

Board of Governors
PENSION & BENEFITS COMMITTEE
Friday 20 January 2023
10:30 a.m. to 12:00 noon
NH 3318

OPEN SESSION		ACTION
10:30	1. Approval of the 9 December 2022 Minutes (Open Session)* and Business Arising	Decision
	2. Execution Against the Work Plan* [Weber-Kraljevski]	Information
10:35	3. Approval of the Actuarial Valuation Assumptions* [Aon]	Decision
11:15	4. Green Shield Implementation update [Lee]	Information
	5. Other Business	Information
CONFIDENTIAL SESSION		
11:45	6. Approval of the 9 December 2022 Minutes (Confidential Session)+ and Business Arising	Decision

Next Meeting: Friday 17 February 2023, 9:30 a.m. – 12:00 noon

*attached ** to be distributed + distributed separately

13 January 2023

Tim Weber-Kraljevski
Associate University Secretary

Please convey regrets to Melissa Benjamin at melissa.benjamin@uwaterloo.ca

Future Agenda Items

- a. Pension Contribution for Members on LTD
- b. Level of LTD coverage vs. practical requirements
- c. EFAP Report Data Requirements
- d. Communication Plan re: Handling of Member Questions/Feedback

University of Waterloo
Board of Governors
PENSION & BENEFITS COMMITTEE
Minutes of the 9 December 2022 Meeting
[in agenda order]

Present: Peter Barr (chair), Sara Cressman, Melissa Graham, Michelle Hollis, Lily Hua, William Povelofskie, Ranjini Jha, Jacinda Reitsma, James Rush, David Saunders, David Taylor, Tim Weber-Kraljevski (secretary)

Regrets: Tony Giovinazzo

Resources/Guests: Anata Alphonso, Linda Byron, Sarah Hadley, Lee Hornberger, Andrea Kelman, Cindy McCarthy, Sue McGrath, Chantal Moore, Allan Shapira, Ljilijana Skobo, Spencer Small, Michelle St-Amour, Tyler Wendland

Organization of Meeting: Peter Barr took the chair, and Tim Weber-Kraljevski acted as secretary. The secretary advised that a quorum was present. The agenda was accepted as distributed.

OPEN SESSION

The chair welcomed Jacinda Reitsma, Vice-President, Administration and Finance, to the Committee.

1. APPROVAL OF THE 18 NOVEMBER 2022 MINUTES (OPEN SESSION) AND BUSINESS ARISING

The following revisions were requested for the minutes: in Item 6 “RRP” should be corrected to “RPP”; and under Next Meeting the date should be corrected to 9 December 2022. There was a motion to approve the minutes with the requested revisions. Saunders and Jha. Carried.

2. EXECUTION AGAINST THE WORK PLAN

This item was received for information.

3. UPDATE - WORKING GROUP TO REVIEW IN-VITRO FERTILIZATION COVERAGE

Saunders provided the overview of the report provided, highlighting: the federal government’s proposed changes to the Medical Expense Tax Credit (METC); offerings from other employers and peer institutions; the limitations of the Ontario Fertility Program (OFP); Professor Cattapan’s assessment that the current coverage could be more equitable; that without any changes to the Income Tax Act, the only feasible way to introduce health benefits for surrogacy would be through a taxable benefit which has administrative challenges; and the potential options for the expansion of benefits offered. Hollis spoke to the legal advice sought by the University of Waterloo which found that the provision of In Vitro Fertilization (IVF) as currently covered by the University’s benefit plan is not discriminatory under the Ontario Human Rights Code. Members discussed: options for moving forward; concerns about equity; concerns with moving forward prior to the changes to the Income Tax Act; Bill C-32 and concerns with the potential timeline for royal ascent; and the possibility of following up with the other institutions also considering similar options. Following the discussion, members decided to adopt an active watching brief to monitor for changes that will allow for future action.

4. UPDATE ON GREEN SHIELD CANADA IMPLEMENTATION

Hornberger provided an update on the Green Shield Canada (GSC) implementation project, highlighting: no new items were identified through second transition analysis; the data shows no claims related to Provincially Covered Medication (Herceptin and Keytruda) being reimbursed for one of the two medications and a terminated claim for the other; the updated claims data will be used by GSC to generate 466 individualized letters; the differences in the standard, deluxe travel benefits for out-of-country coverage between Canada Life and GSC; and the updated comparison of UW and GSC standard plan designs. Hornberger presented four items from the material to the Committee for approval. Members discussed an expiry date for of the one-time exception process relative to expenses classified as compounds. There was a motion to approve the GSC recommendation of using 30 April 2023 as the expiry date for the one-time exception process relative to expenses classified as compounds. Taylor and Saunders. Carried. Members discussed GSC’s policy for dental lab fees. There was a motion to approve the

use of GSC’s policy for dental lab fees. Hollis and Taylor. Carried. Members discussed GSC’s maintenance supply policy. There was a motion to approve the use of GSC’s policy for maintenance supply. Graham and Hua. Carried. Members discussed benefits covered during international sabbatical and the content on Human Resource’s website which indicates “reasonable and on-going medical expenses that would have been covered by the provincial healthcare plan at home”. There was a motion to approve option 1 to remove “routine and ongoing coverage” for international sabbaticals. Jha and Taylor. Carried.

5. MAXIMUM PENSION LIMITS AND CAPS

McGrath provided overview of the report, which was received for information.

6. OTHER BUSINESS

Members discussed the annual luncheon scheduled for 20 January 2023 and were supportive of holding the luncheon and the next meeting in-person.

NEXT MEETING

The next regular meeting is scheduled for Friday, 20 January 2023, 10:30 a.m. – 12:00 noon.

