

Weathering market volatility with target-date funds



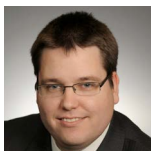
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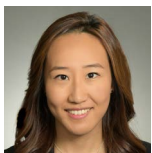
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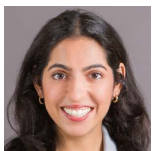
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“As long-term investors, we have navigated volatile markets numerous times and seen firsthand how dire market outlooks can rebound quickly.”

Key takeaways

- Although bear markets are stressful events, historical data shows that markets often rebound quicker than expected.
- Maintaining contributions to a retirement savings plan through market downturns leads to the potential for higher growth over the long term.
- Historically, target-date fund performance has been marginally higher for portfolios that experienced deeper drawdowns.
- Glide paths that derisk gradually may be better at helping plan members if downturns occur nearer to retirement.
- Plan members who retire at the start of a market downturn often have time to recover losses.¹
- Time horizons are extending as members delay withdrawals.

¹ Assuming members can delay withdrawals from their retirement accounts for five years postretirement, from age 65 to 70.

In this paper, we present various scenarios and analyses to show that market downturns may not need to be fearful events. Target-date funds can help plan members to remain focused on long-term outcomes while avoiding some of the mistakes that lead to potentially worse savings outcomes. We show that members who maintain consistent contributions during volatile periods may benefit in the long run and that the design of a glide path has a role to play in helping members weather market downturns.

Markets often rebound quicker than anticipated

The market correction in 2022 was a painful reminder that downturns can be both sudden and deep. However, historically, market sell-offs have been followed by rebounds of similar—if not greater—magnitude, and markets can often rally even as uncertainty continues.

An analysis of bear markets over the past 60 years shows that all but three downturns recovered within two years; in fact, we would need to go back to 1973 to identify a bear market that took longer than five years to recover. This highlights that patience and perspective are often rewarded in investing.

Even so, behavioural influences are strong during market downturns. Negative investor sentiment and news flow, coupled with short-term losses, often cause plan members to want to cut market risk exposure, and members may reactively want to pause contributions to retirement savings plans under the belief that it will avoid losses. We'll show that pausing contributions during a downturn doesn't necessarily avoid losses and, in fact, continuing contributions may help add growth over the long term.

All bear markets since the 1960s have recovered within five years or less

Peak	Trough	Recovery	Days (trough to recovery)	Months	Years
2/19/20	3/23/20	8/18/20	148	4.9	0.41
4/29/11	10/3/11	2/24/12	144	4.8	0.40
10/9/07	3/9/09	3/28/13	1,480	49.3	4.11
3/24/00	10/9/02	5/30/07	1,694	56.5	4.71
8/25/87	12/4/87	7/26/89	600	20.0	1.67
11/28/80	8/12/82	11/3/82	83	2.8	0.23
9/21/76	3/6/78	8/15/79	527	17.6	1.46
1/11/73	10/3/74	7/17/80	2,114	70.5	5.87
11/29/68	5/26/70	3/6/72	650	21.7	1.81
2/9/66	10/7/66	5/4/67	209	7.0	0.58
12/12/61	6/26/62	9/3/63	434	14.5	1.21

Source: Bloomberg, Manulife Investment Management, March 2023. Business cycles from January 1, 1960, to January 1, 2021, using the S&P 500 Index. Bear market is defined as a maximum drawdown of 20%. A peak refers to the highest point reached by the index before experiencing a decline, while a trough is the lowest point in the index before the beginning of a rise. The recovery period is identified as the point post-trough, where the index level equals or surpasses the prior peak. It is not possible to invest directly in an index. Past performance does not guarantee future results.

Historically, contributing to a portfolio—even during a downturn—has resulted in a better outcome

Consistently contributing to a portfolio, regardless of market conditions, can help grow returns. Investing the same amount of money at regular intervals means that, in a market downturn, plan members purchase more assets at lower prices and are well positioned to benefit from growth on these additional assets in a recovery. Moreover, regular contributions can help to reduce the risks associated with investing a lump sum during a market peak, which would lose value—relative to its purchase price—during a market decline.

