



TD Greystone Target Date Plus Funds: Annual Glide Path Update

Creating the 2022 Strategic Glide Path

Consistent with the process for the TD Greystone Target Date Plus Funds (the Funds), on an annual basis the glide path is formally examined through the Annual Glide Path Update. This involves running the proprietary TD Asset Management Glide Path Analytics (GPA) to incorporate any evolutions in available asset classes or funds, long-term asset class assumptions or demographics. The most recent Annual Glide Path Update was conducted in November 2021 and the resulting changes were implemented in January 2022.

Long-Term Asset Class Assumptions

Consistent with the firm-wide approach for multi-asset solutions, TD Asset Management Inc. (TDAM) sets its Long-Term Asset Class Assumptions using an objective building block approach for expected returns, and historical quarterly returns for standard deviations and correlations.

TDAM's asset class assumptions are long-term in nature, 7 – 10 years. The strategic asset mix decisions

rely on intermediate and long-term trends rather than attempting to time the business cycle itself. For more information on how long-term asset class assumptions are set, please reference our Methodology paper, which is available upon request. The data in Figure 1 is based on inputs as of September 30, 2021.

Figure 1: TDAM's Long-Term Asset Class Assumptions for Target Date Plus Funds

Equities		
2022 Annual Assumptions	Expected Return	Standard Deviation
Canadian Core	6.7	16.1
Canadian Low Volatility	6.7	11.2
Global Core	6.0	13.6
Global Income & Growth	6.0	12.5
All Country Low Volatility	5.7	9.2
China A-Shares	8.9	30.2
Fixed Income		
2022 Annual Assumptions	Expected Return	Standard Deviation
Canadian Short Bonds	1.1	2.2
Canadian Universe Bonds	1.9	4.0
Canadian Long Bonds	3.0	7.3
Real Return Bonds	2.6	6.7
High Yield Bonds	3.9	11.2
Global Unconstrained Bonds	2.2	2.1
Alternatives		
2022 Annual Assumptions	Expected Return	Standard Deviation
Commercial Mortgages	3.0	2.9
Global Real Estate	5.3	7.0 ¹
Canadian Real Estate	5.0	8.4 ¹
Global Infrastructure	7.2	7.2 ¹

¹We use a de-smoothing technique on the historical returns of real estate and infrastructure to correct for serial correlation. There is no assurance that expected returns will be achieved.

Source: TD Asset Management. As of Sep 30, 2021.

Within GPA, the long-term asset class assumptions are used to construct the efficient frontier, which provides the optimal asset mix given a defined standard deviation. Each point along the strategic glide path is then defined by a standard deviation, which corresponds to this efficient frontier.

Long-Term

Canadian Socio-economic and Demographic Assumptions

Demographic assumptions used by GPA can be broken down to two categories: government-driven assumptions and population-driven demographic assumptions.

Government-Driven Assumptions

Government-driven assumptions are published directly on the Government of Canada or Bank of Canada website and are updated each year through the annual process (Figure 2). All year-over-year changes were in line with expectations.

Figure 2: Government-Driven Assumptions

Metric	2021	2020	Year-over-year Change
Yearly Maximum Pensionable Earnings (YMPE)	61,600	58,700	4.9%
Old Age Security (OAS) (Maximum Payout Amount)	7,623	7,370	3.4%
Canada Pension Plan (CPP) (Maximum Payout Amount)	14,445	14,110	2.4%
Inflation Target	2.0	2.0	–

Source: Bank of Canada, Government of Canada. As of Sep 30, 2021.

Impacts from the COVID-19 Pandemic

Although the Yearly Maximum Pensionable Earnings (YMPE) year-over-year increase was higher than typically witnessed, this increase was expected. The YMPE increase was primarily a result of the average income going up during the COVID-19 pandemic due to workers with disproportionately lower wages being excluded from average income calculations as a result of job loss. It is expected that as the workforce returns to pre-pandemic norms, a period of lower-than-average increases to YMPE will follow.

In 2021, seniors received one-time Old Age Security (OAS) payments as part of Canada's pandemic relief program. It is not expected that additional payments will become recurring and, therefore, there is no

resulting impact on the demographic assumptions for government benefits.

Enhancements to Canada Pension Plan

TDAM monitors the Canadian landscape for material developments or changes that affect demographic and socioeconomic assumptions.

Starting in 2019, enhancements to the Canada Pension Plan (CPP) were introduced with the objective to increase income replacement from 25% to 33%. Changes to CPP contributions are being gradually phased in over seven years. Members contributing to CPP in 2019 or later will be eligible for higher post-retirement benefits.¹ Figure 3 summarizes some key changes.