10 January 2023

Tim Weber-Kraljevski
Associate University Secretary

Execution against Work Plan

Pension & Benefits Committee, Board of Governors, University of Waterloo

The below represents the annual responsibilities of the P&B Committee and has been prepared as an aid to planning only. The committee's activities are much broader, however, and include: legislative changes, plan changes and improvements; selection of managers and service providers; and requests from the UW community regarding pension and benefits plans.

Task	Frequency (Target month)	14 Jan 2022	18 Feb 2022	11 Mar 2022	20 May 2022	24 June 2022	16 Sept 2022	07 Oct 2022	18 Nov 2022	9 Dec 2022	20 Jan 2023
Approval of Actuarial Valuation Assumptions	Annual (Jan)	✓									✓
Investment Status of PPP	Annual (Feb)		✓								
Cost-of-living Increase for Pensioners	Annual (Feb)		✓								
Pensions for Deferred Members	Annual (Feb)		✓								
Salaries for Pension Purposes for Individuals on Long-term Disability	Annual (Feb)		✓								
Actuarial Valuations (RPP and PPP), with posting to website once approved	Annual (Mar)			✓							
Review of Contribution and Protocol Caps (RPP and PPP)	Annual (Mar)			✓							
Monitor sharing of current service cost between employee and university contributions	Annual (Mar)										
Benefits Plan Premium Renewals	Annual (Mar)			✓							
Indexing of Long-term Disability Plan Benefits and Maxima	Annual (Mar)			✓							
Annual Committee Self-Assessment	Annual (Mar)			✓							
Budget Overview	Annual (May)				✓						
Previous Years' Fees and Expenses	Annual (May)				✓						
Annual Audit of the Pension Plan Fund Financial Statements	Annual (May)				✓						

Task	Frequency	14 Jan 2022	18 Feb 2022	11 Mar 2022	20 May 2022	24 June 2022	16 Sept 2022	07 Oct 2022	18 Nov 2022	9 Dec 2022	20 Jan 2023
Benefits Utilization Report	Annual (June)					✓					
Annual review re: benefits added/removed from insured plans in the market	Annual (June)					D	D	✓			
Review of Committee Terms of Reference	Annual (June)					✓					
Review of Administrative Staffing Support for the Plan (first iteration to occur in 2023)	Annual (Oct)										
Indexing of Plan Maxima – Health, Dental, Retiree Life Insurance	Annual (Nov)								✓		
Employee and Family Assistance Program – report on utilization	Annual (Nov)								✓		
Maximum pension limits and caps adjustments, based on average industrial wage increase (AIW)	Annual (Dec)									✓	
Total Fund Overview	Quarterly						✓		✓		
Investment Manager Review	Semi-annually								✓		
Approval of the Statement of Investment Policies and Procedures (SIPP)	Annual									D	D
Annual Report to the Community	Annual		✓								
Actuarial Filing - Minimum every three years Secretariat to advise Aon and HR upon approval by BOG, to commence filing Most recent filings: 2017, 2018, 2020, 2021, 2022											

