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Parliamentary Pensions Plan

Report on the Actuarial Valuation for Funding Purposes as at January 1, 2022

March 2023

Note to reader regarding actuarial valuations:

This valuation report may not be relied upon for any purpose other than those explicitly noted in the Introduction, nor may it be relied upon by any party other than the parties noted in the Introduction. Mercer is not responsible for the consequences of any other use. A valuation report is a snapshot of a plan's estimated financial condition at a particular point in time; it does not predict a pension plan's future financial condition or its ability to pay benefits in the future. If maintained indefinitely, a plan's total cost will depend on a number of factors, including the amount of benefits the plan pays, the number of people paid benefits, the amount of plan expenses, and the amount earned on any assets invested to pay the benefits. These amounts and other variables are uncertain and unknowable at the valuation date. The content of the report may not be modified, incorporated into or used in other material, sold or otherwise provided, in whole or in part, to any other person or entity, without Mercer's permission. All parts of this report, including any documents incorporated by reference, are integral to understanding and explaining its contents; no part may be taken out of context, used, or relied upon without reference to the report as a whole.

To prepare the results in this report, actuarial assumptions are used to model a single scenario from a range of possibilities for each valuation basis. The results based on that single scenario are included in this report. However, the future is uncertain and the Plan's actual experience will differ from those assumptions; these differences may be significant or material. Different assumptions or scenarios within the range of possibilities may also be reasonable, and results based on those assumptions would be different. Furthermore, actuarial assumptions may be changed from one valuation to the next because of changes in regulatory and professional requirements, developments in case law, plan experience, changes in expectations about the future, and other factors.

We note that the results presented herein rely on many assumptions, all of which are subject to uncertainty, with a broad range of possible outcomes, and the results are sensitive to all the assumptions used in the valuation.

Should the Plan be wound up, the going concern funded status becomes irrelevant. This report does not include an estimate of the financial position of the plan assuming it was wound up on the valuation date. The financial position of the plan on a wind-up basis could differ very significantly from the going concern funded status disclosed in this report. Emerging experience will affect the wind-up financial position of the Plan assuming it is wound up in the future. In fact, even if the Plan were wound up on the valuation date, the financial position would continue to fluctuate until the benefits are fully settled.

Decisions about benefit changes, granting new benefits, investment policy, funding policy, benefit security, and/or benefit-related issues should not be made solely on the basis of this valuation, but only after careful consideration of alternative economic, financial, demographic, and societal factors, including financial scenarios that assume future sustained investment losses.

Funding calculations reflect our understanding of the requirements of the Parliamentarians Pension Law (2016 Revision) and related regulations that are effective as of the valuation date. Mercer is not a law firm, and the analysis presented in this report is not intended to be a legal opinion. You should consider securing the advice of legal counsel with respect to any legal matters related to this report.

Contents

Section 1

Summary of Results

($000's)	01.01.2022	01.01.2020
Ultimate discount rate	*5.75%*	*6.25%*[1]
Financial Status		
Market value of Defined Benefit (DB) assets	$13,365	$11,616
Market value of Defined Contribution (DC) assets	$2,359	$2,105
Net assets available for benefits	$15,724	$13,721
DB Liabilities	$25,059	$23,493
DC Account Balances	$2,359	$2,105
Deferred investment gain not reflected in DC accounts[2]	$143	$153
Total DB and DC Liabilities	$27,561	$25,751
Surplus / (Deficiency)	($11,837)	($12,030)
Funded Ratio (DB Only, excluding deferred gains)	53%	49%
Funded Ratio (DB and DC Combined)	57%	53%

[1] 7.25% graded down to 6.25% over 3 years

[2] DC account balances are smoothed over a 3-year period. Since actual investment returns immediately prior to the valuation date have been very strong, some of the investment returns have not yet been reflected in the DC account balances. This reserve represents the expected increase in DC account balances due to investment gains that have not yet been recognized.

