

The Lure of Simplicity Equities in an outcomes-based world

There is an understandable desire to keep things simple when it comes to implementing client portfolios.

This research paper will argue that simplifications adopted in 'new' and 'old' Australian equity strategies may ultimately result in a portfolio that doesn't achieve what it's been designed to do.

The long term suitability and sustainability of Australian equity approaches when developing high yield/income and volatility focused investment strategies for clients will be discussed.

This paper is written in reference to the Wholesale Equity Income Fund.

Introduction

The formulation and implementation of an appropriate investment strategy for clients and members has always been a challenging process for both advisors and trustees. Traditionally, the focus has been on constructing an investment mix that sought to balance the risk profile of the investor with the level of growth required to meet a specified savings target. The re-calibration of investors' risk tolerance in the wake of the global financial crisis (GFC) and a raft of regulatory reforms has added to that complexity.

In recent years our industry has begun to focus more significantly on the unique challenges related to constructing and managing retirement portfolios. The number of investors that are now in the retirement/drawdown phase is growing each year as the baby boomer generation begin to reach the age at which they start to work fewer hours or leave the workforce. The development of advice/consulting frameworks that holistically assess these investors' requirements that incorporate financial goals, changing risk preferences, lifestyle needs and the management of capital drawdowns is being actively debated and considered by the industry. While few, if any, would suggest that there is going to be a perfect 'solution' developed, most would agree that the level of complexity when it comes to constructing appropriate investment strategies for this group of investors has increased.

The concept of 'tailored investment strategies' is getting increased airplay as attempts are made to address these complex issues. These strategies are often referred to as 'objectives-based' or 'outcome-based' concepts. Tailored strategies clearly provide a number of benefits for investors, but they also create a number of challenges for our industry that need to be considered and understood.

There is an understandable desire from both clients and practitioners to keep things simple when it comes to implementing client portfolios. As a result, the investment world is prevalent with the use of 'rules of thumb' and simplifications. This is even more so when seeking to formulate investment strategies designed to address the challenges and complexities in an outcomes-based investing world. The authors argue that employing such simplifications can often result in satisfying one objective whilst ignoring others and introducing additional issues. This research paper will argue that simplifications often adopted in Australian equity strategies may ultimately result in portfolios that don't achieve what they have been designed to do. The first section of this paper will examine the long term suitability and sustainability of Australian equity approaches related to high yield/income and volatility focused investment strategies. The second section will examine how the inter-relatedness of investment objectives can be managed in an Australian equities strategy.

The challenge of multiple objectives

The complexity of formulating appropriate investment strategies in an 'outcomes-based' world comes from the fact that the number of issues/objectives to be considered increases significantly. In contrast to the relatively straightforward considerations for investors in the accumulation phase, the near-retirement and drawdown phases have a much larger range of issues to consider.

These include, but are not limited to:

- Generating a sustainable income stream from investments
- Maintaining the purchasing power of the accumulated wealth to meet the desired lifestyle
- Longevity risk management
- Estate planning considerations
- Constraining investment strategies to match the increased risk aversion for these investors

These challenges are further complicated by the different timeframes for the objectives. For example, income requirements are a short-term objective, whereas inflation risk management is a long-term issue. Addressing these various considerations concurrently will typically require the implementation of a combination of investment and insurance strategies. For the investment component, asset allocation has always been a key consideration when designing a strategy to match the risk profile or objectives of an investor. This asset allocation solution has not only been relatively simple to implement but, importantly, the asset allocation concept has been also relatively simple and understandable for the end investor.

The increasing risk aversion and requirement for an income stream as investor's progress from the accumulation phase, through the transition phase and into the retirement phase is well documented. Conceptually, this has been addressed by increasing the allocation to traditional income asset classes such as bonds and cash. However, in the current market environment, the expected returns from traditional income asset classes are low due to the global yield compression that has occurred in recent years. As a result, the current level of income being produced is below long-term expectations and it is difficult for advisers and trustees to generate sufficient levels of current income to meet investor needs. Furthermore, there are concerns regarding Government and Central Bank intervention, possible 'bubbles' in bond markets and compressed credit spreads that may result in potential losses as the yield compression unwinds at some stage in the future.

It is increasingly clear that asset allocation alone will be insufficient to address investors' requirements in an outcomes-based world. One commonly referenced 'outcome' is the need for 'certainty of sufficient income'. If advisers and trustees place a greater emphasis on 'certainty', then the absolute level of income is likely to be too low. If, on the other hand, the greater emphasis is on 'sufficiency', then the level of risk undertaken to achieve this may be too high. Given the immediacy of the need for current income, two alternatives are available:

1. Increase the rate of capital drawdown, at the expense of sacrificing future income and returns, or
2. Seek alternative sources of higher returns/yield, at the expense of greater risk

As a result, there remains a prominent role for allocations to equities in an outcome-based investment strategy as investors have increasingly looked to growth assets to meet their income requirements. Whilst the case for using equities to provide income is sound, the formulation of an equities strategy in an outcomes-based world needs to incorporate a broader consideration of issues than simply maximising the return from the asset class.

- **'return'** – Maximise after-tax net total returns (includes alpha, franking credits, taxes and fees)
- **'return path'** – Asymmetric risk preferences against capital drawdowns
- **'return composition'** – Manage the level of distributable income generated

The primary source of complexity in developing an equities strategy for an outcomes-based world is the inter-relatedness and often conflicting objectives that need to be addressed. This is, of course, not easy to resolve. To overcome this, investors often establish 'assumed truths' or 'rules of thumb' to simplify their thinking and reasoning when making investment decisions. When concepts are simplified, the basic assumptions upon which they are based are often ignored and the concepts are applied more broadly than they were originally intended. The end result can be an investment strategy that appears to address the desired outcomes over a shorter timeframe but may not address some or all of the objectives as originally intended over the long term.

