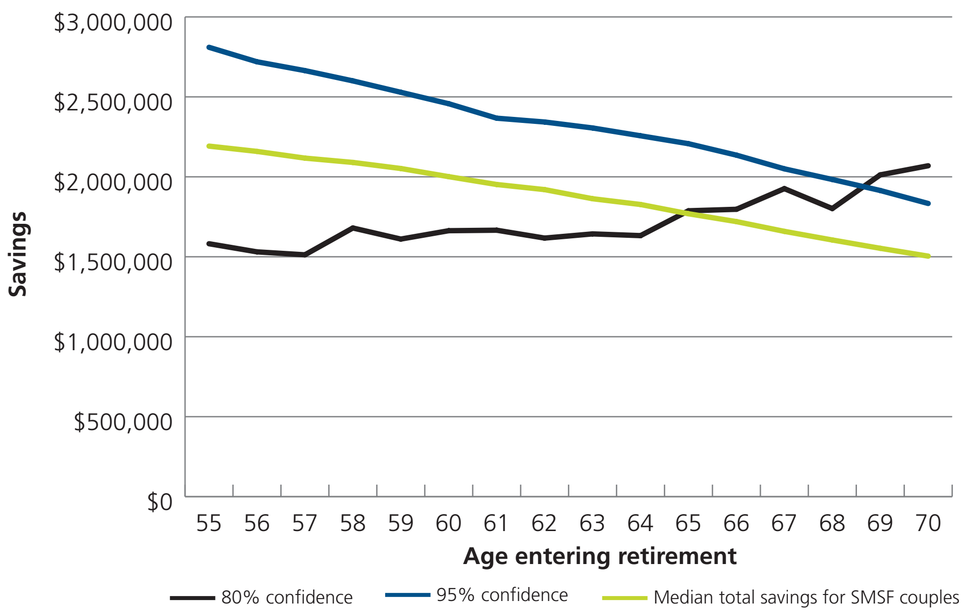
Assets held outside the SMSF

As noted in Volume 1, many SMSF couples also have savings outside their SMSF. Accurium's retirement healthcheck is an online tool that provides a holistic assessment of the sustainability of SMSF trustees' retirement plans. To use this service, SMSF practitioners provide detailed information on the SMSF households' assets, including both superannuation and non-superannuation assets. Anonymised data collected from users of the retirement healthcheck show that, on average, retired SMSF households have around 35% of their savings outside their SMSF. This is fairly consistent with other surveys of SMSFs[10] which indicate that SMSFs hold around 40% of their total investable assets outside of their SMSF.

Allowing for non-superannuation assets can make a considerable difference. SMSF couples wanting a $100,000 p.a. lifestyle in retirement are better placed when assets outside the SMSF are taken into account. The estimated median total savings of a 65-year-old SMSF couple is around $1,788,000 which is sufficient to provide 80% probability of being able to spend $100,000 p.a. for life. However, it is well short of the $2,207,000 we estimate is needed to reduce the chance of running out of savings to one in twenty.

Chart 9 shows that SMSF couples with median estimated total savings do not have sufficient assets to retire on $100,000 p.a. with 95% confidence until age 69.

Chart 9: Savings needed to support $100,000 p.a. in retirement with differing levels of confidence vs estimated median total savings



Impact of changes to the Age Pension

For the vast majority of retirees in Australia, the Age Pension will form a significant part of their income in retirement, in many cases after they have run down their savings.

The Government has recently changed the means tests for the Age Pension.[11] The changes take effect from 1 January 2017 and include:

- a higher starting Assets Test threshold
- a faster taper rate for the part Age Pension as retirees assets increase; and
- a lower Assets Test threshold at which the part Age Pension cuts out.

10 Source: Investment Trends SMSF Trustees Survey 2014.

11 Further detail on these changes and their impact on retirees can be found in Accurium's 'The rebalancing of the assets test' article available on the Accurium website (www.accurium.com.au).

The overall impact for many SMSF trustees will be lower Age Pension payments over their retirement. The table below compares the savings required for a 65-year-old SMSF couple to sustain the ASFA Comfortable Retirement Standard with 80% confidence under the old and new Age Pension rules.

