

# Accurium SMSF Retirement Insights

## Pension strategies for SMSF retirees

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Our research analyses three key strategies for retirement planning and the interplay between how these manage all retirement risks.

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### About Accurium

Established in 1980 and now part of the Challenger Limited group, Accurium provides a range of services to SMSFs in, or transitioning to, retirement. 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 that are paying part pensions and thus require an actuarial certificate. This perspective gives Accurium access to an unrivalled amount of information on which to undertake research to assist accountants and SMSF practitioners to provide quality services to their clients.

As experts in SMSF retirement, Accurium is committed to delivering the essential tools, research and insights for a secure retirement, including its pioneering retirement healthcheck service which assists in assessing whether your clients are on track to meet their retirement goals.

## 1. Executive summary

### 1.1 Retirement planning is all about cash flow

Retirement planning involves many considerations, such as how to generate sustainable and lifelong cash flows.

As nearly 13,000 self-managed superannuation funds (SMSFs) move into pension phase every year there will be greater emphasis from the industry, policymakers and clients on how best to convert retirement savings into sustainable income streams.

Being able to have confidence in meeting desired lifetime spending needs is, after all, the reason many trustees choose to establish and manage their own SMSF.

However, retirement is different and planning for it requires investment expertise, technical knowledge and appropriate modelling.

It presents an opportunity for SMSF practitioners to provide the tools and expertise to help their SMSF clients make good retirement decisions.

In many cases, it's all about cashflow planning. This paper explores three well-known strategies around income generation including: the safe withdrawal rate, bucketing and income layering.

It's important to keep in mind that there is no silver bullet or one size fits all strategy. In fact the appropriate strategy is unique to each client and may involve a blend of strategies.

### 1.2 . Key findings

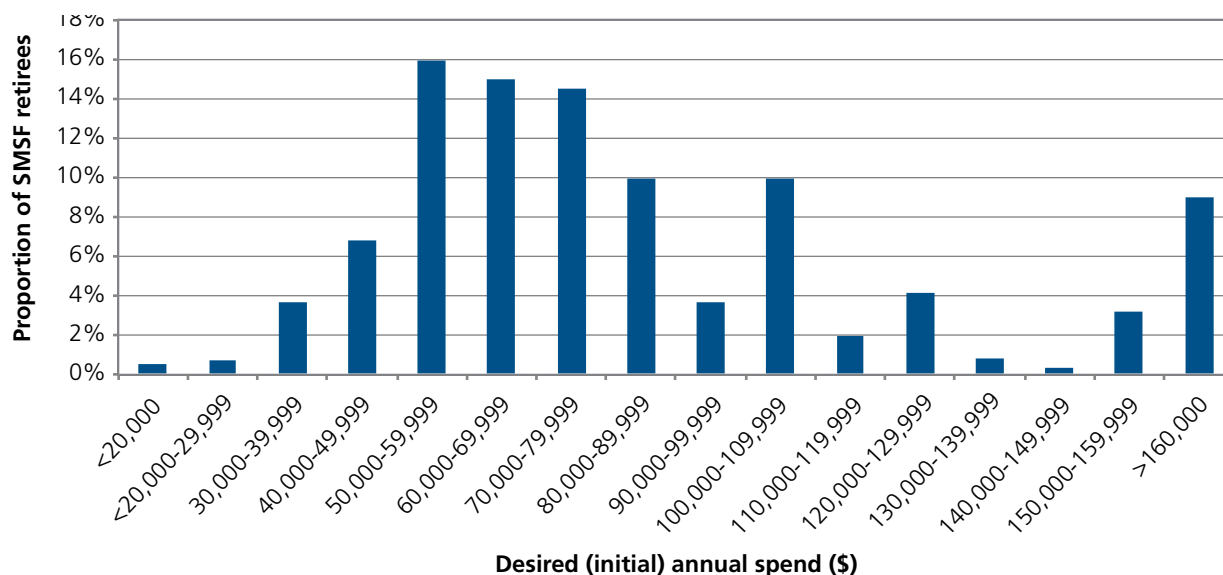
- ▶ The safe withdrawal rate strategy is popular with retirees in the US and other jurisdictions who often refer to the '4% rule', that is you can comfortably withdraw 4% a year to fund income needs for life. However, Australia's means tested Age Pension provides uneven cashflows for most SMSF retirees as they age and therefore invalidates the use of a simple rule of thumb for all but the very wealthy. A more holistic approach is to consider the total mix of income sources, rather than focus on a 'safe' withdrawal rate. The percentage of assets that retirees can afford to spend each year depends on their level of wealth.
- ▶ An income bucketing approach secures a level of cashflow over an initial period allowing a greater allocation to growth assets for the remainder of the portfolio. Our research shows that this can increase SMSF balances for typical SMSF retirees after 10 years across a wide range of scenarios compared to a balanced portfolio.
- ▶ A safety first, or income layering, approach locks in a retiree's essential spending needs for life with secure income sources like lifetime annuities. Discretionary spending is then met with structures that can provide allocation to growth assets.
- ▶ Our research shows that the Age Pension means tests can add to the complexity of retirement planning, so it's all the more important for SMSF trustees, particularly with higher wealth, to seek advice.

## 2. What goals do SMSF trustees aspire to in retirement?

There is a limit to the lifestyle that any given amount of capital can support. When planning for retirement, the first step is for households to draw up a budget and determine their spending needs.

Anonymised data collected from Accurium's retirement health**check**, a projection tool, provides valuable insights into the retirement plans of SMSF trustees. The tool assesses the sustainability of retirees' desired spending plans.

Chart 1: SMSF trustees desired (initial) annual spending levels in retirement



The chart above shows the desired initial annual spending levels for over 600 SMSF households in retirement. This highlights a wide range of desired retirement spending levels of SMSF trustees. SMSF practitioners need to be armed with the tools and strategies to help clients decide if these aspirations are sustainable.

Meeting spending requirements in retirement isn't the only objective for retirees' savings. For many SMSF trustees there is also a desire to leave some of their savings as a bequest. Of the SMSF trustees in Accurium's retirement health**check** database, 25% included a bequest in their retirement plans.

## 3. An overview of common retirement funding strategies available to SMSF trustees

A robust retirement funding strategy must be able to translate client goals, needs and desires into an appropriate mix of investment choices and cashflow management decisions. The process must show:

- ▶ how much spending is feasible;
- ▶ how to best spread spending power over multiple goals across the course of retirement;
- ▶ how the strategy affects the household's Age Pension entitlements over the course of retirement; and
- ▶ how to allocate assets among various strategies offering differing levels of flexibility, risks and potential rewards.

Apart from the safety net of the Age Pension, there is no 'free lunch'. It's a matter of taking the household's financial resources and choosing a strategy that aligns the range of possible outcomes with the household's needs, objectives and priorities.

The main toolkit that is available when building retirement strategies includes:

- ▶ the means tested Age Pension;
- ▶ guaranteed or defensive investments including cash, term deposits and annuities;
- ▶ market linked investments (superannuation and non-superannuation) including: property, fixed interest, equities and international equities; and
- ▶ adjusting expectations for the household's spending decisions.

By combining these elements a wide range of strategies can be constructed to meet various household preferences. The paper: 'The Yin and Yang of retirement income philosophies'<sup>1</sup> maps the most common strategies on a spectrum.

At one extreme, there is the pure account-based pension option investing wholly in market linked investments, where the household takes on all market and longevity risks.

At the other extreme are fully managed solutions where a third party guarantees returns but makes all the decisions and shoulders all the risk.

In between are a range of strategies that combine various options intended to control the range of outcomes for different clients.

Below we set out three pension strategies in more detail.

## 4. Modelling to assess pension strategies

Without a crystal ball retirement planning is difficult. We don't know how future markets will perform or how long each SMSF member will live.

