

# **Issues Paper: Lifecycle investing**

PortfolioConstruction Forum | 03 July 2013

This PortfolioConstruction Forum Issues paper was conceived and designed by PortfolioConstruction Forum as a focal point for thought and a starter for a discussion that really should never end amongst all those committed to seeing individual investors enjoy the benefits of better quality financial planning advice – including a better quality lifestyle throughout their lives. This Issues Paper is core pre-reading for those wanting to get the most from the PortfolioConstruction Forum Conference 2013 program, whether attending the live program, or via the online Resources Kit.

#### Introduction

With the consequences of the Global Financial Crisis permeating every facet of people's lives in communities across the world – and, therefore, more tightly linking geopolitics, economies, markets, portfolio construction strategies and investing than ever before – it is important that members of the wealth management community look forward with a clear picture of their value proposition and role. With this theme, PortfolioConstruction Forum is helping refocus its community on the challenges of and opportunities for building better quality investor portfolios into the future. This theme therefore introduces a platform for ongoing discussion well beyond Conference itself.

The GFC and its ongoing fallout amply illustrates how quality of life in retirement can be threatened when there is too much focus on maximising the value of portfolios pre-retirement, and too little on managing the very relevant risks.

Portfolio balances are simply a means to an end – they contribute to the attainment of our goals and desires in life. With the biggest cohort of investors now moving through accumulation and into retirement and living longer than ever before, better quality portfolio construction must take a whole of life focus, considering accumulation and decumulation – and their profoundly complex mix of human capital, financial capital, market returns, market risk, inflation risk, longevity risk, sequencing risk, investor risk profile, savings ability, and future financial needs, all of which are subject to change all the time – as equally important phases of one continuous process.

Lifecycle investing is based on a philosophy of consciously constructing portfolios so that, over the whole of a person's life, acceptable standards of living and specific life goals are more likely to be achieved consistently – with all the complexity and tailoring that entails.

Lifecycle investing moves portfolio construction from a defined contribution focus to a defined benefit focus, with portfolio design adjusted for different phases of life. Overall, lifecycle investing focuses on certainty of achieving the right outcome for clients, with the need to



consider downside risk as paramount and with a heavy focus on inflation and longevity risk. Lifecycle investing represents the core reason financial planning exists – to help clients reach, with maximum certainty, those of their life goals that have a financial dimension.

This Issues Paper was researched and authored by PortfolioConstruction Forum's Accreditation Editor, Angela Ashton. We acknowledge and thank David Bell, Tim Farrelly, Michael Kitces, Simon Kitson, Graeme Mather, Wade Matterson, Aaron Minney, David Toohey, and David Williams for their very useful and insightful comments and feedback on this Issues Paper. We trust it challenges you to consider your philosophy and position on this important issue. We look forward to your contribution to this ongoing debate, via comment and suggestions for further relevant content.

Graham Rich, Publisher, PortfolioConstruction Forum

#### **1. EXECUTIVE SUMMARY**

Lifecycle investing differs from more traditional approaches to financial planning in a number of important ways:

- *Definition of risk* lifecycle investing tends to consider risk as being the risk of not reaching client goals, or not allowing the client to have their desired standard of living, rather than volatility of returns.
- *Definition of client goals* goals are usually framed more directly around lifestyles or standard of living than investment returns, risk profiles and asset allocations.
- *Continuity* the approach tries to consider the movement through different life phases as a continuous process, rather than a series of stark phases.

The key advantage of a lifecycle investing approach is that it tends to use language and concepts that generally resonate more easily with those who have little understanding of finance and financial planning and it is more in tune with well-understood aspects of human behaviour – so practitioners can have conversations that are more meaningful to the client and, as a result, can better manage client expectations and outcomes.

Lifecycle investing is not without its challenges. First and foremost is that the field is still very much in its infancy in some respects. So, although there are a number of different strategies, products and tools available to assist in applying this approach, there is still a lot that needs to be developed for Australian practitioners and investors.

### 2. KEY CONCEPTS

Before delving into the inner workings of lifecycle investing, it's useful to first define the two key concepts of lifecycle investing. A lot of the discussion on lifecycle investing<sup>1</sup> centres on these two ideas: human capital; and, lifetime standards of living<sup>2</sup>.