Figure 3: CPP Program Changes

Metric	Pre-Enhancement (2018)	Post-Enhancement (2023)
Total Contribution to CPP ¹	9.9%	11.9%
Maximum Pensionable Earnings	\$55,900	\$65,700
Target Income Replacement	¼ of YMPE	⅓ of YMPE

¹ Up to the first earnings ceiling (estimated to be \$69,700 in 2025).
Source: Government of Canada. As of Sep 30, 2021.

¹ Government of Canada.

Starting in 2024, a second higher earnings ceiling will be introduced (estimated to be \$79,400) through a phase-in approach over 2 years. Once phased in, annual earnings between the first earnings ceiling and the second earnings ceiling will be subject to a total contribution rate of 8%. This will in turn increase post-retirement benefits for those who contributed under the second earnings ceiling.

TDAM will continue to monitor and assess the impact of these developments, particularly in how they tie in with socio-economic data such as contribution rates and retirement expenditure.

Upcoming Change to OAS

Starting July 2022, seniors aged 75 and over will receive a 10% increase to their OAS pension. Based on the effective date, TDAM will look to incorporate this change through the next annual glide path.

Population-Driven Assumptions

Population-driven demographic assumptions are primarily derived from Statistics Canada's annual surveys or its quadrennial Census of Population. Typically, population-driven assumptions have a lag of 1 or 2 years before they are published. TDAM will adjust each assumption as needed to ensure a consistent base year for the data used in GPA.

There were no updates required for TDAM's assumption for Year of Entry and Year of Retirement. The assumption for Starting Salary at Age 25 increased by 4.9% to approximately \$48,900. The assumption for Retirement Expenditure increased by 6.3% to approximately \$66,217. TDAM's assumed contribution rate continues to follow a step pattern and ranges from 10.6% to 12.1%.

Strategic Glide Path

The long-term asset class assumptions and demographic and socio-economic assumptions are inputs into GPA for the Strategic Glide Path. TDAM imposes constraints on its Annual Glide Path Update to ensure that the Strategic Glide Path does not see volatile year-over-year swings between asset classes or individual funds resulting from changes in asset class assumptions (Figure 4).

Figure 4: Constraints for Year-over-Year Glide Path Changes

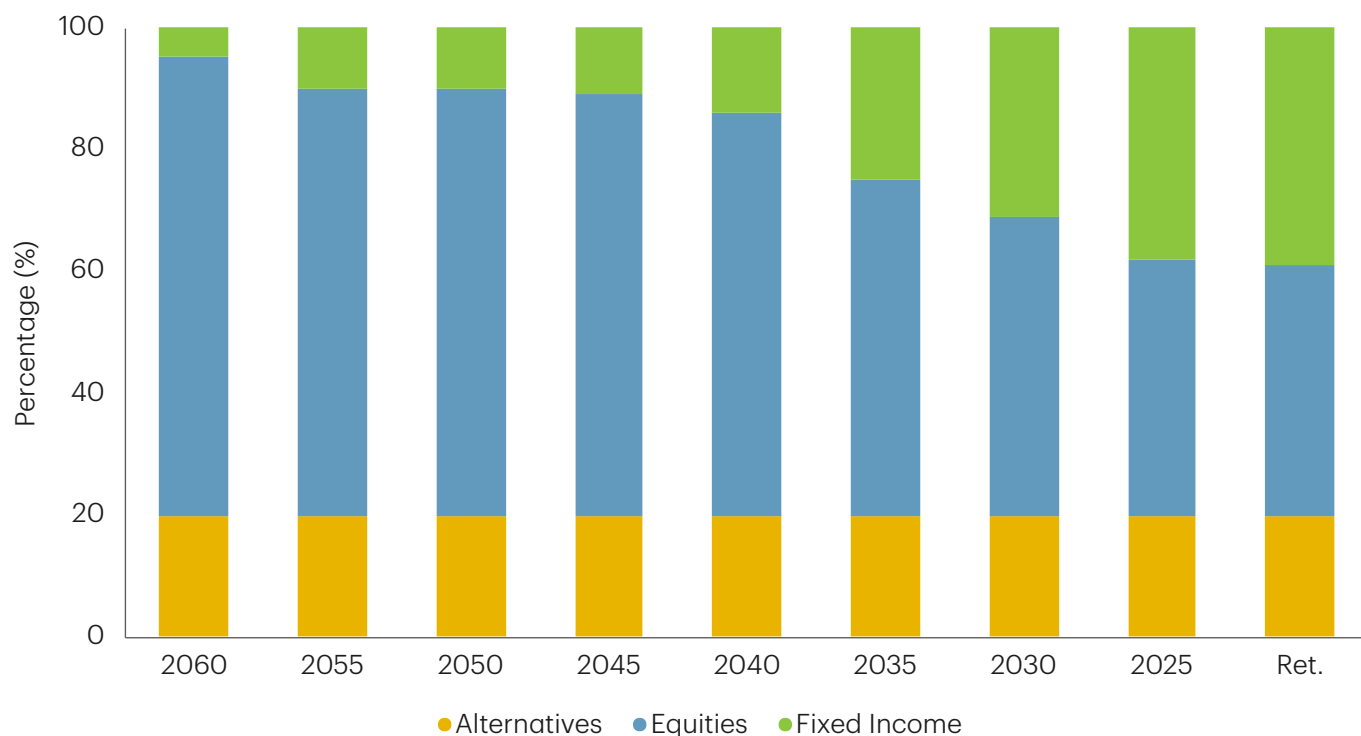
Strategy	Constraint	Asset Class	Constraint
Canadian Equity	+/- 10%	Equity	+/- 5%
Canadian Low Volatility Equity	+/- 10%		
Global Equity	+/- 10%		
Global Income & Growth Equity	+/- 10%		
China Income & Growth Equity	+/- 10%		
ACWI Low Volatility Equity	+/- 10%		
Short Bonds	+/- 10%	Fixed Income	+/- 5%
Universe Bonds	+/- 10%		
Global Unconstrained Bonds	+/- 10%		
Long Bonds	+/- 10%		
Real Return Bonds	+/- 10%		
High Yield Bonds	+/- 10%		
Private Commercial Mortgages	+/- 2%	Alternatives	+/- 5%
Real Estate ¹	+/- 2%		
Infrastructure	+/- 2%		

