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

December 31, 2022

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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 December 31, 2022

Despite deterioration in financial markets leading to double-digit negative returns in 2022, the funded status for most pension plans remained strong throughout the year. The median solvency ratio at the end of 2022 returned to the all-time high level it reached as at March 31, 2022.

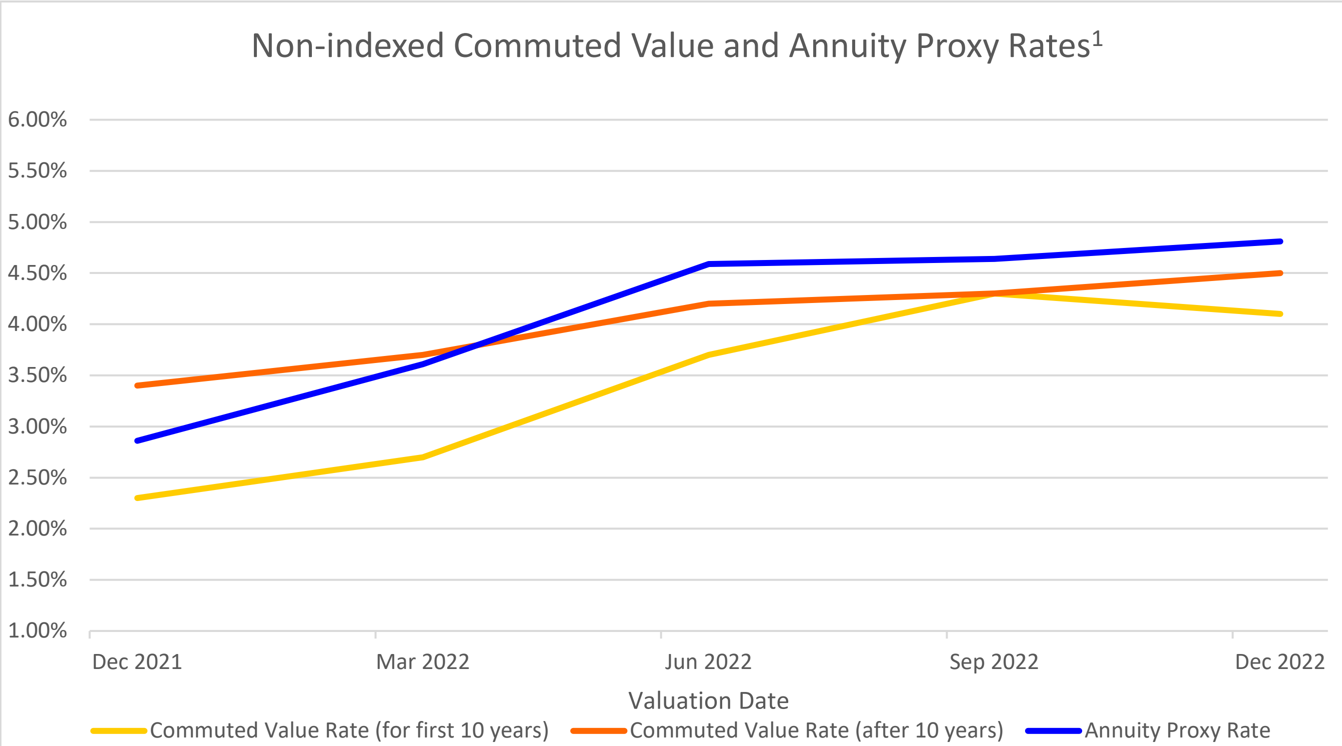
- The median projected solvency ratio was 112% as at December 31, 2022, a 3% increase from 109% as at September 30, 2022 (and a 2% increase from 110% at the end of 2021).
- The percentage of pension plans that were projected to be fully funded on a solvency basis as at December 31, 2022 was 81%. The percentage of plans falling below an 85% solvency ratio was 2%, decreasing by 1% from the end of last quarter.
- Following three quarters of negative returns, investment returns in Q4 2022 were positive averaging a net return of 2.7%. The year as a whole, however, ended in the red with an average net return of -14.1%.
- Solvency discount rates continued to rise, leading to a decrease in plan liabilities.

In general, pension plans have been resilient through a year filled with challenges and market volatility. Although a majority of plans are fully funded on solvency basis, that won't necessarily be the case on a going concern basis. Pension funding is more likely to be going concern driven in the current environment. We encourage plan sponsors and administrators to continuously monitor the movement of the financial markets, the high interest rate and inflation environments, and manage the plan risks for the years ahead to maintain benefit security for plan members.

