

IN V E S C O R E T I R E M E N T S E R I E S - P A R T 1

4-Life framework for navigating retirement

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Introducing the 4-Life Framework

There is a seismic shift underway in the UK pensions market. The transition from defined benefit to defined contribution schemes, the introduction of 2015 pension freedoms legislation, and a review of retirement advice all impact the way the industry interacts with savers and retirees.



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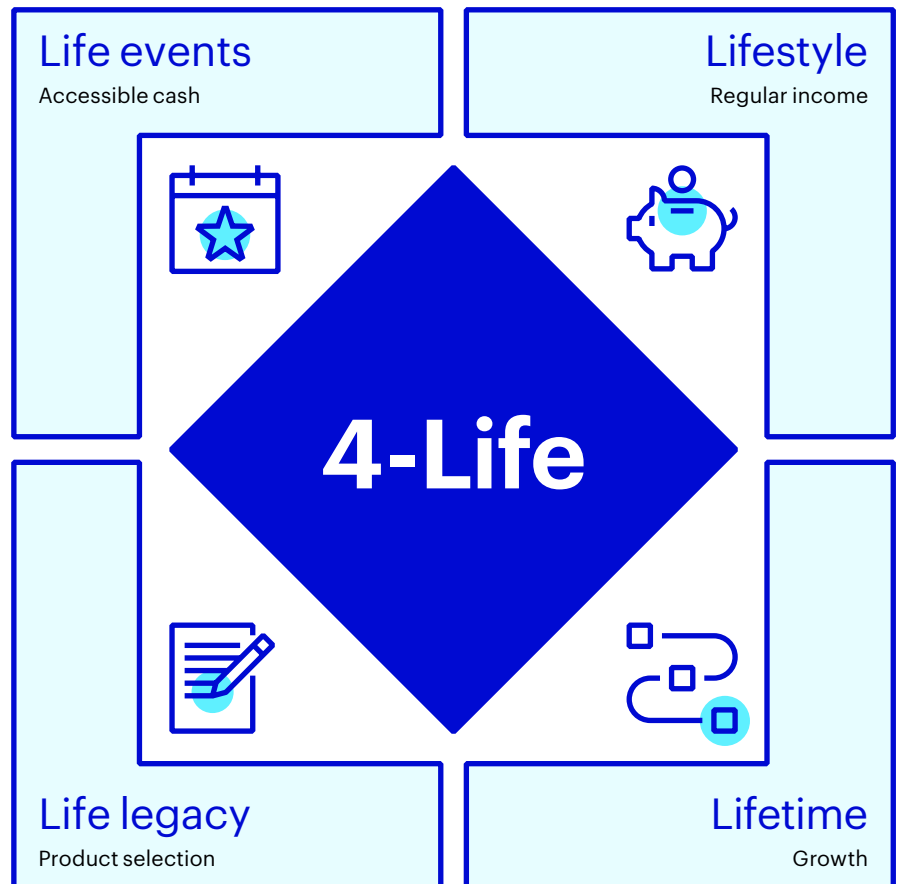


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Alongside these changes, it is the personal aspect of retirement planning that is driving a degree of paralysis for how to best tackle the issues that everyone entering retirement will face. Given these challenges we have made retirement a key strategic priority for us as a business to ensure we are playing our part in building a more effective financial infrastructure to underpin the retirement industry.

As part of that focus we have devised a new approach, called the 4-Life framework, which has been designed to drive better outcomes for retirees.

No retirement journey is the same which is why the 4-Life framework helps individuals prioritise and achieve their own specific retirement goals. At the same time it offers our perspective on how, as an industry, we can better frame what products and solutions best serve the needs and aspirations of all retirees. The framework helps retirees plan for life events, decide on a level of income to satisfy their lifestyle aspirations, think about longer-term lifetime planning and consider whether leaving a legacy is important to them. We have captured these aspects in the 4-Life framework diagram below.



We all know that there is a pensions problem given the seismic shift in responsibility from employers to individuals. While the issues are relatively obvious, they are difficult to solve for. In this paper we address them and demonstrate how the 4-Life framework helps with retirement planning.

Problem	Solution
People are not saving enough	Better communication and industry collaboration will help individuals plan more effectively for the future
The personal aspect of retirement planning is creating a barrier to offering solutions	The 4-Life framework divides the retirement journey into four manageable building blocks that separates near term cash needs from income and long-term growth. This approach leads to better outcomes for retirees based on their own retirement aspirations
Three pension pitfalls that can lead to money running out quicker than expected	Cash flow planning, combining different income solutions together and avoiding tapping into growth portfolios for income all help pave the way for more effective retirement planning
Personal circumstances can change very quickly	There is no one size fits all solution. Building flexibility into a retirement plan is key – this is helped by the approach of the 4-Life framework
Pension schemes struggle to offer a personal experience for retirees	Building personas by grouping people based on individual preferences and priorities can help pension schemes build a degree of individuality into a pension scheme

As we grapple with all these challenges, we must not forget that real people with difficult life decisions are at the heart of what the financial services industry should be doing to build better outcomes for retirees. Our aim with this paper is to suggest how we can help shape, and provide for, that better future.

The Pensions Problem

The shift from defined benefit to defined contribution pension schemes, combined with pension freedoms, have firmly shifted the responsibility of managing retirement outcomes from the employer to the individual. This responsibility change necessitates that the financial services industry steps up and adapts.

Since these changes started, the outcomes for individuals are less than satisfactory. People are not saving enough, meaning they are far less likely to enjoy a comfortable retirement. We, and all financial services firms need to change their approach to help build an effective financial infrastructure that underpins the retirement industry.

Shifting the decision from an opt-in to an opt-out one via auto-enrolment has been successful in encouraging more people to contribute to pension schemes. The House of Commons Library published a [paper](#) in December 2023 stating “The policy has reversed the decline in workplace pension saving. The rollout of automatic enrolment from 2012 onwards has led to a tenfold increase in total membership of defined contribution occupational schemes, from 2.1 million in 2011 to 21 million in 2019. Actively contributing membership rose from a low point of 0.9 million active members in 2011 to 10.6 million members in 2019.” This has helped provide a foundation for building a savings culture in the UK. Auto enrolment was introduced in 2012 and automatically enrolls people in a pension scheme, unless they explicitly decide otherwise, from the age of 22 if they are employed and earn over £10,000 p.a. For those that are enrolled in the scheme a minimum 8% of their qualifying earnings is allocated to their pension, though that contribution is not fully funded by the individual. For a basic rate taxpayer 4% is paid by the individual.

Added to that is 1% from the Government via tax relief, and 3% from their employer.

Auto enrolment is laying the foundation for better outcomes for retirement in the future. But, and it is a huge but, the minimum 8% allocation to an individual’s pension may not provide enough of a savings foundation to support the type of retirement that many people aspire to.

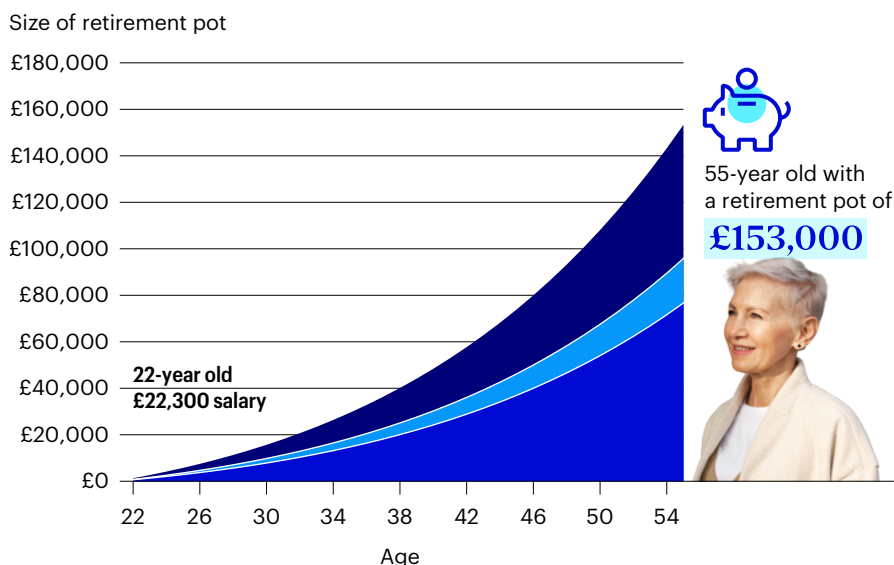
Figure 1 shows the journey of Claire, who at age 22 was automatically enrolled in her employer’s pension scheme. Claire earns a starting salary of £22,300, which is the equivalent of the current minimum wage for a full-time worker and contributes the minimum 4% to her pension each year which is topped up to an 8% contribution via tax relief and her employer contribution. The chart shows the projected path of her retirement savings pot assuming her salary grows by 2% per year and her savings investments grow at 5% per year. This savings journey would result in a pension pot of around £153,000 when Claire is 55.

Figure 1
An example auto-enrolment journey

£153,000 is a significant amount of money but without some careful planning Claire still may not be able to fulfil all of her retirement goals. That said, Claire would be in a very strong savings position relative to most people across the UK today. According to Finder.com:

- The average pension pot of a retired person in the UK is £69,481, just a quarter (24%) of the recommended retirement total of £285,000 on retirement at age 66.
- Approximately 9.7 million people in Britain (18%) either do not have a pension or have nothing saved in their pension.
- Almost half (47%) of UK adults have stopped paying into their pension at some point during their working life.
- Men have approximately 60% more in pension savings than women on average, with £42,892 compared to £26,691.

Source: [Pension statistics: What is the average pension pot in the UK? \(finder.com\)](#).



Source: Invesco. Assumptions: Based on qualifying earnings above the lower earnings level of £6,240; Contributions begin at salary trigger of £10,000; Minimum contributions of 8% in total comprised of 4% from the individual, 1% tax relief and 3% from the employer; salary grows at 2% per year until pension freedom age at 55, we assume savings grow at 5% per year.

Planning for retirement is hard because the goalposts keep moving.

When planning for retirement it is very difficult to predict what level of income will provide a comfortable lifestyle for a retiree in the future. How do we know today if Claire is on track to enjoy a comfortable retirement? Not only is it difficult to think forward and plan but the goalposts continually move. As an example in February 2024 the PLSA published their revised estimates of the annual target spending levels for people to enjoy a minimum, moderate or comfortable retirement. The table highlights the significant increase in estimates (previous estimates from 2022 are in brackets) because of the rise in the cost of living. This is a dramatic rise in costs for any household and shows very clearly that inflation is an added uncertainty for retirement planning.

