FSRA
Financial Services Regulatory Authority of Ontario

Ontario

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Quarterly update on

Estimated Solvency Funded Status of Defined Benefit Pension Plans in Ontario

June 30, 2023

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Introduction

Each quarter, FSRA monitors the solvency funding position, and publishes the estimated solvency ratios of Ontario Defined Benefit (DB) pension plans that are subject to solvency funding. This is one of the supervisory tools FSRA utilizes to improve outcomes for pension plan beneficiaries and to proactively engage in a dialogue with plan sponsors where there may be a concern over the security of the pension benefits.

It should also be useful for plan fiduciaries who must adhere to a high standard of care in administering their pension plans and investing the plan assets. Having an effective governance framework in place with a good understanding of the key risks facing the plan, their impact and risk mitigation strategies are key to achieving the desired outcomes and enhancing the ability to withstand periodic stresses. For example, having due consideration to the plan's ability to absorb fluctuations in funding costs and the probability of delivering the promised benefits under a range of possible outcomes that may result from the funding and investment strategy are important elements of a plan administrator's duty as a fiduciary.

Projected Solvency Position as at June 30, 2023

The overall funded position of pension plans continued to improve in the second quarter of 2023, with modest gains compared to the larger increases over each of the previous two quarters. Nevertheless, it results in the median projected solvency ratio reaching another new all-time high.

- The median projected solvency ratio was 116% as at June 30, 2023, a 1% increase from 115% as at March 31, 2023.

- The percentage of pension plans that were projected to be fully funded on a solvency basis remained unchanged at 86% as at June 30, 2023, with 2% of plans falling below an 85% solvency ratio, also unchanged from last quarter.

- Pension funds eked out positive investment returns in Q2 2023, averaging a net return of 0.7%.

- Solvency discount rates moved in opposite directions for liabilities assumed to be settled by lump sum transfers versus annuity purchases – rates for commuted values decreased while annuity purchase rates increased, essentially offsetting each other such that plan liabilities were largely unaffected on an aggregate basis.

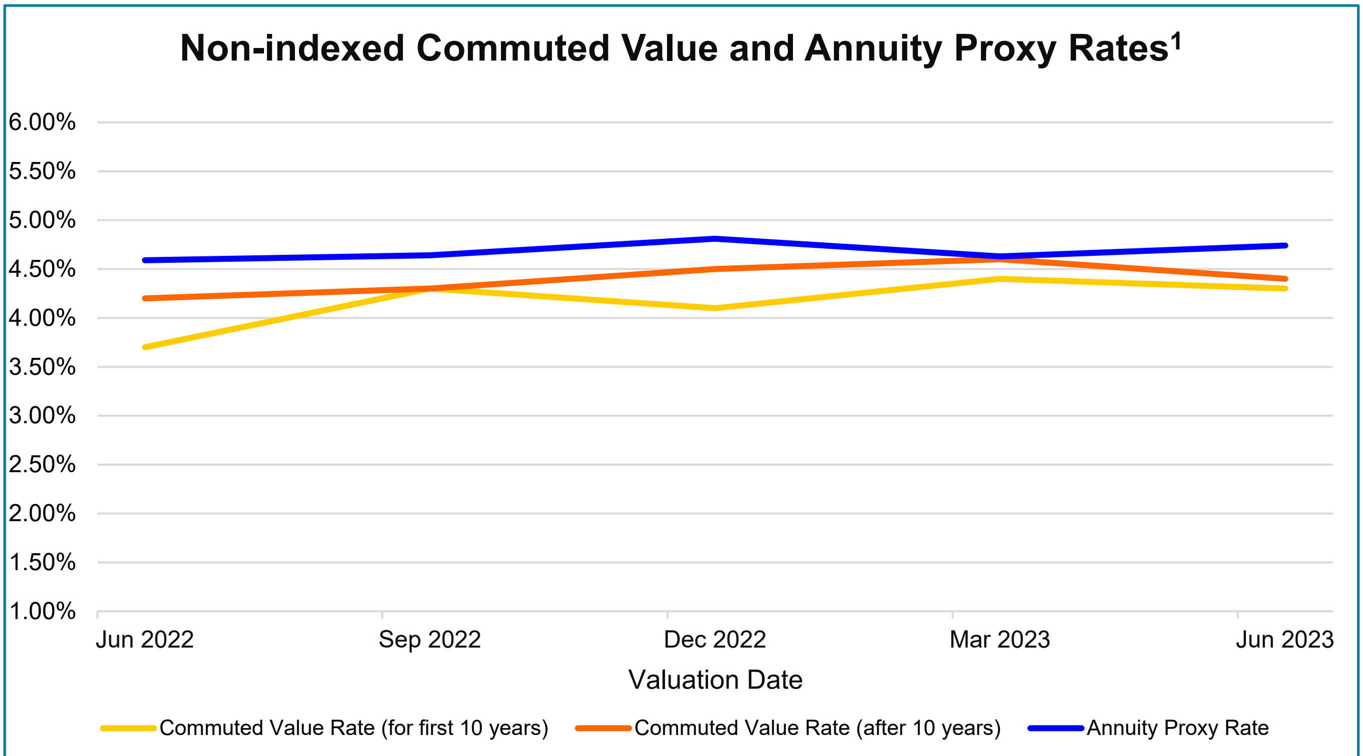
    - The effect of these discount rate changes on individual plans, however, varies depending on the plan's maturity and liability profile.
    - For example, 61% of plans had an increase in their projected solvency ratio while 39% had a decrease.

