

INVESCO RETIREMENT SERIES - PART 2

Guaranteed income and growth in retirement... are both within reach?



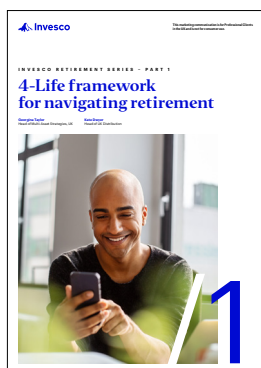
Introduction

Traditionally, income generation in retirement has been seen as a binary choice – drawdown of an individual’s investment portfolio (in other words, self-funded) and guaranteed income products from insurance companies, most commonly annuities.

Produced by Invesco Multi
Asset Strategies Team

Each approach has unique benefits and drawbacks; therefore, trade-offs must be considered when evaluating solutions for different clients with unique circumstances. For individuals concerned with simultaneously protecting their income for life while also maintaining assets to leave to heirs, simply bolting the two components together may not be enough. We believe that a systematic, holistic solution that thoughtfully combines the two can yield superior retirement outcomes for individuals – **the ability to secure both income and grow the retirement portfolio while preserving flexibility to adjust if circumstances change.**

Please see [Part 1](#) of our Retirement Series, which introduces the 4-Life framework for navigating retirement.



What’s the problem?

In the case of drawing down on a traditional investment portfolio, individuals have a great degree of flexibility, in how to allocate their assets, dialling up or down their risk and return profile; in accessing money whenever they choose; in modulating how much income they want to take in any given year. But this flexibility and potential for investment growth comes with risks, especially for individuals in retirement. One of the key risks is that of potentially outliving one’s assets – traditional investment portfolios are not guaranteed to produce income for life. This is exacerbated by sequencing risk, or the exposure the portfolio has to market declines at inopportune times (e.g. if income is needed to pay for a child’s university fees); simply stated, even a sizable investment portfolio may not be able to deliver across the range of personalised client objectives when producing income, if the client’s portfolio suffers a poor sequence of market returns early in retirement.

For individuals seeking maximum protection against outliving their savings, insurance products – annuities – are the way to fully secure lifetime income. Insurers are uniquely positioned to offer guaranteed lifetime income products, which can function like personalised pension plans; that said, there are important trade-offs to consider here as well. Typically, purchasing an annuity means giving control of the assets to the insurer, meaning individuals do not have the liquidity or access to funds that they would in traditional investment portfolios, nor do they have the flexibility to allocate the assets to growth-oriented portfolios for legacy purposes.

We believe a holistic solution that thoughtfully combines traditional investment portfolios with guaranteed income using a robust, systematic approach can effectively harness the best of both worlds. Depending on an individual’s unique risk, return, and income objectives, a guaranteed income product can be utilised in tandem with traditional growth-oriented investment portfolios to produce better outcomes – whether that be more legacy assets to leave to heirs, higher levels of current income, or more protected income – for every individual.



A unique solution

Combining traditional investment portfolios and guaranteed income in a holistic way can yield a better outcome than an approach which simply bolts the two together; by thoughtfully considering both components and how they complement one another upfront, a solution can be created that is greater than the sum of its parts.

The following pages illustrate our framework for considering and combining the two components. It should become clear through these illustrations that the problem is a complex one, with several – often competing – objectives at play. Our framework aims to simplify as much as possible while balancing these various objectives.