A good retirement projection model deals with uncertainty not by guessing at a single outcome, but by testing how a strategy will perform under the full range of likely scenarios for the future. Strategies can then be compared taking into consideration the household's essential and desired cashflows for life.

Such a model works by creating a set of simulated scenarios that represent the full range of how markets and inflation might perform in the future. The simulations reflect the probability of both good and bad events occurring including the risk of major market downturns. The SMSF needs to be able to deal with good as well as poor outcomes.

If we test a given pension strategy across all these simulations we can build insight into how often the SMSF's goals will be met in future. This technique is called Monte-Carlo simulation. It allows the user to explore the probability of any particular outcome, and therefore allows informed risk-return decisions and other trade-offs to be made. Further detail on Accurium's SMSF Retirement Adequacy Model used in this research can be found in Appendix 1.

## 5. The three common strategies in-depth

For each of the three key strategies below we use Accurium's SMSF Retirement Adequacy Model to assess the likelihood of the strategy meeting the retirement needs of SMSF trustees.

### 5.1 Safe withdrawal rate

The safe withdrawal rate is a commonly used strategy by many retirees and their financial advisers. However, many aren't aware that the strategy has been formalised in academic papers and may regard it more as a 'rule of thumb' than a concrete strategy.

For example, a new retiree may make plans to withdraw an inflation-adjusted amount from their savings each year for a 30-year period. The safe withdrawal rate is the proportion of their initial savings that, through all likely market conditions, can be sustainably withdrawn for a full 30 years.

Research from the United States shows a safe withdrawal rate of around 4% of starting capital is achievable. The assumed asset mix behind this is an allocation to equities of between 50% to 75%.

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<sup>1</sup>The Yin and Yang of retirement income philosophies – Wade Pfau and Jeremy Cooper 2014.

**5.1.1 Issues to consider with the safe withdrawal rate**

In Australia the safe withdrawal rate strategy isn't always appropriate for three reasons.

The first is our minimum superannuation pension rules. From age 65 to 74, the minimum that must be withdrawn from an account-based pension is 5% each year, which exceeds the 4% rule. Using the 4% rule requires retirees to set aside this extra cashflow outside of superannuation as new (taxable) savings or to implement a partial rollback of assets to the accumulation phase, where the minimum drawdown does not apply but where superannuation earnings are exposed to taxation at a maximum rate of 15%.

Secondly, academic research on Australian data highlights that 4% is not a 'safe' rate for Australian markets. Despite higher average returns, an analysis of historic returns has shown that to have 95% confidence of being sustainable for 30 years, retirees can only withdraw from their savings at an initial rate of 3.5%.<sup>2</sup>

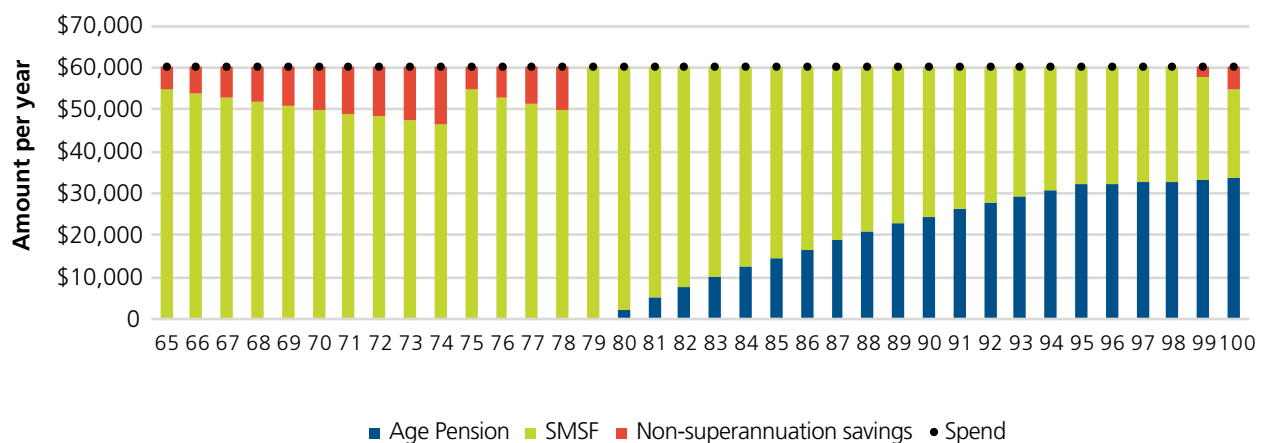
The third problem with applying the 4% rule in Australia is the means tested Age Pension. Instead of a stable level of income each year, wealthier Australian retirees who qualify for the Age Pension often receive an Age Pension that varies over the course of retirement. As a result, the proportion of a household's living costs that are funded by the Age Pension varies over time. It means that the spending drawn from other assets also varies over time to make up the difference.

Even wealthier SMSF trustees, if they maximise the use of their capital across all retirement goals, will see their wealth enter the means testing bands in old age. All households with assessable assets below the thresholds (expected to be \$823,000 for a couple homeowner and \$547,000 for a single homeowner from 1 January 2017 following the commencement of legislated Assets Test changes) will be entitled to the Age Pension, even if their wealth does not fall to these levels until much later in their retirement.

The amounts most SMSF trustees receive from the Age Pension therefore have a 'shape' over the course of retirement as capital gets consumed. The chart below shows an example of the cashflow mix for an SMSF couple over the course of their retirement.<sup>3</sup> In this example, the couple have \$1.2 million (plus their home) and \$1.1 million of this is in the SMSF. The dotted line at \$60,000 represents a lifestyle equal to annual spending of 5% of their retirement assets at age 65. You can see that a means tested Age Pension kicks in at older ages once capital gets consumed to support spending.

**Chart 2: SMSF trustees and the Age Pension**

\*Figures are in today's dollars and assume a fixed rate of return for investments and for inflation.



<sup>2</sup>Pfau and Cooper (2014) and also Drew, Michael and Adam Walk (2014) How safe are Safe Withdrawal Rates in Retirement? An Australian Perspective, Finsia (Financial Services Institute of Australasia), Sydney.

<sup>3</sup>For information about the methodology used, please refer to Appendix 1.

Rather than focus on a safe withdrawal rate from their superannuation, Australians should consider their total mix of income sources. Only by looking at things in totality can retirees make informed long term spending decisions.

Australian retirees should focus on their overall spending rate, rather than a safe withdrawal rate from their SMSF in isolation. A complete spending approach can also allow for the fact that spending needs typically reduce when the first member of a couple passes away.

We can bring all these concepts together to achieve this. Accurium's Retirement Adequacy Model deals with the three major risks (inflation, market and longevity) as well as handling the above cashflow patterns over time. By testing retirement plans through a full range of simulations we are able to quantify the degree of confidence an SMSF can sustain a particular spending profile. This model doesn't need to assume a fixed time period (such as 30 years), as the simulations test most likely lifespans. Longevity statistics published by the Australian Government Actuary<sup>4</sup> are used for this purpose.

The table below shows the 'safe' spending rate (spending income from all sources including any Age Pension entitlement) for SMSF couples of different levels of wealth, retiring at age 65.

**A spending rate is considered to be safe if the household can continue spending their desired amount until both spouses pass away with the required level of confidence. Individual SMSF trustees will have different views about the level of confidence they need before their spending is considered safe.**

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<sup>4</sup>Arguably, SMSF trustees should plan for longer—see Accurium's Insights 2— but the statistics here reflect the broad population.