¹ Includes domestic and global real estate.

Source: TD Asset Management. As of Sep 30, 2021.

The output of the Annual Glide Path Update process is the TDAM Strategic Glide Path, shown in Figure 5.

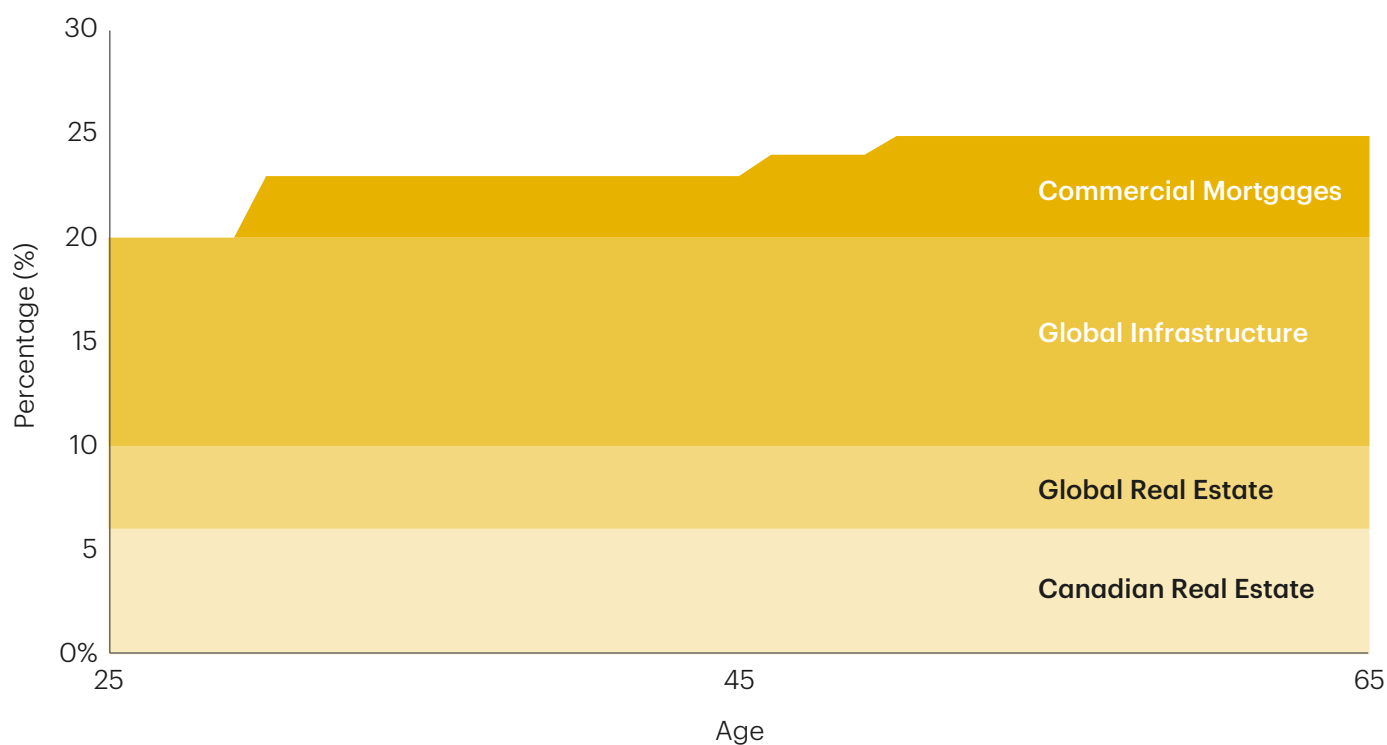
Figure 5A: TD Greystone Target Date Plus Funds – 2022 Strategic Glide Path



