MFS® White Paper

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Rethinking the Role of Fixed Income Along the Retirement Savings Journey

From Theory to Practice

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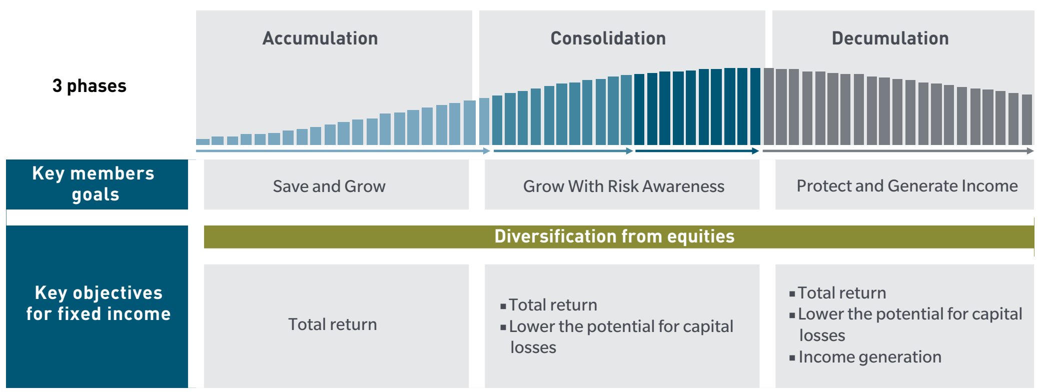
In brief

- Target date fund risk profiles should align with evolving member objectives along the retirement savings journey, and we believe fixed income plays a critical role in managing risk.
- In our view, glide path construction should focus on managing risk and the distribution of potential future returns, particularly for members approaching retirement, as opposed to solely focusing on maximising returns. This more balanced approach should increase the likelihood of members attaining their desired outcomes.
- Target date fund managers allocate to fixed income along a glide path in many ways. We highlight this data for plan sponsors and demonstrate how it can result in a wide variety of potential outcomes for members.
- We encourage plan sponsors to take another look — this time through a fixed income lens — at the plan's target date glide path to ensure it aligns with the ultimate objectives of the retirement program.

Exhibit 1: The retirement savings journey

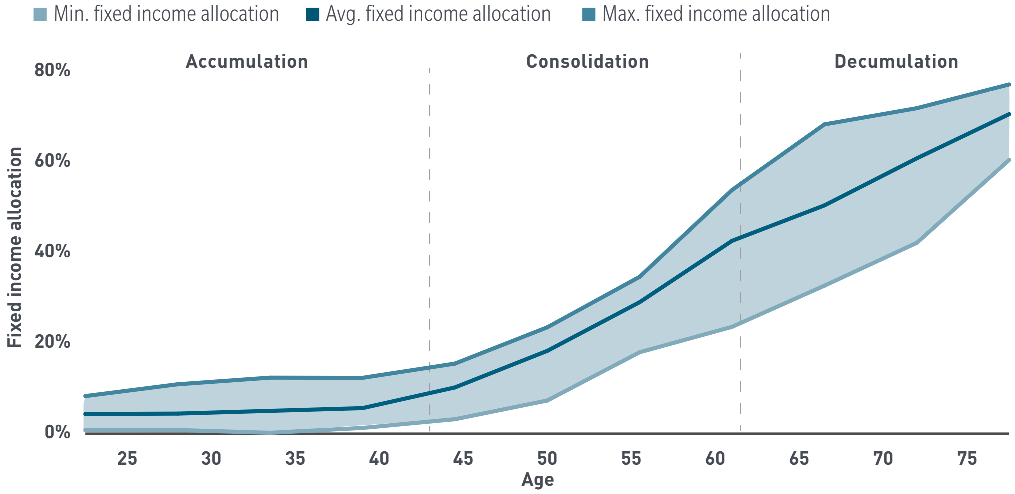


For illustrative purposes only.

