

PENSION & BENEFITS COMMITTEE
AGENDA

FRIDAY, 17 November 2023

9:30 a.m.-12:00 p.m. EST

NH 3318

[Governing Documents and Resources](#)

TIMING	AGENDA ITEM	PAGE	ACTION
	OPEN SESSION		
9:30 a.m.	1. Agenda/Additional Agenda items	Oral	Decision
9:35 a.m.	2. Minutes of the 13 October 2023 Meeting (Open Session) and Business Arising	3	Decision
	a. Pension Projection Tool – Early Retirement Reduction Disclosure [McGrath]	5	Information
	b. Request at Board – Information on Healthy Pension [Hadley]	6	Information
9:45 a.m.	3. Execution Against Work Plan [Willey-Thomas]	7	Information
9:50 a.m.	4. Report from Pension Investment Committee [Basdeo]	9	Information
	Benefits		
10:00 a.m.	5. Annual Benefits Utilization Report [Hornberger]	11	Information
	Pension		
10:10 a.m.	6. UPP Review [Shapira]	19	Information
10:50 a.m.	7. Summary of Total Fund Investment Performance [Reitsma]	44	Information
11:00 a.m.	8. Pension Risk Management Dashboard Q3 2023 [Byron]	55	Information
11:10 a.m.	9. Maximum Pension Limits and Caps Adjustments, Based on AIW Increase [McGrath]	73	Information
11:25 a.m.	10. Other Business	Oral	Input

TIMING	AGENDA ITEM	PAGE	ACTION

13 November 2023

Sarah Willey-Thomas
Associate University Secretary

UPCOMING COMMITTEE MEETINGS	
8 December 2023	Pension & Benefits Committee
19 January 2024	Pension & Benefits Committee
6 February 2024	Board of Governors Meeting
16 February 2024	Pension & Benefits Committee
5 March 2024	Pension Investment Committee
22 March 2024	Pension & Benefits Committee
16 April 2024	Board of Governors Meeting

If you require assistance or need to convey regrets, please contact the Secretariat at board@uwaterloo.ca.

**University of Waterloo
Board of Governors
PENSION & BENEFITS COMMITTEE
Minutes of the 13 October 2023 Meeting**

Present: Sara Cressman, Teresa Fortney (chair), Michelle Hollis, Sarah Hadley, Lily Hua, James Rush, Jacinda Reitsma, David Saunders, David Taylor, James Thompson, Sarah Willey-Thomas (secretary)

Regrets: Elizabeth Demers

Resources/Guests: Anata Alphonso, Aubrey Basdeo, Linda Byron, Melanie Figuieredo, Patti Hancock, Sue McGrath, Matthias Schonlau, Allan Shapira, Michelle St. Amour, Holly Taylor, Tyler Wendland

Organization of Meeting: Teresa Fortney took the chair, and Sarah Willey-Thomas acted as secretary. The secretary advised that a quorum was present. The agenda was accepted as distributed.

OPEN SESSION

5. AGENDA/ADDITIONAL AGENDA ITEMS

Taylor and Hollis.

The agenda of the 13 October 2023 Meeting be approved, as presented. **CARRIED**

**6. MINUTES OF THE 15 SEPTEMBER MEETING (Open Session)
AND BUSINESS ARISING**

The Committee discussed amendments to the minutes, noting the addition of Gen Gauthier-Chalifour to resources and clarification statement to the Family Building Benefit to note “The Family Planning Benefit has been renamed the Family Building Benefit to align with the product name developed by GreenShield.

Thompson and Hollis.

That the open minutes of the 15 September 2023 meeting of the Pension & Benefits Committee be approved, as amended. **CARRIED**

7. EXECUTION AGAINST THE WORKPLAN

The Committee reviewed the workplan and noted that the COLA/ CPP proposals from the last meeting can be removed as the item was received for information at the September committee meeting and no further action was required.

8. REPORT FROM PENSION INVESTMENT COMMITTEE

Aubrey Basdeo delivered a verbal report from the Pension Investment Committee, noting recent meetings with investment managers and ongoing work to regularly meet with all investment managers.

Basdeo left the meeting.

Benefits

9. GREENSHIELD EXPERIENCE DASHBOARD

Michelle Hollis presented the GreenShield Experience Dashboard. The Committee discussed use of obesity medication and coverage; coverage for orthotic repairs; smoking cessation; medical equipment,

denture repairs; and plan for the November meeting with respect to the annual process to evaluate benefits.

The Chair congratulated Michelle on her recent continuing appointment as Chief Human Resources Officer.

10. FAMILY BUILDING BENEFIT AND TRANSITION

The Committee discussed the Family Building Benefit and that the decision would be brought forward to the Board, effective as of the date of Board approval.

Pension

7. PROJECTION TOOL – REVISIONS FOR EARLY RETIREMENT ESTIMATES

Sue McGrath provided a review of the proposed changes to the pension projection tool and related language. The Committee discussed the rationale for the additional charges to make a change; broader communication plan to explain change to language; and that additional wording would be brought back to a future meeting.

Taylor and Hua.

The University recommends that the Pension & Benefits Committee approves a change to the pension projection tool such that the early retirement reduction factor that applies to estimates is based on the plan text reduction only. In this way, early retirement or early pension commencement estimates would be a "worst case scenario" and the actual reduction at the time of early retirement or early pension commencement could be lower if the actuarial reduction applies instead of the plan text reduction.

CARRIED

8. UPP REVIEW

Allan Shapira delivered a presentation on the UPP to the Committee. The Committee discussed how universities manage their funding status during the transition period; need for more information regarding maximum salary for contributions purposes and related modelling; benefits of joining the UPP that cannot be replicated by the UW Pension Plan; impact of inflation on contributions and benefits; review of early retirement benefits and related reductions for the UW Plan and UPP; review of consent requirements depending on membership; impact of consent on retirees or inactive members of the Plan; decision process for the University; request for UPP to present to the Committee; investment philosophy of the UPP; governance of and representation on the UPP Board; risks associated with member instability. The Committee requested to complete UPP presentations by Aon before inviting the UPP to come before the Committee.

9. OTHER BUSINESS

The Committee discussed rescheduling the December meeting and that more information would be forthcoming.

10. ADJOURNMENT

The meeting was adjourned at 11:49 a.m.

18 October 2023

Sarah Willey-Thomas
Associate University Secretary

Once a pension projection has been run, after clicking on <<show details>>, the following assumptions are displayed:

More details

The following provides more details on your pension estimate at the following age and date:

Retirement age	<input type="text"/>
Retirement date	<input type="text"/>

Results are also based on the following assumptions:

Projected pensionable earnings	<input type="text"/>
Future annual salary increase	<input type="text"/>
Work schedule as a % of full time equivalent (FTE)	<input type="text"/>
Projected credited service	<input type="text"/>
Spouse's name	<input type="text"/>
Spouse's date of birth	<input type="text"/>
Spouse sex	<input type="text"/>

Benefits at retirement

Please add the following disclosure wording at the bottom of the section titled “Results are also based on the following assumptions:

“For pension projections subject to an early retirement reduction, the pension amount shown is after application of the plan reduction formula. At your actual retirement date, the early retirement reduction cannot be greater than an actuarial reduction based on the prevailing economic environment, meaning your final pension entitlement may be higher than the amount determined using the plan reduction formula, but it won’t be lower.

Please note: The projection tool has been updated to reflect the plan reduction only and does not include an estimate of the actuarial reduction. If you ran an estimate prior to <date> you may see a difference in your estimated projected pension due to this system update. This change has no impact on how your pension will ultimately be determined. “

FOR INFORMATION

Business Arising

The following items represent matters of business arising from the last meeting of the Board of Governors which was held on 31 October 2023:

University of Waterloo Pension Plan for Faculty and Staff:

Background

In June 2023, the Board approved a motion from the Pension & Benefits Committee to file the actuarial valuation report as at 1 January 2023 with the Financial Services Regulatory Authority of Ontario (FSRA) and the Canada Revenue Agency (CRA).

The materials supporting this motion noted that at 1 January 2023:

- The registered pension plan (plan) was in a deficit position on a going concern basis (\$125.9m), and a surplus position on a solvency basis (\$160.3m); and,
- That filing of this valuation will ensure that the University funding plan of 12.45% of pensionable earnings will satisfy the statutory contribution requirements for 2023 and the three subsequent years.

A Governor asked for further information to apply in the future on how to assess the reasonability of a going concern deficit of the plan.

Response

In the February 2023 Pension & Benefits Committee report to Board, Pension & Benefits Committee shared the link to the approved Funding Policy and Guideline for the plan. It is the formal framework to achieve the Plan's funding requirements subject to the provisions of the Plan Text and Applicable Laws. It will be reviewed at least every three years, and typically in a year when the actuarial valuation will be filed.

The University's approach to the going concern deficit, as recommended by the plan's actuary (Aon), is that any going concern deficit should be statutorily fundable within the funding framework outlined in the Funding Policy and Guideline. Per discussion with the plan actuary, the plan is currently funding the going concern deficit faster than statutorily required.

2023-2024 Pension & Benefits Committee Work Plan

Pension & Benefits Committee Agenda Items • expected *as needed/available	19 May 2023	16 June 2023	15 September 2023	13 October 2023	17 November 2023	8 December 2023	19 January 2024	16 February 2024	22 March 2024
OPEN SESSION									
Execution against Audit Committee Work Plan – Consent Agenda	▪	▪	▪	▪	▪	▪	▪	▪	▪
Minutes of the Previous Meeting – Consent Agenda				▪	▪	▪	▪	▪	▪
Budget Overview	▪								
Finance									
Previous Years’ Fees and Expenses	▪								
Annual Audit of the Pension Plan Fund Financial Statements	▪								
Carbon Metrics Reporting	▪								
Summary of Total Fund Investment Performance	▪		▪		▪			▪	
Statement of Investment Policies and Procedure and Fund Implementation Procedures; Pension Statement SIPP						▪			
Actuarial Consultants									
Pension Risk Management Dashboard (Quarterly)	▪		▪		▪			▪	
Approval of Actuarial Valuation Assumptions							▪		
RPP Actuarial Valuation, decision on filing									▪
Review of RPP Contribution and Protocol Caps						▪			
Human Resources									
Extended Health & Dental Benefits – Indexation of Maxima effective January 1					▪				
Retiree Life Insurance – Indexation of Coverage effective January 1					▪				
Annual Benefits Utilization Report					▪				
NEW: Annual Plan Design Review					▪				
Maximum Pension Limits and Caps Adjustments, Based on Average Industrial Wage Increase (AIW)						▪			
Cost of Living Adjustments <ul style="list-style-type: none"> • Pensions in Pay • Deferred Pensions • Pensionable Earnings for Members on LTD 								▪	

¹ Annual, as required

² Note Committee approved threshold

³ Completed every five years

Group Benefits Program – Annual Renewal <ul style="list-style-type: none"> Life Insurance – Premium Rate Long Term Disability <ul style="list-style-type: none"> Premium Rate Maximum Insured Salary (Indexation) Healthcare Benefits – ASO Fees/Charges Healthcare Benefits – Budget Rates 									▪
Governance									
Review of Committee Terms of Reference		▪							
Annual Report to the Community								▪	
Annual Committee Self Assessment									▪
Committee Priorities									▪
CONFIDENTIAL SESSION									
Minutes of the Previous Meeting	▪	▪	▪	▪	▪	▪	▪	▪	▪
Other Business	*	*	*	*	*	*	*	*	*
IN CAMERA SESSION									
Minutes of the Previous Meeting and Business Arising	▪	▪	▪	▪	▪	▪	▪	▪	▪
Other Business	*	*	*	*	*	*	*	*	*

Special Topics for 2023-2024 to be Scheduled:

- Reports from Pension Investment Committee (PIC)
 - New or terminating investment managers (as the need arises)
 - Appointment of investment consultant
- Responsible Investment Policy (recommendation to Board)

For more information:

uwaterloo.ca/secretariat

board@uwaterloo.ca

NH 3060

¹ Annual, as required

² Note Committee approved threshold

³ Completed every five years

For Information**Open Session**

Date of Meeting: November 17, 2023

To: Members, Pension & Benefits Committee

From: Aubrey Basdeo, Chair, Pension Investment Committee

RE: **Pension Investment Committee – Report from the Chair**

Background:

In accordance with the [Terms of Reference for the Committee](#), the Pension Investment Committee is a subcommittee of the Pension & Benefits Committee that is mandated to oversee the investment of the assets of the University of Waterloo Pension Plan .

Additional information about the Committee can be found on the [Secretariat website](#).

Key Items

At its meeting held 8 November 2023, the Pension Investment Committee discussed the following:

Quarterly Reports and Dashboards

The Committee received reports and dashboards, prepared by Aon, for Q3 of 2023. These reports will also be provided to the Pension & Benefits Committee.

In summary, the fund had a rate of return of -3.34% this quarter (-2.60% for the total fund benchmark) but remains positive for the year (4.76% year to date performance). The negative return rate reflects decreases across all asset classes, led by the pension's infrastructure investments.

Presentations from Investment Managers

The Committee received a presentation Walter Scott & Partners regarding the performance of current investments. The Committee is scheduled to have one or two presentations from managers at each meeting.

In summary, the return for the Walter Scott portfolio is -4.09% for Q3, but is positive for year (9.83% year to date). The manager provided additional information about changes made to the portfolio to improve performance and explained reasons for continuing with the same approach and philosophy. Generally, the Committee remains committed to the current strategy and will continue to monitor performance of all investment portfolios.

SIPP and FIP, RIP Review

The Committee reviewed the SIPP, FIP and RIP and is recommending minor changes to the FIP for approval by the Pension & Benefits Committee.

The proposed updates to the FIP are to align the document with recent updates to the Terms of Reference for both the Pension Investment Committee and Pension and Benefits Committee. These previously approved changes to the Terms of Reference for both committees included changes to the approval process for appointments and dismissals of various pension service providers, and updates to the discretionary investment thresholds for the Pension Investment Committee.

Investment Vehicles and Future Plans

The Committee, in conjunction with the Fixed Income Investment Manager Search Working Group, discussed the potential use of different investment vehicles. Further discussion will be had by the Committee in the future regarding this topic.

Fixed Income Investment Manager Search Working Group

The Working Group met in September and October and discussed criteria to consider in the search for investment managers, as well as potential allocations to different investment categories.

**Report to the Pension & Benefits Committee
17 November 2023**

FOR INFORMATION

**Annual Benefits Utilization Report
From Human Resources**

Background

On an annual basis, the Pension & Benefits Committee is provided with a summary of the benefits utilization for information purposes. Historically, the workplan included two reports: (i) Employee and Family Assistance Program (EFAP) in November and (ii) all other components of the group benefits program in June; however, the current workplan includes all components within a single report in November. Due to the inclusion of the extended health and dental benefits within this report, the monthly GreenShield experience dashboard which was introduced in agenda packages at the beginning of 2023 is not included separately this month.

Overview

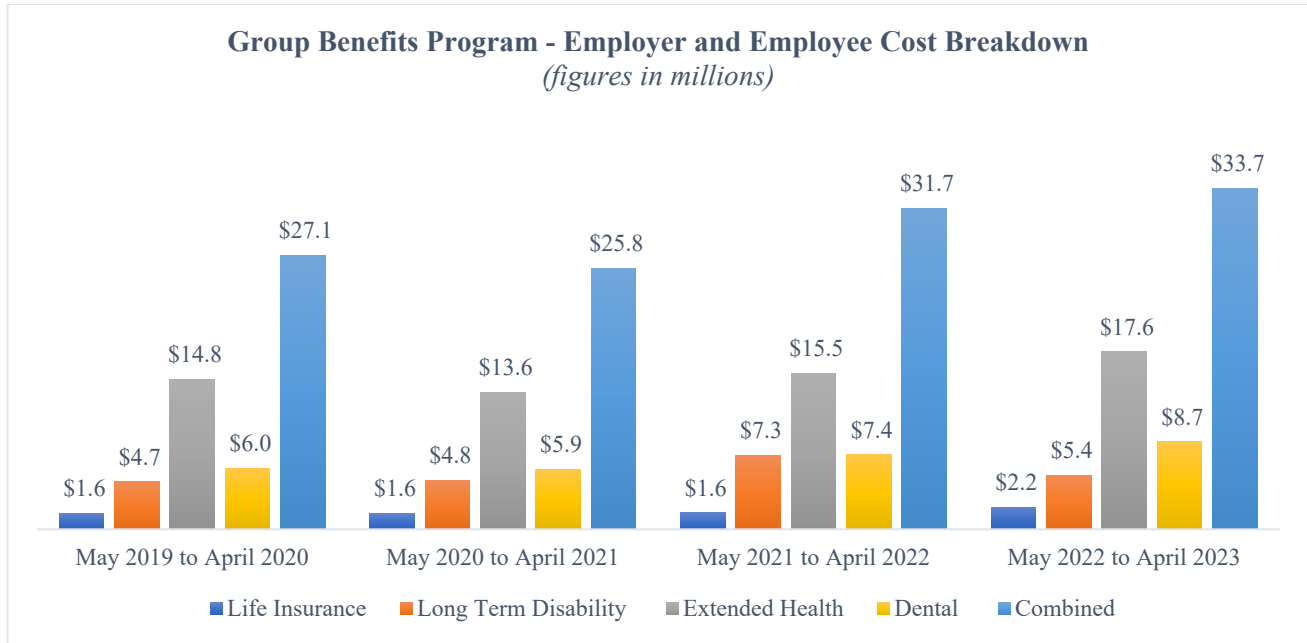
The group benefits program consists of four components, provided through engagements with three separate benefits providers/vendors:

Component	Vendor	Underwriting Method	Cost Sharing
Life Insurance	Sun Life Financial <i>(competitive bidding process currently underway to confirm vendor effective May 1, 2024)</i>	Member of the University Life Insurance Plan (ULIP) which is experience-rated, refund accounting	Employee Coverage 100% employer paid for 1 x earnings 67% employer paid for 2-3 x earnings 100% employee paid for 4-6 x earnings Spousal Coverage 100% employee paid Retiree Coverage 100% employer paid for retiree life
Long Term Disability (LTD)	Sun Life Financial <i>(new contract effective May 1, 2022)</i>	Experience-rated, non-refund accounting	100% employee paid
Extended Health and Dental	GreenShield <i>(new contract effective January 1, 2023)</i>	Administrative Services Only (ASO), individual pooling level of \$50,000 per year	100% employer paid for full-time employees; part-time employees pay a pro-rated portion based on FTE (arrangement continues into retirement for those eligible for extended health)
Employee & Family Assistance Program (EFAP)	Homewood Health <i>(renewed contract effective September 1, 2023)</i>	Pooled (flat rate per employee based on expected utilization)	100% employer paid

This collective framework of external arrangements strives to provide a foundation to support the well-being of participants, through financial and emotional/psychological support.

Cost Summary

The cost of the benefits program for the fiscal 2022/23 year amounted to approximately \$34 million which represents an increase of 6.3% from the \$32 million cost in fiscal 2021/22. More than half of the cost in 2022/23 was associated with extended health, followed by dental at 25%, long term disability at 16%, and life insurance at 6%. The cost of the employee paid LTD benefit reduced from the previous fiscal year due to the competitive bidding process that led to the new insurer providing the benefit effective May 1, 2022; however, all other benefits costs have increased, as illustrated below.



Note: The May 2022 to April 2023 cost for extended health and dental benefits includes both Canada Life and GreenShield claims experience due to the change in vendor effective January 1, 2023 and the claims runoff with Canada Life

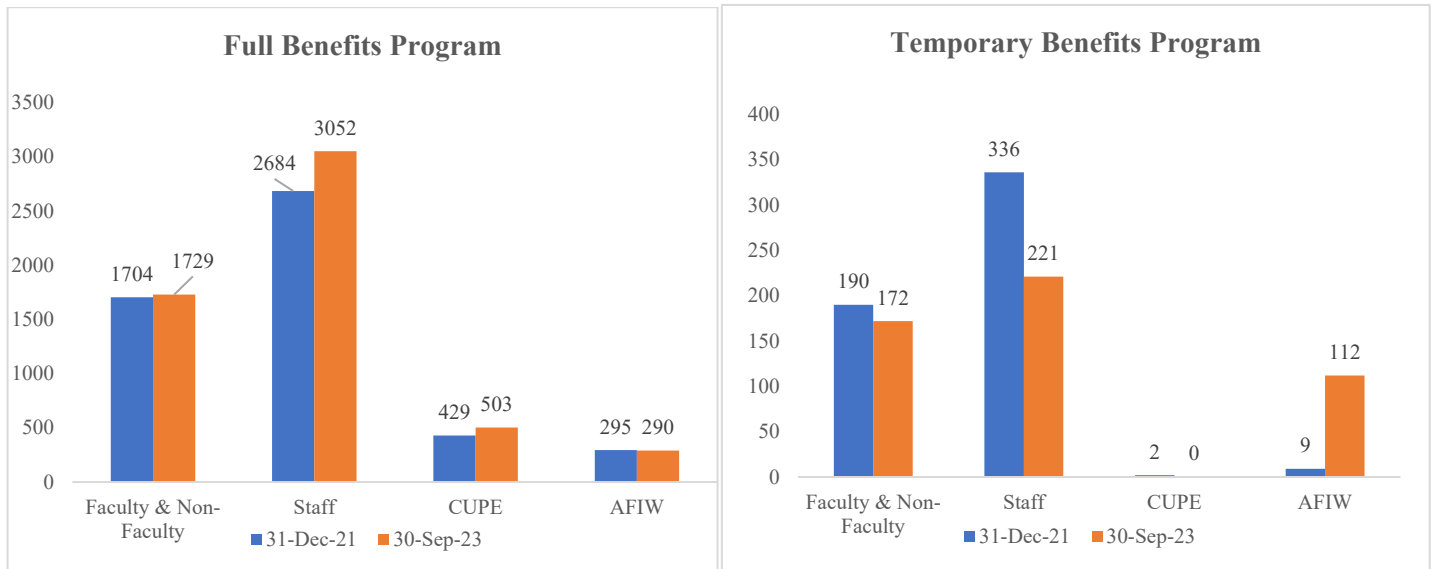
The cost of the EFAP for the May 2022 to April 2023 period for the University of Waterloo amounted to \$163,940.40, invoiced based on a monthly rate of \$2.50 per employee. Homewood Health invoices the three participating University Colleges separately and due to this lack of central oversight, the aggregate costs are excluded from the above cost summary. Effective September 1, 2023, the monthly rate with Homewood Health increased to \$2.99 per employee which represents an increase of approximately 20%. The EFAP represents less than 1% of the combined cost of the group benefits program.

Participation

As at the end of September 2023, there are 8,118 members enrolled in the extended health benefit which represents an increase of 6.4% from participation data as at December 31, 2021; 75% (or 6,079) of the 8,118 are active employees (extended health and dental or extended health only) and 25% (or 2,039) of the 8,118 are retired employees (extended health only). The majority (87%) of members utilize these benefits; however, GreenShield data indicates that there were 1,028 members with no paid claims in the first 9 months of 2023.

In comparison with 2021, the number of active employees who are participating in the benefits program increased by 7.6%. Of the 6,079 active employees, 92% are members of the full benefits program (i.e. basic and optional life insurance, long term disability, extended health and dental, EFAP) whereas 8% are members of the temporary benefits program (i.e. basic life insurance and extended health only).