We demonstrate this concept by showing the difference between two scenarios: In Scenario 1, a plan member consistently contributes \$50 at the end of each month.

In Scenario 2, a plan member stops contributions in a market downturn—defined as a maximum drawdown of 20%—and resumes regular contributions when markets enter recovery—defined as the point post-trough, where the index level equals or surpasses the prior peak—at which time a lump sum is added to make up for missed contributions. The difference between the two scenarios shows that Scenario 1 provides a better outcome—almost 10% higher total returns—compared with Scenario 2. Comparing these scenarios shows that maintaining regular contributions during market downturns may help rather than hurt returns over the long term.

Regular contributions—even during downturns—earn nearly 10% more growth over time (\$)



Source: Bloomberg, Manulife Investment Management, March 2023. For illustrative purposes only. Not reflective of any fund. Market returns are represented by the S&P 500 Index. It is not possible to invest directly in an index. Assumptions are based on a hypothetical investor in the S&P 500 Index, contributing \$50 at the end of every month (Scenario 1) unless the drawdown is less than or equal to 20%, in which case the investor does not contribute (Scenario 2). Regular contributions are resumed when the market enters a recovery phase, at which time an investor makes a lump-sum contribution equal to the amount of missed regular contributions. Past performance does not guarantee future results.

Measuring the effect of drawdowns within target-date funds

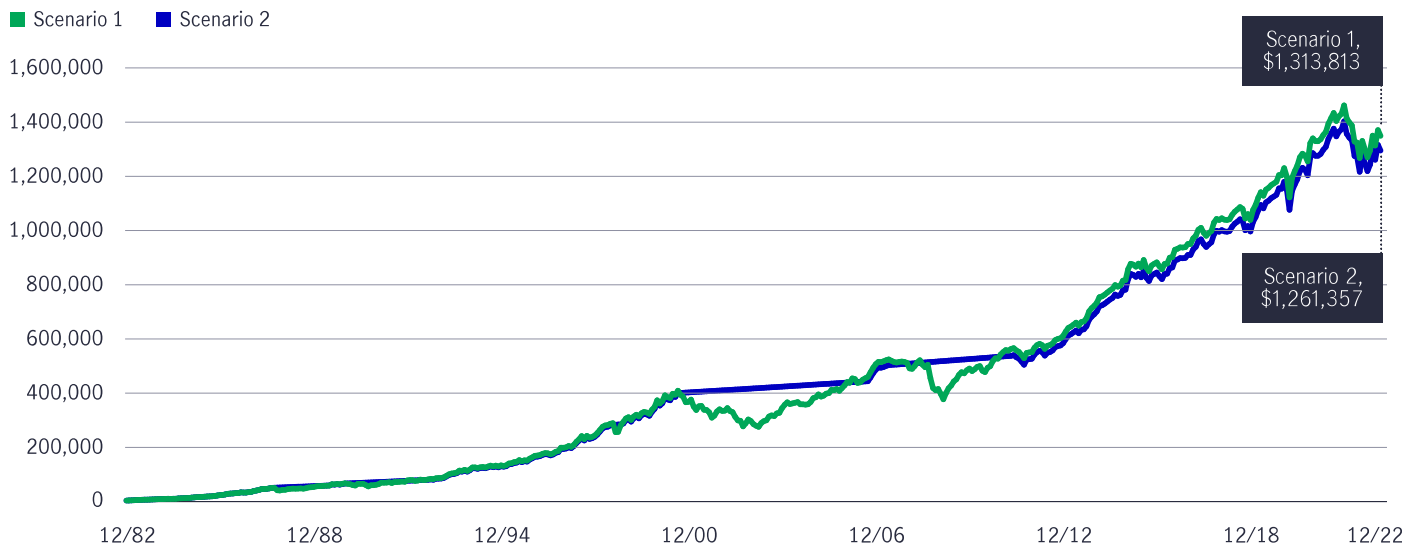
Members may have a better investment outcome by continuing contributions during market downturns, especially during the accumulation phase preretirement. We now compare the outcome of investing in target-date funds during downturns of varying magnitudes.