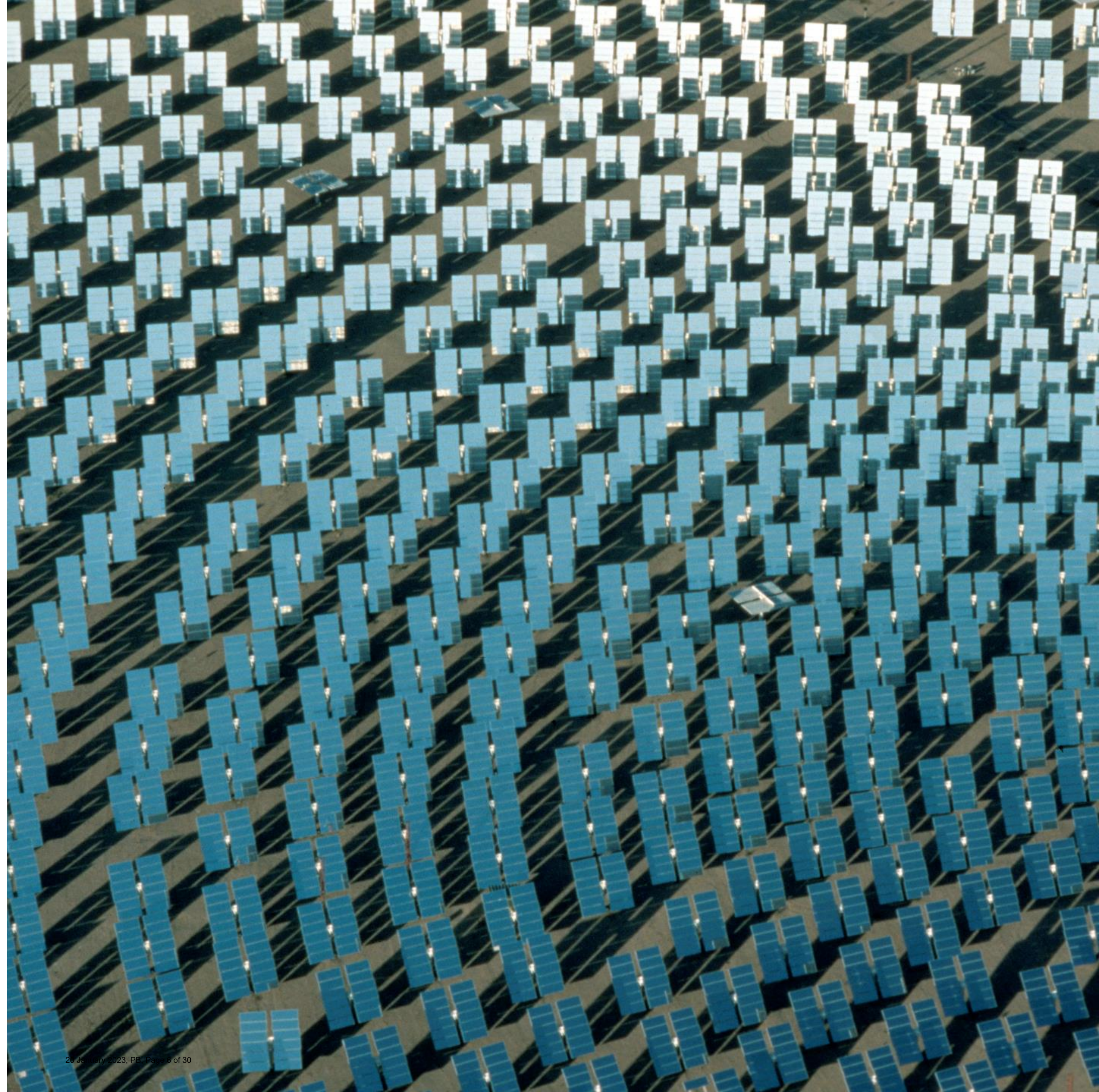


Actuarial Assumptions (Preliminary)

University of Waterloo
Pension & Benefits Committee
(P&B) Meeting

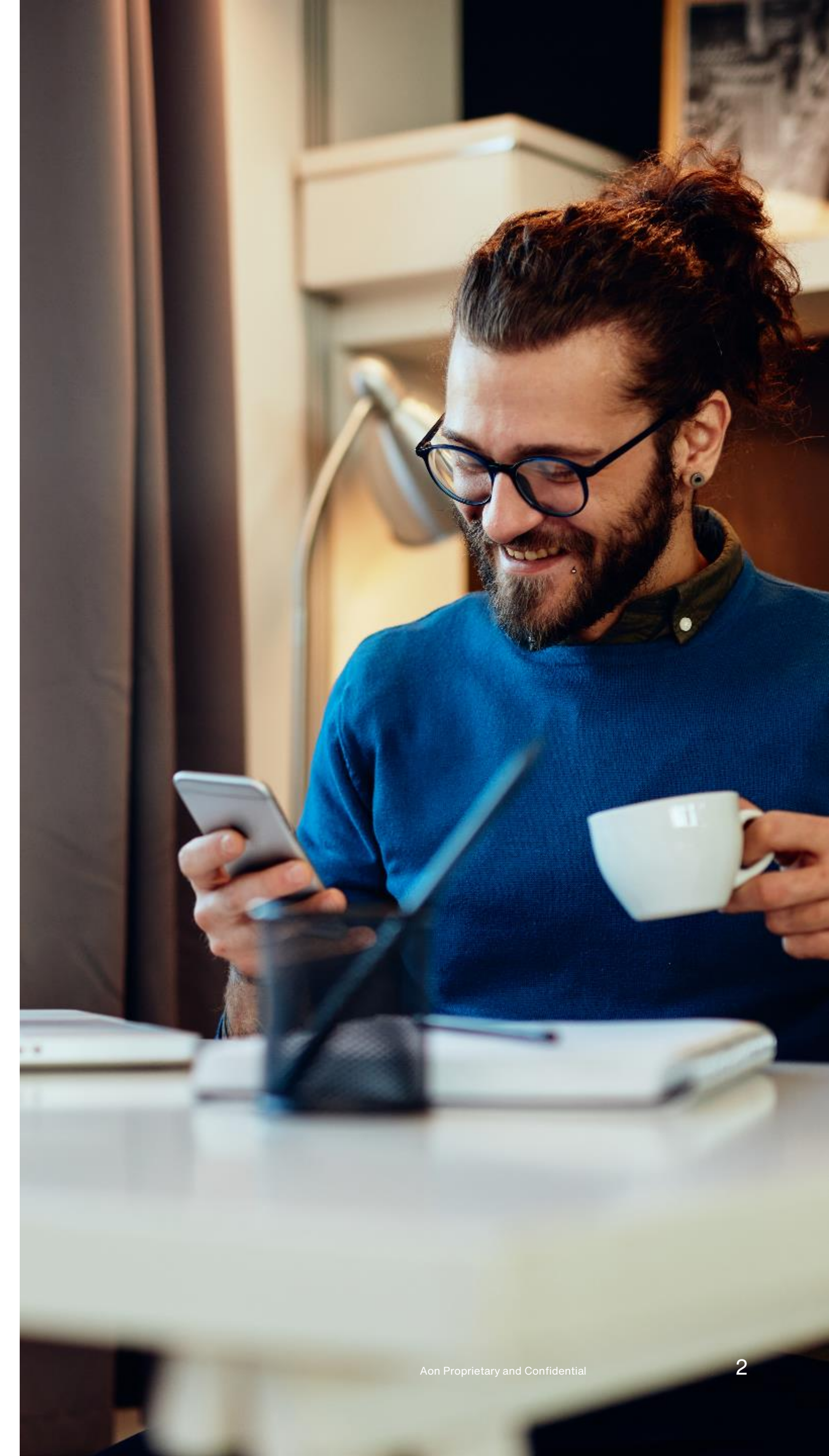
January 20, 2023
Posted with Permission of Aon