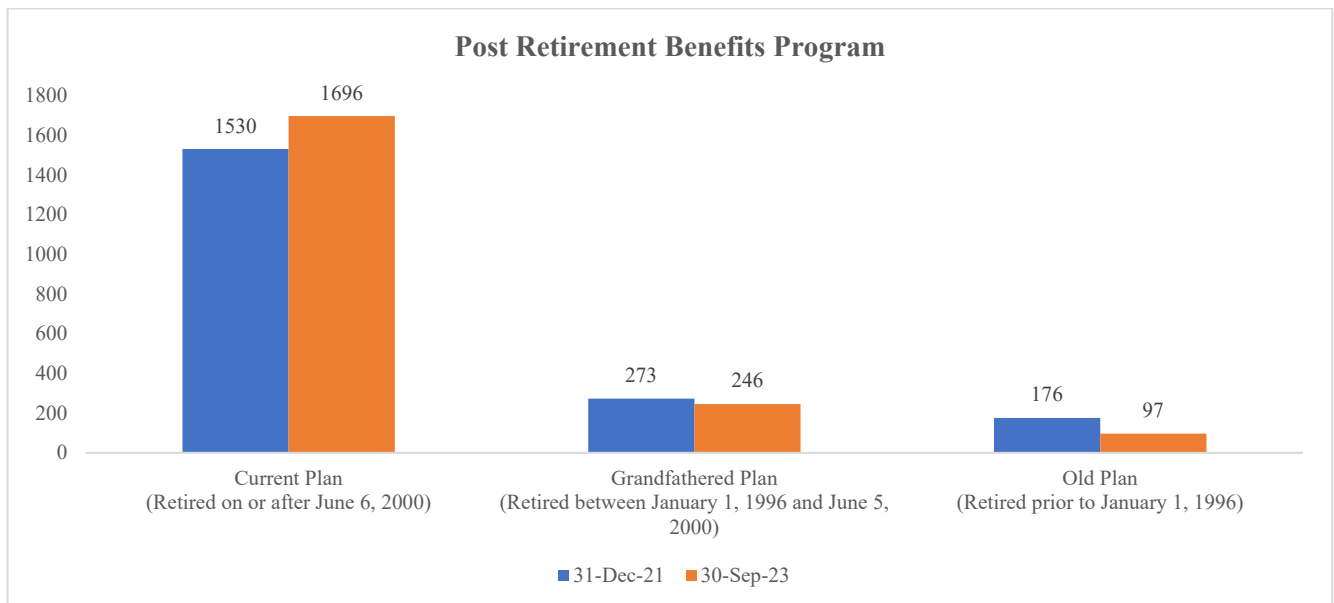
The distribution of active employees participating in the benefits program, across the employee groups of the University as well as membership within the Affiliated and Federated Institutions of Waterloo (AFIW) this year and in comparison, with data as of December 31, 2021, is as follows:



Note: The Non-Faculty category is comprised of Post-doctoral Fellows and Research Associates. As at September 30, 2023, there are 289 Non-faculty employees in the full benefits program and 169 in the temporary benefits program (a comparison to 2021 is not available).

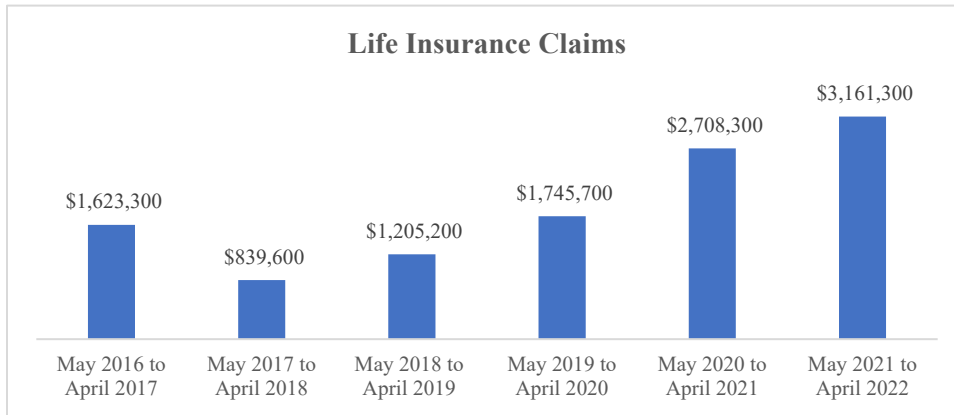
In comparison with 2021, the number of retired employees who are participating in the post-retirement benefits program increased by 3.03%. Of the 2,039 retired employees who are members, 83% belong to the Current Plan (for eligible individuals who retired on or after June 6, 2000) which provides the same coverage as the plan for active employees (with the exception of a 60-day trip limitation that applies to retirees); 12% belong to the Grandfathered Plan (for eligible individuals who retired between January 1, 1996 and June 5, 2000) and 5% belong to the Old Plan (for eligible individuals who retired prior to January 1, 1996).

The distribution of members across the three plans within the post-retirement benefits program this year and in comparison, with data as of December 31, 2021, is as follows:



Life Insurance

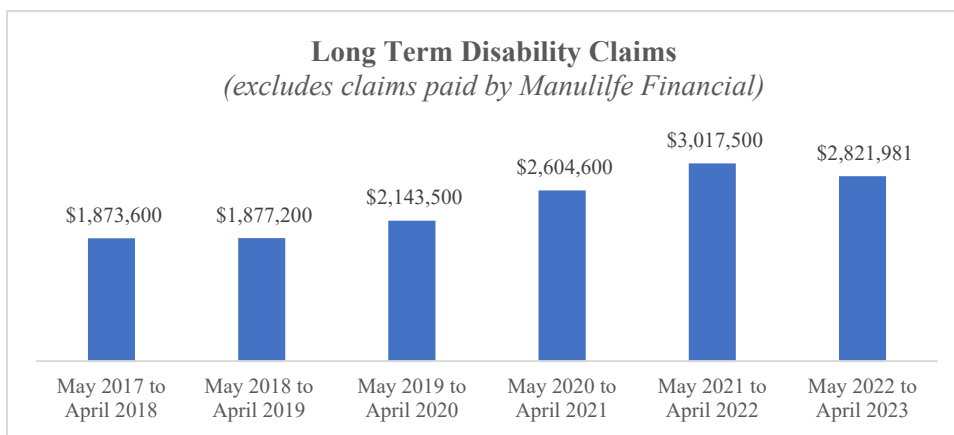
Life insurance can be a volatile benefit and insurers typically review five years of claims experience when establishing required premium rates. The University is a participant of the University Life Insurance Plan (ULIP) and a competitive bidding process is currently underway to confirm the vendor effective May 1, 2024. There is a lag in the claims experience reporting through the ULIP and information for fiscal 2022/23 is not yet available; however, the life insurance claims paid over the previous six fiscal years is illustrated below:



There were 59 life insurance claims for the May 1, 2021 to April 30, 2022 fiscal year. Seven of these claims were for active employees and correspond with \$2,379,800 in claims paid, representing 75% of the total claims paid. This is similar to the 2020/21 fiscal year in which 57 life insurance claims were paid (12 were for active employees representing 74% of the total claims paid).

Long Term Disability (LTD)

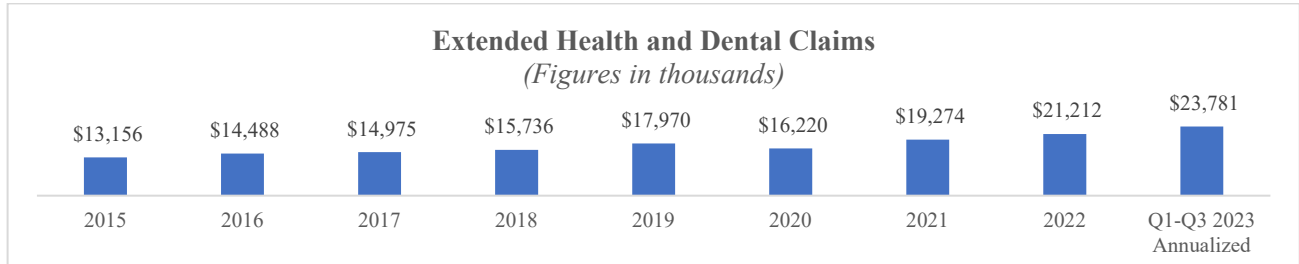
Similar to Life insurance, LTD can be a volatile benefit and insurers typically review five years of claims experience when establishing required premium rates. Effective May 1, 2022, the LTD benefit is insured by Sun Life Financial and the first claims were adjudicated in the Fall of 2022. Canada Life and Manulife Financial continue to provide benefits payments to disabled employees who became eligible for the payments during their corresponding contracts. The historical claims summary below is comprised largely of claims paid by Canada Life; however, the May 2022 to April 2023 data also includes claims paid by Sun Life Financial.



In 2022, there were 140 open LTD claims with Canada Life and 51% correspond with a mental disorder diagnosis. As of August 31, 2023, there were 27 open LTD claims with Sun Life Financial and 35% correspond with a mental health diagnosis.

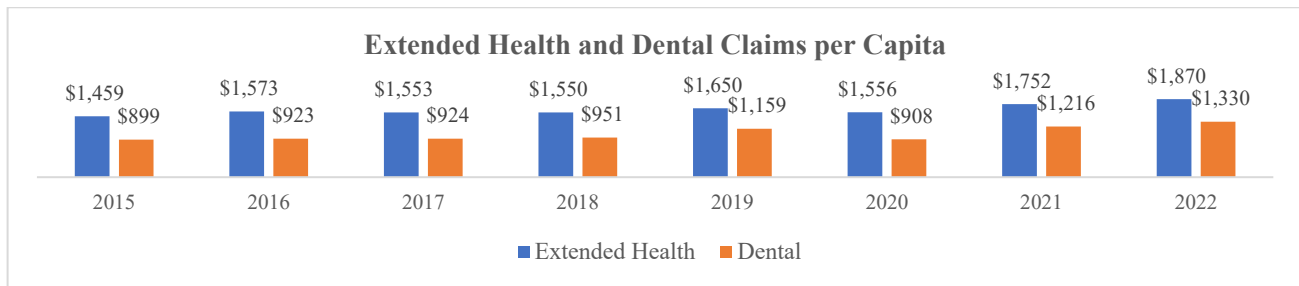
Extended Health and Dental

Effective January 1, 2023, the extended health and dental benefits have been provided by GreenShield; however, Canada Life continued to provide reimbursement for expenses incurred prior to January 1, 2023 over the first few months of 2023 (i.e. claims runoff for expenses incurred prior to 2023). The historical claims summary below is comprised largely of claims paid by Canada Life; however, the 2023 data includes \$17,108,773 in claims paid by GreenShield during the first three quarters.



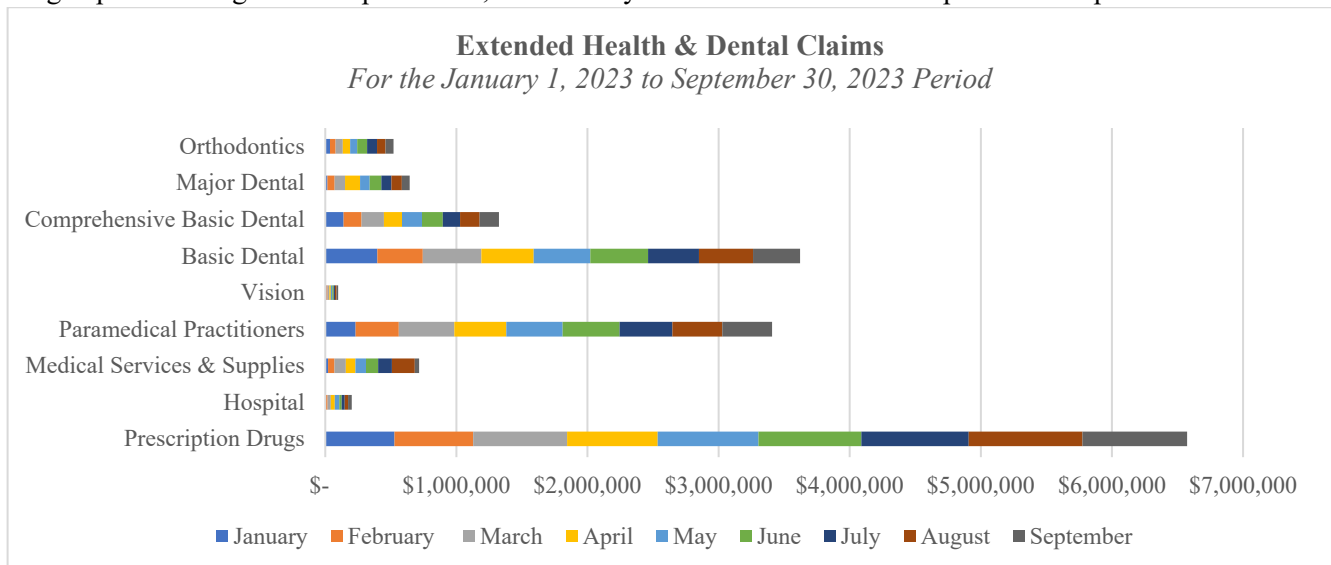
Note: the claims runoff with Canada Life amounted to \$968,864 which is added to the Q1-Q3 2023 annualized claims paid by GreenShield above

In comparison with 2021, the 2022 claims cost for extended health and dental benefits increased by 10% and data for the first three quarters of 2023 is trending towards an increase of 12% over 2022. On a per capita basis, the claims cost of extended health increased by 7% in 2022 in comparison with 2021 and for dental, an increase of 9%.



Source: 2023 Renewal Report, Aon Solutions Canada Inc., February 22, 2023 (note: claims per capita data for 2023 will be available in early 2024 to support the establishment of budget rates effective May 1, 2024)

The distribution of extended health and dental claims in 2023 is comparable to previous years with prescription drug expenses being the most prominent, followed by basic dental services and paramedical practitioners.



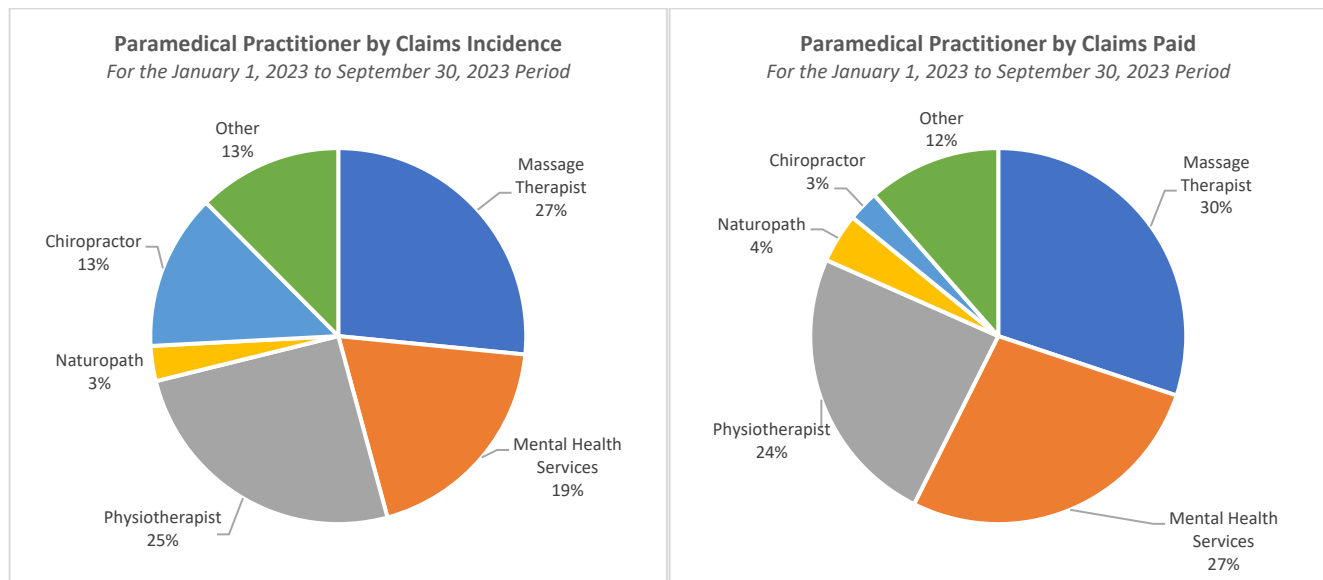
Prescription Drugs. GreenShield paid \$6,573,866 in claims for prescription drug expenses over the first 9 months of 2023 (\$8,765,155 annualized); 65.9% correspond with plan member reimbursement and 34.1% correspond with reimbursement to the plan members' dependents. In comparison, the claims paid for prescription drugs in 2021 amounted to 8,312,098 and in 2022, \$8,406,969.

- The top three therapeutic categories based on claims paid were rheumatoid arthritis, cancer, and diabetes for a total of \$2,276,058 claims paid in the first 9 months of 2023. This represents 34.6% of the prescription drugs claims paid during the period.
- The top three therapeutic categories based on claims count were hypertension, depression/anxiety, and diabetes for a total of 44,520 claims processed in the first 9 months of 2023. This represents 32.9% of the prescription drug claims processed during the period.

As reported in June 2022, the top three therapeutic categories by amount paid were rheumatoid arthritis, cancer, and diabetes (the same top three compared with 2023) and blood pressure/cardiac disease, depression, and cholesterol disorders by Drug Identification Numbers (DINs) covered, for the May 2021 to April 2022 period.

Paramedical Practitioners. GreenShield paid \$3,408,100 in claims for paramedical practitioner expenses over the first 9 months of 2023 (\$4,544,133 annualized); 65.8% correspond with plan member reimbursement and 34.2% correspond with reimbursement to the plan members' dependents. In comparison, the claims paid for paramedical practitioners in 2021 amounted to \$3,279,109 and in 2022, \$4,560,515.

The distribution of 2023 claims experience across type of paramedical practitioner is illustrated below.



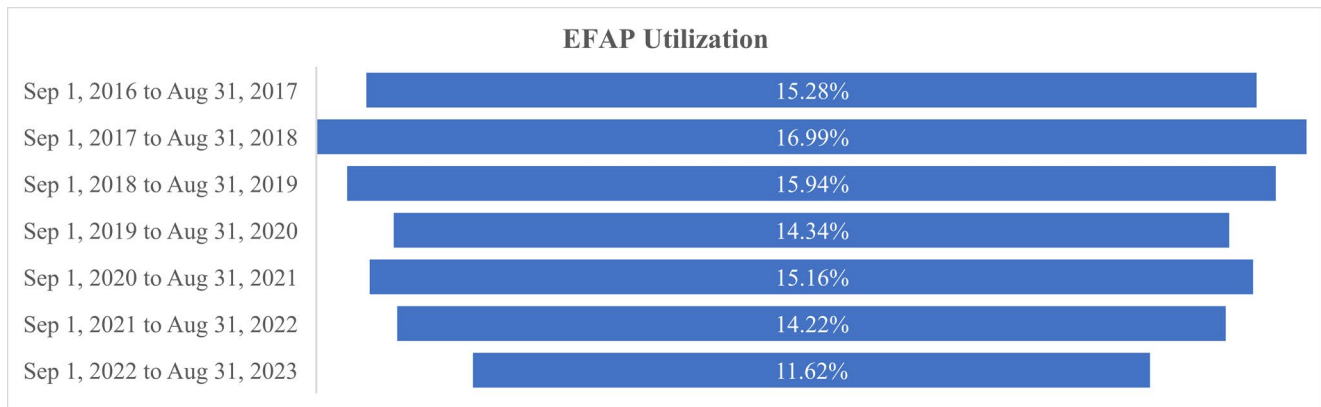
Note: the paramedical practitioner claims submitted and reimbursed by Canada Life in 2023 in the amount of \$847,099 are excluded from the above

Similar to previous years, massage therapy is the most prominent in terms of both claims incidences and reimbursement provided, followed by mental health and physiotherapist services.

Dental Services. GreenShield paid \$6,111,355 in claims for dental expenses over the first 9 months of 2023 (\$8,148,473 annualized); 52.8% correspond with plan member reimbursement and 47.2% correspond with reimbursement to the plan members' dependents. In comparison, the claims paid for dental services in 2021 amounted to \$6,137,134 and in 2022, \$7,014,454.

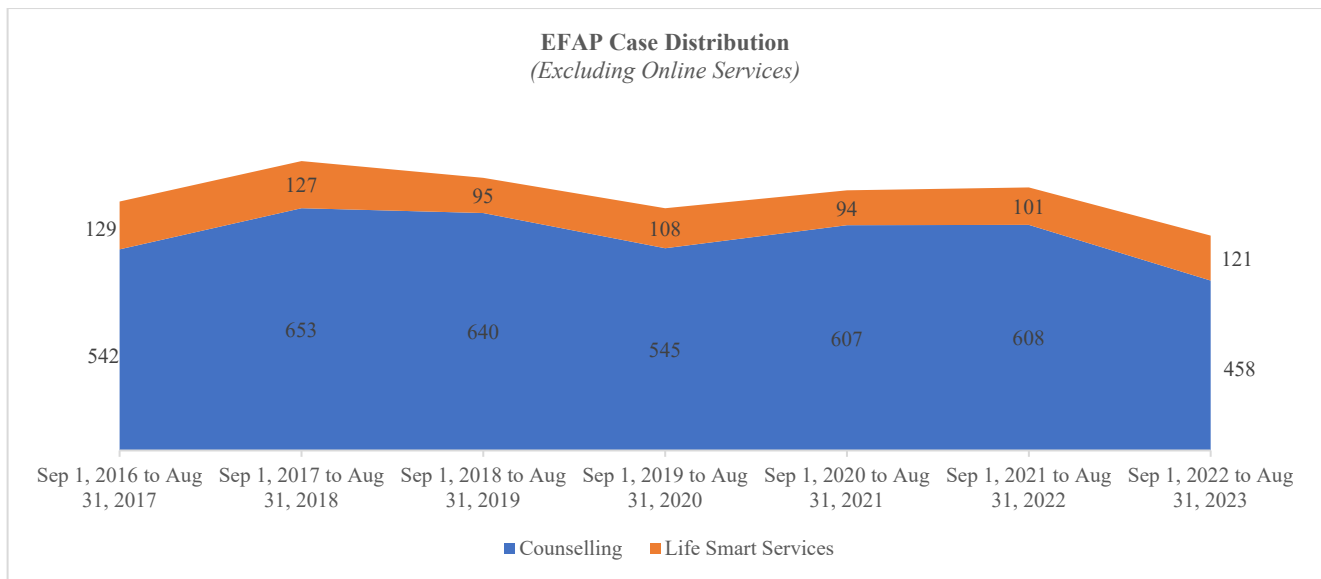
Employee and Family Assistance Program (EFAP)

A renewed contract with Homewood Health was implemented effective September 1, 2023 for a five year period, renewable for an additional two years. The utilization during the September 1, 2022 to August 31, 2023 period was 11.62% which represents a significant decline in comparison with historical usage.



Homewood Health’s benchmarks indicate utilization at 8.46% across all of their clients, 9.90% for the education sector, and 13.25% for the university sector.

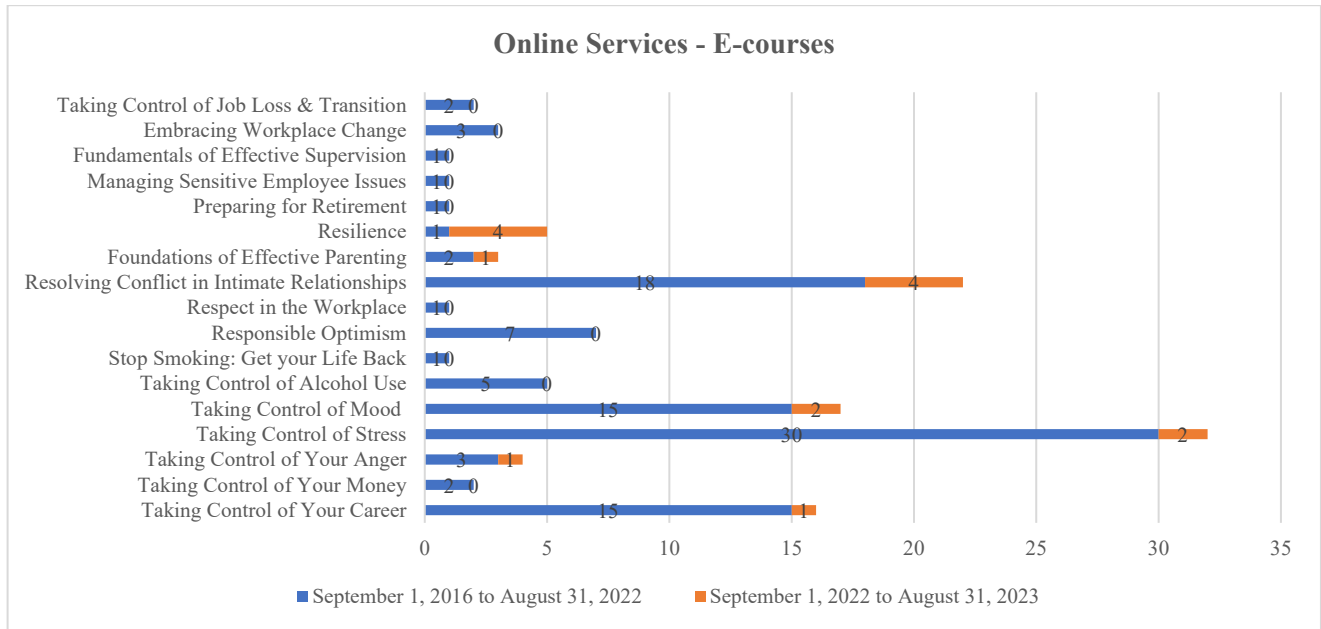
The number of cases for the policy year amounted to 579 (excluding online services) which represents a decline of 18% from the previous policy year. This decline was largely driven by a reduction in counselling services cases (458 representing a 25% reduction from the previous policy year); however, the number of life smart (work-life balance services) cases increased by 20% to 121.