Fixed income along a glide path

A typical glide path illustration highlights the level of equity along the path, which reflects the defined contribution (DC) industry's historical focus on the accumulation phase of the retirement savings journey. To shine a spotlight on the fixed income allocation within a glide path, we took the current glide path paradigm and turned it on its head. When viewed this way, we typically see an upward slope in the glide path as members' fixed income exposure increases while the number of years until retirement declines.

Exhibit 2: Reverse glide path illustration



Source: MFS Investment Management® analysis based on the 10 largest Canadian target date institutional pooled funds by assets under management, as at 31 December 2023, provided by Morningstar Direct along with information available from fund fact sheets. Fixed income allocation includes dedicated fixed income and cash. Please see endnotes for a list of the series.[1]

We encourage sponsors to consider the level of the fixed income allocation and how it evolves along the glide path when selecting and monitoring a target date fund.

In keeping with our theme of taking the retirement savings journey from theory to practice, the following are questions we hear from plan sponsors around how to structure fixed income exposure along a glide path in terms of level and composition.

Evaluating the level of fixed income

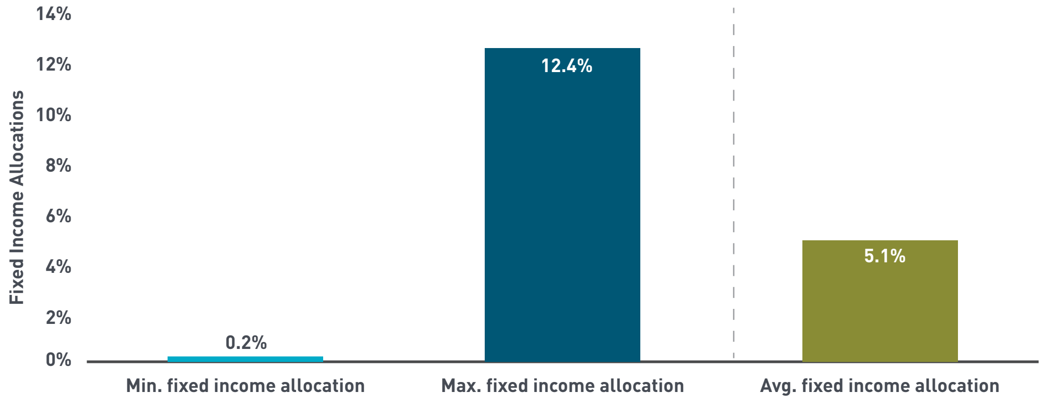
As Exhibit 2 illustrates, there is a wide range of practices in the allocation to fixed income along glide paths. Depending on how much or how little fixed income a member has at different points along the glide path, retirement outcomes can vary significantly. We encourage plan sponsors to consider the level of the fixed income allocation and how it evolves along the glide path when selecting and monitoring a target date fund.

Should early-career members have exposure to fixed income?

Plan sponsors should consider just how much fixed income exposure early accumulation phase members really need. The average fixed income allocation for a member invested in a 2055 target date fund is approximately 5.0%; however, the minimum and maximum allocations range between 0% and 12.4%, respectively. While a larger fixed income allocation in far-dated vintages might feel 'conservative' and therefore more comfortable for some plan sponsors, it can potentially inhibit members' ability to grow and compound their savings.

Participants in the accumulation phase should seek to maximise capital appreciation.

Exhibit 3: Top-10 largest target date institutional pooled funds — total dedicated fixed income allocation in 2055 funds



Source: MFS Investment Management analysis based on the 10 largest Canadian target date institutional pooled funds by assets under management, as at 31 December 2023, provided by Morningstar Direct along with information available from fund fact sheets. Fixed income allocation includes dedicated fixed income and cash. Please see endnotes for a list of the fund series.[1]

In the accumulation phase of the retirement savings journey, which applies to members in their early 20s to mid-40s, the most important objectives are to save as much as possible, maximise employer-matching contributions and grow these savings through compounding investment returns. Accordingly, we believe members in this phase should have minimal fixed income exposure and seek to maximise capital appreciation through the higher growth potential of equity and other higher-returning asset classes. With a long time horizon until retirement, these members have time to recover from market downturns and can generally withstand the greater volatility associated with more risk exposure. A higher allocation to equities in this phase can help build a larger retirement account balance, which can potentially allow members to take less risk later.