Table 2: How required savings are affected by the Age Pension

	Savings required for a 65-year-old couple to have 80% confidence and allowing for spending to reduce at older ages	
Initial spending level	Current Age Pension Rules	New Age Pension Rules from 1 January 2017
ASFA Comfortable – $58,444 p.a.	$577,000	$591,000
$100,000 p.a.	$1,719,000	$1,769,000

The results show that the changes have only a limited overall impact on the lifestyle SMSF couples can afford. While the part Age Pension is removed for retirees at a lower level of assets, the corollary is that as retirees spend their savings over their retirement, they will become eligible to the full Age Pension more quickly than was previously the case.

Conclusion

This Retirement Insights looks at the ability of SMSF trustees to fund their retirement. A typical SMSF couple can be reasonably confident of having sufficient assets to retire comfortably from as young as age 55 based on their SMSF balances alone. By including assets outside the SMSF, a typical 65-year-old couple might be reasonably confident of being able to sustain a $100,000 a year lifestyle. However, trustees who want a higher level of confidence need more savings.

The majority of couples with an SMSF are already in a position to retire with some level of comfort and many are able to do so with higher standards of living. However, our paper also shows that a significant proportion of trustees are choosing not to do so and are continuing to contribute to and grow their retirement savings further. Indeed, of the 85,000 SMSF trustees in our database who made contributions to their funds in 2014, 31,000 (or around 36%) were aged over 65. Whether they are aspiring to yet higher prosperity in retirement or want greater certainty that their savings will last the distance, it is clear that many aren't yet ready to start enjoying the fruits of their labour.

Those advising SMSF trustees should know their clients. Differences between desired lifestyle and confidence levels can make a difference of nearly $2 million in required retirement savings. It is essential that anyone working with an SMSF understands their client's preferences in this regard, and their full range of assets, including those outside the SMSF.

Accurium's retirement healthcheck is an online tool designed to help SMSF practitioners with exactly these questions as applied to each specific household's circumstances.[12] The model takes into account all financial resources of the retirees and their detailed spending objectives to assess how sustainable their plans are. The tool has been designed to make it easy for SMSF practitioners to discuss the various trade-offs required in retirement such as cash-flow risk, lump sum withdrawals and bequest motives with their clients.

These conversations are vital for SMSF practitioners to have and document before giving other forms of advice to retirees.

The retirement healthcheck is a part of the Accurium membership system which is free to all Accurium clients who request actuarial certificates – visit www.accurium.com.au/smsf/retirement-healthcheck for more details.

12 Examples of specific circumstances that would have a material impact on results for your clients include: the exact ages of each spouse, their actual investment mix, including non-superannuation resources, the shape of their spending plans including lump sums, their risk preferences and any bequest motives they may have.

Appendix 1 – Data tables

The figures behind many of the charts presented in this paper are provided below for reference.

Table 3: Savings required for ASFA Comfortable Retirement Standard vs median SMSF balance

Couple's age	Median balances for two member SMSFs ($)	Savings required to support the ASFA Comfortable Retirement Standard ($58,444 p.a.) for life ($)		
		with 80% confidence and assuming spending continues in real terms	with 80% confidence and assuming spending reduces at older ages	with 95% confidence and assuming spending reduces at older ages
55	1,028,000	1,196,000	1,021,000	1,264,000
56	995,000	1,182,000	987,000	1,211,000
57	983,000	1,162,000	955,000	1,163,000
58	1,092,000	1,126,000	919,000	1,124,000
59	1,047,000	1,101,000	886,000	1,079,000
60	1,081,000	1,078,000	849,000	1,035,000
61	1,083,000	1,044,000	785,000	971,000
62	1,051,000	1,019,000	747,000	939,000
63	1,068,000	985,000	710,000	890,000
64	1,061,000	943,000	648,000	839,000
65	1,162,000	897,000	591,000	798,000
66	1,168,000	861,000	567,000	769,000
67	1,252,000	841,000	540,000	734,000
68	1,171,000	810,000	515,000	682,000
69	1,308,000	777,000	496,000	651,000
70	1,345,000	741,000	474,000	609,000

