Bridging the Gap:

Delivering a DB-Like Experience for DC Plan Members with Target Date Solutions and Alternatives

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Over the last two decades, defined benefit (DB) pension plans have been replaced by defined contribution (DC) plans in much of corporate Canada, as employers have sought to manage their risks. By shifting the liability for ensuring an adequate income in retirement onto employees, the DB to DC switch allows employers to focus on their core business and ease related actuarial and administrative burdens. DC plans also offer certain advantages for employees – chiefly, the fact that DC assets are portable and can be transferred more easily in kind if employees move to another organization.

Nonetheless, studies in Canada and globally show that DB members consistently enjoy higher and more stable incomes in retirement. However, a well-diversified target date fund solution that includes exposure to private market assets can potentially help DC plan sponsors deliver more secure and stable incomes to their employees in retirement.

Mind the Gaps – Where DC Plans Fall Short

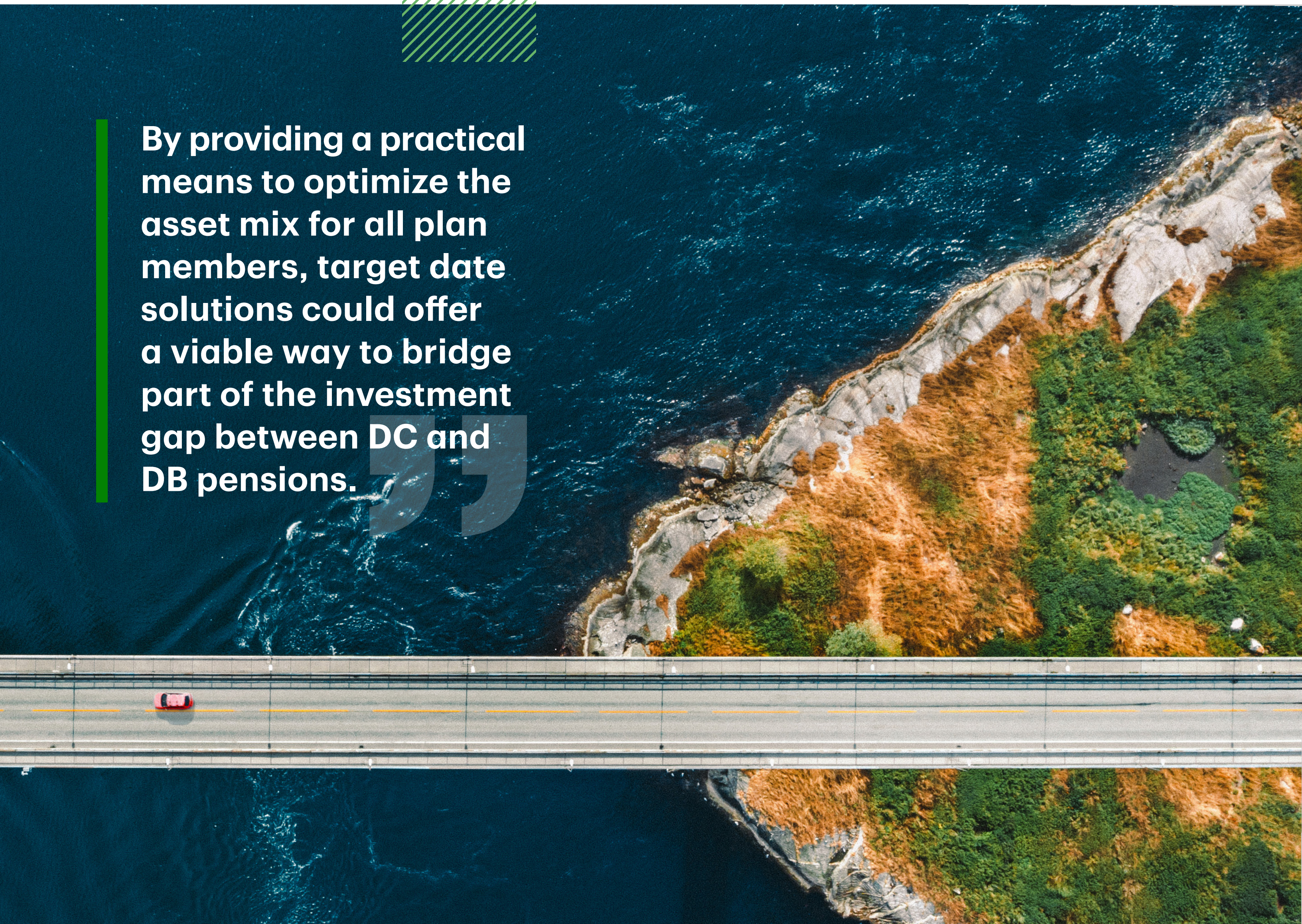
The poorer outcomes that DC members have experienced are not attributable to any one characteristic of DC pensions, but rather to a constellation of factors. Three key areas where DC plans are known to fall short are **investment outcomes**, **investor behaviour** and **longevity risk**.