Within Counselling, the cases for Crisis/Trauma doubled from 16 to 32 in comparison with the previous policy year; 34% of the cases align with the June to August 2023 quarter. As in previous years, Psychological counselling was the highest category in the year with 212 or 46% of the cases; however, the number of cases declined by 42% in comparison with the previous year. Depression and Anxiety continue to be the most prominent categories within the Psychological category with 25% and 37% of the cases, respectively, followed by Stress at 18% of the 212 cases.

Within Life Smart Services, the cases for retirement solutions tripled from 6 to 19 in comparison with the previous policy year. Similarly, the cases for elder and family care increased to 10 from 2 in comparison with the previous policy year. As in previous years, legal advisory life smart services was the highest category in the year with 31 or 26% of the cases and this represents an increase of 29% from the previous year.

The usage of online services increased by 57% in the September 1, 2022 to August 31, 2023 period in comparison with the previous policy year. Of the 22 cases, 15 cases representing 68% of the total were for e-courses followed by 6 cases for elder/childcare locator and one health risk assessment.



Crisis Management Services is available through the EFAP contract through Homewood Health and centrally managed when a need arises. The “Exposure to Violent Incident” category newly presented itself and was most prominent in the September 1, 2022 to August 31, 2023 period.



Action Required: None



Review of University Pension Plan Ontario (UPP) – Funding Structure and Plan Design

University of Waterloo Pension & Benefits Committee

Meeting on May 19, 2023

Updated for Meeting on September 15, 2023

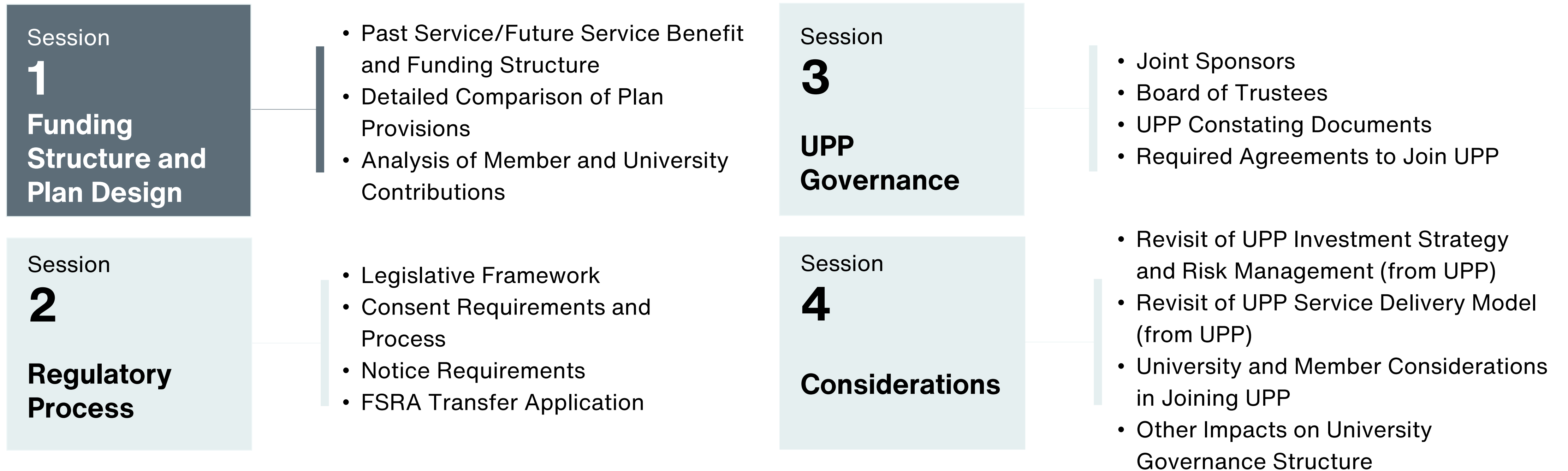
Updated for Meeting on October 13, 2023

Updated for Meeting on November 17, 2023



Approach for Reviewing the UPP

As agreed to at March 10, 2023 meeting of P&B Committee:




UPP Benefit Structure

Pension Benefits From UPP	
Pre-Conversion Date Pensionable Service	Post-Conversion Date Pensionable Service
Prior university plan provisions for pre-Conversion Date Pensionable Service will be replicated under UPP	UPP provisions apply as of Conversion Date forward
Each participating university will have different benefit provisions for pre-Conversion Date Pensionable Service	Common benefit provisions for all participating universities and employees



UPP Funding Structure

UPP Pension Fund Invested as One Fund		
Assets and Liabilities for Pension Benefits Transferred Into UPP (Pre-Conversion Service)		Assets and Liabilities for Pension Benefits Earned From Conversion Date (Post-Conversion Service)
Assets and liabilities from prior university plans transferred into UPP		One joint cost- and risk-sharing arrangement across all participating universities and employees
Each participating university responsible for its own funded status on Conversion Date and for any losses/gains on pre-Conversion Date assets and liabilities for first 10 years from Conversion Date, followed by 10-year transition to 50/50		Contributions are shared 50/50 between universities and employees including sharing of any losses/gains that arise for UPP service



Comparison of Plan Provisions

Provisions	UW Pension Plan	UPP
Eligibility	<p>Employees employed on a full-time or part-time basis (with at least one-third annual commitment) eligible to join on first day of any month coincident with or next following date of employment; mandatory enrollment on first day of month coincident with or next following date of employment if age 35 or over on date of employment, or first day of calendar year coincident with or next following attainment of age 35 if under age 35 at date of employment</p> <p>Full-time or part-time definite-term lecturers who have attained age 35 required to join on first day of month coincident with or next following earlier of promotion to a higher rank or completion of 5 years of service</p> <p>Employees employed at less than one-third annual commitment eligible to join on first day of any month coincident with or next following two immediately preceding calendar years of either earnings of at least 35% of YMPE or hours of work of at least 700</p>	<p>Full-Time Employees: Mandatory enrollment on the first day of the month coincident with or next following date of employment</p> <p>Other Than Continuous Full-Time Employees: Optional enrollment on first day of any month if either earnings* of at least 35% of YMPE or 700 hours* of work, in each of two consecutive calendar years immediately prior to applying for membership <i>*from an eligible class of employment</i></p> <p>Transition: All members of the university plan on the Conversion Date become members of the UPP</p>

Comparison of Plan Provisions

Provisions	UW Pension Plan	UPP
Retirement Dates		
Normal Retirement Date	First day of month coincident with or next following attainment of age 65	Last day of month coincident with or in which member reaches age 65 (but no later than normal retirement date under university plan)
Early Retirement Date	Within 10 years of normal retirement date	Last day of month coincident with or in which member attains age 55
Postponed Retirement Date	First day of any month following normal retirement date, subject to pension commencing no later than December 1 of calendar year in which member attains age 71	Last day of any month in which member retires following normal retirement date, subject to no later than November 30 of calendar year in which member attains age 71
Pension Commencement Date	Same date as above for normal, early or postponed retirement	First day of month following normal, early or postponed retirement date

Comparison of Plan Provisions

Provisions	UW Pension Plan	UPP
Benefit Formula		
Average Earnings	Best 60 consecutive months of pensionable earnings	Best 48 non-consecutive months of pensionable earnings (definition of pensionable earnings that applied under university plan continues under UPP)
Average Year's Maximum Pensionable Earnings (YMPE)	Last 5 years	Last 48 consecutive months; Year's Additional Maximum Pensionable Earnings (YAMPE = 1.14 × YMPE) to be used as breakpoint starting in 2025
Benefit Rate Per Year of Pensionable Service	1.4% / 2.0%	1.6% / 2.0%
Maximum Benefit	Income Tax Act maximum pension, subject to cap of \$4,000 per year of pensionable service effective January 1, 2023, increased thereafter each calendar year starting in 2024 by one-third of percentage increase in Average Industrial Wage	Income Tax Act maximum pension; automatically increased with percentage increase in Average Industrial Wage

Comparison of Plan Provisions

Provisions	UW Pension Plan	UPP
Normal Form of Payment		
Without Spouse	Lifetime pension with 10-year guarantee period	Lifetime pension with 10-year guarantee period
With Spouse	Lifetime pension with 10-year guarantee period (LG10); statutory 60% survivor pension actuarially reduced from LG10 pension	Lifetime pension with 50% survivor pension; statutory 60% survivor pension actuarially reduced from 50% survivor pension
Unreduced Early Retirement		
	Age 62	Age 60 and 80 age-plus-service points (e.g., age 60 and 20 years of service; age 62 and 18 years of service); only applies to pension benefit earned for UPP service but pre-Conversion Date service counts for eligibility
Reduced Early Retirement		
	Accrued pension reduced 6% per year from age 62	Accrued pension reduced 5% per year from age 65
Reduction for Early Commencement of Deferred Pension		
	3% per year from ages 65 to 60, plus 6% per year from ages 60 to 55	Actuarial reduction from age 65

Comparison of Plan Provisions

Provisions	UW Pension Plan	UPP
Cost-of-Living Adjustments (Indexation)		
Pensions in Payment	<p>For pension benefits accrued on and after January 1, 2014: Guaranteed indexation at 75% of increase in Consumer Price Index (CPI), up to a maximum adjustment of 3.75%; any indexation over 3.75% determined by P&B Committee based on financial health of plan</p> <p>For pension benefits accrued prior to January 1, 2014: Guaranteed indexation at 100% of increase in CPI, up to a maximum adjustment of 5.00%; any indexation over 5.00% determined by P&B Committee based on financial health of plan</p>	<p>Funded conditional indexation at 75% of increase in CPI</p> <p>Indexation at 75% of CPI included in contribution rates based on long-term actuarial assumptions and granted each year subject to funding policy under which Joint Sponsors can decide to reduce future indexation adjustments below 75% of CPI level given financial health of plan</p>
Deferral Period	<p>No indexation provided on pension benefit for post-January 1, 2008 Pensionable Service unless member has 20 or more years of service or is within 10 years of normal retirement date at termination of employment</p> <p>Indexation amount for eligible pension benefit determined annually by P&B Committee</p>	No indexation provided

Comparison of Plan Provisions

Provisions	UW Pension Plan	UPP
Disability		
	<p>Members in receipt of income under university LTD plan:</p> <ul style="list-style-type: none"> • Cease to contribute while disabled; and • Continue to accrue pensionable service with pensionable earnings at date of disability increased each year by a percentage determined by P&B Committee 	<p>Members in receipt of income under university LTD plan:</p> <ul style="list-style-type: none"> • Cease to contribute while disabled (university makes both member and university contributions); and • Continue to accrue pensionable service with pensionable earnings at date of disability increased at same rate and at same time as disability income under LTD plan
Termination of Membership		
	Deferred pension or commuted value prior to eligibility for early retirement	Deferred pension or commuted value prior to eligibility for early retirement
Death in Service		
	Commutated value of accrued pension	Commutated value of accrued pension

Comparison of Plan Provisions

Provisions	UW Pension Plan	UPP
Member Contributions		
	7.80% up to YMPE, plus 11.20% above YMPE, up to maximum salary for contribution purposes (\$222,646 in 2023) Ratio of contribution rate to benefit rate: 5.6	9.20% up to YAMPE, plus 11.50% above YAMPE, up to maximum salary for contribution purposes (\$196,200 in 2023) Ratio of contribution rate to benefit rate: 5.75

Comparison of Benefits – Examples

Following table compares annual pension benefit earned under UW Pension Plan (based on 5-year average earnings and 5-year average YMPE) to annual pension benefit earned under UPP (based on 4-year average earnings and 4-year average YAMPE):

5-Year Average Earnings in 2025 ¹	Annual Pension Earned Per Year of Service (Payable as a Life Guaranteed 10-Year Pension)		
	UW Plan ²	UPP ³	% Increase
\$50,000	\$ 700	\$ 812	16.0%
\$75,000	\$ 1,100	\$ 1,218	10.7%
\$100,000	\$ 1,600	\$ 1,722	7.6%
\$125,000	\$ 2,100	\$ 2,230	6.2%
\$150,000	\$ 2,600	\$ 2,737	5.3%
\$175,000	\$ 3,100	\$ 3,245	4.7%
\$195,000	\$ 3,500	\$ 3,651	4.3%
\$197,525	\$ 3,551	\$ 3,702 ⁴	4.3%
\$205,090	\$ 3,702 ⁴	\$ 3,702 ⁴	0.0%

For members with a spouse at retirement, subsidized survivor pension will increase UPP pension versus UW pension by 5% to 7% at typical retirement ages

¹ 4-year average earnings assumed to be 1.5% higher
² Based on 5-year average YMPE of \$66,636 in 2025
³ Based on 4-year average YAMPE of \$76,940 in 2025
⁴ Based on ITA maximum pension of \$3,702 in 2025

Comparison of Contributions – Examples

Following table compares annual member contributions earned under the UW Pension Plan and the UPP, based on an annual salary that approximates the final year’s salary for the average earnings used in the benefits examples:

Annual Salary in 2025	Annual Contributions			
	UW Pension Plan ¹	UPP ²	Increase	% Increase
\$53,000	\$ 4,134	\$ 4,876	\$ 742	17.9%
\$80,000	\$ 6,570	\$ 7,360	\$ 790	12.0%
\$106,000	\$ 9,482	\$ 10,348	\$ 866	9.1%
\$133,000	\$ 12,505	\$ 13,453	\$ 948	7.6%
\$159,000	\$ 15,418	\$ 16,443	\$ 1,025	6.6%
\$186,000	\$ 18,442	\$ 19,548	\$ 1,106	6.0%
\$207,000	\$ 20,794	\$ 21,963	\$ 1,169	5.6%
\$209,400	\$ 21,063	\$ 22,192 ⁴	\$ 1,129	5.4%
\$217,400	\$ 21,959	\$ 22,192 ⁴	\$ 233	1.1%
\$234,700	\$ 23,896 ³	\$ 22,192 ⁴	\$ (1,704)	-

¹ YMPE of \$70,300 in 2025

² YAMPE of \$80,100 in 2025

³ Based on ITA maximum contribution under UW Pension Plan for 2025

⁴ Based on UPP salary cap for pension contribution purposes of \$209,000 in 2025

Comparison of Early Retirement Benefits

Early Retirement at Ages Less Than 60

Age at Retirement	% of Accrued Pension	
	UW Pension Plan	UPP
55	58%	50%
56	64%	55%
57	70%	60%
58	76%	65%
59	82%	70%



Comparison of Early Retirement Benefits (cont'd)

Early Retirement at Ages 60 to 64

% of Accrued Pension												
Eligibility Service at Retirement												
Age at Retirement	<15		16		17		18		19		20+	
	UW	UPP	UW	UPP	UW	UPP	UW	UPP	UW	UPP	UW	UPP
60	88%	75%	88%	75%	88%	75%	88%	75%	88%	75%	88%	100%
61	94%	80%	94%	80%	94%	80%	94%	80%	94%	100%	94%	100%
62	100%	85%	100%	85%	100%	85%	100%	100%	100%	100%	100%	100%
63	100%	90%	100%	90%	100%	100%	100%	100%	100%	100%	100%	100%
64	100%	95%	100%	100%	100%	100%	100%	100%	100%	100%	100%	100%

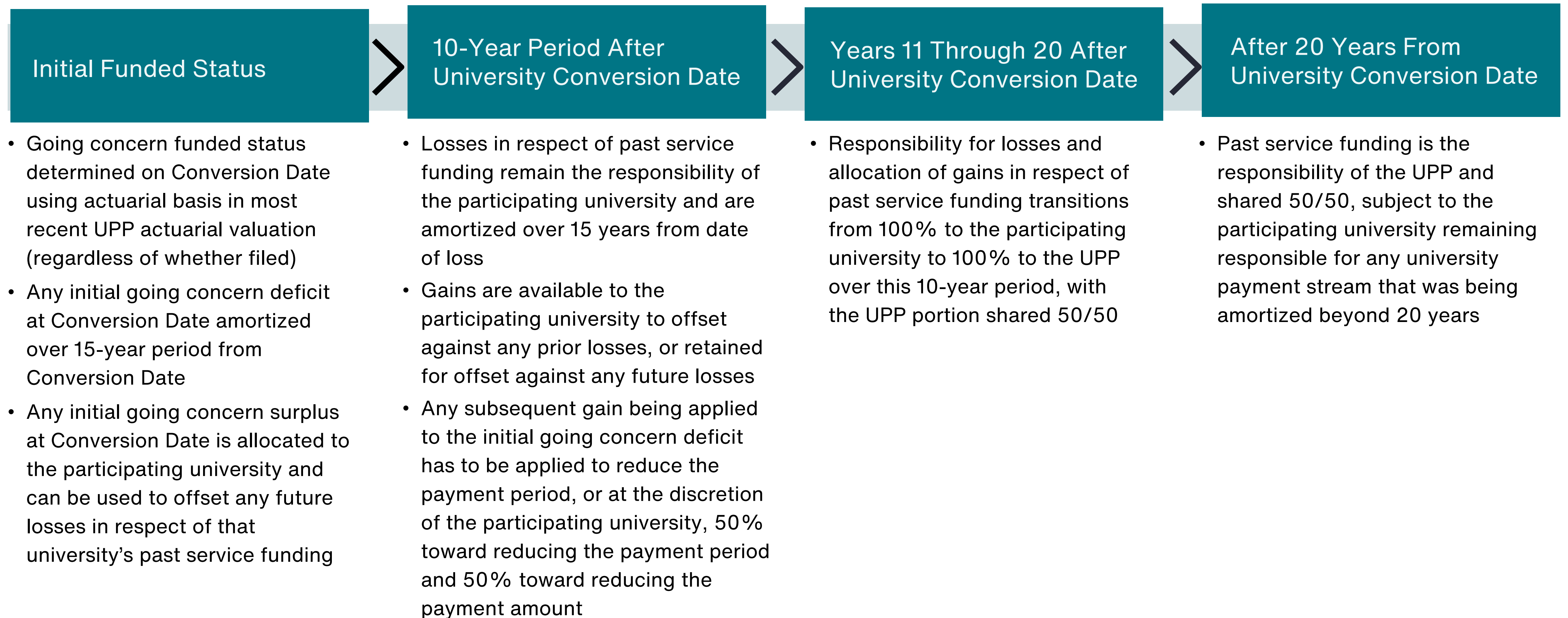
 UPP same or better than UW Pension Plan

More Details on Funded Conditional Indexation for Post-Conversion Date Benefits

- Contribution rates are established including post-retirement indexation at 75% of the Increase in CPI
- Funded conditional indexation applies to all benefits earned in respect of service under the UPP after the participating university's conversion date
- Indexation provided on each January 1st at 75% of the Increase in CPI (no cap on inflation), unless Sponsors jointly decide to activate conditionality lever to pay future indexation at below 75% of the Increase in CPI (future indexation adjustment):
 - No change to indexation already paid and included in pensions in payment
 - Future indexation adjustment requires filing of an actuarial valuation (the filing of a valuation is a Joint Sponsors' decision), but does not require a plan amendment
- For pensions in payment, run-rate indexation at 75% of the Increase in CPI will continue to be tracked:
 - Run-rate indexation is the level of indexation that would have been paid had 75% of the Increase in CPI applied every year
- Once the conditional indexation lever is activated, and subject to annual review, indexation continues to be paid at the lower level until Sponsors jointly decide, within the framework of the Funding Policy, to partially or fully deactivate the lever by:
 - Increasing future indexation to be paid partially toward or fully up to 75% of the Increase in CPI; and/or
 - Increasing pensions in payment partially or fully toward the run-rate pension (i.e., catch up to run-rate)
 - Requires filing of an actuarial valuation, but does not require a plan amendment

More Details on Funding In Respect of Assets and Liabilities Transferred to the UPP (“Past Service Funding”)

Following is based on Joint Sponsors’ Future Employers Terms and Conditions:



UPP Governance

The JSPP model is founded on cooperation, transparency and shared accountabilities between employers and plan members:

- ✓ 50/50 sharing of contributions
- ✓ Equal say in plan design, funding, administration
- ✓ Transparent plan operations, funding, decision-making
- ✓ Clear, explicit risk sharing

It's these characteristics that afford JSPPs unique benefits like solvency exemption and stable, predictable contributions.

UPP Joint Sponsors

Two Sponsors: Universities are one Sponsor and employees are the other Sponsor; each Sponsor has a Committee with 6 members

Sets contributions and benefits formula

Defines funding policy

Appoint administrator

Sets terms for and approves new entrants

UPP Administrator – Board of Trustees

Made up of 14 members, including an Independent Chair appointed by the Joint Sponsors¹

Actuarial valuation

Investment of assets

Member services and benefit payments

¹ 6 Board members appointed by universities, 6 Board members appointed by faculty associations and unions, and 1 Board member appointed by non-unionized employees (without a tie-breaking vote)

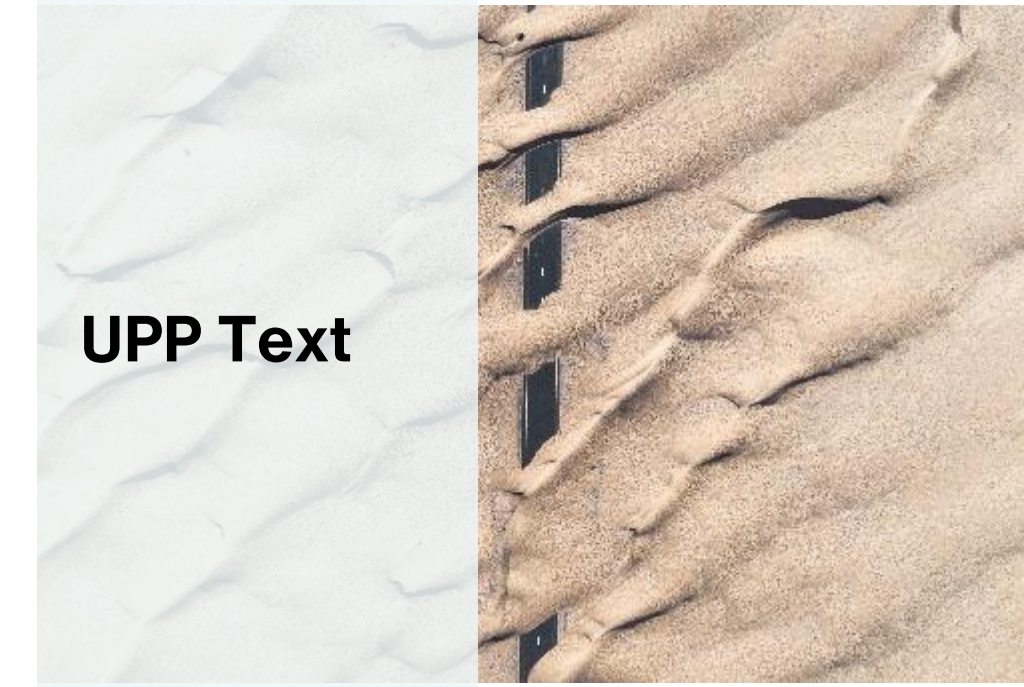
UPP Constating Documents



- Agreement between Sponsors for the establishment of the UPP as a jointly sponsored pension plan
- Establishes Employer Sponsor and Employee Sponsor as the exclusive representatives of employers and members, respectively
- Sets out Joint Sponsor responsibility for UPP terms, Trust Agreement, Funding Policy and new employer terms and conditions



- Establishes the Board of Trustee as legal administrator of the UPP (per PBA) and the UPP Trust Fund
- Sets out powers and duties of Board of Trustee (e.g. fiduciary standard, pay benefits and collect contributions in accordance with UPP terms)
- Sets the composition of the Board, term of each Trustee and responsibility for appointment by Joint Sponsors



- Contains provisions applicable to benefits earned for service on and after date of participation
- Contains appendices for each prior plan converted to UPP to provide for replication of pre-conversion service and address any transitional provisions



- Adopted by the Joint Sponsors to set out the funding framework for the UPP
- Purpose is to provide for contribution stability, benefit security, intergenerational equity and plan sustainability
- Sets out the provisions applicable any initial deficit (or surplus) that exists on Conversion Date as well as the treatments of future gains and losses on pre-conversion assets and liabilities

Consent Requirements

UPP conversion cannot proceed unless:

At least 2/3 of all active Plan members consent

For employees participating in the Plan who are represented by a union or association determined to be a trade union for purposes of the Labour Relations Act, under the Pension Benefits Act, consent must be made by the union or association for the employees it represents pursuant to its process for determining whether or not to consent

In that case:

- If the union or association consents on behalf of its members, all such members are deemed to have consented to the conversion
- If the union or association does not consent on behalf of its members, all such members are deemed to have objected to the conversion

Employees participating in the Plan not included above have an individual right to consent to the conversion. If active member is non-unionized, member has an individual right to consent to the conversion.