Table 4: Savings needed to support $70,000 p.a. in retirement with differing levels of confidence vs median balance

Couple's age	Median balances for two member SMSFs ($)	Savings required to support $70,000 p.a. for life and assuming spending reduces at older ages ($)	
		with 80% confidence	with 95% confidence
55	1,028,000	1,375,000	1,755,000
56	995,000	1,342,000	1,663,000
57	983,000	1,306,000	1,618,000
58	1,092,000	1,265,000	1,579,000
59	1,047,000	1,230,000	1,532,000
60	1,081,000	1,202,000	1,494,000
61	1,083,000	1,166,000	1,415,000
62	1,051,000	1,127,000	1,391,000
63	1,068,000	1,089,000	1,359,000
64	1,061,000	1,047,000	1,316,000
65	1,162,000	986,000	1,289,000
66	1,168,000	955,000	1,237,000
67	1,252,000	905,000	1,176,000
68	1,171,000	863,000	1,127,000
69	1,308,000	816,000	1,075,000
70	1,345,000	782,000	1,017,000

Table 5: Savings needed to support $100,000 p.a. in retirement with differing levels of confidence vs median balance

Couple's age	Median balances for two member SMSFs ($)	Savings required to support $100,000 p.a. for life and assuming spending reduces at older ages ($)	
		with 80% confidence	with 95% confidence
55	1,028,000	2,192,000	2,810,000
56	995,000	2,159,000	2,719,000
57	983,000	2,117,000	2,664,000
58	1,092,000	2,090,000	2,600,000
59	1,047,000	2,052,000	2,529,000
60	1,081,000	2,001,000	2,457,000
61	1,083,000	1,952,000	2,367,000
62	1,051,000	1,920,000	2,343,000
63	1,068,000	1,863,000	2,306,000
64	1,061,000	1,827,000	2,257,000
65	1,162,000	1,769,000	2,207,000
66	1,168,000	1,720,000	2,136,000
67	1,252,000	1,659,000	2,050,000
68	1,171,000	1,605,000	1,983,000
69	1,308,000	1,553,000	1,915,000
70	1,345,000	1,504,000	1,833,000

Table 6: Savings needed to support $70,000 p.a. in retirement with differing levels of confidence vs estimated median total savings

Couple's age	Estimated median total savings of SMSF couples ($)	Savings required to support $70,000 p.a. for life and assuming spending reduces at older ages ($)	
		with 80% confidence	with 95% confidence
55	1,582,000	1,375,000	1,755,000
56	1,531,000	1,342,000	1,663,000
57	1,512,000	1,306,000	1,618,000
58	1,680,000	1,265,000	1,579,000
59	1,611,000	1,230,000	1,532,000
60	1,663,000	1,202,000	1,494,000
61	1,666,000	1,166,000	1,415,000
62	1,617,000	1,127,000	1,391,000
63	1,643,000	1,089,000	1,359,000
64	1,632,000	1,047,000	1,316,000
65	1,788,000	986,000	1,289,000
66	1,797,000	955,000	1,237,000
67	1,926,000	905,000	1,176,000
68	1,802,000	863,000	1,127,000
69	2,012,000	816,000	1,075,000
70	2,069,000	782,000	1,017,000

Table 7: Savings needed to support $100,000 p.a. in retirement with differing levels of confidence vs estimated median total savings

Couple's age	Estimated total assets of SMSF couples ($)	Savings required to support $100,000 p.a. for life and assuming spending reduces at older ages ($)	
		with 80% confidence	with 95% confidence
55	1,582,000	2,192,000	2,810,000
56	1,531,000	2,159,000	2,719,000
57	1,512,000	2,117,000	2,664,000
58	1,680,000	2,090,000	2,600,000
59	1,611,000	2,052,000	2,529,000
60	1,663,000	2,001,000	2,457,000
61	1,666,000	1,952,000	2,367,000
62	1,617,000	1,920,000	2,343,000
63	1,643,000	1,863,000	2,306,000
64	1,632,000	1,827,000	2,257,000
65	1,788,000	1,769,000	2,207,000
66	1,797,000	1,720,000	2,136,000
67	1,926,000	1,659,000	2,050,000
68	1,802,000	1,605,000	1,983,000
69	2,012,000	1,553,000	1,915,000
70	2,069,000	1,504,000	1,833,000