Funding Requirements in the Year Following the Valuation

Normal cost of benefits	$76	$253
Expense allowance	$30	$50
Employee required DB contributions (6% of DB payroll)	($8)	($33)
Employer DB normal cost	$98	$270
Funding of deficiency over 20 years	$981	$1,049
Total employer DB contributions	$1,079	$1,319
Total DC contributions (employee + employer)	$362	$284
Total DC cost as a % of DC payroll	12.4%	12.4%

Section 2
Introduction

To the Public Service Pensions Board (the "Board")

At the request of the Board, we have conducted an actuarial valuation of the Parliamentary Pensions Plan (the "Plan"), as at the valuation date, January 1, 2022, in accordance with the Parliamentary Pensions Law (2016 Revision), hereinafter referred to as the 2016 Revision. We are pleased to present the results of the valuation.

Purpose

The main purposes of this valuation are to:

- Determine the funded status of the Plan as at January 1, 2022 on a going concern basis.
- Measure ability of the fund to meet its long-term liabilities based on current contribution rates, in accordance with Section 10 of the 2016 Revision;
  - If not so capable, determine the contribution rates that would be required to reinstate the capability.

The information contained in this report was prepared for the internal use of the Board for determining the funding requirements of the Plan. This report is not intended or suitable for any other purpose.

All amounts shown here in are in Cayman Dollars.

Terms of Engagement

In accordance with our terms of engagement with the Board, our actuarial valuation of the Plan is based on the following material terms:

- It has been prepared in accordance with the 2016 Revision.
- It has been prepared assuming that the Plan will continue indefinitely. Accordingly, a winding-up (discontinuance) valuation should not be performed.
- It has been prepared using best estimate assumptions proposed by Mercer and approved by the Board, adjusted as follows based on instructions from the Board:
  - We reflected an additional allowance in our discount rate for active management investment outperformance of 0.5% per annum;

  - The inflation and pension increase assumptions for 2022 to 2024 reflect the outlook from the Government's Economics and Statistics Office (ESO);
  - The salary increase assumption for 2022 to 2024 reflects the outlook from the Portfolio of the Civil Service (PoCS) and the Finance Ministry.
- Results have been presented using a discount rate of 5.75% (which reflects the allowance for future active management outperformance).
- The employer funding requirements have been determined by reflecting the Board's decision to amortize past service actuarial deficiencies that arise over 20 years.

Events since the Last Valuation at January 1, 2020

The recommended rates of contribution contained in the January 1, 2020 valuation report became effective by Regulations on September 8, 2021, retroactive to January 1, 2020.

Pension Plan

There have been no special events since the last valuation date.

This valuation reflects the provisions of the Plan as at January 1, 2022. The Plan has not been amended such that the value of benefits are affected since the date of the previous valuation, and we are not aware of any pending definitive or virtually definitive amendments coming into effect during the period covered by this report. The Plan provisions are summarized in Appendix D.

Assumptions

We have used the same going concern valuation assumptions and methods as were used for the previous valuation, except for the following:

	Current valuation	Previous valuation
Discount rate:	5.75%	7.25% for first year, 6.75% for year 2, and 6.25% thereafter
Explicit expenses:	$30,000	$50,000
Pensionable earnings increases:	4.00% in 2022, 3.50% in 2023, 3.00% in 2024 and 2.50% p.a. from 2025 onwards	2.50% for first 2 years; 3.00% thereafter
Inflation:	5.80% in 2022, 3.20% in 2023, 2.30% in 2024 and 2.00% p.a. from 2025 onwards	2.00%

	Current valuation	Previous valuation
Post-retirement pension increases:	5.64% in 2022, 3.20% in 2023, 2.30% in 2024 and 2.00% p.a. from 2025 onwards	2.00%
Future mortality improvements:	Fully generational using Scale MP-2021	Fully generational using Scale MP-2019

A summary of the going concern methods and assumptions is provided in Appendix B.

Subsequent Events

After checking with representatives of the Board, to the best of our knowledge there have been no events subsequent to the valuation date which, in our opinion, would have a material impact on the results of the valuation as at January 1, 2022.

However, since the valuation date, there have been significant fluctuations in the financial markets including declines in equity values, higher fixed income yields and an increase in actual and expected short-term inflation, which may have led to a variation in the funded position of the Plan after the valuation date. Our valuation reflects the financial position of the Plan as of this valuation date and does not take into account any subsequent experience after the valuation date.

Section 3

Valuation Results

Financial Status

This valuation compares the relationship between the value of Plan assets and the present value of expected future benefit cash flows in respect of accrued service, assuming the Plan will be maintained indefinitely.