No more than 1/3 of all inactive Plan members (retired and former members and other beneficiaries) object

Inactive members have an individual right to object to the conversion

“Other beneficiaries” includes surviving spouses and former spouses in receipt of pension

Key Components of the Process to Join the UPP

1

Mandate to proceed with UPP conversion from:

- 1) Applicable unions/associations that are to consent on behalf of their members; and
- 2) UW Board of Governors

2

Formal MOAs between UW and applicable unions/associations providing consent to UPP conversion

3

Approval from UPP Join Sponsors to join the UPP (including financial terms relating to past service benefits)

4

Members consent and regulatory process:

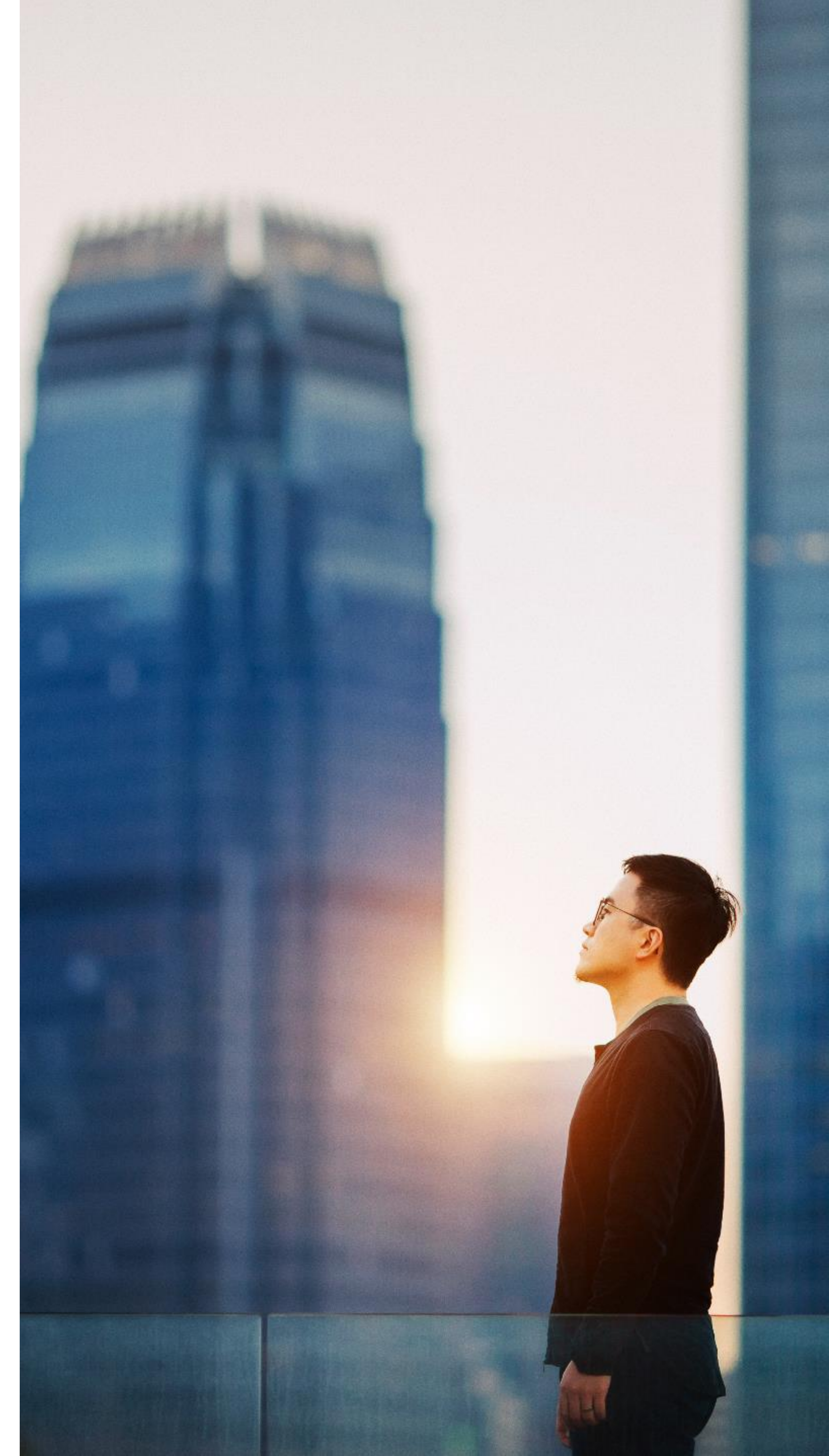
- Consent from UW Plan members and applicable unions/associations
- Filing transfer application with Ontario pension regulator (FSRA)
- Approval to transfer from FSRA

5

Formal Participation Agreement between UW Board of Governors and UPP Board of Trustees and Transfer Agreement between UW Board of Governors and Joint Sponsors

Key Agreements – Participation Agreement

Parties	UW Board of Governors and UPP Board of Trustees (terms subject to approval by Joint Sponsors)
Purpose	Provides for UW's participation in UPP on and after the Conversion Date
Key Terms	<ul style="list-style-type: none">• Representations and warranties of UW, including:<ul style="list-style-type: none">◦ UW has entered into a MOA with the applicable unions/associations◦ There is no conflict between the UPP terms and any collective agreement• Acknowledgement by UW that it is bound by the UPP constating documents and of the exclusive powers and responsibilities of the Joint Sponsors and Board of Trustees with respect to the UPP• Eligible classes of employees for participation and definition of pensionable earnings applicable to UW employees• Responsibilities of UW and UPP Board of Trustees



Key Agreements – Transfer Agreement

Parties	UW Board of Governors and Joint Sponsors
Purpose	Provides for the transfer of assets and assumption of liabilities from the UW Pension Plan to the UPP effective as of the Conversion Date (required by the <i>Pension Benefits Act</i>)
Key Terms	<ul style="list-style-type: none">• Conditional on consent of CEO of FSRA• Sets out the responsibilities of UW and the UPP for the preparation of actuarial valuations in connection with the conversion• Sets out UW’s responsibilities for an initial deficit (if any) or the treatment of an initial surplus (based on Joint Sponsors’ Future Employers Terms and Conditions)• Sets out the treatment of any subsequent gains and losses on pre-conversion assets and liabilities• Provides for the transfer of pension data and records for the purposes of administering pre-conversion benefits



Notice and Regulatory Approval Process

Preparation and Distribution of Member Notices	Member Consent Period	Preparation and Filing of Transfer Application	Regulatory Approval of Conversion	Conversion of UW Plan to UPP
<ul style="list-style-type: none"> • Must be delivered after UW enters into MOAs with applicable unions/associations and term sheet with UPP Joint Sponsors – conditional on conversion • Prepared using information not more than 6 months older than notice distribution date 	<ul style="list-style-type: none"> • Consent period closes 90 days after notices received • Consent requirements as per previous page 	<ul style="list-style-type: none"> • UW to prepare transfer application for filing with FSRA, including UW Plan transfer amendment • Must be filed within 9 months after distribution of notices • Once filed, notice of application distributed to UW Plan members and applicable unions/associations and report filed with FSRA 	<ul style="list-style-type: none"> • FSRA reviews transfer application and CEO of FSRA consents to transfer assets from UW Plan to UPP effective on applicable Conversion Date • Special notices must be posted on UW Plan and UPP websites for 10 days before FSRA will issue approval 	<ul style="list-style-type: none"> • UW employees begin to accrue benefits and contribute to UPP on applicable Conversion Date • Asset transfer from UW Plan to UPP to be completed within 120 days after Conversion Date (to date, all asset transfers have been completed coincident with the Conversion Date) • Actuarial report filed with FSRA within 210 days from Conversion Date

About Aon

[Aon plc](#) (NYSE: AON) exists to shape decisions for the better — to protect and enrich the lives of people around the world. Our colleagues provide our clients in over 120 countries and sovereignties with advice and solutions that give them the clarity and confidence to make better decisions to protect and grow their business.

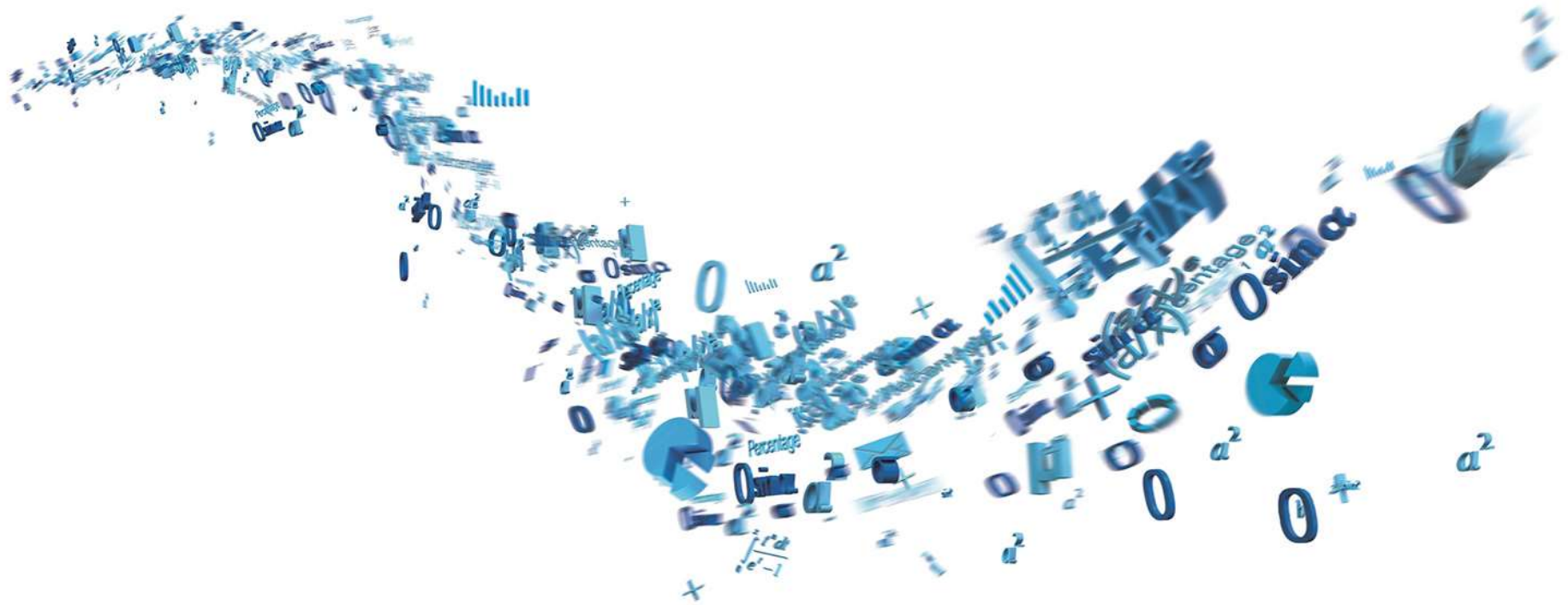
Follow Aon on [LinkedIn](#), [Twitter](#), [Facebook](#) and [Instagram](#). Stay up-to-date by visiting the [Aon Newsroom](#) and sign up for News Alerts [here](#).

© 2023 Aon Solutions Canada Inc. All Rights Reserved.

This document contains confidential information and trade secrets protected by copyrights owned by Aon. The document is intended to remain strictly confidential and to be used only for your internal needs and only for the purpose for which it was initially created by Aon. No part of this document may be disclosed to any third party or reproduced by any means without the prior written consent of Aon.

www.aon.com





University of Waterloo Pension Plan | Quarterly Period Ending 30 September 2023

Detailed Investment Review

*Visit the **Aon Retirement and Investment Website** (<https://retirement-investment-insights.aon.com/canada>); sharing our best thinking.*



Executive Summary

Performance Summary¹

As of 30 September 2023

	Allocation		Performance (%)								
	Market Value (\$000)	%	1 Quarter	Year To Date	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years	15 Years
Total Fund	2,234,518	100.0	-3.34	4.76	9.61	-0.97	3.41	3.73	4.41	6.42	6.45
CPI + 3.5% ²			1.70	6.23	7.43	9.00	8.68	7.50	7.08	6.13	5.69
Value Added			-5.04	-1.47	2.18	-9.97	-5.27	-3.77	-2.67	0.29	0.76
Total Fund Benchmark ¹⁰			-2.60	3.29	9.11	-1.33	3.29	3.93	4.75	6.74	6.69
Value Added			-0.74	1.47	0.50	0.36	0.12	-0.20	-0.34	-0.32	-0.24
Canadian Equities³	126,033	5.6	-2.16 (64)	3.40 (53)	9.55 (51)	1.82 (80)	9.60 (84)	3.84 (100)	3.97 (100)	6.15 (98)	-
S&P/TSX Composite Index			-2.20 (68)	3.38 (53)	9.54 (51)	1.80 (80)	9.88 (82)	7.32 (70)	7.27 (58)	7.54 (77)	6.62 (95)
Value Added			0.04	0.02	0.01	0.02	-0.28	-3.48	-3.30	-1.39	-
TD Emerald Canadian Equity Index⁴	126,033	5.6	-2.16 (64)	3.40 (53)	9.55 (51)	1.82 (80)	9.90 (80)	7.33 (70)	7.27 (58)	7.53 (77)	6.62 (95)
S&P/TSX Composite Index			-2.20 (68)	3.38 (53)	9.54 (51)	1.80 (80)	9.88 (82)	7.32 (70)	7.27 (58)	7.54 (77)	6.62 (95)
Value Added			0.04	0.02	0.01	0.02	0.02	0.01	0.00	-0.01	0.00
Global Equities⁶	622,136	27.8	-4.04 (91)	7.94 (52)	19.46 (49)	-0.50 (75)	5.92 (72)	6.27 (85)	5.99 (82)	10.12 (72)	8.96 (85)
Global Equity Benchmark ¹¹			-0.81 (38)	11.46 (27)	21.24 (38)	3.63 (38)	10.22 (33)	10.99 (16)	10.05 (11)	13.32 (14)	11.96 (17)
Value Added			-3.23	-3.52	-1.78	-4.13	-4.30	-4.72	-4.06	-3.20	-3.00
Walter Scott⁵	443,832	19.9	-4.09 (92)	9.83 (39)	22.23 (31)	1.46 (58)	7.31 (59)	9.14 (44)	9.03 (24)	12.57 (23)	11.71 (20)
MSCI World Index (Net) (CAD)			-1.36 (54)	10.86 (29)	20.00 (47)	2.38 (47)	8.61 (49)	9.23 (41)	8.22 (39)	11.27 (48)	9.88 (65)
Value Added			-2.73	-1.03	2.23	-0.92	-1.30	-0.09	0.81	1.30	1.83
RBC Global Focus Equity⁹	85,276	3.8	-2.53 (75)	0.82 (96)	6.30 (98)	-6.67 (94)	2.93 (86)	7.23 (75)	6.93 (66)	-	-
MSCI AC World Index (Net)			-1.30 (53)	9.82 (39)	18.86 (56)	1.24 (60)	7.42 (59)	8.34 (59)	7.42 (57)	10.54 (60)	9.36 (78)
Value Added			-1.23	-9.00	-12.56	-7.91	-4.49	-1.11	-0.49	-	-
Mirova Global Sustainable Equity⁹	93,020	4.2	-5.12 (95)	6.07 (68)	20.32 (45)	-3.50 (85)	4.38 (79)	10.12 (26)	10.26 (9)	-	-
MSCI AC World Index (Net)			-1.30 (53)	9.82 (39)	18.86 (56)	1.24 (60)	7.42 (59)	8.34 (59)	7.42 (57)	10.54 (60)	9.36 (78)
Value Added			-3.82	-3.75	1.46	-4.74	-3.04	1.78	2.84	-	-

¹ Parentheses contain percentile rankings. (1st percentile is the best performing). All returns are reported gross of fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³ There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴ TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵ Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶ The global equities return prior to August 2018 includes Trilogy.

⁷ In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸ The Currency Overlay was discontinued on 20 November 2017.

⁹ In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰ Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹ Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Performance Summary¹

As of 30 September 2023

	Allocation		Performance (%)									
	Market Value (\$000)	%	1 Quarter	Year To Date	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years	15 Years	
U.S. Equities												
TD Emerald Pooled U.S. Fund⁷	253,770	11.4	-1.11 (61)	12.86 (39)	19.69 (41)	4.77 (45)	10.60 (48)	11.96 (35)	10.90 (33)	-	-	
S&P 500 (CAD)			-1.17 (63)	12.82 (39)	19.67 (41)	4.74 (46)	10.60 (48)	11.96 (35)	10.91 (33)	15.02 (34)	13.08 (50)	
Value Added			0.06	0.04	0.02	0.03	0.00	0.00	-0.01	-	-	
International Equities												
TD Emerald International Equity Index⁷	174,245	7.8	-2.01 (55)	6.87 (58)	23.63 (50)	0.27 (54)	6.25 (55)	5.03 (72)	4.25 (67)	6.80 (87)	6.46 (89)	
MSCI EAFE (Net)			-2.03 (56)	6.85 (58)	23.63 (50)	0.20 (54)	6.18 (56)	4.96 (73)	4.17 (70)	6.71 (88)	6.35 (89)	
Value Added			0.02	0.02	0.00	0.07	0.07	0.07	0.08	0.09	0.11	
Fixed Income												
	674,918	30.2	-1.83	0.25	0.88	-3.68	-2.89	-0.68	0.87	-	-	
TDAM Universe Bond Index	310,597	13.9	-3.87 (65)	-1.46 (85)	-1.39 (95)	-6.03 (83)	-5.19 (96)	-2.31 (100)	-0.03 (100)	2.01 (44)	3.87 (1)	
FTSE Canada Universe Bond			-3.87 (65)	-1.46 (85)	-1.36 (93)	-6.03 (83)	-5.14 (91)	-2.22 (100)	0.05 (98)	1.64 (94)	2.96 (96)	
Value Added			0.00	0.00	-0.03	0.00	-0.05	-0.09	-0.08	0.37	0.91	
TDAM Active Short Term Corporate	364,321	16.3	0.13	1.77	2.91	-1.53	-0.71	0.83	1.67	-	-	
FTSE Canada Short Term Corporate Bond			0.13	1.82	2.94	-1.55	-0.69	0.86	1.69	1.99	3.11	
Value Added			0.00	-0.05	-0.03	0.02	-0.02	-0.03	-0.02	-	-	
Real Estate												
XRE ETF (Real Estate)	58,345	2.6	-6.72 (100)	-6.51 (100)	1.79 (1)	-8.59 (100)	4.97 (100)	-2.96 (100)	1.10 (100)	4.76 (100)	-	
FTSE EPRA Nareit Developed			-3.54 (100)	-4.31 (100)	1.07 (1)	-7.59 (100)	1.94 (100)	-3.10 (100)	0.60 (100)	5.83 (100)	6.12 (-)	
Value Added			-3.18	-2.20	0.72	-1.00	3.03	0.14	0.50	-1.07	-	
Infrastructure												
Brookfield Infrastructure (BIP.UN)	65,694	2.9	-16.65	-1.62	-15.08	-3.83	2.15	5.03	10.33	15.11	-	
FTSE Global Core Infrastructure 50/50 Index			-5.80	-7.41	-0.27	1.22	4.30	1.36	5.08	8.92	-	
Value Added			-10.85	5.79	-14.81	-5.05	-2.15	3.67	5.25	6.19	-	

¹ Parentheses contain percentile rankings. (1st percentile is the best performing). All returns are reported gross of fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³ There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴ TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵ Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶ The global equities return prior to August 2018 includes Trilogy.

⁷ In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸ The Currency Overlay was discontinued on 20 November 2017.

⁹ In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰ Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹ Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Performance Summary¹

As of 30 September 2023

	Allocation		Performance (%)								
	Market Value (\$000)	%	1 Quarter	Year To Date	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years	15 Years
Brookfield Renewable (BEP.UN)	40,555	1.8	-23.36	-10.62	-28.15	-	-	-	-	-	-
FTSE Global Core Infrastructure 50/50 Index			-5.80	-7.41	-0.27	1.22	4.30	1.36	5.08	8.92	-
Value Added			-17.56	-3.21	-27.88	-	-	-	-	-	-
IFM Global Infrastructure	82,000	3.7	-	-	-	-	-	-	-	-	-
FTSE Global Core Infrastructure 50/50 Index			-5.80	-7.41	-0.27	1.22	4.30	1.36	5.08	8.92	-
Value Added			-	-	-	-	-	-	-	-	-
Operating Account	136,821	6.1									
BAs/U.S. and CDN Cash	125,327	5.6	1.08	3.39	4.34	2.64	1.80	1.59	1.63	1.25	-
Operating Account	11,494	0.5	0.04	0.16	0.20	0.17	0.22	0.21	0.28	0.18	0.25
Currency Overlay Effect (Historical)⁸											
Total Fund & CO	2,234,518	100.0	-3.34	4.76	9.61	-0.97	3.41	3.73	4.41	6.21	6.18
Total Fund ex CO			-3.34	4.76	9.61	-0.97	3.41	3.73	4.41	6.42	6.45
Value Added			0.00	0.00	0.00	0.00	0.00	0.00	0.00	-0.21	-0.27

¹ Parentheses contain percentile rankings. (1st percentile is the best performing). All returns are reported gross of fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³ There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴ TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are presentative only.

⁵ Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶ The global equities return prior to August 2018 includes Trilogy.

⁷ In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸ The Currency Overlay was discontinued on 20 November 2017.

⁹ In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰ Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹ Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Rolling Year Performance¹

As of 30 September

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Fund	9.61	-10.53	12.74	4.71	7.17	7.25	6.25	9.29	8.35	11.25
CPI + 3.5% ²	7.43	10.60	8.04	4.03	5.44	5.79	5.11	4.88	4.57	5.60
Value Added	2.18	-21.13	4.70	0.68	1.73	1.46	1.14	4.41	3.78	5.65
Total Fund Benchmark ¹⁰	9.11	-10.77	13.19	5.86	8.08	8.00	5.46	9.41	6.02	15.27
Value Added	0.50	0.24	-0.45	-1.15	-0.91	-0.75	0.79	-0.12	2.33	-4.02
Canadian Equities³	9.55 (51)	-5.36 (83)	26.97 (77)	-11.68 (92)	4.50 (68)	5.86 (54)	13.20 (13)	18.87 (8)	-10.65 (84)	17.46 (91)
S&P/TSX Composite Index	9.54 (51)	-5.39 (83)	28.02 (68)	-0.03 (34)	7.06 (36)	5.87 (54)	9.18 (52)	14.21 (50)	-8.38 (71)	20.38 (55)
Value Added	0.01	0.03	-1.05	-11.65	-2.56	-0.01	4.02	4.66	-2.27	-2.92
TD Emerald Canadian Equity Index⁴	9.55 (51)	-5.36 (83)	28.03 (68)	-0.02 (34)	7.04 (38)	5.84 (54)	9.14 (52)	14.13 (50)	-8.32 (70)	20.34 (57)
S&P/TSX Composite Index	9.54 (51)	-5.39 (83)	28.02 (68)	-0.03 (34)	7.06 (36)	5.87 (54)	9.18 (52)	14.21 (50)	-8.38 (71)	20.38 (55)
Value Added	0.01	0.03	0.01	0.01	-0.02	-0.03	-0.04	-0.08	0.06	-0.04
Global Equities⁶	19.46 (49)	-17.12 (74)	20.01 (67)	7.35 (54)	4.85 (42)	16.78 (20)	15.29 (36)	9.81 (45)	13.25 (66)	17.07 (88)
Global Equity Benchmark ¹¹	21.24 (38)	-11.43 (42)	24.69 (35)	13.34 (36)	6.36 (31)	17.32 (17)	14.64 (43)	11.38 (28)	16.11 (40)	24.39 (18)
Value Added	-1.78	-5.69	-4.68	-5.99	-1.51	-0.54	0.65	-1.57	-2.86	-7.32
Walter Scott⁵	22.23 (31)	-15.79 (70)	20.06 (66)	14.80 (31)	8.62 (20)	23.47 (4)	11.59 (70)	12.02 (23)	16.33 (39)	18.09 (81)
MSCI World Index (Net) (CAD)	20.00 (47)	-12.66 (49)	22.25 (48)	11.12 (44)	4.28 (46)	15.02 (33)	12.39 (64)	9.20 (51)	13.83 (62)	21.95 (41)
Value Added	2.23	-3.13	-2.19	3.68	4.34	8.45	-0.80	2.82	2.50	-3.86
RBC Global Focus Equity⁹	6.30 (98)	-18.05 (78)	25.19 (32)	21.25 (18)	5.74 (35)	21.82 (5)	17.10 (21)	10.98 (33)	21.54 (14)	-
MSCI AC World Index (Net)	18.86 (56)	-13.77 (57)	20.93 (60)	11.15 (44)	3.82 (49)	13.51 (45)	12.85 (60)	9.79 (45)	11.95 (73)	21.00 (53)
Value Added	-12.56	-4.28	4.26	10.10	1.92	8.31	4.25	1.19	9.59	-
Mirova Global Sustainable Equity⁹	20.32 (45)	-22.61 (88)	22.12 (49)	29.30 (9)	10.83 (10)	17.73 (16)	12.77 (60)	10.74 (35)	22.58 (12)	-
MSCI AC World Index (Net)	18.86 (56)	-13.77 (57)	20.93 (60)	11.15 (44)	3.82 (49)	13.51 (45)	12.85 (60)	9.79 (45)	11.95 (73)	21.00 (53)
Value Added	1.46	-8.84	1.19	18.15	7.01	4.22	-0.08	0.95	10.63	-

¹ Parentheses contain percentile rankings. (1st percentile is the best performing). All returns are reported gross of fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³ There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴ TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵ Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶ The global equities return prior to August 2018 includes Trilogy.