Investment Outcomes: The size and scale of DB plans means most are professionally managed, with actuaries and investment managers working together to analyze the plan's liabilities relative to its funding status and develop an optimal asset mix. The size of many DB plans also means this mix can include private asset classes, significantly enhancing risk-adjusted returns. In contrast, DC assets are more fragmented: each plan member makes their own allocation decisions and, without pooled assets and liabilities, they have limited abilities to invest in alternative asset classes.

Investor Behaviour: Many DC plan members lack the time and expertise to invest their pension assets appropriately. Allocating insufficient funds and taking too little market risk are two common mistakes that can negatively impact outcomes.

Longevity Risk: The lifetime income provided by DB pensions reduces longevity risk for individuals (i.e., the risk that plan members will outlive their savings). DC plan members run the risk of outliving their pension assets if they haven't saved adequately, haven't allocated wisely, or if the vicissitudes of the market create unfavourable outcomes.

In our view, the first gap – lack of access to optimized and sophisticated investment management capabilities – is the lowest hanging fruit, as it has the largest impact on outcomes. Addressing it can also help mitigate the gaps associated with investor behaviour and longevity risk. What is more, this can be achieved without a wholesale rethinking of DC plan structure.



Bridging the Investment Capabilities Gap Between DB and DC Pensions

The main challenge to optimizing a DC plan's asset mix is that the plan's assets are fragmented across employees, who are required to make their own investment decisions. Individual plan members must select an optimal, or at least appropriate, asset mix, or put their retirement plans at risk. Over the last several decades, DC plan sponsors have responded to this challenge by introducing multi-asset class solutions that employees can invest in collectively, such as target date, target risk and static balanced solutions.

> **The largest DB pensions in Canada invest roughly 20% of their portfolio in real assets, which include real estate, infrastructure and private commercial mortgages.**

Industry research shows that when DC plan sponsors make target date or similar funds the default or opt-out selection, outcomes for plan members improve dramatically. When DC plan members lack access to ongoing, tailored advice on how to structure their retirement portfolios, target date solutions could potentially provide the next best option. They resemble the DB experience closely by aligning each DC plan member's asset mix to their expected cash flow needs in retirement.

A target date solution is a series of balanced funds, whose vintages span a period of 35-40 years. Longer-dated vintages (for employees just beginning their careers) have a higher allocation to riskier assets, like equities, while near-dated vintages (for employees nearing retirement) have progressively lowered risk in favour of less volatile investments, like bonds. Each plan member is invested in the vintage of fund that aligns with their retirement horizon. The asset mix changes over the course of their career, optimizing risk/return characteristics in relation to their expected retirement horizon.