Commercial Mortgages included in both the alternatives and fixed income sub glide path.

Source: TD Asset Management. As of Dec 31, 2021. Glide path effective Jan 1, 2022 – Dec 31, 2022.

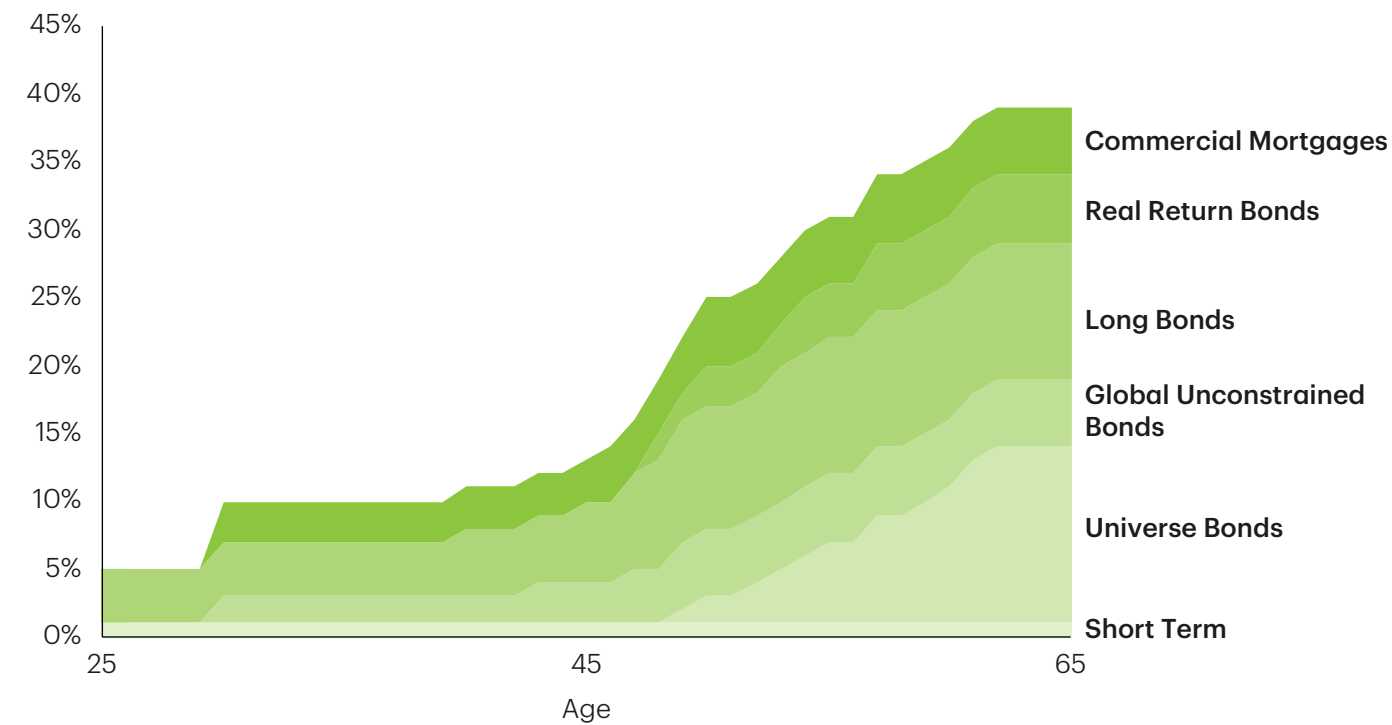
Figure 5B: Alternatives Sub Glide Path



Commercial Mortgages included in both the alternatives and fixed income sub glide path.