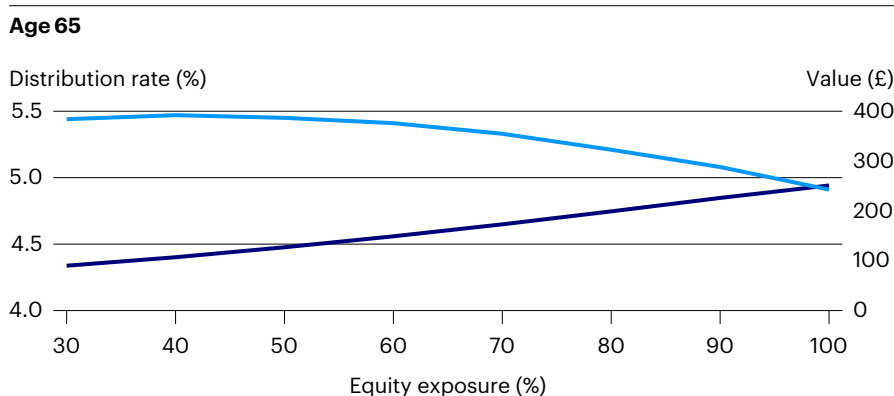
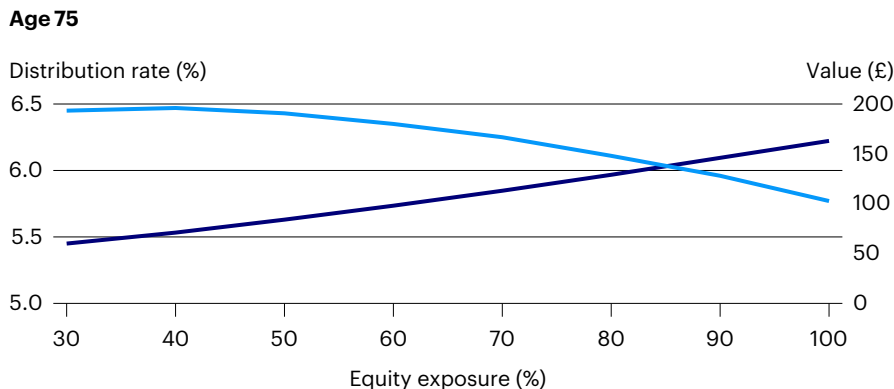
The specific goal of this analysis is to have very high probability of success (defined as maintaining high lifetime

income) among all the investment solutions being compared, but also increase the likelihood of a strong legacy outcome in the invested portfolio to leave to loved ones.

For this analysis, we used a real-world scenario generator, simulating 1,000 random market paths, projecting each path through life expectancy. With so many potential outcomes being examined, it is possible to estimate the probability of success (e.g. success in 900 paths translates to a 90% probability estimate).

Figure 1
Key finding 1: Growth assets should be at least 30-40% of the overall asset allocation, even without guaranteed income

- The charts on the right simply seek to identify an appropriate balance between income and growth, without considering guaranteed income
- Increasing the growth assets allocation in the portfolio (moving from left to right in the charts) requires decreasing the distribution rate (light blue line) if the goal is maintaining a 90% chance of success. This finding is intuitive – to reduce the chances of outliving one’s savings, the spending rate should be reduced. However, there is a less intuitive finding here as well in that increasing amounts of growth assets will increase the potential legacy value (dark blue line), which in turn enables higher amounts of income in later years as the investment portfolio grows
- There is a trade-off between increasing growth assets and potentially the overall final portfolio value and maximising the distribution rate for growth asset allocations between 35-100%. At these allocations, the charts show the two lines moving in opposite directions
- However, below the 35% growth asset allocation level, both distribution rate and final portfolio value begin to decrease
- Hence our analysis indicates that efficient solutions should allocate at least 30-40% to growth assets; below that level both distribution rates and legacy values suffer



* Expressed as % of the initial capital.