While pension plans remain healthy in general, and solvency ratios have improved in aggregate, a significant proportion of plans saw a deterioration in the funded ratio. This highlights how important it is for plan sponsors and administrators to assess and understand their own plan's unique circumstances and actively manage their plan-specific risks. A starting point could be assessing whether your plan's solvency ratio has improved or deteriorated since it was last measured, and understanding the underlying reasons.

Projected Solvency Position as at June 30, 2023	Q2 2023	Q1 2023	Q4 2022
Median solvency ratio	116%	115%	112%
Percentage of plans with a solvency ratio greater than 100%	86%	86%	81%
Percentage of plans with a solvency ratio between 85% and 100%	12%	12%	17%
Percentage of plans with a solvency ratio below 85%	2%	2%	2%

The projected solvency position, in aggregate, improved slightly since last quarter. The 1% increase in the estimated median solvency ratio since March 31, 2023 is attributable to:

- Positive Q2 2023 pension fund investment returns
  - The average first quarter 2023 gross and net, after expense, return estimates were 1.0% and 0.7%, respectively.
- Change in solvency discount rates
  - The non-indexed commuted value discount rates, for the select and ultimate periods decreased by 10 bps and 20 bps, respectively whereas the non-indexed annuity purchase discount rate increased by 11 bps. The overall net impact on pension liabilities in aggregate was negligible.



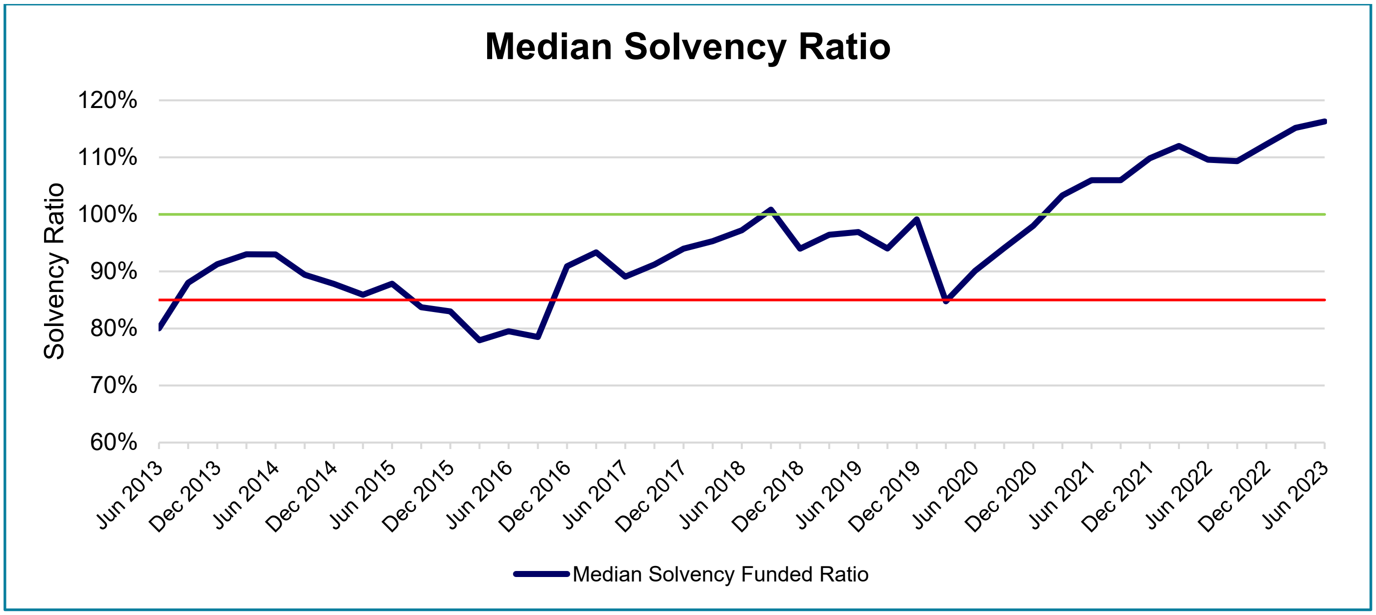
[1] based on a medium duration illustrative block