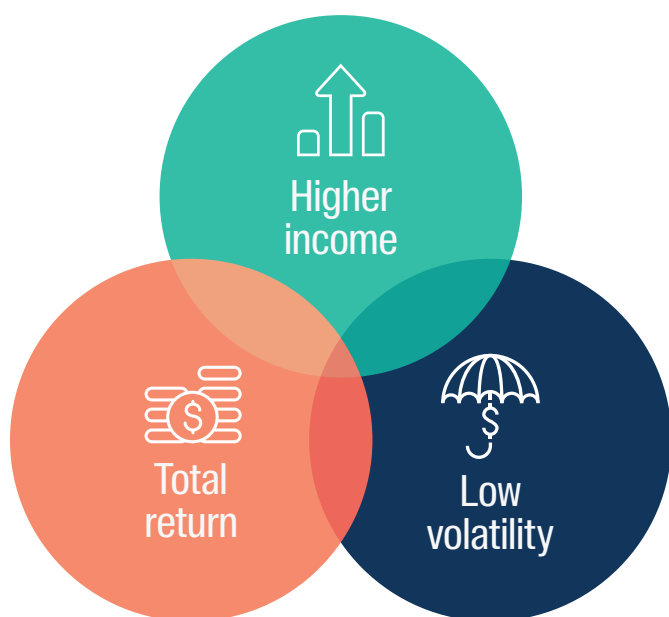
The topic of 'simplicity' as it relates to finance and investing has been discussed as part of broader academic research on behavioural finance or cognitive biases. The next sections of this paper will investigate this issue within the context of the two main Australian equity strategies advocated for objectives-based investing, namely the 'high dividend yield tilting' strategy and the 'buy-write' strategy. The paper will illustrate how common simplifications are not appropriate when developing income and/or volatility focused investment strategies.

Simplicity of the 'risk' concept

Most investors today recognise the long-term benefits of investing in equities. They expect to earn a higher return than most other asset classes, on average, over time. The investors are also aware that they take on additional risk. While the 'return' concept is well defined and understood, the concept of 'risk' is an intangible and ambiguously defined, in part because it is not something easily observed even when looking in the rear view mirror. Risk is the exposure to a particular potential loss; and if the loss does not ultimately eventuate, the exposure to that risk cannot be readily measured ex-post.

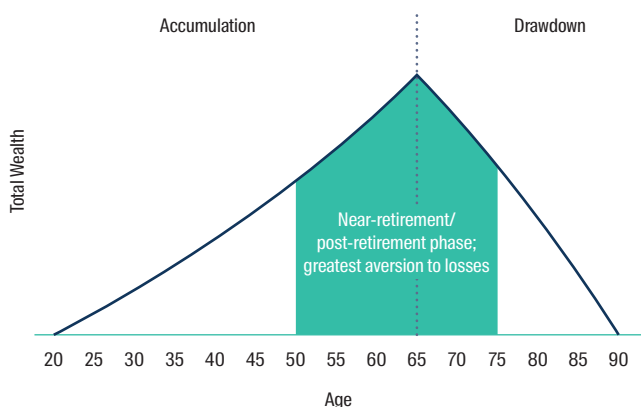
The most popular and enduring definition of risk remains volatility, so much so that these two terms are used interchangeably. Many investors only think about risk as volatility, or the standard deviation of investment returns. This is just a measure of how far returns might deviate from the average. An investment with high volatility is thought to be risky because one might end up with a (large) negative return even when the investment was expected to be sound. That volatility equals risk is a concept ingrained in popular investment thinking since it was first introduced in Markowitz's Modern Portfolio Theory. The approach has the attraction of both simplicity and intuition.

For traditional investment strategies that are based upon a long-term strategic asset allocation framework, the use of volatility as a measure of risk may be sufficient. These investment strategies are focused on long-term wealth creation and the volatility measure will provide an indication of the range of possible outcomes and the frequency and magnitude of negative returns between the end points of the investment time horizon. The long time frame also means that the embedded simplification that the underlying range of return outcomes follows a bell curve, or a 'normal' distribution is widely accepted by investors when undertaking mean-variance optimisation and blending to construct model portfolios for clients. Furthermore, this concept has been adopted by Australian Securities and Investments Commission to develop its risk classification framework for managed funds based on the 'frequency of negative returns'.



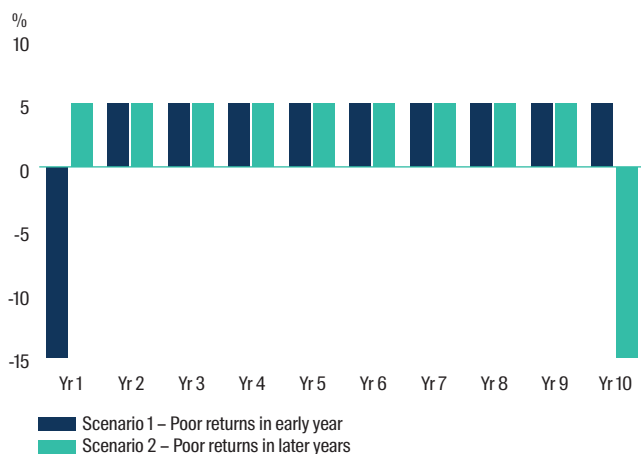
This simplification has its drawbacks, however, particularly in the context of equity strategies for outcomes-based investing. In this context, the concept of 'risk' needs to be even more broadly defined to encompass the risk of not achieving the intended objectives. As a result, rather than just assessing the cross-sectional volatility of equities over a given time horizon, the time series or path of the return from equities also needs to be assessed. This is because the investors' outcome will be a function of both the investment returns achieved and the investors' rate of contributions or drawdowns. There is a need to consider risk in two dimensions.

One aspect of risk we often do not consider is what is known as sequencing risk; essentially the order in which returns occur. Sequencing risk is simply the notion that returns matter the most when you have most at risk. For someone approaching retirement, they have the most to lose close to retirement when they have saved the most.



Source: First Sentier Investors.

Consider the example in which an investor in their accumulation phase saves \$10,000 each year for 10 years. The two scenarios shown below have the same compounded annualised return and volatility; however, one experiences a large negative loss in the first year while the second experiences the loss in the final year of the investment. The scenarios, as well as the outcomes, are illustrated below:



Scenario 1	\$128,965
Scenario 2	\$106,912
Difference	-17.1%

Source: First Sentier Investors.

It can be seen that despite the annualised returns for the two scenarios being the same, the investor's outcome was significantly different. Investing for near-retirement or post-retirement requires a consideration of path dependency, meaning the path of the return is relevant. Conventional risk measures such as volatility do not account for this. Furthermore, investors' risk aversion increases as they approach retirement when their assets are most invested and hence have the largest portion of their wealth at-risk. Equity strategies need to be tailored to accommodate this.