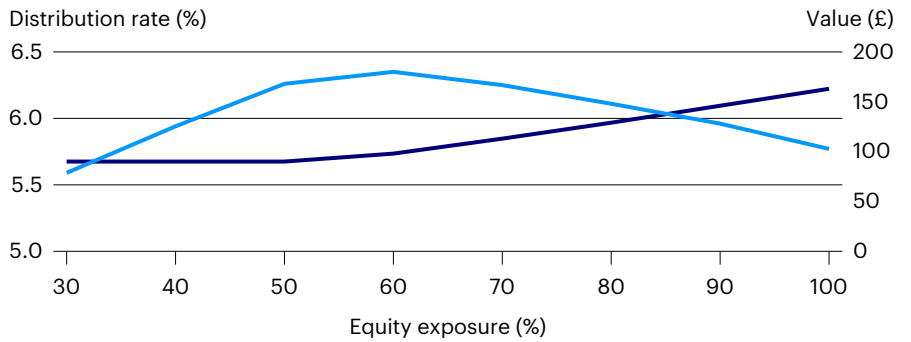
For illustrative purpose only. Source: Moody’s as at 31 December 2023. Note: The modelling shows the percentiles of the distribution of outcomes reflected by an annualized returns forecast run across 1000 Moody’s different real-world scenarios as at 31 December 2023. Using these scenarios we are calculating the probability of success and the median final value for a given simulated distribution rate.

Figure 2

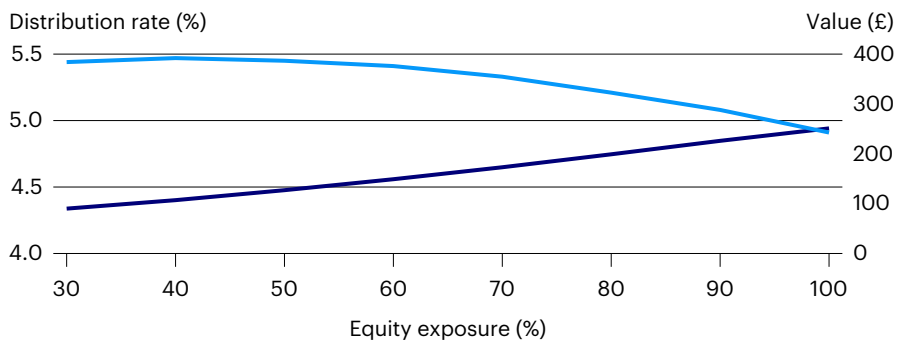
Key finding 2: Adding a legacy value constraint will increase the optimal allocation to growth assets

■ Maximum distribution rate
■ Retirement portfolio value

Age 75



Age 65



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Whether one is focused just on income, or both income and legacy value, growth assets are an important component of effective retirement solutions.

Adding a constraint on the final legacy value – namely, ending with a legacy portfolio that is at least 90% of the initial investment – we find optimal growth asset exposure increases to approximately 60% for a 75-year-old. The top chart above shows that at this level of growth assets, the distribution rate reaches its highest point (light blue line). A similar dynamic can be seen in the case of a 65-year-old (bottom chart). Whereas our first finding showed sub-optimal outcomes below a 35% growth allocation, the incorporation of a legacy value requirement results in sub-optimal outcomes below a 60% growth allocation.

The above findings clearly show whether one is focused just on income, or both income and legacy value, growth assets are an important component of effective retirement solutions. But growth assets come with risk of market losses; how can one maintain their legacy portfolio while also securing an income stream for life? We believe this can be achieved by incorporating guaranteed income.

Turning to the guaranteed income component, our analysis shows some interesting – and in some respects, counterintuitive – results. Recall, a protected income product is a guaranteed, lifetime income provided by an insurance company. It is tempting to assume that a greater allocation to guaranteed income will always improve income / distribution outcomes; after all, it is explicitly designed to provide guaranteed income for life. However, for people seeking to protect both income levels AND the retirement portfolio, our analysis shows that increasing the guaranteed income allocation increases the probability of success only up to a certain distribution level (approximately ~7% guaranteed income distribution rate at age 65); beyond this point, the probability of success falls. The reason for this is that growth assets are still needed to maintain the legacy portfolio. If we take away too much from the growth portion, we have to dial back the level of distributions to avoid depleting the legacy portfolio. Therefore, the guaranteed income allocation should be linked to the desired distribution level; if a high distribution level is desired, the level of guaranteed income should actually decrease (and vice versa for cases where lower distribution rates are desired).