Table 1: Safe spending rates for different levels of wealth at retirement

**Australian safe spending rates for a 65-year-old couple**\*Assuming spending keeps pace with inflation, but drops 30% when the first spouse passes away<sup>5</sup>

Total retirement savings <sup>6</sup> (\$)	Spending rate p.a. with 80% confidence	Spending rate p.a. with 95% confidence	Spending rate % with 80% confidence	Spending rate % with 95% confidence
\$250,000	\$42,000	\$40,000	17.0%	16.1%
\$500,000	\$51,000	\$47,000	10.3%	9.4%
\$750,000	\$59,000	\$53,000	7.9%	7.1%
\$1,000,000	\$67,000	\$59,000	6.7%	5.9%
\$1,250,000	\$75,000	\$65,000	6.0%	5.2%
\$1,500,000	\$84,000	\$72,000	5.6%	4.8%
\$1,750,000	\$93,000	\$79,000	5.3%	4.5%
\$2,000,000	\$104,000	\$86,000	5.2%	4.3%
\$2,250,000	\$114,000	\$95,000	5.1%	4.2%
\$2,500,000	\$126,000	\$103,000	5.0%	4.1%
\$2,750,000	\$137,000	\$111,000	5.0%	4.0%
\$3,000,000	\$149,000	\$120,000	5.0%	4.0%
\$3,250,000	\$161,000	\$129,000	4.9%	4.0%
\$3,500,000	\$172,000	\$138,000	4.9%	3.9%
\$3,750,000	\$184,000	\$147,000	4.9%	3.9%
\$4,000,000	\$196,000	\$156,000	4.9%	3.9%
\$4,250,000	\$207,000	\$165,000	4.9%	3.9%
\$4,500,000	\$219,000	\$172,000	4.9%	3.8%
\$4,750,000	\$230,000	\$182,000	4.9%	3.8%
\$5,000,000	\$242,000	\$192,000	4.8%	3.8%

The two columns on the right of the table show the safe spending level as a proportion of total retirement assets at the point of retirement. The percentage is higher for those with lower saving levels because the Age Pension covers a large proportion of their spending needs. The percentage reduces for wealthier retirees and those wanting more certainty that their spending will be sustainable.

For households with retirement assets of \$3 million or more, the safe spending rate falls to around 4% for those wanting 95% confidence. Retirees who can accept a lower level of security can spend more, but must accept the higher risk they are taking.

ATO statistics released December 2015 showed that only 23% of SMSFs in pension phase held assets of greater than \$2 million<sup>7</sup>.

<sup>5</sup>Please see Appendix 1 for full details of the assumptions used in Accurium's Retirement Adequacy Model for the purposes of this paper. In particular, the SMSF couple are assumed to own their own home and have no bequest motive. The investment mix of the SMSF is assumed to be in line with the average for SMSFs in pension phase as published by the ATO. Different results would be seen for different investment mixes and ages. SMSF practitioners should carry out an individual assessment for each SMSF household using a suitable retirement adequacy model.

<sup>6</sup>Excluding principal residence

<sup>7</sup>Australian Tax Office, Self-managed superannuation funds – A statistical overview 2013-14, SMSF assets by payment phase, [https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Super-statistics/SMSF/Self-managed-superannuation-funds--A-statistical-overview-2013-14/?page=18#SMSF\\_assets\\_by\\_payment\\_phase](https://www.ato.gov.au/About-ATO/Research-and-statistics/In-detail/Super-statistics/SMSF/Self-managed-superannuation-funds--A-statistical-overview-2013-14/?page=18#SMSF_assets_by_payment_phase), 16 December 2015.



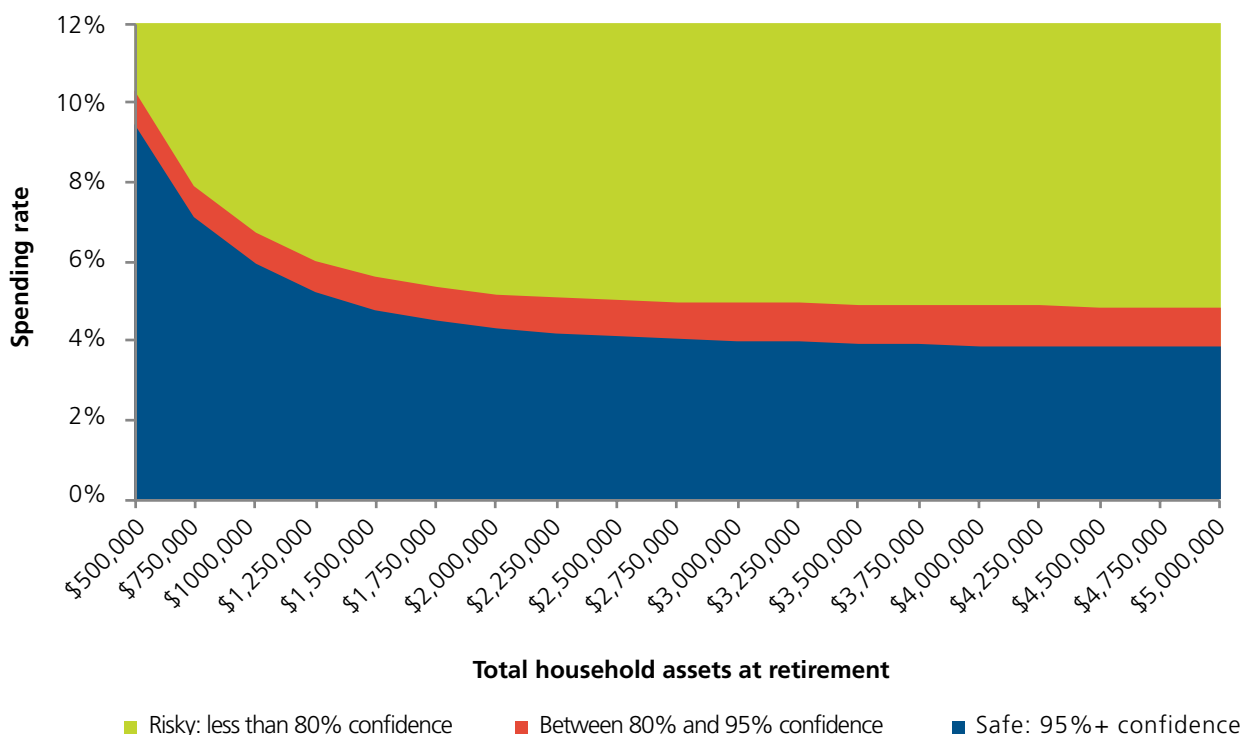
At first glance, the spending rate for wealthier households of around 4% p.a. looks in line with the '4% rule'. However, there are several differences, including a variable time horizon<sup>8</sup>, and the fact that the above figures assume a 30% fall in spending requirements after the first spouse passes away.

For retirees with lower levels of wealth, the amount they can spend as a proportion of total retirement savings is considerably higher than for wealthy households. The Age Pension commences earlier (often immediately) for less wealthy retirees.

As a result, the proportion of their spending expected to come from the Age Pension is higher. As can be seen in Table 1, a 65-year-old SMSF couple with \$500,000 in retirement assets can set a safe spending level of nearly 10% of this amount each year (\$47,000 p.a.). This provides them with 95% confidence of not running out of savings. The means tested Age Pension covers just over half of this spending level initially, and increases to \$33,982 p.a. when the full Age Pension applies later in life.

Plotting this on a chart, we can see the safe level of total spending as a proportion of each wealth group's total retirement savings.

