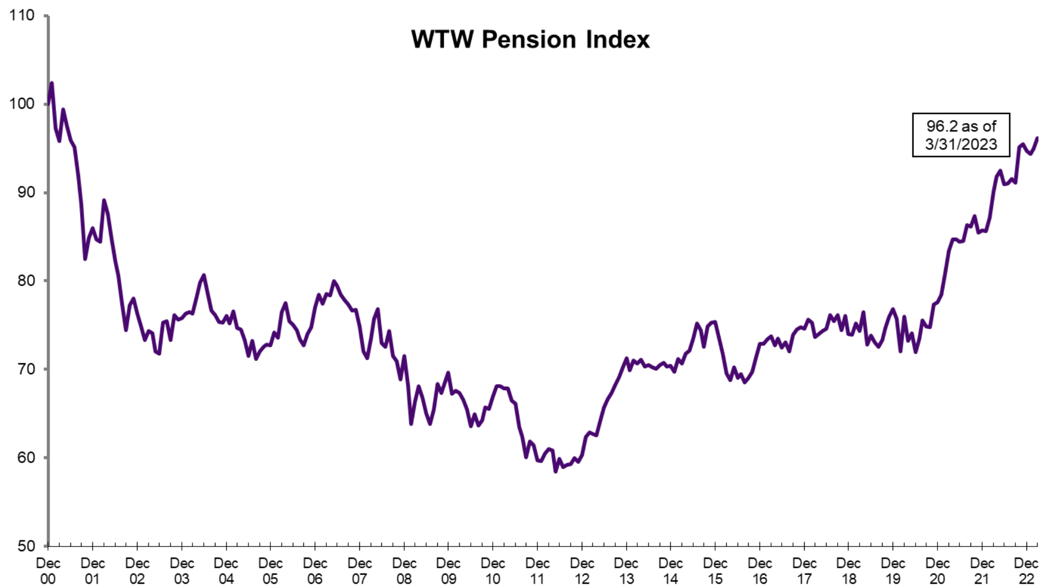
Pension Finance Watch

First Quarter 2023

Results for Canadian defined benefit pension plans

The WTW Pension Index has increased in the first quarter, as positive asset returns were offset somewhat by an increase in liabilities. The net effect on our benchmark plan was an increase of 1.6% in the WTW Pension Index (from 94.7 to 96.2) for the quarter.



About this report

This report reviews how capital market performance affected Canadian defined benefit pension plans, with a focus on linked asset/liability results. Specific plan results depend on liability characteristics, portfolio composition and actual investment results, among other factors.

This information has been prepared for clients of WTW. For information on how this issue affects your organization, please contact your consultant, or one of the following consultants:

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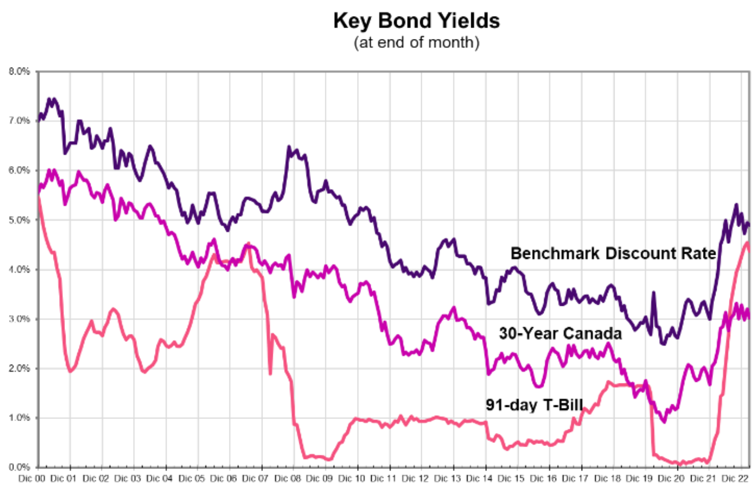
Canadian interest rates

In January, the Bank of Canada increased its overnight lending rate by 0.25%, bringing it to 4.50%. This was the eighth consecutive increase starting back in March of 2022 as the central bank has been trying to prevent out of control inflation. With falling energy prices and impacts from higher interest rates making their way through the economy, inflation has begun to trend downwards, and while still high, it has come down from its peak. In its latest April announcement, the Bank of Canada however held the policy interest rate steady at 4.50%. The yield on 30-year Canada treasuries decreased during the quarter to finish 26 bps lower than it started. Credit spreads increased by approximately 8 bps during the quarter. The benchmark discount rate determined under the RATE:Link methodology used to determine defined benefit obligations decreased by 23 bps. Combined with the effect of interest accumulation the accounting liability measures increased over the quarter.