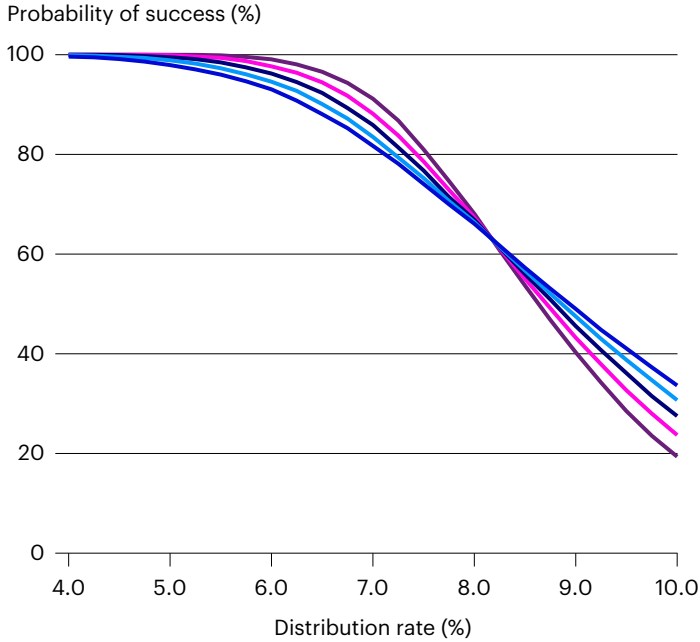
Figure 3

Key finding 3: Adding guaranteed income in the portfolio enables higher growth allocations and distribution levels

Age 75

Probability of success per distribution rate level (%)

- 0% guaranteed income
- 10% guaranteed income
- 20% guaranteed income
- 30% guaranteed income
- 40% guaranteed income



Maximum distribution rate per guaranteed income / Equity % satisfying success of plan and the target final retirement portfolio value

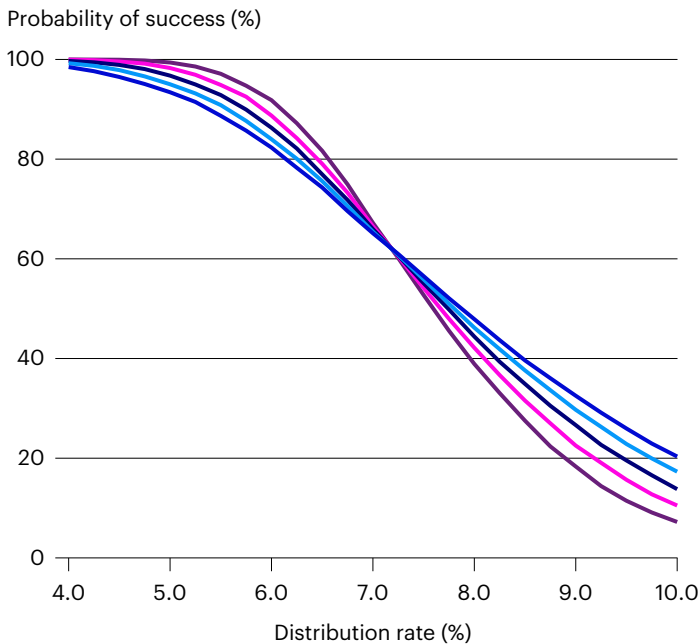
- <5.9%
- 5.9–6.4%
- >6.4%

	Equity							
	30%	40%	50%	60%	70%	80%	90%	100%
0%	5.6%	5.9%	6.3%	6.4%	6.2%	6.1%	6.0%	5.8%
5%	5.6%	5.9%	6.2%	6.4%	6.3%	6.2%	6.1%	
10%	5.6%	5.9%	6.2%	6.5%	6.4%	6.3%	6.2%	
15%	5.6%	5.9%	6.2%	6.5%	6.5%	6.4%		
20%	5.6%	5.9%	6.2%	6.4%	6.6%	6.5%		
25%	5.6%	5.9%	6.1%	6.4%	6.6%			
30%	5.6%	5.9%	6.1%	6.3%	6.6%			
35%	5.6%	5.8%	6.1%	6.3%				
40%	5.6%	5.8%	6.1%	6.3%				
45%	5.6%	5.8%	6.0%					
50%	5.6%	5.8%	6.0%					
55%	5.6%	5.8%						
60%	5.6%	5.8%						
65%	5.6%							
70%	5.6%							