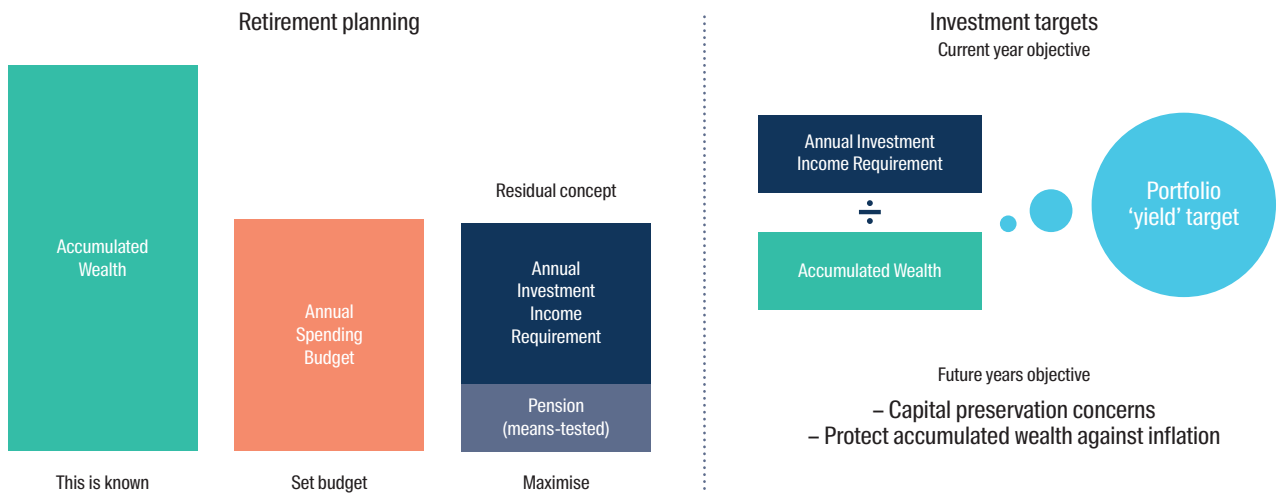
Understanding this concept of path dependency highlights a number of additional limitations in relation to simply using a mean-variance optimisation approach to construct model portfolios for outcomes-based investors. These limitations are in addition to the well-known issues relating to the sensitivity of inputs and assuming stable correlations between assets. Firstly, the optimisation is based upon assuming a single period framework for the investment horizon. This ignores the time/path dependency discussed above and cannot account for the timing and magnitude of cashflows, which are important factors for outcomes-based strategies. Secondly, the composition of returns between income and capital growth cannot be assessed. This is an important consideration for many investors who require a sustainable income stream from their investments. Thirdly, outcomes-based investment strategies are likely to have larger allocations to non-normal asset classes or non-static variable beta strategies, both of which cannot be easily accurately modelled for the optimisation.

In assessing the appropriateness of solutions for retirement savings and post retirement investors, a holistic assessment of risk that understands the applications and limitations of different risk metrics is essential. Simply relying on traditional metrics such as volatility is insufficient. An allocation to Australian equity strategies within an outcomes-based framework must consider both the 'journey risk' produced by the frequency and magnitude of negative returns but also the 'path risk' as the investment outcomes interconnect with the cashflow requirements of the investor.

Simplicity of the 'yield' concept

The definition of a 'return objective' for many outcomes-based investment strategies places greater emphasis on the income requirements compared to traditional wealth accumulation strategies. Generating a sustainable level of income in retirement becomes a key priority. This is often described by a shift towards maximisation of income rather than maximising return for a given level of risk. This creates a challenge when considering the appropriate strategy for the Australian equities component of an outcomes-based investment solution given the asset class is typically regarded as a 'growth' allocation. The status quo response has been to target an equities mix that tilts towards higher yielding investments to match the overall return objective for these investment solutions. As discussed earlier, the global yield compression in other asset classes has seen this approach for equity strategies gain even further attention in recent years.

The assessment of the required level of income for post-retirement investors must consider both essential spending needs and discretionary expenditures. This annual spending budget is defined on a dollar basis, and needs to be appropriate relative to the accumulated wealth of the investor. This spending requirement may be funded each year by a combination of age pension entitlements (if any) and investment income (and potentially some drawdown of the capital base). Given that the age pension entitlement can be reliably calculated in advance, the dollar amount of investment income required to be generated each year is a key output from the retirement planning process.



Source: First Sentier Investors.

Whilst the retirement discussion, budgeting and planning process is undertaken on a dollar basis, the formulation of the appropriate investment strategy to generate the target amount of investment income is undertaken on a yield basis. The portfolio yield target is derived as the current year's investment income requirement as a percentage of the client's accumulated wealth. Due to the immediacy of the income need, achieving this income requirement becomes the priority investment objective. The challenge when designing an appropriate investment strategy for these outcomes-based investors is how do we ensure we retain a focus on the long-term growth and capital preservation objectives whilst addressing near-term income objectives?

For Australian equities, the most common investment approach utilised to address the achievement of the portfolio yield target is to simply tilt a portfolio towards stocks that pay high grossed-up¹ dividend yields. This simple approach is often adopted because the terms yield and income are habitually used interchangeably when describing investment strategies. It is well known that dividends from Australian shares have been a resilient source of income, with the income received growing at a rate that exceeds inflation over the long term. Therefore, it is a rational expectation that investors are attracted to the apparent 'stable growth income' characteristics of Australian shares.

While it is true that an investment in Australian shares has provided a good source of income, investors often extrapolate from this result and conclude that they can increase the amount of income generated each year through limiting their investments only to stocks that pay a high dividend yield. Does this simple approach deliver the desired outcome? If we seek higher income from equities by tilting to stocks with higher yields, we change the underlying portfolio holdings. How does the resultant share price performance difference impact on income generation? There is a need to understand the role that capital growth over time plays in generating an attractive income stream from Australian shares over time.

It may be counterintuitive, but equity investors aiming to maximise their income return over the long term must continue to retain a focus on the growth returns of the equity market. This is best explained by an example below, which highlights the potential cost of targeting higher yield stocks.

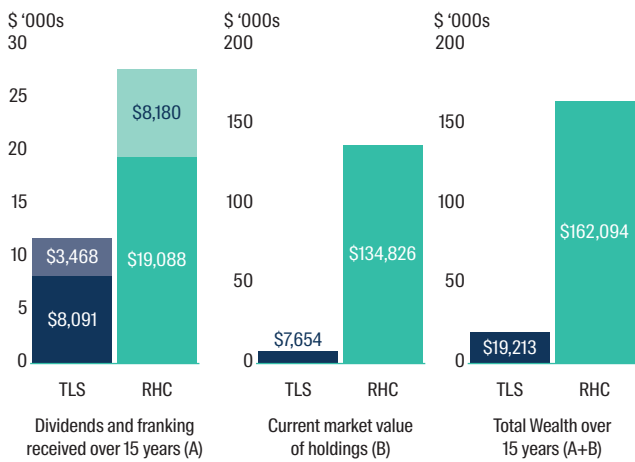
If an investor seeking a higher level of income from their equities investments 15 years ago was presented with a choice between an investment in Telstra and Ramsay Health Care to generate ongoing income, most rational investors would have chosen Telstra due to its higher dividend yield.