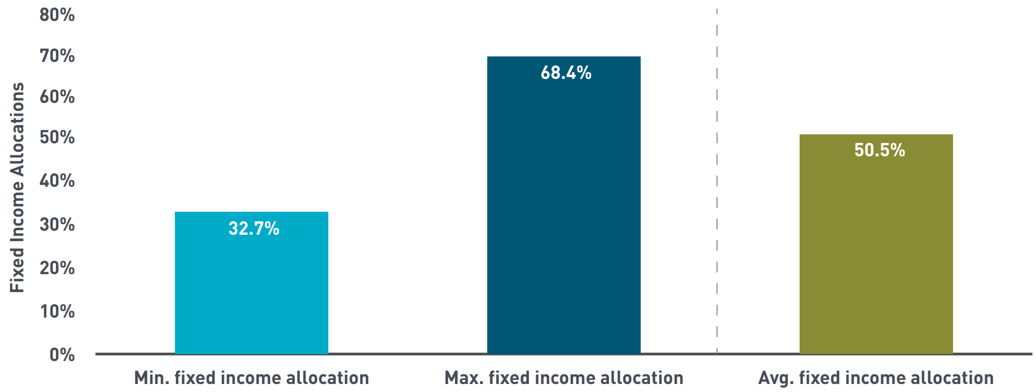
By emphasising capital appreciation through a relatively small fixed income allocation early in the glide path, we can also begin to address longevity risk, one of members' greatest concerns in retirement. Longevity risk seems to be a topic most talked about as retirement approaches, but we believe this risk should be an explicit objective across the retirement savings journey. Growing capital early on is as important as growing it and protecting it later in life.

How much fixed income exposure should members have in the later years of the consolidation phase and into the decumulation phase?

As discussed above, too much fixed income in the accumulation phase can inhibit a member's ability to benefit from compounding investment returns. In the consolidation and decumulation phases, too much equity can expose members to excess drawdown and sequencing risk. We prioritise lowering the potential for capital losses above capital appreciation in the later years, which requires greater exposure to fixed income.

The range between the minimum and maximum fixed income allocations is significantly wider in near-dated vintages when a member is close to retirement age, indicating less agreement among target date managers on how much to allocate to fixed income. While an analysis of the 2055 vintages shows a range of 12.2% between the minimum and maximum fixed income allocations, the 2025 vintages exhibit a range of 35.7%. The data illustrates the varying views of target date fund managers in determining an appropriate level of fixed income exposure.

Exhibit 4: Top-10 largest target date institutional pooled funds — total dedicated fixed income allocation in 2025 funds



Source: MFS Investment Management analysis based on the 10 largest Canadian target date institutional pooled funds by assets under management, as at 31 December 2023, provided by Morningstar Direct along with information available from fund fact sheets.Fixed income allocation includes dedicated fixed income and cash. Please see endnotes for a list of the fund series.[1]

Lowering the potential for capital losses should be prioritised above capital appreciation in the later years of the retirement savings journey.

We often hear the argument that members nearing and in retirement should continue to hold a significant allocation to return-seeking assets because they need a higher level of return for their savings to last through to the end of a long lifespan. It is also sometimes argued that members who have not saved enough must maintain a return-seeking posture, which implies that late career and retired members can invest their way out of suboptimal savings behaviour. We believe that longevity risk can be managed in a number of ways and that higher equity allocations are not necessarily the most effective way to accomplish this. Furthermore, members who have been unable to save enough are generally more financially fragile and have less ability to weather a market downturn, making a high-equity allocation late in the retirement savings journey potentially even less appropriate.