Figure 2
Retirement Living Standards. PLSA estimates of annual expenditure requirement
2022 estimates shown in brackets

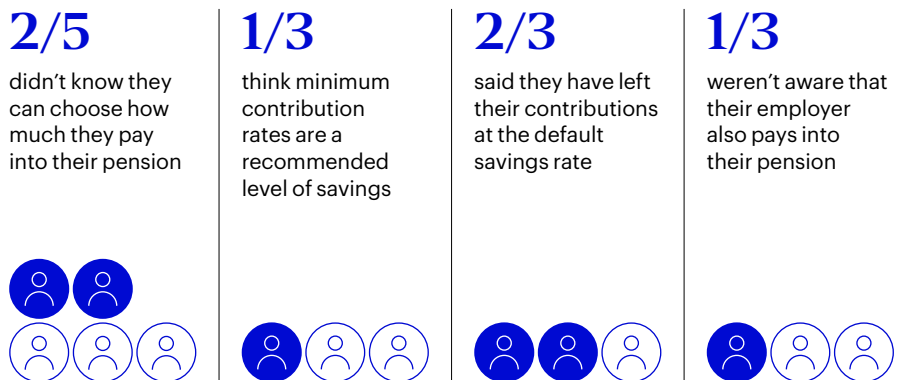
	One person	Couple
Minimum	£14,400 (£12,800)	£22,400 (£19,000)
Moderate	£31,300 (£23,300)	£43,100 (£34,000)
Comfortable	£43,100 (£37,300)	£59,000 (£54,500)

Source: [Home – PLSA – Retirement Living Standards](#).

Before we worry about what income we are targeting in retirement, the first step is to try and help people embark on their savings journey so that they have choices in retirement. In 2019 we partnered with Nest Insight to conduct a series of research studies into the pension savings market. We found that there were several factors limiting how much people saved.

Awareness of what is available was a major issue as per figure 3. That lack of awareness means many people contribute just the minimum amount to their pension because they believe it is the recommended amount that they should save, not the minimum amount they can save. This shows how important communication is when helping people plan for retirement.

Figure 3
What are the barriers to engaging in higher levels of pension saving?



Source: Beyond the defaults: What role can language play in helping pension scheme members contribute the right amount for them? A collaboration between Invesco, maslansky + partners and Nest Insight.

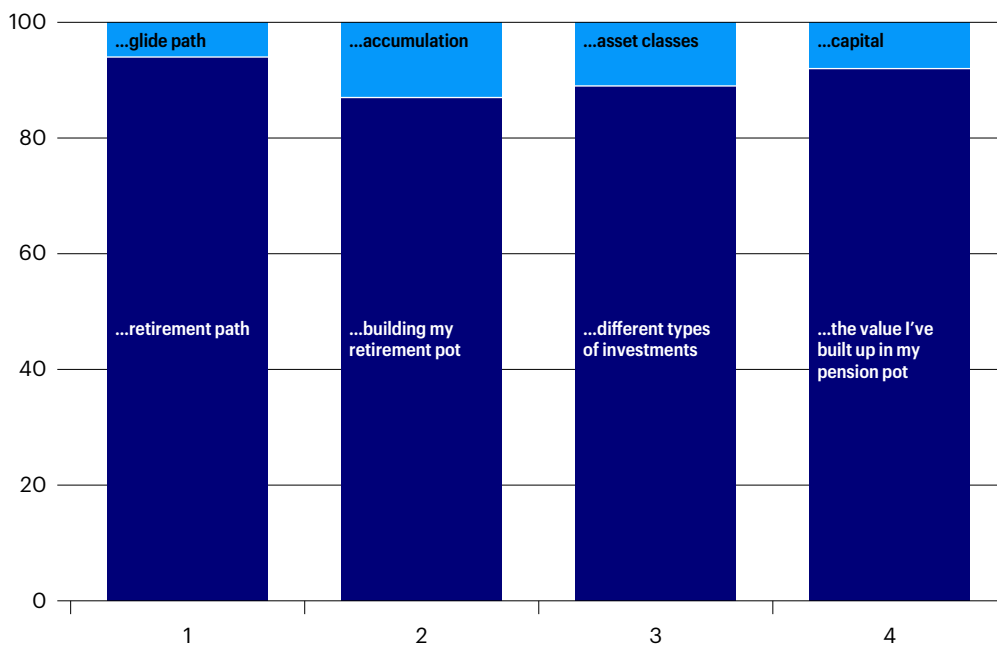
The way we communicate with people directly impacts their approach to retirement planning.

When individuals are facing difficult spending decisions on how to allocate their hard-earned money, pension contributions are likely to be near the bottom of the list. That is entirely understandable, but understanding more clearly what a change in savings behaviour today could mean for income in the future could help to slowly change behaviours. This is where all of us within the industry need to step

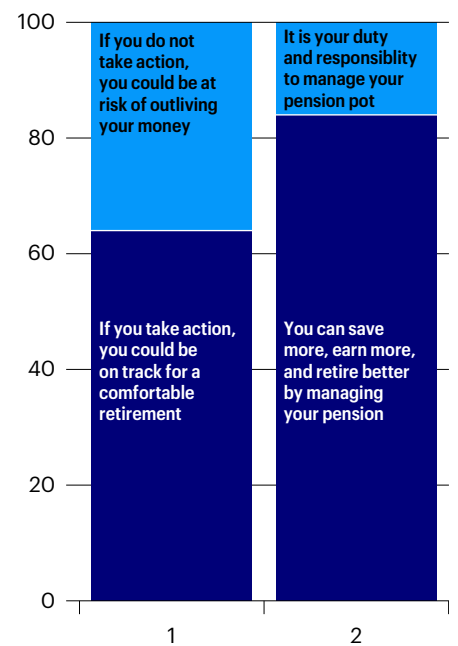
in and change the way we speak about savings and retirement because language matters. The way we present options to people will directly impact their behaviour and their appetite for retirement planning. As an example, our research shows that the way a question is asked directly impacts the response of the individual. Notably, framing questions in a positive manner appears to generate greater engagement.

Figure 4

I would be more interested in learning about my retirement pot's...



Which notice from your pension provider would you be more likely to read?



Source: Beyond the defaults: What role can language play in helping pension scheme members contribute the right amount for them? A collaboration between Invesco, maslansky + partners and Nest Insight.

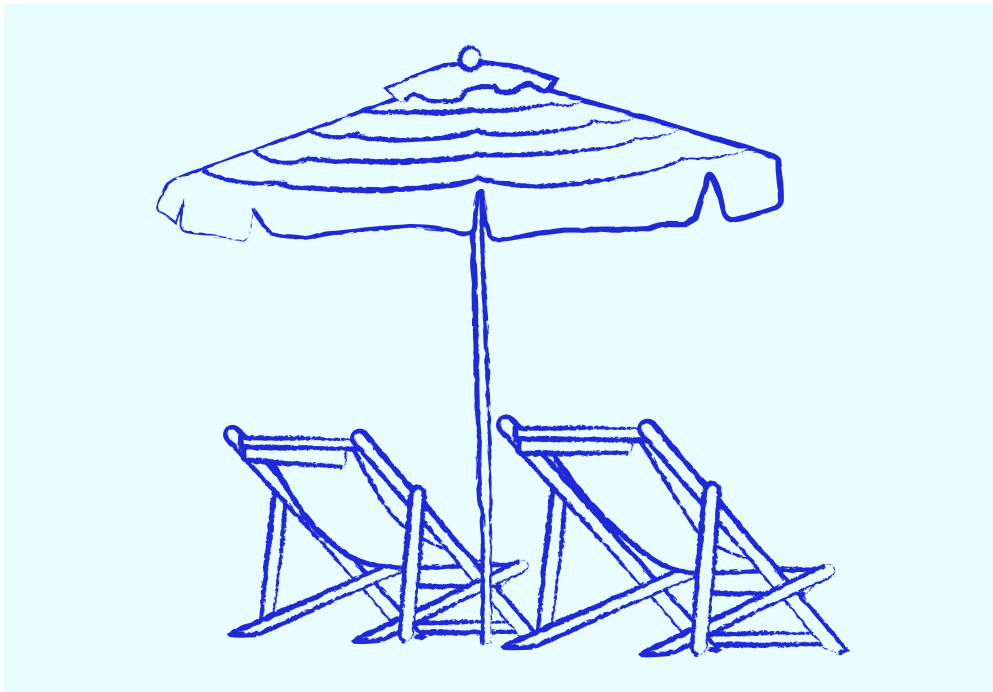
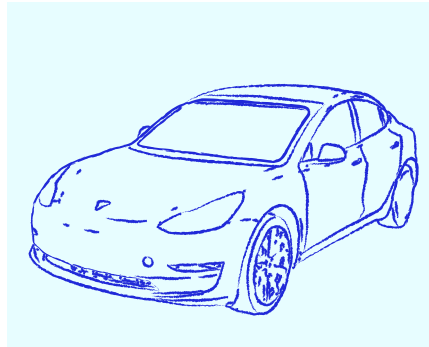
While an earlier start is always better, it is never too late to boost savings. An increase in savings at any point is a step towards a more comfortable retirement and there are also a variety of ways to reach a retirement goal.

No retirement vision is the same therefore there is no one size fits all solution

One aspect of pension planning that is easy to overlook when we look at planning through the prism of a spreadsheet is that everyone's retirement vision is different. In the following examples John, Claire, and Alisha have different retirement goals and aspirations.

For the financial services industry this means we cannot and should not aim for a one size fits all solution to the retirement problem. We must start thinking about solving the problem in more creative and diverse ways that builds in enough flexibility to change as people's lives change and be clear about which products help solve which problems.

Let's start with some sketches of retirement that may resonate.



These sketches provide the basis for thinking about retirement planning. But importantly they are sketches that can be altered and added to as the artist's vision evolves as they plan for retirement. An additional grandchild might come along, the choice of car might be more modest, or extravagant, the holiday destination and frequency of visits may change, there could be an unexpected change in health or the voluntary charity work could become a second paid career. The list is endless.

There is a slight sense of paralysis across the finance industry among those solving for retirement because of the personal aspect of retirement planning.

But as we go on to show the quicker we acknowledge the flexibility needed to build relevant and appropriate products and solutions for retirement, the quicker we can help build a more solid foundation for retirement planning.

In the table we outline the aspirations of Alisha, John and Claire. Each of them has different requirements capturing the personal aspect of retirement planning. We will refer back to Alisha, John and Claire as we build a picture of retirement planning to fulfil different requirements.