## 2.1 Human Capital

Human capital is the economic value of a person's skill set. It equates to the amount that people can earn from their labours over their lives. For most people, this is the most important source of financial capital and consumption through their lives. So, nurturing, managing and protecting human capital is of paramount importance. This includes looking after health, education and mind, as well as finances and everything else that could impact. Of course, by definition, the value of human capital falls to zero once we stop working. Although most of the literature considers this point to be retirement, many people now choose to work part-time after retirement and so human capital is not necessarily zero at retirement.

This Issues Paper will primarily discuss financial assets. However, a client's total wealth consists of both human capital and financial assets. A client will fund their financial goals by: - firstly, converting human capital into cash flow which is used for consumption and financial assets; and

- then, managing those assets.

## 2.2 Lifetime standards of living

The second concept central to lifecycle investing defines wealth accumulation a bit differently to normal. Lifetime standards of living are centred on lifetime consumption, rather than just wealth. It is the purpose of lifecycle investing to smooth consumption over a life-time, rather than to build wealth, per se. Hence, we can think of saving for retirement as moving consumption from one phase of life (accumulation phase) to another (decumulation phase), where human capital is zero). This also means inflation and absolute returns become more important, because the time horizon under consideration becomes much longer.

Linked with this idea, lifecycle investing considers the generation of sufficient income (and lump sums) to meet client goals as being more important than building the maximum amount of assets possible given the client's risk profile.

Another important idea that resonates through much of lifecycle investing (although it does not belong to it) is that the chestnut of "time in the market heals all ills"<sup>3 4</sup> is wrong. That is, time in the market does not necessarily mean actual outcomes are more stable or predictable – the range of returns narrows, but actual outcomes widen with time, which can lead to very diverse outcomes for clients. Lifecycle investing advocates that it is better to, as

much as possible, use assets that provide more certainty in reaching goals.

## 3. CORE ISSUES

### 3.1 What is risk?

One of the crucial differences between lifecycle investing and traditional portfolio construction approaches (simplistically, providing one portfolio based on primarily based on the client's current risk profile and, in particular, the client's risk tolerance (or the amount of risk a client can psychologically bear)<sup>5</sup> is the definition of risk used when building portfolios.

Under the lifecycle approach, the definition of risk is modified. Often, the roots of the change are based in behavioural finance<sup>6</sup> so risk is not defined as a volatility measure (which most people find esoteric). The exact definition of risk and the approach to presenting it can vary. It may be the probability of not meeting specific goals, expected outcomes versus worst case outcomes or, most often, the risk of not having sustainable, acceptable income levels in retirement (particularly after inflation). It may even be that multiple definitions of risk could be appropriate for one client, depending on the specific goal. This then considers the ideas of risk capacity – clients may be able to tolerate some financial losses when it is related to some goals, but perhaps not others – and the actual risk required to meet specific goals, rather than portfolio volatility along the way i.e. it's about making it to the destination with the greatest probability, rather than how bumpy the journey is along the way. This often more innately resonates with the layperson's own perceptions of risk.

Thinking about risk in these terms instinctively leads to a change in the way we think about portfolios. The focus moves from maximising returns for a given level of risk, to minimising or managing 'risk' given a specific goal. This may sound simple (or even inconsequential). But, it turns on its head the way we think and can lead to profound changes to the way we design and manage an individual's portfolio. With a lifecycle investing approach, portfolio construction becomes about minimising risk, in the way it's been defined, rather than maximising returns as per the risk tolerance approach (working out the maximum risk a client can psychologically bear and then making sure they experience it!), so that the client's goals are reached with the greatest probability. It other words, it maximises the likelihood of meeting client expectations and goals. This can help to minimise client capitulation – the chance that they will pull out of the strategy due to experiencing excessive volatility.

Lifecycle investing can also explicitly consider a variety of different goals the client may have, from lump sum goals (funding a house deposit, a child's wedding) to income-related goals (such as school fees or retirement). When we start to model investor's needs in this way, we can address investment planning in two ways:

• We can build mini portfolios for each goal, with varying risk profiles for each. This



incorporates the idea that investors can have different risk appetites for different goals simultaneously (funding a child's education – low risk as the goal must be achieved vs overseas holiday in 10 years – high risk).