We believe that near-dated vintages should hold a relatively high allocation to fixed income, with the goal of lowering the potential for capital losses and managing sequence of returns risk. This can help mitigate the impact of significant market declines as members approach their retirement date, when there is less time to recover and a sharp drop in assets could have major implications for a member, such as a postponed retirement or a reduced standard of living in retirement. In other words, a larger fixed income allocation in near-dated vintages positions members more conservatively at this crucial stage of the retirement savings journey.

A larger fixed income allocation in near-dated vintages positions participants more conservatively at this crucial stage of the retirement savings journey.

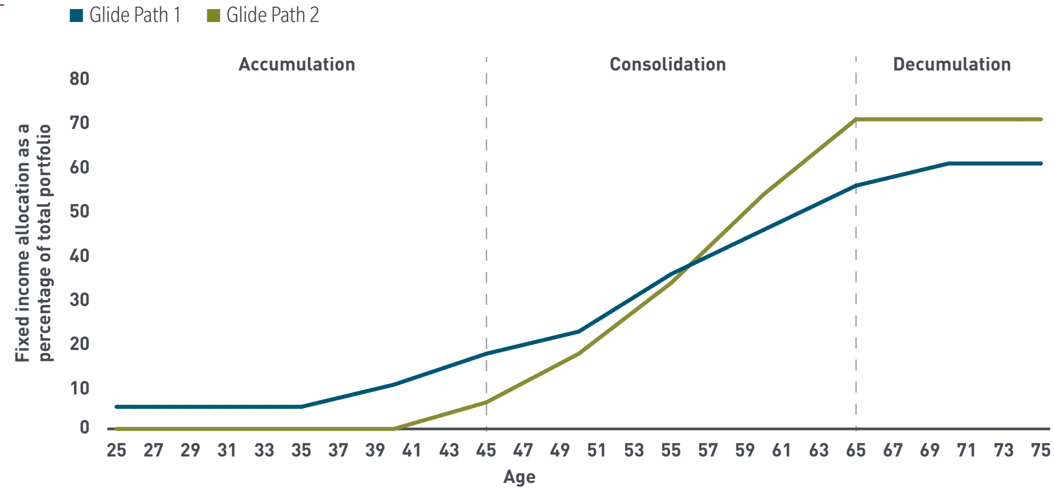
Theory to practice — The impact of fixed income allocations on member outcomes

To explore this question of how much fixed income exposure members approaching and in retirement should have, we analysed the impact of differing fixed income allocations on potential retirement outcomes for two hypothetical members under two hypothetical glide paths:

1) The industry-average glide path (Glide Path 1), which starts with a fixed income allocation of 5%, reaches a 50% fixed income allocation at age 65 and continues to increase through to the end of retirement.

2) An alternate glide path (Glide Path 2), which starts with a fixed income allocation of 0% reaches a 70% fixed income allocation at age 65 and is then held constant throughout retirement.

Exhibit 5: Industry-average glide path versus glide path with lower fixed income allocation in accumulation phase and higher fixed income in decumulation phase



Source: Glide Path 1 is informed by MFS Investment Management analysis of the top-10 largest Canadian target date institutional pooled funds by assets under management, as at 31 December 2023, as provided by Morningstar Direct along with information available from fund fact sheets and represents an approximate average of these glide paths. Glide Path 2 is similar though not identical to the MFS LifePlan Funds' glide path. See endnotes for the fund series used in this analysis.[1] 'At retirement' defined as age 65. See assumptions and methodologies for more details.

Glide Path 2 begins with a lower level of fixed income exposure and a correspondingly higher level of equity exposure throughout the accumulation phase and into the consolidation phase. This relationship reverses midway through the consolidation phase and into the decumulation phase, with Glide Path 1 landing at 50% fixed income at age 65 versus Glide Path 2, which has a 70% fixed income allocation at retirement.

All things being equal, Glide Path 2 should offer more opportunity for account growth in the accumulation phase while the industry average glide path should offer the opportunity for asset growth in the later phases of the retirement journey, when account balances are typically larger and the effects of compounding investment returns more dramatic. Again, all things being equal, Glide Path 1 should offer reduced volatility in the accumulation phase while Glide Path 2 should lower the potential for capital losses in the consolidation phase, when account balances would typically be larger and the impact of drawdowns more dramatic.