Start with a list of important considerations



Alisha

(55 years old)



John

(55 years old)



Claire

(55 years old)

Consideration 1	My partner is unwell so uncertainty is high	I'm taking my gap year at 60-62	My daughter is getting married
Consideration 2	I plan to carry on working until I am 67	I want to move into voluntary or lower paid work after my gap year	I would like to retire at 65 and receive an annual salary of £31,300
Consideration 3	As soon as I retire I may need to cover some healthcare costs	I plan to fully stop working age 70	I would like certainty of income from 75 onwards
Consideration 4	I would like to leave money to a charity	I do not plan on leaving a financial legacy as my property will be my legacy	I would like to leave a substantial financial legacy for my grandchildren

Pension Pitfalls

There are several pension pitfalls that can materially impact the outcome for retirees. Here we cite three key risks:



Lifestyle risk

A person takes too much income relative to the size of their savings. We must ensure lifestyle expectations are aligned to the amount of money available, and ensure products are suitable for delivering an income through time.



Market risk or sequencing risk

This is the risk that the value of someone's savings falls by a significant amount near the point of retirement because of a financial market event. Aligning different levels of investment risk to different parts of the retirement journey helps build a more suitable retirement solution.



Longevity risk

A person lives longer than expected and longer than their retirement pot lasts. Separating out near term income requirements from long term growth helps with longevity risk.



As we go on to discuss it is important to separate out the different component parts of building a robust retirement plan so that individuals, advisers, and pension schemes can manage these risks, particularly those risks that are out of their control such as moves in financial markets.

Lifestyle risk – taking more income than your savings are generating

People often think of income as an amount of money they want to receive each month or year. For example, Claire would like to receive an annual salary of £31,300 from 65 onwards. Unfortunately, the maths of pension planning means that the proportion of Claire’s savings that £31,300 represents really does matter for how long her savings are going to last.

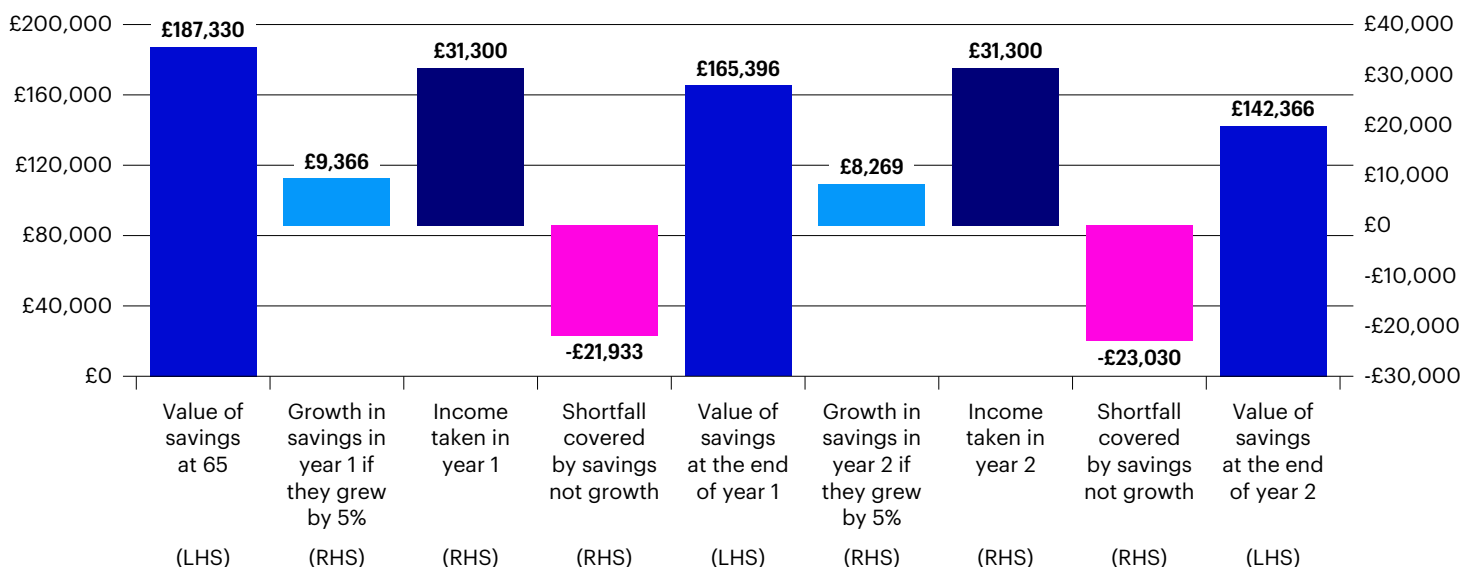
The scenario for Claire is as follows:

Savings at 55	£153,000
25% tax free	£38,250
Annual growth rate of savings that are invested	5%
Size of savings pot at 65	£187,000
Required salary	£31,300
Salary as a proportion of savings	17%

Claire is taking more from her savings as income than her savings can grow. In real money 5% growth in year 1 would generate an extra c.£9,400 meaning Claire’s lifestyle pot at the end of the first year is already reduced by just under £22,000 to make up the £31,300 salary requirement, as shown in the chart.

Figure 5
An example of lifestyle risk

Savings are not growing enough to satisfy the amount of income being taken each year



Source: Invesco. For illustrative purposes only.

The result of this mismatch is that Claire’s savings would be depleted completely by the time she turns 76, even when allowing for the state pension to fulfil some of Claire’s income requirement from 67 onwards. That’s a scary thought and does not fit with Claire’s vision of her retired self, notably her desire for a predictable income from the age of 75 onwards.

Solution

Cash flow planning is key for mapping out income requirements. Looking ahead to the future and thinking about how income requirements match with the size of savings pots is crucial to ensure savings last as long as they can. More specifically matching income requirements with the return that is delivered on investments ensures that appropriate products are selected to specifically deliver income not just growth in order to align with someone’s individual requirements in retirement.

Market, or sequencing, risk

The second risk is investment related. If you have invested all your savings in relatively risky financial markets and financial markets fall while you continue to take a fixed nominal salary from those investments, savings can run out very quickly.

In figure 6, we take Claire’s pension pot of just over £185,000 at 65 and show the impact of different market environments. If all her savings were invested in one product that delivered positive returns in some years and negative returns in other years, but she continued to take a fixed £31,300 salary, her savings could run out very quickly. The outcome is dependent on the order in which the markets rise and fall through time. The average returns for both market sequences is 5% over ten years but the order that the returns happen matters for retirement planning. This is referred to as sequencing risk.

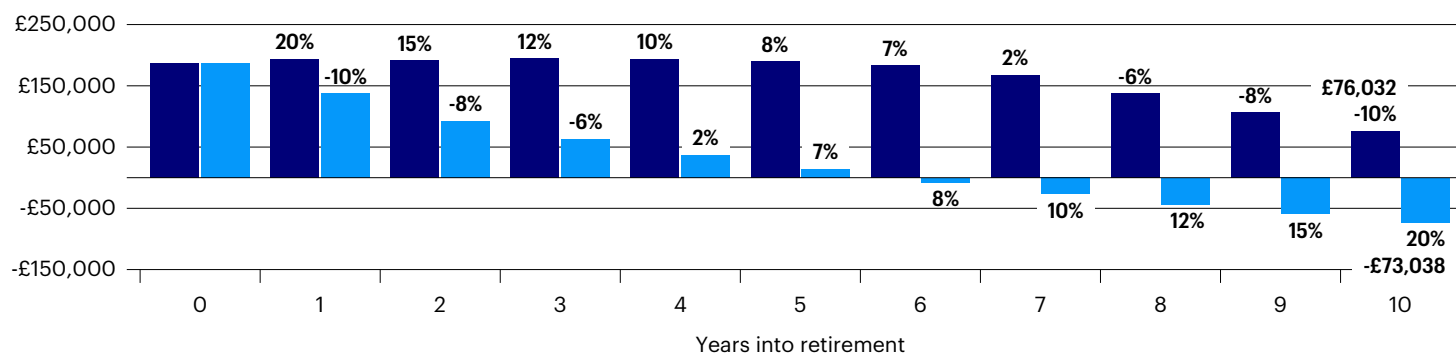
In figure 6 the dark blue bars show the growth of Claire’s investments if growth is positive in the early years (shown by the numbers next to the bars, for example in year one her investments grow by 20%) but are negative later in her retirement. This has a significant impact on the outcome and in this scenario her savings last 10 years. If the return profile of her investments happened in reverse order – i.e. the negative returns happened very early on in her retirement then her savings would be eroded very quickly which is shown by the light blue bars in the chart – the money runs out 5 years into her retirement. Financial markets are hard to predict so ensuring individuals and pension schemes have appropriate products for income and appropriate products for growth is crucial for retirement planning.

Figure 6

Sequencing risk

The value of someone’s savings if investment returns happen in a different sequence

Value of savings



Source: Invesco. For illustrative purposes only. Assumptions: Starting pension pot of £187,330; growth of investments stated on the chart; Claire takes the PLSA moderate salary of £31,300 each year; From year 3 onwards we account for the state pension of £11,502 per year.

Solution

There are numerous ways that Claire’s outcome could be altered when faced with market uncertainty. As with lifestyle risk, ensuring the product is suitable for drawing a regular income stream could be helpful. In addition ensuring that growth investments are given time to grow, without depleting them through drawing an income, can help leave a pot of savings that can be used later on in the retirement journey. For example, UK equity markets have typically recovered within three years of a significant decline. Thus, if you stay invested your losses should be recouped in a relatively short space of time. But if you have reduced the amount of money you have invested by taking an income your investments must work much harder to recover those losses. That will impact your ability to fulfil your retirement plan.

Longevity risk – you live to 100 but the money has run out!