Age 65

Probability of success per distribution rate level (%)

- 0% guaranteed income
- 10% guaranteed income
- 20% guaranteed income
- 30% guaranteed income
- 40% guaranteed income



Maximum distribution rate per guaranteed income / Equity % satisfying success of plan and the target final retirement portfolio value

- <5.2%
- 5.2–5.8%
- >5.8%

	Equity							
	30%	40%	50%	60%	70%	80%	90%	100%
0%	5.4%	5.5%	5.4%	5.4%	5.3%	5.2%	5.1%	4.9%
5%	5.4%	5.6%	5.5%	5.5%	5.4%	5.3%	5.2%	
10%	5.4%	5.6%	5.6%	5.6%	5.5%	5.4%	5.3%	
15%	5.5%	5.7%	5.7%	5.7%	5.6%	5.5%		
20%	5.5%	5.7%	5.8%	5.8%	5.7%	5.6%		
25%	5.5%	5.7%	5.9%	5.8%	5.8%			
30%	5.5%	5.7%	5.9%	5.9%	5.9%			
35%	5.5%	5.7%	5.9%	6.0%				
40%	5.5%	5.7%	5.9%	6.1%				
45%	5.5%	5.7%	5.9%					
50%	5.5%	5.7%	5.9%					
55%	5.5%	5.7%						
60%	5.5%	5.7%						
65%	5.5%							
70%	5.5%							

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Guaranteed income and growth model portfolio combinations

Guaranteed income allocation (%)	Risk tolerance		
	← Low		→ High
0 – 10%		50 EQ/50 FI Portfolio	60 EQ/40 FI Portfolio
10 – 20%	50 EQ/50 FI Portfolio	60 EQ/40 FI Portfolio	75 EQ/25 FI Portfolio
20 – 30%	60 EQ/40 FI Portfolio	75 EQ/25 FI Portfolio	90 EQ/10 FI Portfolio
30 – 40%	75 EQ/25 FI Portfolio	90 EQ/10 FI Portfolio	
40 – 50%+	90 EQ/10 FI Portfolio		

For illustrative purpose only. EQ: Equity. FI: Fixed income.

Key summary

1. **Higher levels of guaranteed income enable higher levels of growth potential in the retirement portfolio;** moving down the rows, we see equity allocations increase as guaranteed income allocations increase.
2. **Higher risk tolerances enable higher levels of growth potential in the retirement portfolio;** moving across the columns, we see equity allocations increase as risk tolerance increases.
3. **Very high levels of guaranteed income are associated with low risk tolerance;** for individuals with a higher risk tolerance, allocating more than 30% to guaranteed income doesn't make sense if seeking to balance both income and portfolio growth.

By incorporating a guaranteed income element, a larger proportion of the investment portfolio can be allocated to assets that have greater investment growth potential, while maintaining the overall risk tolerance.

Case studies



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
- **Risk tolerance: Low-Medium**

Claire's investment summary

Claire's financial situation requires an approach that prioritises income security but can also deliver long-term growth. Here's a breakdown of her key needs and the chosen investment strategy:

- **Higher guaranteed income need:** Claire requires a significant portion of her income to be guaranteed. This suggests a conservative approach with a focused allocation towards a guaranteed income asset.
- **Legacy planning:** She desires to leave a substantial inheritance, which necessitates focusing on investments that will grow over time that will help to deliver an increase in legacy.