In Scenario 1, we make no adjustments to the time series of historical returns (i.e. drawdowns of all magnitudes are measured); in Scenario 2, we eliminate market downturns of 20% or more. In other words, we specifically eliminate deeper drawdown periods to measure the effect on a portfolio. The glide path and all contribution assumptions are the same in both scenarios.

The result shows a marginally higher balance at retirement in Scenario 1 versus Scenario 2. This means that members who continued to invest through market downturns, even those with a magnitude greater than 20%, benefited with higher returns over time. While the difference is marginal, the more pertinent point is that deeper market drawdowns showed no adverse effect on returns; in fact, historical market data often shows greater risk to a portfolio trying to time a market than remaining invested.

Investment returns are marginally higher for portfolios that experienced deeper market downturns (\$)

Growth of contributions, target-date funds, Canadian Investment Funds Standards Committee (CIFSC) categories
December 1982–December 2022



Source: Bloomberg, Morningstar, Manulife Investment Management, March 2023. For illustrative purposes only. Not reflective of any fund. The representative glide path is an asset-weighted average of glide paths from the target-date fund suites in the target-date Canadian Investment Funds Standards Committee (CIFSC) categories. Benchmarks were employed as a proxy for the asset classes, with Canadian equity represented by the S&P/TSX Composite Index, foreign equity is represented by the MSCI World Index, Canadian fixed income is represented by the FTSE Canada Universe Index, and U.S. fixed income is represented by the Bloomberg U.S. Aggregate Bond Index. It is not possible to invest directly in an index. Past performance does not guarantee future results. Assumptions include end-of-month contributions, monthly rebalancing, no rebalancing fees, a starting age of 25, an investment time horizon that spans from January 1, 1982, to December 21, 2022, representing a retirement age of 65, annual income growth starting at 4% at age 25, reducing to 1% at age 64, and a contribution rate of 5% of salary plus a 3.5% company match escalating each year to a 10% contribution rate plus a 3.5% company match.

The effect of downturns at different stages of a glide path

Market downturns can have a varying effect on portfolios depending on where a member is in a glide path. Members in the accumulation phase of saving for retirement have a longer time horizon ahead and are better placed to tolerate volatility as a result. For these members, drawdowns can provide an opportunity to acquire assets at lower prices, thereby enabling them to accumulate more growth over time.

However, a market downturn that begins while a member is on the cusp of, or already in, retirement is naturally a greater concern and risk to retirement wealth. Preretirement members already in the derisking phase of a glide path face a similar challenge. Target-date portfolios can help manage these risks through the design of the glide path. This is where we believe a *through*² retirement glide path can offer meaningful benefits.