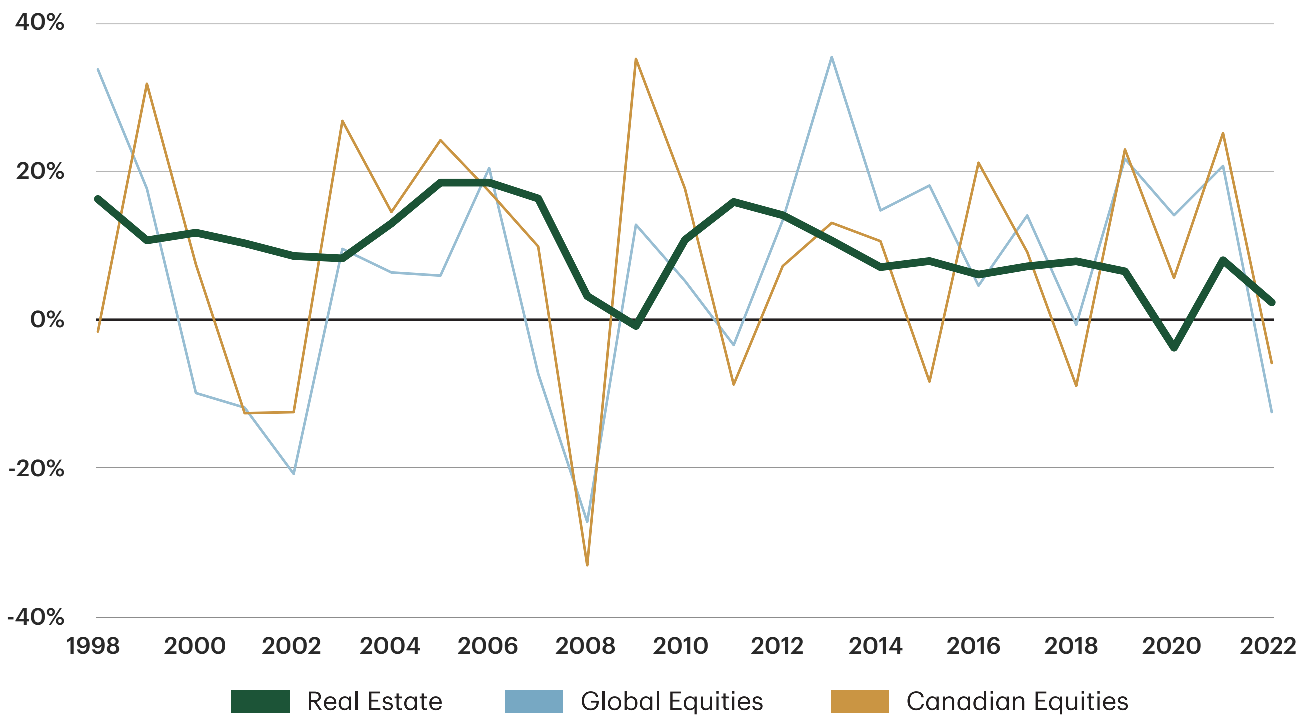
By providing a practical means to optimize the asset mix for all plan members, target date solutions could offer a viable way to bridge part of the investment gap between DC and DB pensions. However, this is not the only advantage DB plans have when it comes to investment management. The scale, sophistication and pooled nature of DB pensions allows them to invest in a wider range of assets than can traditionally be implemented for DC plan members, who must invest individually.

A DB-like solution would also incorporate exposure to private market assets and the additional return – and risk-enhancing properties they provide. The largest DB pensions in Canada invest roughly 20% of their portfolio in real assets, which include real estate, infrastructure and private commercial mortgages.[1] These assets offer:

- Steady income via rents, mortgage payments or contractual/use-based income from infrastructure holdings (i.e., toll roads and power transmission grids). This steady income can reduce the volatility of investment returns, as illustrated in **Figure 1**.
- Capital appreciation, often spurred by redevelopment programs that increase the value of properties over time.
- A hedge against inflation, since many real assets are tied to the commodities and services which drive price increases (e.g., higher energy prices and transportation costs) and/or are supported by leases which include inflation escalation clauses.
- A liquidity premium, reflecting the fact that private assets are less easily bought and sold than publicly traded stocks and bonds.
- Perhaps most important, a valuable diversifier to public market assets. For example, as illustrated in **Figure 2**, there is a significantly lower correlation between private real estate and global equities than between public, listed real estate (REITs) and global equities (0.05 vs. 0.61 respectively).