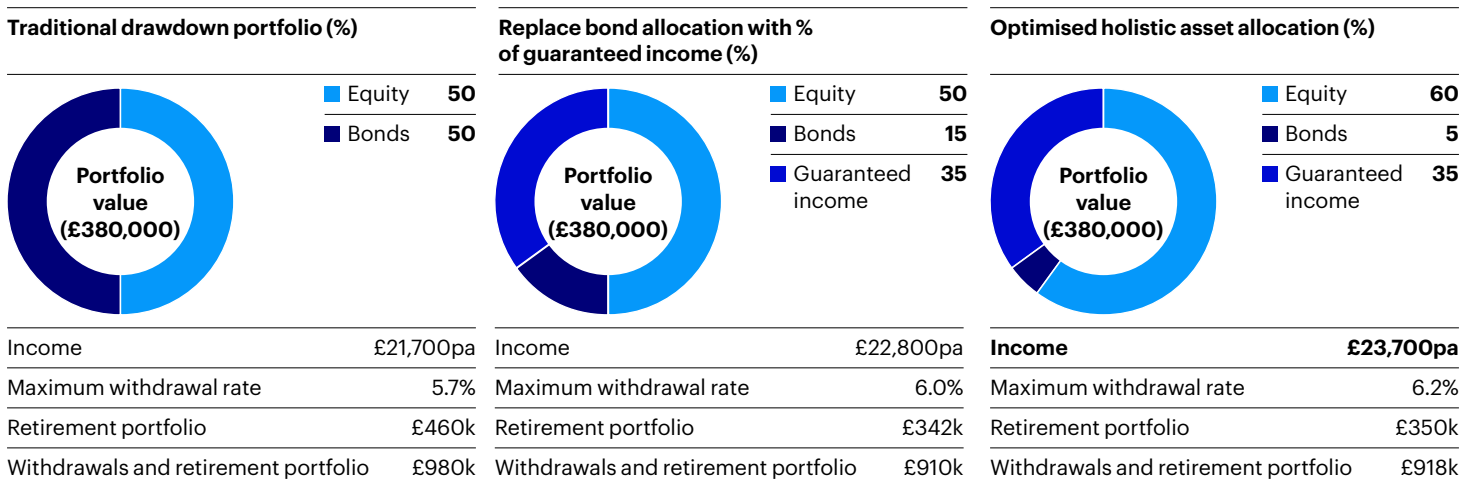
Chosen portfolio (90% equity / 10% fixed income)

The strategy selected is based on Claire's risk tolerance and her desire to balance income needs with legacy planning.

This solution prioritises guaranteed income through the **35% guaranteed income allocation**. The remaining 65% is allocated with a majority towards equities.

- **Guaranteed income:** The high guaranteed income allocation ensures Claire's immediate income requirements are met.
- **Growth potential:** The equity portion of the portfolio offers the potential for long-term growth to outpace inflation and maintain her purchasing power.
- **Reduced risk:** The 10% fixed-income allocation provides some additional stability to the overall portfolio, helping to reduce overall portfolio risk.

Figure 4
Benefits of including guaranteed income within an optimised asset allocation



For illustrative purpose only. Source: Moody's as at 31 December 2023. Note: The modelling shows the percentiles of the distribution of outcomes reflected by an annualized returns forecast run across 1000 Moody's different real-world scenarios as at 31 December 2023. Using these scenarios we are calculating the probability of success and the median final value for a given simulated distribution rate.



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
- **Risk tolerance: Medium**

Alisha's investment summary

Alisha's financial situation requires a balanced approach that prioritises income security and delivers long-term growth. Here's a breakdown of her key needs and the chosen investment strategy:

- **Uncertain income need:** Whereas Claire was very concerned about her income needs, Alisha is unsure of her possible income needs. This could suggest a conservative approach of a mid-range allocation towards a guaranteed income asset, with the ability to reinvest this income into the growth portfolio if its not required.
- **Legacy planning:** She would like to leave a financial legacy, which requires focusing on investments that will grow over time and will help to deliver a potential increase in legacy.

