



Lifecycle strategies: what next?

Improving DC design

“ Even with the best of maps and instruments, we can never fully chart our journeys. ”

Gail Pool



Lifecycle investment strategies were designed some years ago to ensure that defined contribution (DC) plan members, who do not make their own investment decisions, have a reasonably appropriate risk/return profile over their savings life. Today, lifecycle is a well established part of the DC landscape – 91 per cent of DC plans with a default option utilise a lifecycle strategy for this purpose.¹ How well though has lifecycle stood up to the tests of time?

Introduction

Traditional lifecycle investment strategies attempt to determine the most appropriate asset mix for defined contribution (DC) plan members to balance their risk and return profiles based on the number of years the member has until retirement. Younger members with longer to retirement will tend to invest more in growth assets, typically equities, while more mature members with fewer years to retirement gradually transfer their assets to protection-seeking investments. With recent market volatility, the wisdom of adopting such lifecycle strategies has increasingly come into question.

In this paper we conclude that the principle of lifecycle is still sound, but suggest a review of its implementation by re-evaluating the investment theory behind it. We propose improvements can be made through, for example, a better understanding of a member's profile and better glide-path design.

Traditional lifecycle strategies

In DC plans, members bear all the investment risk and, therefore, it has become accepted practice to encourage individual plan members to take control of making the investment decisions for their retirement savings. Most savers, however, have proved unwilling or unable to make appropriate investment choices. As a result, a high percentage of members are invested in default investment strategies,² and evidence suggests that when members do make their own investment decisions they often make inappropriate choices.³ Traditional lifecycle investment strategies have evolved to try to ensure that members who are unwilling or unable to make their own investment choices at least

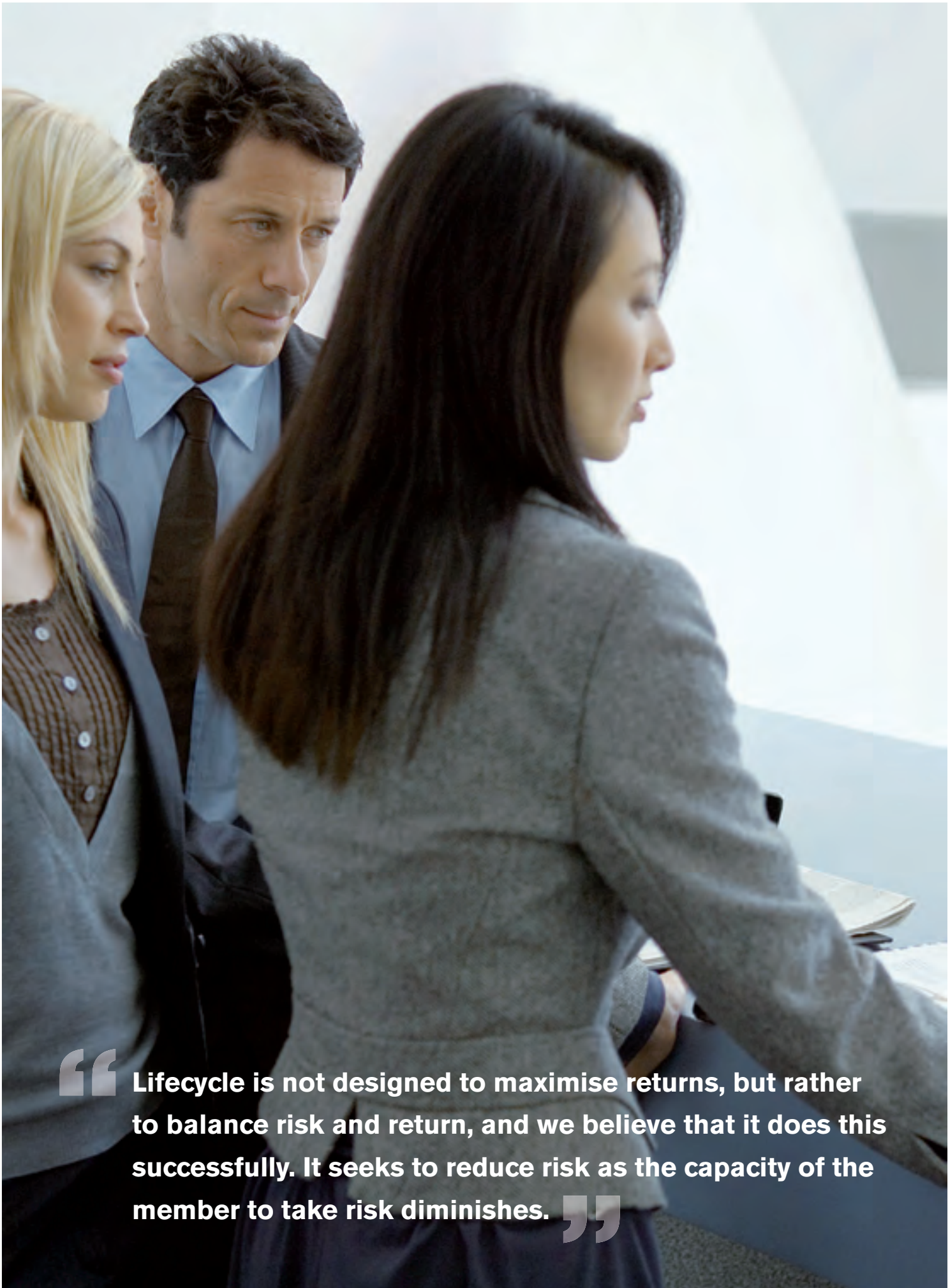
adopt a reasonable risk/return profile as they progress through their savings career. Traditional lifecycle approaches are generally based on an algorithm which links the investment risk taken to the number of years to retirement, with younger savers taking more risk and those nearer retirement taking less. It is worth noting that the lifecycle concept has never pretended to try to achieve the maximum possible savings growth for an individual – a point often not appreciated by its critics.