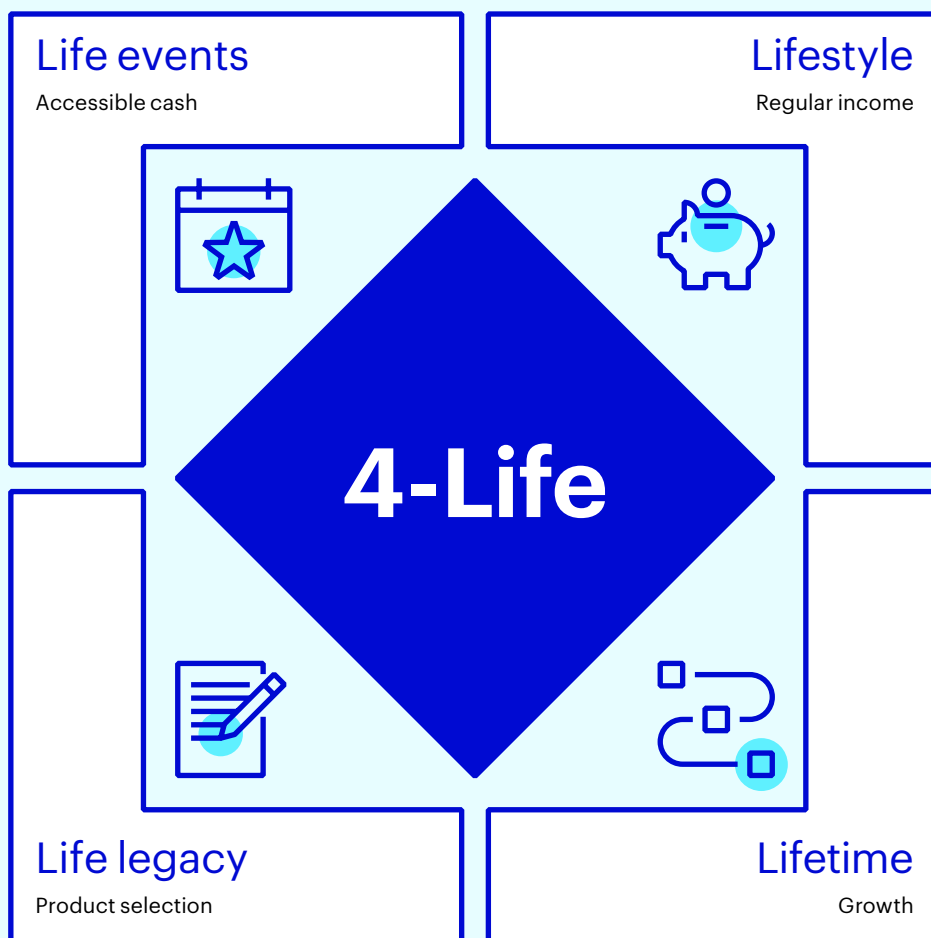
Living longer is to be celebrated. When it comes to retirement planning though one must strike a balance between the here and now, and ensuring there is a plan in place if you live a long life. The risk you live longer than planned, or longer than your savings can fund, is called longevity risk. Longevity risk emphasises the risks above. If someone is not investing long term enough and is taking a fairly set income from their savings over time, savings are likely to run out far too quickly. As an industry we can help solve this issue by thinking about what types of products might sit in a person’s longer term planning pot.

Solution

Thinking about the combination of guaranteed income, flexible income and growth investments in the early stages of a savings journey can really help with avoiding the pitfalls of longevity risk.

Putting a framework in place to address the pensions problem and pension pitfalls

Taking an holistic approach to retirement planning is crucial for building a robust retirement plan. As people hit retirement, we can think about their needs across four different components. Here we introduce Invesco's 4-Life framework.



We believe that there are four crucial considerations in successful retirement planning and Invesco's 4-Life framework is designed to address them. This framework allows individuals to see clearly the risks associated with each part of retirement planning. It is much easier to see whether people have the right tools in place to start changing that vague sketch of their unique retirement picture into a more permanent painting capturing their future. For us as an asset manager this approach helps us position our products appropriately and align them with the problems the retirement industry is trying to help solve.

Here we lay out the four components of the 4-Life decision framework.



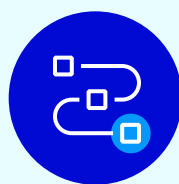
Life events

Life events range from new family members arriving, weddings taking place or a health event that forces a change of circumstances. Holding a cash buffer that can be easily accessed reduces the stress associated with a surprise change in circumstances and provides the basis for getting comfortable putting a proportion of savings to work in longer term investments, helping individuals plan better for the future.



Lifestyle

Lifestyle captures month-to-month spending based on the lifestyle that each person wants to enjoy in retirement. There are two layers – essential spending and additional spending. Putting a monetary value on this lifestyle component can help with how much of a person's savings need to be allocated for everyday spending and what is left over for other types of spending and future planning.



Lifetime

Lifetime planning is there to help people build longevity into their retirement plan. No-one knows how long they will live for or when they may need to increase their month-to-month spending. This could be because of a change in lifestyle, a change in health or buying a few more luxuries along the way.



Life legacy

This is the part of the retirement journey that impacts which products are most suitable. Leaving a legacy for children, other family members, or a charity directly impacts the types of products that are most suitable to invest in to ensure those investments can be passed on after death. Owning property or other investments could have a direct influence on this decision. Of course, a legacy can be non-monetary in nature too and emphasises the personal aspect of retirement planning.

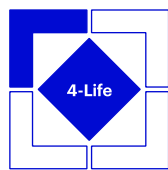
It is easier to choose the most suitable products if we more clearly link the product with a specific investment outcome.

4-Life, for retirement – the framework in action

We believe the 4-Life framework helps put in place a robust retirement plan that explicitly addresses the risks discussed above. This can be managed at an individual level or aggregated to build default options for pre-determined ‘personas’ within pension schemes.

Whether it is a pension scheme or an individual it is important to know what investments are appropriate for each of the four components, and how individuals will prioritise each of them. For example, is income certainty the most important driver for how they will invest or is flexibility the most important driver because of uncertainty over what their future looks like.

The other important aspect is to work through the feedback loop across the 4-Life framework. For example, if the cash and income needs of the life events and lifestyle components are covered near term through investing in appropriate cash and income investments, cash allocated to lifetime planning can be invested into higher growth opportunities. Being able to ride out volatility and earn a higher rate of return on those longer-term investments will help provide long-term stability and a greater number of investment choices later in someone’s retirement journey.



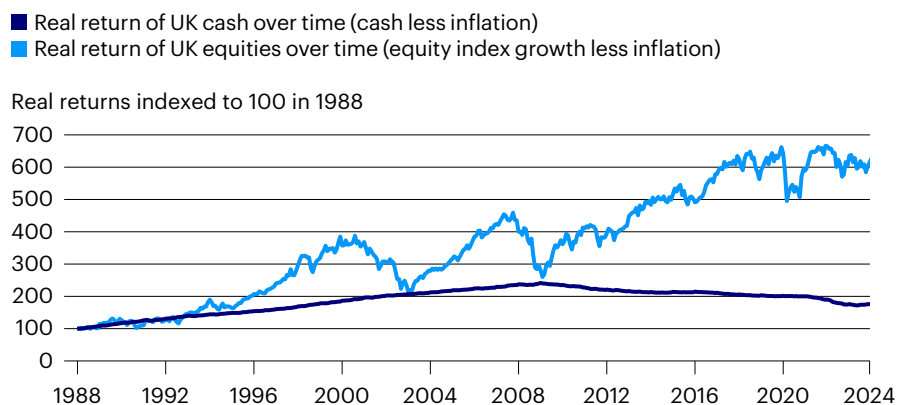
4-Life: Life Events
Cash is King but not forever

On the face of it, this is the simplest of the four decisions but could have the biggest impact on the overall success of a retirement plan. Holding cash provides comfort, but holding too much cash could mean a person’s savings do not last long enough. A large proportion of people entering retirement are likely to want to keep their cash buffer in an easily accessible bank account which will likely earn a low rate of return. As discussed above if that cash is not needed for some time its real value will be eroded by inflation. One way to think about the decision spectrum for how much cash to hold is the timeframe over which the cash is needed versus maintaining the real value of that cash for future purchasing power. Ultimately this becomes a trade-off between market volatility which could impact how much cash is available when needed relative to the level of inflation which will erode its real value.

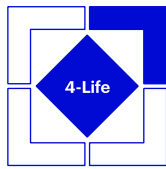
In the chart below we show the return of cash and the return of the FTSE All share, reduced by the level of inflation. This allows us to compare the real return of both through time. The trade-off is clear. Cash returns are stable but have been very low through time, and even negative in the post financial crisis period because interest rates stayed so low for so long. Equity returns vary far more in each discrete period but over the long-term have consistently delivered higher returns. These are two extreme comparisons but comparing them may help define what is most important for a retirement plan.

From a behavioural perspective the life events cash management component is critical for allowing people to sleep well at night and provides the comfort needed to take more risk in the other elements of a 4-Life plan.

Figure 7
Inflation is an important consideration for holding cash over the long-term



Source: Bloomberg, rebased to 100, January 1988. Data used: SONIA and FTSE All Share.



4-Life: Lifestyle

Balancing income with lifestyle aspirations

For lifestyle investing certainty of income needs to be weighed against flexibility. Guaranteed income products like annuities are potentially the right tool to use for the lifestyle component if there is 100% certainty of circumstances and future income needs. But people’s circumstances can change very quickly and once you are committed to an annuity, there is no going back. This can be solved by investing in a blend of different income products to balance income certainty with flexibility.

One way to start thinking about the lifestyle component is to carry out cash flow analysis to map out cash needs in the future and the level of income needed to cover them. Here we revisit Alisha, Claire and John to map out what their respective cashflow requirements are and the types of products that could satisfy their income needs through retirement.

We have assumed:

- All three put in the minimum contributions of 8% to their auto enrolment pensions throughout their working lives
- They have a similar salary profile over time, and all qualify for the full state pension
- Their starting savings pot at 55 is c.£153,000 in-line with Claire’s experience
- They take their 25% tax free lump sum at 55
- The state pension is set at the revised level as of April 2024

That is where the similarities end because all three of them are entering retirement with different requirements and expectations. The most significant differentiator is how long they want to work for. Alisha decides to work until 67 but Claire and John are leaving full time employment before they reach 67 and thus before they can claim their state pension.

It is difficult to map everyone’s individual case so we have used a few assumptions. The PLSA helpfully lay out the levels of comparable annual expenditure that in their view align to a minimum, moderate or comfortable retirement. We have used the minimum replacement salary level of £14,400 to determine how much money one person would need for essential spending and the PLSA’s estimate of moderate salary of £31,300 for one person to determine extra spending over and above the essentials. These two assumptions underpin our 4-Life cashflow analysis below.