Telstra versus Ramsay Health Care – June 2004 to June 2019

Dividend History	Grossed up Yield 15 Years Ago (June 2004)	Average Yield over 15 years	Current Grossed up Yield (June 2019)
TLS	7.67%	9.32%	6.82%
RHC	4.86%	3.83%	3.88%

¹ Grossed-up yield reflects the dividend yield inclusive of the value of franking credits.

Income outcome for \$10,000 invested in June 2004:



Source: First Sentier Investors, UBS, IBES, IRESS. Forecast yield data calculated from consensus IBES data. Average income and capital over 15 years calculated assuming \$10,000 is invested in June 2004.

The chart shows that investors that chose Telstra would have been worse off from an actual income received perspective, even after accounting for the benefit from franking credits.

The reason that Ramsay Health Care Limited has delivered larger long-term dividend income has not been its dividend policy or yield, but due to its overall total return. Each year's capital return provides the base upon which next year's income return is generated. This is the key to long-term dividends. Strong total returns drive the delivery of attractive income from equities over time. This means that the approach taken to select stocks in investors' portfolios should not be compromised in the pursuit of higher income generation. Importantly, this is not an isolated example. The table below shows the highest ranked stocks from the S&P/ASX 100 based on average gross dividend yield over the fifteen year period. It can be seen that higher dividend yields do not ensure higher levels of income will be generated over the long term. The adverse impact that this approach can have on total wealth outcomes is also evident.

Stock	Average yield rank	Actual income generated rank	Actual total wealth rank
Tabcorp	1	22	51
Wesfarmers	2	15	37
National Australia Bank	3	33	53
Telstra	4	39	60
Westpac Bank	5	17	41
Bendigo & Adelaide Bank	6	31	50
Bank of Queensland	7	28	52
ANZ Bank	8	24	43
Commonwealth Bank	9	13	26
Sydney Airport	10	9	14
Suncorp Group	11	41	57
APA Group	12	12	18
Insurance Australia Group	13	42	46
AMP	14	48	64
ASX	15	10	13

Source: First Sentier Investors, UBS, IBES, IRESS. Forecast yield data calculated from consensus IBES data. Average income and capital over 15 years calculated assuming \$10,000 is invested in June 2004. Based on stocks from S&P/ASX100 with sufficient income/stock price history June 2004 – June 2019 (65 stocks in total)

This raises a key point for any equity fund; the underlying portfolio of shares is always important and plays a key role in managing fund risk and growing the capital base sufficiently enough to address the longevity risk. Strategies that screen or tilt towards stocks with 'sustainable yield' simply won't hold enough of these types of stocks that generate strong total returns and income over time but have low dividend yields. Considering income on a 'yield' basis can result in investment decisions that deliver poor income on a 'dollar' basis over time. Given that it is the delivery of a growing income stream on a 'dollar' basis that is of most importance to post-retirement investors, a simple approach that targets stocks with the higher dividend yields may not provide the desired outcome.

Does the above analysis imply that the 'dividend yield' concept is flawed? The answer is certainly not. The issue here is that a simple concept such as a 'dividend yield' is being misunderstood and is therefore being applied in the wrong context. The above analysis shows that whilst current dividend yields provide a reasonable indication of current income, they provide a poor indication of long-term income generation.

To understand this, we need to consider the dichotomy that exists between how investors view dividends both through the lens of continuous 'dividend yields' and through the perspective of discrete dividend payments (generally made twice a year). While both views are valid, the purpose and context in which dividends are being applied is an important consideration in determining which dividend framework is most appropriate.

The 'dividend yield' is primarily a valuation tool used to assess the attractiveness of buying or selling shares in a company². When used as a valuation metric, the continuous 'dividend yield' concept implicitly makes several long-term assumptions; the company pays regular dividends, the share price does not move significantly, and that dividends will be maintained or grow at a similar rate to the share price. In reality, both dividends and share prices change regularly over time, making these assumptions invalid over the long term. The end result is that the 'dividend yield' metric only provides an approximate indication of the amount of income that can be generated for short time frames. Therefore, it has limited application for outcomes-based investors that are concerned about income generation over the longer term.

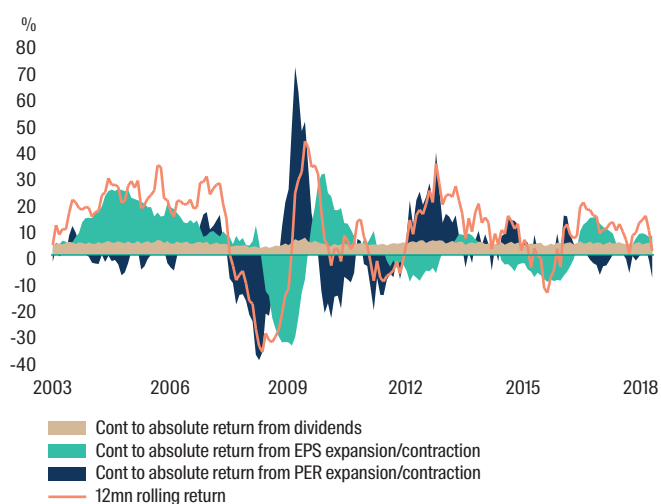
Post-retirement investors have an increased focus on dividends because they require cashflow to be generated from their investments to fund their lifestyle choices. Therefore, it is the discrete dividend payments that are most critical for these investors. The focus here is considering dividend payments as an 'event' concept in contrast to the dividend yield which is a 'continuous' valuation concept. But again, investors need to be careful. The act of paying out dividends does not add value by itself. A dividend payment is simply a decision by the company to move cash from its balance sheet to the shareholder's balance sheet, and once this distribution has occurred³, the value of the shares drops to reflect this value transfer. For an investor, their cash account increases by the amount of the cashflow and their capital balance (reflected in the share price of the stock) declines. The extent to which share prices drop to reflect the dividend payment has been the topic of numerous studies (particularly in relation to the market valuation of franking credits) and will be addressed in the next section of this paper.

² The inverse of a dividend yield provides a 'price-to-dividend multiple' similar to the 'price-to-earnings multiple'.

³ In reality, the share price drop occurs once the investor is no longer entitled to the cash payment (the 'ex-dividend date') rather than when the cash is actually paid (the 'pay date').

The paper has previously discussed that most outcomes-based investment strategies need to consider closely the 'path' of returns because the tolerance for capital loss is diminished for these investors. As a result, many outcomes-based investment strategies target high dividend yield shares on the basis that the stability and volatility of dividends is less than the share price. Given that the share price reflects a combination of a company's net profits, dividends and an earnings multiple, it would be expected to have greater variability over time compared to only the dividends. The key issue is that dividends cannot be received independent to owning the shares and therefore access to company dividend cash flows also leaves investors exposed to share price volatility. To understand the implications, the chart below shows the composition of the total return for the S&P/ASX 100 broken down by dividends, earnings (EPS) and earnings multiples (PER).