We can think of the asset allocation of lifecycle funds as consisting of two parts, a 'growth' part and a 'protection' part. The growth part is likely to contain a significant proportion of equities but may also have exposure to other growth assets, ranging from emerging market debt to hedge funds. The protection part attempts to match the profile of the retirement benefit liabilities. Within the UK, the majority of retirees take their maximum tax-free cash and use the rest of their accumulated fund to buy an annuity, so the intention to purchase this annuity could be regarded as the main part of the retirement benefit liability. The protection part of the strategy will, therefore, be largely made up of what is often called an 'annuity-matching' fund, which is likely to contain a significant bond component. Assets are gradually transferred from the growth to the protection part of the strategy as the member ages, so that older members will have a more conservative mix. This provides some protection from extremely

¹ Watson Wyatt 'FTSE100 DC Pension Scheme Survey', 2009

² See 'NAPF annual survey', 2007

³ See 'Design Choices in Privatized Social-Security Systems: Learning from the Swedish Experience', Henrik Cronqvist & Richard H. Thaler, 2004



“ Lifecycle is not designed to maximise returns, but rather to balance risk and return, and we believe that it does this successfully. It seeks to reduce risk as the capacity of the member to take risk diminishes. ”

negative outcomes to those nearer retirement who are generally less able to withstand the shock.

While this concept may seem quite straightforward, implementation around the world varies considerably. In the UK, asset allocation is determined by years to retirement. The process of switching from the growth to the protection part of the strategy is relatively mechanical, driven by a predetermined formula, following a largely straight line transition over a number of years and executed by the plan administrator. In contrast, in the United States, the lifecycle concept tends to be implemented via target date funds. Funds are constructed with specific target retirement dates (for example, 2020, 2025 and so on) in mind. The asset allocation of these funds is then changed at the judgement of the fund manager, but is generally along the lines of moving the fund from predominantly growth to protection-based assets as the target date approaches. Most plan members invest in the

fund whose target date is closest to their intended retirement date.