⁷ In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸ The Currency Overlay was discontinued on 20 November 2017.

⁹ In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰ Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹ Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Rolling Year Performance¹

As of 30 September

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
U.S. Equities										
TD Emerald U.S. Pooled Fund⁷	19.69 (41)	-8.29 (53)	23.25 (56)	16.13 (42)	6.78 (39)	21.79 (44)	12.79 (56)	13.06 (25)	19.23 (55)	-
S&P 500 (CAD)	19.67 (41)	-8.32 (53)	23.30 (55)	16.17 (42)	6.79 (39)	21.87 (43)	12.87 (55)	13.15 (24)	19.23 (55)	30.18 (32)
Value Added	0.02	0.03	-0.05	-0.04	-0.01	-0.08	-0.08	-0.09	0.00	-
International Equities										
TD Emerald International Equity Index⁷	23.63 (50)	-18.68 (52)	19.31 (50)	1.45 (64)	1.18 (43)	6.31 (47)	13.35 (62)	4.42 (64)	9.75 (75)	13.50 (69)
MSCI EAFE (Net)	23.63 (50)	-18.80 (54)	19.25 (50)	1.39 (64)	1.06 (44)	6.18 (48)	13.34 (62)	4.42 (64)	9.58 (76)	13.34 (71)
Value Added	0.00	0.12	0.06	0.06	0.12	0.13	0.01	0.00	0.17	0.16
Fixed Income										
	0.88	-8.04	-1.28	6.24	7.32	1.46	-4.34	3.29	-	-
TDAM Universe Bond Index	-1.39 (95)	-10.45 (70)	-3.51 (92)	6.87 (90)	9.65 (53)	1.63 (82)	-8.96 (100)	7.44 (2)	11.98 (1)	9.83 (1)
FTSE TMX Canada Bond Universe	-1.36 (93)	-10.48 (72)	-3.35 (90)	7.08 (85)	9.69 (48)	1.66 (75)	-2.97 (89)	6.31 (77)	5.29 (39)	6.34 (68)
Value Added	-0.03	0.03	-0.16	-0.21	-0.04	-0.03	-5.99	1.13	6.69	3.49
TDAM Active Short Term Corporate	2.91	-5.77	0.95	5.60	5.08	1.27	0.32	3.30	-	-
FTSE Canada Short Term Corporate Bond	2.94	-5.85	1.05	5.68	5.06	1.29	0.41	3.06	3.03	3.68
Value Added	-0.03	0.08	-0.10	-0.08	0.02	-0.02	-0.09	0.24	-	-
Real Estate										
XRE ETF (Real Estate)	1.79 (1)	-17.91 (100)	38.42 (1)	-23.34 (100)	19.13 (1)	15.32 (2)	4.10 (100)	12.38 (1)	-0.07 (100)	11.76 (1)
FTSE EPRA Nareit Developed	1.07 (1)	-15.51 (100)	24.06 (1)	-16.77 (100)	16.88 (1)	8.12 (75)	-3.39 (100)	13.57 (1)	24.26 (1)	16.01 (1)
Value Added	0.72	-2.40	14.36	-6.57	2.25	7.20	7.49	-1.19	-24.33	-4.25
Infrastructure										
Brookfield Infrastructure (BIP.UN)	-15.08	8.89	15.24	14.19	34.30	0.22	23.60	48.17	19.43	13.98
FTSE Global Core Infrastructure 50/50 Index	-0.27	2.73	10.76	-7.00	21.38	4.56	7.47	13.54	14.19	25.97
Value Added	-14.81	6.16	4.48	21.19	12.92	-4.34	16.13	34.63	5.24	-11.99
Brookfield Renewable (BEP.UN)	-28.15	-	-	-	-	-	-	-	-	-
FTSE Global Core Infrastructure 50/50 Index	-0.27	2.73	10.76	-7.00	21.38	4.56	7.47	13.54	14.19	25.97
Value Added	-27.88	-	-	-	-	-	-	-	-	-

¹ Parentheses contain percentile rankings. (1st percentile is the best performing). All returns are reported gross of fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³ There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴ TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵ Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶ The global equities return prior to August 2018 includes Trilogy.

⁷ In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸ The Currency Overlay was discontinued on 20 November 2017.

⁹ In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰ Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹ Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Rolling Year Performance¹

As of 30 September

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
IFM Global Infrastructure	-	-	-	-	-	-	-	-	-	-
FTSE Global Core Infrastructure 50/50 Index	-0.27	2.73	10.76	-7.00	21.38	4.56	7.47	13.54	14.19	25.97
Value Added	-	-	-	-	-	-	-	-	-	-

¹ Parentheses contain percentile rankings. (1st percentile is the best performing). All returns are reported gross of fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³ There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴ TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are presentative only.

⁵ Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶ The global equities return prior to August 2018 includes Trilogy.

⁷ In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸ The Currency Overlay was discontinued on 20 November 2017.

⁹ In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰ Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹ Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Performance Summary (Net of Fees)¹

As of 30 September 2023

	Performance (%)								
	1 Quarter	Year To Date	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years	15 Years
Total Fund	-3.39	4.62	9.42	-1.16	3.19	3.52	4.18	6.15	6.16
CPI + 3.5% ²	1.70	6.23	7.43	9.00	8.68	7.50	7.08	6.13	5.69
Value Added	-5.09	-1.61	1.99	-10.16	-5.49	-3.98	-2.90	0.02	0.47
Total Fund Benchmark ¹⁰	-2.60	3.29	9.11	-1.33	3.29	3.93	4.75	6.74	6.69
Value Added	-0.79	1.33	0.31	0.17	-0.10	-0.41	-0.57	-0.59	-0.53
Canadian Equities³	-2.17	3.38	9.53	1.80	9.53	3.80	3.94	6.13	-
S&P/TSX Composite Index	-2.20	3.38	9.54	1.80	9.88	7.32	7.27	7.54	6.62
Value Added	0.03	0.00	-0.01	0.00	-0.35	-3.52	-3.33	-1.41	-
TD Emerald Canadian Equity Index⁴	-2.17	3.38	9.53	1.80	9.87	-	-	-	-
S&P/TSX Composite Index	-2.20	3.38	9.54	1.80	9.88	7.32	7.27	7.54	6.62
Value Added	0.03	0.00	-0.01	0.00	-0.01	-	-	-	-
Global Equities⁶	-4.17	7.50	18.82	-1.04	5.33	5.56	5.28	9.41	8.24
Global Equity Benchmark ¹¹	-0.81	11.46	21.24	3.63	10.22	10.99	10.05	13.32	11.96
Value Added	-3.36	-3.96	-2.42	-4.67	-4.89	-5.43	-4.77	-3.91	-3.72
Walter Scott⁵	-4.22	9.39	21.59	0.91	6.72	8.52	8.40	11.84	10.94
MSCI World Index (Net) (CAD)	-1.36	10.86	20.00	2.38	8.61	9.23	8.22	11.27	9.88
Value Added	-2.86	-1.47	1.59	-1.47	-1.89	-0.71	0.18	0.57	1.06
RBC Global Focus Equity⁸	-2.67	0.41	5.73	-7.17	2.38	6.66	6.36	-	-
MSCI AC World Index (Net)	-1.30	9.82	18.86	1.24	7.42	8.34	7.42	10.54	9.36
Value Added	-1.37	-9.41	-13.13	-8.41	-5.04	-1.68	-1.06	-	-

¹ Parentheses contain percentile rankings. (1st percentile is the best performing). Reported net returns are based on estimated fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³ There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴ TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵ Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶ The global equities return prior to August 2018 includes Trilogy.

⁷ In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸ In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰ Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹ Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Performance Summary (Net of Fees)¹

As of 30 September 2023

	Performance (%)								
	1 Quarter	Year To Date	1 Year	2 Years	3 Years	4 Years	5 Years	10 Years	15 Years
Mirova Global Sustainable Equity⁸	-5.27	5.60	19.61	-3.44	4.19	9.78	9.84	-	-
MSCI AC World Index (Net)	-1.30	9.82	18.86	1.24	7.42	8.34	7.42	10.54	9.36
Value Added	-3.97	-4.22	0.75	-4.68	-3.23	1.44	2.42	-	-
U.S. Equities									
TD Emerald Pooled U.S. Fund⁷	-1.11	12.84	19.66	4.74	10.57	11.93	10.87	-	-
S&P 500 (CAD)	-1.17	12.82	19.67	4.74	10.60	11.96	10.91	15.02	13.08
Value Added	0.06	0.02	-0.01	0.00	-0.03	-0.03	-0.04	-	-
International Equities									
TD Emerald International Equity Index⁷	-2.01	6.85	23.60	1.29	6.96	5.55	4.66	6.99	6.57
MSCI EAFE (Net)	-2.03	6.85	23.63	0.20	6.18	4.96	4.17	6.71	6.35
Value Added	0.02	0.00	-0.03	1.09	0.78	0.59	0.49	0.28	0.22
Fixed Income									
TDAM Universe Bond Index	-1.85	0.20	0.82	-3.74	-2.94	-0.72	0.83	-	-
FTSE Canada Universe Bond	-3.87	-1.46	-1.36	-6.03	-5.14	-2.22	0.05	1.64	2.96
Value Added	-0.01	-0.02	-0.05	-0.02	-0.08	-0.12	-0.11	-0.11	-0.14
TDAM Active Short Term Corporate	0.12	1.73	2.85	-1.61	-0.79	0.74	1.58	-	-
FTSE Canada Short Term Corporate Bond	0.13	1.82	2.94	-1.55	-0.69	0.86	1.69	1.99	3.11
Value Added	-0.01	-0.09	-0.09	-0.06	-0.10	-0.12	-0.11	-	-

¹Parentheses contain percentile rankings. (1st percentile is the best performing). Reported net returns are based on estimated fees.

²CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶The global equities return prior to August 2018 includes Trilogy.

⁷In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Rolling Year Performance (Net of Fees)¹

As of 30 September 2023

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
Total Fund	9.42	-10.72	12.48	4.52	6.88	6.96	5.91	9.00	8.07	10.95
CPI + 3.5% ²	7.43	10.60	8.04	4.03	5.44	5.79	5.11	4.88	4.57	5.60
Value Added	1.99	-21.32	4.44	0.49	1.44	1.17	0.80	4.12	3.50	5.35
Total Fund Benchmark ¹⁰	9.11	-10.77	13.19	5.86	8.08	8.00	5.46	9.41	6.02	15.27
Value Added	0.31	0.05	-0.71	-1.34	-1.20	-1.04	0.45	-0.41	2.05	-4.32
Canadian Equities³										
TD Emerald Canadian Equity Index⁴	9.55	-5.36	28.03	-0.02	7.04	5.84	9.14	14.13	-8.32	20.34
S&P/TSX Composite Index	9.54	-5.39	28.02	-0.03	7.06	5.87	9.18	14.21	-8.38	20.38
Value Added	0.01	0.03	0.01	0.01	-0.02	-0.03	-0.04	-0.08	0.06	-0.04
Global Equities⁶										
Global Equity Benchmark	18.82	-17.58	19.34	6.26	4.13	16.12	14.54	9.10	12.64	16.35
Global Equity Benchmark	21.24	-11.43	24.69	13.34	6.36	17.32	14.64	11.38	16.11	24.39
Value Added	-2.42	-6.15	-5.35	-7.08	-2.23	-1.20	-0.10	-2.28	-3.47	-8.04
Walter Scott⁵										
MSCI World Index (Net) (CAD)	21.59	-16.25	19.37	14.08	7.91	22.64	10.80	11.21	15.48	17.21
MSCI World Index (Net) (CAD)	20.00	-12.66	22.25	11.12	4.28	15.02	12.39	9.20	13.83	21.95
Value Added	1.59	-3.59	-2.88	2.96	3.63	7.62	-1.59	2.01	1.65	-4.74
RBC Global Focus Equity⁸										
MSCI AC World Index (Net)	5.73	-18.50	24.53	20.61	5.18	21.18	16.49	10.40	20.91	-
MSCI AC World Index (Net)	18.86	-13.77	20.93	11.15	3.82	13.51	12.85	9.79	11.95	21.00
Value Added	-13.13	-4.73	3.60	9.46	1.36	7.67	3.64	0.61	8.96	-
Mirova Global Sustainable Equity⁸										
MSCI AC World Index (Net)	19.61	-22.04	21.29	28.42	10.07	16.93	11.99	9.97	21.74	-
MSCI AC World Index (Net)	18.86	-13.77	20.93	11.15	3.82	13.51	12.85	9.79	11.95	21.00
Value Added	0.75	-8.27	0.36	17.27	6.25	3.42	-0.86	0.18	9.79	-

¹Parentheses contain percentile rankings. (1st percentile is the best performing). Reported net returns are based on estimated fees.

² CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶The global equities return prior to August 2018 includes Trilogy.

⁷In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.

Executive Summary

Rolling Year Performance (Net of Fees)¹

As of 30 September 2023

	2023	2022	2021	2020	2019	2018	2017	2016	2015	2014
U.S. Equities										
TD Emerald Pooled U.S. Fund⁷	19.66	-8.31	23.22	16.10	6.74	21.74	12.75	13.02	19.19	-
S&P 500 (CAD)	19.67	-8.32	23.30	16.17	6.79	21.87	12.87	13.15	19.23	30.18
Value Added	-0.01	0.01	-0.08	-0.07	-0.05	-0.13	-0.12	-0.13	-0.04	-
International Equities										
TD Emerald International Equity Index⁷	23.60	-16.99	19.28	1.42	1.16	6.27	13.32	4.38	9.71	13.46
MSCI EAFE (Net)	23.63	-18.80	19.25	1.39	1.06	6.18	13.34	4.42	9.58	13.34
Value Added	-0.03	1.81	0.03	0.03	0.10	0.09	-0.02	-0.04	0.13	0.12
Fixed Income										
TDAM Universe Bond Index	0.88	-8.04	-1.28	6.24	7.32	1.46	-4.34	3.29	-	-
FTSE Canada Universe Bond Index - C\$	-1.41	-10.47	-3.53	6.84	9.62	1.55	-3.16	6.19	5.24	6.22
Value Added	-1.36	-10.48	-3.35	7.08	9.69	1.66	-2.97	6.30	5.29	6.34
Value Added	-0.05	0.01	-0.18	-0.24	-0.07	-0.11	-0.19	-0.11	-0.05	-0.12
TDAM Active Short Term Corporate										
TDAM Active Short Term Corporate	2.85	-5.86	0.85	5.50	5.00	1.17	0.22	3.18	-	-
FTSE Canada Short Term Corporate Bond	2.94	-5.85	1.05	5.68	5.06	1.29	0.41	3.06	3.03	3.68
Value Added	-0.09	-0.01	-0.20	-0.18	-0.06	-0.12	-0.19	0.12	-	-

¹Parentheses contain percentile rankings. (1st percentile is the best performing). Reported net returns are based on estimated fees.

²CPI+3.5% benchmark has been implemented since February 2022. CPI+3.6% benchmark has been implemented retrospectively since 1 November 2018. From 1 January 2017 to 31 October 2018, CPI+3.5% benchmark was used. From 1 January 2016 to 31 December 2016, CPI + 3.7% benchmark was used. From 1 January 2014 to 31 December 2016, CPI+3.75% benchmark was used. Prior to 1 January 2014, CPI+3.85% benchmark was used.

³There was no exposure to Canadian Equities from January 2012 to April 2012.

⁴TD Emerald Canadian Equity Index added July 2020. Returns prior to these dates are representative only.

⁵Returns for Sionna before May 2012, Oldfield before July 2011, Trilogy before April 2008 and Walter Scott before July 2009 are based on composite returns.

⁶The global equities return prior to August 2018 includes Trilogy.

⁷In November 2016, TD Emerald U.S. pooled and International Index funds were added. Returns prior to these dates are representative only.

⁸In August 2021, RBC Global Focus Equity and Mirova Sustainable Global Equity strategies were added. Returns prior to these dates are representative only.

¹⁰Total Fund Benchmark was implemented as a performance objective in February 2022. Due to licensing constraints

FTSE Global Infrastructure 50/50 Index is used in place of UBS 50/50

¹¹Global Equity Benchmark is 100% MSCI ACWI as of February 2022. Prior Benchmark was MSCI World.



Pension Risk Management Dashboard

University of Waterloo

As of September 30, 2023



About these Materials

This dashboard was prepared for the University of Waterloo to track changes in the funded status of the Pension Plan over successive reporting periods, as well as quantify the amount of risk to which the Pension Plan is exposed. The report presents the funded status and performs the analysis on three bases:

Risk-Free Benchmark Basis – This liability is calculated using best estimate assumptions for retirement, termination and other demographic experience, and discount rate and inflation assumptions determined with reference to the risk-free environment. For this report, the liability has been determined using the real return bond yield plus a 40 basis point credit spread to reflect the additional yield that can be achieved with relatively little additional risk. This liability differs from the solvency calculation in that the demographic assumptions are best estimate and statutory “grow-in” provisions are not included.

Going Concern Basis – This liability is calculated using the going concern assumptions at the most recent valuation. The analysis is performed using the market value of assets with a Provision for Adverse Deviation, as prescribed by the *Pension Benefits Act* (Ontario).

Solvency Basis – This liability is calculated using assumptions determined in accordance with the Canadian Institute of Actuaries Annuity Purchase guidance and Commuted Value standards in effect at each measurement date shown in this report. A summary of these assumptions is included on page 15.

This dashboard also contains a reconciliation that compares the going concern liability with the liability calculated using the risk-free benchmark. The difference between the two liabilities represents the amount of return expected to be provided by taking on risk in the investment portfolio. Over successive quarters the tool helps quantify how that risk changes as the underlying interest rates change.

On all bases the following information is shown:

- Current Funded Status and Historical Asset Liability Performance
 - How well funded is the plan?
 - What has been the return on plan assets and liabilities?
- Detailed Asset and Liability Performance Attribution
 - What factors drove the performance of assets and liabilities over the prior period?
 - What is the relative impact of these factors on the assets and liabilities in isolation and in combination?

For the Risk-Free Benchmark Basis, the following information is also shown:

- Scenario Testing
 - What risk exposures does the plan face?
 - What would be the impact of a downside event for each risk factor?

Highlights

Over the quarter:

- The fund had a rate of return after fees of -3.3%.
- Nominal risk-free rates increased.
- Inflation expectations implicit in the underlying bond yields increased.

As a result,

- The going concern deficit increased from \$5.0 million to \$96.8 million over the quarter primarily due to lower than expected asset performance, partly caused by increases in bond yields and partly caused by lower than expected returns on the plan's excess return seeking assets.
- The risk-free deficit decreased from \$805.3 million to \$581.4 million over the quarter primarily due to a significant increase in real return bond yields.
- The solvency surplus increased from \$241.5 million to \$345.8 million over the quarter primarily due to increases in risk-free rates.

Highlights (cont'd)

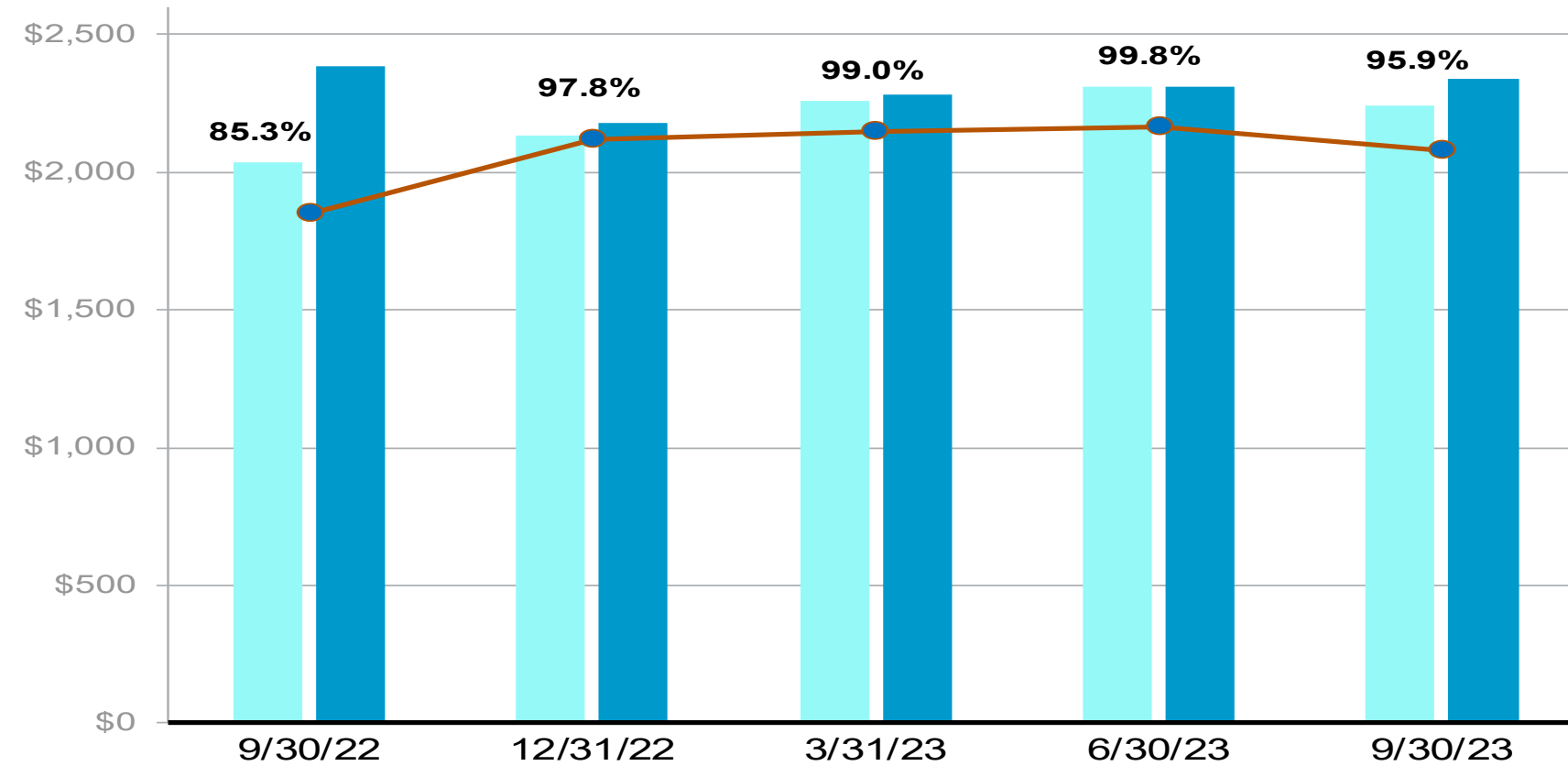
- The estimated September 30, 2023 liabilities are projected based on the results of the most recent actuarial valuation of the Plan as at January 1, 2023.
- The December 31, 2022 liabilities shown are based on the December 31, 2021 actuarial valuation projected forward.
- The annuity purchase guidance educational note for valuations on or after September 30, 2023 (published as of October 24, 2023) has been reflected in the interest rates used to calculate the September 30, 2023 Solvency liabilities.
- The estimated transfer ratio has not decreased by 10% or more over the period; no Regulation 19 filing is required.
- All figures are in \$1,000,000 (CAD).