Rolling total returns decomposed between PER chg & EPS



Source: Factset. Data to 31 October 2017.

The key thing that stands out is that whilst the 'consistency' of the dividend component is evident (stable yellow bars), the dividend cash stream cannot be accessed without owning the shares, thereby exposing your portfolio to the impact of movements in PERs and EPS revisions. These two sources of return are the dominant factors on share price performance and both are highly volatile. This outcome is not isolated to the S&P/ASX 100; any number of commonly known high yield stocks show a very similar result. The fact that the volatility of dividends is significantly lower than the volatility of share prices should not be extrapolated to justify a simple investment strategy that targets 'high dividend yield' stocks. This applies even for outcomes-based investors that are concerned about the return path of their investments.

Simplicity of after tax investing

An awareness and understanding of the tax impact of investment decisions is important for all investors. Outcomes-based investment strategies developed for the requirements of Australian superannuation and pension investors are often designed to maximise franking credits. Tax-exempt investors believe that due to their zero tax status, franking credits are simply a source of cash back from the tax office and that pursuing them will boost the after tax return of a portfolio. Inherent in this belief is that franking credits are simply a bonus return in addition to the existing income and capital return.

In the previous section, it was demonstrated that holding stocks with higher expected dividend yields (including franking credits) does not lead to greater level of income over time. In addition, many of the stocks with the highest average forward grossed up dividend yields generated below average total wealth. This shows that maximising franking credits (derived from stocks with the highest franked yields) in fact comes at the expense of income and capital return. As a result, an investor's total return may not be maximised by seeking stocks that pay higher levels of franking.

The previous section also highlighted that dividend payments are discrete events. On the ex-dividend date, the share pays an entitlement to a dividend and franking credit to the investor. The share price will simultaneously adjust for the loss of this entitlement. The value of franking credits is reflected in how share prices fall when a share trades ex-dividend. The extent to which the market 'values' franking credits varies across time and across different stocks. Therefore, the key issue to understand is that the extent of the value-add from franking credits is dependent on the size of the price discount to the grossed dividend, not the magnitude of the grossed dividend itself.

Franking credits are valuable to investors, particularly those with low tax rates. However, the focus on franking credits should be assessing them part of valuing a company and monitoring compliance with ATO rules regarding entitlement to franking credits (for example, the 45 day holding rule). Simply chasing stocks with high franking credits may result in a reduced focus on after-tax total returns. Simply seeking to lower an investors tax bill does not always improve their after tax total returns.

Off-market buybacks also play an important role in unlocking the value of franking credits generated by a company for the benefit of shareholders. These off-market buybacks can provide a source of tax effective income, due to the significant size of the fully franked dividend component plus the generation of some capital losses (under the current tax treatment) for taxable investors. As a result, these transactions are often viewed as 'pots of gold' for investors that can utilise franking credits and have a low marginal tax rate (typically below 30%).

As the majority of the buyback amount is in the form of a grossed up dividend, the pre-tax value of the buyback including franking credits can be a significant premium to the prevailing market price. As a result, there is a common 'rule of thumb' that zero or low marginal tax rate investors should actively seek to purchase shares for participation in these buyback opportunities whenever they arise. Once again, this simple 'rule of thumb' needs to be carefully considered. A key factor that impacts the profitability of off-market buybacks is the degree of the scale-back due to the excess quantity of shares tendered into the buyback. The magnitude of scale backs by companies undertaking off-market buybacks is generally significant as a result of the growing interest in these capital management initiatives.

A proper assessment of the attractiveness of off-market buybacks must consider the profit or loss incurred in purchasing and subsequently selling shares on the market that were not included in the off-market buyback due to scale back. In order to utilise the franking credits received, shares must be purchased 45 days prior to the buyback completing. An investor is exposed to market movements during this time. This represents the opportunity cost of chasing the off-market buyback.

The table below shows the degree of negative share price movement required for the strategy to be breakeven over the 45 day tender period for a range of buyback premiums and scale backs.

		Pre-tax buyback benefit including franking for 0% tax rate payer*					
		5%	10%	15%	20%	25%	30%
Participation scale back	95%	0.25%	0.50%	0.75%	1.00%	1.25%	1.50%
	90%	0.50%	1.00%	1.50%	2.00%	2.50%	3.00%
	85%	0.75%	1.50%	2.25%	3.00%	3.75%	4.50%
	80%	1.00%	2.00%	3.00%	4.00%	5.00%	6.00%
	75%	1.25%	2.50%	3.75%	5.00%	6.25%	7.50%
	70%	1.50%	3.00%	4.50%	6.00%	7.50%	9.00%
	65%	1.75%	3.50%	5.25%	7.00%	8.75%	10.50%
	60%	2.00%	4.00%	6.00%	8.00%	10.00%	12.00%
	0%	5.00%	10.00%	15.00%	20.00%	25.00%	30.00%

* Reflects the premium of the grossed-up buyback price above the entry price

Highlighting denotes share price movements within a one standard deviation range over a 45 day period assuming a typical market volatility of 15%p.a. (+/- 5.27% over 45 days)

Source: First Sentier Investors.

The table below shows the pre-tax benefit and the scale back of recent buybacks undertaken by the market.

Recent off-market buybacks

Date	Stock	Pre Tax benefit of buyback	Scale Back
Oct-10	Woolworths	18.42%	88.20%
Feb-11	BHP	22.61%	78.27%
Mar-11	JB Hi-Fi	21.50%	81.06%
Apr-11	BHP	22.60%	78.27%
Oct-14	Telstra	3.13%	69.79%
Apr-15	Rio Tinto	16.13%	91.02%
Feb-16	Caltex	20.34%	86.08%
Oct-16	Telstra	9.23%	84.16%
Nov-17	Rio Tinto	17.39%	89.33%

Source: First Sentier Investors.

The JB Hi-Fi example highlights the importance of considering these issues carefully. Chasing this buyback produced a disappointing outcome for investors as a result of the JBH share price performing poorly during the tender period. The share price fell significantly during this period due to the market's concern regarding the outlook for consumer retail at that time. Although the shares that were accepted in the buyback realised an attractive return, the remaining holdings that were the subject of the scale back were fully exposed to the poor performance of the JBH share price during the period. On an aggregate basis the investor would have been worse off from participation in this buyback.

