Accurium SMSF Retirement Insights

A new way of thinking about retirement income

Volume 7
February 2018

The government's new retirement income initiatives for superannuation funds won't include SMSFs. To make sure they don't miss out, Accurium's GPS framework presents a framework for addressing the retirement income needs of SMSF clients. The appropriate strategy depends on how they set the direction of retirement spending.

For SMSF practitioner use only

Contents

About Accurium

Established in 1980 and now part of the Challenger Limited group, Accurium 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.

Executive summary

The government has been consulting on how large APRA regulated superannuation funds can improve retirement income outcomes for members in retirement. SMSFs are not going to be part of these new requirements but to make sure that SMSF members don't miss out on some of this new thinking, this paper presents a framework for segmenting and addressing the retirement income needs of SMSF clients.

This paper will consider:

- A framework for segmenting SMSF households at retirement when thinking about income stream strategies
- What this segmentation implies for the different needs of SMSFs in the retirement phase
- How many SMSF households are in their correct wealth and spending segment
- Retirement income product strategies that might be appropriate for SMSF households in different segments

Developing a retirement income strategy for your varied SMSF clients can quickly become complicated. Different clients have varying objectives for their retirement and while everyone wants to enjoy a comfortable lifestyle in retirement, the definition of comfortable can vary.

Accurium has developed a retirement income framework to help SMSF retirees set the direction for their retirement spending. The GPS Framework will enable the retiree to Grow, Preserve or Spend their retirement savings depending on their goal.

About 25% of typical SMSF retiree couples can be categorised as *Growers*, who will increase savings in retirement, 28% are *Preservers* who will retain the majority of the value of their savings, and at least 20% are *Spenders* who will spend most of their savings across their retirement. There is an additional 26% who are at risk of running out of savings during retirement and might need to spend less so that their money lasts as long as they do.

Most retirees will have a clear answer to the question: "Do I want to Grow, Preserve or Spend my retirement savings?" The GPS Framework can align a retiree's spending and investment strategy with that goal.

SMSF retirees should consider appropriate strategies for where they sit in the GPS Framework. A simple bucket approach could be appropriate for the limited risks faced by *Growers*; a more detailed cashflow strategy might be needed for the *Preserver* who is more exposed to market timing risks, while *Spenders* need to manage longevity risk more than other retirees and should consider the benefits of the income layering approach that can manage the key risks in retirement for them.

GPS Framework for SMSFs

SMSF retirees will have different goals for their retirement. We have developed a framework which utilises retirement consumption theory to enable SMSF retirees and their advisors to set retirement income strategies that align with their goals.

An SMSF retiree may broadly have a goal to Grow, Preserve or Spend savings during retirement. However understanding whether they are tracking on the right path to achieve that goal is difficult.

The GPS Framework enables SMSF retirees to identify, based on their retirement savings and desired lifestyle, whether they are likely to Grow, Preserve or Spend retirement savings. These are the three segments of the GPS Framework. The direction of their retirement consumption can be adjusted if required to ensure the goal of the retiree and current segment is aligned.

Once the retiree's goal and segment is aligned, they are in a position to select a retirement income strategy which complements achieving that goal. The GPS Framework assists a retiree in identifying their GPS segment and then presents a retirement income strategy which can assist in achieving the goal of that segment in retirement.

The direction of consumption in retirement

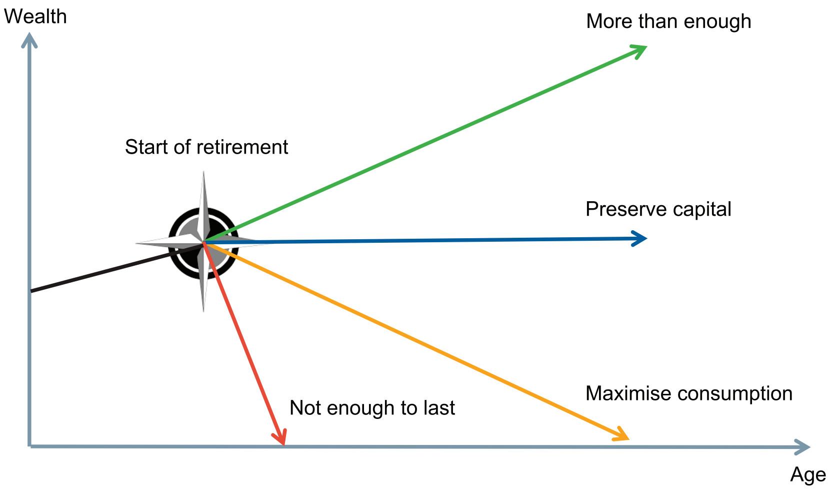
Retirement is the period of life where your client looks forward to enjoying a lifestyle that they are accustomed to without having to work for income. Superannuation provides a tax-advantaged way to save for those years, and using an SMSF keeps your clients in control of their savings.

While there is often a desire to leave something for the next generation, the requirement for regular income to meet lifestyle spending needs in retirement is the primary purpose of a household's accumulated life savings. How many clients have really thought about their spending needs in retirement and what their retirement savings can sustain?

A key consideration for SMSF members at retirement is the impact that future spending can have on the direction of their capital balance. As people retire, the key question moves from "Have I saved enough?" to "How much can I spend from those savings?". There is a very strong 'it depends' element to answering this question. To understand the appropriate rate of spending, it is necessary to form a view about the likely impact on the retiree's capital. Most advice, models, and even rules of thumb about the sustainability of retirement portfolios, relate spending to the amount of capital from which it is generated. However, answering the spending question also needs to consider the retiree's goal for how much capital will be left at the end. In effect, having an ultimate target sets the rate at which savings can be spent along the way.

Consider spending as having a 'direction', the figure below illustrates this for four examples in retirement.

Chart 1: The retirement consumption theory



At one extreme, there are those with more than enough wealth who (despite typically higher spending) continue to grow their wealth during retirement. At the other extreme are those who don't have enough to last and will run out early in retirement. In between, there are the options of trying to preserve the value of the initial wealth, to pass on a legacy, and a path that maximises consumption in retirement, but leaves little or nothing for the next generation.

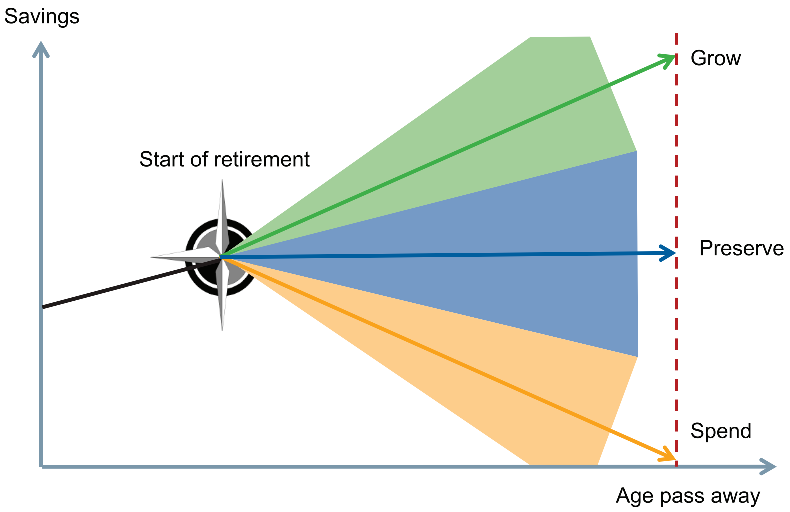
Developing the GPS Framework

A key outcome of the above discussion is that the level of spending sustainable through retirement is related not only to the starting value of retirement savings, but also to the expected estate (bequest) value at the end.