Table 8: Median SMSF transactions for couples in our database during the year ended 30 June 2014

Median value of benefit payments	$60,000
Median value of total contributions	$48,000
Median value of imputed investment returns	$77,000

Appendix 2 – Methodology and assumptions

Imputed investment return methodology
Imputed SMSF investment returns presented in this paper are based on financial information provided to Accurium when applying for an actuarial certificate. As such, the imputed investment return is calculated net of fund expenses, but before allowance for any income tax that may be payable (or tax refunds such as imputation credits). Member transactions are allowed for in the return calculations to the extent that they have been included in the data provided to us. Fund expenses include administration costs and levies, professional fees and may also include insurance premiums paid by the fund (which would not ordinarily be regarded as reducing investment returns). This means that the median imputed investment return might by very slightly lower than the actual investment return.

There are two other factors that should be taken into account in drawing conclusions from the imputed investment returns in this paper:

- the dataset of funds is restricted to SMSFs that need an actuarial certificate. This means they are partially in the retirement phase and might have a different asset allocation from a typical accumulation fund; and
- after-tax returns might actually be higher for SMSFs receiving substantial franking credits.

Note that care must be taken when using these imputed investment returns, particularly when making comparisons with other investment return data, particularly from other superannuation sectors. For example, both the data collected and the methodology used are different from that used by APRA to estimate returns on assets for APRA-regulated superannuation funds. Appendix 2 to the ATO's **'Self-managed super funds: A statistical overview 2012-2013'** explains a number of the data limitations and differences in methodologies that affect comparisons of SMSFs with non-SMSF sectors.

It should also be noted that the 2013 financial year was the first year in which SMSFs were required to value all assets at market value in their accounts.[13] It is not known to what extent this will have increased SMSF balances in that year.[14]

Modelling methodology
Accurium provides actuarial services for over 65,000 SMSFs. This uniquely positions us to develop insights into how well prepared SMSF trustees are for retirement.

This SMSF Retirement Insights paper is focused on the typical SMSF trustee couple.

The analysis is based on the outputs of Accurium's Retirement Adequacy Model, which uses stochastic modelling, instead of a deterministic modelling approach often used in retirement financial planning. Deterministic modelling is convenient and relatively simple because it assigns assumed, fixed values to random variables like expected share market returns and individual life expectancy. Deterministic models often employ mean or median values as 'averages' for reasons of intuitive appeal. However, this approach is inherently flawed, because by definition, the majority of outcomes will not reflect these assumptions. Surveys show[15] that retirees are left with understandable concerns around outliving their savings.

13 Regulation 8.02B of the Superannuation Industry (Supervision) Regulations 1994.

14 For a more comprehensive discussion of the differences in investment performance reporting across the industry, see Appendix 1 to the 2010 report by Industry Super Network (now ISA) entitled: 'Towards full and transparent reporting of investment returns in super' <http://www.industrysuperaustralia.com/assets/Reports/111010-Towards-full-and-consistent-reporting-sent.pdf>

15 Investment Trends: 2014 Retirement Income Report.

Stochastic (or probabilistic) modelling doesn't assume fixed values for key unknown variables. Instead, it accepts uncertainty and computes thousands of possible scenarios using a range of values for each variable, and in doing so can ascribe probabilities or confidence intervals to each outcome. Where a deterministic model will posit an 'average' output based on 'average' inputs, a stochastic model can calculate the probability of achieving a given output and therefore allows retirees to make informed decisions that take into account risk.

Accurium's Retirement Adequacy Model incorporates variables in investment returns, inflation rates, Age Pension payments and retiree lifespans. We have forecasted typical SMSF trustee couples through 1,000 'what if' scenarios for each of these variables. Each scenario demonstrates a different series of possible market returns, inflation rates and the couple's lifespans. For the calculations in this paper, the assumed investment mix used is based on the average for SMSFs published by the ATO.