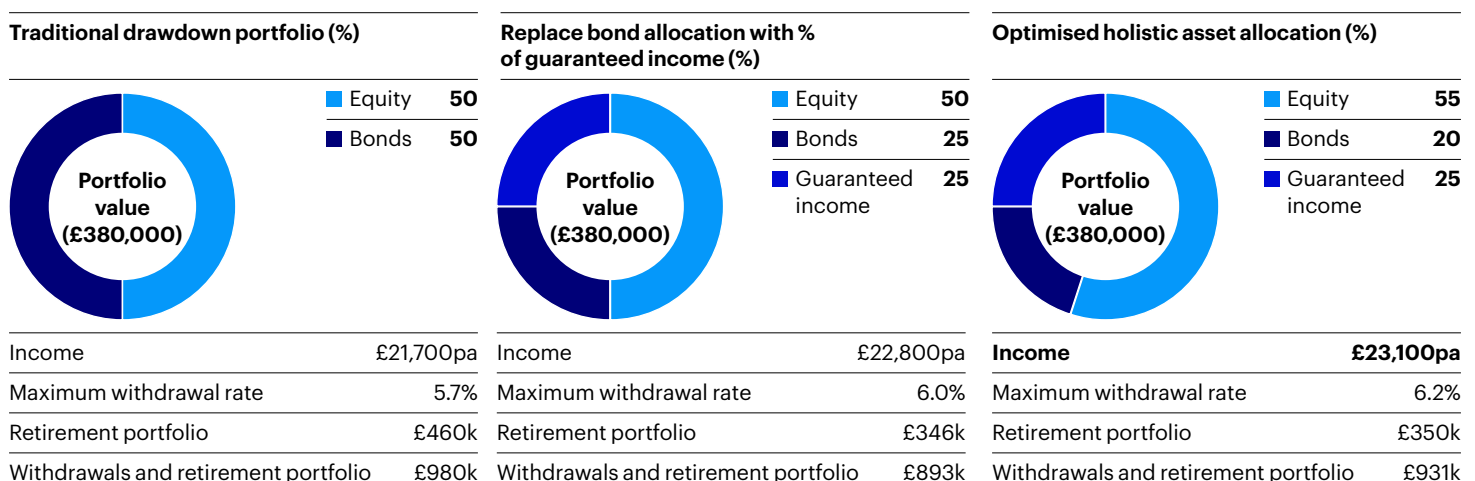
Chosen portfolio (75% equity / 25% fixed income)

The strategy selected is based on Alisha's risk tolerance and her need to balance possible income needs now and in the future with legacy planning.

This solution provides some allocation to guaranteed income through the **25% guaranteed income allocation**. The remaining 65% is allocated with a majority towards equities.

- **Guaranteed income:** The mid-range guaranteed income allocation ensures Alisha's uncertain income needs can be met with the ability to re-invest any income not required.
- **Growth potential:** The equity portion of the portfolio offers the potential for long-term growth to outpace inflation and maintain her purchasing power. This supports her need for asset growth to fund future income requirements and legacy desires.
- **Reduced legacy risk:** The 25% fixed-income allocation provides additional stability to the overall portfolio, helping to reduce overall portfolio risk given her risk tolerance.

Figure 5
Benefits of including guaranteed income within an optimised asset allocation



For illustrative purpose only. Source: Moody's as at 31 December 2023. Note: The modelling shows the percentiles of the distribution of outcomes reflected by an annualized returns forecast run across 1000 Moody's different real-world scenarios as at 31 December 2023. Using these scenarios we are calculating the probability of success and the median final value for a given simulated distribution rate.



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
- **Risk tolerance: Medium-High**

John's investment summary

John's financial situation requires an approach that prioritises growth for future retirement planning given he has alternative sources of income initially to support his needs in early retirement. Here's a breakdown of his key needs and the chosen investment strategy:

- **Low income need, initially:** John has alternative income sources to support him in the early stages of retirement. Therefore a small allocation towards a guaranteed income asset will suffice with the ability to reinvest this income into the growth portfolio if at stages the income is not required.
- **No need for legacy planning but desire for growth:** John is focused on growth for his future retirement needs rather than leaving a legacy, this requires focusing on investments that will grow over time to increase his asset pot and therefore flexibility to meet future retirement planning needs.