[1] Source: https://www.pm-research.com/content/iijpormgmt/early/2021/03/01/jpm20211226

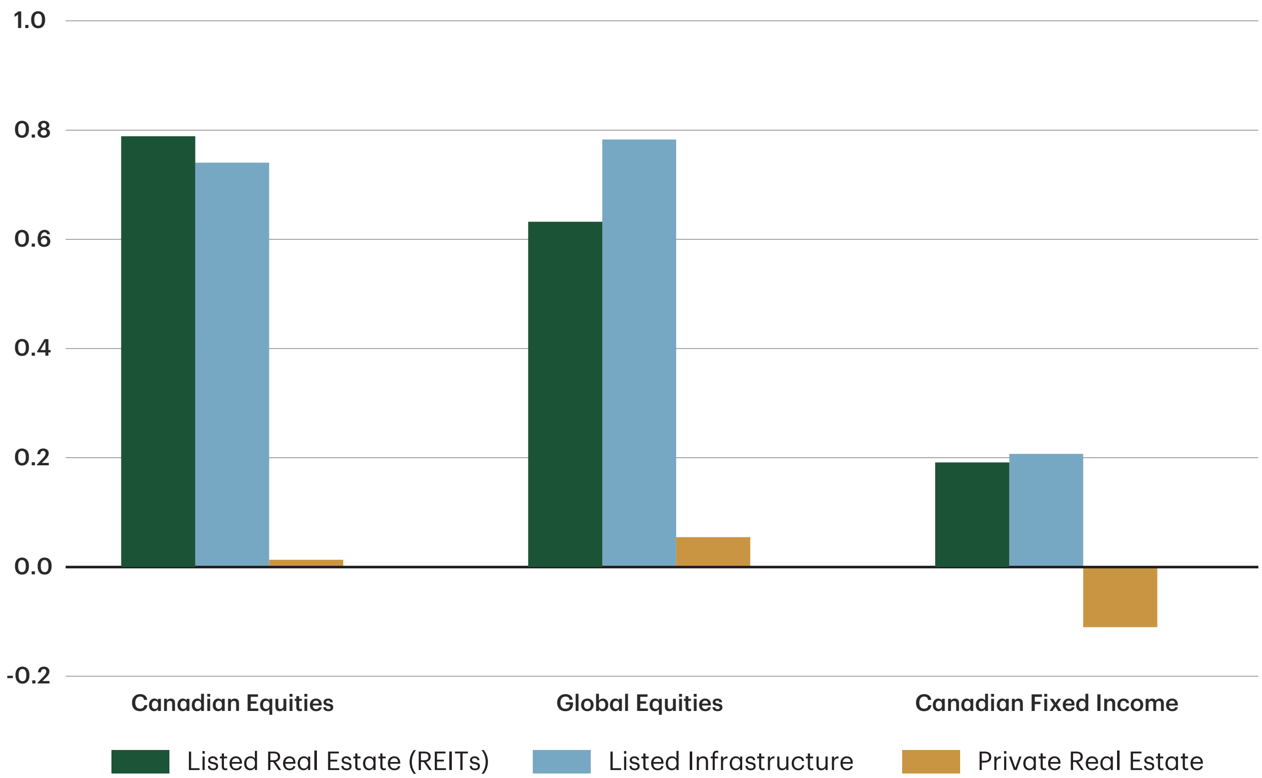
Figure 1: Steady Income Smooths Real Asset Returns



Source: TDAM, Bloomberg Finance L.P. As of: Dec 31, 2022.

Figure 2: Correlation Between Public Market Instruments: Listed Real Assets vs Private Real Estate

Private market exposure provides substantially greater portfolio diversification as it has a low or negative correlation to public markets



Source: S&P/TSX Composite Index, MSCI World Index C$, FTSE Canada Universe Bond Index, S&P/TSX Capped REITs Index, MSCI/REALPAC Canada Annual Property Index.

All assets, S&P Global Infrastructure Index C$ and 15-year quarterly returns ending Sep 30, 2022.