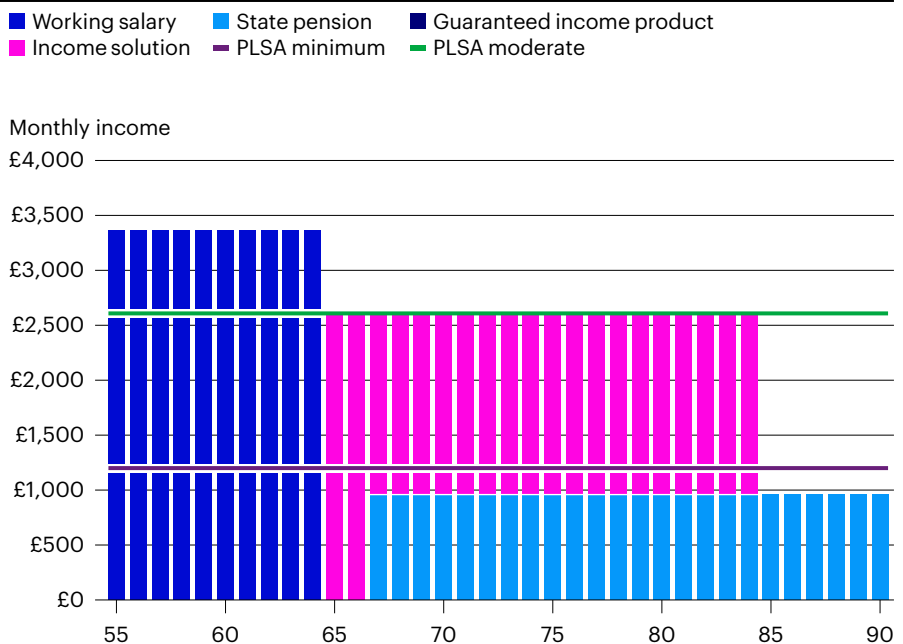
Each chart shows the annual amount of money that is being generated relative to a minimum salary target of £14,400 and £31,300 which is the target salary to enjoy a moderate retirement. Each bar has a combination of different colours which show how the salary is being met. The categories are working salary, the state pension, a guaranteed income product and drawing an income from a separate income solution.

Figure 8
Claire’s cash flow planning incorporating different income sources



Claire would like to stop working at 65 but has a very fixed view of the salary she would like to receive. Covering the first two years of receiving a £31,300 salary is challenging because it immediately depletes her savings by over £60,000.

The state pension then starts to pick up some of the slack but Claire continues to draw down from her savings pot to satisfy her income target. This means her money runs out and she does not have a legacy to pass on.



Source: Invesco. For illustrative purposes only.

Cash flow planning is critical for building a retirement plan.

Alisha is our easiest example because she continued to work until 67 and reinvests her surplus cash prior to full retirement which made a significant difference to her final pension pot. For John and Claire there is a shortfall to find.

Claire needs a growth plan! Cash flow analysis is very helpful for mapping out options, seeing where the gaps are, and then going back through the 4-Life framework to see whether anything can be put in place to change the outcome, or whether expectations

need to change to ensure savings last as long as they need to. We will come onto some other options for Claire later on.

In these charts we have talked about guaranteed income products, like annuities, and income solutions from which Claire, Alisha and John can draw extra income. Investing in income solutions means retirees can either receive income on a regular basis by buying income units, or drawdown from that income solution by cancelling units when they need to top up their monthly salary.

Figure 9
Alisha's cash flow planning incorporating different income sources



Alisha has accessed her pension at 55 and has taken her 25% cash free lump sum but chooses to continue to work until 67. Cash flow analysis shows that for the first 11 years post 55 her target salary is satisfied by her working salary. Her working salary is greater than her salary target so Alisha can reinvest that excess income in her pension.

At 67 she stops working and her annual salary is then covered by a combination of state pension, income from buying an annuity, and taking income from another more flexible income solution. Alisha can satisfy all her retirement goals because she also has a pot of savings left to pass on to the charity of her choosing.

Source: Invesco. For illustrative purposes only.

■ Working salary ■ State pension ■ Guaranteed income product
■ Income solution ■ PLSA minimum ■ PLSA moderate

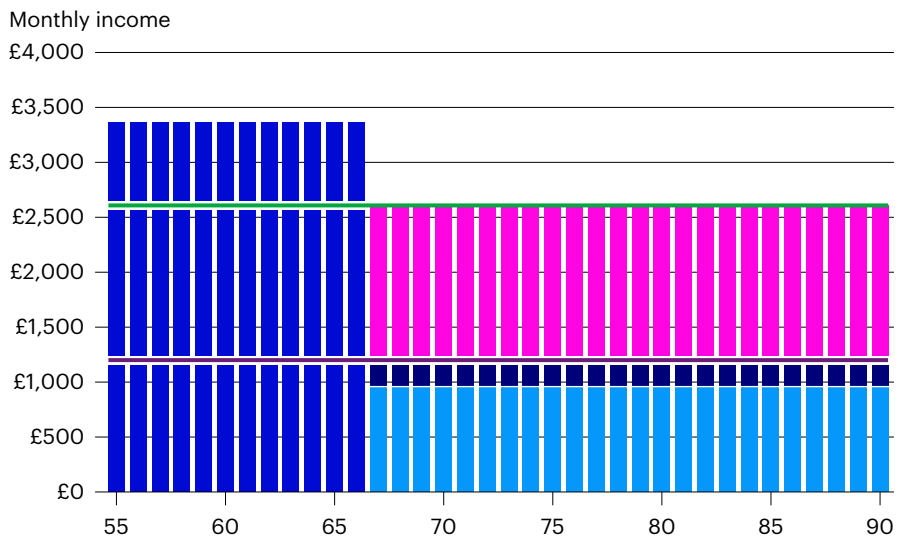


Figure 10
John's cash flow planning incorporating different income sources

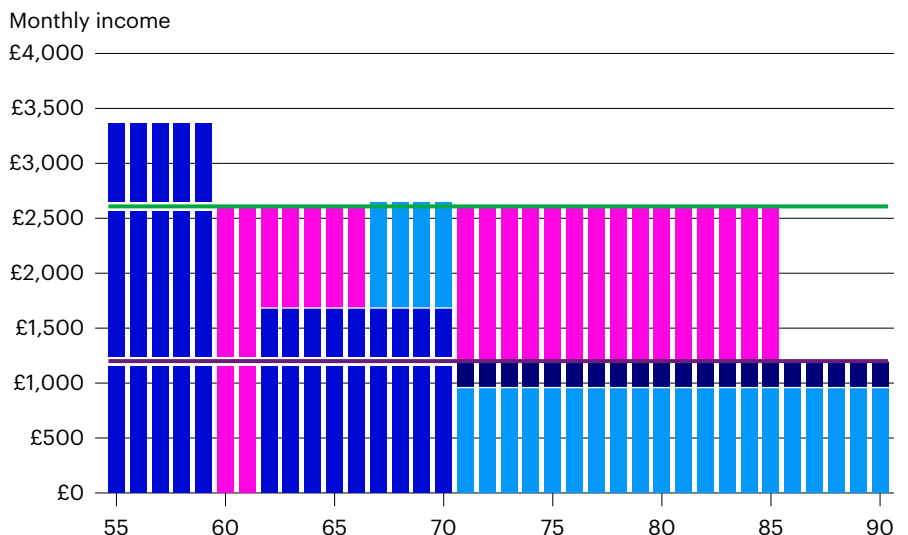


John sits between Alisha and Claire. John wants to retire at 60 but then takes on lower paid employment after a couple of years. John's cash flows are lumpy so it really helps to see what can be covered already and where more work needs to be done to ensure his savings last as long as they need to.

John does not want to pass on a financial legacy because he owns a property therefore as long as he is content with a lower salary from 86 onwards he can fulfil his retirement plan.

Source: Invesco. For illustrative purposes only.

■ Working salary ■ State pension ■ Guaranteed income product
■ Income solution ■ PLSA minimum ■ PLSA moderate



The reason guaranteed income products are so attractive is because the certainty of income is high. This is why it can make sense to hold a guaranteed income product to cover essential spending. The drawback is that it removes the option to grow your savings in the future or change the composition of your 4-Life retirement plan between income and growth to help your savings last as long as they possibly can or adjust to changing circumstances.

It is a helpful exercise to review the characteristics of a guaranteed income product and look at other income products through a similar lens. In our view product design is crucial because predictability and stability of the pounds and pence arriving each month is very important for people putting together their own personal retirement plan, or for a pension scheme building default options that align to different retiree personas.

paid could also fall. It is important to note that stability of capital will underpin stability of income for the underlying investor.

It is a useful exercise to compare different income products to see which products fit best into the Lifestyle component of the 4-Life retirement framework. We will develop this discussion in future papers but as a starting point assessing income and capital risk puts different income products into different buckets for consideration. High income can be attractive, but if that higher income means the risk of the investment is far greater it may not be appropriate for the lifestyle component of an individual's 4-Life plan.

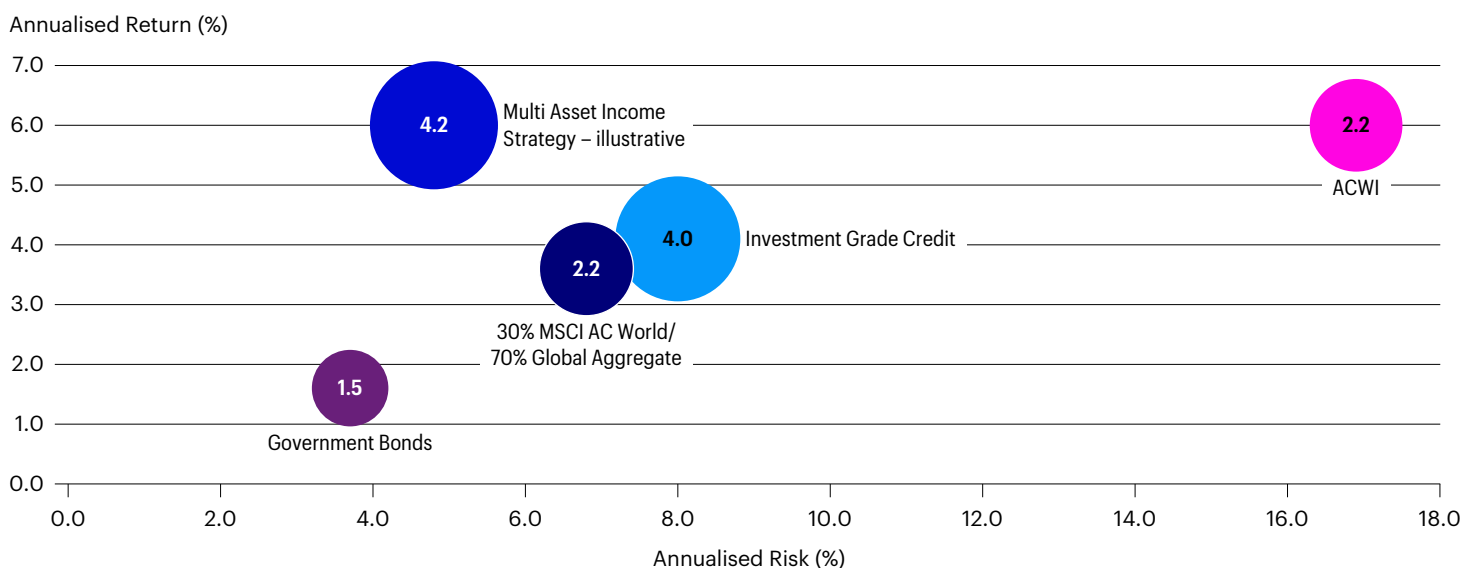
One approach is to build a multi asset income fund that has the following characteristics:

1. A specified income target which is 2-3% above cash
2. Income paid monthly to help replicate a monthly salary and provide stability for income expectations month to month
3. A diversified fund across different types of investments to help manage market risk
4. Employing active capital preservation to help manage sequencing risk

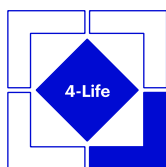
Capital preservation refers to actively limiting the amount the fund can fall by. This is important for two reasons for an income product. Firstly, income products are often used for lower risk investments and therefore they should sit in a lower risk category for investors. Second, income targets tend to be calculated as a percentage of the value of the underlying fund. If the underlying fund falls significantly then the amount of income

In figure 11 we show the annualised return of different investments relative to the risk of those investments. The size of the bubble shows the yield of that investment. Some investments have a similar total return, but a very different proportion of that total return is made up of income versus capital growth. For example our multi asset income strategy that we have simulated through time has a similar total return to equities but over the longer run has delivered an income of over 4% relative to just over 2% for global equities. The point of fleshing out some of these details is to start thinking about which types of products are most suitable to satisfy a cash flow plan, and which products are best suited to a longer term growth strategy.