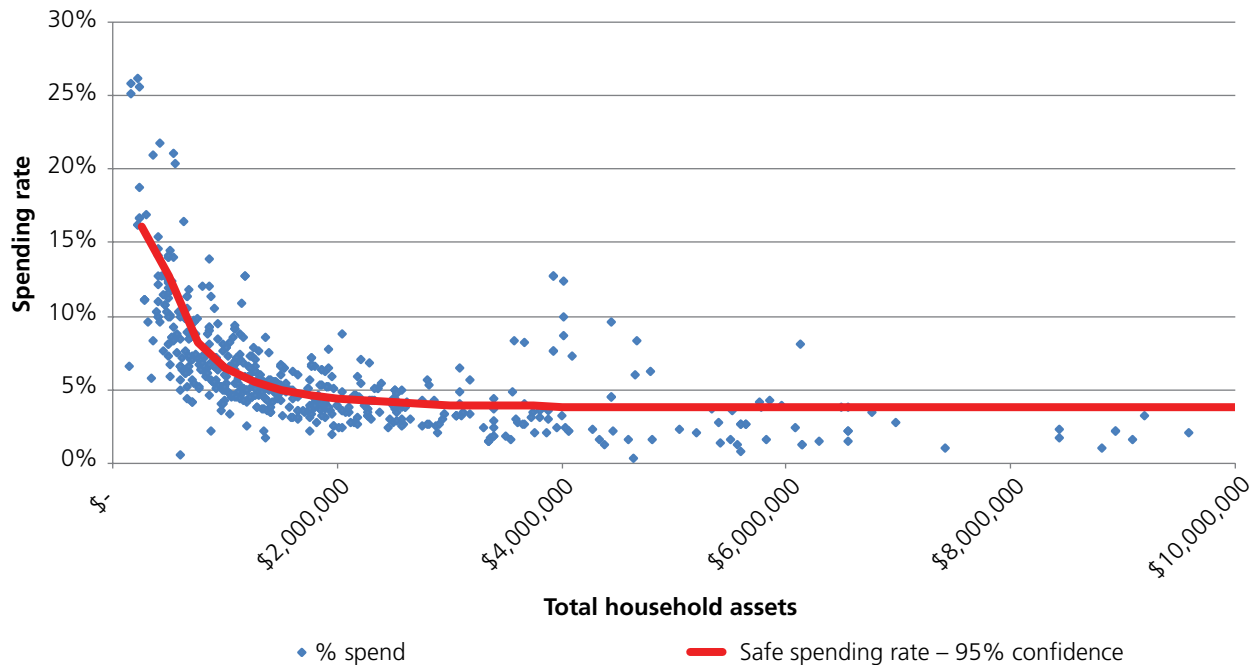
Chart 3: Safe spending rates for 65-year-old SMSF couples



<sup>8</sup>For example, in some scenarios, both members of the couple have passed away before 30 years and in others one or more of them live longer than 30 years.

The chart below shows the actual SMSF household spending rates of SMSF retirees in Accurium's database. It indicates that most SMSF retirees are adopting safe spending rates, although there is a significant minority whose retirement plans are unlikely to be sustainable.

Chart 4: SMSF retirees' actual spending rates vs. total household savings<sup>9</sup>



The safe spending rate concept is an important thought process for SMSF retirees. But Australia's minimum pension rules and Age Pension means testing invalidate any simple rule of thumb like the 4% rule for all but the wealthiest retirees.

**Important!** When interpreting the safe spending rate, it's important to remember that this level of spending has been set to withstand around 95% of unknown future outcomes. There is still a one in twenty chance of poorer outcomes. And there is a 95% chance that the SMSF will experience outcomes that could in fact support higher spending than the safe level.

## 5.2 Income bucketing

Investing in growth assets like equities can provide the potential for greater long-term returns leading to a higher standard of living in retirement. However, this generally comes at a cost of increased volatility and the risk of significant falls in capital values. Market swings present a particular risk for retirees drawing down on their capital. Poor returns at the start of retirement when balances are at their highest can have a significant impact on the sustainability of retirees' savings.

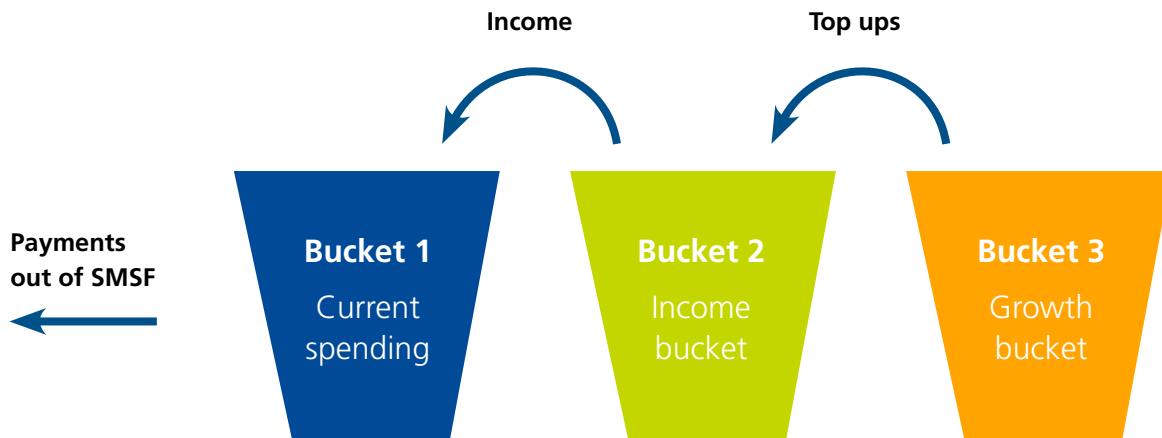
Income bucketing, or time segmentation, can alleviate this sequence risk by using assets that provide a secure income to lock in future spending amounts over an initial timeframe. This protects growth assets from being drawn down during the initial period, reducing sequencing risk. The strategy uses multiple building blocks to look after short and long term cashflow.

While some investors plan to rely on interest, rent and dividend income to cover their cashflow, that strategy isn't an optimal use of resources for most retired households. A bucket strategy can be used to create income, invest in growth assets and manage inflation all at the same time.

<sup>9</sup>Note that the red 'safe spending rate' line is based on an SMSF couple both aged 65 with an average investment mix and with spending requirements that reduce by 30% when the first spouse passes away. The circumstances of actual SMSF households shown on the chart may differ from this.

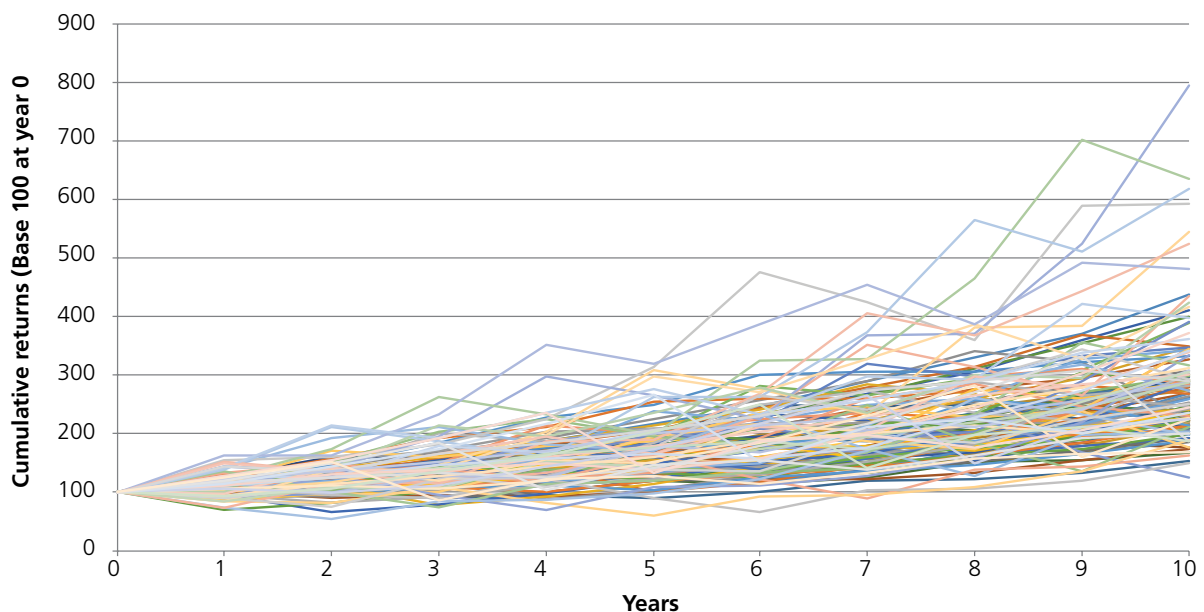
In this paper, we consider a three bucket approach where the first bucket, typically the SMSF's bank account, is used to cover the day to day cashflow requirements or 'float' for the next 6 months. The second bucket then needs to provide income to cover outflows for a reasonable period to help avoid sequence risk. The SMSF's remaining assets in the third bucket can be invested for long term growth, ideally being protected from being drawn upon in a market downturn.