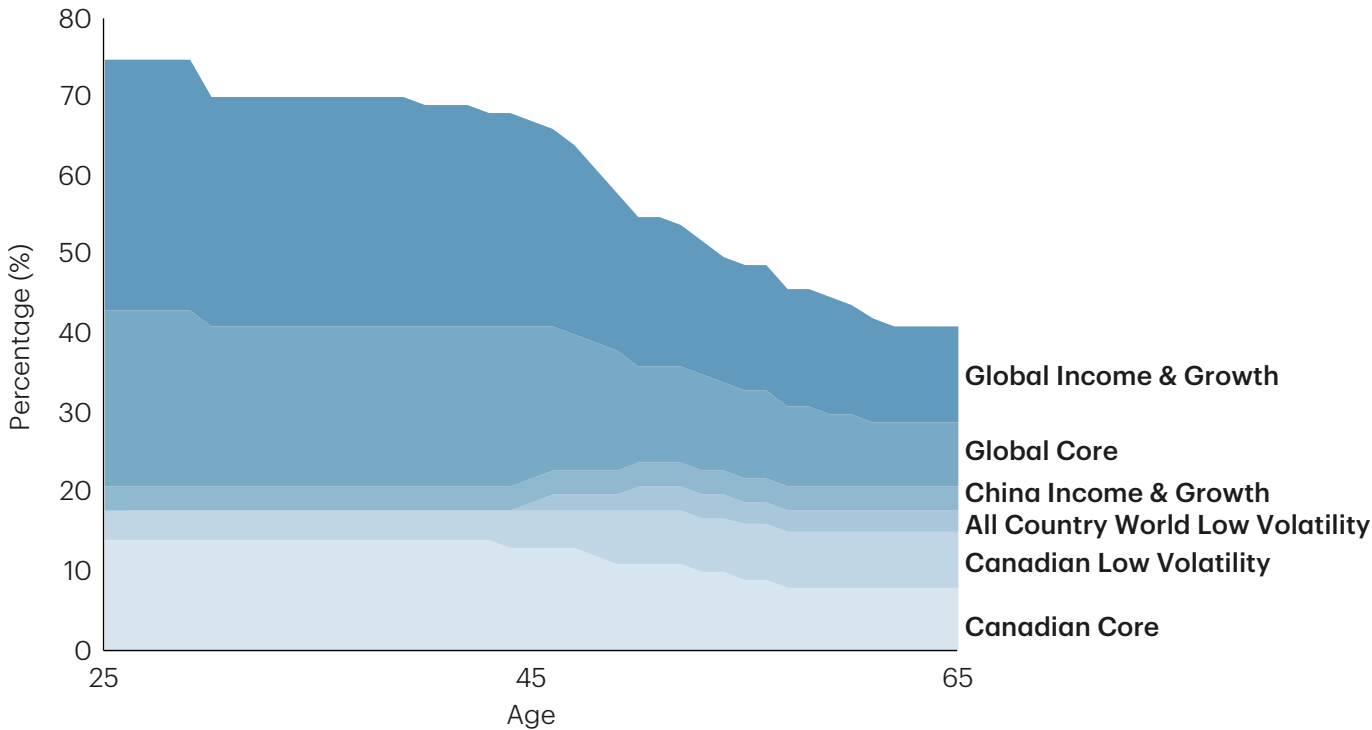
Source: TD Asset Management. As of Dec 31, 2021. Glide path effective Jan 1, 2022 – Dec 31, 2022.

Figure 5C: Fixed Income Sub Glide Path



Commercial Mortgages included in both the alternatives and fixed income sub glide path.
Source: TD Asset Management. As of Dec 31, 2021. Glide path effective Jan 1, 2022 – Dec 31, 2022.

Figure 5D: Public Equities Sub Glide Path



Source: TD Asset Management. As of Dec 31, 2021. Glide path effective Jan 1, 2022 – Dec 31, 2022.