Projected Solvency Position as at December 31, 2022	Q4 2022	Q3 2022	Q4 2021
Median solvency ratio	112%	109%	110%
Percentage of plans with a solvency ratio greater than 100%	81%	78%	81%
Percentage of plans with a solvency ratio between 85% and 100%	17%	19%	17%
Percentage of plans with a solvency ratio below 85%	2%	3%	2%

The projected solvency position, in aggregate, improved since last quarter. The 3% increase in the estimated median solvency ratio since September 30, 2022 is attributable to:

- Positive Q4 2022 pension fund investment returns
  - The average fourth quarter 2022 gross and net, after expense, return estimates were 2.9% and 2.7%, respectively.
- Change in solvency discount rates
  - The non-indexed commuted value discount rates, for the select period decreased by 20 bps and for the ultimate period increased by 20 bps, and the non-indexed annuity purchase discount rate increased by 17 bps, resulting in a decrease in pension liabilities.

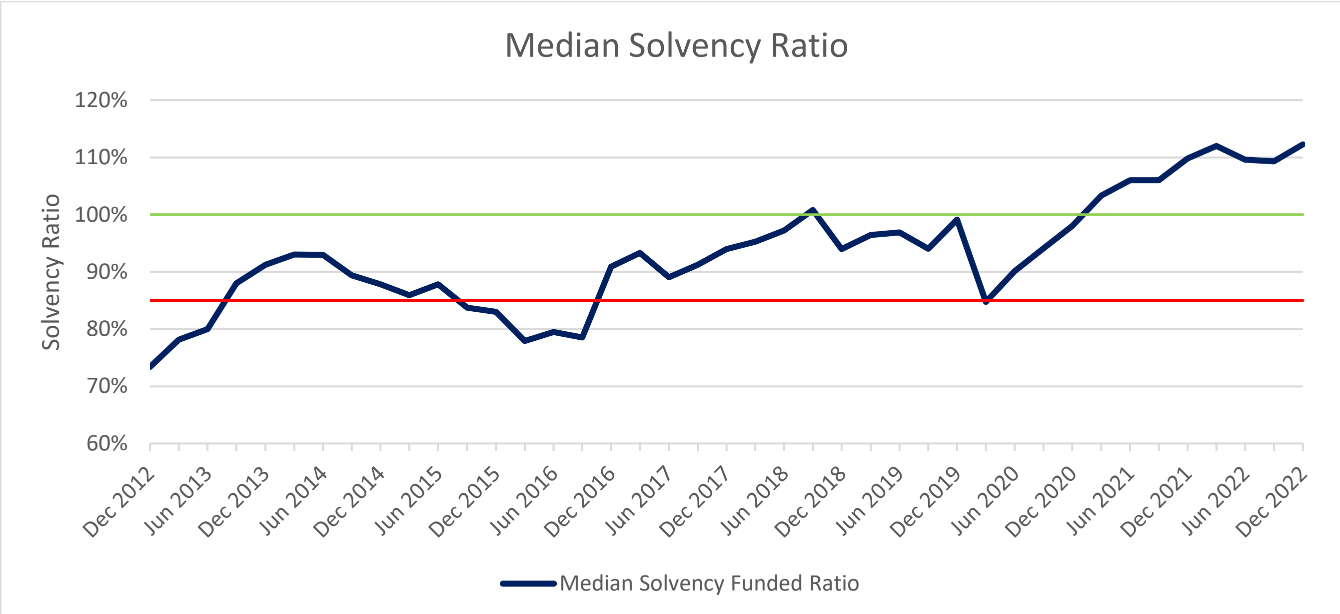


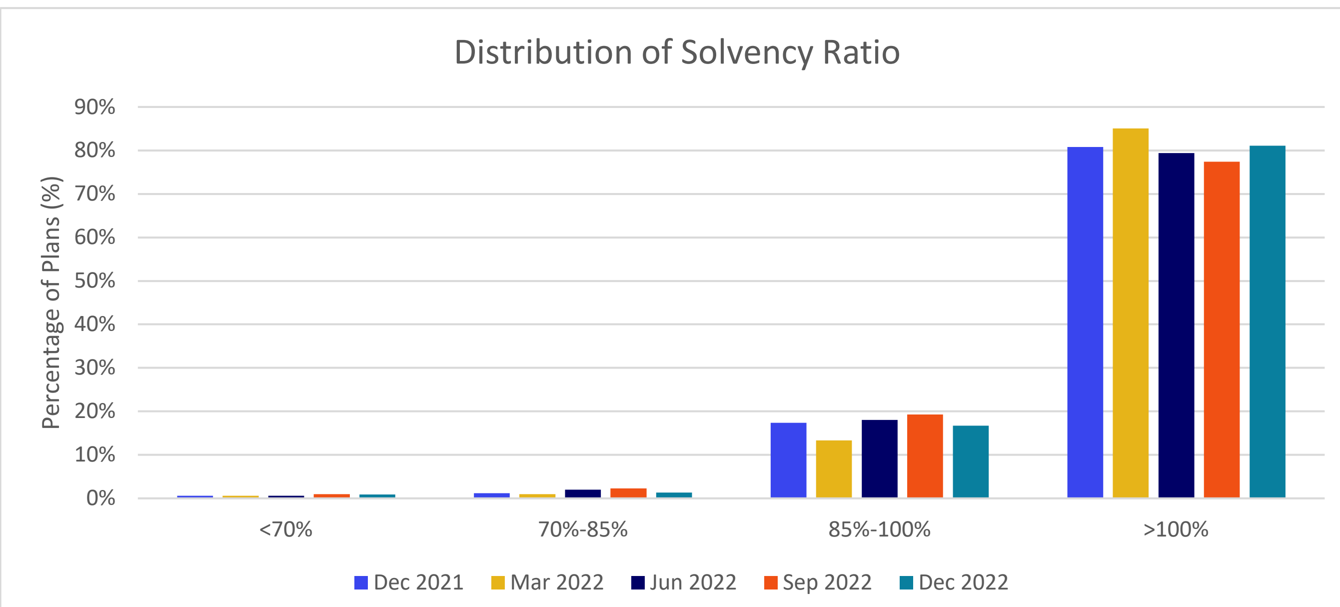
[1] based on a medium duration illustrative block