Criticisms of lifecycle

The lifecycle concept has always had a few critics, but the majority of the industry has grown to accept that, while it may not be perfect, it is on balance a sound approach to adopt for DC plan members unwilling or unable to make their own investment decisions. DC design, including lifecycle, has, however, come under significant criticism recently, largely as a result of the current financial crisis. Much of the criticism stems from issues with engagement rather than lifecycle per se.

Lifecycle attempts to balance risk and return. Some critics suggest that it is either too risky or that it does not take enough risk. Other critics have suggested that the number of years to retirement is not an appropriate way of approaching asset allocation as it does not take

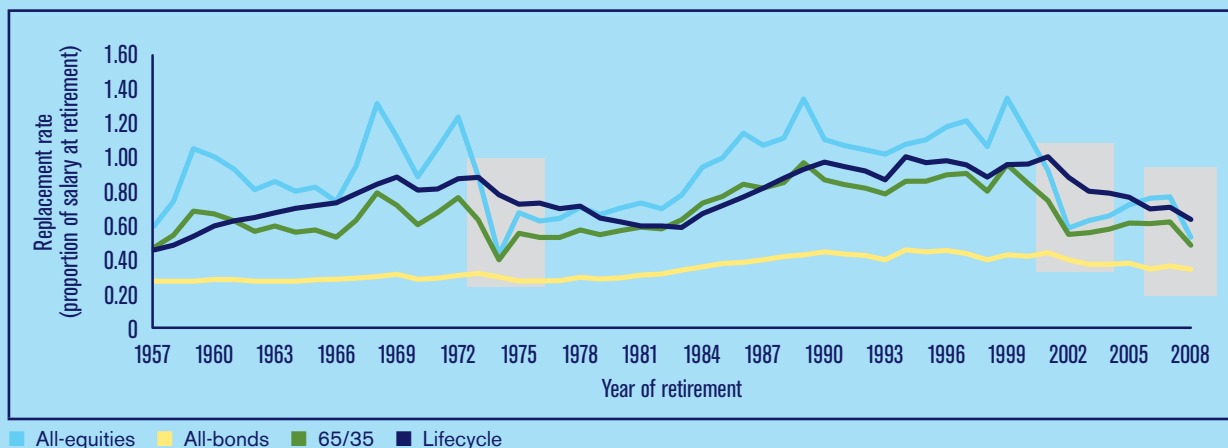
Balancing risk and return

Watson Wyatt has conducted a historical simulation in the UK market, investigating the replacement rates for (hypothetical) members who joined the workforce from 1918 to 1968 and retired from 1958 to 2008 respectively. We assume the employee works from age 25 to 65 and contributes 9 per cent of salary to their pension in each year. Their salary grows according to national average wage inflation. The fund is annuitised with a single life, level annuity at retirement.

The investment strategies investigated in the study include all-equities (UK), all-bonds, 65/35 (a constant allocation of 65 per cent equities and 35 per cent bonds) and conventional lifecycle, which has full exposure to equities for the first 30 years and then linearly shifts the equities into bonds and cash over the last 10 years.

While it is true that lifecycle does not maximise the expected replacement ratio, it is clear from the graph below that, on a risk/reward basis, lifecycle protects an investor close to retirement from extremely negative outcomes.

Figure 1 | Balancing risk and return



“ While the number of years until retirement may be the most important factor in determining suitable asset allocation, there are other factors that should also be taken into account. ”

other assets and member circumstances into account when setting asset allocation.

Lifecycle is not designed to maximise returns, but rather to balance risk and return, and we believe that it does this successfully. It seeks to reduce risk as the capacity of the member to take risk diminishes, as discussed in more detail below. Clearly the time and form of the glide-path is crucial and there is no obvious standard, optimal design that is appropriate for everyone in every circumstance. Additionally, it is very important to consider what the plan member intends to do at retirement and ensure the growth assets are steadily switched into appropriate protection assets.

Another criticism of the UK approach relates to the structure of protection funds. With most members buying an annuity at retirement, the future liability is that annuity and therefore the protection fund should match the annuity as closely as possible. However, because of the lack of transparency in the way that annuities are priced and the increasing number of different forms of annuity available, there are concerns that many protection funds do not sufficiently correlate with annuity prices, thus falling short of their purpose. This is a valid criticism and it is currently not possible to fully hedge all the risks associated with annuity purchase.