Summary of Changes

Bond yields increased significantly over the course of 2021, while credit and high yield spreads continued to narrow from their widest levels in 2020. Long-term expected returns for equities decreased, narrowing the spread between expected returns for fixed income and equities. Despite this narrowing, total portfolio expected returns remain challenged and GPA continues to favour equities and private alternatives over fixed income. As a result, we witnessed the following shifts:

- An overall reduction in fixed income with an increased allocation to equities in longer-dated vintages
- Diversification within equities with increased allocations towards growth/core equities and low volatility equities
- Greater allocation to unconstrained bonds in order to enhance the yield of the program while maintaining the liquidity, duration and aggregate credit profile

Trading and Execution

The transition of glide path changes was completed in January 2022 with the exception of global real estate. We anticipate this change to be incorporated in 2022 as regulatory relief and fund policy updates are completed. As a proxy for global real estate, the Funds will hold an overweight to commercial mortgages and Canadian real estate.

Through 2021, the portfolio management team

incorporated discretion on the timing and magnitude of rebalancing decisions to be consistent with other balanced mandates. In 2022, the Funds will allow portfolio management discretion relative to the strategic glide path in line with the team's broader tactical asset allocation views. We believe this change will aid in cash flow deployment and proxying for alternative asset classes and has no impact to the quarterly glide path roll-down process.

Performance

We are proud of the demonstrated track record of the TD Greystone Target Date Plus Funds. The Funds have demonstrated strong absolute and peer-relative performance since inception. This performance has been achieved with below-median, peer-relative

standard deviation, resulting in a high peer-relative Sharpe Ratio. We believe this is particularly relevant as plan members are often subject to behavioural biases triggered by investment volatility, which can negatively impact overall savings.



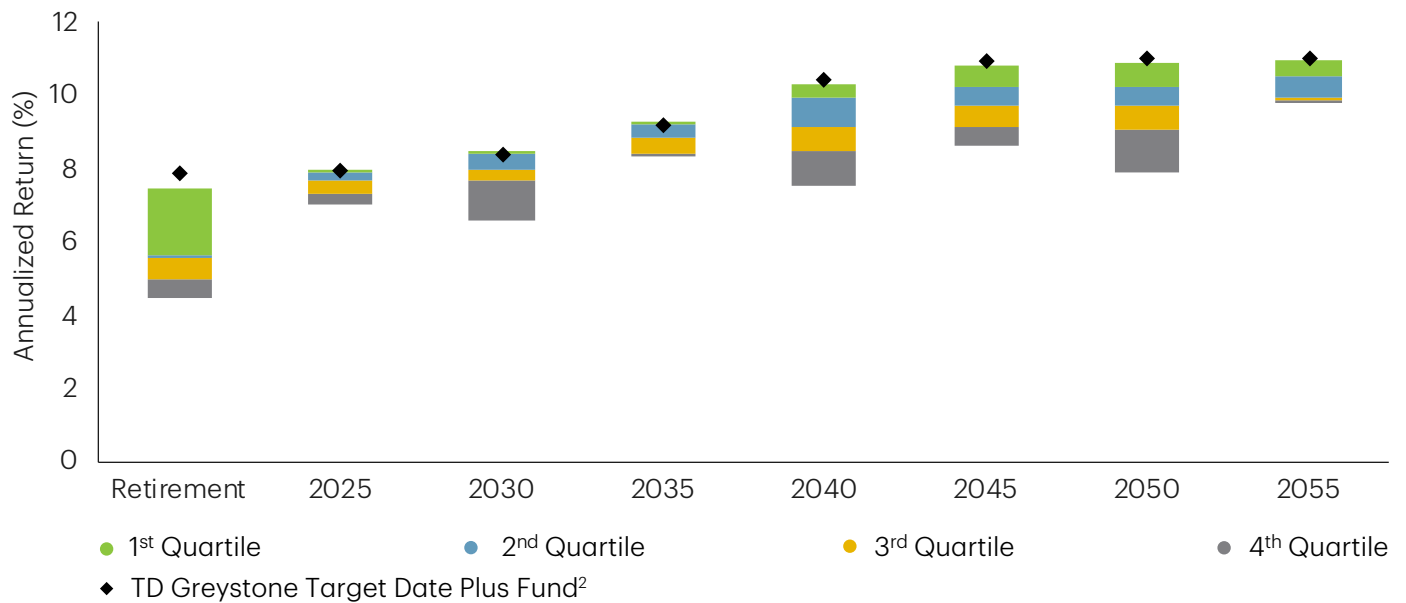
Figure 6: Performance of the TD Greystone Target Date Plus Funds