• Or, we can build one portfolio, effectively the amalgamation of all the miniportfolios, taking into account the various drawdowns through the investor's life.

The most important goal most clients have is maintaining a certain standard of living through life, particularly after stopping earning more from working, when human capital is depleted. Under lifecycle investing, the goal changes from one based on savings rates and risk profiles – which leads to a practitioner telling the client how much they can have at retirement (subject to an acceptable minimum and adjusted for inflation) – to the practitioner instead asking about minimum and desired standards of living and working out what the resulting income stream needs to be to fund that. In other words, the focus changes from a financial or numerical lump sum retirement goal based primarily on the client's risk tolerance, to a lifestyle-related goal defined by the client taking into account the client's total risk profile – of which, risk tolerance, is just one of four components: 1. risk tolerance – the client's attitude to risk, how much risk s/he is psychologically able to handle;

- 2. risk perception the client's situational awareness of the risks they are exposed to;
- 3. risk capacity the client's ability to survive a financial loss; and,
- 4. risk required the risk the client needs to take in order to reach a goal.

### 3.2 Client engagement

Lifecycle investing has some important advantages over traditional portfolio construction techniques. It can help rid the advice process of unnecessary investment jargon and help to develop more meaningful dialogue with clients.

One of the key issues facing practitioners has always been client education. Robert Merton<sup>7</sup> uses the example of a surgeon with a patient. Does the surgeon ask the patient how many sutures s/he would like? The surgeon explains the problem and the solution, gets legal sign-off, and does what's best for the patient. But, the surgeon does not teach the patient how to do the procedure! Lifecycle investing, with its focus on the actual purpose for funds, allows on-going discussions to be centred on how to achieve various financial goals and can help lower focus on short-term market movements. This lowers capitulation risk; the risk that the client will sell at precisely the wrong time. Everything can be related back to the end goal.

### 3.3 Human Capital

Total client wealth or balance sheet = human capital + financial capital<sup>8</sup>  $^{9}$ .

Human capital is the present value of our future earnings from labour. At the beginning of a person's working life, they're likely to have little financial capital, but their human capital will



portfolio construction

be high. As they move towards retirement, human capital generally falls while financial capital should rise. Both elements of the balance sheet are equally important and, in some respects, human capital may be more important. Without it, financial assets will be harder to build.

In terms of asset allocation, human capital can usually be thought of as a more of a 'conservative asset' (hopefully it will produce a nice increasing regular inflation-adjusted income stream). So, we can think of a total asset allocation as being represented by a large conservative asset early in someone's working life (being human capital, which is usually at its peak when one starts working) and few other financial assets.

This is one reason why an aggressive portfolio for financial assets in early years of working might be considered a good approach. The investor's total asset allocation, which includes human capital, will lead to an overall position which is much more conservative. However, if the client is a young entrepreneur, for example, where future income streams may be very inconsistent, it may be prudent for the client to have a more conservative approach with their financial assets.

Obviously, as we move towards retirement, the value of our human capital diminishes, while our financial assets should rise in value. As Zvi Bodie said, "The value, riskiness and flexibility of a person's human capital are of first order importance in optimal portfolio selection at each stage of the life cycle."<sup>10</sup>

### 3.4 Behavioural Finance<sup>11</sup>

Behavioural finance deals with the idea that human biases will mean that we do not always act completely rationally. This has important ramifications for investment that many practitioners are already likely to be aware of, even if it is just through dealing with clients, rather than through theory. Although this field has yielded many insights, a few are directly related to lifecycle investing.

The idea of mental accounting – whereby people separate their money into separate jars, or accounts, or portfolios for different goals – can appear irrational. But many people do this. Why would someone save money for bills or school fees in a separate account while holding a mortgage? Why wouldn't they put extra funds on the mortgage and then redraw? Yet this behaviour is common and provides a mental framework for many people. It leads to risk being goal dependent – that is, the more important the goal, the less risk people want to take with that money. So it is not a big surprise that studies show that investors are likely to want their retirement funds to be invested as conservatively as possible, while still meeting their income goals<sup>12</sup>. It highlights that people put different values on the money they allocate to different things and some money is too important to 'give up'.