Executive Summary – Going Concern

Values in \$1,000,000 (CAD)

Funded Status



Highlights for the Quarter-Ending 9/30/23

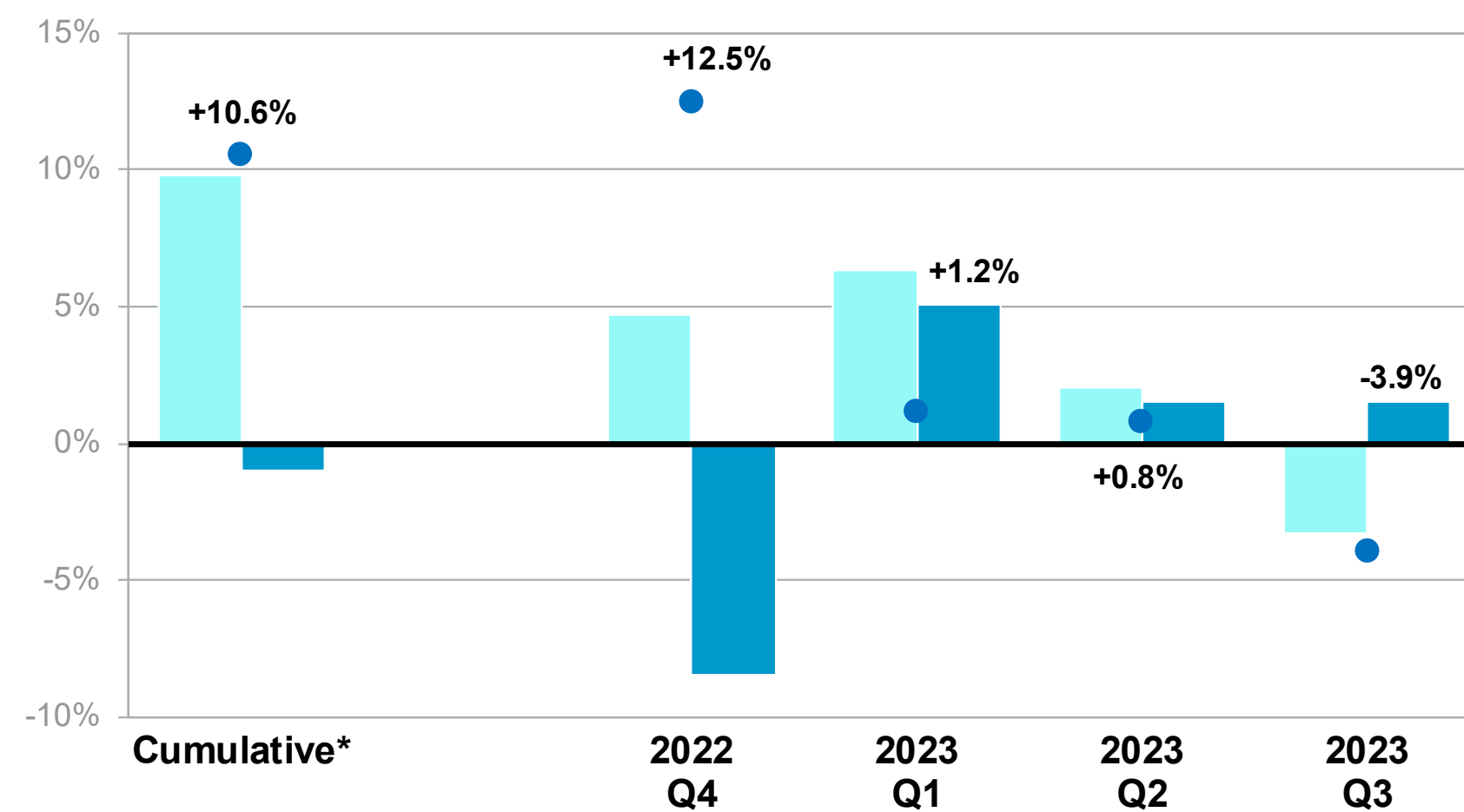
The plan's funded ratio decreased to 95.9% at 9/30/23. This result was primarily due to the combined effects of:

- Asset performance lower than expected;
- Contributions of \$39.8 million which exceeds the new benefit accruals.

	9/30/22	12/31/22	03/31/23	06/30/23	09/30/23
Market Value of Assets	\$ 2,033.6	\$ 2,130.3	\$ 2,260.4	\$ 2,307.5	\$ 2,244.4*
Going Concern Liability	2,384.4	2,177.8	2,284.2	2,312.5	2,314.2
Surplus/(Deficit)	\$ (350.8)	\$ (47.5)	\$ (23.8)	\$ (5.0)	\$ (96.8)
Periodic Contributions	\$ 27.9	\$ 28.1	\$ 18.1	\$ 28.5	\$ 39.8*
Effective Interest Rate	5.50%	6.25%	6.25%	6.25%	6.25%
Funded Ratio:	85.3%	97.8%	99.0%	99.8%	95.9%
Interest rate sensitivity:					
Asset:	1.5	1.6	1.5	1.5	1.4
Going Concern Liability					
Duration:	14.1	13.2	13.2	13.2	13.2

* Includes employee and University contributions to end of quarter; excludes investment manager and consulting expenses not yet invoiced

Asset-Liability Return



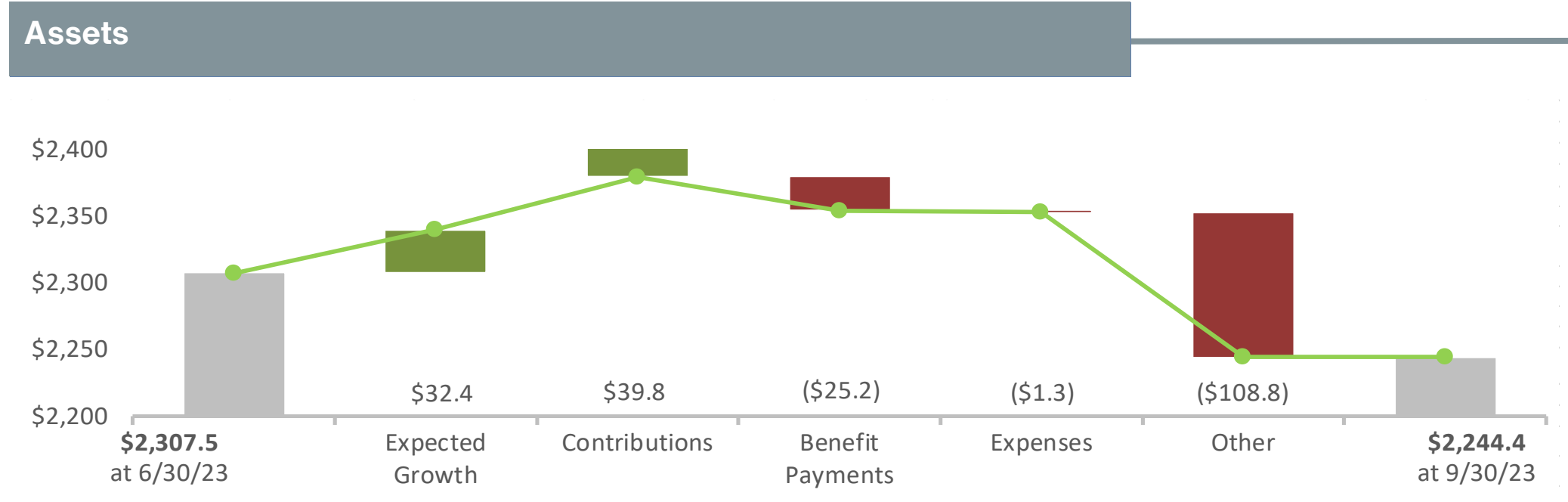
Asset Liability Return for Quarter-Ending 9/30/23

Assets returned -3.3% during the quarter while liabilities returned 1.5%, resulting in a funded status decrease of 3.9%.

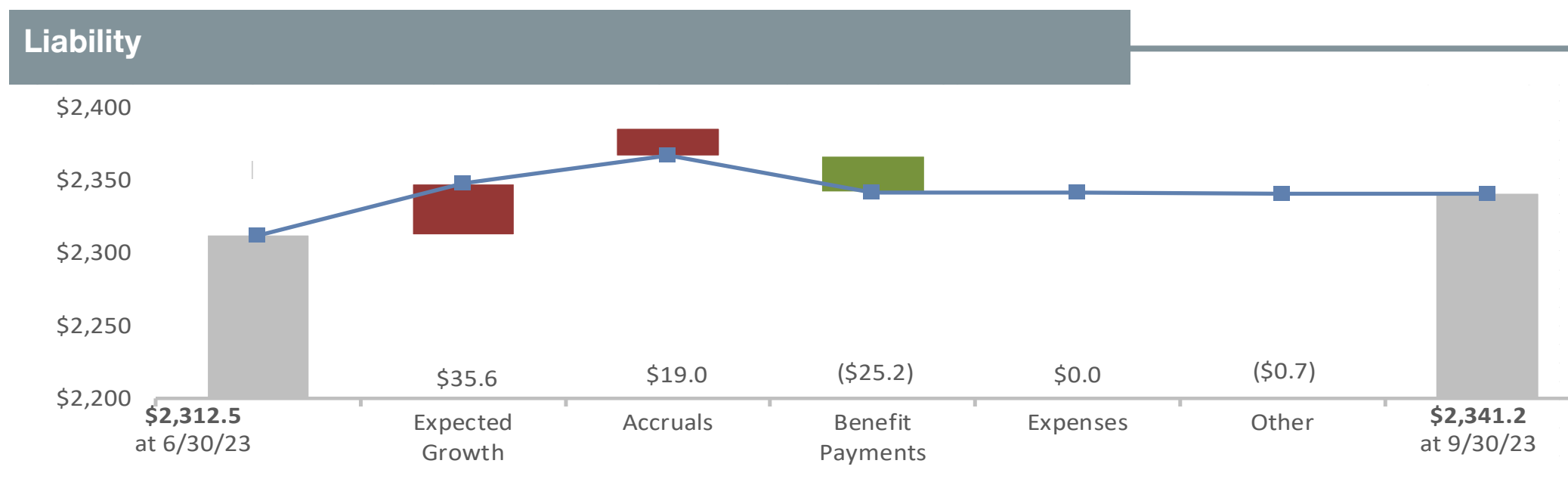
Periodic Return/Change	Cumulative	12/31/22	3/31/22	6/30/22	9/30/22
Market Value of Assets Return	9.8%	4.7%	6.3%	2.0%	-3.3%
Going Concern: Return	-1.0%	-8.5%	5.1%	1.5%	1.5%
Funded Ratio Change	10.6%	12.5%	1.2%	0.8%	-3.9%

Asset-Liability Performance Attribution – Going Concern

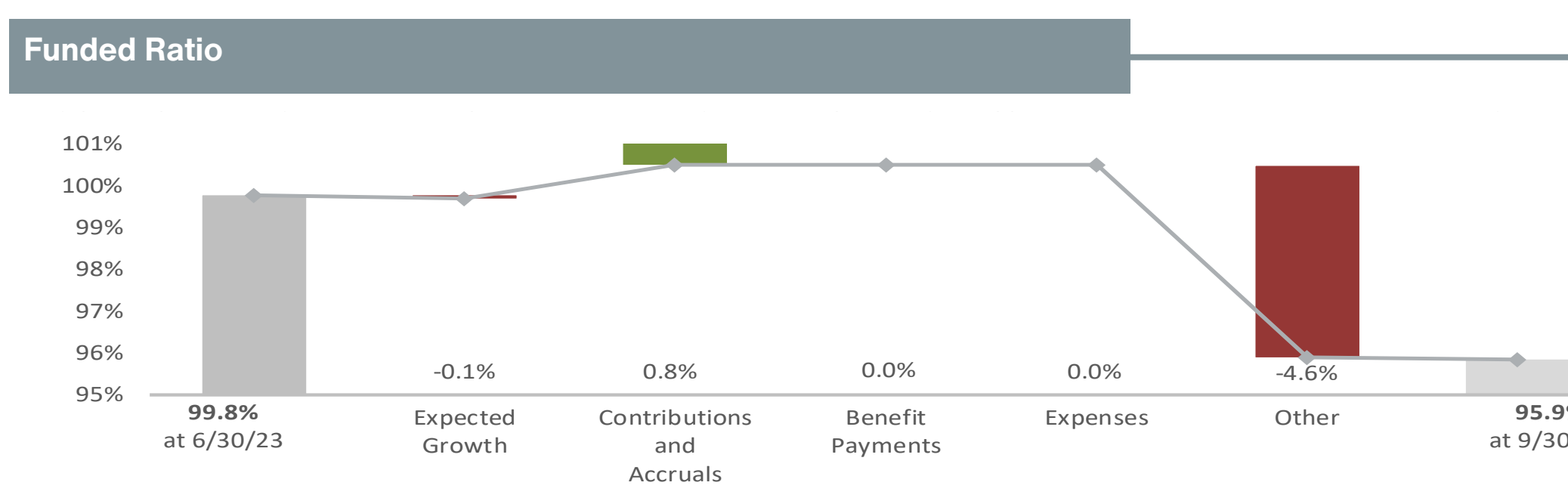
Values in \$1,000,000 (CAD)



- Overall, assets returned -3.3% during this quarter.
- The fixed income assets lost value due to an increase in the underlying risk-free rates, partially offset by narrowing credit spreads.
- The plan's return-seeking assets provided lower returns than expected during the quarter.
- The University and members made \$39.8 million in contributions during the quarter and the trust paid \$25.2 million in benefits to the participants.
- "Other" represents the scale of the Plan's asset under performance relative to expectation.



- Liabilities were expected to grow by \$35.6 million due to interest cost during the quarter.
- New benefit accruals increased the liability by \$19.0 million during the quarter.
- Plan liabilities decreased by \$25.2 million during the quarter as benefits were paid.

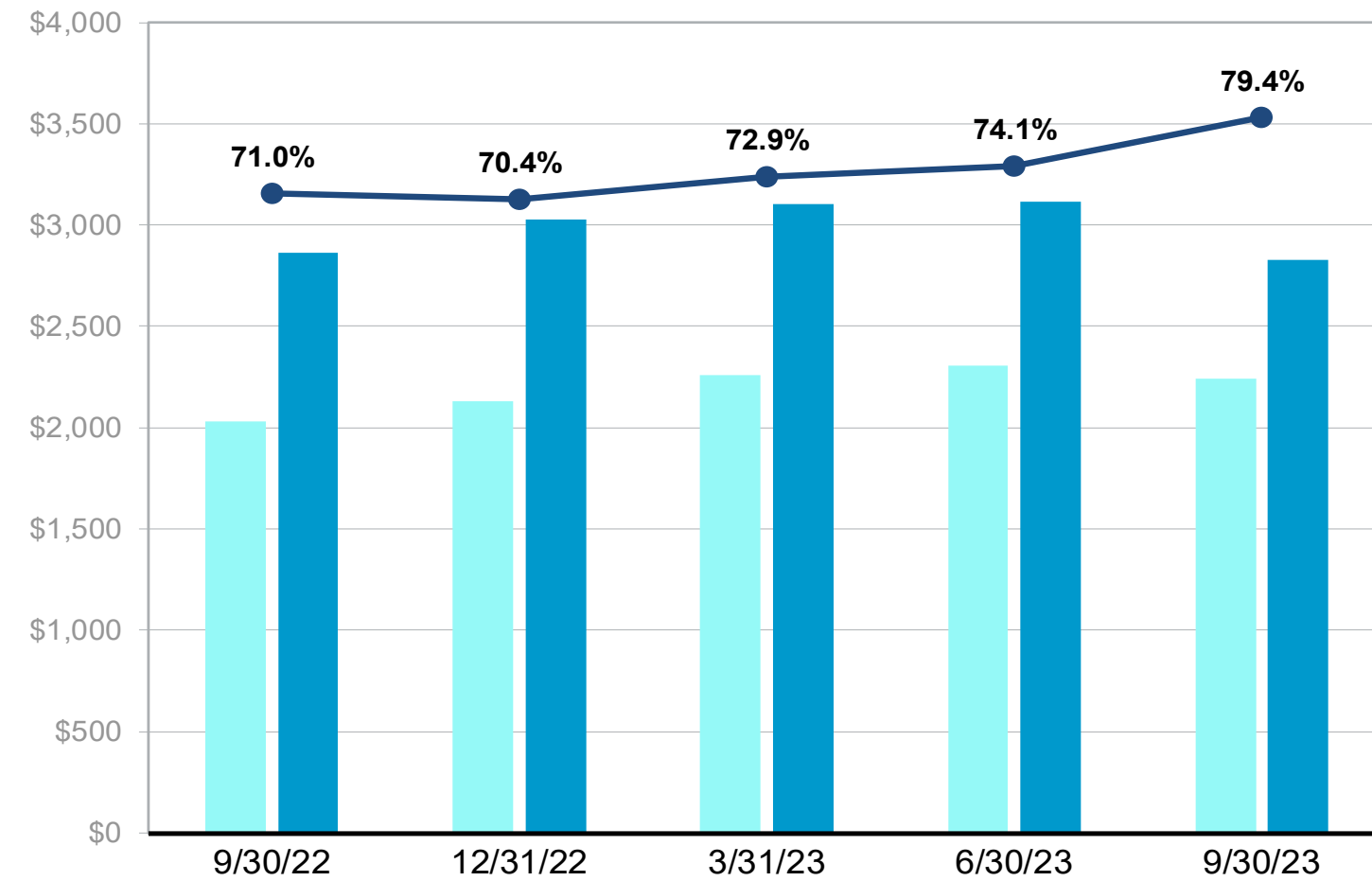


- Contributions exceeded the cost of new benefit accruals during the quarter, resulting in a net increase of 0.8% in the funded status.
- "Other" represents the impact of asset under-performance relative to the liabilities.

Executive Summary – Risk Free

Values in \$1,000,000 (CAD)

Funded Status



Highlights for the Quarter-Ending 9/30/23

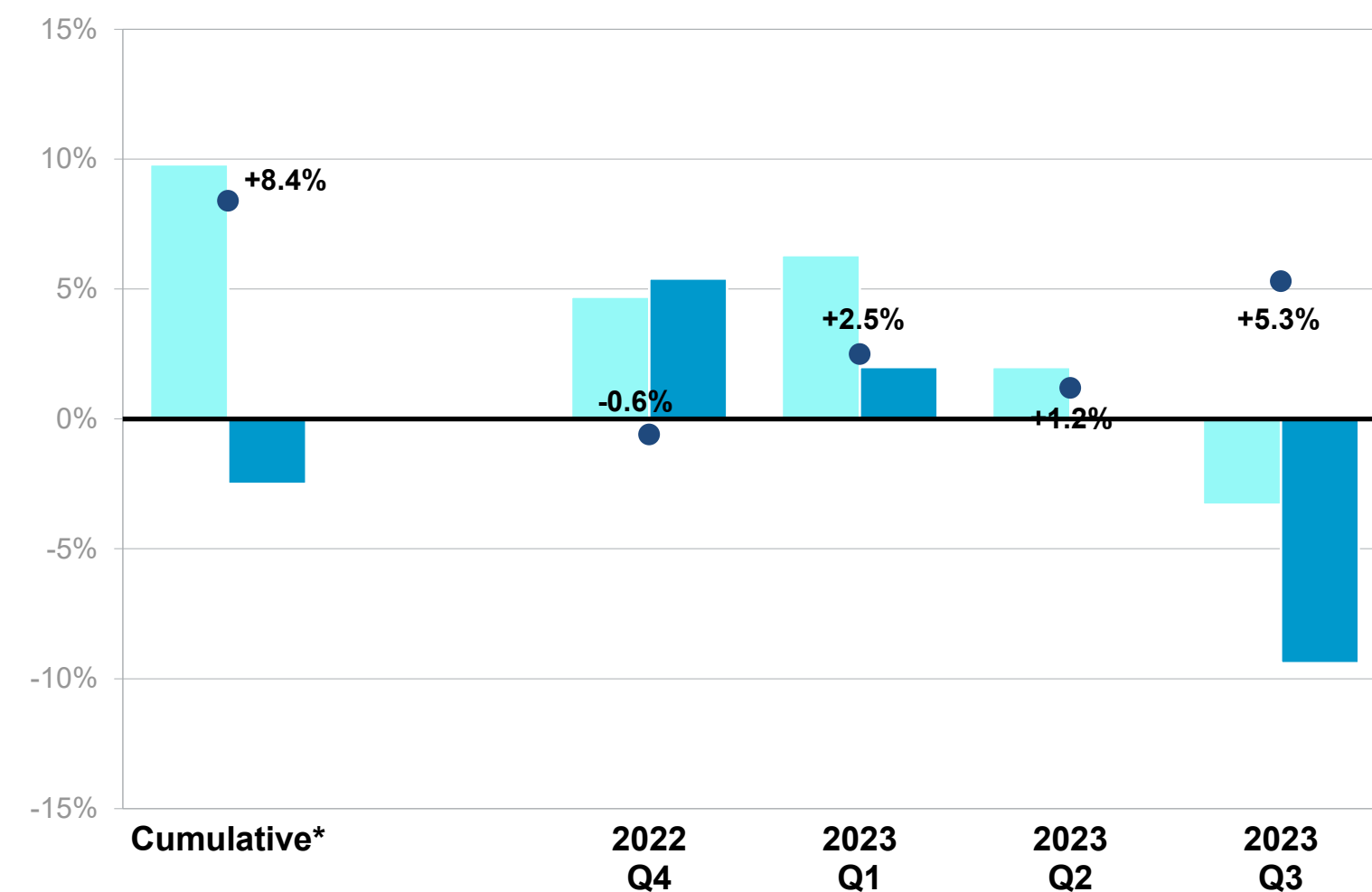
The plan's funded ratio increased to 79.4% at 9/30/23. This result was primarily due to the combined effects of:

- Lower than expected asset returns, offset by
- An increase in the interest rate used to value liabilities, and

	9/30/22	12/31/22	3/31/22	6/30/23	9/30/23*
Market Value of Assets	\$ 2,033.6	\$ 2,130.3	\$ 2,260.4	\$ 2,307.5	\$ 2,244.4
Risk-Free Liability	2,863.0	3,025.9	3,100.7	3,112.8	2,825.8
Surplus/(Deficit)	\$ (829.4)	\$ (895.6)	\$ (840.3)	\$ (805.3)	\$ (581.4)
Periodic Contributions	\$ 27.9	\$ 28.1	\$ 18.8	\$ 28.5	\$ 39.8
Discount Rate	1.84%	1.59%	1.74%	1.79%	2.46%
Funded Ratio:					
Assets/Risk-Free Liability	71.0%	70.4%	72.9%	74.1%	79.4%
Interest rate sensitivity:					
Assets:	1.5	1.6	1.5	1.5	1.5
Risk-Free Liability:	17.0	17.4	17.2	16.8	15.8

* Includes employee and University contributions to end of quarter; excludes investment manager and consulting expenses not yet invoiced

Asset-Liability Return



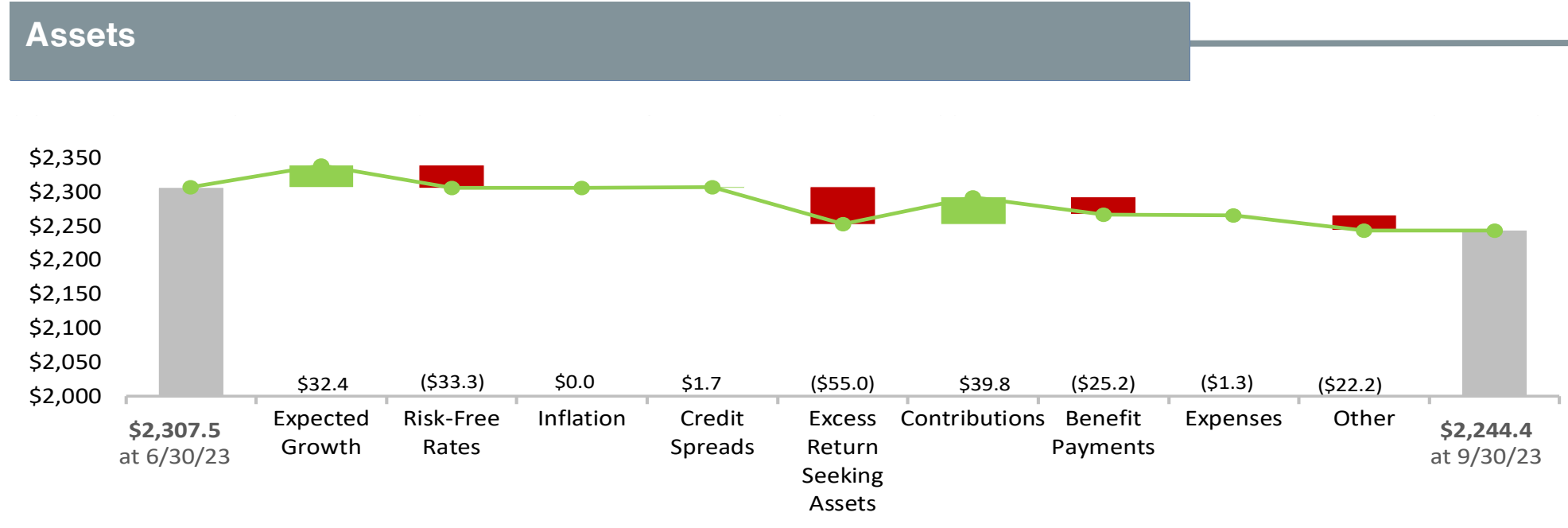
Asset Liability Return for Quarter-Ending 9/30/23

Assets returned -3.30% during the quarter while liabilities returned -9.4%, resulting in a funded status increase of 5.3%.