Taking this into account we can broadly segment SMSF households at retirement into three categories based on their level of assets and desired spending:

- **Grow**: these SMSF retirees expect to grow their retirement savings in real terms through retirement. This is largely because their spending levels can be less than the return that is naturally generated by their investments.
- **Preserve**: these SMSF retirees expect to preserve (the majority of) the real value of their initial retirement savings.
- **Spend**: the SMSF retirees expect to spend down substantially all of their savings through retirement. They are seeking to maximise their income and are not concerned with leaving a bequest.

Chart 2: The GPS Framework in retirement



A retiree may have a Preserve goal due to the desire to leave a bequest upon death, alternatively others may be Preservers because they are unsure about what level of spending is sustainable (and so are consuming only the income produced by their assets), and some will Preserve due to both of these.

A retiree could also have a goal to preserve some of their retirement savings but not all of it. They do not want to spend all of their retirement savings but are okay with using some to improve their standard of living in retirement. These retirees have a goal which exhibits some qualities of a Spender and some of a Preserver.

A minimal number of SMSF retirees may be expected to spend in excess of their wealth and run out during retirement. Those who find themselves in this ‘run out’ segment below the spend line should reconsider their spending plans or face living solely on the Age Pension during retirement.

An SMSF retiree can think about whether their goal is to Grow, Preserve or Spend their savings over retirement. They can then assess whether their spending plans align with this goal and adjust the direction of their retirement consumption as necessary.

Many SMSFs now also have a requirement to manage the $1.6 million cap for pension transfer balances. This creates an additional tax consideration for retirees with balances over the cap. Retirement income needs to be drawn from the combined accumulation and pension savings pool. The new limits will mean that retirees with higher balances will generally want to draw the minimum from their SMSF pension account, spending money from other savings as necessary. The framework in this paper relates to all retirement savings whether or not the savings are in the SMSF.

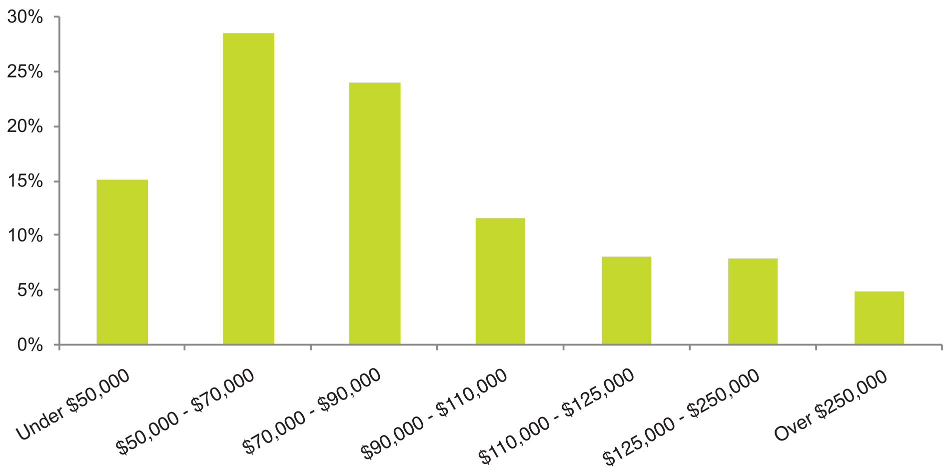
With different goals for the balances at the end of retirement each of these segments will require different retirement income strategies. This framework can guide SMSF retirees to the strategy that best suits them.

Spending needs and retirement savings for SMSF members at retirement

In order to assess an SMSF retiree under the GPS Framework an understanding of their desired spending level and amount of savings at retirement to support that lifestyle is required.

Accurium's retirement healthcheck is a retirement planning tool that assesses the likelihood of retired households being able to meet their retirement spending goals. An analysis of nearly 800 SMSF households' detailed retirement plans over the year to June 2017 shows a range of desired spending levels.

Chart 3: Desired annual spending levels in retirement for SMSF trustees[1]



The ASFA Retirement Standard[2] identifies approximately $60,000 per annum as a sufficient budget to enjoy a comfortable standard of living in retirement for a couple. The median spending level in retirement for SMSF couples in the Accurium database was $80,000.

We can see that while some households are spending at the ASFA standards or less, other SMSF households are looking forward to a more aspirational lifestyle in retirement with 24% of SMSF couples aiming to spend over $100,000 per annum[3].

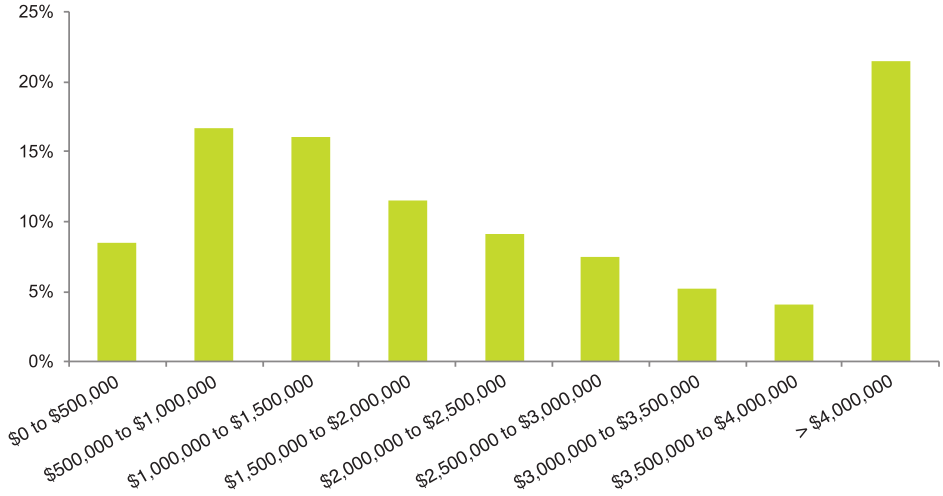
When considering the amount of savings available at retirement there is limited data widely available on SMSF retiree balances. The ATO publishes the average balance for members of different ages but this does not provide the range of balances across funds. Also, as averages, these balances are higher than the typical (median) SMSF because there are skewed by SMSFs with very large balances.

To get a better picture of capital consumption across SMSFs we need to use some non-public data sets. Accurium provides actuarial certificates to over 60,000 SMSFs annually which requires them to split their income between the pension (tax-free earnings) and accumulation phases. Most of these funds have members near the start of retirement, and the database provides a good representation of the range of balances across all SMSFs at this critical juncture.

Accurium's research into SMSF balances suggests that, on average, an SMSF couple might have about 35% of their total retirement savings outside the SMSF[4]. Using SMSF asset data from the 2015-16 tax year we estimate below the proportion of 65-year-old SMSF couples with different balances.[5]

1 "SMSFs treading water" Accurium SMSF Retirement Insights Volume 6, September 2017
2 September 2017. Available at https://www.superannuation.asn.au/resources/retirement-standard
3 "SMSFs treading water" Accurium SMSF Retirement Insights Volume 6, September 2017
4 This was reported in "Bridging the prosperity gap" Accurium SMSF Retirement Insights Volume 3, August 2015
5 SMSF balances were grossed up by 35% allowing for assets outside super, data based on SMSFs with two members where youngest person is aged 65.