Therefore, it is inappropriate to make assumptions regarding participation in off-market buybacks, even for pension or superannuation investors on low marginal tax rates. As with any active management investment decision, a clear understanding of the expected stock drivers, total return expectations and risks is essential.

Simplicity of systematic derivative overlays

This paper has highlighted that considering the path dependency of investment returns is critical in order to address both the short and long-term objectives of near-retirement and post-retirement investors. In response to this, Australian equity strategies designed to better address the needs of these investors which have an added focus on achieving a greater consistency in the returns than what traditional strategies can deliver.

A common approach to changing the return path of a traditional equities exposure so as to deliver a smoother outcome has been

through the use of derivatives. Derivatives provide a simple way to alter the return path of an investment either through the purchasing of options to protect against downside risks or through the selling of options to generate option premium income, or through a combination of both. However, the use of derivatives creates additional complexities (including operational risks and client understanding) that need to be managed and addressed. One approach that seeks to simplify this complicated concept, particularly to address the need for client understanding of the strategy, has been via systematic implementation of derivative strategies. Investors must be diligent in understanding whether an investment strategy uses derivatives rationally to achieve its target outcome.

Systematically selling call options to generate income

One common derivatives strategy comprises of simultaneously buying shares and selling call options on those shares. This is called a buy-write strategy and changes the return path and return composition of the investment. The strategy generates additional income through the receipt of option premiums from the sold options. This additional income cushions losses during adverse market conditions and thus produces a level of volatility that is lower than the broader equity market. When implemented appropriately, the equity strategy is an effective method for balancing the differing investment objectives of near-retirement and post-retirement investors.

The use of this strategy has been fairly modest in the Australian equities market for a long time and was historically limited to more sophisticated investors. Use of this strategy has increased significantly in recent years as the industry has sought to introduce more outcomes-based investment solutions. As a result, the industry has yet to develop a mature understanding of certain issues regarding the strategy. This understanding is essential when assessing the suitability and sustainability of the strategy to address investor requirements.

Most of the emphasis on the outcomes of this strategy is the attractive level of income that can be generated. The amount of income generated can be increased by simply giving away more of the potential upside in the share price (through selling call options closer to the current share price) or by simply selling more options over the shares held. It is this trade-off concept that is often overlooked or misunderstood when implementing this strategy.

To understand how the attractive outcomes from selling call options are achieved, the strategy should be considered in terms of an 'asset-liability' concept. The option premium income received is an 'asset' that is obtained when the call option is sold. The size of this 'asset' is fixed and known at the time of implementation. This makes targeting a desired level of income (cashflow) relatively straightforward. However, the option premium income that is generated is not 'free'; the capped share price upside represents an unknown 'liability' that changes in value with the passage of time and market movements. Whilst the investor does generate an immediate cashflow on the day a call option is sold, the investor does not create net wealth at the time of implementation. This is because the option premium income 'asset' that is generated is equal to and offset by the present value of the upside participation 'liability' that is simultaneously created.

If the share price remains below the level of the option cap at the time of expiry of the option position, the 'liability' will decay to zero and the investor generates a gain. If, however, the share price has increased above the level of the option cap at the time of expiry of the option position, the value of the final 'liability' may far exceed the upfront, fixed 'asset' income that was received. In this event, the final outcome is that the investor may incur a net loss.

So why is this 'liability' often ignored? The reason is due to the fact that when implementing the buy-write strategy, the 'liability' is considered as an 'opportunity cost' rather than an explicit 'loss' because the underlying share is also held. However, this does not mean the impact of the liability can be ignored. The 'opportunity cost' becomes an explicit 'cost' when the investor re-implements the strategy, they do so at a higher price point. Like all liabilities, this call option liability needs to be properly managed. Liabilities need to be actively managed and the key drivers of the liability need to be understood. The relevant risk factors impacting the value of the call option liability are the same stock specific risks and market risks impacting the underlying stock prices.

Understanding the distinction between generating an additional distributable income stream and managing investment returns is critical. Therefore, a focus on just the income generation from using derivatives is an over-simplification that needs to be avoided by outcomes focussed investors.

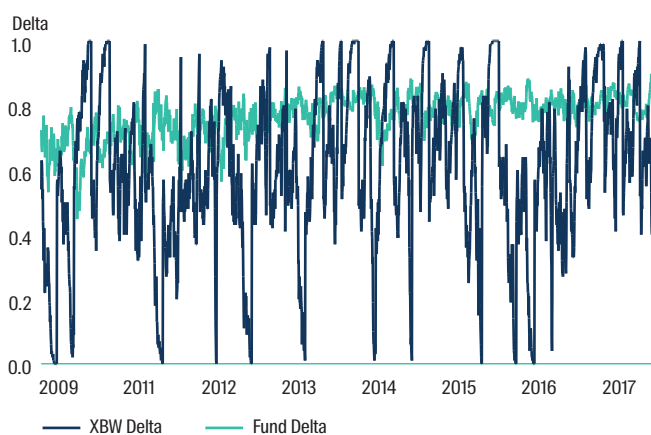
Simplicity of the S&P/ASX Buy-Write Index (XBW)

The ASX publishes a buy-write index, known as the S&P/ASX XBW. The index reflects the performance of an investment in the S&P/ASX 200 Accumulation index, over which the closest 'out-of-the money' S&P/ASX 200 Index call option is sold each quarter. Once a call option has been sold, the option position is held for the three months to expiry. At the expiry of the current option, a new option is sold and the process repeated.

This rules-based approach to implementing a buy-write strategy has intuitive appeal due to its simplicity. The buy-write index appears to replicate in principle what the buy-write strategy attempts to achieve. But it is important to consider if this systematic approach effectively addresses the outcomes sought by investors.

The chart below shows the historical market exposure of the S&P/ASX Buy-Write Index and an actively managed 'buy-write fund'. For investment strategies that utilise options, the market exposure is measured by the 'delta'.

Delta comparison: S&P/ASX Buy-write index vs. Buy-write Fund



Source: First Sentier Investors, ASX, UBS. Data to 19 May 2017.

It is evident that despite the fact that both approaches are 'buy-write' strategies, the 'market exposure' of the two approaches is very different. The buy-write index results in an

unmanaged, saw-tooth pattern of market exposure and ranges from full market exposure (delta 1) to zero market exposure (delta 0). This unmanaged exposure creates a high degree of market timing risk and it is unlikely to match the desired Australian equity exposure requirements of any investor.

Active management of option positions is required to deliver a more consistent return path from Australian shares. This may involve changing the amount of option positions utilised and the level at which the positions are implemented over the course of the market cycle as market conditions vary.