A final criticism is that lifecycle asset allocation based only on the number of years until retirement is too simplistic. While the number of years until retirement may be the most important factor in determining suitable asset allocation, there are other factors that should also be taken into account. The constraint in incorporating further factors can be attributed to concern over the level of additional engagement and commitment that would be required from the member to gather that information.

Before considering how to improve traditional lifecycle strategies to take account of some of these criticisms, it is worth taking a step back to review whether DC investors should even take on investment risk.

Taking investment risk in DC plans

There are a number of different arguments put forward to support younger savers investing more in growth assets, and hence taking on more risk, than their older counterparts. These include the link between flexibility, time horizon and time diversification.

Flexibility

The nature of DC is that the investment risk is borne solely by the member and any realised negative risk premium has to be funded by the member. There are principally two ways in which bridging the gap between expected and actual returns can be achieved. The first is by accepting adverse variability around the retirement outcome – for example, lower retirement income and hence lower consumption in old age or a deferral of retirement itself and a continuation of paid employment. An alternative is to lower consumption in the near future while pension contributions are increased to cover the shortfall from poor investment performance.

Younger investors generally have much greater flexibility to recover from adverse market events than those nearer retirement. A younger member who loses half their accumulated pension wealth due to adverse financial events can adjust their savings pattern to make up this shortfall without too great a lifestyle adjustment. If this were to happen five years before retirement, however, the member has less time, human capital and flexibility to make up the shortfall. Only those members who can withstand the possible negative outcomes should take on this risk.

Time horizon

The most common argument for investing in growth assets is that which focuses on the link between the length of time that an investment is held and the risk associated with that investment. This argument is typically reflected in the popular belief that 'in the long run equities **always** outperform bonds'. From history, however, the equity risk premium can be negative for extended periods, implying that a sufficient time horizon has both minimum length and flexibility on end point.

We would suggest that investors need to be careful before making this assumption and need to be prepared to use the flexibility available to them should there be a negative outcome. The decision to invest in growth assets is dependent on a member's preparedness and ability to adapt in negative periods, although by investing in a default lifecycle strategy they are delegating the investment demands to some extent.

Time diversification

While a DC member may spend 40 years saving, the level of assets, and therefore their exposure to investment risk will tend to be concentrated in the last few years. Ideally members should try to spread their risk exposure more evenly over the period and so a lower percentage of assets should be invested in growth assets as the member approaches retirement. The converse of this is that some younger members should arguably increase their exposure to the equity market above 100 per cent by using some form of leverage, but this approach is unlikely to be practical in the current financial climate.

A long time horizon alone is not sufficient to justify investment in growth assets, but we suggest that

Some beliefs associated with lifecycle

- Many members are not equipped or willing to make their own decisions but some would value doing so (to a limited extent), given the right guidance.
- Plan members need to be assisted with decision making to ensure good financial outcomes.
- The use of automated asset allocation strategies based on age and other factors would offer the help that most members need.
- Lifecycle strategies are not designed to maximise return but rather to balance risk and return over the DC journey.
- Retiring members need cash and retirement income security and glide-path design should be aligned with this.
- As a member approaches retirement they need a combination of risk protection and improved benefit visibility, which is best delivered by a glide-path design.



sound reasons exist for DC plan members to invest in growth assets at some points along their DC journey provided they have the flexibility to cope with adverse outcomes. Furthermore, a lifecycle strategy in which risk is reduced as the end of the journey approaches is likely to be appropriate for the majority of members.

Core principles of DC investing

Successful DC journey planning must take into account an individual's changing circumstances throughout their savings life. In the UK, where the majority of members buy annuities at 65, asset levels and annuity prices on this date will determine the level of income they receive for the remainder of their life and hence will be one of the key measures of the extent of the journey's success.

The ultimate size of the DC assets depends on the level of contributions made during the journey and the investment returns achieved. Those members who are unwilling or unable to take on investment risk as described above will need to contribute more to ensure an adequate level of assets at retirement.