Figure 11
For a lifestyle strategy investing in solutions that offer a higher income as a proportion of total return could be appropriate



Source: Invesco, Bloomberg. For illustrative purposes only.



4-Life: Lifetime

Ensure savings last as long as they need to

Lifetime planning is driven by longer term investing. The primary reason to have a lifetime planning component of the 4-Life framework is to ensure retirees' savings can last as long as possible and explicitly addresses longevity risk.

Working towards a guaranteed income later in life is likely to be very attractive. However guaranteed income products need to be paid for upfront and so it is important to put a plan in place earlier on in a retirement journey to ensure enough cash is available to purchase a guaranteed income product if and when it is needed. Alternatively, a more flexible income solution may be the most appropriate use of that lifetime planning pot, particularly if the individual would like to pass on a legacy to children or grandchildren.

Let's work through an example using Claire. Claire was putting everything in place for the near term, but she also wanted a guaranteed income 75 onwards. In her current plan the money runs out too quickly because of the income she has taken earlier on in her retirement journey. A bit of forward planning may help Claire fulfil more of her retirement goals.

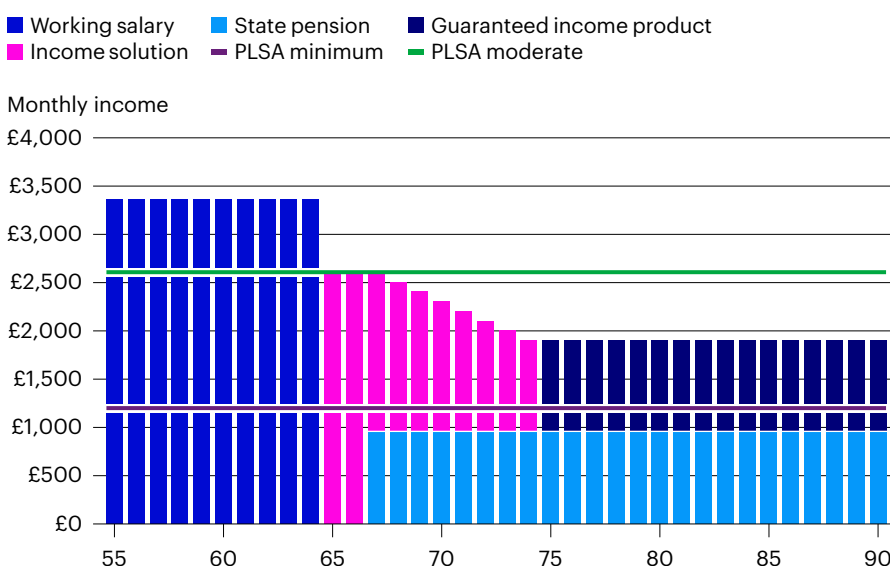
We have run an alternative scenario for Claire:

- Claire takes her 25% tax free lump sum at 55
- She still retires at 65 and uses her savings to fund her lifestyle at age 65 and 66
- She uses her savings pot to top up her income from 67 onwards and then tapers her income expectations each year until she gets to 75
- At this point she has enough savings to purchase an annuity
- She then continues to invest the rest of her savings to ensure there is a financial legacy to pass on to her grandchildren.

This change in plan results in a fairly good outcome for Claire and she achieves her retirement goals:

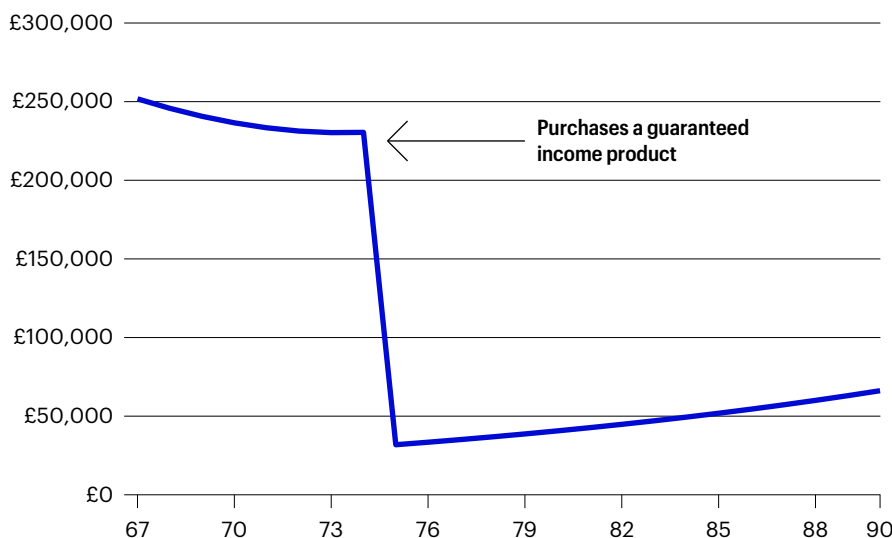
1. The tax free lump sum covers her daughter's wedding
2. She maintains a higher than minimum salary over time
3. She has certainty of income from 75 onwards
4. Claire has a legacy pot that she can pass on to her grandchildren

Figure 12
Cash flow planning to satisfy more of Claire's retirement goals



Source: Invesco. For illustrative purposes only.

Figure 13
With some forward planning Claire can also have a separate pot of savings ■ Lifetime pot – growth over time



Source: Invesco. For illustrative purposes only; assumes 5% investment growth p.a.

For our analysis we have assumed that Claire's investments grow by 5% per year to fund her income requirements. However financial markets can deliver different outcomes through time and come with varying degrees of risk. Separating income requirements from growth is a very important part of the 4-Life framework for retirement planning. One useful exercise is to assess how much growth is required to achieve a set of personal retirement goals, and then match that with the appropriate product or combination of investments to deliver that required return profile. If a retiree only needs 5% growth, then there is no need to take unnecessary risk with their growth portfolio to deliver their full retirement plan.

We have built a proprietary tool called Invesco Vision that can help with this analysis. The tool provides analytics to help clients better understand their portfolio exposures.

Invesco Vision can address the main challenges of portfolio construction, understanding and choosing acceptable risk-and-return trade-offs, while incorporating any constraints of what underlying investors are able to invest in.

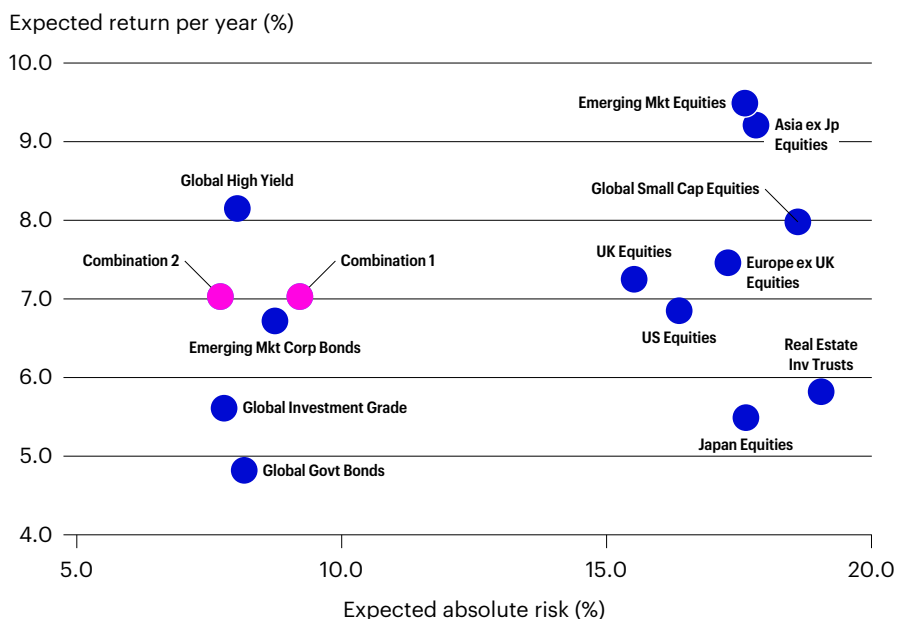
This is crucial for retirement planning, matching the growth requirements of the lifetime planning component with the risk tolerance of a retiree.

In figure 14 we show the risk versus return trade-off for several different types of investments and then show the risk-return profile when these investments are combined in a single portfolio. As a single investment, UK equities offer a long-term predicted return of just over 7%, with volatility of just over 15%. But when UK equities are combined with other investments, including equity and fixed income investments, the expected return of the portfolio is still around 7% but the volatility falls significantly to under 10%. This simply captures the diversification benefit of combining different types of investments together.

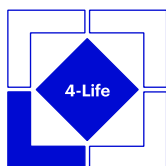
The investments in blue are included in the first portfolio example that we have called Combination 1, also shown in pink. We have then shown the benefit of adding emerging market bonds and global high yield, highlighted in blue, to the portfolio. Expected portfolio return is not compromised but risk falls from over 9% to around 7.5% suggesting an investor could improve the risk adjusted profile of the portfolio by maintaining growth expectations but meaningfully reducing expected risk.

For the lifetime planning component of the 4-Life framework, assessing the required level of growth, or range of growth outcomes required to satisfy a set of personal retirement goals is crucial for taking a holistic view of a retirement plan. The outcome of this analysis directly drives the types of products that are suitable to reach that goal. When combining investments together investors can either manage those exposures themselves through individual investments or look to a multi asset fund or model with the appropriate risk and return characteristics to deliver the outcome that meets the lifetime planning growth requirement of their 4-Life framework.