January 2023



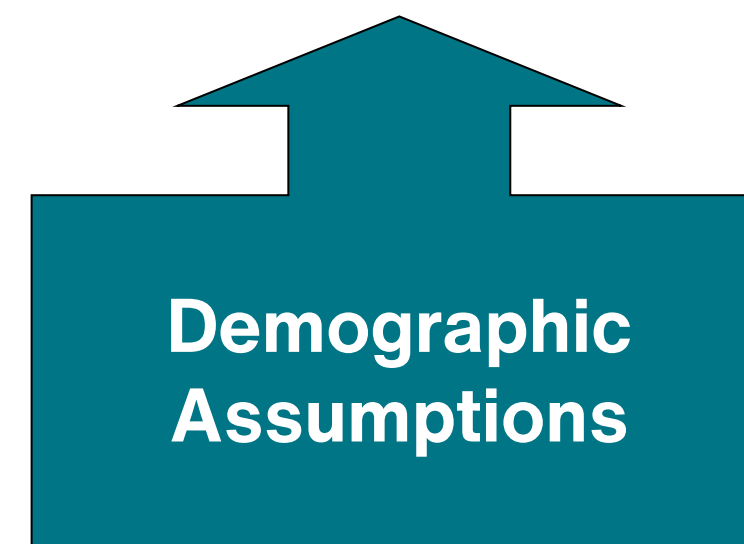
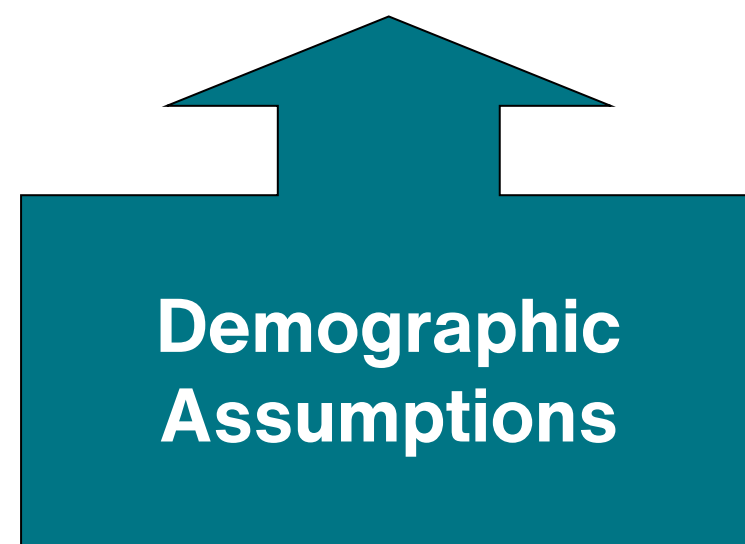
About This Material

- Review of actuarial assumptions for purposes of setting the actuarial assumptions to use for the January 1, 2023 actuarial valuation of the Registered Pension Plan (RPP) and Payroll Pension Plan (PPP):
 - Note that last filed valuation was prepared at December 31, 2021 to reflect a possible change in the policy of the Financial Services Regulatory Authority of Ontario (FSRA) with respect to timing of PBGF calculations; this guidance was never adopted and Aon recommends reverting to the January valuation date this year
- This valuation is not required, nor expected, to be filed with the pension regulators (FSRA and Canada Revenue Agency)
- Under the funding rules which came into effect May 1, 2018 for Ontario-registered pension plans:
 - Going concern assumptions should be “best estimate”
 - An explicit provision for adverse deviations (PfAD) is added to the best estimate non-indexed going concern liabilities and normal cost
 - Additional margin could be added to assumptions if deemed appropriate by P&B
- The valuation results will include the Protocol calculations that determine the liabilities and normal cost without the RPP Hard-Dollar Cap but with the projected *Income Tax Act* maximum pension
- No further benefits accrue to active members in the PPP as the RPP Cap now exceeds the PPP Cap:
 - Benefits for retired members will continue to be covered in the PPP

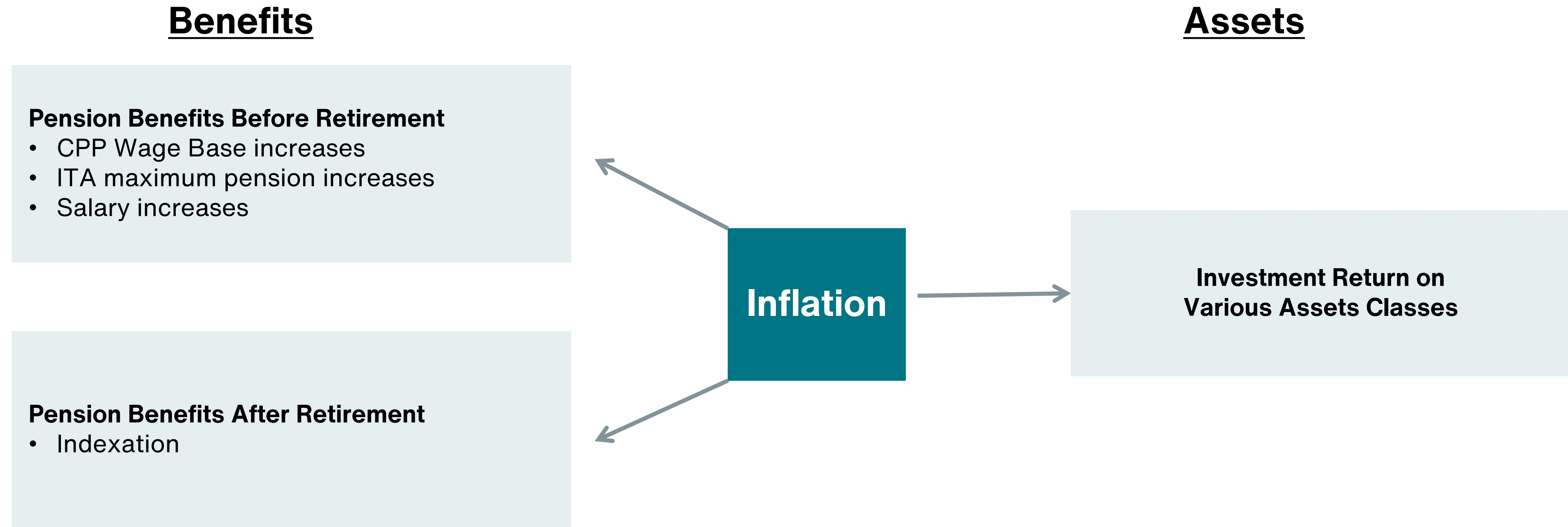


Actuarial Assumptions for Going Concern Valuation

Assumptions to Estimate:			
When Pension Benefits Are Payable	Amount of Pension Benefits Payable	How Long Pension Benefits are Payable	How Much Money to Set Aside
<ul style="list-style-type: none"> Termination Rates Disability Rates Preretirement Mortality Rates Retirement Ages 	<ul style="list-style-type: none"> Increases in CPP Wage Base Increases in ITA Maximum Pension Increases in Salaries Inflation 	<ul style="list-style-type: none"> Postretirement Mortality Rates 	<ul style="list-style-type: none"> Investment Return on Pension Fund