Another important concept is prospect theory<sup>13</sup>. It tells us that investors place more emphasis on losses than gains i.e. they are risk averse in an irrational way. This means that,



as practitioners, it is more important to understand how much clients wish to limit losses at the expense of exceptional gains<sup>14</sup>.

#### 3.5 LDI or ALM investing

The lifecycle approach is, in some ways, comparable to that used by Defined Benefit (DB) plans. DB funds often use approaches such as Liability Driven Investing (LDI) or, more broadly, Asset Liability Modelling (ALM). In this approach, future liabilities are modelled and the funding of those liabilities is managed using the path or investment plan with the highest probability of meeting each liability. In DB plans, a lot of these liabilities will not be in the form of a lump sum. They will be in the form of income streams. So funding of long term income streams is paramount. Life cycle investing is, in many ways, LDI investing for individuals.

#### 3.6 Retirement

Retirement – or, more correctly, stopping earning an income from personal work – lays at an important juncture for the investor and practitioner. Human capital or earnings capacity is depleted and technically zero, and only financial capital remains. The loss of this income stream compounds a number of risks, primarily longevity, inflation and sequencing risk (which is a type of market risk).

### 3.7 Longevity Risk

Longevity risk is the risk of a client running out of money or not maintaining their desired standard of living in retirement because they have lived longer than expected. We're all living longer and are generally healthier than past generations, so today's investors need to fund their happy, healthy and very long retirement.

To give an idea of life expectancy and how it has been changing, consider Australian men who were 65 years old in 2009. Half are currently expected to live to 83. In 2022, half of men aged 65 are currently expected to live to age 89. That's a six year gain in average life expectancy in only 13 years.

However, it's also important not just to consider average life expectancy because 50% of people outlive that. For example, 10% of men aged 65 in 2009 are expected to live to 93. And, for men who are 65 in 2022 (they're 56 today), that rises to 99<sup>15</sup>. Women have an even higher life expectancy.

And, the longer you live, the longer you're likely to live, so the target changes even amongst the same cohort.

Further, life expectancy as determined by actuarial tables (which is what is used above) has underestimated real life expectancy by about three years on average<sup>16</sup>. This is because the



actuarial tables have not kept up with advances in medical science that are helping us all live longer.

#### 3.8 Inflation risk

Because retirement can now often be a 30-year period, the effect of inflation on a portfolio is very significant. Proponents of lifecycle investing tend to talk in after-inflation terms, so that goals are set as, say, CPI+2% per annum, rather than 5% per annum.

#### 3.9 Sequencing or event risk

Sequencing risk is the risk that the sequence of portfolio returns does not provide optimal outcomes. Most importantly, it usually refers to very poor or negative returns occurring around retirement age, when an investor's portfolio is usually at its largest and most vulnerable. It is particularly vulnerable for two reasons:

- the value of human capital at that time is low or nil, so the ability of a client to replace losses through work-related earnings is low; and,
- the length of time retirement savings must last for is at its maximum.

The idea of sequencing risk contrasts with the idea of time in the market healing all wounds<sup>17</sup>. For investors around retirement age, their portfolios and therefore their standard of living through retirement can be affected irrevocably if the wrong return is experienced at the wrong time<sup>18</sup>.

There are varying perceptions of when sequencing risk is most important. Some say the 10 years before and the 10 years after retirement are most important. Recent work conducted by Griffith University<sup>19</sup> suggests that the 15 to 20 years prior to retirement and the five years after retirement are the most important. According to that study, a badly timed return of around -20% in one year can raise the probability of running out of money in retirement by 33% to 50%.

### 4. SOLUTIONS

The advent of lifecycle investing has led to a number of different types of products and approaches being developed. Some of the solutions developed for both the pre- and post-retirement phases are discussed below. Although lifecycle investing does approach these phases as being part of a continuum, the below is divided into those categories, more for ease than for any other reason. Some of the strategies and products may well be useful in either period. Some will resonate with Australian practitioners and it is likely that there is fault with others.