Chart 4: Estimated distribution of total savings at retirement for SMSF couples

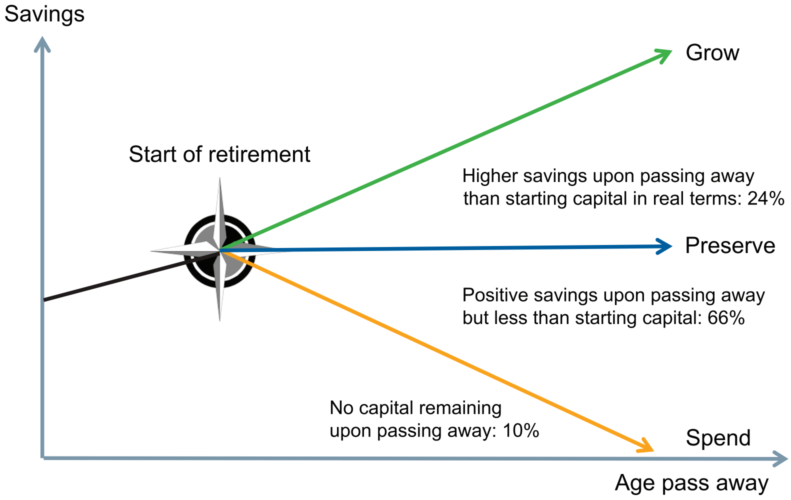


SMSF retiree balances are typically larger than those of members of other superannuation funds. The median balance at June 2016 for a two-member SMSF at retirement is estimated to be around $1,137,000. This is about four times the level of an average APRA-regulated household approaching retirement.[6]

The median SMSF couple with $1,137,000 in their SMSF therefore might have total retirement savings of around $1,750,000.

If this median SMSF couple is looking to spend $80,000 per annum there is a question of what direction the capital will take over retirement. Using the Accurium retirement healthcheck we can see that there is a 90% chance income can be provided for the life of the retirees, but the real value of the $1,750,000 starting capital will not be preserved. In real terms, about one in four market outcomes would preserve the value of the original capital.

Chart 5: Likelihood of falling in each GPS segment for a median SMSF retiree couple



This suggests that the median SMSF retiree couple will be maintaining some capital for the next generation but will be consuming some capital over their retirement as well.

With a higher level of wealth, SMSF members are more likely to want to pass something onto the next generation but may also be looking to enjoy a comfortable lifestyle throughout retirement.

6 APRA 2016 Annual Superannuation Bulletin reported the average balance for a member of an APRA regulated fund aged 60-64 was $137,000.

The GPS Framework for SMSF retirees

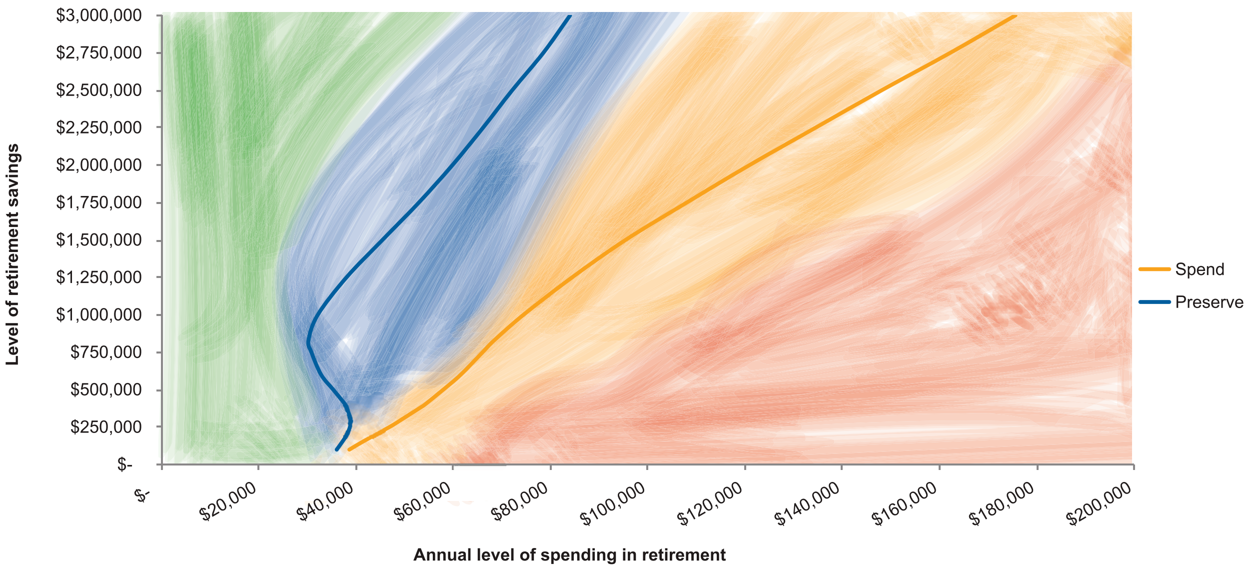
The direction of retiree consumption over retirement, at different levels of spending can be dramatically different depending on the initial capital at retirement. The investment returns achieved during retirement can affect the final capital position, but the level of spending is the primary determinant. The age of the retirees will also impact the direction of retirement consumption through eligibility for Age Pension and estimated lifespans.

Using Accurium's retirement healthcheck we can apply the GPS Framework more generally. Taking into account longevity risk, inflation risk and market risk we can generate a guideline for each segment with 50% confidence:

- the combinations of retirement savings and spending that will lead to a household maximising their consumption – the Spend line.
- the combinations of savings and spending that will lead to a household preserving their initial capital – the Preserve line.

Consider the following GPS Framework for a 65-year-old couple with their retirement savings in their SMSF invested in the ATO average pension phase asset mix[7].

Chart 6: GPS Framework for a 65-year-old couple



The analysis here is based on expected (i.e. average) outcomes. In practice, the key retirement risks will produce outcomes above the target 50% of the time and outcomes below target the other 50% of the time. With the uncertainty around these key risks, it is best to think of the guidelines as a band when assessing a client's goals and spending. Market swings can change the asset values and move clients from above to below the Spend line, or vice versa. A combination of good market conditions and reduced lifestyle spending could even transform some from the Spend band to the Preserve band, or from Preserve to Grow.

We can see that the Spend line is broadly linear between spending and saving. Retirees require more in savings to afford an increasing level of spending. When there is no bequest motive the level of consumption on the Spend line for a 65-year-old couple is consistent with Accurium's previous research. This showed the sustainable spending amount as a proportion of initial retirement savings, being higher at lower levels of retirement savings, and then leveling out at about 6% of initial capital once you have over $2 million in retirement savings. This is due to the impact of the Age Pension. For example, a 65-year-old retiree couple with around $1,250,000 in total savings who are spending $80,000 per annum are likely to be Spenders.

7 Using Accurium retirement healthcheck at Jan18, see the appendices for detail on the assumptions and methodology.

The Preserve line has an odd-looking shape at lower levels of retirement savings due to the impact of the Age Pension. You can afford more retirement income and still preserve your capital because of the assistance provided by the Age Pension. As it is difficult to achieve consistent investment returns above the 7.8% taper rate, preserving capital produces less income over the range of assets between the means test thresholds. As you move outside the influence of the Age Pension the line becomes approximately linear.

There is a significant decrease in the level of spending that will be sustainable if the goal of the retiree is to preserve capital rather than to spend it. The consumption rate on the Preserve line is high at lower levels of assets and then levels out at around 3% once you have over $1,250,000 in retirement savings.

Are SMSF retirees Spenders or Preservers?

It is useful to consider the proportion of SMSF households that fall into the different segments using the framework described above.

We consider three levels of spending through retirement, relevant to SMSF households:

- $60,000 p.a. representing the ASFA Comfortable standard for a retired couple
- $80,000 p.a. which is the typical SMSF couples annual spending target
- $100,000 p.a. the aspirational target for many SMSF retiree couples

Using the Accurium data on estimated retirement savings for SMSF couples we can apply the GPS Framework to examine what proportion of retiring SMSF couples might fall into each segment at each of the three relevant SMSF spending levels.

Taking a cross section of the GPS Framework at a given level of spending we can determine the level of savings required to Spend or Preserve capital with 50% confidence.