Real Growth



Since inflation drives both the pension benefits paid out and the funding made from investment return, it is the excess of interest rates and investment return over inflation, or “real return” and the excess of salary and government benefit increases over inflation that are the key factors.

Actuarial Assumptions For Going Concern Valuation— Economic Assumptions – Prior Valuation

Economic Assumptions	December 31, 2021 Valuation (Last Filed Valuation)
Increase in Consumer Price Index (CPI)	2.00% per year
Increase in Year's Maximum Pensionable Earnings under Canada Pension Plan	2.75% per year (CPI + 0.75%)
Increase in Income Tax Act Maximum Pension	\$3,420.00 in 2022; increased after 2022 at 2.75% per year up to a hard-dollar cap of \$4,000 in 2023, which increases at 0.92% per year beginning in 2024
Increase in Salaries (Active members)	3.00% per year for 2 years; 4.00% per year thereafter (CPI + 2.00% ¹)
Increase in Salaries (Disabled members)	2.00% per year (CPI + 0.00%)
Interest Rate Used to Discount Liabilities	5.50% per year (CPI + 3.50%)
Interest Rate Used to Calculate 50% Rule	0.80% per year for 10 years ² ; 1.20% per year thereafter
Interest Rate for Crediting on Required Member Contributions	2.00% per year
Loading For Administrative Expenses	Explicit assumption of \$1,606,000 in 2022 added to normal cost
Provision for Adverse Deviations	9.00% of non-indexed liabilities and normal cost

¹ Reflects PTR/grid steps/merit

² 1.20% per year for 10 years; 1.70% per year thereafter for 75% indexed benefits in 2022

Actuarial Assumptions For Going Concern Valuation— Demographic Assumptions – Prior Valuation

Demographic Assumptions	December 31,2021 Valuation	
Mortality Rates	2014 Canadian Pensioners Public Sector Mortality Table (“CPM2014 Public”) with Improvements Under Scale MI-2017, projected from 2014	
Retirement Rates	Age	Rates Per 100
	60	5
	61	5
	62	25
	63	10
	64	10
	65	50
	66	25
	67	25
	68	25
	69	50
	70	100

Actuarial Assumptions For Going Concern Valuation— Demographic Assumptions – Prior Valuation

Demographic Assumptions	December 31,2021 Valuation	
Termination Rates	Age	Rates Per 100
	20	10.0
	25	10.0
	30	5.6
	35	3.2
	40	2.2
	45	1.7
	50	1.2
	55	0.7
	60	0.2
	65	0.0

Increase in Consumer Price Index (CPI)

- As of December 31, 2022, the underlying inflation rate implicit in the market yield of Government of Canada real return bonds (1.19%) and nominal bonds (3.28%) is 2.07%
- Bank of Canada target range for inflation extends from 1% to 3%; monetary policy aimed at the 2% target midpoint; however, recent experience has been much higher
- Assumption for increase in CPI has been set at 2.00% per year since the January 1, 2015 actuarial valuation; other economic assumptions (pension indexation, salary, YMPE, discount rate etc.) build off of the inflation rate
- In the short-term, the valuation will reflect actual inflationary increases to be granted at May 1, 2023, and any carry-forward, and then revert to the long-term assumption of 2.0%

Benefits in pay earned prior to January 1, 2014 are indexed at 100% of the increase in CPI

Benefits in pay earned on or after January 1, 2014 are indexed at 75% of the increase in CPI

The Plan provides for the indexation adjustment to be capped at 5% for pre-2014 benefits and 3.75% for post-2013 benefits, with a provision for carry-forward to the following year of the difference between the increase granted and actual CPI

Inflation adjustment to be granted May 1, 2023 will be discussed at the February P&B meeting

Increase in Pensionable Earnings

Increase in pensionable earnings of 3.00% per year for 1 year and 4.00% per year thereafter based on:

Long term assumed
across-the-board increase
of 2.00% per year

Long term assumed
2.00% increment
representing PTR/grid
steps/merit across Faculty
and Staff groups

Temporary lower rate
reflecting salary settlements

Discount Rate

- Based on expected investment return of UW pension fund reflecting long-term target asset mix as stated in the current SIPP:

Canadian Equities:	5.0%
Non-Canadian Equities:	48.0%
Nominal Fixed Income:	25.0%
Real Estate:	10.0%
Infrastructure:	10.0%
Cash:	2.0%

Discount Rate

- For the December 31, 2021 actuarial valuation, the target asset mix generated an expected return of 5.50% per annum, net of passive investment expenses and before other expenses
- For the January 1, 2023 actuarial valuation, the target asset mix in the SIPP generates an expected return of 6.65% per annum net of passive expenses and before other expenses:
 - These results are based on Aon's September 30, 2022 capital market assumptions
 - Once Aon's December 31, 2022 capital market assumptions are out, we will reflect any changes
 - Initially Aon suggests a discount rate no higher than 6.25% based on the market conditions as at September 30
- As interest rates have increased, it may be appropriate to add margin back into the discount rate; as rates decreased, the margin was removed with only the PfAD being applied