The results of the current valuation, compared with those from the previous valuation, are summarized as follow:

(000's)	01.01.2022	01.01.2020
Ultimate discount rate	*5.75%*	*7.25%*
Assets		
Market value of assets – DB	$13,365	$11,616
Market value of assets – DC	$2,359	$2,105
Net assets available for benefits	$15,724	$13,721
Funding target		
Active members	$648	$3,647
Pensioners and survivors	$23,195	$18,153
Deferred pensioners	$1,216	$1,693
Total DB Liabilities	$25,059	$23,493
DC Account Balances	$2,359	$2,105
Deferred investment gain not reflected in DC accounts	$143	$153
Total past service liability	$27,561	$25,751
Surplus / (Deficiency)	($11,837)	($12,030)
Total Funded Ratio (DB +DC)	57%	53%
DB Funded Ratio (excluding deferred gains)	53%	49%

The funding target is based on best-estimate assumptions and does not include a provision for adverse deviations.

Reconciliation of Financial Status ($000s)

Surplus / (Deficiency) as at previous valuation		($12,030)
Interest on funding excess (shortfall) at 7.25% for the first year, 6.75% for the second year		($1,743)
Employer's contributions to fund the deficiency		$2,230
Expected surplus / (deficiency)		($11,543)
Net experience gains (losses)		
• Net investment return greater than previous valuation interest rate (adjusted for DC accounts deferred gains)	$1,569	
• Increase in pensionable earnings	$168	
• Indexation	($47)	
• Mortality	$299	
• Retirement	($224)	
Total experience gains (losses)		$1,765
Impact of changes in assumptions		
• Discount rate	($1,166)	
• Future mortality improvement rates	$107	
• Inflation	($960)	
Total assumption change impact		($2,019)
Net impact of other elements of gains and losses		($40)
Surplus / (Deficiency) as at current valuation		($11,837)

Normal Cost

The normal cost is an estimate of the present value of the additional expected future benefit cash flows in respect of pensionable service that will accrue after the valuation date, assuming the Plan will be maintained indefinitely.

The normal cost during the year following the valuation date, compared with the corresponding value determined in the previous valuation, is as follows:

($000's)	01.01.2022	01.01.2020
Discount rate (ultimate rate)	5.75%	6.25%
Defined Contribution (DC) Part of the Plan		
Employee contributions (% of DC payroll)	6.0%	6.0%
Employer required contributions (% of DC payroll)	6.4%	6.4%
Estimated employee DC contributions	$175	$137
Estimated employer DC contributions	$187	$147
Estimated total DC contributions	$362	$284
Defined Benefit (DB) Part of the Plan		
Normal cost of benefits	$76	$253
Expense allowance	$30	$50
Employee required DB contributions (6% of DB payroll)	($8)	($33)
Employer DB normal cost	$98	$270
Employer DB cost as % of DB payroll	71.0%	49.7%

The key factors that have caused a change in the employer normal cost for the DB Part of the Plan since the previous valuation are summarized in the following table:

Employer DB normal cost as at previous valuation	49.7%
Demographic changes	4.5%
Changes in expense allowance	12.7%
Changes in assumptions	4.1%
Employer normal cost as at current valuation	71.0%

Discount Rate Sensitivity

As mentioned earlier, the actuarial assumptions adopted for the valuation are used to model a single scenario from a range of possibilities. To illustrate the sensitivity of the valuation results to the discount rate, one of the most significant actuarial assumptions, the following table summarizes the effect on the going concern DB liabilities and normal cost shown in this report of using a discount rate that is 1% lower than that used in the valuation.

Scenario ($000's)	Valuation Basis	Reduce Discount Rate by 1%
Total DB liabilities	$25,059	$27,750
Normal cost (DB Part of the Plan)		
• Normal cost of benefits	$76	$87
• Expense allowance	$30	$30
Employee required DB contributions (6% of DB payroll)	($8)	($8)
Employer DB normal cost	$98	$109
Employer DB cost as % of DB payroll	71.0%	79.1%

Assessment of DC Effectiveness

Note that the economic and demographic factors which affect the DB Part of the Plan can also affect retirement outcomes under the DC Part of the Plan. Given that the DC Part of the Plan will become the primary source of retirement income for new retirees, it would be prudent to assess the effectiveness of the plan design, and consider whether it is providing the desired retirement outcomes, at a reasonable level of cost and risk.