Chart 5: Bucket strategy in retirement



The key to this strategy is securing cash flows for long enough that, should there be a downturn, there is sufficient time for growth assets to recover without being drawn on. The chart below illustrates Australian equity returns over every 10-year period since 1883. It shows that, historically, even after the worst downturns, equity markets have typically recovered their nominal value after 7 years.

Chart 6: Returns on Australian equities over 10-year periods 1883-2015<sup>10</sup>



<sup>10</sup>Source: Accurium analysis of ASX All ordinaries total return index

Once the spending needs over the initial period are set, the allocation to the income bucket is determined by how much of the portfolio is required to meet these spending needs. The remaining assets are invested for growth to maximise potential returns.

### 5.2.1 Optimal term for an income bucket

The optimal term for the income bucket will depend on the retirees' individual cashflows and preferences. The decision of what initial term to use is a trade-off between more access to potential growth and managing downside risk. We have carried out a detailed analysis of which time periods provide the best results for a typical 65-year-old SMSF couple. For details of this modelling, please see Appendix 2.

Where this typical SMSF retirees' objective is to increase their potential for achieving a higher SMSF balance without increasing the risk of experiencing worse outcomes, our modelling shows this is best achieved with an income bucket of around 10 years. A 10 year income bucket can secure cashflow for a sufficient period to give growth assets time to recover should poor market outcomes be experienced.

### 5.2.2 Using income bucketing in an SMSF

Accurium's research looks at how this strategy can be used by SMSF investors. Clearly, the spending requirements to be met using the income bucket will differ from household to household. For SMSF trustees with account-based pensions, the minimum pension standards provide a reference point for withdrawals and we have assumed an initial withdrawal level in line with these requirements. Based on our analysis discussed above, we have assumed the income bucket is required to meet spending for the first 10 years of retirement.

The income bucket can be constructed in many ways to meet the desired spending over the initial period. Term deposits can be used to meet spending needs in the initial few years, with bond ladders used for longer terms where term deposits are scarcer.

In the US zero-coupon bonds are easily available to construct a desired pattern of cashflows. In Australia, due to a more limited bond market, this may be more difficult, especially for retail investors. Here, one effective way to establish an income bucket of sufficient length is to purchase a term annuity with no residual capital value (an 'RCV0 term annuity'). These annuities focus entirely on providing a regular income for a fixed period. By combining both capital and interest over the term of the annuity to achieve the income needed, the amount required in the income bucket can be minimised. Accordingly this lets the SMSF maximise the amount they can invest in growth assets.

#### What is an RCV0 term annuity?

An annuity is a simple, secure financial product issued by a life insurance company. It provides the investor with a series of regular payments in return for a lump-sum investment. Annuity instalments are fixed at the outset and are not affected by share market or interest rate movements. An RCV0 term annuity has 0% residual capital value and returns the investor's capital gradually during the term of the annuity as part of the regular payments.

Using the Accurium Retirement Adequacy Model we have considered the effectiveness of the strategy in terms of likely fund balance at the end of the 10-year term. We have compared the strategy with the outcomes expected from a balanced portfolio, assumed to be invested in line with the average asset allocation for SMSFs in pension phase, as shown by ATO statistics<sup>11</sup>.

<sup>11</sup>ATO: Self-managed superannuation funds – a statistical overview 2013-14

<b>Case study: 65-year-old SMSF couple</b>	
<b>Household details</b>	Male and female, both aged 65
<b>SMSF balance at retirement</b>	\$1.1 million
<b>Required withdrawals from SMSF</b>	Minimum withdrawals from account-based pension (\$55,000 in first year) <sup>12</sup>

Details of the two strategies are set out below:

	<b>Balanced portfolio (Average SMSF in pension phase)</b>		<b>Income bucketing strategy</b>		
	<b>Defensive allocation</b>	<b>Growth allocation</b>	<b>Bucket 1</b>	<b>Bucket 2</b>	<b>Bucket 3</b>
<b>Initial allocation</b>	\$322,000	\$778,000	\$32,000	\$468,000 <sup>13</sup>	\$600,000
<b>Assets</b>	93% Cash 7% Fixed interest	64% Australian equities 1% International equities 20% Property 15% Other growth	100% Cash	Investments providing secure income of \$55,000 p.a. for 10 years (no residual capital value)	64% Australian equities 1% International equities 20% Property 15% Other growth

The table below shows the range of values for the couple's portfolio at the end of the 10-year period using the two strategies. The first row of the table looks at the upside potential of each portfolio, measured by the best 5% of all simulations performed. The middle row looks at the median outcome for each portfolio. The last row looks at downside risk, by focussing on the bottom 5% of all simulations performed for each portfolio.

Table 2: Impact on fund balance after 10 years using income bucketing.<sup>14</sup>

	<b>SMSF balance at the end of 10 years (in today's dollars)</b>		<b>Increase in balance</b>
	<b>Balanced asset allocation (ATO average)</b>	<b>Income bucketing strategy</b>	
<b>Upside potential (95th percentile)</b>	\$1,543,000	1,642,000	6%
<b>Median</b>	\$901,000	\$944,000	5%
<b>Downside risk (5th percentile)</b>	\$523,000	\$542,000	3%

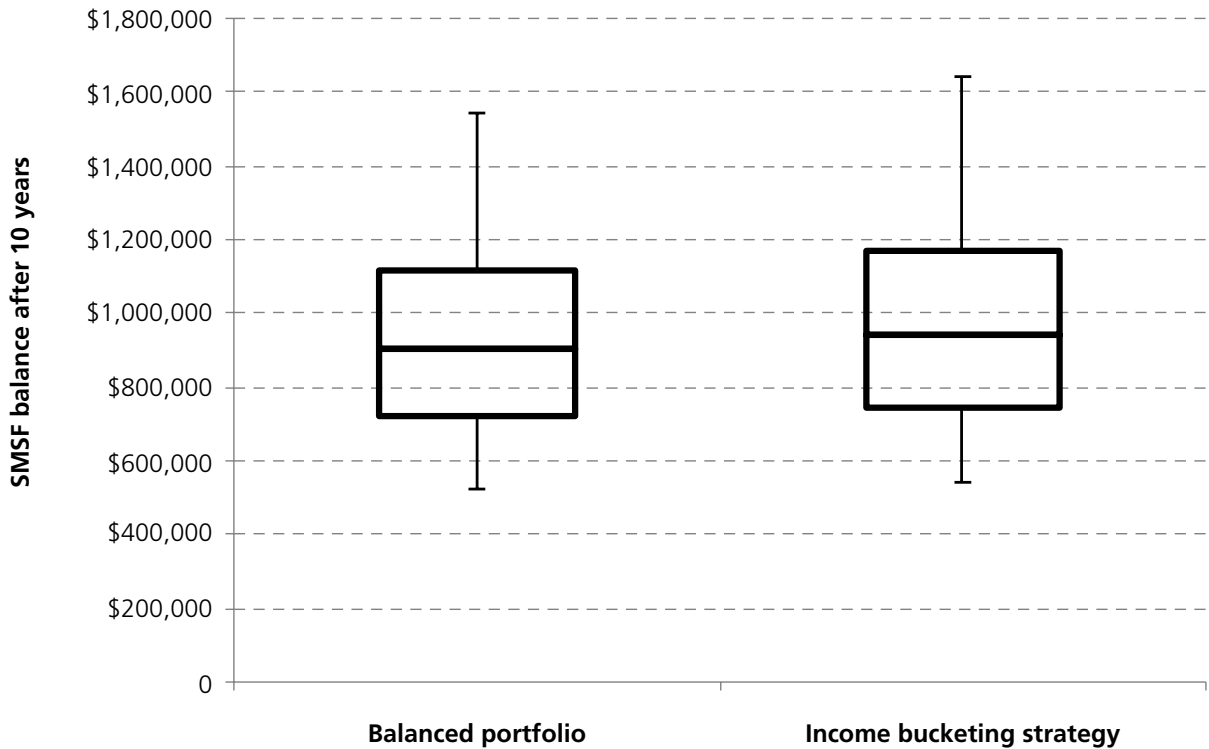
The results above show that the SMSF income bucketing strategy outperforms over a 10-year period on each of the measures considered. On average, SMSF retirees using this income bucketing strategy would have an SMSF balance that was 5% higher than if using a traditional balanced portfolio. The strategy also provides better outcomes in good market conditions (best 5% of outcomes) and in poor market conditions (worst 5% of outcomes).