Expected Investment Returns on Various Asset Classes

Asset Class	30-Year Annualized Mean ¹ (Nominal Return)	Annual Standard Deviation
Inflation	2.0%	2.3%
Cash (365-Day T-Bills)	3.2%	3.8%
Universe Bonds	4.0%	7.1%
Canadian Equities	7.0%	20.0%
Global Equities	7.6%	16.3%
Listed Infrastructure	7.3%	14.8%
Direct Infrastructure	6.9%	11.6%
Global Listed Real Estate	7.1%	19.3%
Direct Real Estate	4.6%	15.0%

Note: Above returns determined at September 30, 2022

¹ Takes into effect the compounding for each underlying asset class

Expected Investment Returns For UW Pension Fund

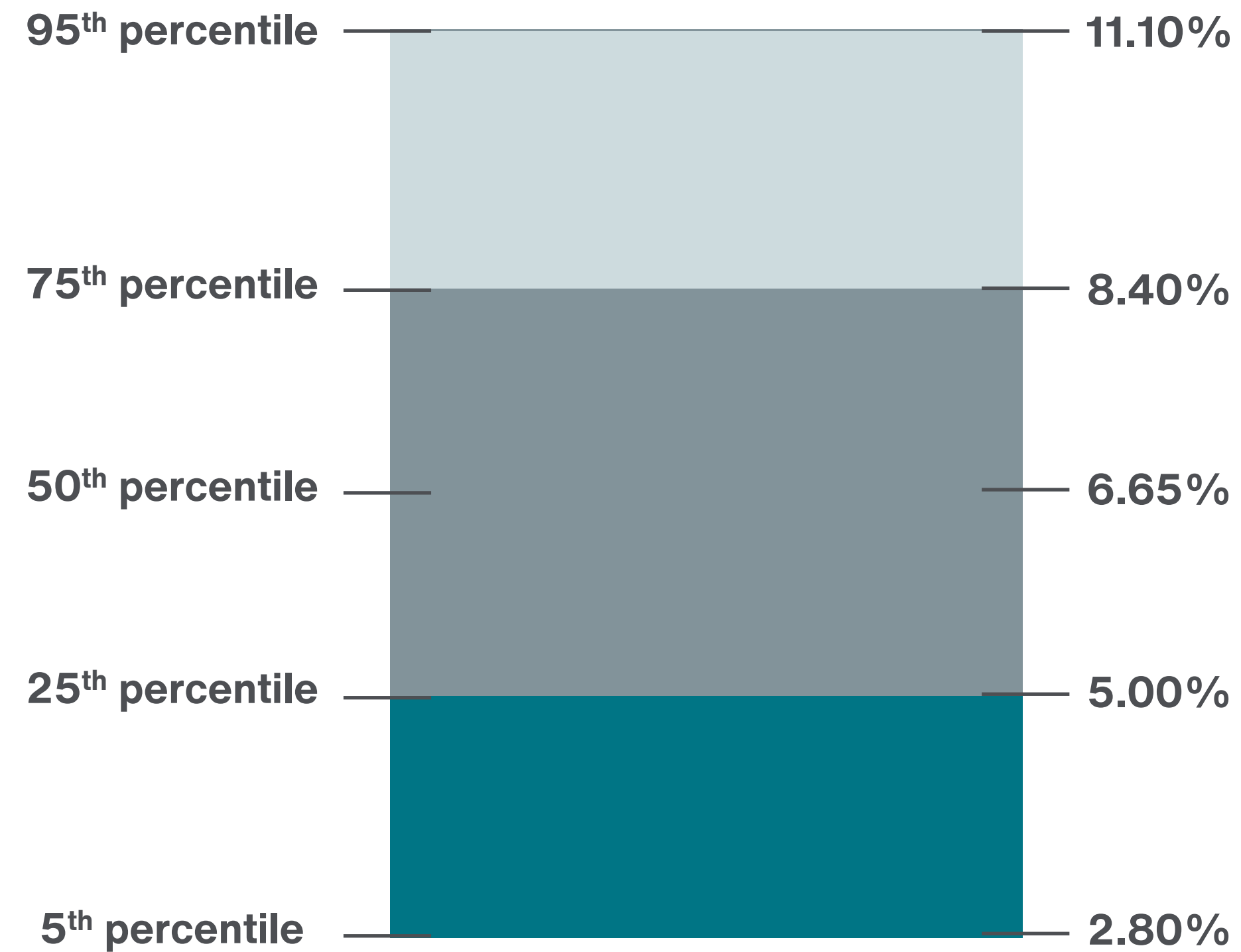
- Expected rate of return (net of passive investment fees) as of September 30, 2022 calculated based on the following target asset mix:

Asset Class	%
• Canadian Equities	5.0%
• Global Equities	48.0%
• Fixed Income	25.0%
• Cash	2.0%
• Infrastructure (Listed)	5.0%
• Infrastructure (Direct)	5.0%
• Real Estate (Listed)	5.0%
• Real Estate (Direct)	<u>5.0%</u>
	100.0%
Annual Expected Return	6.65%
Annual Standard Deviation (Asset Only)	10.49%
Annual Drawdown Risk 95% (Asset Only)	-16.19%

Expected Investment Returns For UW Pension Fund (cont'd)

- The chart below provides the range of outcomes for the 30-year rate of return based on the target asset mix of the University of Waterloo pension fund:

Annualized Rate of Return over a 30-Year Period (September 30, 2022)



Provision for Expenses

- An explicit provision of \$1,654,000 for administrative expenses will be added to the normal cost in 2023 (increase of 3% over 2022 expense provision)
 - Alternatively, an adjustment of 0.10% can be made to the discount rate
 - Prior to 2018, the administrative expenses were accounted for as an adjustment to the discount rate