The advantage of investing in private alternatives is of more than academic interest. The lower standard deviation and higher returns that private market assets provide can potentially drive a substantial improvement in retirement outcomes. This is illustrated in **Figure 3**, which compares the outcomes for two DC plan members who begin drawing on their assets at age 65 – one invested in a target date fund consisting solely of bonds and equities, and the other in a target date solution that also includes alternatives.

The exhibit below is based on 10,000 Monte Carlo simulations, from which we have extracted the median and worst case (5th percentile) scenarios. In order to recognize that the environment ahead may not look like what we have experienced in the last several decades, these simulations have been run for two different market regimes. We see the results below for a low interest rate regime, which we have experienced in recent history, as well as for a less favourable higher interest rate regime.

Growth

Figure 3: Impact of Private Alternatives on Retirement Incomes

Private alternatives improve outcomes for retirees across a range of scenarios and market regimes – 10,000 simulations run per environment

Capital Longevity of Funds in Retirement

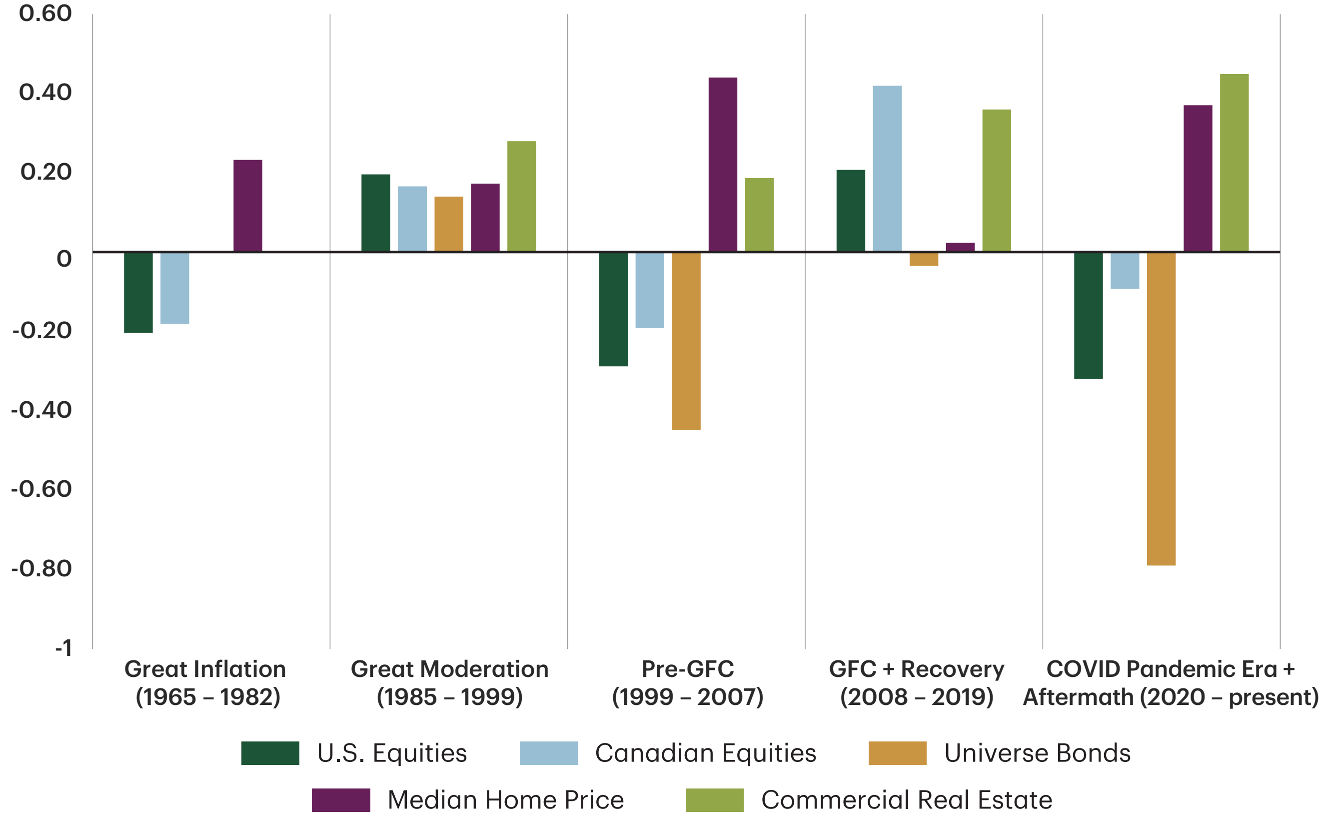
	Lower-Rate Environment		High-Rate Environment	
	Projected Plan Member Ages for Traditional Target Date	Projected Plan Member Ages for Target Date WITH Private Real Assets	Projected Plan Member Ages for Traditional Target Date	Projected Plan Member Ages for Target Date WITH Private Real Assets
Worst Case Scenario (5th percentile)	77	80	74	75
Median Scenario (50th Percentile)	88	98	84	86