<sup>12</sup>Note that the withdrawals from the SMSF will differ depending on market performance and the investment mix of the SMSF. One feature of using RCV0 term annuities to meet income needs is that it can allow the SMSF to make lower pension payments. Minimum pension payments are based on the market value of the fund's assets. For these purposes, the 'value' of the RCV0 term annuity is based on its withdrawal value, which can be lower than the sum of the remaining payments.

<sup>13</sup>Based on market rates for non-indexed 10 year RCV0 term annuities in January 2015.

The chart below shows the full range of modelled outcomes for the two scenarios.

Chart 7: Distribution of fund balance after 10 years using income bucketing<sup>14</sup>



Our research shows that this income bucketing strategy is likely to be effective in improving outcomes for SMSF trustees. It provides our typical SMSF couple with higher balances than a traditional balanced portfolio at the end of the 10-year term across a wide range of likely market scenarios.

The income bucketing strategy is also a useful tool for helping SMSF retirees maintain a disciplined approach to their investing.

<sup>14</sup> The end of the thin line above and below each box represents the potential upside and downside for that portfolio (it shows the range where only 5% of scenarios lie above or below this range respectively). The rectangular box shows where 50% of scenarios lie and the horizontal line in the box shows the median outcome for the portfolio.

### 5.3 Income layering

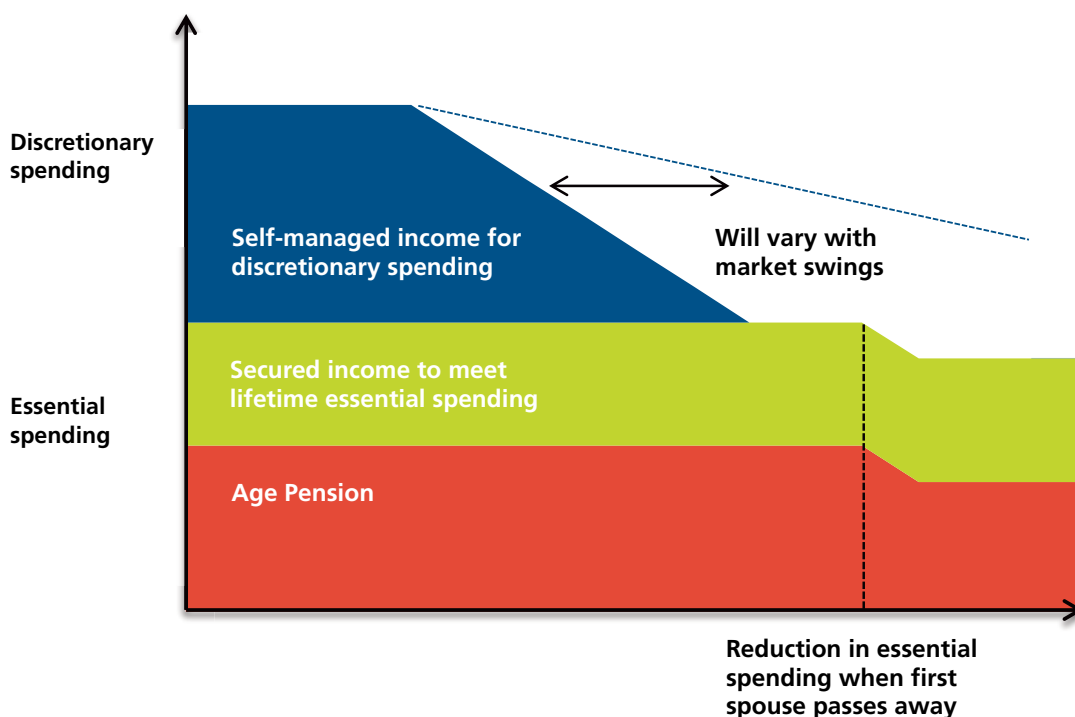
This safety-first strategy acknowledges the fact that most retirees have certain living costs they consider essential for their entire life. They are unwilling to risk their money running out, if doing so would put their minimum lifestyle at risk. Other expenditure items are non-essential and depending on the retirees’ investment experience, they may be able to forgo these items as wants.

Income layering involves segmenting retirees’ goals into those essential and discretionary goals. Different sources of income can be used to meet these different goals. Income layering ensures that essential spending needs are secured with guaranteed income sources as a priority. Once this is achieved the strategy can include growth assets to maximise discretionary spending. We explore how this strategy can be used by SMSF retirees.

Consideration should first be given to social security eligibility such as the Age Pension. In the worst case, trustees have no capital and will receive the full Age Pension, so this can be used for planning. The remaining income for ‘needs’ is generated from a guaranteed income source. For retirees with the option of a defined benefit pension, that is suitable, but for others, a lifetime annuity provides the simplest way to match this lifetime income need.

Most SMSF retirees will have sufficient savings to meet their essential needs and can therefore afford some discretionary spending through retirement. Often these ‘wants’ are higher during the early years of retirement when retirees are healthy and more active. With the ‘needs’ secured, retirees can adopt more flexible investment options such as account-based pensions to fund their discretionary spending.

Chart 8: Income layering



#### 5.3.1 Using income layering with an SMSF

Accurium’s Retirement Adequacy Model shows that income layering can significantly increase the probability of retirees meeting their essential spending needs. Having secure income to cover the essential spending layer means other capital can confidently be invested in growth assets with the objective of maximising desired (but not essential) spending goals.

Below we show how an SMSF couple retiring at age 65 might use income layering.

Case study: 65-year-old SMSF couple	
Household details	Male and female, both aged 65, homeowners
SMSF balance at retirement	\$700,000
Assets outside superannuation	\$0
Desired initial spending level (increasing with inflation)	ASFA Comfortable Retirement Standard of \$58,915 p.a. for 15 years
Essential spending level (increasing with inflation)	\$45,000 p.a.

Our modelling assumes that the above couple will spend \$58,915 p.a. during the early years of retirement when they are more active. They also want to ensure they are always able to cover their essential spending needs of \$45,000 p.a.