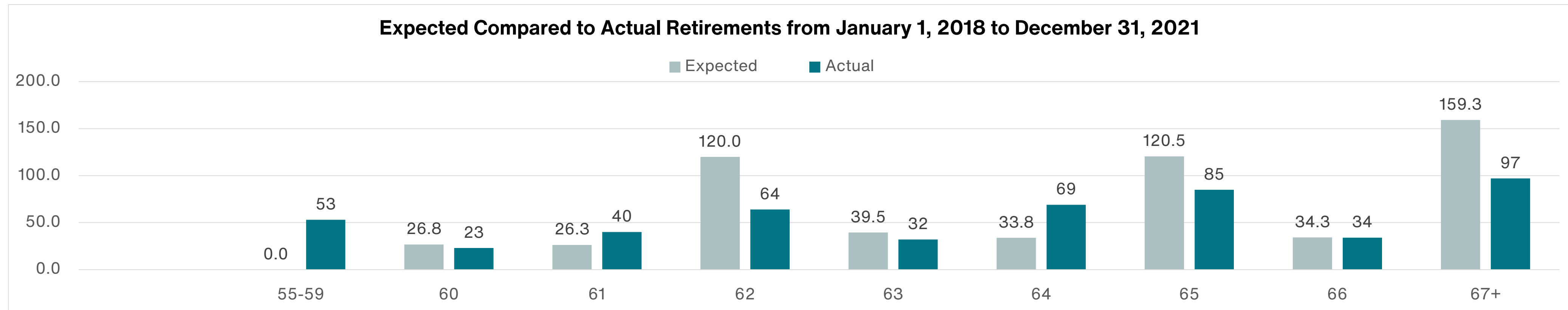
Retirement Age Assumption

- Effective with the January 1, 2020 valuation, the valuation uses retirement rates which are based on historical retirement experience
- Prior to the January 1, 2020 valuation, a single point retirement age of 64, but no earlier than one year following the valuation date, was used



Retirement Age Experience

- The following chart compares the actual retirements in the period January 1, 2018 to December 31, 2021 to the retirements that would have been expected during the period based on the assumed retirement rates adopted at the January 1, 2020 valuation. (This chart will be updated with the results of the January 1, 2023 valuation.)



Ages	Expected	Actual
55-59	0.0	53
60	26.8	23
61	26.3	40
62	120.0	64
63	39.5	32
64	33.8	69
65	120.5	85
66	34.3	34
67+	159.3	97

Note: that expected and actual retirements are based on age at nearest birthday

Mortality Rates

- Since January 1, 2020, the mortality table being used is 2014 Canadian Pensioners' Public Sector Mortality Table with Improvements Under Scale MI-2017, projected from 2014
- Following table shows actual versus expected deaths for members of the RPP for 2014 through 2021:

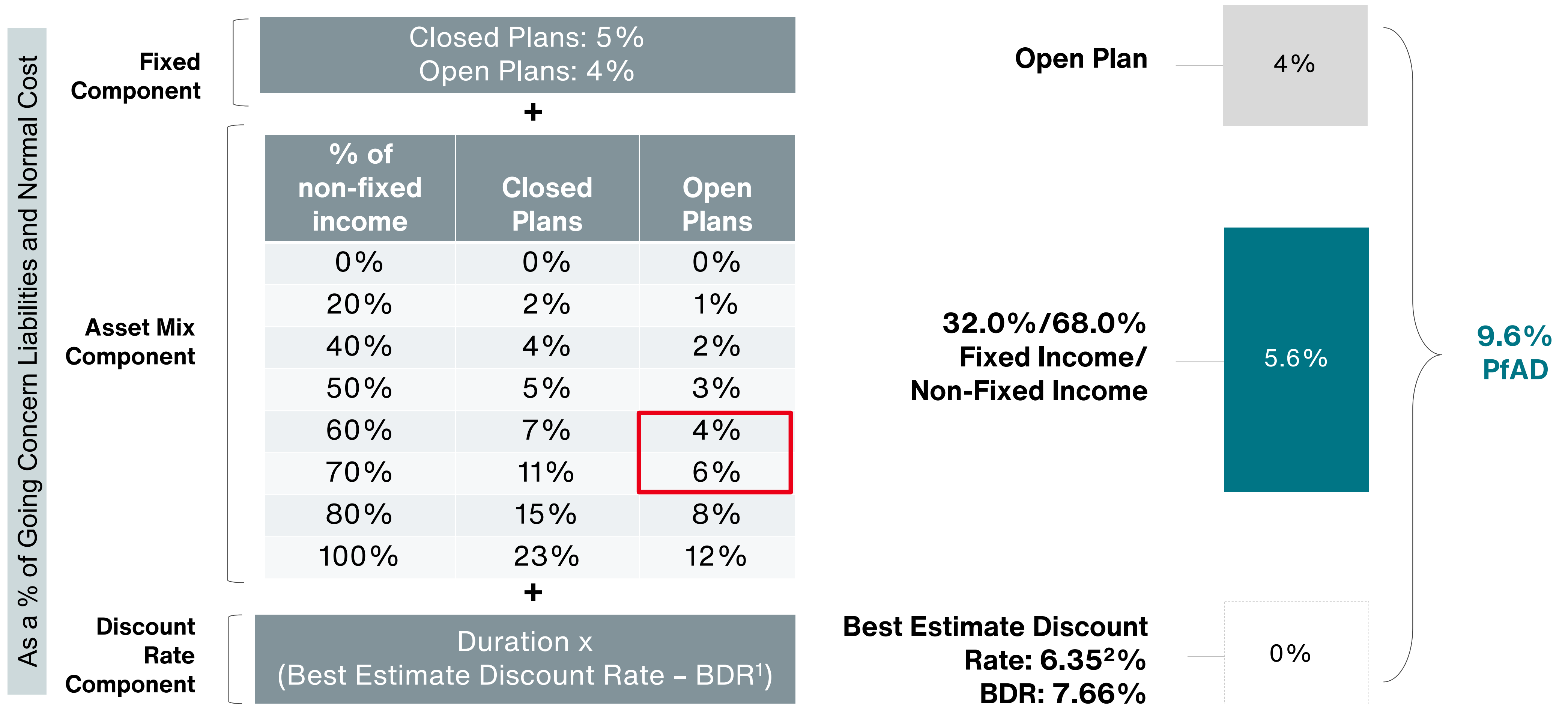
	2014	2015	2016	2017	2018	2019	2020	2021	Total
Actual Deaths	57	51	57	53	62	61	74	68	483.0
Expected Deaths (2014 CPM Public Table with Improvements Under Scale MI-2017)	54.3	55.8	58.6	61.6	63.7	66.4	68.3	70.0	498.7