Returns as of Dec 31, 2021	3 months	1 year	3 years	5 years	Since Inception
Retirement Plus Fund	4.57%	11.30%	10.26%	8.12%	7.78%
Benchmark	4.30%	9.26%	10.01%	7.69%	7.38%
2025 Target Date Plus Fund	4.75%	10.91%	10.28%	8.21%	7.86%
Benchmark	4.30%	9.26%	10.01%	7.76%	7.43%
2030 Target Date Plus Fund	4.95%	11.51%	10.80%	8.54%	8.27%
Benchmark	4.48%	9.97%	10.57%	8.06%	7.80%
2035 Target Date Plus Fund	5.26%	12.85%	11.62%	9.17%	9.07%
Benchmark	4.79%	11.50%	11.50%	8.73%	8.58%
2040 Target Date Plus Fund	5.92%	15.51%	13.30%	10.54%	10.29%
Benchmark	5.34%	14.55%	13.51%	10.17%	9.83%
2045 Target Date Plus Fund	6.08%	16.75%	14.04%	11.10%	10.79%
Benchmark	5.52%	15.97%	14.35%	10.78%	10.37%
2050 Target Date Plus Fund	5.91%	16.68%	14.04%	11.20%	10.93%
Benchmark	5.55%	16.24%	14.52%	10.96%	10.57%
2055 Target Date Plus Fund	6.06%	16.09%	13.84%	11.14%	10.90%
Benchmark	5.55%	16.24%	14.60%	11.05%	10.66%
2060 Target Date Plus Fund	8.15%	20.72%	–	–	12.75%
Benchmark	5.93%	17.40%	–	–	12.83%

Note: Returns for periods over one year are annualized. Inception of Retirement – 2055 Fund is Jan 1, 2015. Inception of 2060 Fund is Jan 1, 2020. Details regarding benchmark mix are available upon request. C\$. Includes cash. Gross of investment management fees; may be subject to rounding.

Target Date

Figure 7: Since Inception¹ Annualized Return



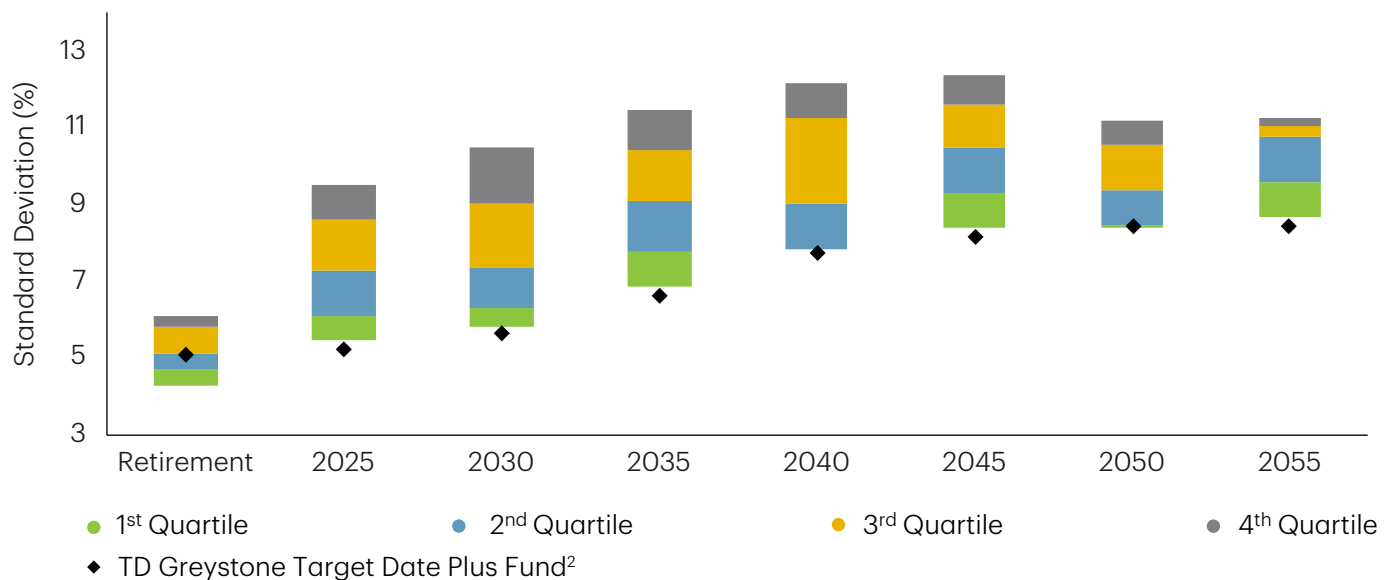
¹ Inception is Jan 1, 2015 (7 years).

² eVestment Alliance, LLC - Fund Category: TDF Income Fund - Canadian Universe. Current number of funds in the category: 3-6.