Section 4

Contribution Requirements

The Board has established an objective that the Plan be fully funded in 20 years from the valuation date. In order to achieve this objective, and based on the assumptions and methods described in this report, the employer contributions to fund the deficiency revealed by the valuation could be reduced from $1,049,000 to $981,000 per annum. However, given the major downturn in investment performance in 2022, and the higher inflation being experienced, we would recommend maintaining the deficiency contributions at the level of $1,049,000 per annum.

Given the foregoing recommendation, estimates of the contributions that would be required in the three years following the valuation, assuming salaries increased by 4% in 2022 and 3.5% in 2023, are shown in the table below:

($000's)	2022	2023	2024
Defined Contribution (DC) Part of the Plan			
Employee contributions	$175	$182	$189
Employer required contributions	$187	$194	$201
Total employee and employer contributions	$362	$376	$390
Defined Benefit (DB) Part of the Plan			
Employee contributions	$8	$9	$9
Employer required contributions			
Employer normal cost including expense allowance	$98	$102	$105
Employer contributions to amortize deficiency	$1,049	$1,049	$1,049
Employer total required contributions	$1,147	$1,151	$1,154
Total employee and employer contributions	$1,155	$1,160	$1,163
Total Plan (DB + DC)			
Total employee contributions	$183	$191	$198
Total employer required contributions	$1,334	$1,345	$1,355

Any contribution level adopted by the Board for recommendation to Cabinet must at minimum meet the 2016 Revision Section 10 test. The above contributions would meet those requirements.

Section 5

Actuarial Opinion

In our opinion, for the purposes of the valuation,

- The membership data on which the valuation is based are sufficient and reliable.
- The assumptions are appropriate.
- The methods employed in the valuation are appropriate.

This report has been prepared in accordance with our Terms of Engagement, and with our understanding of Caribbean Actuarial Association Standards of Practice – APS1 (Pension Schemes – Actuarial Valuation Reports), except that a winding-up (discontinuance) valuation has not been performed, given our Terms of Engagement.

Preliminary results of this valuation were presented to the PSPB in December 2022. Notwithstanding that this report has been finalized beyond the one-year period after the effective date of the valuation as indicated under APS1, no adverse impact would be anticipated in terms of the ability of the fund to meet its long-term liabilities.

Except as noted herein, this report has been prepared, and our opinions given, in accordance with accepted actuarial practice.

Geoffrey Melbourne
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

March 23, 2023

Date

Christy Kam

Christy Kam
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

March 23, 2023

Date

Appendix A

Plan Assets

The assets of the Defined Benefit Part and the Defined Contribution Parts of the Plan are commingled and held as a part of the Public Service Pension Fund ("the Fund") and managed by the PSPB. The assets of two other pension plans, the Public Service Pensions Plan and the Judicial Pension Plan, are pooled together to constitute the Fund.

The assets are notionally allocated to each of the three participating pension plans through an internal accounting mechanism that tracks, for each accounting period, actual cash flows and allocates investment income and expenses in proportion to the opening value of assets allocated.

The valuations are based on the asset information provided to us by the PSPB. The Fund assets are held in trust by CIBC Mellon. We have relied on the data provided to us by the PSPB without further audit. Customarily, this information would not be verified by a plan's actuary. To the extent that the data provided changes, the results herein may also change.

Reconciliation of Market Value of Fund

The pension fund transactions since the last valuation are summarized in the following table:

	2020	2021
January 1	$858,485,208	$997,630,385
PLUS		
Member contributions	$19,255,261	$20,442,856
Employer contributions	$39,730,622	$48,097,069
Investment earnings	$134,368,682	$130,936,264
	$193,354,565	$199,476,189
LESS		
Pensions paid	$40,279,920	$38,388,104
Administration and investment fees	$13,929,468	$14,721,636
	$54,209,388	$53,109,740
December 31	$997,630,385	$1,143,996,834
Gross rate of return[3]	15.61%	13.02%
Rate of return net of expenses[4]	13.88%	11.48%

[3] Assuming mid-period cash flows.