Table 1: GPS Framework level of savings required to Spend and Preserve

Spend	Level of savings needed to Spend	Level of savings needed to Preserve
ASFA Comfortable ($60,000 p.a.)	$580,000	$2,000,000
SMSF typical spend ($80,000 p.a.)	$1,100,000	$2,800,000
SMSF aspirational spend ($100,000 p.a.)	$1,600,000	$3,700,000

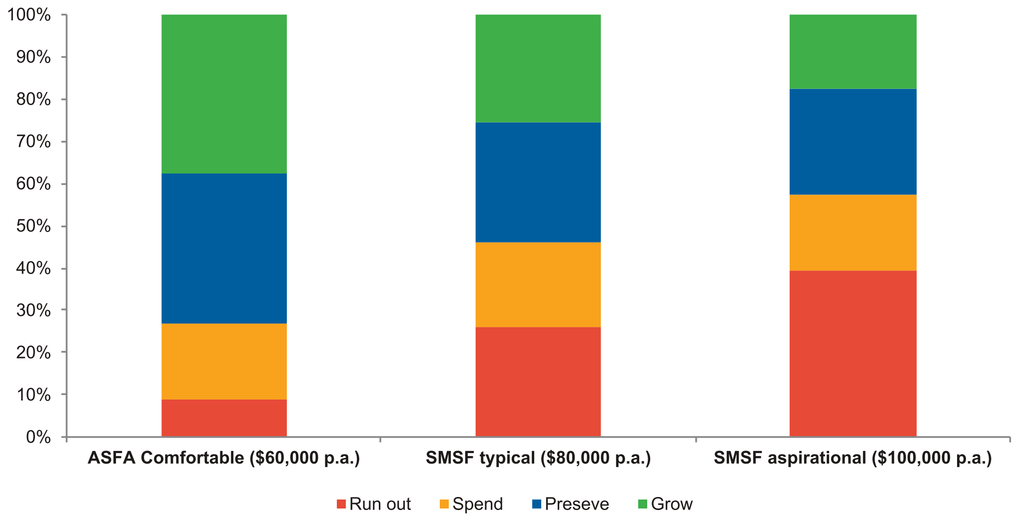
We applied these guidelines to our data on SMSF balances as at 30 June 2016 for 65-year-old two member SMSFs in Accurium's actuarial certificate database in order to estimate the proportion of SMSF retiree couples in each segment of the GPS Framework.[8]

Table 2: Proportion of SMSFs retiree couples in each segment of the GPS Framework

	Grow	Preserve	Spend	Run out
ASFA Comfortable ($60,000 p.a.)	38%	35%	18%	9%
SMSF typical spend ($80,000 p.a.)	25%	28%	20%	26%
SMSF aspirational spend ($100,000 p.a.)	18%	25%	18%	39%

8 Methodology in Appendix 1.

Chart 7: Proportion of SMSF retiree couples in each segment of the GPS Framework



Spending at an ASFA Comfortable lifestyle in retirement is sustainable for most SMSF retiree couples with only 9% of SMSF households likely to run out during retirement. In fact, 74% of the SMSF retiree couples would be Preservers or Growers during retirement with estate balances of at least their initial retirement savings at this level of spending. Around one in five SMSF retiree couples would be Spenders broadly expecting to consume capital over retirement in order to spend at this level.

If SMSF retiree couples are looking for an $80,000 per annum lifestyle the estimated Spender households remains around one in five. Just over half of the SMSF retiree couples are on a path to Grow or Preserve their retirement savings when spending at this level. At this spending rate one in four households will be in the run-out segment and might want to adjust their spending or defer retirement to save more.

An aspirational level of spending is a $100,000 per annum lifestyle in retirement. At this level of spending a quarter of SMSF retiree couples will fall into the Preserve segment, with 18% having sufficient assets to grow their retirement savings. The number of Spenders remains consistent at just under one in five couples. However, we see a larger number of SMSF retiree couples unable to afford this lifestyle with four in ten households potentially falling into the run-out segment. For these retirees, the aspirational $100,000 per annum is unlikely to be achieved.

Using the GPS Framework in practice

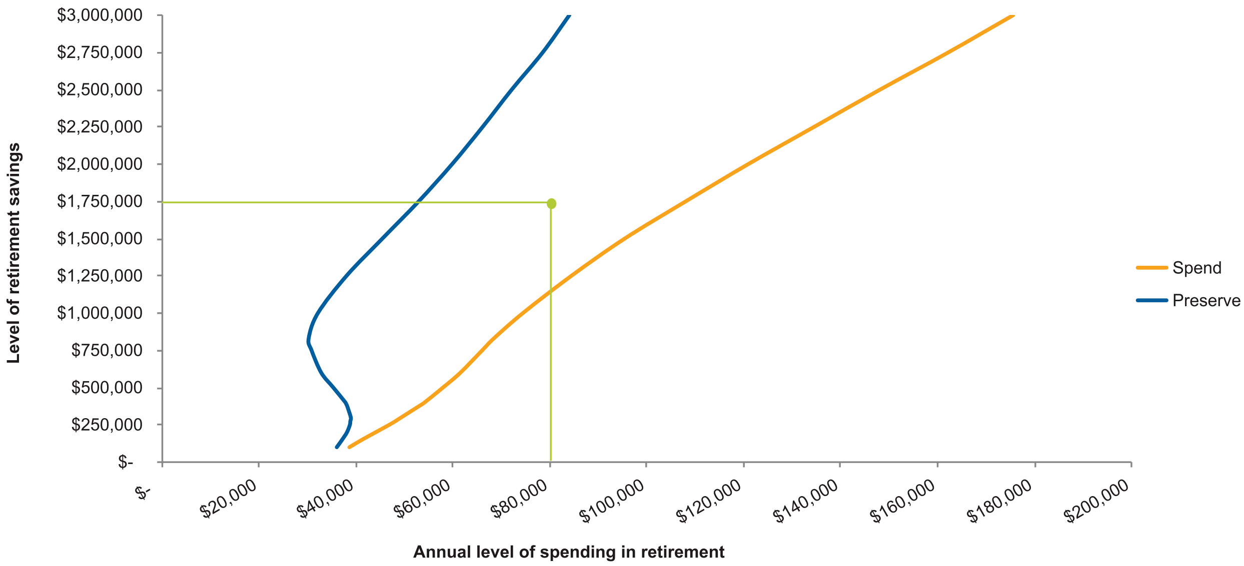
The GPS Framework provides a guide to the direction of retirement consumption by using the amount of retirement savings and spending level to identify retirees which may fall into the Grow, Preserve, or Spend (or run-out) segment.

Appendix 2, includes charts showing the Spend and Preserve guidelines for singles and couples at retirement based on the ATO average SMSF pension phase asset mix. These charts can be used to assist an SMSF retiree in determining their current retirement consumption segment of Grow, Preserve or Spend (or run-out).

To apply the GPS Framework select the GPS chart closest to the SMSF retiree's age and household status. Look up the retiree's level of retirement savings on the y-axis of the chart and then their desired retirement lifestyle in the x-axis. The intersecting point on the chart can be examined to identify the GPS segment of the SMSF retiree.

For example, consider our median SMSF retiree couple aged 65 with $1,750,000 in retirement savings looking to spend $80,000.

Chart 8: Identifying the GPS segment for the median 65-year-old SMSF retiree couple



The intersecting point on Chart 8 shows that the retiree falls in between the Spend and Preserve lines. As they are below the blue Preserve line this retiree couple is not likely to preserve their initial retirement savings of $1,750,000 in real terms and will be consuming some capital over retirement. However, because they are above the orange Spend line at the $80,000 per annum lifestyle they are not expected to fall short and run out of money before they both pass away.