During the fourth quarter of 2022, inflation in Canada declined slightly from the third quarter but remained higher than the Bank of Canada's (BoC) target range, equity markets performed better than earlier in the year, and the BoC made downward revisions to Canadian GDP forecasts. Statistics Canada data indicates annual CPI inflation stood at 6.8% and 6.9% in November and October respectively. The gasoline component of CPI has increased by 5.3% from September to November, while the food and shelter components have both increased by 1.4% over these months. Shelter, food, and transportation are three of the largest weighted components of the CPI. Unemployment has slightly declined from September's level of 5.2% to 5.0% in December. The BoC revised their GDP forecasts in October for 2022 and 2023 downward, to 3.25% and 1%, respectively, from 3.5% and 1.75% in the previous monetary policy report. The BoC projects inflation to fall to around 3% by the end of 2023 and around 2% by the end of 2024.

The Canadian government bond yield curve was even more inverted in Q4 than Q3 2022. The 2-year benchmark yield increased by 27 basis points to 4.06%, while the 10-year benchmark yield was 3.3% as at the end of Q4 2022. By the end of Q4, the 10-yr benchmark yield was 76 basis points below the 2-year, while it was 63 basis points below the 2-year at Q3 end. In Canadian markets, the FTSE Canada Universe Bond index increased 0.1% for Q4 and the S&P/TSX Composite total return index noticeably improved, returning 6.0% during Q4. For the S&P/TSX Composite, tech and real estate were the best performing sectors, while healthcare and utilities were the lowest performing sectors for the quarter.

Central banks around the world continued to hike interest rates in Q4. The BoC had two major policy interest rate hikes of 50 basis points each, on October 26th and December 7th. The target for the overnight rate at the end of Q4 stands at 4.25%. The US Federal Reserve had two federal funds rate hikes on November 2nd and December 14th, of 75 basis points and 50 basis points respectively. The upper limit for the US fed funds target range as of the end of Q4 was 4.5%. Both the BoC and the US Federal Reserve proceeded with quantitative tightening and continue to reduce balance sheet holdings. As at the end of Q4 2022, the Canadian overnight index swaps market was pricing in additional policy interest rate hikes of 25 to 50 basis points for the first half of 2023.


Median Solvency Ratio
Solvency Ratio
120%
110%
100%
90%
80%
70%
60%
Dec 2012
Jun 2013
Dec 2013
Jun 2014
Dec 2014
Jun 2015
Dec 2015
Jun 2016
Dec 2016
Jun 2017
Dec 2017
Jun 2018
Dec 2018
Jun 2019
Dec 2019
Jun 2020
Dec 2020
Jun 2021
Dec 2021
Jun 2022
Dec 2022
Median Solvency Funded Ratio


Distribution of Solvency Ratio
Percentage of Plans (%)
90%
80%
70%
60%
50%
40%
30%
20%
10%
0%
<70%
70%-85%
85%-100%
>100%
Dec 2021
Mar 2022
Jun 2022
Sep 2022
Dec 2022

Methodology and Assumptions

1. The results reported in each plan's last filed actuarial valuation reports (assets and liabilities) were projected to December 31, 2022 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	Canadian Equities	Foreign Equities	Fixed Income	Real Estate	Other
3.1%	19.8%	20.5%	49.5%	5.8%	1.3%

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
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%
Q2 2022	0.1%	-13.2%	-13.4%	-5.7%	-11.8%	-12.6%
Q1 2022	0.1%	3.8%	-6.2%	-7.0%	-11.7%	-6.2%