[4] Assuming mid-period cash flows.

The market value of assets shown in the above table reflects in-transit amounts as follows:

	Current Valuation	Previous Valuation
Market value of invested assets	$1,143,996,834	$853,603,395
In-transit amounts		
• Members' contributions	$0	$0
• Employer's contributions	$0	$4,881,813
• Expenses	($0)	($0)
• Benefit payments	($0)	($0)
Market value of assets adjusted for in-transit amounts	$1,143,996,834	$858,485,208

The notional asset value allocated to the Plan as at December 31, 2021 was $15,724,094. The table below shows the reconciliation of the market value of invested assets allocated to the Plan. In determining the notional assets allocated to the Plan as at December 31, 2021, we started with the asset value disclosed in the prior valuation report as at January 1, 2020, adjusted for the Plan's cash flow, and allocated investment income based on the investment returns earned by the Fund over the two-year period.

The table below shows the reconciliation of the allocated market value of assets for the Parliamentary Pension Plan (DB plus DC) only:

	2020	2021
January 1	$13,720,893	$14,927,437
PLUS		
Member contributions	$177,881	$193,129
Employer contributions	$1,293,247	$1,638,569
Investment earnings	$2,073,922	$1,873,994
	$3,545,050	$3,705,692
LESS		
Pensions paid	$2,115,876	$2,688,757
Administration and investment fees	$222,630	$220,278
	$2,338,506	$2,909,035
December 31	$14,927,437	$15,724,094
Gross rate of return[5]	15.61%	13.02%
Rate of return net of expenses[6]	13.82%	11.41%

The DC asset value at each year-end is equal to the accumulated account balance with interest at each year end in respect of the DC members. The DC asset value of the Plan as at January 1, 2022 is determined to be $2,358,971 based on the DC account balances provided by PSPB.

The DB asset value of the Plan as at January 1, 2022 is $13,365,123.

[5] Assuming mid-period cash flows.

[6] Assuming mid-period cash flows.

Investment Policy

The PSPB has adopted a statement of investment policy and procedures. This policy is intended to provide guidelines for the managers as to the level of risk that is consistent with the Plan's investment objectives. A significant component of this investment policy is the asset mix.

The PSPB is solely responsible for selecting the plan's investment policies, asset allocations, and individual investments. The fund has adopted an investment model favouring growth over yield, which imposes a high degree of equity market risk, with which we understand that the PSPB is comfortable. Mercer is unable to opine on the appropriateness of the investment policy.

The investment policy was updated August 15, 2019. The target asset mix and the actual asset mix at the valuation date are provided for information purposes:

	Investment Policy			Actual asset Mix as at January 1, 2022
	Minimum	Target	Maximum	
Global Equities	55%	80%	85%	82%
Global Fixed Income	15%	20%	45%	17%
Cash and cash equivalents	0%	0%	10%	1%
		100%		100%

Appendix B

Methods and assumptions – Going concern

Valuation of Assets

For this valuation, we have used the market value of assets.

Going Concern Funding Target

Over time, the real cost to the employer of a pension plan is the excess of benefits and expenses over member contributions and investment earnings. The actuarial cost method allocates this cost to annual time periods.

For purposes of the going concern valuation, we have continued to use the projected unit credit actuarial cost method. Under this method, we determine the present value of benefit cash flows expected to be paid in respect of service accrued prior to the valuation date, based on projected final average earnings. This is referred to as the funding target.

The funding excess or funding shortfall, as the case may be, is the difference between the market value of assets (smoothing is not currently employed) and the funding target . A funding excess on a market value basis indicates that the current market value of assets and expected investment earnings are expected to be sufficient to meet the cash flows in respect of benefits accrued to the valuation date as well as expected expenses – assuming the plan is maintained indefinitely. A funding shortfall on a market value basis indicates the opposite – that the current market value of the assets is not expected to be sufficient to meet the plan's cash flow requirements in respect of accrued benefits, absent additional contributions.

The actuarial cost method used for the purposes of this valuation produces a reasonable matching of contributions with accruing benefits. Because benefits are recognized as they accrue, the actuarial cost method provides an effective funding target for a plan that is maintained indefinitely.

Normal Cost

The normal cost is the present value of projected benefits to be paid under the plan with respect to service expected to accrue during the period until the next valuation.