If the retiree's goal was to preserve, then this would be a signal to reduce their spending to get back towards the Preserve line. Chart 8 gives an indication that this would require a reduction of almost $30,000 a year in spending. This is a significant change in lifestyle. Upon reflection the retiree might be happy to maintain their current level of spending in the knowledge that with average markets, some, but not all their initial retirement savings are likely to be preserved. We see at age 65 the household has around a $750,000 buffer between their level of assets and the Spend line. If markets perform poorly or the retirees live longer than expected this may move the household closer to the Spend line indicating more capital is being consumed to ensure the lifestyle is maintained.

Aligning retirement income strategies to the GPS Framework

The GPS Framework segments can assist an SMSF retiree in aligning the direction of their retirement consumption with their goals for retirement based on their desired lifestyle and current retirement savings. Once a retiree has identified the segment appropriate to their retirement this can drive more-tailored decision making around retirement income strategies. We present below some potential strategies which can assist a retiree in achieving their goal to Grow, Preserve or Spend savings in retirement

Identifying key risks using the GPS Framework

A good retirement income solution needs to deal with the key retirement income risks of longevity management, sequencing and other market risks, and the inflation risk in growing income to keep up with the rising cost of living. The three segments identified have different exposures to each of these risks. These differences mean that diverse retirement income strategies are likely to be optimal in each segment. The table below highlights the key variances across the segments of what has been called the GPS Framework.

Table 3: Key risks faced by each GPS Framework segment

	Grow	Preserve	Spend
Spending	Uses some of the income and capital gains.	Uses income including real capital gains.	Requires all income and draws on capital.
Longevity risk	Low risk. The growing portfolio continues to support payments for as long as required.	Moderate risk. Only a risk under adverse conditions but some insurance could be beneficial.	Extreme risk. The capital drawdown does not automatically match retiree's lifetime.
Sequencing risk	Moderate risk. For most poor sequences, capital can remain invested long enough to recover losses.	High risk. A poor sequence leading to capital drawdown can push a retiree into the Spend segment with higher risks.	High risk. A poor sequence will deplete capital early and can push a retiree into the Run Out segment.
Inflation risk	Low risk. Can be managed at the investment level by targeting high real returns.	Low risk. Can usually be managed at the investment level by targeting positive real returns.	Moderate risk. Investments that produce positive real income are required to prevent an early drawdown of capital.

In the Grow and Preserve segments there is an additional risk mitigant available to retirees - the potential bequest. Retirees who might expect to leave a bequest still have the option to spend more and leave less if the original plan doesn't work. This could be, for example, due to an adverse market outcome or additional unplanned spending relating to uninsured medical expenses. It can be useful for family dynamics if the next generation is clear that this is the fallback plan.

The framework in Chart 1 also had a fourth trajectory for consumption which is not part of the GPS Framework. Spending levels on this trajectory are too high and will result in the retiree's capital running out. Retirees would face living solely on the Age Pension for the remainder of retirement. It is unlikely that many retired SMSF members would want to face this situation. However, unaffordable spending levels can run down capital, and any SMSF retiree facing this situation should consider reducing their spending to a sustainable level.

Using the GPS Framework to determine retirement income strategies

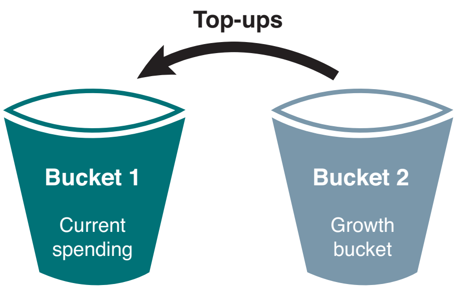
Each segment of the GPS Framework can best meet the retirement income challenge in different ways by addressing their key risks. We present a retirement income strategy appropriate to each GPS Framework segment:

- Grow: A two-bucket approach
- Preserve: Cashflow strategy
- Spend: Income-layering

Grow: A two-bucket approach

The 25% of SMSFs in the Grow segment[9] face the lowest level of overall retirement income risk and probably have the easier strategy to implement. Some SMSF trustees who are not risk averse might just use a single investment portfolio and draw any income required from that portfolio. For most, a simple two-bucket strategy will manage the limited sequencing risks by ensuring that there is sufficient cash to meet short-term income needs. Some risk-averse retirees might prefer to use an additional bucket to separate their medium-term income needs from long-term growth investments. However, as spending in this segment will be relatively low compared to the growing capital, this will not always be necessary.

Chart 9: Two-bucket approach to managing limited sequencing risk



Success in this segment is reliant on getting the real returns from the growth bucket. A retiree in the Grow segment has a long time horizon (the life expectancy of a 65-year-old couple is 27 years[10]) for investing. The growth bucket needs to be invested for long term growth and in many ways this strategy will resemble a successful accumulation-based investment strategy.

There is some sequencing risk in this segment, as adverse market conditions in the early phase of retirement could prevent growth in the portfolio. However, with sufficient liquid assets to support spending it is expected that growth assets will have time to recover losses without being drawn on. A significant adverse event will probably not impact the planned lifestyle of the retiree, but it might result in a lower bequest value.

9 Assuming the typical spending level. In practice some of these will choose to have a higher spending lifestyle and not grow their capital.

10 ALT 2010-12 with 25yr improvements. There is a 50% probability that one of a mixed gender couple will still be alive in 27 years.

Preserve: Cashflow strategy

The key retirement risk in the Preserve segment is sequencing risk. The order and timing of investment returns can have a significant impact on balances and the ability to meet future spending needs. The objective of a Preserver is to live off only the ‘income’ from the portfolio and preserve capital.[11] Adverse outcomes early in retirement can derail not only an expectation of leaving a bequest, but also raise the possibility of the remaining capital being insufficient to meet the spending needs for life.

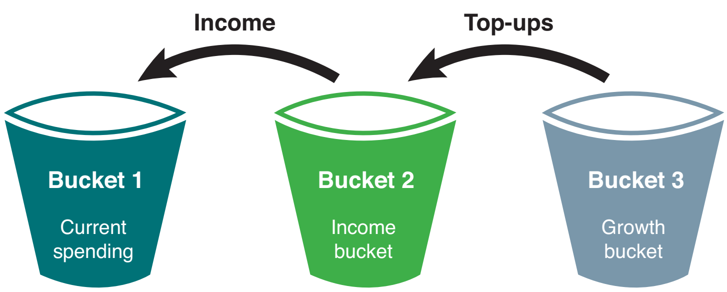
To preserve capital, it is key that there is enough time for assets to recover from any significant market downturn. If capital is drawn on to fund spending then this reduces the ability of the retiree to generate income in the future and could lead to the retiree moving into the Spend segment.

Around 30% of SMSF retiree couples were estimated to be Preservers in Chart 7 above, highlighting the importance of offering these retirees with retirement income strategies that align with this preservation goal. A strategy suited to the Preserve segment is one which ensures that growth assets are protected from being drawn on in the event of a market downturn. Long term data suggests that cashflows should be secured for at least six years, if not longer, for growth opportunities to be realised even in the unlikely event of a market downturn.[12]

Using dividends produced in the Growth bucket to top-up the current spending bucket (rather than reinvesting them) extends the time of recovery in the growth bucket. For Australian equities, it moves the recovery period from five to six years out to ten plus years for a market recovery[13]. Notably, the S&P/ASX200 is yet recover its 2007, pre-GFC, price level.

The best approach is to build on the Grow segment approach and expand the Current Spending bucket for long enough to produce cashflows to meet the retiree’s spending needs for a period of at least six years - long enough to allow the market to recover. The goal of this cashflow strategy is to ensure growth assets will not be needed in the near-term to fund spending and is implemented using a three-bucket approach to separate investments that produce the required cashflow from the growth investment portfolio.