## 4.1 Strategies and products for the pre-retirement stage

## 4.1.1 Target Date Funds / Glide Path Funds

These products have been developed primarily for the US (Target Date Funds) and UK (Glide Path Funds) markets and have been very successful in raising monies in both those markets. Although there are differences between the two, they both essentially move an investor from an aggressive portfolio to a more defensive one as they near retirement<sup>20</sup>. This is considered a valid approach not just because of event risk, but because more of the investor's total balance sheet is represented by financial assets, rather than human capital.

To determine the exact asset allocations used, a variety of methods have been used from quite simplistic (variants on the 100-age rule) to more complex solutions such as constant variance portfolios. Despite their popularity, there are a number of criticisms of these funds, including:

- The lack of tailoring they offer investors (one-size-fits-all);
- Income levels are not targeted specifically, just maintenance of a lump sum. This is considered more an investment-based approach than a lifecycle-based one;
- Often, risk management is provided simply (and perhaps naively) through holding more bonds closer to the target date; and,
- In most target date funds, event risk remains an issue<sup>21</sup>. The cohort of 2010 target funds in the US yielded exceptionally poor results for investors.

In fact, argument still exists as to whether this approach yields the best results for investors, or whether they should in fact, increase allocations to equities in the lead up to retirement<sup>22</sup>. Nevertheless, there have been developments in the structure of these products in recent years, particularly after the GFC, with some clear improvements. However, in essence, they remain one size fits all solutions that aim to maximise a lump sum at retirement rather than consider an individual's requirements – and this, in the lifecycle context, is their major deficiency.

Many of the lifecycle funds that are being discussed here in Australia by superannuation funds are similar.

### 4.1.2 Real return funds

The lifecycle approach centres on taking the least amount of financial risk necessary to reach goals (e.g. fund retirement). In that context, products that aim to provide a specified absolute or real return each year may be helpful. These will also help with hedging inflation risk. There are a number of such products available in Australia. Obviously, and particularly for the inflation hedging characteristics they promise, these funds can be valuable post-



retirement as well.

#### 4.1.3 RiskPath approach

The RiskPath approach, developed by an Australian group, considers that one approach to minimising sequencing risk is to spread the dollar investment risk as equally as possible over the lifecycle. The dollar investment risk is obtained by multiplying the percentage investment risk (i.e. portfolio volatility, or standard deviation) by the account balance.

#### 4.1.4 Other views

Bodie and Taqqu<sup>23</sup> suggest that during the accumulation phase, investors take as little risk as possible to build a 'safety first' portfolio. This approach is discussed in more detail later in this paper.

#### 4.2 Strategies and products for the post retirement phase

A number of studies<sup>24</sup> <sup>25</sup> <sup>26</sup> have considered the management of major risks – longevity, sequencing and inflation – particularly after retirement. Although a number of solutions are discussed here, they centre on a few ideas, which can be summarised as:

- Setting a minimum acceptable income floor for investors and the minimising sequencing risk through funding this floor as conservatively as possible;
- Minimising the risk of running out of money by using withdrawal rates that are somewhat sustainable; and,
- Using techniques such as an LDI approach or time-based segmentation.

Many of the studies and the techniques described, which are generally conducted in the US and UK, do not consider any government funded safety nets such as the age pension. They consider self-funding only – so some tailoring of the ideas may well be necessary in the Australian context.

### 4.2.1 Flooring strategy

The idea of the flooring approach has a number of important proponents in the US, including the Retirement Income Industry Association (RIIA), Zvi Bodie and Rachelle Taqqu, Michael Zwecher and Michael Kitces and others.

Amongst those proponents, the exact definition of flooring does change – it can refer to the minimum amount of income a client might mark out for retirement or it may be the assets they have that are allocated to the purpose of generating that minimum income. Strictly speaking, a goals-based framework would specify an income and build assets to meet that

goal<sup>27</sup>. Attempting to maximise assets to therefore maximise that income stream would be considered an investments-based approach.