The steady returns and powerful diversification benefits of alternative assets could drive an improvement in outcomes during the accumulation phase of the plan member's journey as well as during the retirement phase, when cash outflows in the form of retirement income make the portfolio more vulnerable to market volatility. Within a low interest rate regime, in the median case, the traditional bond/equity portfolio provides the plan member with income until age 88, but the addition of alternatives extends that income stream until the member reaches age 98.

Even when modelled in an environment with higher interest rates and higher assumed retirement expenditures, the inclusion of alternatives drives a material improvement in outcomes. What is more, the inflation hedging benefits of real assets versus bonds would be expected to provide additional benefits in an environment of high rates and volatile inflation, though this effect cannot be captured by the historical correlation data underlying these results.

Figure 4: Real Estate's Correlation to Inflation

Real Estate has had a consistent positive correlation to inflation across multiple regimes, demonstrating the value of real estate as a hedge to inflation



Source: TDAM. As of Feb 28, 2023.

The TD Greystone Target Date Plus Funds: Bringing Alternatives to the DC World

Despite the demonstrable benefits that alternatives have brought Canada's largest DB plans, adoption has been slow in the DC space – in part because of the complexities of managing less liquid assets in plans that often must provide daily liquidity to their members. As a result, many DC plan sponsors have bypassed private market assets altogether – or they have turned to listed alternatives, such as REITs, which do not offer the same diversification benefits or liquidity premiums.

The TD Greystone Target Date Plus Funds are an innovative solution which aims to help DC plan sponsors overcome these barriers. In a novel approach, we access private market assets through open-ended pooled funds that are expressly designed to be a part of a multi-asset-class solution. By incorporating alternatives in this way, rather than as a standalone investment option, the TD Greystone target date solution gives DC plan members access to all the risk/return-enhancing properties of true private market assets, as well as the benefits of liquidity pooling.

Optimizing and Diversifying The Asset Mix: The TD GIS Approach

The TD Greystone Target Date Plus Funds are also distinguished by a sophisticated approach to managing the asset mix across the constituent funds.

The solution includes nine balanced funds, whose vintages span the period from 2025 to 2060 in five-year increments. The funds consist of bonds, equities and alternatives, with the asset mix adjusted over time – shifting from higher-risk, equity-heavy funds for younger employees to lower-risk, bond-heavy funds for plan members approaching retirement. This asset mix is referred to as a glide path.