This issue does not only apply at the index level. Many investors, often those with Self-Managed Super Funds and high net worth investors, purchase 'blue chip' stocks – such as the major banks or Telstra – and sell a single corresponding call option on that share to generate income. Investors implementing single option positions on individual stocks need to be aware that they are implicitly generating this same unmanaged, saw-tooth exposure profile for their share investments.

Reducing the exposure to equity risk and delivering a smoother return profile are key objectives when developing investment strategies for non-accumulation investors. The outcomes delivered can be very different depending on how the strategy is implemented. This highlights the importance of the derivatives component of the strategy being actively managed rather than a simplistic rules-based implementation approach being adopted.

Systematically purchasing put options for downside protection

A common investment approach used when seeking a smoother equities return path with reduced downside risk has been the purchase of put options. On the surface, this appears to be an intuitive strategy since the payoff profile of a put option provides a 'floor' for the investment value. However, there are aspects of using put options that need to be considered.

Firstly, the purchase of put options requires the payment of an option premium, which entails a cost (and reduces income) which directly impacts the return of the strategy. While using put options does protect investors against short, sharp downward price movements, the cost of purchasing the put options can accumulate over time, and in the long run may outweigh the benefits of the short-term protection they offer.

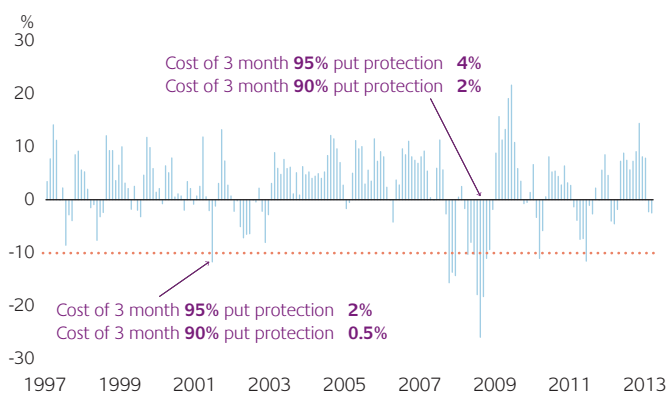
Secondly, all put options have a maturity date. As each put option expires, a new position needs to be established. If markets fall significantly, the level at which the new protection is established is also lower.

Thirdly, the 'asset-liability' concept also applies to systematic put buying. The put option premium payment is a fixed liability and the 'floor' provided by the put option is a variable asset. This asset needs to be actively managed since the value of the asset is predominantly driven by the stock price of the underlying security or market. Otherwise, systematic put purchasing will provide an unmanaged exposure akin to the implementation of the XBW index.

In part, investors can be misguided by the textbook payoff diagram, which only represents the end point outcomes at the expiry date of the put option. Prior sections of this paper highlighted that risk assessment based simply on the end points of an investment period is not appropriate when developing outcomes-based investment strategies for near-retirement and post-retirement investors. The payoff profiles do not clearly incorporate the ongoing implementation cost through the cycle or the path dependency of such investors. The cost of purchasing the put option varies depending on the market perception of risk at that point in time. Because of this, the time at which investors would most desire protection would generally be when options are at their most expensive and most prohibitive to implement.

The chart below shows three-monthly market returns from the Australian share market since 1997. It highlights that the cost of protection can accumulate over long periods of time when the 'floor' was not utilised. In addition, it can be seen that during periods in which the market is most stressed, the cost of protection increases. In particular during the GFC, to protect a portfolio to a 95% level for 3 months would have cost 4% of the value of the portfolio. Over the course of a year this can be a very significant cost imposition.

3 Month market returns



Source: First Sentier Investors, IRESS, ASX

This consideration of costs is particularly important for outcomes-based investors in a low return environment. Systematic purchasing of put options to provide through the cycle downside protection is considered prohibitively expensive and in effect, reduces exposure to the equity market from what was a discretionary asset allocation decision.

The inter-relatedness of objectives

In an objectives-based world in which near-retirement and post-retirement investors are seeking to achieve multiple goals through their investments, there is a requirement for a sophisticated level of understanding of both the issues and approaches undertaken to meet those objectives. This paper has assessed numerous relatively simple 'rule of thumb' concepts and shown that they will be insufficient to adequately address the return, return path and return composition requirements of these investors. Furthermore, seeking to address multiple investment objectives simultaneously is challenging; the inter-relatedness between the different objectives adds to that complexity.

To further understand the inter-relatedness of these investments objectives as they relate to developing outcomes-based Australian equity strategies, consider the following: What is the maximum sustainable level of income an equity fund can provide?

One way of addressing this question is to consider an equivalent concept relating to shares – the dividend payout ratio.

Dividend payout ratio:

- Percentage of earnings paid to shareholders in dividends
- Annual dividends / annual net profit
- Dividend per share / earnings per share

Investors are concerned if a company's dividend payout ratio consistently exceeds 100%, i.e. pays dividends which exceed profits over the long term, as this is clearly unsustainable. The dividend income received from shares simply cannot exceed the earnings generated by the firm on a sustainable basis over the long term. The income distribution return of a managed fund can be considered the equivalent concept to the dividends paid by shares of listed companies, while a fund's annual total return is the equivalent concept to a company's net profit. Applying the same payout ratio concept, investors should be concerned if a fund's 'Income Payout Ratio of Total Returns' exceeds 100% over the long term. In short, a fund's maximum sustainable level of income return is the total return of the fund. For an Australian equities fund, this means the total maximum sustainable income limit will be a function of long-term equity market return expectations, franking credits, alpha and fees. If the equities allocation is de-risked by additional downside protection strategies, the cost of this will negatively impact the expected return and therefore the maximum sustainable income limit.

The issue of inflation also needs to be considered. An important objective of the equities component of a client's investment mix is to maintain the purchasing power of the asset and income. The capital base needs to grow with inflation to provide a real yield. This would necessitate re-investing some of the total return rather than distributing all of the return as a high yield.

In addition, the objective of 'improved income certainty' needs to be considered. The income assessed on a 'yield' basis can provide a more stable income stream on a 'dollar' basis by utilising options to reduce the variability of the capital base and efficiently convert the total return generated from the underlying share investments into a smoother income stream over time.

Clearly, the challenge to balance competing and inter-related investor requirements in a well-designed outcomes-based Australian equity strategy is a complex task.

Australian equity strategies in a more complex world

A properly structured equity strategy with an equity options overlay provides investors with a better way to invest in Australian equities that can address the competing and inter-related investor requirements mentioned. The starting point should be the construction of a diversified portfolio of shares expected to deliver an attractive total return for an appropriate level of risk, regardless of their yield characteristics. Once the portfolio has been established, option strategies can be selectively applied on top of the underlying portfolio of shares to address the 'return path' and 'return composition' requirements. This balanced approach can effectively address both long term and current requirements for near-retirement and post-retirement investors.