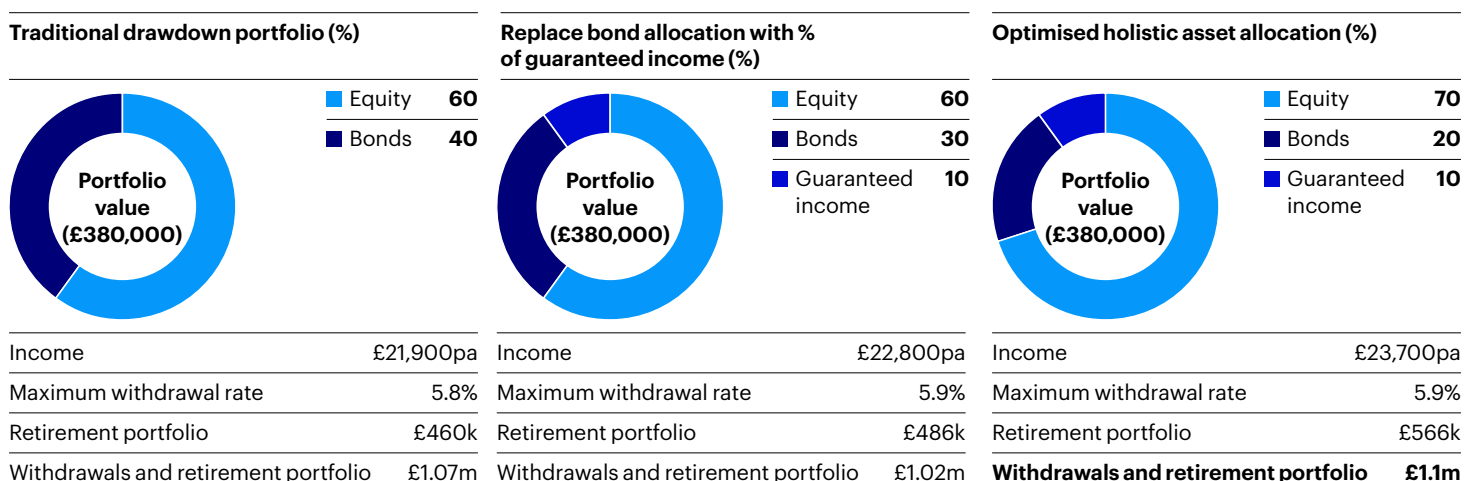
Chosen portfolio (75% equity / 25% fixed income)

The strategy selected is based on John's risk tolerance, his initial low-income requirements and desire to maximise growth for future needs in retirement.

This solution provides a small allocation to guaranteed income through the **10% guaranteed income allocation**. The remaining 90% is allocated with a majority towards equities.

- **Guaranteed income:** The small guaranteed income allocation ensures a baseline guaranteed income level for John. This meets his very low income needs, initially, due to his access to alternative income sources..
- **Growth potential:** The equity portion of the portfolio offers the potential for long-term growth to fund future retirement planning needs.
- **Mitigating risk in retirement:** The 25% fixed-income allocation provides balance to the overall portfolio, helping to mitigate overall portfolio risk given John's place in his life journey and his higher risk tolerance.

Figure 6
Benefits of including guaranteed income within an optimised asset allocation



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Conclusion

The framework we've described above illustrates how advisors can harness the power of a thoughtfully constructed combination of growth assets and protected lifetime income for the benefit of their clients.

Because different individuals have different needs, risk tolerances, and lifestyle considerations, flexible solutions are critically important. That said, a common refrain from clients is that they want to protect against outliving their assets while also preserving some legacy value for loved ones; our solution, combining traditional investment portfolios with guaranteed income, enables advisors and their clients to easily strike the right balance for their current situation, while also maintaining the flexibility to adjust as life circumstances change.

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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.

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