Regardless, the concept remains essentially the same. Part of a portfolio, or its generated income, is allocated to a floor, producing an acceptable minimum level of income in retirement. Assets associated with this objective are likely to be invested, perhaps from an early age, into very conservative assets, as the income generated is non-negotiable (think back to mental accounting discussed above).

Other assets or income streams would then be built from that point. Some practitioners discuss four streams – floor, discretionary spending, emergency spending and legacy. Others believe that there is little distinction between essential and discretionary spending in retirement and so would use a different approach<sup>28</sup>.

In many respects, the approaches discussed below are variants on this theme, or these ideas can be incorporated into them.

## 4.2.2 Sustainable withdrawal rate strategy

Many approaches use the idea of a sustainable withdrawal rate – the amount that can be withdrawn from retirement savings each year while minimising the probability of running out of money.

Although the rule of thumb of a withdrawal rate of 4% of assets per annum is considered naïve by some, it has proven fairly robust in ensuring most people will not run out of money over a period of 30 years<sup>29</sup>. Many studies have considered how far the safe withdrawal rate might move if capital is lost early in retirement, different asset allocations and other variants, but the 4% rule remains fairly robust. Using this approach, assuming a 4% withdrawal rate and a requirement for 70% of final salary as an income (and ignoring any social security benefits), a client would require a lump sum of around 17.5 times their final salary to retire on.

However, there are likely to be years of wasted surpluses and years where nominal income falls (particularly if growth assets perform poorly). Depending on the portfolio, the falls can be large and this may not be acceptable to retirees. Essentially, a stable income stream is being funded from a volatile portfolio, which may cause problems. Research and work is continuing to try and build more robust tools in this area, although many remain happy with the 4% rule<sup>30 31</sup>.

## 4.2.3 LDI strategy

One approach (which might better be called a product) to building a steady income stream in retirement has been developed by Financial Engines in the US. In some ways, this mirrors the LDI approach used by many DB schemes. It effectively uses 80% of the retiree's lump sum to



invest into a conservative asset such as bonds – in fact, a bond ladder, being a series of bonds with different maturity dates to meet income needs, if possible – and an immediate annuity to provide an income floor. Initial equity exposure of 20% is slowly decreased from the point of retirement over a period of 20 years as earned income declines, helping fund increasing annual payments<sup>32</sup>.

### 4.2.4 Time-based segmentation strategy

In this approach, investors hold cash and fixed interest assets to maturity to fund short- and medium-term needs. Funds allocated for longer term needs are invested in a more aggressive portfolio, so that time can be allowed for it to grow to fund future requirements. Overall, a portfolio might look very similar to that used in the approach above. It is the mental accounting that differs.

### 4.2.5 Annuities

Various bodies, such as Cass Business School and the OECD, are encouraging the development of more annuities and annuity-like products in order to mitigate longevity risk<sup>33</sup>. Australia has both variable rate and fixed rate annuities, although the market has shrunk significantly over the past 20 years or so. Obviously, this is an area where there are opportunities for more products to be released.

### 4.2.6 Derivatives and derivatives-based products

Many academics and practitioners (Bodie, Merton, Hogan, Kitces, Milliman) have looked at using derivatives and other similar instruments (eg CPPI) to lock in either minimum asset values or income generation from those assets using derivatives. However, the costs, short derivative lives and complexity of managing these strategies comprehensively may be difficult for many practitioners to implement directly. There are some products and platforms, however, which use these types of instruments in order to provide solutions that may be valuable.

### 4.2.7 Bonds

Directly buying bonds, bond ladders and inflation-linked bonds to provide for retirement income needs is a strategy commonly used in the US. In Australia, this has been difficult due to the lack of direct access to such products. However, the ASX will list both Commonwealth Government bonds and inflation-linked bonds over coming months, so this may well prove to be a valuable new suite of products.

### 4.2.8 Reverse Mortgages

Reverse mortgages can be useful in helping to maintain income levels in retirement, while using a financial asset that might be otherwise be under-utilised, particularly if the investor does not wish to leave their home. However, care should be taken to make sure that the terms of the agreement work in the best interest of the client.