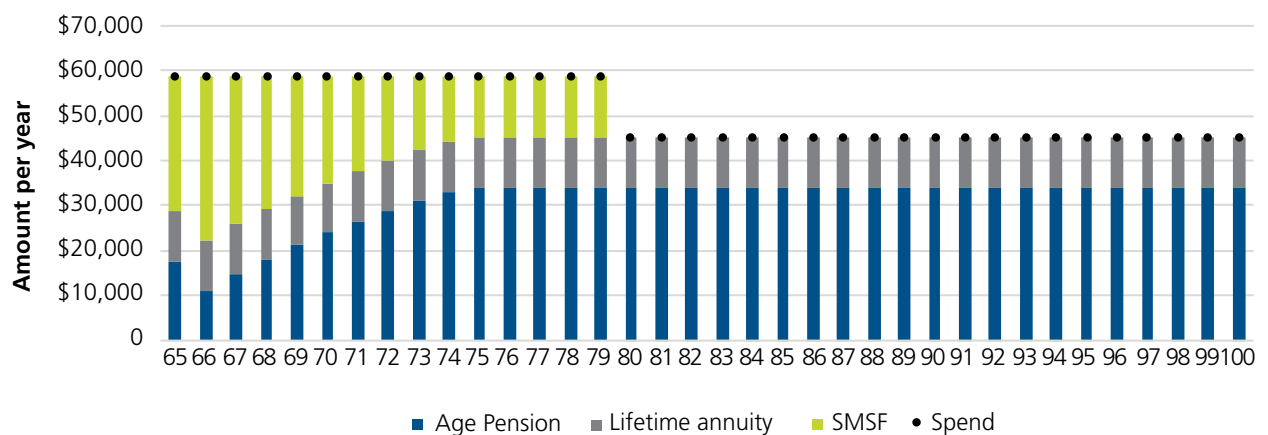
With \$700,000 in total savings they will receive a part Age Pension which is likely to increase in later years as they draw down on capital. The Age Pension acts as a floor providing a minimum level of income as a last resort. However, the maximum Age Pension is currently set at \$33,982 p.a. for a couple. They will need other secure sources of income to meet their essential spending requirements.

Income layering suggests the asset which provides the best match for this 'gap' between the Age Pension and the required spending level is a lifetime annuity. The insurance company providing the annuity takes on all longevity and market risk for the essential layer. Because it's in a lifetime annuity, the retiree can depend on this income for life, irrespective of how markets perform or how long they live

In this example, the annuity needs to provide guaranteed income of \$11,068 p.a. Should the retirees' other assets be consumed on discretionary spending, the annuity income together with the Age Pension should meet the essential spending requirement.

The chart below shows how this might work in practice, by highlighting how the couples' spending might be funded over their retirement. All figures are in today's money. We have assumed the couple purchase a lifetime annuity indexed in line with inflation and hold their remaining assets in a balanced portfolio, in line with the SMSF average investment mix.

Chart 9: How a 65-year-old SMSF couple's retirement spending might be funded using the income layering strategy



Using Accurium's Retirement Adequacy Model we have determined the probability of this 65-year-old couple meeting their essential spending needs of \$45,000 p.a. for life using the income layering approach described above. We have compared this to the couple investing all their assets in a balanced portfolio.



Table 3: A 65-year-old SMSF trustee using the income layering strategy

	All assets invested in a balanced portfolio	Securing essential spending 'gap' with a lifetime annuity
<b>Lifetime income secured with a lifetime annuity</b>	\$0	\$11,068 p.a.
<b>Assets in SMSF</b>	\$700,000	\$391,000
<b>Probability of meeting essential spending needs</b>	92%	Over 99%

The probability of being able to meet essential spending needs increases from 92% to over 99% using the income layering strategy.

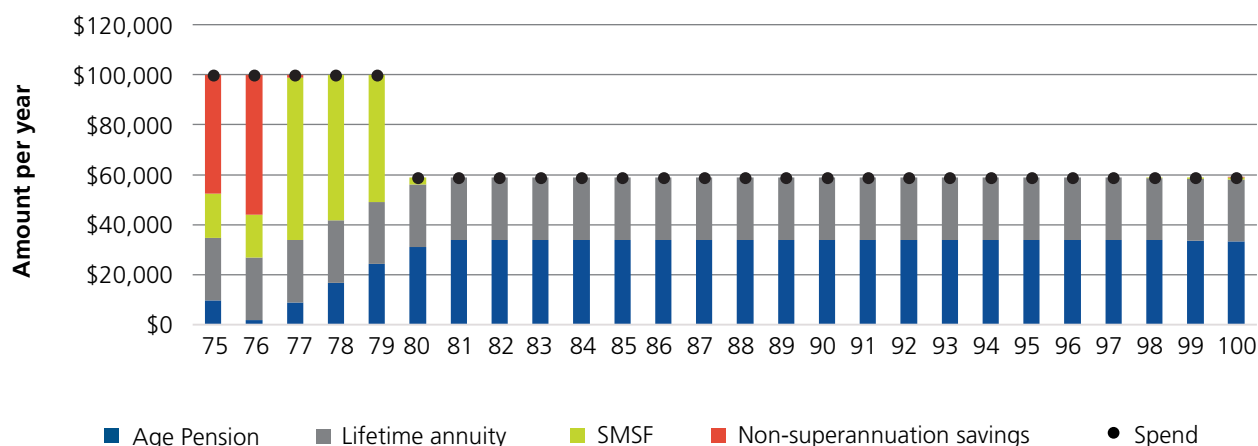
SMSF retirees often have higher levels of wealth than shown above and arguably, may have essential spending needs that are higher than \$45,000 p.a. We have illustrated the above scenario as an introduction to income layering. Our modelling shows, however, that when annuities providing higher levels of income are purchased at age 65, some scenarios can be impacted by the Age Pension means tests later in life. As annuity payments increase in line with inflation, the amount that is assessable under the income test goes up, and in some scenarios can exceed the threshold for receiving a full Age Pension. This means retirees will still need to manage other savings carefully in order to fill the gap that isn't covered by the Age Pension.

Based on our research, this 'means test' problem is reduced for those purchasing annuities at older ages. We have considered a case study for a 75-year-old SMSF couple as follows:

<b>Case study: 75-year-old SMSF couple</b>	
<b>Household details</b>	Male and female, both aged 75, homeowners
<b>SMSF balance at age 75</b>	\$800,000
<b>Assets outside superannuation</b>	\$100,000
<b>Desired spending (increasing with inflation)</b>	\$100,000 p.a. for 5 years
<b>Essential spending (increasing with inflation)</b>	ASFA Comfortable Retirement Standard of \$58,915 p.a.

The chart below again illustrates how their spending requirements might be funded using a layering strategy. As before, we assume that the couple purchase a fully indexed lifetime annuity to fund the shortfall between the full Age Pension and their spending needs of \$58,915 p.a. for life.

Chart 10: How a 75-year-old SMSF couple's retirement spending might be funded using the income layering strategy



Due to their older age, the cost of purchasing the annuity may be lower and hence has less impact from the means tests on Age Pension entitlements. We have estimated the probability of this income layering strategy meeting their essential spending needs, as shown below.

Table 4: A 75-year-old SMSF couple using the income layering strategy

	All assets invested in a balanced portfolio	Securing essential spending 'gap' with a lifetime annuity
<b>Lifetime income secured with a lifetime annuity</b>	\$0	\$24,933 p.a.
<b>Assets in SMSF</b>	\$800,000	\$298,000
<b>Assets outside superannuation</b>	\$100,000	\$100,000
<b>Probability of meeting essential spending needs</b>	90%	Over 99%

The income layering strategy provides certainty over the retirees' spending needs, with the income from the annuity and the Age Pension securing the ASFA Comfortable Retirement Standard for the rest of their lives.

Income layering can be an effective strategy for SMSF clients, particularly when they aren't or won't be as affected by means testing.

## 6. Conclusion

To maintain a lifestyle without working, the priority in retirement planning is managing long term cash flows in a sustainable way.

SMSFs carry more oversight, because the fund is managed by the client directly. So SMSF trustees must manage their funds with great care and vigilance. It requires very different skills from managing an SMSF during the accumulation phase.

It is important SMSF practitioners understand each client's full cashflow picture including their other objectives. In retirement, these cashflows have the biggest impact on how to run the SMSF.

The risk of getting things wrong is, at best, clients who are anxious and, at worst, having run out of money prematurely, and need to readjust their lifestyle and spending expectations. Clearly there is an opportunity for SMSF practitioners to show value to clients by helping provide them with peace of mind and security.

There are a number of well researched pension strategies that can be used to manage long term cashflow and risk. Selecting the most appropriate strategy for each client, means aligning the range of likely outcomes, with the cashflow needs and preferences of that client. SMSF practitioners need to understand these strategies and the thought processes behind them.