Chart 10: Cashflow strategy



Cashflow can be secured for the income bucket in many ways over the desired term. The strategy could be complicated if managed with individual assets such as bond ladders, but it can be easily implemented with a term annuity. An annuity with a term of five to seven years that repays capital with each payment (known as an RCV0 annuity) can provide a capital efficient method to secure the cashflow requirements for a retiree for several years. This will enable the growth bucket to recover from any market dip and realise the required positive real returns over the long term to preserve capital. This strategy was discussed in detail in a previous strategy paper.[14]

If adverse market outcomes are experienced during retirement the above cashflow strategy can assist in protecting the retiree’s lifestyle over the near-term. However an adverse event will also increase the longevity risk faced by a Preserver and put their goal of preserving original retirement savings at risk due to the decline in capital values.

11 The income refers to all returns on the portfolio aside from that required to maintain the real value of the capital. It would include accounting income as well as real capital gains (both realised and unrealised)

12 Challenger calculations on Australian equity return data since 1900 from Morningstar (Dimson Marsh & Staunton) and S&P/ASX200 data

13 See “Enhancing growth assets with annuities” Challenger Retirement Portfolio Construction Note, July 2012

14 SMSF Cashflow Strategy, November 2017, Accurium, https://www.accurium.com.au/-/media/Accurium/Technical-Hub/Webinars/SMSF-Cashflow-strategy-v2.ashx

There are three potential adjustments to manage an increase in longevity risk:

- reduce spending (cut back on the lifestyle of the retiree)
- spend the bequest (cut back on the lifestyle of the next generation)
- redefine the lifestyle target and 'Implement the Spend' retirement income strategy at this later stage (see below)

These adjustments might be an acceptable way to plan to deal with adverse markets that will work with some retirees who are happy to adjust as they go. Risk-averse retirees might prefer a plan that can be implemented in advance to reduce the longevity risk faced by adverse market outcomes. Recent government changes to product innovation have enabled deferred income streams to be offered, which could help in this situation. A deferred lifetime annuity is a product that provides income for life, but only after a certain age (or deferral period).

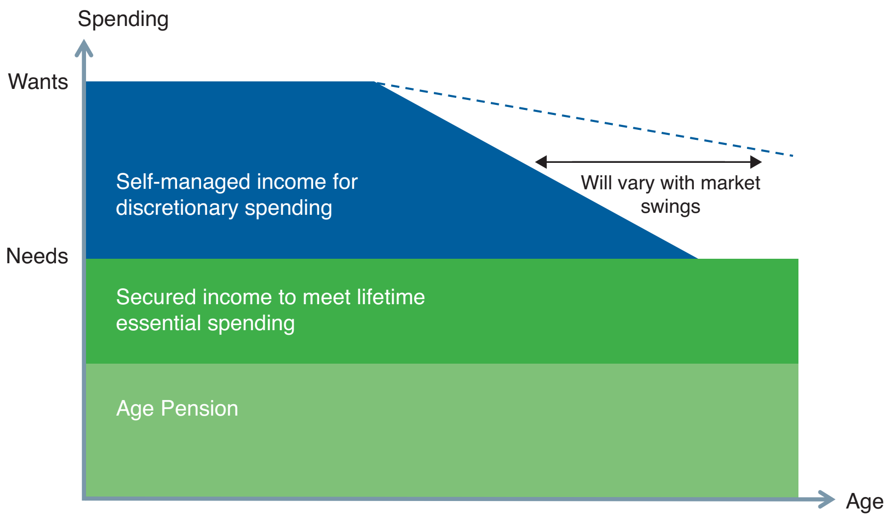
A deferred lifetime annuity is an investment to protect against adverse market events later in life which may require a retiree to use their capital to fund spending needs. It provides an insurance element for an SMSF retiree where longevity might become a risk to be managed. It doesn't pay immediate income, so it is best suited for an SMSF retiree in the Preserve segment who can comfortably generate cashflows for medium-term income needs. By setting up the plan in advance it could enable lifestyles to be maintained even after adverse market outcomes by commencing a regular payment to the retiree at a selected time in the future.

Spend: Income-layering

Retirees in the Spend segment are seeking to maximise their lifestyle relative to their accumulated retirement savings. We estimate around 20% of SMSF retiree households may be Spenders and this cohort has the largest exposure to retirement income risks.[15] These retirees need a retirement income strategy that has a 'safety-first' element that kicks in when markets don't go to plan.

The most popular approach here is an income layering strategy that involves separating consumption into 'needs' and 'wants'. In simple terms, 'needs' are the spending items of the retiree that are essential and would cause suffering if the retiree missed out on them at some stage. 'Wants' are the discretionary luxuries that make life better, but they are the items that can be forgone if plans don't work out.

Chart 11: Income-layering strategy for retirement income



15 Arguably, the proportion could be higher, as those likely to run out reduce could use this strategy and reduce their lifestyle target as a way to manage their retirement finances

The key to the income layering strategy is to ensure that the retiree will always have enough income to meet all their spending 'needs'. The Age Pension will be a valuable source of secure income for retirees who fall within the means test bands. Spenders expect to consume some or all of their capital over retirement, and even those with large balances at the start of retirement who receive no Age Pension, may expect to receive some Age Pension during retirement as capital is consumed.

A retiree might also be receiving other sources of permanent income, such as a defined benefit income stream, which can contribute towards ensuring 'needs' will be met.

The Age Pension and guaranteed income investments can secure 'needs' as illustrated by the lower green bars on Chart 11. By using guaranteed income investments, such as a lifetime annuity, the retiree can eliminate longevity risk on this part of their lifestyle. The retiree will be able to afford their spending needs for life.

With income 'needs' secured, the strategy then looks to market-linked assets to maximise discretionary spending as represented by the blue section of Chart 11. This 'wants' layer is subject to the market and may include options such as account-based pensions. How long these assets last will depend on market returns and the level of spending each year.

In the ideal case, market outcomes result in the wants being able to be enjoyed for the lifetime of the retiree. When markets are lower than expected, or if there is just a bad sequence of returns, the layering approach ensures that spending 'needs' are met. Discretionary spend on 'wants' can be adjusted over time depending on market outcomes as capital runs out.

For SMSF retirees in this segment there are other benefits that need to be considered. Accessing the Age Pension as early as possible along with utilising the health care card can help to sustain a retiree's savings for longer.

Conclusion

SMSF members will have a range of different objectives through (and beyond) retirement. The path of capital balances through retirement can be very different, and retirees with an SMSF should be equipped to manage their retirement income in a way that keeps them on their intended path.

Some retirement income strategies work better than others under different conditions so it can be beneficial for SMSF trustees and their advisers to understand their own objectives and the strategies that will best meet those objectives. The GPS Framework identifies the key retirement risks and suitable retirement income strategies for those different retirees who want to either:

- **Grow** their savings through retirement;
- **Preserve** their savings for the next generation; or
- **Spend** their savings down through retirement to maximise their own consumption.

Appendix 1: Methodology

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 analysis is based on the outputs of Accurium's retirement healthcheck, 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 that retirees are left with understandable concerns around outliving their savings.