## 4.2.9 Other suggestions

Products or platforms that offer floors or guarantees can work in this area for certain clients, if the price of insurance is fair. There has also been talk of longevity insurance by Australian Treasury<sup>34</sup>, but there is little work being done at this stage.

### 5. WHAT ARE THE MAJOR OUTSTANDING ISSUES?

The academic research in the lifecycle investing area is still comparatively disjointed. As it develops, we should see more integration of financial modeling with consumer satisfaction. This should lead to better models of asset allocation and guidelines as to how to apply the theory more effectively, if it warrants it. Lifecycle investing is still at a stage where there is lots of debate and few solutions. Although probably past the Version 1 models, it is not at Version 5.3. It is however, a matter of time.

For Australian practitioners considering implementing or trying such an approach, there are only a few supporting tools. Software, sales tools, pre-built solutions, even good research on the topic in an Australian context, is lacking (albeit with some notable exceptions)<sup>35</sup>. There is some work taking place, primarily in the academic research area, but there are few groups that can offer a complete framework. Institutional consultants are working on these issues and some have helped contribute to this paper, but their approach is markedly different, as it needs to be as they are looking to solve these problems for superannuation funds. Although that work will surely yield insights for practitioners, it is unlikely to resolve outstanding issues. Research houses could take up the challenge of considering the differing approaches and working to help practitioners implement them if so desired by their clients.

Further, if a practitioner wanted to use a lifecycle investing approach, many of the practical tools required do not exist in Australia. For example, it is difficult to get the right types of derivatives at the right price to support some suggested retirement solutions. As previously mentioned, the idea of longevity insurance has been raised in the past and little work has yet been undertaken.

On the plus side, annuities are now available more readily than they have been for a number of years and these products may well be a cornerstone for future developments in retirement planning and lifecycle investing. Over time, there will be more competition in the area.

#### 6. SUMMARY

Lifecycle investing:

- is a whole of life approach;
- considers both accumulation and decumulation as one continuous process, with both phases equally important;
- should start when a client starts to invest;
- is a profoundly complex mix of human capital, returns, multiple risk profiles, saving ability and future financial needs, all of which are subject to change all the time;
- should focus on certainty of the right outcome;
- needs to consider downside risk as paramount;
- focuses heavily on inflation and longevity risk
- is likely to be very tailored and therefore best delivered by a practitioner;
- represents the core reason financial planning exists to help clients reach goals with maximum certainty;
- is at the heart of our industry, in fact, it is at the centre everything we do.

Lifecycle investing is not:

- likely to be delivered by a default strategy or mass customisation;
- able to be boiled down to simplistic rules;
- just about target date investing;
- about naive asset allocation rules (e.g. 100 minus your age = % to invest in equities);
- set and forget;
- just focused on accumulation or decumulation;
- simple



#### **ENDNOTES AND REFERENCES**

1. Usually associated with Zvi Bodie, Robert Merton and Paul Samuelson.

2. Hogan, Paula H., "Financial Planning: A Look from the Outside In", *Journal of Financial Planning,* June 2012

3. This is known more commonly as time diversification.

4. Duval, J. "The Myth of Time Diversification: Analysis, Application and Incorrect New Account Forms", *PIABA Bar Journal*, Spring 2006.

5. Maida, D., "The four types of risk in measuring a client's risk profile", PortfolioConstruction.com.au, 27 September 2012, <u>http://portfolioconstruction.com.au/perspectives/4-types-of-risk-in-measuring-a-clients-risk-profile</u>

6. See, for example, Das, S., Markowitz, H., Scheid, J., and Statman, M., "Portfolio Optimisation with Mental Accounts", *Journal of Financial and Quantitative Analysis*, Vol 45 No 2, Apr 2010

\*. Farrelly, T., "Building portfolios in the real world", PortfolioConstruction Forum Symposium, 16 May 2012

http://portfolioconstruction.com.au/symposium/Building-portfolios-in-the-real-world

7. Merton, Robert C. "Funding retirement: next generation design", *JASSA: The Finsia Journal of Applied Finance,* Issue 4 2012

8. Kitces, M., 'What We Can Learn from Life Cycle Finance", *The Kitces Report*, August 2010

9. We can also adjust this for social capital or social security, but this has been ignored for simplicity's sake.

10. Bodie, Z., "Life-Cycle Finance in Theory and in Practice", Boston University School of Management Working Paper #2002-02, April 2002.