We suggest that there are three core principles to a good DC investment strategy:

- **Members should take risk when they have flexibility to be able to recover from adverse conditions**, suggesting an asset allocation that includes growth assets and a phased plan to de-risk as a member approaches retirement.
- **Fiduciaries should recognise that the majority of DC members are unwilling and/or unable to make this dynamic asset allocation decision unaided**, suggesting a lifecycle default strategy would be an appropriate starting point for many members.
- **Fiduciaries who understand the differing profiles of their membership will be better able to offer investment options that are suited to their membership**, suggesting that investment design and communication strategies should take account of membership characteristics.

The third principle assumes that fiduciaries adopt a 'libertarian paternalism' attitude as described in Thaler and Sunstein's book 'Nudge'⁴ and have a desire to

provide help and guidance to their DC members. A clear understanding of the plan's membership profile enables the fiduciaries to design a more focused default fund as well as provide a suite of investment options tailored to its target audience and tied into a suitable engagement programme. This approach is discussed further on the page opposite.

Membership profile

To achieve an optimal balance of risk and return, a successful DC lifecycle approach would ideally take account of members' unique circumstances and work within the limited governance budget of the majority of members. In practice we suggest that fiduciaries could consider providing guidance and the appropriate engagement to members which enables the member to design a more appropriate asset structure.

We believe that members should take rewarded risk, but clearly this needs to be adjusted for the member's ability to take that risk. Traditional lifecycle attempts to address this based on the number of years to retirement, but we suggest that an optimal asset allocation should take more member factors into account. If this is to be done successfully, a better understanding of the characteristics of the DC member is required.

In a DC plan, there are broadly three categories of members, based on their investment expertise and willingness to be engaged:

- **The true-defaulters:** members who do not have any financial expertise, have no interest in or engagement with their pension savings and are likely to remain entirely disengaged.
- **The guided-selectors:** members who have the potential to be more engaged in their pension savings and have some financial knowledge to support limited decision making. With improved communication and framing of investment options as well as an easy route to execution, these members could become more involved in the decision-making process than they generally are at present, and hence achieve an investment structure that is more suited to their individual needs than a pure default.

⁴ See 'Nudge', Richard Thaler and Cass Sunstein, 2008

Nudges and notches

The concept of 'nudging' is important in considering the use and design of default options for DC plans. Promoted by Thaler and Sunstein, the 'nudge' is a tool that, by understanding human behaviour, can design environments that make it easier for people to choose the best solution. In other words, choice architecture can be established to nudge members in beneficial directions without restricting freedom of choice or significantly influencing economic incentives.

By providing a nudge to a default option in DC plans, fiduciaries can guide participants to a more appropriate investment choice than either they might have chosen themselves or would have if they simply took the default approach. Studies have shown that participants are generally ill-informed in making investment decisions, often basing their investments on short-term news events and are too risk taking when markets are at a peak and too risk averse when markets are poor. 'Notches' are more specific variations from the default.

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- **The self-selectors:** members who are motivated and financially literate and are able and willing to take appropriate investment decisions. Their personal circumstances may also be significantly different from the typical member to require them to take this route.

The present system could be regarded as best suited to the financially literate. While a DC plan is likely to need to retain a significant choice element for these members, the small number of people in this category suggests that it should not be the focus of the plan's core policy – indeed it may be argued that the proportion of the limited governance time and effort spent on this category is disproportionate to the value it adds to the overall DC proposition.

Many plans tend to focus their attention on the first and third of the membership sectors described above, but we suggest that a better DC outcome could be achieved in some plans by giving additional focus to the middle group, the guided-selectors.

The guided-selectors are, in general, likely to respond well to improved engagement. We suggest that this group requires a combination of an appropriate default (to act as an anchor point) and a flexible investment framework, supplemented by a focused communication programme that allows them to diverge from the default slightly as they find appropriate in light of their own personal circumstances. Nobody knows the member's circumstances better than themselves, so it is never going to be possible to construct a perfect default for all members. By presenting a default along with a number of carefully selected and communicated possible modifications which the member could choose, the investment structure can make the most of the member's self-knowledge without overloading their limited financial understanding.