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 forecast typical SMSF trustees through 2,000 'what if' scenarios for each of these variables. Each scenario demonstrates a different series of possible market returns, inflation rates and lifespans. For the calculations in this paper, the assumed investment mix used is based on the average for SMSFs in pension phase 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 in retirement except:
  - When retirees reach age 85 spending is assumed to reduce by 10%. This reduction is in line with that found in the ASFA Retirement Standards that show that spending on travel and leisure reduces with age, partially offset by an increase in medical costs.
  - When the first spouse in the couple passes away spending is assumed to reduce by 30% to reflect lower living costs for single people.
- No explicit allowance is made for aged care costs. However, it is assumed that retirees do not sell or downsize their home. Anecdotally, the family home is often relied upon for meeting significant residential aged care costs that can sometimes arise in later life.
- The statistics used to generate longevity scenarios are based on the 2010-12 Australian Life Tables published by the Australian Government Actuary. We 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. Amounts moved into pension phase are subject to the spouse's remaining Transfer Balance Cap and once exhausted the remaining balances are assumed to be paid out of super and form part of the household's non-superannuation asset mix.
- The investment returns and rates of inflation used to calculate the statistics have been generated by Willis Towers Watson using their Global Asset Model.
- The assumed investment mix is based on the average for SMSFs as published by the ATO for the 2014-15 tax year. 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 Levy.
- The Age Pension is included using Centrelink means testing rules i.e. we assume the person is eligible based on residency rules.

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 September 2017. All future payment rates, bands and thresholds are assumed to change in line with inflation each year.
- We have allowed for the following asset mix in line with the 2014-15 ATO average for SMSFs in pension phase:
  - Cash 25.1%
  - Fixed interest 3.5%
  - Property 12.5%
  - Australian shares 44.4%
  - Overseas shares 0.6%
  - Other growth 13.9%
- We have allowed for the following fees and charges:
  - SMSF administrative fees of $2,500 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.

GPS Framework assumptions

The GPS Framework Spend and Preserve guidelines were generated using Accurium's retirement healthcheck model as follows:

- The couple calculations assume a male and female both of the same age and single calculations are based on a female retiree.
- In calculating the Spend guideline we determine the level of assets that provide a 50% 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).
- In calculating the Preserve guideline we determine the level of assets that provide a 50% probability of being able to sustain a particular standard of living for life and also meet a minimum bequest requirement equal to the initial value of the retirement savings in real terms.
- In order to determine the proportion of SMSF retiree couples that fall within each GPS segment in Table 2 we created bands around the Spend and Preserve guidelines representing each GPS segment at three SMSF spending levels. These bands reflect the uncertainty of future outcomes and were calculated for each spending level as follows:
  - Run out segment: $0 to 90% of Spend assets
  - Spend segment: 90% of Spend assets to one third of way between Spend and Preserve assets
  - Preserve segment: one third of the way between Spend and Preserve assets to 125% of Preserve assets
  - Grow segment: above 125% of Preserve assets

Appendix 2: GPS Framework for couples and singles

The charts below illustrate the Spend and Preserve line for an SMSF retiree in line with the methodology in Appendix A.

An SMSF retiree can use these charts to estimate their current GPS segment and assess whether their direction of retirement consumption aligns with their goal for retirement. If a retiree has a different asset mix to the ATO average for SMSFs in pension phase assumed by this modelling, the resulting GPS Framework guidelines may vary.