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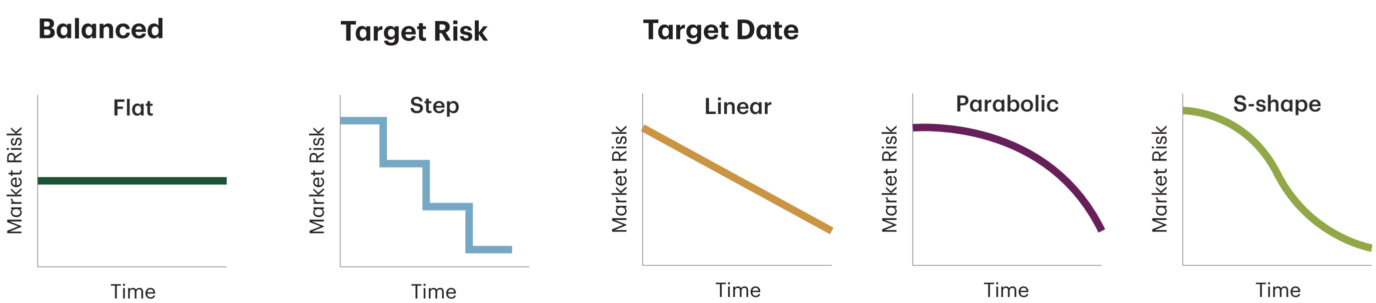
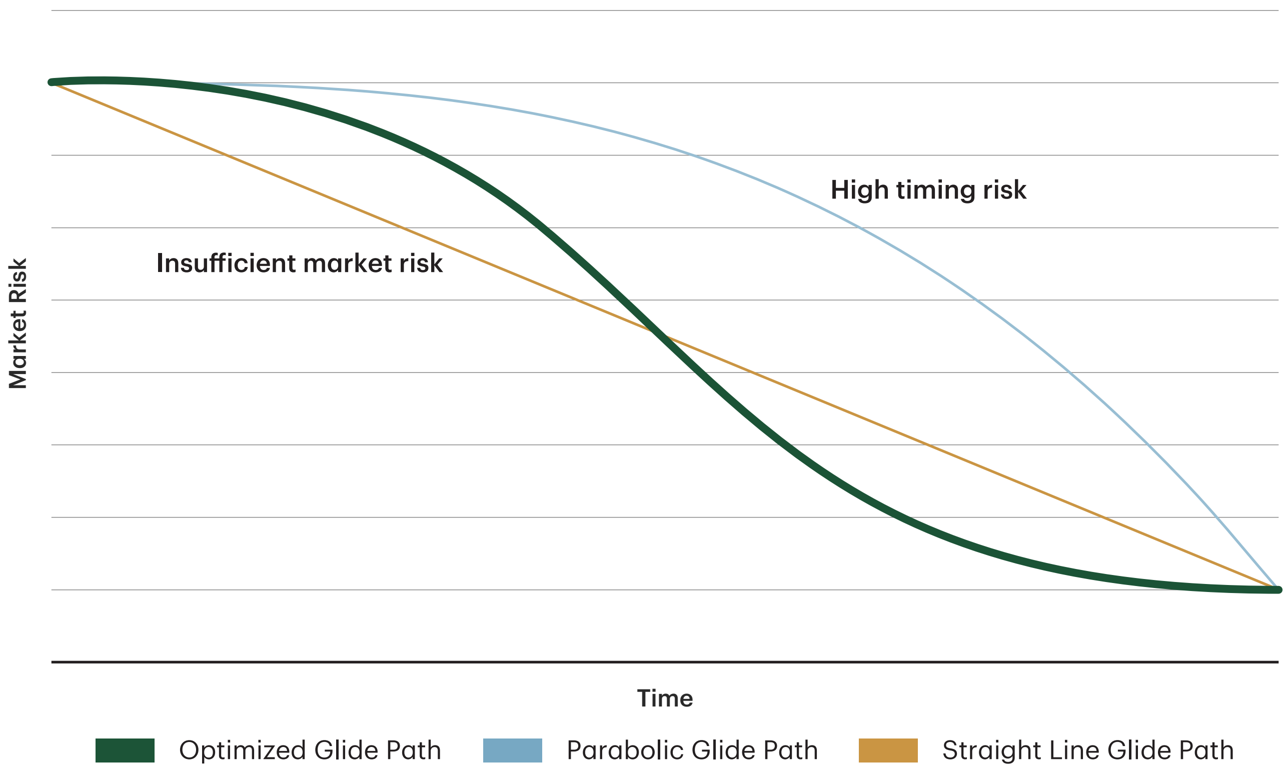
Figure 5: Glide Path Shapes



As mentioned earlier, a target date glide path presents a way to help optimize the asset mix of plan members. However, and this is a crucial point, not all glide paths are the same. **Figure 6** below illustrates that a simple linear glide path has historically proven to incur too little risk over a plan member's working life, sacrificing much needed returns. Conversely, a parabolic glide path can create too much risk for employees approaching retirement.