Provision for Adverse Deviations (PfAD)

	% Fixed Income for PfAD	Target Asset Mix at December 31, 2021	Target Asset Mix at January 1, 2023
Canadian Equities	0%	15%	5%
Global Equities	0%	40%	48%
Fixed Income / Cash	100%	35%	27%
Real Estate (REITs)	0%	5%	5%
Real Estate (Direct)	50%	0%	5%
Infrastructure (Listed)	0%	5%	5%
Infrastructure (Direct)	50%	0%	5%
% Fixed Income for PfAD Purposes		35%	32%

- The PfAD is based on the SIPP that is in effect on the valuation date
- Fixed Income Allocation for PfAD and BDR = 35% at December 31, 2021 and 32% at January 1, 2023
- PfAD = Base component of 4% (open plan) plus asset-based component, plus a component related to the Benchmark Discount Rate (BDR)

Provision for Adverse Deviation (PfAD) (cont'd)



¹ Benchmark Discount Rate = V39056 Rate (3.28% at December 31, 2022) + 5% x % of Non-Fixed Income + 1.5% x % of Fixed Income + 0.5% for diversification

² Assumes going concern discount rate of 6.25% after adjustment for passive investment fees; 6.35% is before adjustment for passive fees; to be adjusted if actual discount rate differs from recommendation on next slide

Preliminary Actuarial Assumptions for January 1, 2023 Going Concern Valuation—Economic Assumptions

Economic Assumptions	January 1, 2023 Valuation
Increase in Consumer Price Index (CPI)	2.00% per year; actual inflation adjustment at May 1, 2023 and any carryforward to be reflected in valuation
Increase in Year's Maximum Pensionable Earnings under Canada Pension Plan	2.75% per year (CPI + 0.75%)
Increase in Income Tax Act Maximum Pension	\$3,506.67 in 2023; increased after 2023 at 2.75% per year up to a hard-dollar cap of \$4,000.00 which increases at 0.92% per year after 2023
Increase in Salaries (Active Members)	3.00% per year for 1 year; 4.00% per year thereafter (CPI + 2.00% ¹)
Increase in Salaries (Disabled Members)	2.00% per year (CPI + 0.00%); actual adjustment at May 1 to be reflected
Interest Rate Used to Discount Liabilities	6.25% per year (CPI + 4.25%); includes margin of 40 basis points; To be confirmed once December 31, 2022 Aon capital market assumptions are released
Interest Rate Used to Calculate 50% Rule	2.20% per year for 10 years ² ; 2.60% per year thereafter
Interest Rate for Crediting on Required Member Contributions	3.40% per year
Loading For Administrative Expenses	Explicit assumption for \$1,654,000 in 2023 added to normal cost
Provision for Adverse Deviation	9.60% of non-indexed liabilities and normal cost



¹ Reflects PTR/grid steps/merit

² 2.70% per year for 10 years; 3.10% per year thereafter for 75% indexed benefits

Preliminary Actuarial Assumptions For Going Concern Valuation— Demographic Assumptions – January 1, 2023

Demographic Assumptions	January 1, 2023 Valuation	
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Preliminary Actuarial Assumptions For Going Concern Valuation— Demographic Assumptions – January 1, 2023

Demographic Assumptions	January 1, 2023 Valuation	
Termination Rates	Age	Rates Per 100
	20	10.0
	25	10.0
	30	5.6
	35	3.2
	40	2.2
	45	1.7
	50	1.2
	55+	0.0

Note: previous valuations showed a termination assumption beyond age 55; however, retirement decrement assumptions prevail and no decrements are assumed other than retirement on and after age 55; this is not intended to be a change in assumption but rather a clarification

Actuarial Assumptions For Solvency and Wind-Up Valuations

Assumptions	December 31, 2021 (Last Filed Valuation)	January 1, 2023
Retirement Ages	50% at unreduced age and 50% at age that results in highest commuted value	No change
Mortality Rates	CPM2014 Combined with Improvements Under Scale CPM-B	No change
Interest Rates— Solvency Valuation (Per Year)		
Active Members Age 55 and Over, Pensioners and Deferred Pensioners ¹	2.86%	4.81% ³
Active Members Under Age 55 ²	2.30% for 10 years; 3.40% thereafter	4.30% for 10 years; 4.70% thereafter
Interest Rates— Wind-Up Valuation (Per Year)		
Active Members Age 55 and Over, Pensioners and Deferred Pensioners ¹	-0.54% (100% indexed) 0.31% (75% indexed)	0.79% (100% indexed) ³ 1.79% (75% indexed) ³
Active Members Under Age 55 ²	0.80% for 10 years; 1.20% thereafter (100% indexed) 1.20% for 10 years; 1.70% thereafter (75% indexed)	2.20% for 10 years; 2.60% thereafter (100% indexed) 2.70% for 10 years; 3.10% thereafter (75% indexed)

¹ Settled through annuity purchase

² Settled through commuted value

³ Depends on release of final guidance from Canadian Institute of Actuaries for January 1, 2023 actuarial valuations

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