During the second quarter of 2023, inflation in Canada declined from the first quarter, Canadian equity markets provided a positive return, and the Bank of Canada (BoC) made an upward revision to the Canadian GDP forecast for 2023 but a downward revision to the forecast for 2024. Statistics Canada data indicates annual CPI inflation stood at 4.4% and 3.4% in April and May, respectively, while core inflation was 4.1% and 3.7%. Core inflation omits the most volatile components of the CPI index, as defined by the BoC. Unemployment increased since Q1 and stood at 5.4% in June, up from 5.0% in March. Canadian GDP did not grow in April, month-over-month, changing 0% from March to April of 2023, but April 2023 GDP was 1.7% higher than April 2022 GDP. The BoC revised their GDP forecast in July for 2023 upward but their 2024 forecast downward, to 1.8% and 1.2%, respectively, from 1.4% and 1.3% in the previous monetary policy report. Insolvencies in Canada have increased, and the total number of insolvencies in May 2023 was 30.9% higher than the total number of insolvencies in May 2022, according to the Office of the Superintendent of Bankruptcy.

The Canadian government bond yield curve was more inverted in Q2 than Q1 2023, with the 2-year benchmark yield having risen by 84 basis points to 4.58%, while the benchmark 10-year yield stood at

3.26%, an inversion of 132 basis points. At the end of Q1, the 10-yr benchmark yield was 84 basis points below the 2-year benchmark yield. In Canadian markets, the FTSE Canada Universe Bond index decreased 0.7% for Q2 and the S&P/TSX Composite equity index returned 1.1% in Q2. For the S&P/TSX Composite, information technology and consumer discretionary were the best performing sectors, while materials and real estate were the lowest performing sectors for the quarter. The Canadian dollar increased in value relative to the US dollar in Q2 2023 and stands at 0.7552 US dollars per Canadian dollar at quarter end.

Central banks around the world continued to hike interest rates in Q2. The BoC had one policy interest rate hike of 25 basis points, on June 7th. The target for the overnight rate at the end of Q2 stood at 4.75%. The US Federal Reserve had one federal funds rate hike on May 3rd of 25 basis points. The upper limit for the US fed funds target range as of the end of Q2 was 5.25%. Both the BoC and the US Federal Reserve proceeded with quantitative tightening and continue to reduce balance sheet holdings. As at the end of Q2 2023, the overnight index swaps markets were pricing in one additional interest rate hike of 25 basis points for the second half of 2023 in both Canada and the US.