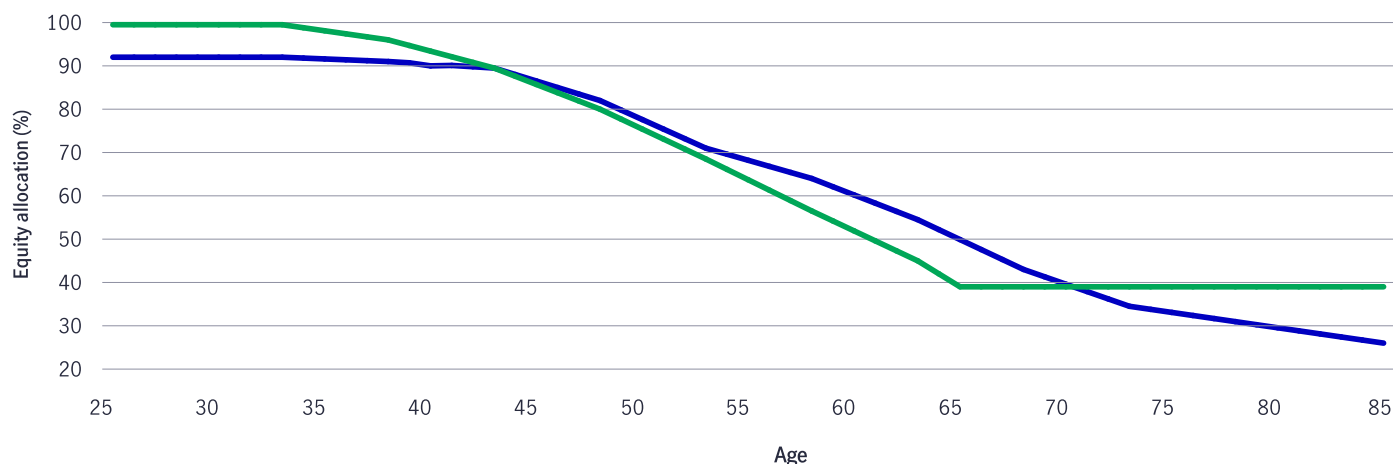
The benefits of a *through* retirement approach are threefold: It typically derisks at a slower pace leading up to retirement, and, although this may sound counterintuitive, can potentially weather downturns better than glide paths that follow a *to* retirement approach that derisks at a faster pace. Secondly,

a *through* glide path has higher allocations to growth assets versus a *to* glide path, specifically for the 25 years prior to retirement. This coincides with the period in which account balances and income tend to be at their peak,³ allowing for potentially higher accumulation within a portfolio. Finally, a *through* glide path has higher allocations to growth assets in early retirement versus a *to* glide path. We believe this is acceptable risk, however, as it will help support lower shortfall risk,⁴ considering longer withdrawal horizons—covered later—while observing that markets rebound quicker than expected.

In contrast, a *to* retirement glide path reaches its lowest allocation to growth assets at retirement and will maintain that allocation throughout retirement. This type of target-date fund will typically derisk at a faster pace, selling growth assets quicker. In a falling market, this will crystallize losses, potentially resulting in lower ending balances immediately prior to retirement.

² A *through* glide path is designed to gradually adjust the asset allocation over time, with a focus on capital preservation and income generation in retirement. In contrast, a *to* glide path is designed to reach a specific asset allocation at the target date and maintain that allocation throughout retirement. ³ Statistics Canada. Table 98-10-0064-01 Total income groups by age and gender: Canada, provinces and territories, census metropolitan areas and census agglomerations with parts. Release date: 2022-07-13. ⁴ Shortfall risk is the risk of running out of money in retirement.

Glide paths that derisk gradually can help to protect portfolios in downturns



Source: Morningstar, Manulife Investment Management, March 2023. Target-date fund suites in the Canadian Investment Funds Standards Committee (CIFSC) categories were classified as *to* or *through*. The *through* glide path is an asset-weighted average of glide paths from CI Investments, Fidelity, Franklin Templeton, Industrial Alliance, and Manulife Investment Management. The *to* glide path is an asset-weighted average of glide paths from Assumption Life, BlackRock, Canada Life, Evermore Capital, MFS, Sun Life, and TD. The asset mix and total fund market values were obtained from Morningstar to compute the representative glide path using an asset-weighted average of the target-date funds. Manual updates were made to ensure the glide paths accurately reflect industry practice, such as updating the *to* glide path to ensure asset mix consistency postretirement.