Using the glide paths illustrated in Exhibit 5, we simulated the range of potential outcomes for two hypothetical members — both age 35; with an initial account balance of $40,000; earning $60,000 per year and receiving annual increases of 2.5%; and saving 8% of their earnings per year to see how their account balance might look at age 65. In Exhibit 6 below, we show the results for each member.[2]

Exhibit 6: Comparing hypothetical retirement outcomes

	Member X ▪ Retirement at age 65 ▪ Invested in Glide Path 1	**Member Y** ▪ Retirement at age 65 ▪ Invested in Glide Path 2
Median projected account balance at 65	$779,000	$774,000
Value at Risk (VaR)	$62,000	$51,000
What does this mean?	Member X could lose 8.0% or more of account value in a 1st percentile market event, e.g., an extreme equity market correction	Member Y could lose 6.6% or more of account value in a 1st percentile market event, e.g., an extreme equity market correction.
Hypothetical annual reduction in retirement income under a 1st percentile market event	approximately $4,800	approximately $3,900

Participant X has a value at risk almost 21% greater than that of Participant Y.

See assumptions and methodologies for more details.

We can see that both members have a similar median account balance, however simply comparing account balances at age 65 does not tell the whole story.

Looking at the results in Exhibit 6 from a risk perspective, Member X has a value at risk approximately 21% greater than that of Member Y, which is a result of Member X having a larger equity allocation at retirement.[3] Comparing the VaR of the members reminds us that a glide path should not only seek to maximise expected returns but also account for managing the distribution of potential future returns. In this VaR scenario, Member X's annual retirement income is reduced by approximately $4,800 versus about $3,900 for Member Y. While both members experience a decline in their retirement income in this scenario, Member X would see a larger impact in terms of standard of living during retirement.

These hypothetical scenarios are intended to help plan sponsors explore how the plan's glide path aligns with the ultimate goals of the retirement program and how their unique member populations might view and understand risk. Behavioural finance studies show that the pain of a dollar lost often outweighs the benefit of a dollar gained. While the higher equity allocation at retirement of Glide Path 1 may be appealing, plan sponsors should ask whether the benefit of that upside is worth the pain of potential downside outcomes for their members and the resulting impact on their ability to retire on time. How sponsors answer this question has an important impact on the plan sponsor's ability to rotate the workforce, maintain employee productivity and morale.

What is value at risk (VaR) and why is it important?

Value at risk is calculated using account balance and asset allocation data for individual members at a given point in time. Using this information, an expected return and standard deviation is calculated for the member. The VaR represents the estimated loss at the first percentile of a normal distribution of outcomes, meaning that 1% of the time losses will be of this magnitude or greater.

VaR can be an instructive metric in discussing a member's potential experience along the retirement savings journey and is particularly relevant for members approaching retirement, who are vulnerable to sequence of returns risk.

We encourage sponsors to review the fixed income allocation within their target date fund and how it evolves across the glide path.

Conclusion

We believe that target date fund risk profiles should align with evolving member objectives along the retirement savings journey and that fixed income plays a critical role in managing risk. Glide path construction should focus on managing risk and the distribution of potential future returns, particularly for members approaching retirement, as opposed to solely focusing on maximising returns. This more balanced approach should increase the likelihood of members attaining their desired outcomes.

Target date fund managers allocate fixed income along a glide path in many ways. We highlight that for plan sponsors and demonstrate how this can result in a wide variety of potential outcomes for members. We encourage plan sponsors to take another look — this time through a fixed income lens — at the plan's target date glide path to ensure it aligns with the ultimate objectives of the retirement program.