Addressing the 'return' requirement

Given that the maximum level of sustainable income is a function of the total return that can be generated, the generation of alpha remains an important consideration for outcomes-based Australian equities investment strategies. A stock selection process modified to focus on companies that pay high dividend yields may be unable to realise the alpha benefits that the managers' underlying stock selection process can provide. A focus on total returns is consistent with the importance of considering income on a dollar basis rather than on a yield basis. In effect, a focus on total return seeks to maximise the total income earned over the life of an investment. The ability to generate attractive total returns in the long run allows this approach to appropriately address the longevity risk issue faced by many post-retirement investors.

Addressing the 'return path' requirement

As with any equities strategy, portfolio construction issues such as concentration to certain sectors or risk factors need to be monitored and appropriately managed. An uncompromised stock selection approach allows these concentration risks to be more effectively managed compared to a high yield strategy. In addition, the sold options also provide a degree of downside cushioning.

In the short run, the approach will exhibit lower sensitivity to market movements than a long only strategy, similar to the way in which a low beta fund would be expected to perform. This is an important characteristic when investors desire a degree of downside cushioning in falling markets. However, in the long run, the expected return of an equity income fund based on this approach is similar to the expected return for a beta 1 long only equity strategy.

This may appear counterintuitive given that the strategy temporarily caps the upside potential for a period of time. The reason that the long-term returns are similar is a result of the additional return that comes from the premium income generated through the option sale. If the options market is reasonably efficient, the expected return foregone from the sold call option is equivalent to the initial option premium that is received. This premium provides the offset to the potential foregone return from the reduced sensitivity to market gains. In addition, the lower level of return volatility produced by this strategy provides a compounding benefit from a higher capital base which assists in generating similar total returns as a long only strategy over the long term.

This is different from low beta strategies. Consider a strategy in which the investor holds 70% equities and 30% cash, i.e. a beta of 0.7. The expected return of this strategy is simply 70% of the expected equity return plus 30% of the expected cash return. Over the long term, this return is expected to be lower than that of a beta 1 long only equity fund.

The selective purchase of put options to provide an additional level of downside protection for individual stocks or the market is appropriate on occasions. The decision to implement this strategy requires a fundamental view and needs to be actively managed rather than systematic.

Overall, the strategy is designed to better match the risk aversion preferences of investors in the near-retirement or post-retirement phase.

Addressing the 'return composition' requirement

For outcomes-based investment strategies, an important consideration is the generation of a distributable cashflow as part of the return. The option premium income provides a diversified source of income in addition to dividends and franking credits. The strategy effectively converts equity volatility expectation into an income stream. Options are able to efficiently manage the trade-off between converting some potential capital gains to generate income today and generating some capital growth for the future. This is important as the capital growth generated in the near term provides the base upon which future income is generated; this is how the level of income can grow over time.

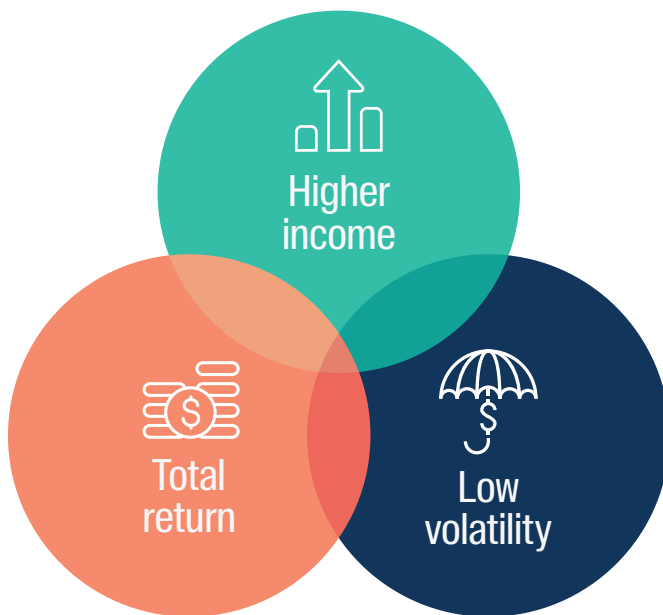
It was previously noted that selling options is an investment concept that must be actively managed, as the primary source of risk affecting the option liability is the underlying stock price. It should not be considered as simply a mechanism to generate extra distributable income. The amount of income generated is based on the amount of upside foregone as well as the probability that this upside level will be exceeded (a function of the time to expiry and volatility of the stock). Assessing these factors is based on the same considerations applied in the stock selection process for underlying shares. Options should be selectively implemented only if the option premium income sufficiently compensates for the upside potential that is to be foregone.

A suitable approach to managing Australian equities that actively addresses the income and return path concerns for outcomes-based investors must account for the inter-relatedness between objectives. Furthermore, the objectives cannot be broken into individual components. The strategy requires a combination of flexibility and control to effectively address all requirements through the cycle.

Conclusion

The lure of simplicity is part of human nature. Given the complexity of developing an Australian equities solution that is appropriate to the needs of near-retirement and post-retirement investors and the desire to satisfy multiple objectives, it is inevitable that simple solutions to these problems and challenges are sought.

The paper has detailed numerous simplifications that are commonly made when developing equity solutions that seek to balance multiple investor objectives and has highlighted how the consequences of their adoption need to be carefully considered. These simplifications often address only one objective in isolation and may ultimately result in an investment strategy that doesn't achieve what it has been designed to achieve. For Australian equity strategies, the inter-relatedness between the return, return path and return composition requirements creates numerous complications.



As a result of this inter-relatedness, the strategies developed must balance the short-term pressures to minimise investment risk but also maintain a focus on longer-term strategies to address longevity risk. Issues to be considered for Australian equities strategies in an outcomes-based world include:

- Risk considerations beyond traditional measures such as volatility, encompassing the path dependency and drawdown challenges faced by these investors;
- Meeting investor income requirements for both the current period and over the long term;
- Focus on total returns to not only address longevity risk issues but also generate the greatest dollar value of income for these investors over the long term;
- A balanced approach to after-tax investing issues that seeks to maximise after-tax total returns rather than simply maximise the generation of franking credits; and
- An appropriate, disciplined and actively managed use of derivatives to balance the investment objectives.

Global yield compression across all asset classes in recent years has made the task of developing appropriate outcomes-based investment solutions more challenging. As a result, allocations to growth assets such as Australian equities will continue to have an increasingly prominent role in solutions that seek to achieve these desired objectives. It is therefore essential that the issues described in this paper are carefully considered when designing the Australian equities component of outcomes-based investment solutions for clients.

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