For the true-defaulters we suggest that an appropriate default is needed. This is likely to look similar to traditional lifecycle strategies, with the emphasis placed on years to retirement, but it is also possible that it could be more focused on the plan's specific membership needs and additional information, such as age, salary distribution and integration with State Benefits, can be taken into account.

The default lifecycle strategy

The default lifecycle strategy will provide the investment structure to the true-defaulters. The plan fiduciary should consider the typical true-defaulter in terms of likely needs, objectives and ability to bear risk in designing the most appropriate structure.

Consideration should be given to the plan's membership in terms of retirement goals and risk tolerances. For fiduciaries to design, as well as measure the effectiveness of, an appropriate default structure for their membership, they need to have a clear understanding of their membership's perspective on, and the relative interaction of, three key metrics, given the level of contributions set within the plan:

- The level of expected return required over the member's life until retirement to achieve their target or realistically desired retirement outcome.
- The variability that can realistically be accepted in that return, and hence the variability of target or desired retirement outcome.
- The level of year-on-year volatility in their DC account value that the member is realistically prepared to accept during the 'journey' to retirement.

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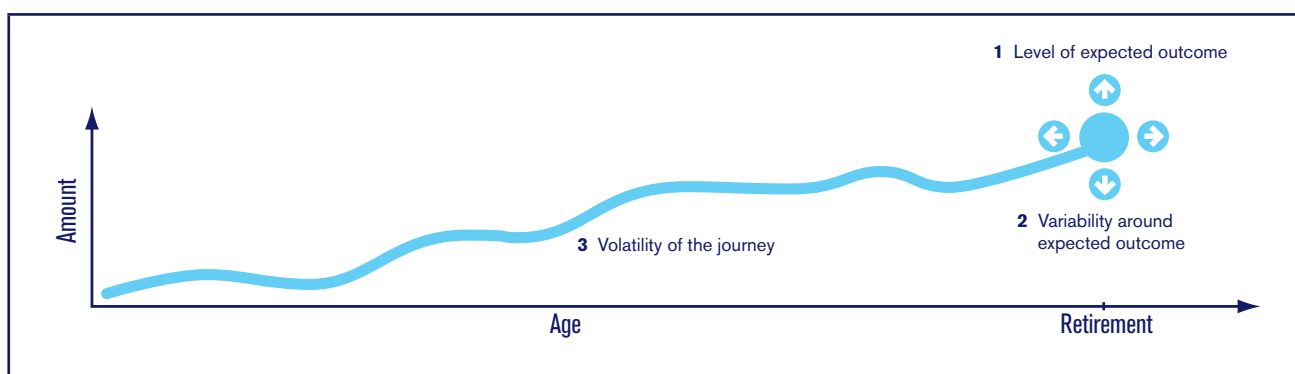
The first two are measures of the outcome of the investment programme – a target value for the end size and date of decumulation and the level of variability from this that is acceptable. The third metric applies to the journey as it progresses and is the ‘sleep well’ or ‘feel good’ factor. A lifecycle approach may not be effective in maximising expected return but its goal is better described as providing members with the most appropriate risk and return combination that takes account of the member’s circumstances. See Figure 2.

The default will invest in a combination of growth and protection assets. The proportion of each is determined through the design of the glide-path, thus utilising a dynamic approach to asset allocation. Over the

member’s savings life the glide-path will steadily reduce the risk within the asset mix by reducing the exposure to growth assets and increasing protection assets. Assuming most true-defaulting members take their cash entitlement and purchase an annuity at retirement, the portfolio should be close to 100 per cent in protection assets at retirement.

Traditional UK lifecycle strategies have tended to use a simple linear approach in this switching process, but, as DC plans continue to grow in terms of membership and assets under management, there is some rationale to consider adopting a more sophisticated approach, which may include a non-linear glide-path.