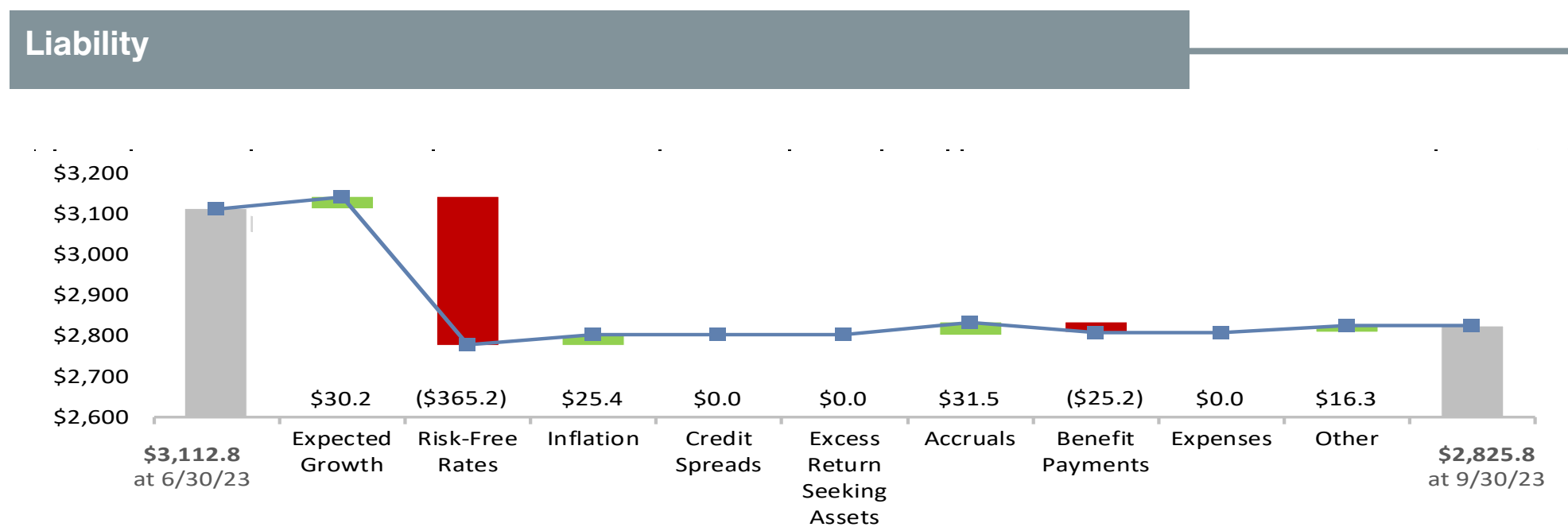
Periodic Return/Change	Cumulative	12/31/22	3/31/22	6/30/23	9/30/23
Market Value of Assets Return	9.8%	4.7%	6.3%	2.0%	-3.3%
Risk-Free Liability: Return	-2.5%	5.4%	2.0%	0.1%	-9.4%
Funded Ratio Change	8.4%	-0.6%	2.5%	1.2%	5.3%

Asset-Liability Performance Attribution – Risk Free

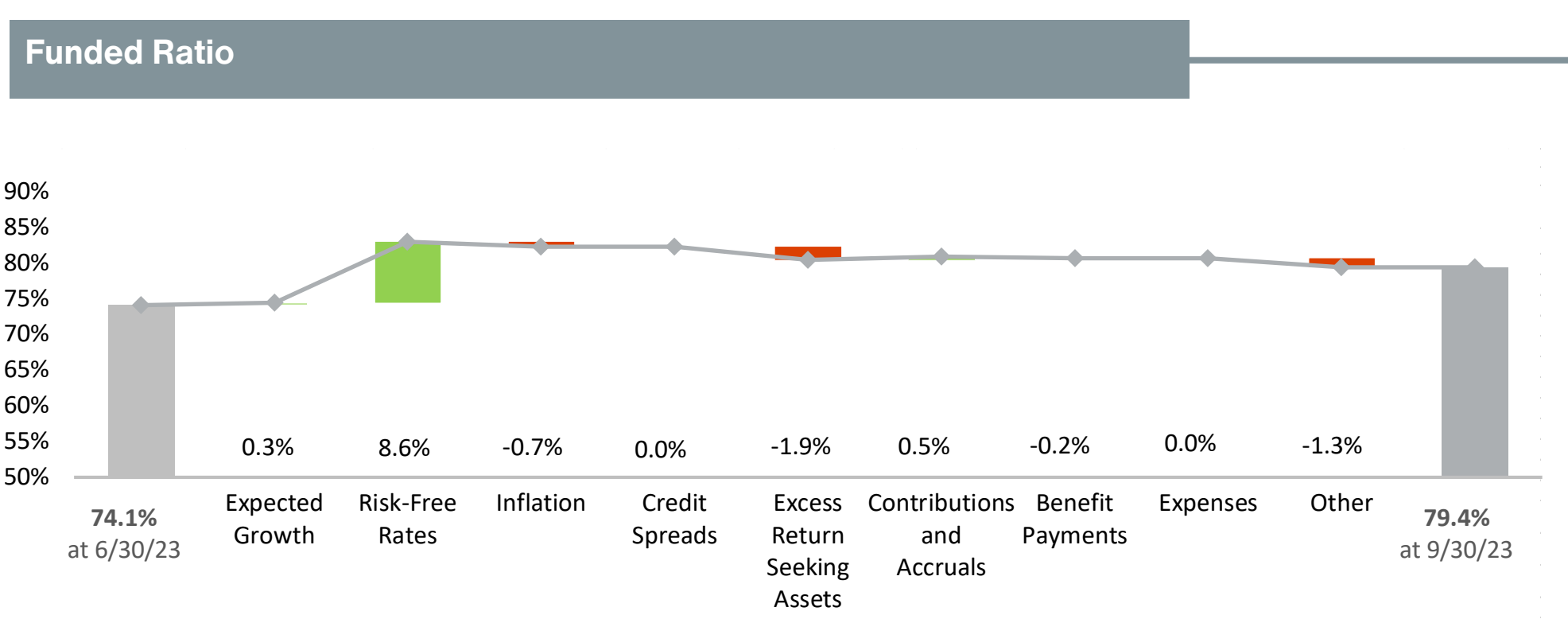
Values in \$1,000,000 (CAD)



- Overall, assets returned -3.3% during this quarter.
- The fixed income assets lost value due to an increase in the underlying risk-free rates, marginally offset by a slight narrowing in credit spreads.
- The plan's return-seeking assets performed lower than expected during the quarter.
- The University and members made \$39.8 million in contributions during the quarter and the trust paid \$25.2 million in benefits to the participants.
- "Other" includes the impact of active management, and differences between benchmark and actual investment allocations.



- Liabilities were expected to grow by \$30.2 million due to the interest cost during the quarter.
- New benefit accruals increased the liability by \$31.5 million during the quarter.
- Plan liabilities decreased by \$25.2 million during the quarter as benefits were paid out.
- An increase in risk-free rates led to a decrease in the Plan's liabilities, although this was partially offset by an increase in inflation expectations.



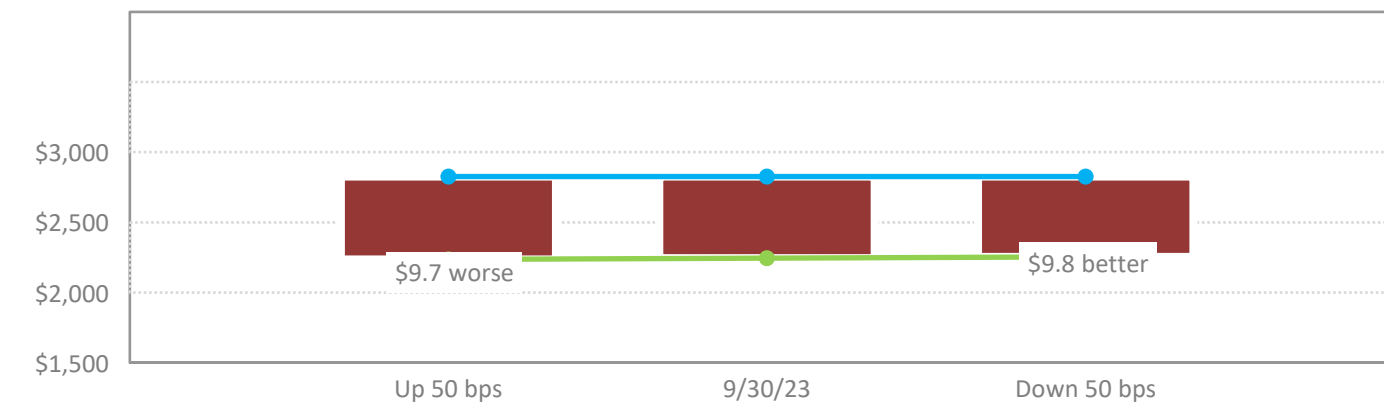
- The increase in risk-free rates during the period, resulted in an increase in the plan's funded status of 8.6%.
- Contributions exceeded benefit accruals during the quarter, resulting in a net increase of 0.5%.
- The plan's return-seeking assets provided lower returns than expected during the quarter, resulting in a decline of 1.9% in the plan's funded status during the period.



Sensitivity Analysis – Risk Free Benchmark

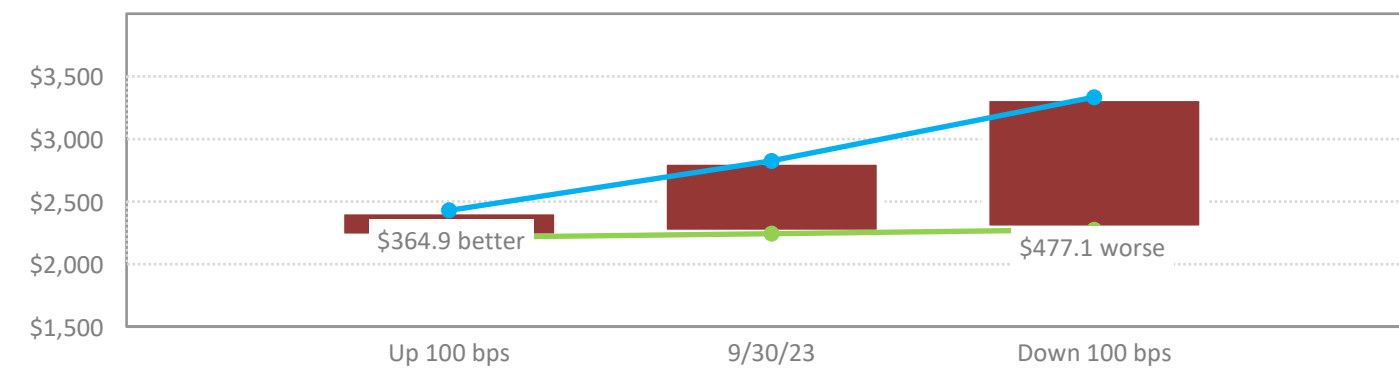
Values in \$1,000,000 (CAD)

Credit Spreads



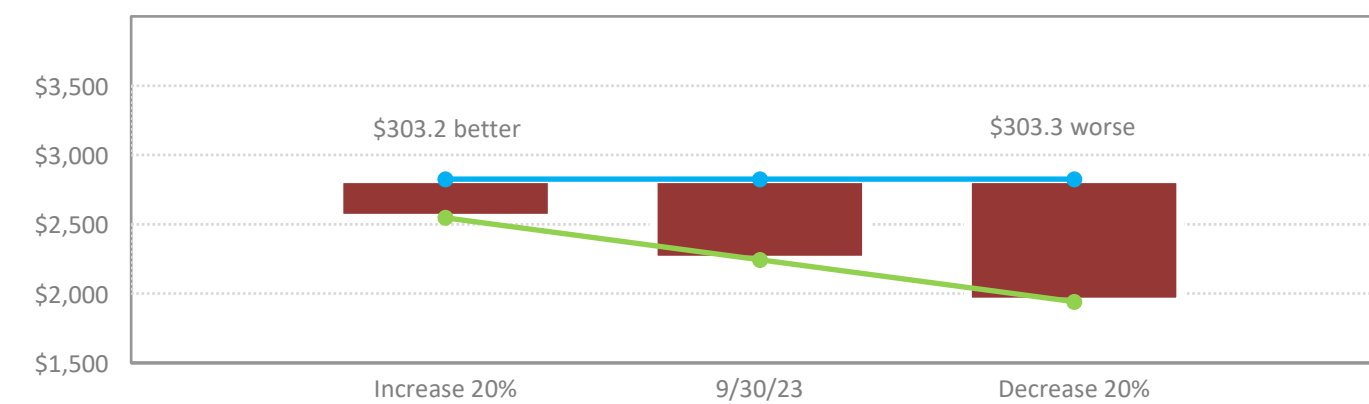
	Up 50bps	Current	Down 50bps
Market Value of Assets	\$2,234.7	\$2,244.4	\$2,254.2
Risk Free Liability	\$2,825.8	\$2,825.8	\$2,825.8
Surplus/(Deficit)	(\$591.1)	(\$581.4)	(\$571.6)
Change		(\$9.7)	\$9.8

Risk Free Rates



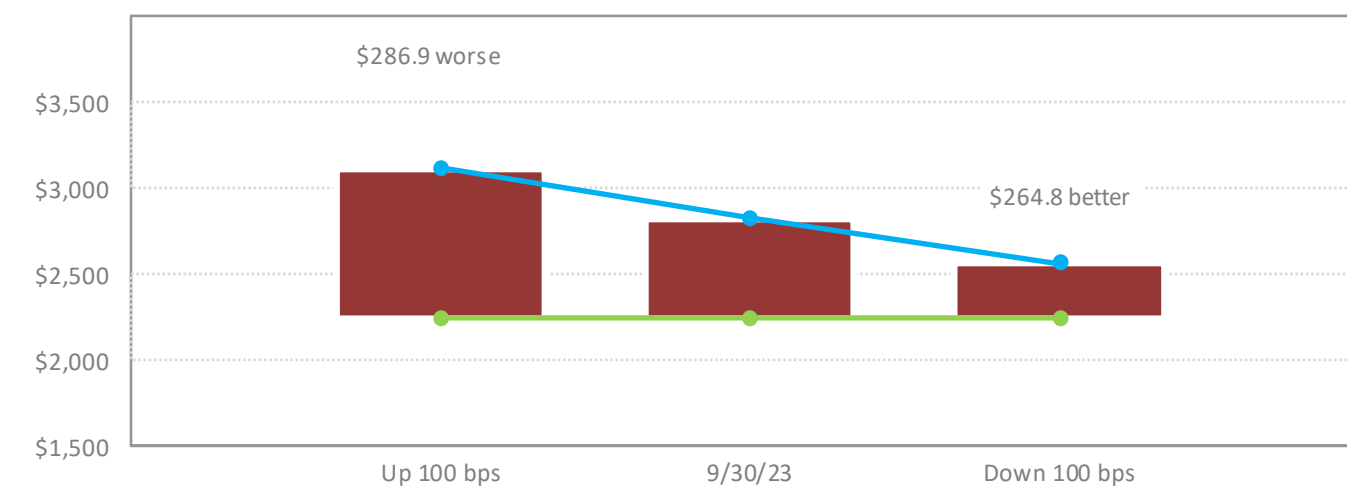
	Up 100bps	Current	Down 100bps
Market Value of Assets	\$2,213.7	\$2,244.4	\$2,275.5
Risk Free Liability	\$2,430.2	\$2,825.8	\$3,334.0
Surplus/(Deficit)	(\$216.5)	(\$581.4)	(\$1,058.5)
Change		\$364.9	(\$477.1)

Return-Seeking Assets



	Increase 20%	Current	Decrease 20%
Market Value of Assets	\$2,547.6	\$2,244.4	\$1,941.1
Risk Free Liability	\$2,825.8	\$2,825.8	\$2,825.8
Surplus/(Deficit)	(\$278.2)	(\$581.4)	(\$884.7)
Change		\$303.2	(\$303.3)

Inflation

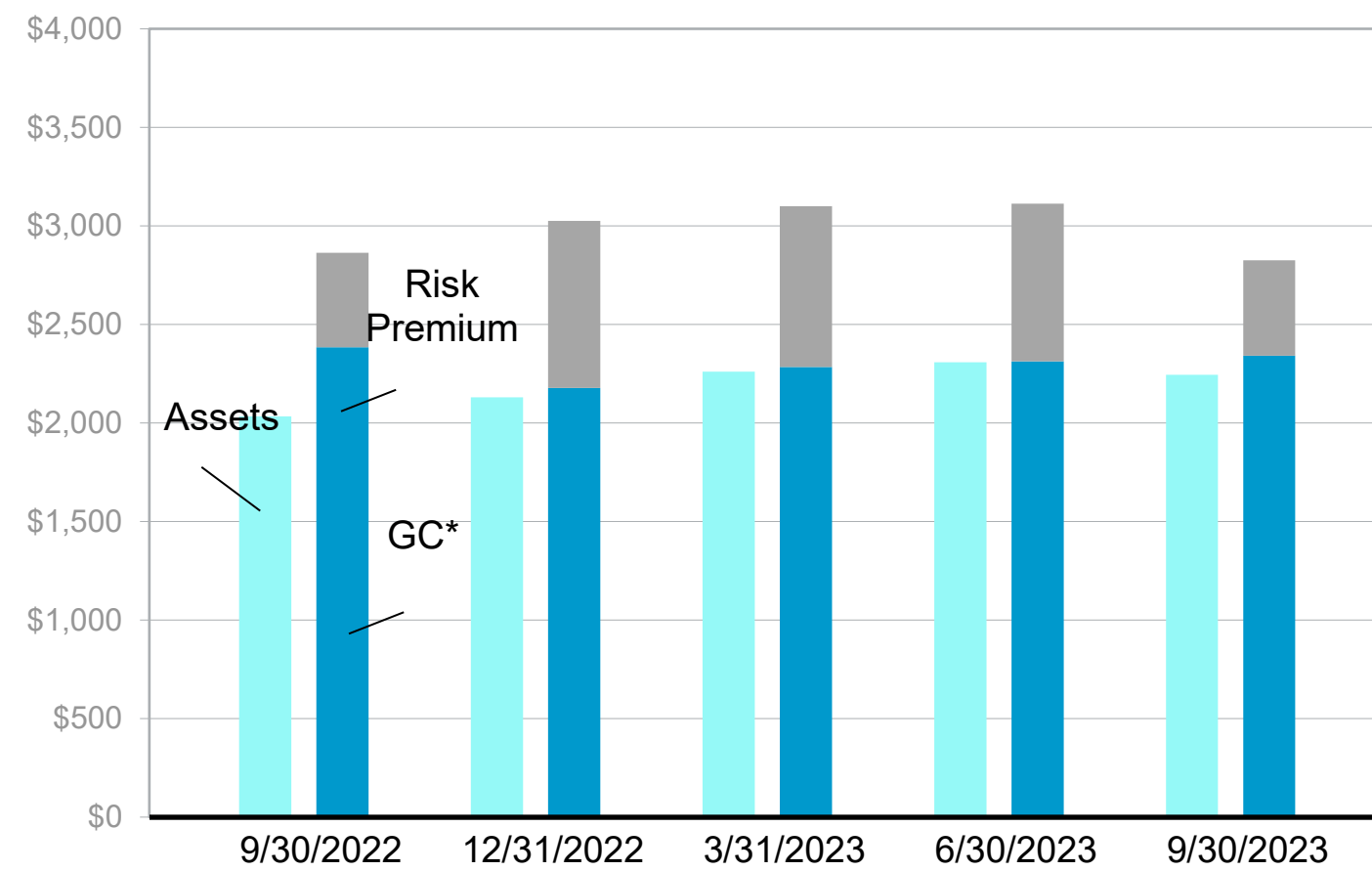


	Up 100bps	Inflation	Down 100bps
Market Value of Assets	\$2,244.4	\$2,244.4	\$2,244.4
Risk-Free Liability	\$3,112.7	\$2,825.8	\$2,823.1
Surplus/(Deficit)	(868.3)	(\$581.4)	(\$316.6)
Change		(\$286.9)	\$264.8

Reconciliation of Risk-Free Benchmark and Going Concern Funded Status

Values in \$1,000,000 (CAD)

Funded Status



*Going Concern

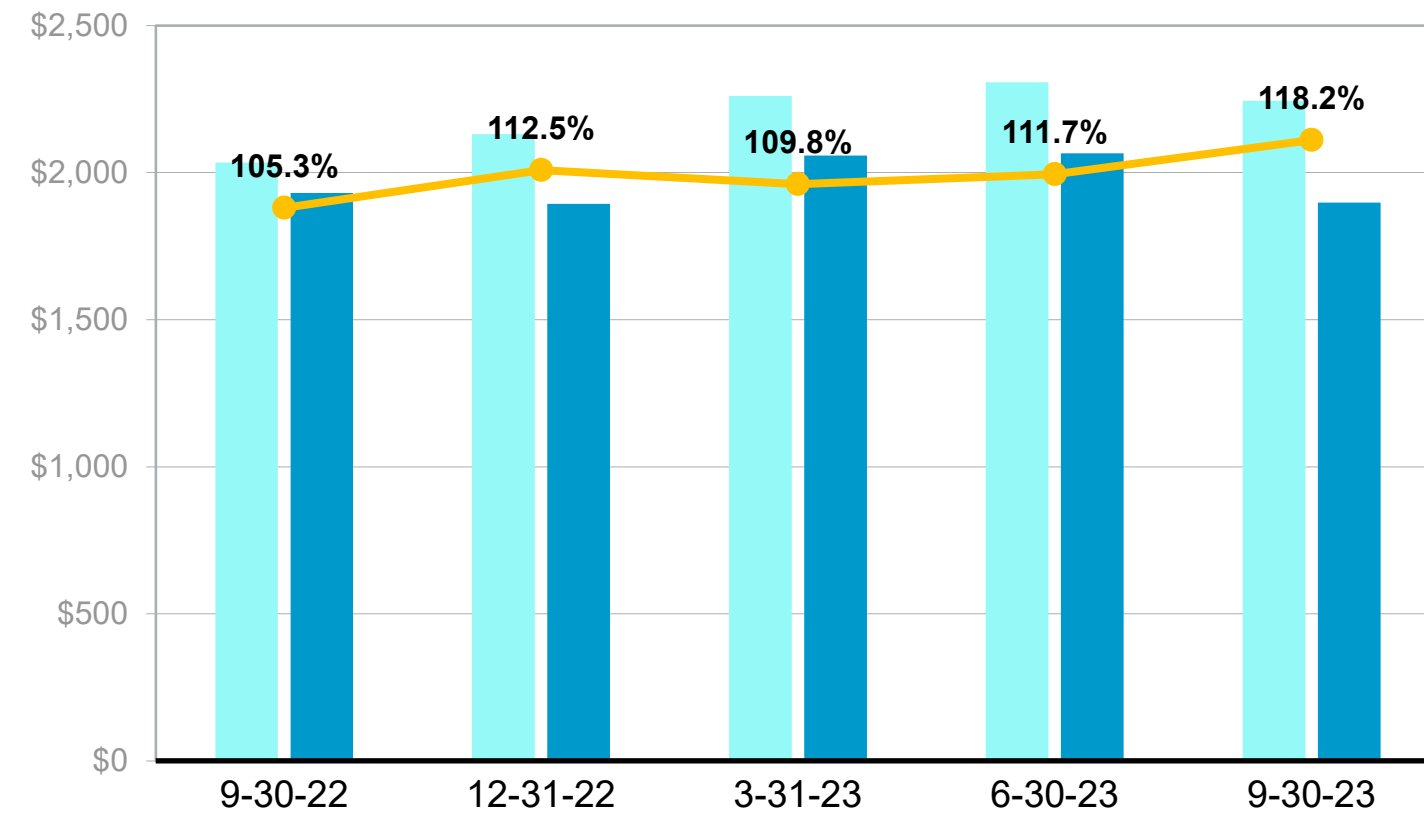
	9/30/22	12/31/22	03/31/23	06/30/23	09/30/23
Market Value of Assets	\$ 2,033.6	\$ 2,130.3	\$ 2,260.4	\$ 2,307.5	\$ 2,244.4
Going Concern Liability	\$ 2,384.4	\$ 2,177.8	\$ 2,284.2	\$ 2,312.5	\$ 2,341.2
Risk Premium	<u>478.6</u>	<u>848.1</u>	<u>816.5</u>	<u>800.3</u>	<u>484.6</u>
Risk-Free Liability	\$ 2,863.0	\$ 3,025.9	\$ 3,100.7	\$ 3,112.8	\$ 2,825.8

The difference between the Risk-Free Liability and the Going Concern Liability is a measure of the amount of risk premium on which the Pension Plan funding is based.