Figure 14
Comparing risk versus return is an important part of longer term investing for lifetime planning



Source: Invesco, as of 30 September 2023 in GBP (unhedged). For illustrative purposes only and is based on our current model and allocations. Actual returns will differ. Forecasts are not reliable indicators of future performance. Expected return is based on the Capital Market Assumptions of the underlying portfolio asset classes.



4-Life: Life legacy

A desire to leave a legacy has a direct influence on product selection

Life legacy can take many forms and is a very personal part of retirement planning. Passing on a legacy can range from passing on a property, a cash lump sum or perhaps a legacy of something a person has achieved that will pave the way for the future generations of their family. Whatever the legacy, planning properly can help. This is a conversation to have with a financial adviser or for those designing pension schemes to feed into the design of investment solutions, as there are several influential factors. From a product perspective we can offer two areas for consideration. For guaranteed

income products the majority are not able to be passed on, but some have better terms than others so look very carefully at the details behind the products on offer. Given the restrictions for passing on guaranteed income products, using a more flexible income fund for income requirements could work better so that pot of money can be passed on after death. Separating out the life legacy component can have a direct feedback loop to the products or approach taken in the other three component parts of the 4-Life framework, to ensure it is appropriate for the retirement goals of the retiree.

Building individuality into a pension scheme through personas

The personal aspect of retirement planning can cause paralysis for those designing default retirement strategies. Incorporating the thought process of the 4-Life framework into the design of retirement personas could help pave the way for pension schemes.

For any organisation looking to design a post-retirement offering, perceived complexity can often form a barrier to designing approaches that can deliver better outcomes for retirees. The personal aspect of retirement planning is a challenge but it is not one that cannot be overcome.

For individuals it is a lot simpler to define personal retirement goals and then deliver on them through a tailored retirement plan. For default strategies we can replicate this to a certain degree through questionnaires on personal goals and priorities to at the very least group people together based on similar aspirations such as the immediate need for income or a postponed income requirement.

We can build these personas based on the three individuals that we have talked about throughout this paper. There is a lot of detail behind individual retirement planning and separating out the component parts as we have discussed, but ultimately this investment detail aggregates into an asset allocation that will perhaps be more familiar to people from their savings journeys. The key to simplification is presenting retirement strategies through the lens of a typical multi asset approach, but the important detail for the investment outcomes is managing the components separately. If we separate the income and growth portfolios into two distinct strategies it immediately paves the way for better investment outcome for retirees.

On the following pages we show persona examples based on Alisha, Claire and

John. Each persona is based on different income and growth requirements that can be wrapped in a different asset allocation across equities, fixed income and cash. For each example we show the overall asset allocation and the asset allocation of each underlying income and growth component. We then compare the outcome of this approach with following a simple multi asset approach selling units to generate income over time which involves a pro rata selling of assets across both fixed income and growth assets – the difference is stark. We have simplified the approach by showing one asset allocation for each persona, but in reality there could be different ways to implement default strategies through changing the asset allocation at pre-determined points in time based on the level of assets, excess returns or pre-determined dates for changing the focus from growth towards income.





Persona 1: Claire

The requirements of individuals aligned to default persona 1 are:

- Full retirement at 67
- Life events: accessible cash pot
- Lifestyle: Immediate income requirement
- Lifetime: growth requirement to feed legacy wishes and higher guaranteed income in the future
- Legacy: Would like to pass on a financial legacy

Investment summary:

- Lifestyle requirements drive a tilt towards fixed income assets
- Overall asset allocation aligned to 10% cash, 60% income and 30% Growth
- Majority of income requirement placed in a guaranteed income product
- Guaranteed income allows the growth portfolio to be tilted towards equities

Figure 15
Overall asset allocation (%)

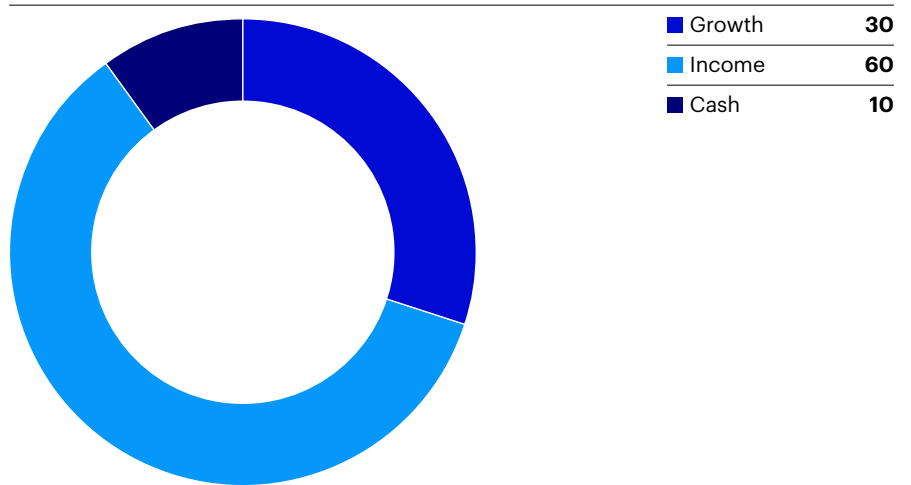


Figure 16
Income portfolio (%)

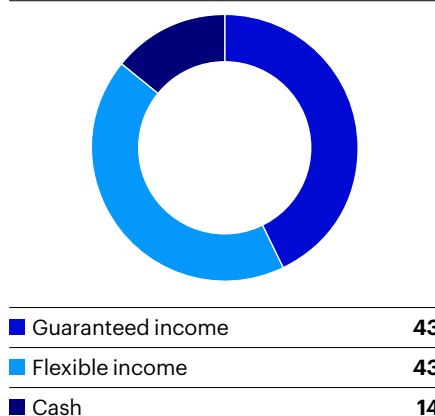
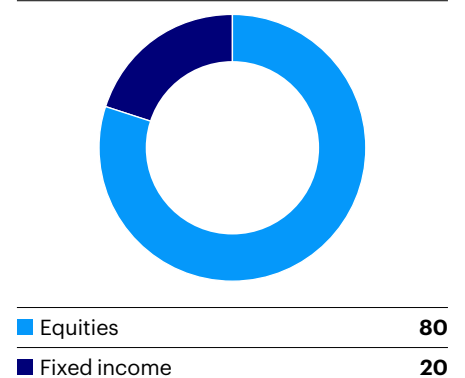


Figure 17
Growth portfolio (%)



Source: Invesco. For illustrative purposes only.



Persona 2: Alisha

The requirements of individuals aligned to default persona 2 are:

- Full retirement at 67
- Life events: accessible cash pot
- Lifestyle: Uncertain income requirements
- Lifetime: Needs higher growth to fund future income requirements
- Legacy: Would like to pass on a financial legacy

Investment summary:

- Lifestyle requirements underpin a more balanced asset allocation overall
- Asset allocation aligned to 10% cash, 40% Income and 50% Growth
- Majority of income requirement placed in a flexible income product as income may not be required
- Given less guaranteed income there is a slightly lower allocation to equities in the growth portfolio

Figure 18
Overall asset allocation (%)

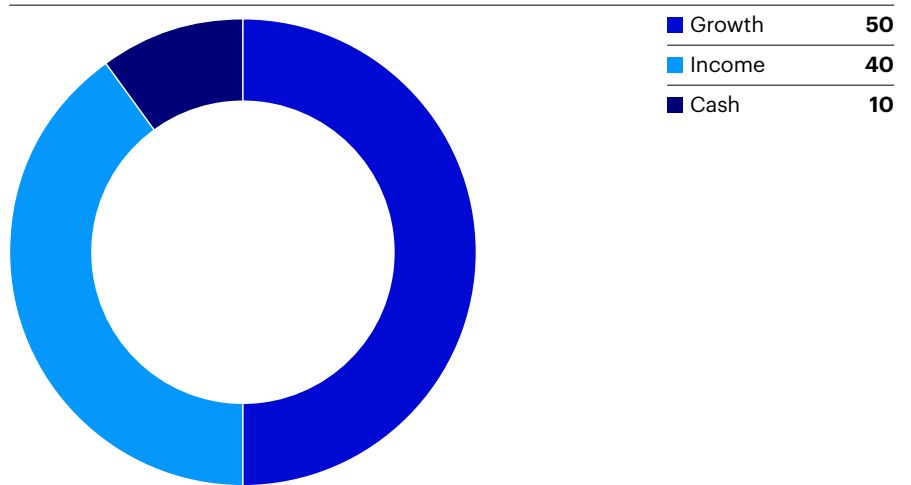


Figure 19
Income portfolio (%)

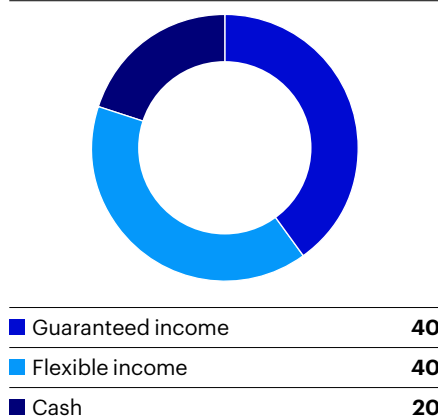
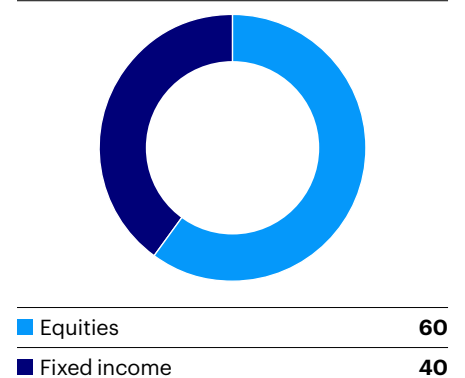


Figure 20
Growth portfolio (%)



Source: Invesco. For illustrative purposes only.