Chart 12: GPS Framework for 60-year-old SMSF retiree couple

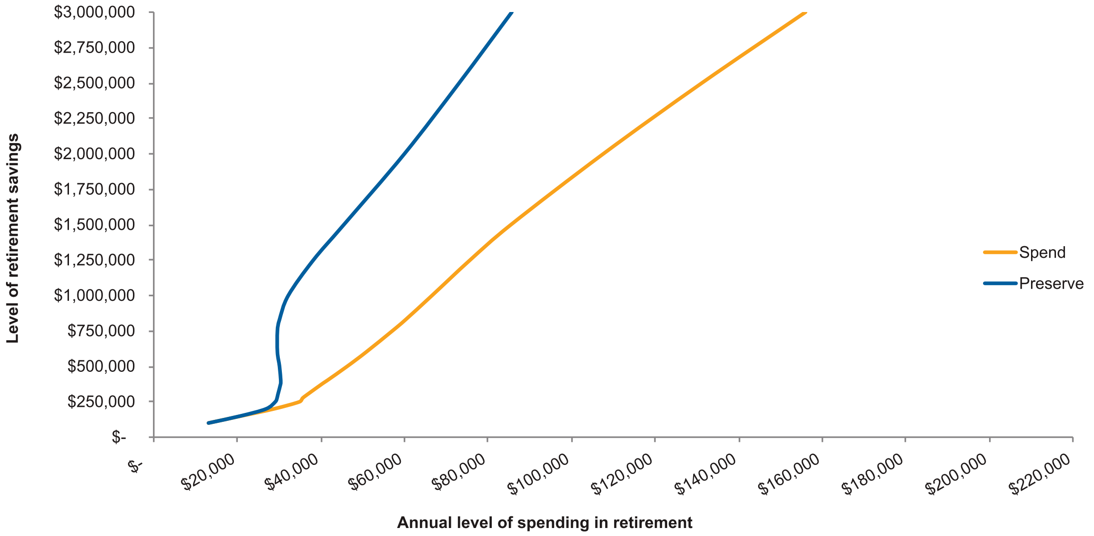


Chart 13: GPS Framework for 65-year-old SMSF retiree couple

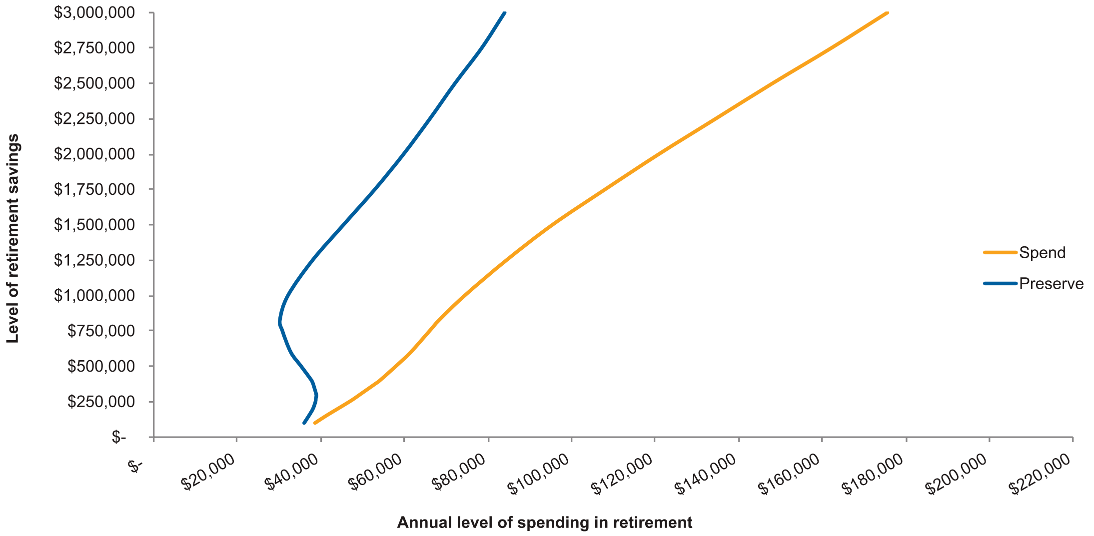


Chart 14: GPS Framework for 70-year-old SMSF retiree couple

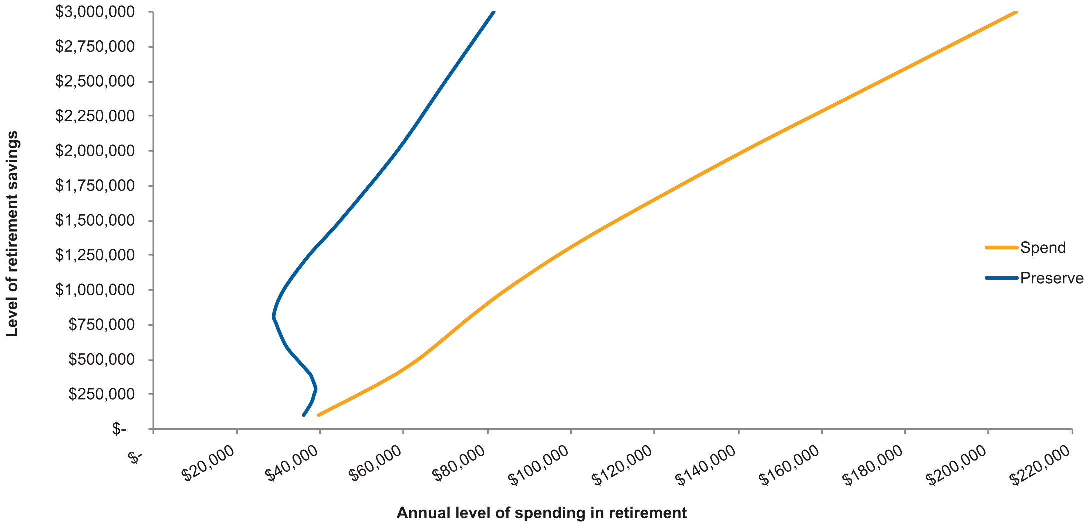


Chart 15: GPS Framework for 60-year-old single female SMSF retiree

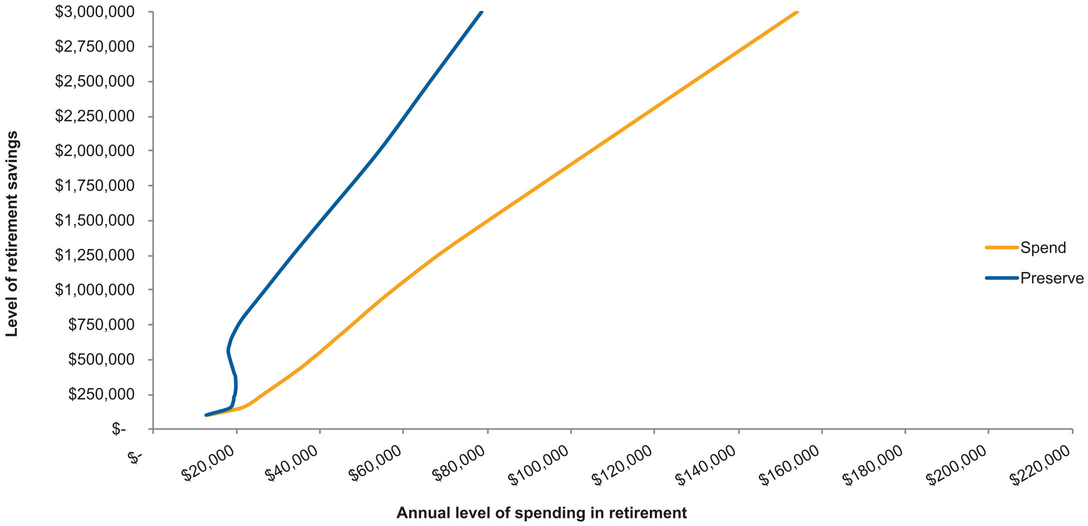


Chart 16: GPS Framework for 65-year-old single female SMSF retiree

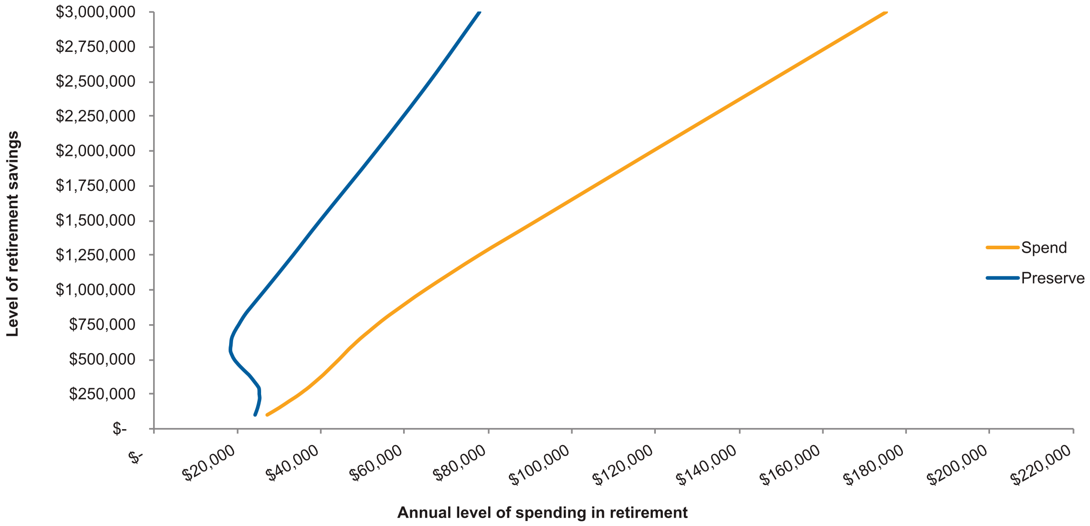
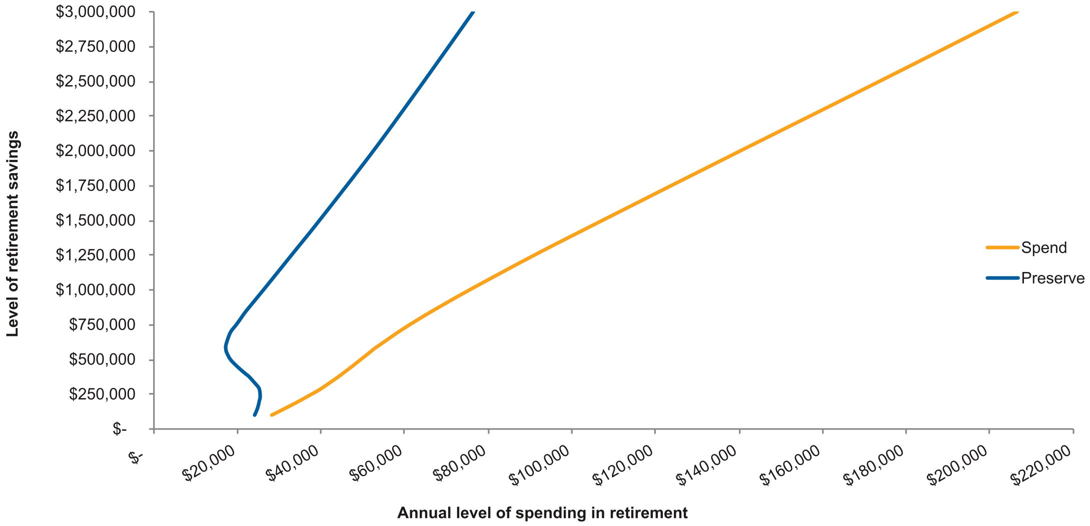


Chart 17: GPS Framework for 70-year-old single SMSF retiree



Notes

ACCURIUM

Level 11, 144 Macquarie Street
HOBART TAS 7000

1800 203 123
act@accurium.com.au
www.accurium.com.au

Disclaimer

The information in this document is provided by Accurium Pty Ltd ABN 13 009 492 219 (Accurium), a wholly-owned company of Challenger Limited ABN 85 106 842 371 and SMSF Association Limited ABN 67 103 739 617 (SMSFA). It is intended for SMSF professionals only. The information is factual in nature and is not intended to be tax or legal advice. It does not take into account any person's objectives, financial situation or needs. While all care has been taken to ensure the information is correct at the time of publishing, neither Accurium nor SMSFA is liable for any loss arising from reliance on the information. We recommend individuals seek appropriate professional advice before making any financial decisions.

30326/CG1091/0118