## Appendix 1: Assumptions and methodology

The figures in this paper were calculated using Accurium's SMSF Retirement Adequacy Model. Rather than using averages for market returns, inflation and life expectancies, this model is stochastic, which means we forecast the SMSF household through 2,000 'what if' scenarios for each of these risks. Each scenario demonstrates a different series of possible market returns, inflation rates and lifespans. The set of scenarios are carefully calibrated based on rigorous statistical analysis of markets and mortality data to ensure that, overall, they represent a full range of outcomes that retirees might face.

This type of model provides a way to stress test a particular household's retirement and can therefore answer questions around the probability that a particular amount of capital can sustain a particular level of spending for life.

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;
- ▶ 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 mortality tables published by the Australian Bureau of Statistics. We also allow for the 25-year mortality improvement rates from the Australian Life Tables 2010-12 published by the Australian Government Actuary;
- ▶ on the death of one spouse, all assets and superannuation are assumed to transfer to the surviving spouse, who will continue to spend at a level 30% lower than the couple did (indexed with inflation);
- ▶ 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 balanced portfolio is based on the average for SMSFs in pension phase as published by the ATO and set out below

Asset Class	Allocation
Australian equities	45.0%
International equities	0.4%
Property	13.9%
	27.2%
Cash and similar products	(Note, it has been assumed that 50% of the cash allocation is invested in term deposits which display investment characteristics similar to fixed interest)
Fixed interest	2.1%
Other growth	11.4%

- ▶ tax on non-superannuation investment returns is modelled, including the seniors and pensioners tax offset (SAPTO) rules and Medicare; and
- ▶ 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 the 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 (SIS) 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 20 September 2015. All 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 \$2,500 p.a.
  - Investment management charges of:
    - 0% p.a. on cash
    - 1% p.a. on other asset classes

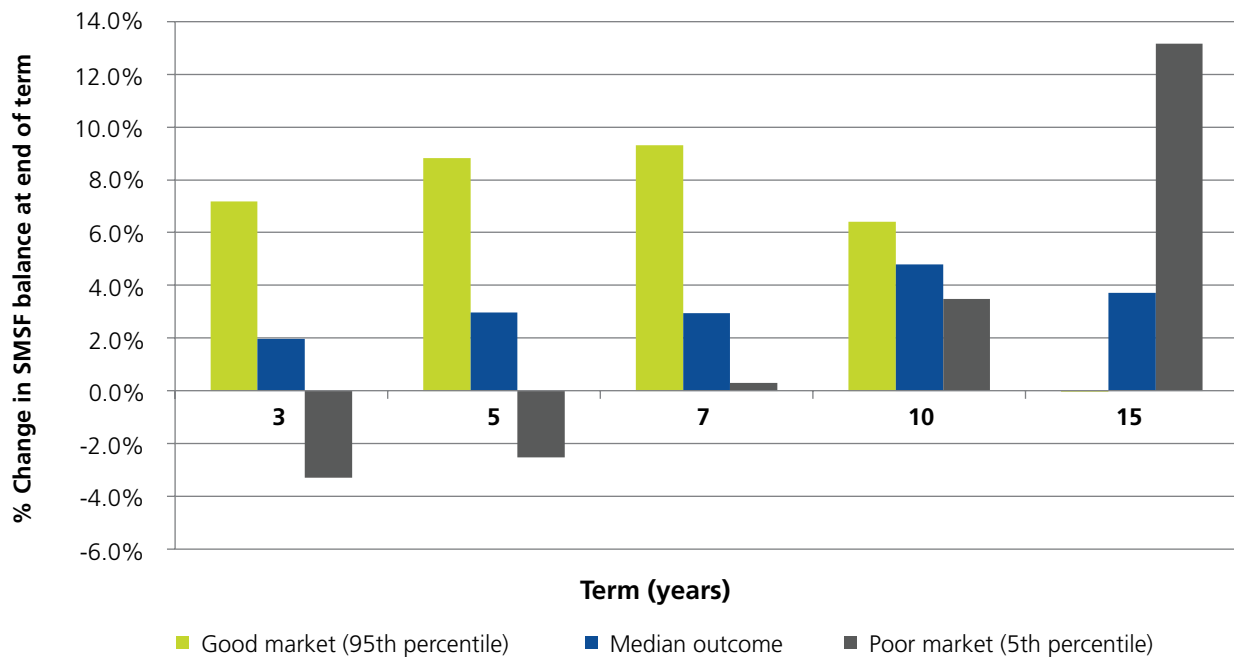
## Appendix 2: Modelling of different length income buckets

The optimal term for the income bucket will depend on the individual retirees' cashflows and risk preferences. Using our 'typical' SMSF couple below, we tested how the bucket strategy might perform using different length terms for the income bucket.

Case study: 65-year-old SMSF couple	
Household details	Male and female, both aged 65
SMSF balance at retirement	\$1.1 million
Required withdrawals from SMSF	Minimum withdrawals (5% until age 75)

The chart below shows the change in outcomes if an SMSF switched from using a balanced portfolio to various length income bucket strategies.

Chart 11: Change in outcomes for a balanced SMSF if it switched to a bucket strategy of varying terms



The green bars show the change in the upside potential (95th percentile) of the SMSF's balance at the end of each term compared to a traditional balanced portfolio when markets perform well. A positive change shows that the bucket strategy has increased the upside potential at the end of the term.

The grey bars show the change in downside potential (5th percentile) for the SMSF's balance compared to using a balanced portfolio in poor market conditions. A negative change shows the bucket strategy has increased the amount of downside risk at the end of the term.

The chart shows that for the median or middle outcomes (the blue bars) the largest increase in SMSF balance is at around 10 years.

When thinking about downside risk, it is worth noting that if retirees' preference is to reduce exposure to market falls without reducing their potential returns in better market conditions then they should look to secure income for a longer period. In fact, for our typical SMSF couple the analysis shows that securing income for at least 15 years is likely to minimise downside risk. However, this comes at the cost of limiting growth in better market scenarios.

Where the retirees' objective is to increase their potential of achieving a high SMSF balance without increasing the risk of bad outcomes, then, as can be seen on the chart, this is best achieved with an income bucket of around 10 years. In the median and good (95th percentile) market scenarios their SMSF balance is around 5% and 6% higher respectively after 10 years. In the worst scenarios (5th percentile) their balance is also higher (3%) than if they had invested in a balanced portfolio.

The optimal term for our typical 65-year-old SMSF couple looking to achieve a higher SMSF balance without increasing risk is 10 years.

As an income bucket strategy will depend on each retiree's individual circumstances, the optimum term may differ for retirees with different financial circumstances.

### Appendix 3: The complexities of retirement modelling

For many SMSF trustee couples, achieving higher levels of spending (e.g. \$100,000 p.a.) will require spending not just each year's investment returns, but also some of the capital that produced those returns. For many, it will also include some level of the Age Pension as they become eligible. In order to assess the sustainability of any particular spending level, an SMSF practitioner and their clients will need to consider many overlapping factors, including:

- ▶ households often consists of two or more lives of different ages;
- ▶ the household might also have a pool of non-superannuation financial wealth (for example a share portfolio);
- ▶ the eligibility and entitlement to Centrelink benefits, including the Age Pension, can change over time, especially as capital is consumed;
- ▶ the taxation treatment of personal income, non-superannuation assets and superannuation assets might be different and items like tax offsets and capital gains will affect the ultimate amount of tax payable; and
- ▶ the investment returns achieved on asset classes, the fees payable, inflation and other charges are difficult to predict and there are complex correlations involved.

Where a particular SMSF household's circumstances differ from the 'typical' SMSF trustee couple assumed in the modelling, a personalised calculation is required to support the income goals of each individual client. Please refer to Accurium's website for a retirement adequacy model that SMSF practitioners can use for their clients.







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