The employer's normal cost is the total normal cost reduced by the members' required contributions. The employer's normal cost has been expressed as a percentage of the members' pensionable earnings to provide an automatic adjustment in the event of fluctuations in membership and/or pensionable earnings.

Under the projected unit credit actuarial cost method, the normal cost for an individual member will increase each year as the member approaches retirement. However, the normal cost of the entire group, expressed as a percentage of the members' pensionable earnings, can be expected to remain stable as long as the average age of the group remains constant.

Actuarial Assumptions – Going Concern Basis

The present value of future benefit payment cash flows is based on economic and demographic assumptions. At each valuation we determine whether, in our opinion, the actuarial assumptions are still appropriate for the purposes of the valuation, and we revise them, if necessary. Emerging experience will result in gains or losses that will be revealed and considered in future actuarial valuations.

The table below shows the various assumptions used in the current valuation in comparison with those used in the previous valuation.

Assumption	Current valuation	Previous valuation
Discount rate:	5.75%	7.25% for the first year, 6.75% for the second year, 6.25% thereafter
Explicit expenses:	$30,000	$50,000
Inflation:	5.80% in 2022, 3.20% in 2023, 2.30% in 2024 and 2.00% p.a. from 2025 onwards	2.00%
Pensionable earnings increases:	4.00% in 2022, 3.50% in 2023, 3.00% in 2024 and 2.50% p.a. from 2025 onwards	2.50% for the first two years, 3.00% thereafter
Post-retirement pension increases:	5.64% in 2022, 3.20% in 2023, 2.30% in 2024 and 2.00% p.a. from 2025 onwards	2.00%
Retirement rates:	Age 55 and 10 years of service	Age 55 and 10 years of service
Termination rates:	None	None

Assumption	Current valuation	Previous valuation
Election for 25% commutation of pension:	100% election	100% election
Mortality rates:	100% of the rates of the RP-2014 Mortality Table	100% of the rates of the RP-2014 Mortality Table
Mortality improvements:	Fully generational using Scale MP-2021	Fully generational using Scale MP-2019
Disability rates:	None	None
Eligible spouse at retirement:	80%	80%
Spousal age difference:	Male 3 years older	Male 3 years older
Dependent children:	Pre-Ret: Male 65% Female 20% Post-Ret: Male 5% Female 0%	Pre-Ret: Male 65% Female 20% Post-Ret: Male 5% Female 0%
DC Annuity Conversions:	Assumed to be cost neutral; liabilities recognized once members retire	Assumed to be cost neutral; liabilities recognized once members retire
Cost of DC death benefit	0.4% of DC payroll	0.4% of DC payroll

The assumptions are best-estimates and do not include a margin for adverse deviations.

Pensionable Earnings

The benefits ultimately paid will depend on each member's final earnings. To calculate the pension benefits payable upon retirement, death, or termination of employment, we have taken monthly earnings and assumed that such pensionable earnings will increase at the assumed rate.

Rationale for Assumptions

A rationale for each of the assumptions used in the current valuation is provided below.

Discount Rate

We have discounted the expected benefit payment cash flows using the expected investment return on the market value of the fund. Other bases for discounting the expected benefit payment cash flows may be appropriate, particularly for purposes other than those specifically identified in this valuation report.

The discount rate is comprised of the following:

- Estimated returns for each major asset class consistent with market conditions on the valuation date and the target asset mix specified in the Plan's investment policy
- 50 basis point net allowance for added value from active management, reflecting gross added value of 110 basis points, offset by 60 basis points of incremental fees
- Implicit provision for investment expenses determined as the average rate of investment expenses paid from the fund over the last 4 years

The discount rate was developed as follows:

Assumed investment return	5.35%
Investment expense	(0.70%)
Added value from manager selection	0.60%
Margin for adverse deviation	(0.00%)
Net interest rate (assuming added value from manager selection equal to incremental cost of active management over passive management)	5.25%
Additional allowance for added value from manager selection	0.50%
Net discount rate	5.75%