Using detailed and iterative modelling processes, we have determined that an S-curve glide path achieves the optimal asset mix for plan members when private alternatives are included, and that is the approach followed in the TD Greystone Target Date Plus Funds. The glide path is adjusted annually based on our proprietary analytics, which incorporate changes in assumptions about available asset classes, long-term rates of return and demographics, as well as market, inflation, longevity and liquidity risk. Actively managing the glide path in this way enables us to deliver a diversified asset mix tailored to individual plan members' changing investment horizons and to adapt this to the market environment and retirement landscape.

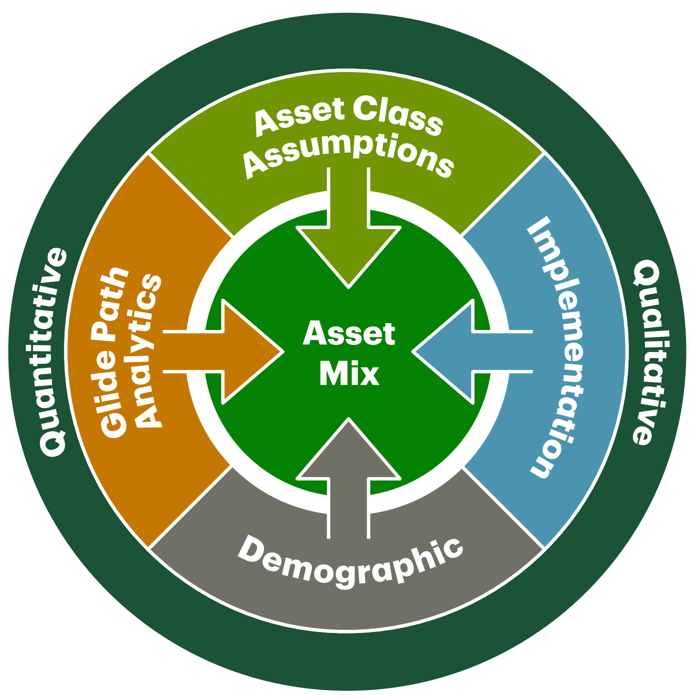
Figure 6: Illustration of How Glide Path Shapes Impact Outcomes for DC Plan Members



Uniquely, each fund in the TD Greystone Target Date family includes up to a 25% allocation to private alternatives, the composition of which will vary across vintages. In addition, the TD Greystone solution uses equity style diversification to add incremental value within the equity sleeve throughout the market cycle. (Detailing the benefits of equity style diversification goes beyond the scope of this article, but we explored the topic in a recent paper called An Asset Allocator's Guide to Multi-Strategy Equity Portfolios.) Collectively, the result is a solution that has the potential to help reduce longevity risk and bring DB-like outcomes to DC plan members.

> **The core of the DB experience is the certainty and safety it provides plan members.**

Figure 7: A Robust Process for Optimizing DC Plan Members' Asset Mix



The Retirement Employees Deserve

The core of the DB experience is the certainty and safety it provides plan members. Employees join the plan, receive annual reporting on their accumulated benefits, and can count on a secure income stream throughout their retirement. The simplicity of the member experience belies a host of actuarial, administrative and investment complexities, which plan sponsors bear on behalf of their employees.

By contrast, many view DC plans as a game of snakes and ladders, with retirement outcomes varying depending on each plan member's ability to consistently make the right choices about savings rates and investment vehicles. Those who do will enjoy a comfortable retirement, but for many others, wrong moves or bad luck can deliver a financial setback from which they never recover.

At TD GIS, we believe that DC plans do not have to result in inferior outcomes for their members. Working together, DC plan sponsors and investment managers can implement DB-like investment solutions that go a long way to closing the retirement income gap for their members. Adopting a target date solution that includes direct private market assets, actively managing the glide path over time, and making that solution the plan's default option has the potential to vastly improve outcomes for DC employees, allowing them to experience more of the retirement income security enjoyed by their DB peers.

Diversity

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