Figure 2 | Metrics that define a DC member’s objectives





Rebalancing

In a lifecycle portfolio the allocation between the growth and protection assets will vary according to how markets perform. At points in time, a target allocation to each is defined. Periodically an administrator will rebalance the actual asset allocation by purchasing more growth or more protection assets to ensure it agrees with the pre-defined lifecycle matrix. A two-way rebalancing policy enables the administrator to increase or decrease the allocation to growth assets, whereas one-way rebalancing tends not to increase growth asset allocations once the glide-path de-risking process has begun.

Development of a target journey plan suggests that, during the journey, a regular two-way rebalancing strategy should be adopted, so that a target allocation to growth assets is maintained throughout the journey regardless of market behaviour. As the journey end approaches, however, a more pragmatic perspective might be appropriate and one-way switching should be considered given the occurrence of transaction costs involved and the lack of time over which to justify these costs.

Refining the default

The guided-selectors are typically more engaged with their DC investment and should be able to adjust the default structure to take account of their own personal needs and preferences. Fiduciaries could provide a framework for members to be able to tailor the default slightly to allow for personal circumstances and beliefs. The tailored investment strategy would enable members to amend their risk levels and realign their journey plan over the course of the DC journey, altering the glide-path and end point as well as incorporating select funds as part of their allocation.

While lifecycle is often thought of as a 'set and forget' approach, modifications are likely to be valuable if the outcomes along the journey differ significantly from that expected. If returns are significantly higher, for example, it may be desirable to reduce risk exposure. Conversely, if returns are below expectations, actions may be required to make up any shortfall. Two-way rebalancing built into the default strategy can allow for some of this, but engaged guided-selectors would be able to make more effective, additional dynamic changes.

“ The guided-selectors are, in general, likely to respond well to improved engagement. ”

It is possible that additional downside protection could also be purchased by the guided-selectors as an overlay strategy. This could, for example, be through the use of options. In practice, however, costs may be an issue in implementing this.

Self-selector strategy

While the default and refined lifecycle strategies provide solutions to most DC members, a plan may have a small proportion of self-selectors who require a different solution. Fiduciaries will need to consider the types of investment options appropriate within self-select and the rationale of members who desire these investments. We suggest, however, that the range of options should focus on facilitating the implementation of long-term strategies rather than short-term tactical decisions.

It is possible that members fall into the self-selector group through self-recognition that their circumstances differ significantly from the typical member profiles. These members are likely to benefit from a managed account approach using independent advice. This is, however, outside the scope of normal DC plan arrangements.

Conclusion

In this paper we have outlined why we believe lifecycle investment strategies remain a good automated, risk-controlled asset allocation strategy for DC plan members' portfolios. Both the theory and evidence suggest that it is a good way of ensuring an appropriate balance of risk and return.

Refining the default

A framework could be provided to members who are engaged with their DC investments that refines the default strategy to take account of their particular circumstances. Some examples of these characteristics are show in **Figure 3** below.

Figure 3 | Refined lifecycle

Characteristic	Possible member response
Financial capital	I have other financial assets (for example a meaningful expected State pension) that reduces my reliance on this DC plan
Financial liabilities	I have a significant personal mortgage which is linked to fluctuating interest rates so I cannot afford to take much risk in my journey plan in light of experience
Human capital	I have a secure future income stream that will allow me to adjust my journey plan in light of experience
Time horizon	I have a long time before I need to draw income from this DC plan
Risk tolerance	I have a naturally positive view of taking risk

“ ...as DC plans grow to significant importance, some improvements in this area are becoming necessary. ”

Implementation, however, is crucial and as DC plans grow to significant importance, some improvements in this area are becoming necessary. Understanding the profile of a typical member of the plan is an important factor for fiduciaries to consider when designing and measuring the effectiveness of both the default strategy and additional funds and the tools they provide to the more financially literate members.

The membership of many plans may be dominated by true-defaulters, with a small minority being self-selectors. We suggest that it is desirable for some plans to place more emphasis on the middle group, the guided-selectors, when designing the plan and the engagement strategy. This group of members would benefit from better DC design which enables them to consider their own circumstances more when structuring their DC assets.

Investment Consulting

Thinking ahead

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