Plan members retiring into a downturn may have time to recover losses

To better understand how long it may take a target-date fund to recover in a downturn, we look at an example of a member retiring as a market downturn gets under way. We use data from the 2007–2009 global financial crisis—one of the most severe downturns in recent decades, which dragged global economies and most asset classes down simultaneously. The following parameters apply:

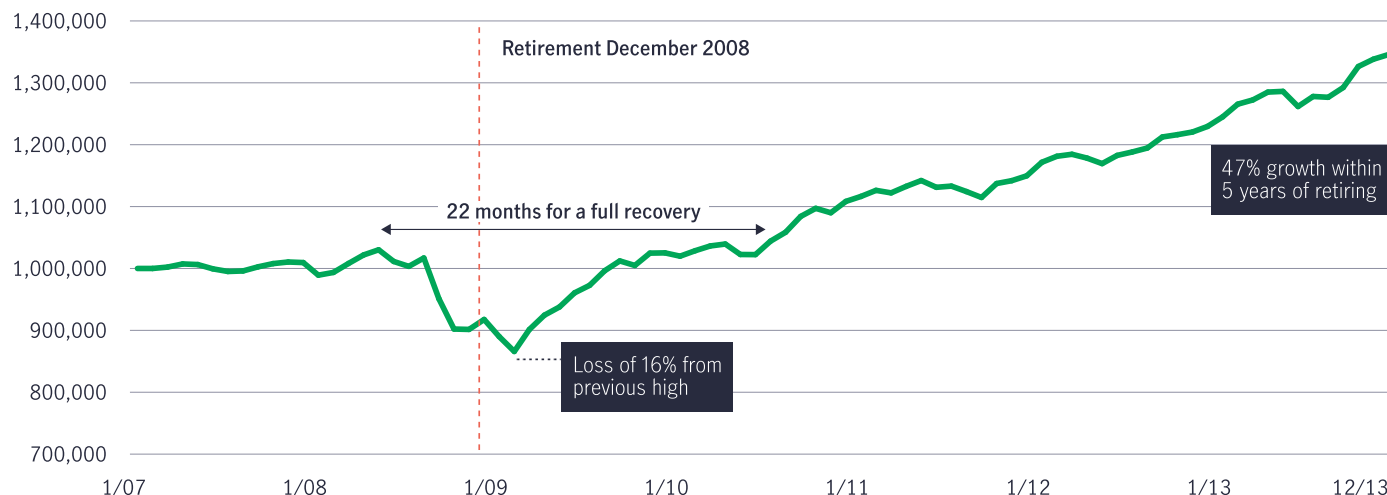
- 1 The member is invested in a target-date fund with a representative glide path, which is an asset-weighted average of glide paths from the target-date fund suites in the target-date Canadian Investment Funds Standards Committee (CIFSC) categories.
- 2 By January 2007, at age 64, the member has accumulated \$1 million in retirement savings and contributes \$500 monthly until retirement.

- 3 Upon retiring in December 2008 at age 65, the member doesn't draw from their retirement account for five years, making a first withdrawal in December 2013, at age 70.

This aligns with common tax strategies used for Canadian retirees aiming to minimize up-front tax and involves delaying withdrawals from taxable retirement accounts such as Registered Retirement Income Funds (RRIFs) and Registered Retirement Savings Plans (RRSPs) to the extent possible, as income from such accounts is subject to taxation. Members are required to convert a RRSP to a RRIF before the end of the year that they turn 71 years. Mandatory minimum withdrawal rules take effect within one year of establishing a RRIF. Withdrawals from other capital accumulation plans such as Tax-Free Savings Accounts (TFSAs) aren't taxed, making them a more beneficial account to withdraw from than retirement accounts when between the ages of 65 and 71 years.

Retiring into a downturn

\$1M invested in a diversified portfolio of asset classes (January 2007–December 2013)



Source: Bloomberg, Morningstar, Manulife Investment Management, March 2023. For illustrative purposes only. Not reflective of any fund. The representative glide path is an asset-weighted average of glide paths from the target-date fund suites in the target-date CIFSC categories. Benchmarks were employed as a proxy for the asset classes, with Canadian equity represented by the S&P/TSX Composite Index, foreign equity represented by the MSCI World Index, Canadian fixed income represented by the FTSE Canada Universe Index, and U.S. fixed income represented by the Bloomberg U.S. Aggregate Bond Index. It is important to note that this analysis is based on several key assumptions, including end-of-month contributions, monthly rebalancing and no rebalancing fees. It is not possible to invest directly in an index. Past performance does not guarantee future results.