Canadian Bond Yields (End of Period)

	Mar. 2023	*Dec. 2022*	*Mar. 2022*
Canada Treasuries(1)			
30-year	3.02	3.28	2.37
10-year	2.90	3.30	2.40
91-day T-bill	4.37	4.27	0.71
Corporate Bonds(1)			
FTSE	5.00	5.27	3.76
Benchmark Discount Rate	4.90	5.13	3.92



(1) Source: Information prior to June 2015 and FTSE Corporate bond yield provided by FTSE Global Debt Capital Markets Inc. Copyright © FTSE Global Debt Capital Markets Inc. All rights reserved. The information contained herein may not be redistributed, sold or modified or used to create any derivative work without the prior written consent of FTSE Global Debt Capital Markets Inc. Effective June 2015, Canada 10 and 30 year yield were obtained from the Bank of Canada; the 91-day T-bill yield was obtained from Scotiabank.

Investment returns

Global equity markets had another great quarter overall seeing mid-single digit positive returns. The quarter saw its ups and downs due to various factors including, improved global supply chain with China ending its zero Covid policy, falling inflation, lower energy prices influenced by a milder than expected winter. Economic concerns however remain accompanied with a US banking scare, also spreading to Credit Suisse afterward, which saw two regionals US banks fail and the US government step in to protect deposits, aiming to prevent a wider run-on deposits with other smaller banks. Canadian equities, while also posting positive returns, lagged other major markets due to Canada's high concentration in energy markets (the worst-performing sector of the quarter).

The CAD exchange rate stayed relatively stable with the USD, however both fell during Q1 relative to other international currencies. For unhedged Canadian investors this led to a slight decreased CAD returns on US equity investments and increased CAD returns relative to international equity investments.

The Canadian bond market saw another volatile quarter with yields moving sharply in both directions. They fell to start the quarter, rebounded back to levels near where they started at, and ended the quarter down 30-40 bps with major Canadian bond indices, other than real return bonds, showing positive returns for the quarter. Long duration bonds saw higher returns than mid duration and even more than short duration. Due to rising credit spreads, combined with their shorter duration, corporate bonds underperformed in a rising yield environment relative to government bonds.

Asset Class Returns

	Q1 2023	YTD	Last 12 months
Stock Returns			
Canadian Equities – S&P/TSX Composite [(2)]	4.6%	4.6%	-5.2%
U.S. Equities – S&P 500 (Canadian dollars) [(3)]	7.4%	7.4%	0.0%
Non-North American Equities – MSCI EAFE (Canadian dollars) [(4)]	8.4%	8.4%	6.8%
Canadian Fixed Income Returns			
91-day T-Bills	1.1%	1.1%	2.8%
FTSE Universe Bonds	3.2%	3.2%	-2.0%
FTSE Long Bonds	4.7%	4.7%	-7.2%

(2) Source: Bloomberg LP. All S&P/TSX Composite indices are registered trademarks of The Toronto Stock Exchange Inc. and Standard & Poor's Corporation.
(3) Source: Bloomberg LP. All S&P indices are registered trademarks of Standard & Poor's Corporation
(4) Source: Bloomberg LP. All MSCI indices are registered trademarks of Morgan Stanley Capital International Inc.

The benchmark plan's 50% equity / 50% fixed income portfolio increased 6.0% for the quarter. The more conservative 30% equity portfolio increased 5.5% for the quarter, and the more aggressive 70% equity portfolio increased 6.5% for the first quarter.

Pension plan liabilities under Canadian, International and U.S. accounting standards are measured using a discount rate based on yields available on high-quality corporate bonds as of the measurement date. Using the same RATE:Link methodology as we use for the WTW Pension Index in other countries, the discount rate for our benchmark plan decreased over the quarter by 23 basis points to 4.90% at March 31, 2023. Among other factors, the selected discount rate depends on projected plan cash flows, the bond data and the methodology utilized for constructing the yield curve. The RATE:Link approach represents one possible methodology; other acceptable methodologies may result in higher or lower discount rates, and consequently lower or higher plan liabilities.

WTW tracks the monthly change in its Pension Index in a series that dates to December 31, 2000. Like bond prices, pension liability values move in the opposite direction to interest rates. The WTW Pension Liability Index increased by 4.4% for the quarter, reflecting the combined effect of interest accumulation and the discount rate change.

The impact of the increase in the Pension Liability Index was offset by positive investment returns resulting in a net increase in the WTW Pension Index over the quarter, from 94.7 to 96.2 as at March 31, 2023. The change in the WTW Pension Index does not reflect any contributions made to reduce the size of any deficit or any contribution holiday taken on account of any surplus.