Modelling assumptions

Some of the key things to note about the calculations underlying the tables in this paper are:

- Spending is assumed to increase with inflation each year with any assumed future reductions in spending being in real terms.
- When calculating the probability of being able to sustain a particular standard of living for life, we assume that all capital is available to be used to support that level of spending (there is no minimum bequest requirement).
- The statistics used to generate longevity scenarios are based on the 2010-12 Australian Life Tables published by the Australian Government Actuary. We also allow for the 25-year mortality improvement rates from the same publication.
- On the death of one spouse, all assets and superannuation are assumed to transfer to the surviving spouse.
- The investment returns and rates of inflation used to calculate the statistics have been generated by Towers Watson using their Global Asset Model.
- The assumed investment mix is based on the average for SMSFs as published by the ATO. We assume the SMSF investment mix is regularly rebalanced throughout retirement and an allowance is made for fund expenses.
- Tax on non-superannuation investment returns is modelled; including the senior Australians tax offset (SATO) rules and Medicare.
- The Age Pension is allowed for using Centrelink means testing rules i.e. we assume the person is eligible based on residency rules. On 22 June 2015 legislation was passed that alters the Age Pension assets test with effect from 1 January 2017. Our projections allow for these new rules to apply from 1 January 2017.

Other, more detailed, points to note include:

- The Minimum Pension Standards, as required under the Superannuation Industry (Supervision) Regulations, are allowed for. If the minimum pension payment in any particular year exceeds the household's spending, then this is added to the household's non-superannuation assets.
- SMSF pensions are assumed to be subject to the Centrelink deeming rules, rather than grandfathering rules (i.e. they are assumed to have commenced on or after 1 January 2015).
- All tax and Centrelink rates, bands and thresholds used are those current as at 1 July 2015. All future payment rates, bands and thresholds are assumed to change in line with inflation each year.

- We have allowed for the following fees and charges:
  - SMSF administrative fees of $1,000 per annum
  - Investment management charges within the SMSF of:

Cash	0% p.a.
Fixed interest	0.5% p.a.
Property	0.8% p.a.
Australian shares	0.5% p.a.
Overseas shares	1.0% p.a.
Other growth	0.5% p.a.

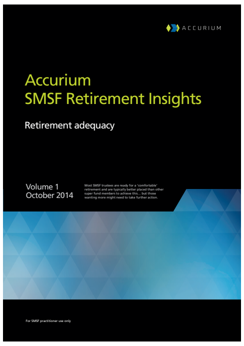
  - Investment management charges on non-superannuation assets of:

Cash	0% p.a.
Other assets	0.5% p.a.

SMSF Retirement Insights series

Retirement adequacy

Volume 1, October 2014

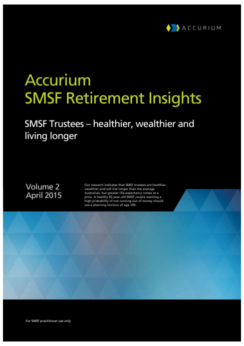


This SMSF Retirement Insights paper documents Accurium's pioneering study into SMSF retirement adequacy. It is the first such analysis based on actual SMSF capital and income data, compiled on an aggregate and anonymous basis, obtained in the course of the company's actuarial certificate business.

Most SMSF trustees are ready for a 'comfortable' retirement and are typically better placed than other superannuation fund members to achieve this… but those wanting more might need to take further action.

SMSF Trustees – healthier, wealthier and living longer

Volume 2, April 2015



This SMSF Retirement Insights paper is a thought-provoking study on the life expectancy of SMSF trustees and presents new research that shows that SMSF trustees may live even longer than the average Australian. We have calculated the average life expectancy of a 65-year-old male SMSF trustee to be 90 and for a female 92, which is about three years longer than the average (3.2 years longer for men, 2.5 years longer for women).

Our research indicates that SMSF trustees are healthier, wealthier and will live longer than the average Australian, but greater life-expectancy comes at a price. A healthy 65-year-old SMSF couple wanting a high probability of not running out of money should use a planning horizon of age 100.

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