Median Solvency Ratio
120%
110%
100%
90%
80%
70%
60%
Solvency Ratio
Jun 2013
Dec 2013
Jun 2014
Dec 2014
Jun 2015
Dec 2015
Jun 2016
Dec 2016
Jun 2017
Dec 2017
Jun 2018
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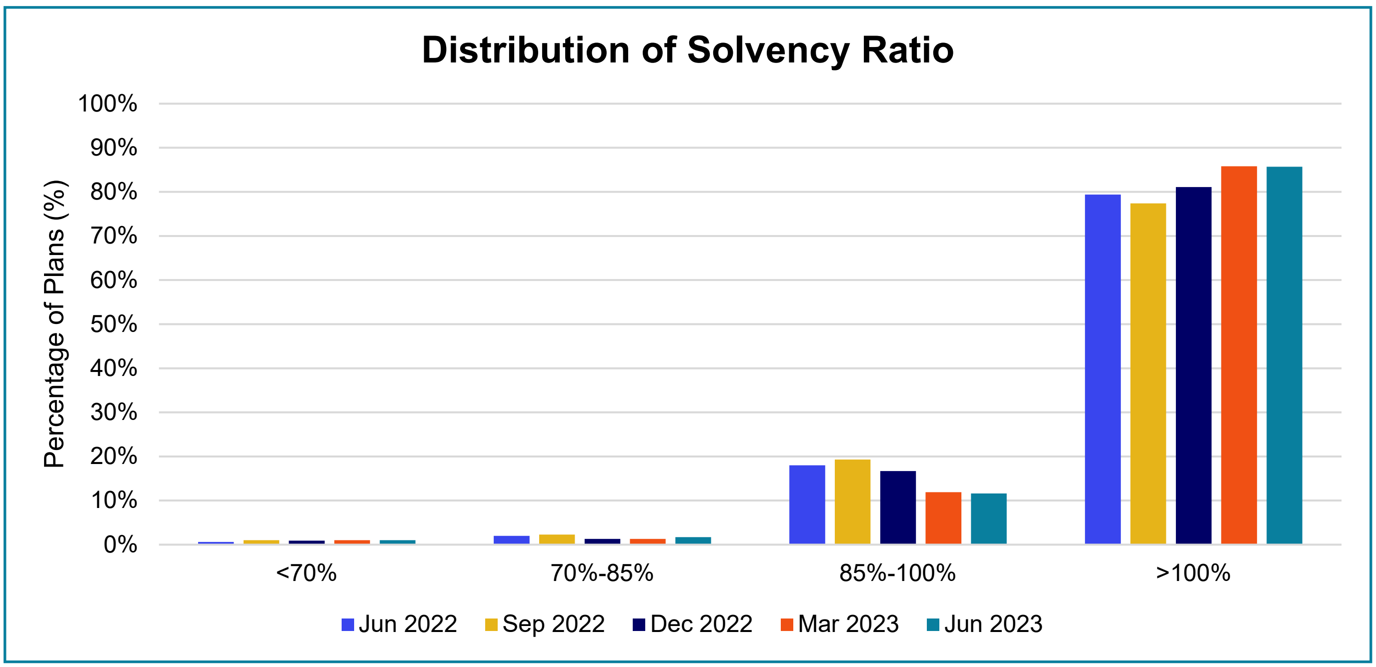
Jun 2023
Median Solvency Funded Ratio


Distribution of Solvency Ratio
100%
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
Percentage of Plans (%)
<70%
70%-85%
85%-100%
>100%
Jun 2022
Sep 2022
Dec 2022
Mar 2023
Jun 2023

Methodology and Assumptions

1. The results reported in each plan's last filed actuarial valuation reports (assets and liabilities) were projected to June 30, 2023 based on these assumptions:
   - Sponsors would use all available funding excess and prior year credit balance for contribution holidays, subject to any statutory restrictions.
   - Sponsors would make normal cost contributions and special payments, if required, at the statutory minimum level.
   - Cash outflows were assumed to equal pension amounts payable to retired members as reported in the last filed valuation report. Plan administration costs were not directly reflected in cash outflows, but indirectly through net, after expense investment earnings.
   - Projected liabilities were calculated based on the Canadian Institute of Actuaries' (CIA) Standards of Practice for Pension Commuted Values and the CIA annuity purchase guidance applicable at the projection date.

2. Each plan's actual net rates of return are calculated based on its most recently filed Investment Information Summary (IIS) information. Where returns needed to be estimated, this was done using the IIS asset allocation in combination with market index returns, offset by a 25 basis point quarterly expense charge.

   The following table summarizes the average IIS plan asset allocations by major asset class based on the most recent filed IIS:

Cash and Short-Term Investments	Canadian Equities	Foreign Equities	Fixed Income	Real Estate	Other
3.7%	19.4%	20.0%	49.7%	6.1%	1.1%

Market index returns on the major asset classes have been as follows:

	FTSE Canada 91-day T-Bill Index	S&P / TSX Total Return Index	MSCI World Total Net Return Index	FTSE Canada Universe Bond Index	FTSE Canada Long Term Bond Index	Cohen & Steers Global Realty Majors Index
Q2 2023	1.0%	1.1%	4.5%	-0.7%	0.6%	-2.5%
Q1 2023	1.1%	4.6%	7.6%	3.2%	4.7%	-0.1%
Q4 2022	1.0%	6.0%	8.2%	0.1%	-1.0%	3.6%
Q3 2022	0.5%	-1.4%	-0.1%	0.5%	1.5%	-6.4%