Persona 3: John

The requirements of individuals aligned to default persona 3 are:

- Full retirement at 67
- Life events: Small accessible cash pot
- Lifestyle: Very low income required initially as alternative income sources available
- Lifetime: Wants to maximise growth for future retirement planning
- Legacy: No need to pass on a financial legacy

Investment summary:

- Lifestyle requirements underpin a higher allocation to equities overall
- Asset allocation aligned to 5% cash, 35% Income and 60% Growth
- All the income portfolio is placed in a flexible income solution as income may not be required
- Given less guaranteed income there is a slightly lower allocation to equities in the growth portfolio

Figure 21
Overall asset allocation (%)

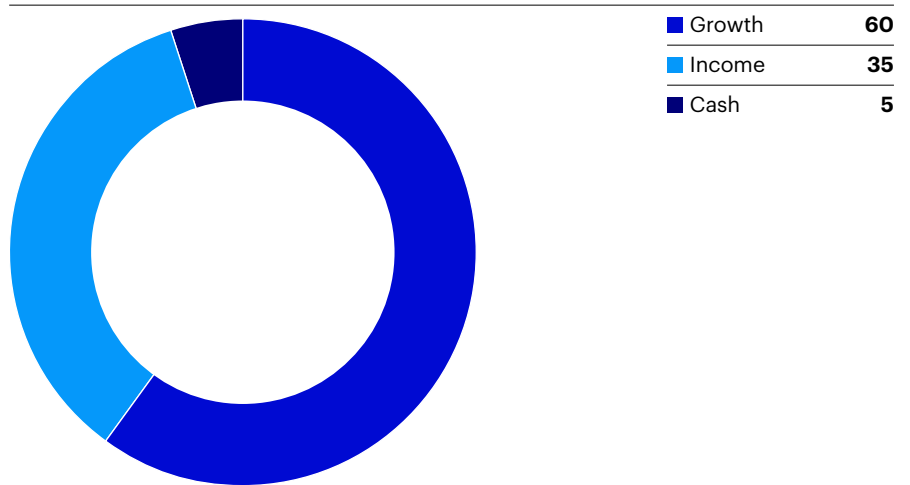


Figure 22
Income portfolio (%)

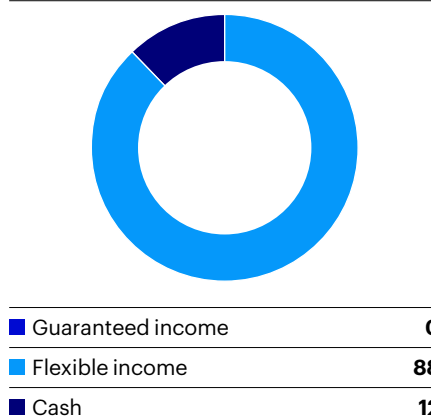
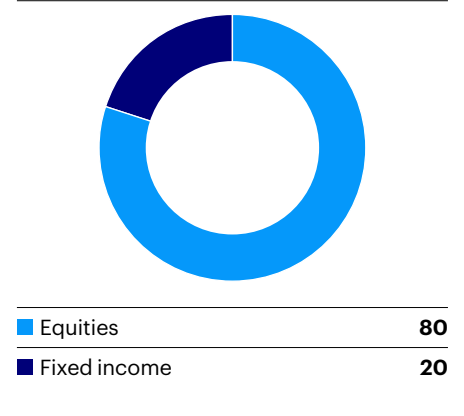


Figure 23
Growth portfolio (%)



Source: Invesco. For illustrative purposes only.

The key to this approach is the increase in the level of an individual's savings through simply separating the income strategy from the growth strategy. In the following charts we do some very simple analysis comparing the value of a retiree's savings pot after 20 years based on comparing a simple drawdown approach using a multi asset fund with the approach discussed above where the income component and growth component are run as separate strategies. We use annual market returns from 2003 to 2023 to show what would have happened over that period of time historically.

Assumptions for persona 1

Size of savings pot
£250,000

Overall asset allocation
30% growth, 60% income, 10% cash

Income requirement
£14,400

Guaranteed income product used
Yes

Flexible income product used
Yes

Asset allocation of growth portfolio
80% equities, 20% fixed income

Assumptions for persona 2

Size of savings pot
£250,000

Overall asset allocation
50% growth, 40% income, 10% cash

Income requirement
£14,400

Guaranteed income product used
Yes

Flexible income product used
Yes

Asset allocation of growth portfolio
60% equities, 40% fixed income

Assumptions for persona 3

Size of savings pot
£250,000

Overall asset allocation
60% growth, 35% income, 5% cash

Income requirement
£6,000

Guaranteed income product used
No

Flexible income product used
Yes

Asset allocation of growth portfolio
80% equities, 20% fixed income

Figure 24

Persona 1: 30-70 asset allocation

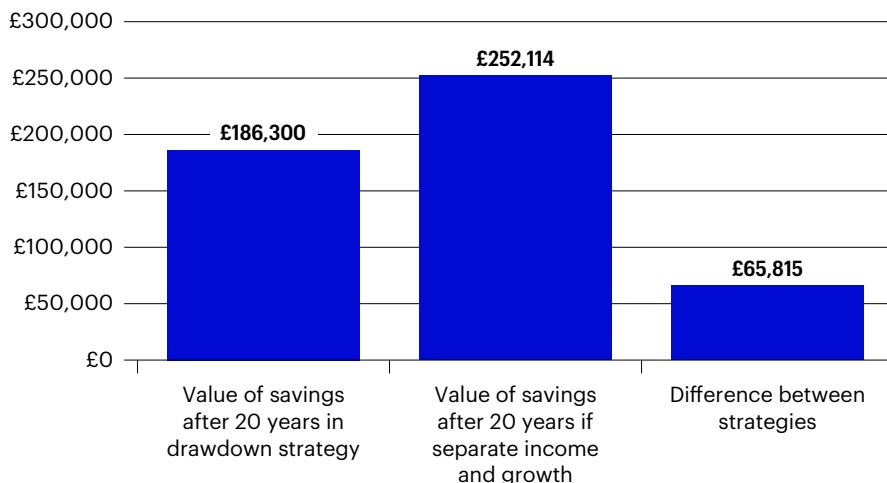


Figure 25

Persona 2: 50-50 asset allocation

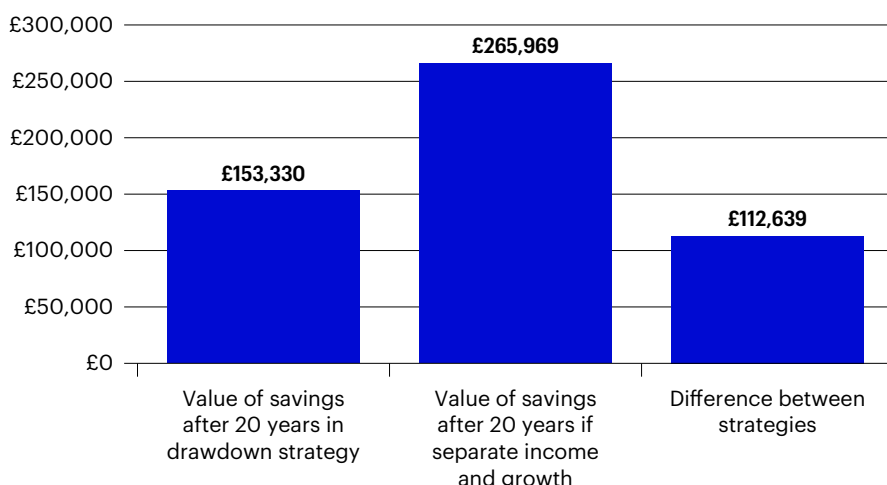
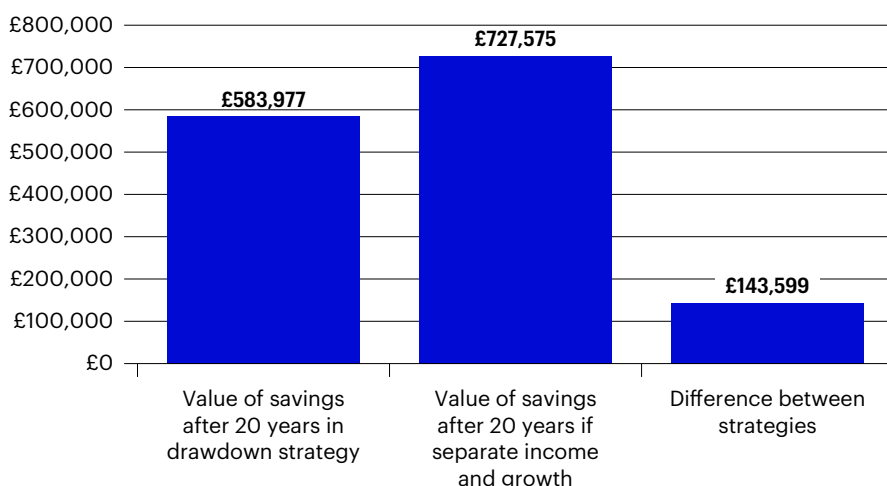


Figure 26

Persona 3: 60-40 asset allocation



Source: Invesco. For illustrative purposes only.



Conclusion

The purpose of the 4-Life framework is to help add clarity and peace of mind to retirement planning but also address the key challenge of retirement planning – it is a very personal journey that cannot translate into a one size fits all solution.

The retirement landscape is changing rapidly. We believe if we pull together as an industry we can build a more effective infrastructure to underpin retirement planning. Applying the thought processes of the 4-Life framework to building personal retirement plans and using a similar approach to build default strategies within pension schemes starts to address the challenges that everyone across the industry is facing.

Retirement is a personal journey but we can help by talking in the same language as those dealing directly with retirees, and through positioning products that are most suitable for solving for each component part of a retirement plan.

Just a few changes early on in a retirement journey, or by selecting one product over another, can help redraw a person's retirement picture and allow them to enjoy a long and fulfilling retirement. Our 4-Life framework embraces individuality and helps us play our part in helping retirees achieve their personal retirement goals.

Capital Market Assumptions

Invesco Solutions develops CMAs that provide long-term estimates for the behaviour of major asset classes globally. The team is dedicated to designing outcome oriented, multi-asset portfolios that meet the specific goals of investors. The assumptions, which are based on 5- and 10-year investment time horizons, are intended to guide these strategic asset class allocations. For each selected asset class, we develop assumptions for estimated return, estimated standard deviation of return (volatility), and estimated correlation with other asset classes. This information is not intended as a recommendation to invest in a specific asset class or strategy, or as a promise of future performance. Estimated returns are subject to uncertainty and error, and can be conditional on economic scenarios. In the event a particular scenario comes to pass, actual returns could be significantly higher or lower than these estimates.

Investment risks

The value of investments and any income will fluctuate (this may partly be the result of exchange rate fluctuations) and investors may not get back the full amount invested.

References to future returns are not promises or estimates of actual returns a client portfolio may achieve. Assumptions and estimates are provided for illustrative purposes only. They should not be relied upon as recommendations to buy or sell securities. Forecasts of financial market trends that are based on current market conditions constitute our judgment and are subject to change without notice. Estimated returns can be conditional on economic scenarios. In the event a particular scenario comes to pass, actual returns could be significantly higher or lower than these estimates.

It is not possible to invest directly in an index.

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