With \$1 million in accumulated retirement savings and regular contributions of \$500 per month until retirement, the member’s portfolio reaches a maximum value of \$1.03 million prior to retirement in May 2008 before the market downturn begins. The portfolio reaches a postretirement low in February 2009, by which time it has lost 16.0% in value from its previous high. Retirement savings are now valued at \$865,857. A loss of this magnitude would be alarming for any investor. To put things into perspective, the S&P 500 Index (CAD) experienced a decline of 33.4%, while the S&P/TSX Composite Index decreased by 40.1% over the same period.

Plan members in this situation may be tempted to sell holdings, possibly opting for placing capital in cash rather than sustain more losses. This could be a significant mistake as selling financial assets into a downturn crystallizes losses, severely limiting a portfolio’s ability to fully participate in a recovery.

However, we recognize that behavioural biases driven by broad market sentiment at this point in a downturn are often so strong that their effects become pervasive, causing many investors to sell at the worst time.

Hindsight in these instances is a useful reminder that every downturn in history has been followed by a recovery, oftentimes sooner than markets anticipate. We believe this also underpins the merits of being invested in a strategic, well-diversified, and actively managed portfolio that follows a deliberate and robust glide path design.

In this example, the member’s portfolio recovers and reaches its previous maximum value of \$1.03 million within 22 months. Within five years of retirement, the portfolio hasn’t only recouped all losses but has also grown by 47%, to over \$1.3 million.

Retirement trends indicate lengthening investment time horizons

Plan members who delay withdrawals during market downturns can potentially benefit from subsequent recoveries, leading to improved portfolio performance and greater financial stability. According to data from Statistics Canada, there's been a notable shift in retirement patterns among Canadians, with an increasing number of individuals choosing to work longer. Over the past two decades, the average age of retirement has shown a steady increase from 61 years in 2000 to 65 years in 2022.⁵ One reason for this trend may be the removal of the mandatory retirement age in Canada in 2009, which gives workers greater flexibility in deciding when to retire. Additionally, incentives provided through government programs such as Old Age Security and the Canada Pension Plan/Quebec Pension Plan have encouraged individuals to delay retirement and continue working by providing additional benefits for those who work longer. These incentives include increased pension benefits and the ability to continue contributing to retirement savings accounts.

This trend has created a longer investment horizon for retirees, allowing them to potentially weather market downturns by delaying withdrawals from their portfolios and remaining invested during that period. On average, life expectancy at age 65 has increased from 18 years in 2000 to 20 years in 2020,⁶ meaning that people are living longer. Note this is just an average, implying that almost 50% of members will outlive that age. This emphasizes the need for retirees to plan for a longer retirement and highlights the importance of long-term planning when managing retirement savings.

Weathering volatility: taking the long-term view

Market downturns are stressful periods, but it shouldn't derail members' retirement savings plans. As life expectancies increase, members may be facing an equal—or more—number of years in retirement than they did working and saving. This can have major consequences for plan members, who may need to ensure even a modest standard of living throughout retirement. A member's choice of glide path can have a meaningful impact on investment outcomes. Target-date funds that derisk later in the glide path, typical of *through* glide paths, maintain higher exposures to growth assets, generating higher income for longer. Another consideration is the slope of the glide path. Target-date funds that derisk quickly, typical of *to* glide paths, run the risk of crystallizing higher losses if derisking occurs during an equity bear market compared to a *through* glide path that derisks more gradually. By choosing a target-date fund for retirement savings, members are less likely to allow short-term negative sentiment to influence their investment behaviour and are more likely to achieve better long-term financial outcomes as a result.

⁵ Statistics Canada. Table 14-10-0060-01, Retirement age by class of worker, annual ⁶ Statistics Canada. Table 13-10-0114-01, Life expectancy and other elements of the complete life table, three-year estimates, Canada, all provinces except Prince Edward Island

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