Assumptions and methodologies

Returns, risk and correlations used in Exhibit 6

	Global Equities	Canadian Equities	Canadian Fixed Income	Global Fixed Income	Cash/Short-Term Bonds
Geometric Return (%)	6.8%	6.6%	4.5%	4.8%	3.5%
Risk (%)	11.4%	12.8%	4.7%	3.5%	0.3%
Correlation					
Global Equities	1.00				
Canadian Equities	0.74	1.00			
Canadian Fixed Income	0.36	0.22	1.00		
Global Fixed Income	0.32	0.25	0.86	1.00	
Cash/Short-Term Bonds	-0.01	-0.11	0.12	0.08	1.00

Source: MFS *Long Term Capital Market Expectations*, as at January 2024. Forward-looking expectations are annualised geometric total return and risk for a 30-year time horizon. Risk is defined as annualised monthly standard deviation. Equity forecasts are unhedged in CAD. Fixed Income forecasts are hedged in CAD. References to future expected returns and performance are not promises or estimates of the actual performance realised by an investor, and should not be relied upon. The forecasts are for illustrative purposes only and are not to be relied upon as advice or interpreted as a recommendation, or be guarantees of performance. The forecasts are based on subjective estimates and assumptions that have yet to take place or may occur. The projections have limitations because they are not based on actual transactions but instead on the models and data compiled by MFS. The results do not represent or indicate actual results that may be achieved in the future. Individual investor performance may vary significantly.

Glide path assumptions used in Exhibit 5 and Exhibit 6

Glide Path 1 with 50% fixed income allocation at retirement

Age	Global Equities	Canadian Equities	Canadian Fixed-Income	Global Fixed Income	Cash/Short-term Bond
35	70%	25%	2%	2%	1%
45	68%	22%	6%	3%	1%
55	53%	17%	18%	8%	4%
65	38%	12%	32%	5%	13%

Glide Path 2 with 70% fixed income allocation at retirement

Age	US Large- Cap Equities	Non-US Equities	US Aggregate Bonds	Global Aggregate Bonds	Global High-Yield Bonds
35	80%	20%	0%	0%	0%
45	74%	20%	5%	1%	0%
55	53%	13%	26%	8%	0%
65	26%	8%	37%	8%	21%

Glide Path 1 is informed by an MFS Investment Management analysis of the top 10 largest Canadian target date institutional pooled series by assets under management, as at 31 December 2023, provided by Morningstar Direct along with information available from fund fact sheets, and represents an approximate average of these glide paths. Glide Path 2 is similar though not identical to the MFS LifePlan Funds' glide path. 'At retirement' is defined as age 65.

Member assumptions used in Exhibit 6

- The member has a starting balance of $40,000 at age 35.
- The member earns $60,000 per year and receives a 2.5% raise annually; savings are 8% of earnings per year (a combination of member savings and employer match).

Investment returns were modeled using a Monte Carlo simulation. The asset returns, risks (standard deviations) and correlations shown above were used to generate a normal distribution of outcomes for each asset class. Two thousand potential outcomes were generated to calculate the various percentiles of account balances.

Endnotes

[1] The 10 largest target date institutional pooled series by assets under management, as at 31 December 2023, provided by Morningstar Direct include CI LifeCycle, SunLife Granite, BlackRock LifePath, Manulife Retirement Date, Fidelity ClearPath (including Index Plus), London Life (Continuum, Cadence, Harmonized), MFS LifePlan, TD Target Date Plus, J.P. Morgan Sustainable Target Date, Desjardins Fidelity Clear Path.

[2] Estimated account balances at age 65 for Glide Path 1 versus Glide Path 2:

Percentile	Glide Path 1	Glide Path 2	Difference ($) (Glide Path 1 – Glide Path 2)	Difference (%)
5th percentile	$411,000	$408,000	$3,000	0.7%
25th percentile	$595,000	$592,000	$3,000	0.5%
50th percentile	$779,000	$774,000	$5,000	0.6%
75th percentile	$1,044,000	$1,039,000	$5,000	0.5%
95th percentile	$1,651,000	$1,658,000	$(7,000)	(0.4%)

[3] Value at risk is based on the account balance and asset allocation of each member at his or her current age. An expected return and standard deviation is calculated for each member based on his or her asset allocation, and the value at risk is the estimated return at the 1st percentile of a normal distribution of outcomes.