Executive Summary – Solvency

Values in \$1,000,000 (CAD)

Funded Status



Highlights for the Quarter-Ending 9/30/23

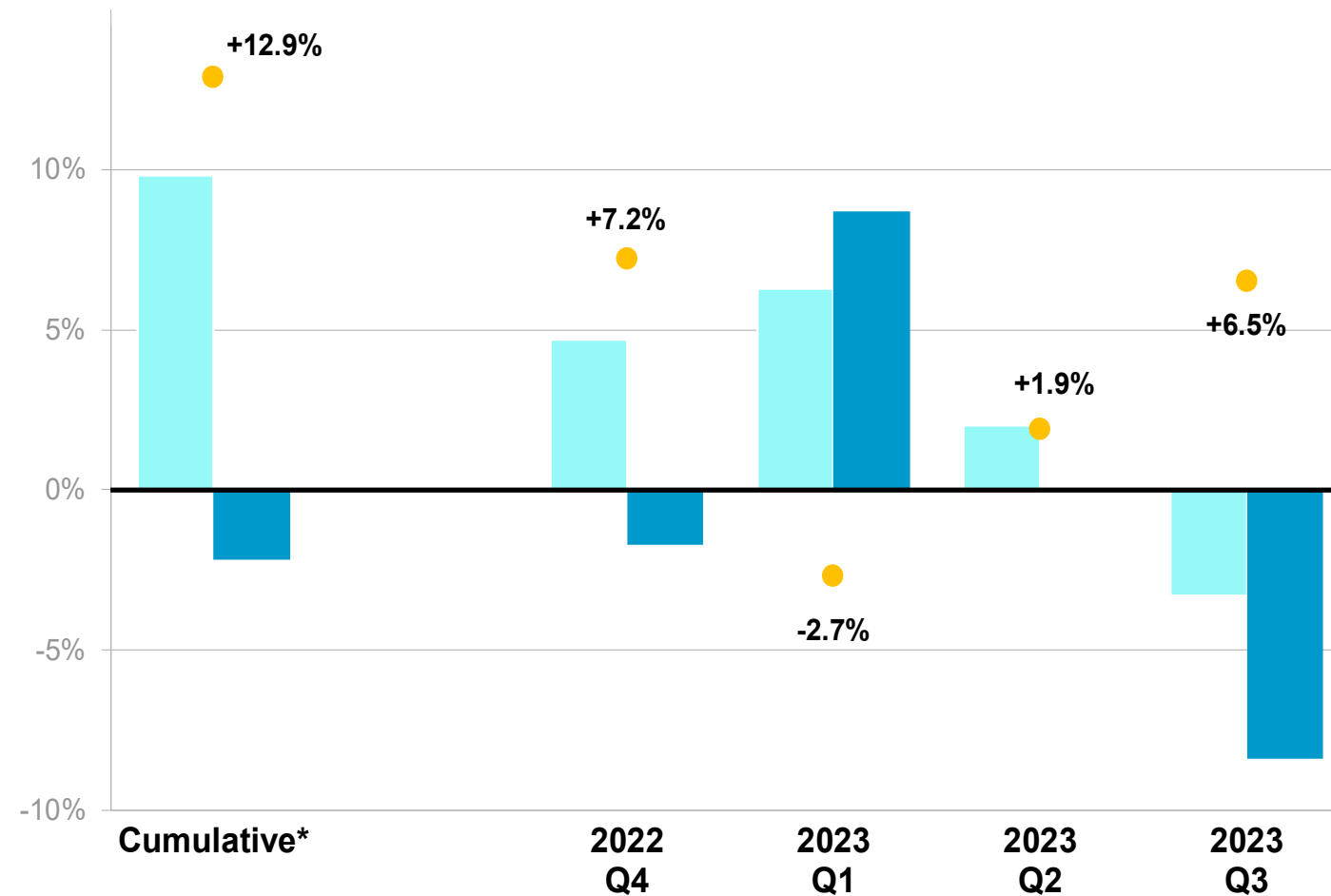
The plan's funded ratio increased to 118.2% at 9/30/23. This result was primarily due to the combined effects of:

- Lower than expected asset returns, offset by
- An increase in the interest rates resulting in lower liabilities, and
- Contributions which exceeds the new benefit accruals,

	9/30/2022	12/31/2022	03/31/2023	06/30/2023	09/30/2023*
Market Value of Assets	\$ 2,033.6	\$ 2,130.3	\$ 2,260.4	\$ 2,307.5	\$ 2,244.4
Solvency Liability	1,930.8	1,893.5	2,057.8	2,066.0	1,898.6
Surplus/(Deficit)	\$ 102.8	\$ 236.8	\$ 202.6	\$ 241.5	\$ 345.8
Periodic Contributions	\$ 27.9	\$ 28.1	\$ 18.8	\$ 28.5	\$ 39.8
Effective Interest Rate	4.52%	4.76%	4.52%	4.61%	5.44%
Funded Ratio:					
Assets/Solvency Liability	105.3%	112.5%	109.8%	111.7%	118.2%
Interest rate sensitivity:					
Assets	1.6	1.6	1.5	1.5	1.5
Solvency Liability	12.6	12.4	12.6	12.6	11.7

* Includes employee and University contributions to end of quarter; excludes investment manager and consulting expenses not yet invoiced

Asset-Liability Return



Asset Liability Return for Quarter-Ending 9/30/23

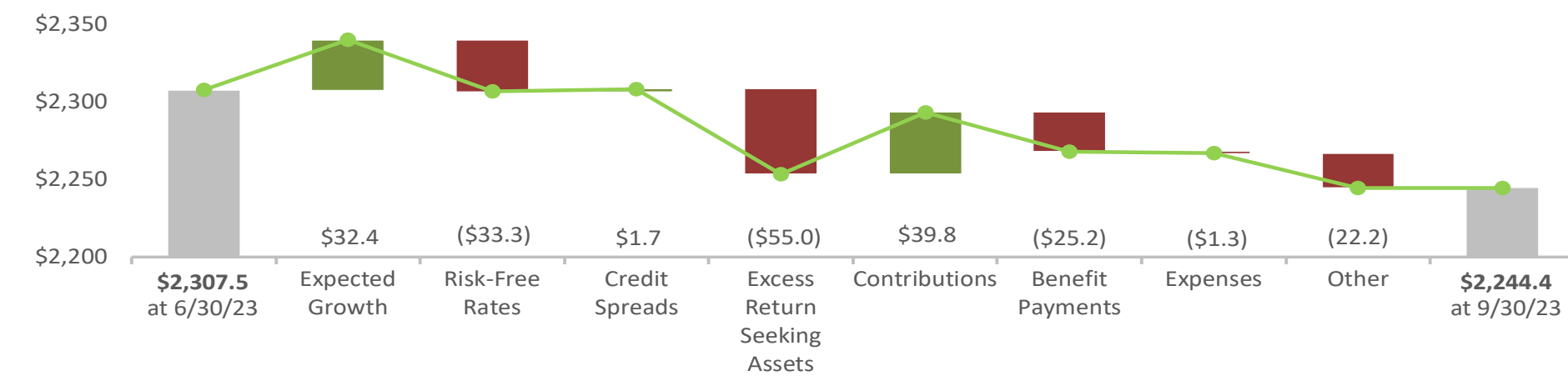
Assets returned -3.3% during the quarter while liabilities returned -8.4%, resulting in a funded status increase of 6.5%.

Periodic Return/Change	Cumulative	12/31/22	03/31/23	06/30/23	09/30/23
Market Value of Assets Return	9.8%	4.7%	6.3%	2.0%	-3.3%
Solvency Liability:					
Return	-2.2%	-1.7%	8.7%	0.0%	-8.4%
Funded Ratio Change	12.9%	7.2%	-2.7%	1.9%	6.5%

Asset-Liability Performance Attribution – Solvency

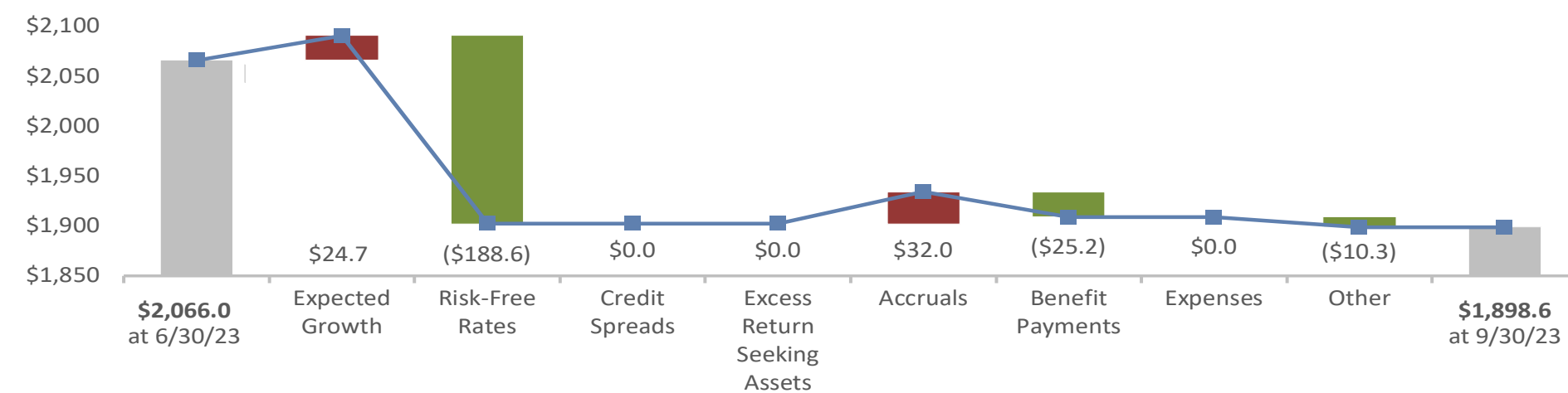
Values in \$1,000,000 (CAD)

Assets



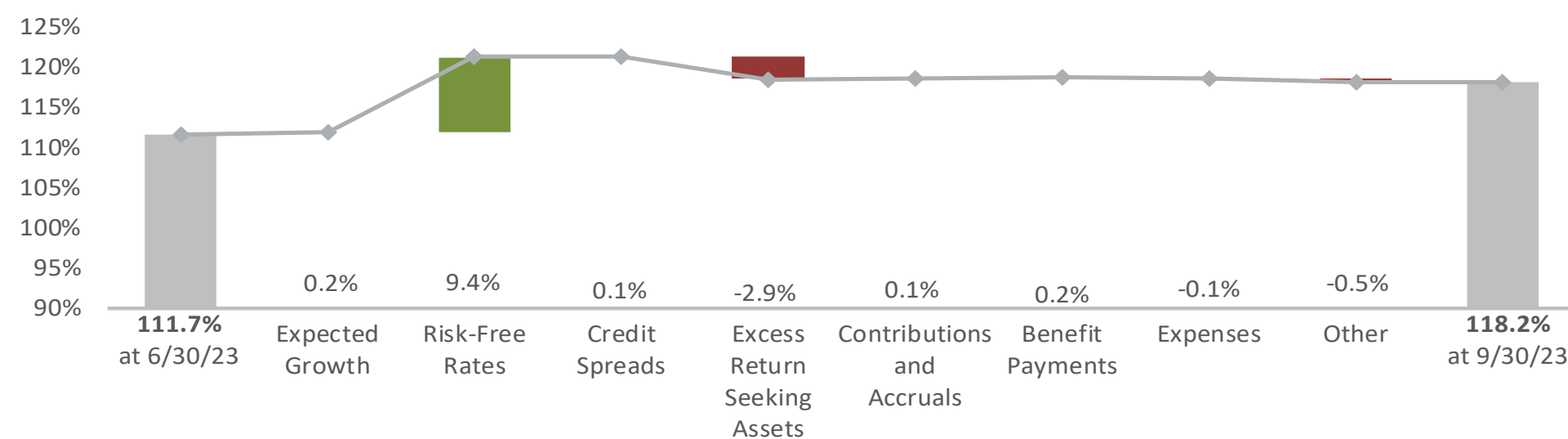
- Overall, assets returned -3.3% during this quarter.
- The fixed income assets lost value due to an increase in the underlying risk-free rates, marginally offset by a slight narrowing in credit spreads.
- The plan's return-seeking assets performed lower than expected during the quarter.
- The University and members made \$39.8 million in contributions during the quarter and the trust paid \$25.2 million in benefits to the participants.
- “Other” includes the impact of active management, and differences between benchmark and actual investment allocations.

Liability



- Liabilities were expected to grow by \$24.7 million due to interest cost during the quarter.
- Risk-free rates increased widened, resulting in a net decrease of \$188.6 million.
- New benefit accruals increased the liability by \$32.0 million during the quarter.
- Plan liabilities decreased by \$25.2 million during the quarter as benefits were paid out.

Funded Ratio



- The difference in exposure to risk-free rates between assets and liabilities combined with changes in risk-free rates resulted in an increase in funded status of 9.4%.
- Return-seeking assets did not perform as well as expected during the quarter, deducting 2.9% from the plan's funded status during the period.

Appendix



Plan Provisions & Membership Data



The Plan provisions and membership data are outlined in the Actuarial Valuation as at January 1, 2023 for University of Waterloo Pension Plan Report, dated August 2023.

Actuarial Methods & Assumptions

Our analysis of the estimated financial position of the Pension Plan is based on the following:

	9/30/22	12/31/22	03/31/23	06/30/23	09/30/23
Going Concern					
Discount Rate	5.50%	6.25%	6.25%	6.25%	6.25%
Inflation	2.00%	2.00%	2.00%	2.00%	2.00%
Salary Increase	3.00%/4.00% ¹	3.00%/4.00% ¹	3.00%/4.00% ¹	3.00%/4.00% ¹	3.00%/4.00% ¹
PfAD	9.00%	9.00%	9.60%	9.60%	9.60%
Mortality	CPM2014Public	CPM2014Public	CPM2014Public	CPM2014Public	CPM2014Public
Risk-Free Benchmark					
Discount Rate (Net of inflation)	1.84%	1.59%	1.74%	1.79%	2.46%
Solvency					
Annuity Purchase Interest Rate	4.64%	4.91%	4.63%	4.74%	5.48%
Effective Date of Annuity Purchase Guidance Used	9/30/22	12/31/22	05/01/23	07/24/23	10/24/23
Lump Sum Value Interest Rate (Years 1-10) ²	4.30%	4.30%	4.10%	4.40%	5.30%
Lump Sum Value Interest Rate (Years 10+) ²	4.30%	4.70%	4.50%	4.40%	5.10%
Mortality ³	CPM2014	CPM2014	CPM2014	CPM2014	CPM2014
Underlying Canadian Reference Data					
CANSIM v39054 (7 Year)	3.19%	3.27%	2.86%	3.38%	4.11%
CANSIM v39056 (30 Year Long Term)	3.09%	3.28%	3.02%	3.09%	3.81%
CANSIM v39057 (30 Year Real Return)	1.44%	1.19%	1.34%	1.39%	2.06%
CANSIM v39062 (Over 10 Years)	3.14%	3.31%	3.03%	3.14%	3.88%

¹ 3.00% per year for 1 year; 4.00% year thereafter

² Lump Sum Value Interest Rates are based on rates in effect on the first day of the month following quarter end (i.e., January 1st, April 1st, July 1st and October 1st).

³ With improvement scale MI-2017 for Going Concern and Risk Free and CPM-B for Solvency.

All other assumptions and methods are the same as those shown in the Actuarial Valuation Results presentation as of January 1, 2023. For the Risk-Free Benchmark basis, all other assumptions and methods are the same as those used for the Going Concern basis.

Actuarial Attestation

This document is intended to provide the University of Waterloo with a summary of the performance of the Pension Plan as of September 30, 2023.

This analysis is intended to assist the University of Waterloo with a review of the associated issues and options, and its use may not be appropriate for other purposes. This analysis has been prepared solely for the benefit of the University of Waterloo. Any further dissemination of this report is not permitted without the prior written consent of Aon.

In conducting the analysis, we have relied on plan design, demographic and financial information provided by other parties, including the plan sponsor. While we cannot verify the accuracy of all the information, the supplied information was reviewed for consistency and reasonableness. As a result of this review, we have no reason to doubt the substantial accuracy or completeness of the information and believe that it has produced appropriate results.

Experience different than anticipated could have a material impact on the ultimate costs of the benefits. In addition, changes in plan provisions or applicable laws could have a substantial impact on cost. Actual experience may differ from our modeling assumptions.

Aon
August 2023

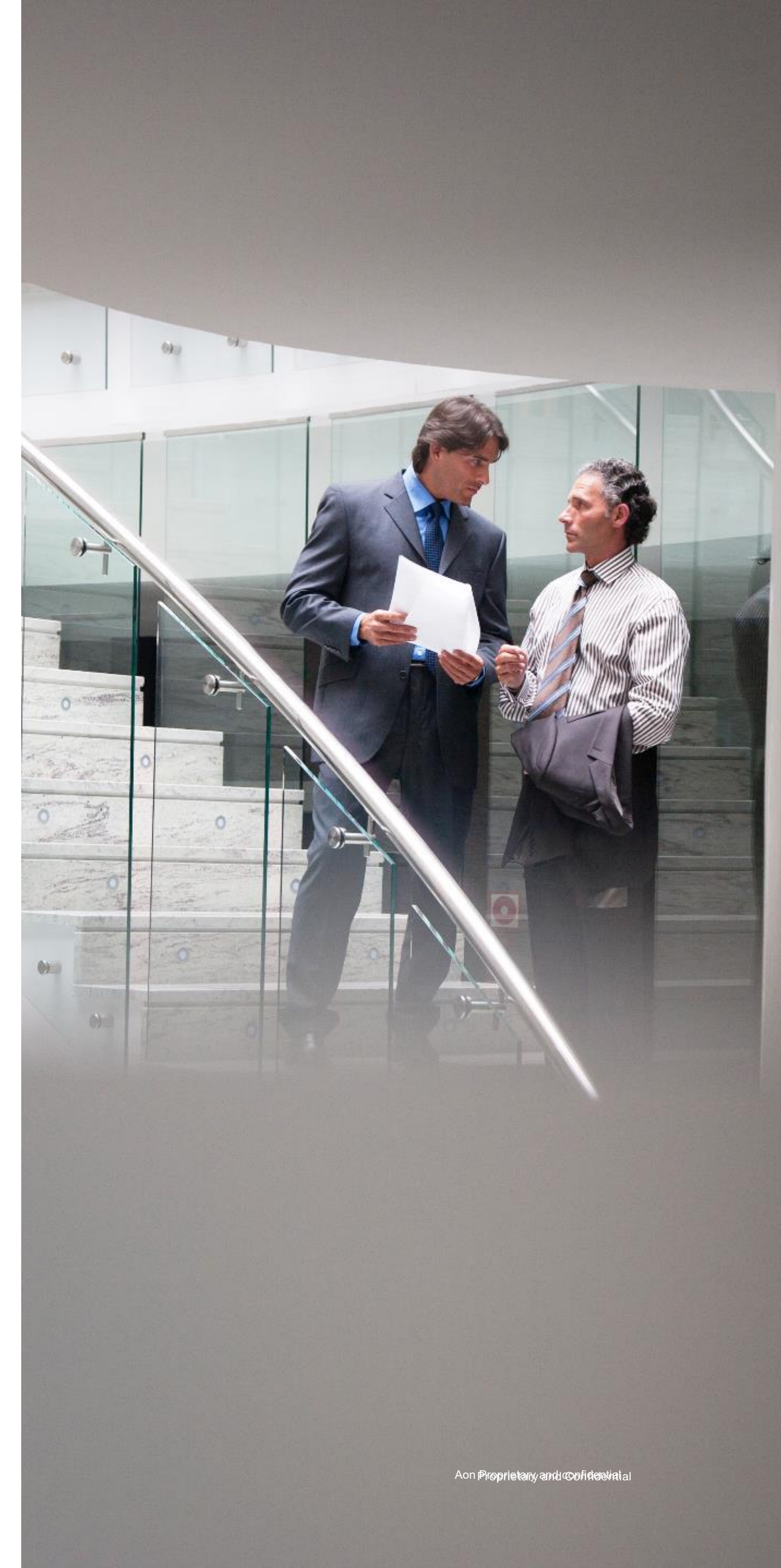
Asset Allocation and Benchmarking

Asset Class	09/30/23
Alternatives	
• FTSE EPRA NAREIT DEVELOPED Total Return Index USD	2.9%
• MSCI USA Infrastructure Index	5.9%
Fixed Income	
• FTSE TMX Universe Bond Index	33.0%
International Equities	
• MSCI World Index	52.5%
• S&P TSX	5.7%
Total	100.0%

Legal Disclaimer

© 2023 Aon Solutions Canada Inc. All Rights Reserved.

This document contains confidential information and trade secrets protected by copyrights owned by Aon. The document is intended to remain strictly confidential and to be used only for your internal needs and only for the purpose for which it was initially created by Aon. No part of this document may be disclosed to any third party or reproduced by any means without the prior written consent of Aon.



2024 Maximum Pension Limit and CAP - Registered Pension Plan (RPP)

The Income Tax Act (ITA) governs the maximum pension payable from the Registered Pension Plan (RPP). Each January 1st the limit is adjusted based on the previous year's Average Industrial Wage (AIW) increase.

The following table shows the RPP ITA maximum pension limit for 2023 and the new limit effective January 1, 2024.

Plan	2023 Limit		2024 Limit	
	Maximum Annual Pension per year of Pensionable Service	Final Average Earnings Threshold	Maximum Annual Pension per year of Pensionable Service	Final Average Earnings Threshold
RPP (ITA) Maximum Pension Limit	\$3,506.67	\$193,886	\$ 3,610.00	\$199,718

**AIW increase is 2.94% (difference in the RPP limit for 2024 over 2023) compared to 2.53% in 2023 over 2022.*

In addition to the maximum pension limit, the UW plan text imposes an overall CAP on the maximum pension limit, restricting the limit from exceeding the CAP. The RPP was amended effective January 1, 2021, to include an automatic increase in the RPP CAP each calendar year beginning January 1, 2022, equal to one-third of the AIW increase. The automatic increase to the RPP CAP was implemented in place of increasing the non-registered pension plan's CAP; the non-registered pension plan was phased out effective January 1, 2022. Effective January 1, 2023 the plan was amended to increase the RPP CAP to \$4,000, with automatic increases beginning January 1, 2024, equal to one-third of the AIW increase.

Plan	2023 CAP	2024 CAP
	Maximum annual pension per year of pensionable service	Maximum annual pension per year of pensionable service
RPP (plan imposed)	\$4,000	\$4,039.29

The RPP CAP has an impact on the valuation of the liability associated with the RPP.

Projection of when the ITA Maximum Pension Limit will reach the RPP CAP

	ITA Limit Projection	RPP CAP Projection	ITA Limit Projection	RPP CAP Projection	ITA Limit Projection	RPP CAP Projection	ITA Limit Projection	RPP CAP Projection
Rate	2.50%		3.00%		4.00%		5.00%	
2025	3700	4073	3718	4080	3754	4093	3791	4107
2026	3793	4107	3830	4120	3905	4148	3980	4175
2027	3888	4141	3945	4162	4061	4203	4179	4245
2028	3985	4176	4063	4203	4223	4259	4388	4315
2029	4084	4210	4185	4245	4392	4316	4607	4387
2030	4186	4246	4311	4288	4568	4373	4838	4460
2031	4291	4281	4440	4331	4751	4432	5080	4535
2032	4398	4317	4573	4374	4941	4491	5334	4610
2033	4508	4353	4710	4418	5138	4551	5600	4687

2024 ITA Maximum Employee Contribution Limit

The ITA also limits annual member contributions, and this limit adjusts annually based on the AIW increase. The following table highlights the member contribution limit change effective January 1, 2024:

2023 Contribution Limit		2024 Contribution Limit	
<i>Maximum annual contribution</i>	<i>Annual Earnings Threshold</i>	<i>Maximum annual contribution</i>	<i>Annual Earnings Threshold</i>
\$22,672	\$222,646	\$23,323	\$229,036

Action Required: None