Note: Each TD Greystone Target Date Plus Fund is compared against Canadian dollar denominated peers within the respective vintage's eVestment peer group. Quartile rankings are intended to measure how well a fund has performed compared to other funds in its peer group. Quartile rankings are compiled by ranking all of the funds in a category by return over a given time period. The top performing 25% of funds in the category are assigned a quartile ranking of 1, the next 25% a 2, the next 25% a 3, and the bottom 25% of funds a 4. Quartile rankings can change over time.

Source: eVestment Alliance, LLC. As of Dec 31, 2021. Data pulled Jan 14, 2022.

Figure 8: Since Inception¹ Annualized Standard Deviation



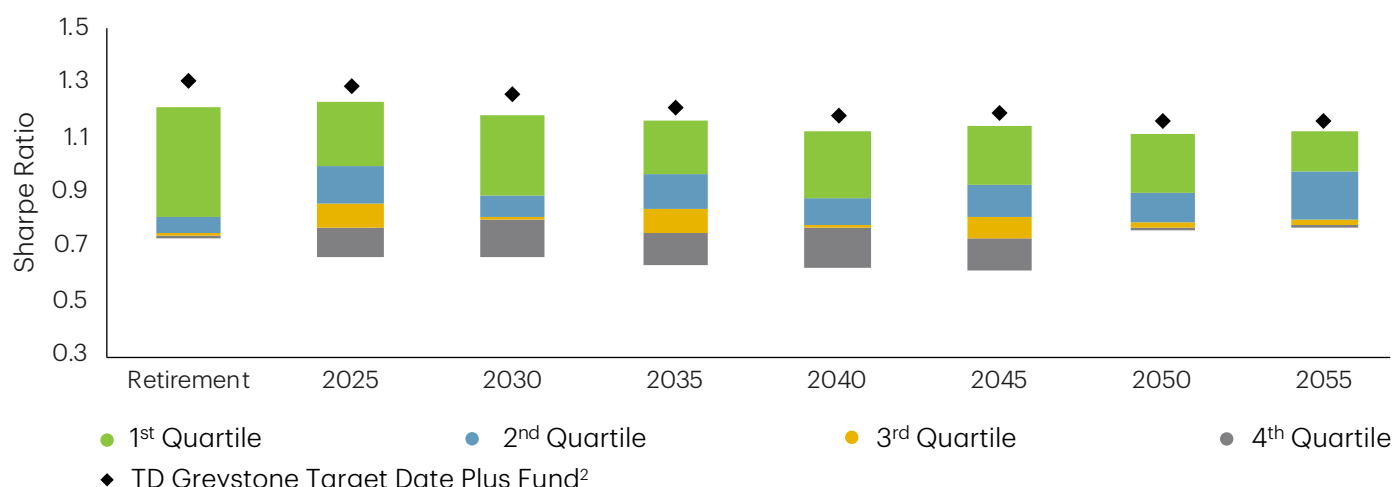
¹ Inception is Jan 1, 2015 (7 years).

² eVestment Alliance, LLC - Fund Category: TDF Income Fund - Canadian Universe. Current number of funds in the category: 3-6.

Note: Each TD Greystone Target Date Plus Fund is compared against Canadian dollar denominated peers within the respective vintage's eVestment peer group. Quartile rankings are intended to measure how well a fund has performed compared to other funds in its peer group. Quartile rankings are compiled by ranking all of the funds in a category by return over a given time period. The top performing 25% of funds in the category are assigned a quartile ranking of 1, the next 25% a 2, the next 25% a 3, and the bottom 25% of funds a 4. Quartile rankings can change over time.

Source: eVestment Alliance, LLC. As of Dec 31, 2021. Data pulled Jan 14, 2022.

Figure 9: : Since Inception¹ Annualized Sharpe Ratio²



¹ Inception is Jan 1, 2015 (7 years).

² Each TD Greystone Target Date Plus Fund is compared against Canadian dollar denominated peers within the respective vintage's Fund Category on eVestment Alliance, LLC. Current number of reporting funds in each Fund Category: 3-6.

Note: Quartile rankings are intended to measure how well a fund has performed compared to other funds in its peer group. Quartile rankings are compiled by ranking all of the funds in a category by return over a given time period. The top performing 5-25% of funds in the category are assigned a quartile ranking of 1, the next 25% a 2, the next 25% a 3, and the bottom 75-95% of funds a 4. Quartile rankings can change over time.

Source: eVestment Alliance, LLC. As of Dec 31, 2021. Data pulled Jan 14, 2022.

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Numbers may not add due to rounding.

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