11. For a good literature review, see Sewell, M., "Behavioural Finance", Feb 2007, <u>www.behaviouralfinance.net</u>

12. Cormier, W., "Ways to Improve the Defined Contribution Participant Experience", Dimensional Fund Advisers

13. Kahneman, D. and Tversky, A., "Prospect Theory: An Analysis of Decision under Risk", *Econometrica*, March 1979

15. Martin, S., "Superannuation: How should Australia address longevity risk?", Submission to FSC Deloitte Future Leaders Award 2012, August 2012.

16. IMF, "Global Financial Stability Report", 2012, Chapter 4.

17. See for example



http://online.wsj.com/article/SB10001424052970204795304577221052377253224.html

18. <u>http://www.pbs.org/newshour/bb/business/jan-june09/finfallacyII\_06-12.html</u> or Hogan (previously cited)

http://www.kitces.com/blog/archives/76-Is-Save-For-Decades,-Then-Quickly-Double-Your-Money-And-Retire-Your-Unintentional-Retirement-Advice!.html

19. Doran, B., Drew, M.E., and Walk, A.N., "The Retirement Risk Zone: A Baseline Study", Griffith Business School, Discussion Papers – Finance No 2012–07.

20. Mercer, "Whole of Life Superannuation: Challenging the Status Quo", November 2012.

21. Bodie, Z., Fullmer, R. and Treussard, J.,"Unsafe at Any Speed? The Designed In-Risks of Target-Date Glide Paths", *Journal of Financial Planning*, 2010

22. Arnott, R., "Fundamentals - The Glidepath Illusion", Research Affiliates, September 2012

23. Bodie, Z. and Taqqu, R., "Risk Less and Prosper: Your Guide to Safer Investing", 2011

24. Mitchell, J, "Withdrawal Rate Strategies for Retirement Portfolios: Preventive Reductions and Risk

Management" *Academy of Financial Services* 2009. Found at <u>http://papers.ssrn.com/sol3/papers.cfm?abstract\_id=1489657</u>

25. Frank, L.R. and Blanchett, D.M., "The Dynamic Implications of Sequence Risk on a Distribution Portfolio", *Journal of Financial Planning*, March 2013

26. Blanchett, D. and Frank, L.R., "A Dynamic and Adaptive Approach to Distribution Planning and Monitoring", *Journal of Financial Planning*, April 2009, p52.

27. Pfau, W., "Retirement Floors and Implications for Evensky's Cash-Reserve Strategy," *Adviser Perspectives*, June 2012

28. <u>http://www.kitces.com/blog/archives/329-The-Problem-With-Essential-Vs-</u> <u>Discretionary-Retirement-Strategies.html</u>

29. Bengen, W.P., "Determining Withdrawal Rates Using Historical Data", *Journal of Financial Planning*, October 1994, p171.

30. Scott, J.S., Sharpe, W.F., and Watson, J. G., "The 4% Rule – At What Price?", *Journal of Investment Management*, Vol 7, No 3, 2009.

31. Blanchett, D., Kowara, M., Chen, P., "Optimal Withdrawal Strategy for Retirement Income Portfolios", Morningstar, May 2012.

32. Financial Engines, "Income +: A New Approach to 401(k) Retirement Incomes", <a href="http://financialengineshelp.com/pdf/IncomePlus\_WhitePaper.pdf">http://financialengineshelp.com/pdf/IncomePlus\_WhitePaper.pdf</a>

33. Cass Business School, "Design and Delivery of Defined Contribution (DC) Pension Schemes. Policy challenges and recommendations", 5 Mar 2013



34. Australian Treasury, "Insuring against longevity risk", Retirement Income Strategic Issues Paper May 2009, Section 7.

http://www.taxreview.treasury.gov.au/content/StrategicPaper.aspx?doc=html/publications/ Papers/Retirement\_Income\_Strategic\_Issues\_Paper/chapter\_7.htm

35. Investment Science, CARM and farrelly's Investment Strategy provide services in this area.