Expenses
$30,000 – Represents portion of overall fund non-investment expenses (determined over 4-year period, and excluding implementation costs for new administration system) allocated to the DB Part of the Plan, pro-rated having regard to active member headcount.
Inflation
This assumption is based on the outlook from the Government's Economics and Statistics Office for 2022 to 2024, and US inflation target and market expectation of long-term inflation implied by the yield captured in U.S. Treasury prices at the valuation date.
Pensionable Earnings
For the 2022 to 2024 period, this assumption reflects the outlook from the Portfolio of the Civil Service (PoCS) and the Finance Ministry. Over the longer term, this assumption reflects the underlying inflation assumption plus the Board's best estimate assumption of general salary growth, merit and promotional increases of 0.5% per annum.
Post-Retirement Pension Increases
The assumption is based on the Plan formula and inflation assumption above.
Retirement Rates
The assumption is based on the Plan provisions and our experience with similar plans and employee groups.
Termination and Disability Rates
Use of a different assumption would not have a material impact on the valuation.
Mortality Rates
The assumption for the mortality rates is based on the U.S. 2014 Retirement Plans' Mortality Table (RP- 2014). There is broad consensus amongst longevity experts that mortality improvement will continue in the future. For the current valuation, the future mortality improvement scale has been updated to Scale MP-2021 from MP-2019, as the best estimate assumption for use in valuing retirement liabilities. The long-term implications of the pandemic on mortality rates is unclear as at the date of this report. Credible plan specific experience and relevant broader observed mortality trends after the report date will be reflected in future valuations.

Spousal Statistics
The assumption is based on an industry standard for non-retired members. Actual status/age used for retirees.

Appendix C

Membership Data

Analysis of Membership Data

The actuarial valuation is based on membership data as at January 1, 2022, provided by PSPB.

We have applied tests for internal consistency, as well as for consistency with the data used for the previous valuation. These tests were applied to membership reconciliation, basic information (date of birth, date of hire, date of membership, gender, etc.), pensionable earnings, credited service, contributions accumulated with interest, and pensions to retirees and other members entitled to a deferred pension. Contributions, lump sum payments, and pensions to retirees were compared with corresponding amounts reported in financial statements. PSPB was queried in order to resolve inconsistent data elements. The PSPB provided confirmation that the final data, incorporating query responses, were appropriate for the purpose of the valuations.

If the data supplied are not sufficient and reliable for its intended purpose, the results of our calculation may differ significantly from the results that would be obtained with such data. Although Mercer has reviewed the suitability of the data for its intended use in accordance with accepted actuarial practice in Canada, Mercer has not verified or audited any of the data or information provided.

Plan membership data are summarized below. For comparison, we have also summarized corresponding data from the previous valuation.

	01.01.2022	01.01.2020
Active – DB		
Number	1	3
Total annual payroll	*	$542,808
Average years of pensionable service	8.61	13.42
Average age	52.43	58.96
Active – DC		
Number	17	16
Total annual payroll	$2,921,952	$2,288,748
Total Account Balance	$1,656,028	$1,814,392
Average age	57.75	56.90
Deferred – DB		
Number	4	5
Total annual deferred pension	$112,893	$181,855
Average age	52.24	50.96
Deferred – DC		
Number	5	3
Total Account Balance	$702,943	$290,899
Average age	51.42	51.61
Pensioners and Survivors		
Number	58	51
Total annual pension	$1,956,205	$1,639,968
Average age	75.08	75.18

The membership movement for all categories of membership since the previous actuarial valuation is as follows:

	Active DB	Active DC	Deferred DB	Deferred DC	Pensioners	Beneficiaries	Total
Total at Jan 1, 2020	**3**	**16**	**5**	**3**	**38**	**13**	**78**
New entrants		8					8
Terminations		(2)		2			0
Retirements	(2)	(5)	(1)		8		0
Deaths – no survivor					(1)	(1)	(2)
Deaths with survivor					(1)	1	0
Corrections						1	1
Total at Jan 1, 2022	**1**	**17**	**4**	**5**	**44**	**14**	**85**

The distribution of the deferred members by age as at the valuation date is summarized as follows:

	Deferred Pensioners	
Age	**Number**	**Average Pension**
40 – 44		
45 - 49	1	*
50 – 54	3	*
55 – 59		
60 – 64		
Total	4	$28,223

* Not shown for confidentiality

The distribution of the pensioners and survivors by age as at the valuation date is summarized as follows:

	Pensioners And Survivors	
Age	**Number**	**Average Pension**
Under 50	1	*
50 – 54	2	*
55 – 59	4	$27,018
60 – 64	4	$63,579
65 – 69	8	$39,829
70 – 74	7	$38,471
75 – 79	10	$47,566
80 – 84	4	$30,110
85 – 89	12	$22,189
90 – 94	3	*
95 and over	3	*
Total	58	$33,728

* Not shown for confidentiality

Appendix D

Principal Provisions of the Defined Benefit Part of the Parliamentary Pension Plan

Eligibility	Elected members and the Speaker of the Legislative Assembly are eligible to participate in the Plan – DB Part of the Plan is closed.
Credited Service:	Service as a plan participant.
Pensionable Earnings	Full calendar month's basic salary paid to the participant.
Participant Contributions	6% of Pensionable Earnings.
Government Contributions	To be determined by actuarial valuations.
Eligibility for Retirement Pension	Having attained normal retirement age of 55, or early retirement age (between ages 50 and 54 inclusive) and completed one full parliamentary term.

Retirement Benefits	**Pension at Retirement** • Annual pension equals to 1/360 times the number of completed months of credited service times the final month's Pensionable Earnings, subject to a maximum pension of 2/3 of the highest salary earned by a participant. **Commutation** • Up to 25% of the retirement pension can be commuted for a lump sum. The pension to lump sum conversion will be determined by the plan's actuarial factors. This provision also applies to spouse's pension. **Pension Increases** • Pensions in payment may be adjusted annually to match annual cost-of-living increases up to 5% and on a sliding scale thereafter. **Early Retirement** • For retirements before age 55, the benefit will be reduced for early retirement in accordance with the plan's actuarial factors.
Benefits on Death After Retirement or While Eligible to Retire	A surviving spouse is entitled to a monthly pension equal to one-half (50%) of participant's pension amount. Each child is entitled to a monthly pension equal to one-half of the participant's pension amount divided by the number of children left by the participant. The payment is payable up to age 18 or 23 (for child in full-time education).
Benefits on Disablement	A pension based on accrued normal retirement pension is payable upon receipt of medical evidence of permanent disability and incapacity to perform duties. The benefit will be suspended upon cessation of disability. An additional pension is payable to a participant who is permanently injured in discharge of duty equal to one-third of the participant's Final Pensionable Earnings.

Benefits on Death in Service	A spouse's pension equal to 50% of the member's pension accrued as of the date of death, based on pay and service at the date of death. Each child is entitled to a monthly pension equal to one-half of the participant's accrued pension divided by the number of children left by the participant. The payment tis payable up to age 18 or 23 (for a child in full-time education. In addition, there will be paid an amount equal to the excess, if any, of the greater of (a) a lump sum equal to 12 months' Pensionable Earnings, or (b) the participant's contribution account balance over the actuarially equivalent present value of the pension benefits payable to the beneficiaries. An additional pension is paid to the beneficiaries of participants killed as a result of injuries received while in the actual discharge of duty.
Termination Benefits	Provided the service requirements are satisfied upon termination, a participant who terminates his employment can expect to receive a pension commencing at age 55, based on benefits accrued at the time of termination. The pension has the same features of commutation, post-retirement death benefit, and post-retirement pension increases as for active employees eligible for retirement benefits.
Other Benefits (Not Valued)	None

Appendix E

Employer Certification

With respect to the Report on the Actuarial Valuation for Funding Purposes as at January 1, 2022 of the Parliamentary Pensions Plan, I hereby certify that, to the best of my knowledge and belief:

- The valuation reflects the terms of the Board's engagement with the actuary described in section 2 of this report.
- A copy of the official plan documents and of all amendments made up to January 1, 2022 was provided to the actuary and is reflected appropriately in the summary of plan provisions contained herein.
- The asset information summarized in Appendix A is reflective of the Plan's assets.
- The membership data provided to the actuary included a complete and accurate description of every person who is entitled to benefits under the terms of the Plan for service up to January 1, 2022 and are appropriate for purposes of the valuation.
- All events subsequent to January 1, 2022 that may have an impact on the Plan have been communicated to the actuary.

March 14, 2023

Date

J C Lindsey

Signed

Jewel Evans Lindsey

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