Canadian Pension Index Results	Q1 2023	YTD	Last 12 Months
Portfolio Returns			
30% Stocks/70% Fixed Income	5.5%	5.5%	-4.4%
50% Stocks/50% Fixed Income	6.0%	6.0%	-2.6%
70% Stocks/30% Fixed Income	6.5%	6.5%	-0.9%
Benchmark Plan Liability Results			
Change in Pension Liability Index	4.4%	4.4%	-8.8%
Percentage Change in Pension Index	1.6%	1.6%	6.8%

A note to our readers

This publication tracks the asset/liability performance of a hypothetical Canadian benchmark pension plan, based on a 50/50 asset mix and a typical liability profile. The index is not intended to represent an average funded ratio. Rather, the intent is to provide plan sponsors with a consistent and relevant measure to serve as a general indicator of the effects of capital market events on pension plan financing.

Definition of terms

Bond Yields

- The 30-year Canada semi-annual bond yield reflects the yield on the actively-traded Government of Canada bond maturing in 30 years.
- The 10-year Canada semi-annual bond yield reflects the yield on the actively-traded Government of Canada bond maturing in 10 years.
- The 91-day T-Bill semi-annual yield refers to the yield on Government of Canada treasury bills which mature in 91 days.
- The FTSE Corporate semi-annual bond yield reflects the yield on the FTSE Corporate Bond Index composed of corporate bonds with varying maturity.

Asset Class Returns

- Total return incorporates the combined effect of price changes and interest or dividend income. This will typically differ from the daily results published in financial journals, which are based only on price changes.
- S&P/TSX Composite refers to the “S&P/TSX Composite Index”, which tracks larger companies in the Canadian market.
- S&P 500 refers to the “S&P 500 Index”, which tracks the largest 500 companies in the U.S. based on the market value of their equity. Total return is reported in terms of the Canadian dollar and therefore includes the effect of currency changes.
- MSCI EAFE refers to the “Morgan Stanley Capital International Europe, Australasia, Far East Index” of equity securities. Total return is reported in terms of the Canadian dollar and therefore includes the effect of currency changes.
- 91-Day T-bill returns are based on the “FTSE 91-day Treasury Bill Index”.
- FTSE Universe Bonds refers to the “FTSE Universe Bond Total Return Index” for government and corporate bonds of all maturities in excess of one year.
- FTSE Long Bonds refers to the “FTSE Long Term Bond Total Return Index” for government and corporate bonds with maturities in excess of 10 years.

Portfolio Returns

- The WTW Pension Index 50% / 50% portfolio return is based on a diversified portfolio of 50% equity (10% Canadian, 20% U.S. and 20% MSCI EAFE) and 50% fixed income (FTSE Long Bonds).
- The 30% and 70% equity portfolios are constructed with similar composition within their equity and fixed income components.

Benchmark Discount Rate

- The discount rate is determined each month for this benchmark pension plan based on observed yields for high-quality corporate bonds and the benchmark plan's projected cash flows. Higher or lower discount rates may be more appropriate for other plans with different expected cash flows.* Furthermore, a variety of methodologies may be used to interpret the data available on long-term Canadian corporate bonds. This calculation uses the same RATE:Link methodology as we use for the WTW Pension Index in other countries. Other acceptable methodologies may result in higher or lower discount rates, depending on market conditions.

WTW Pension Liability Index

- The Pension Liability Index tracks the change in the benchmark plan's obligations due to the accumulation of interest and changes in financial assumptions. For this purpose, the obligations are measured based on the requirements of U.S. and International accounting standards.*
- Contributions are set equal to the level of benefit payments for the benchmark plan.

WTW Pension Index

- The WTW Pension Index is the ratio of market value of assets to accounting obligations for the benchmark plan. Assets change from month to month based on the investment performance of the 50% / 50% portfolio, assumed contributions and benefit payments. Liabilities change from month to month due to accumulated service cost and interest, benefit payments and the effects of any other changes in the WTW Pension Liability Index. The WTW Pension Index is an accounting measure, not a funding measure. As such, it is not appropriate to consider this as a measure of a pension plan's funding, which is based on statutory requirements.

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* The discount rate assumption is adjusted to reflect changes in market interest rates. Our benchmark plan is a traditional final-pay pension plan with approximately half of the liabilities in respect of active employees and half of the liabilities in respect of terminated vested and retired employees. Plans with different designs or demographic characteristics will see different results in terms of both the level of appropriate discount rate and the plan's response to changes in financial assumptions.
