MERCER

Parliamentary Pensions Plan

Report on the Actuarial Valuation for Funding Purposes as at January 1, 2020

September 2020

welcome to brighter

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 and solvency financial position, if different from the wind-up financial position, become irrelevant. The hypothetical wind-up financial position estimates the financial position of the Plan assuming it is wound up on the valuation date. 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 (2010 Law) 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.

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Summary of Results

($000's)	01.01.2020	01.01.2017
Ultimate discount rate	*6.25%*[1]	*7.25%*[2]
Financial Status		
Market value of DB assets	$11,616	$9,701
Market value of DC assets	$2,105	$1,164
Market value of total plan assets	$13,721	$10,865
DC Account Balances	$2,105	$1,164
Defined Benefit Liabilities	$23,493	$20,756
Deferred investment gain not reflected in DC accounts	$153	n/a
Total DB and DC Liabilities	$25,598	$21,920
Funding excess (shortfall)	($12,030)	($11,055)
Funding Ratio (DB Only)	49%	47%
Funded Ratio (DB and DC Combined)	53%	50%

[1] 7.25% graded down to 6.25% over 3 years
[2] 8% graded down to 7.25% over 3 years

Funding Requirements in the Year Following the Valuation

Employee's required DB contributions	$33	$31
Estimated employer's DB normal cost	$220	$216
Expense allowance	$50	$50
Employer DB normal cost inclusive of expense allowance	$270	$266
Funding of deficiency over 20 years	$1,049	$1,034
Total employer DB contribution	$1,319	$1,300
Total DB contributions (employee + employer)	$1,352	$1,331
Employer's cost as a % of DB pay	243.0%	250.4%
Employee contributions as a % of DB pay	6.0%	6.0%
Total DC (employee + employer)	$284	$256
Total DC cost as a % of DC pay	12.4%	12.4%

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Introduction

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

At the request of the Board, we have conducted an actuarial valuation of the Parliamentary Pension Plan (the "Plan"), as at the valuation date, January 1, 2020, in accordance with the current Parliamentary Pensions Law of the Cayman Islands. We are pleased to present the results of the valuation.

Purpose

The purpose of this valuation are:

- Determine the funded status of the Plan as at January 1, 2020.
- Measure ability of the fund to meet its long term liabilities based on current contribution rates, in accordance with Section 10 of the Parliamentary Pensions Law, hereinafter referred to as the 2010 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 respect of 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 Parliamentary Pensions Law (2010 Revision)
- It has been prepared assuming that the Plan will continue indefinitely
- 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 the discount rate for active management investment outperformance of 0.5% per annum, which takes into consideration the historic returns earned by the Plan over the past 10 years.

- Results have been presented using a discount rate of 7.25% for the first year, 6.75% for the second year and an ultimate rate of 6.25% per year thereafter (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, 2017

The funding contribution requirement outlined in the January 1, 2017 valuation report was approved by Cabinet in October 2019, but with effect January 1, 2017. As a result, a true up of the required contribution for the period January 1, 2017 to December 31, 2019 was performed. It was determined that the government had over contributed to the Plan by $0.36 million. At the government's request, the excess contribution was reallocated to the Public Service Pensions Plan as at December 31, 2019 as part of its required contribution to that plan.

We have reflected the $0.36 million reallocation of contributions from the Plan to the Public Service Pensions Plan in this valuation.

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, 2020. The Plan has not been amended 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:	7.25% for first year, 6.75% for year 2, and 6.25% thereafter	8% for first year, 7.625% for year 2, and 7.25% thereafter
Pensionable earnings increases:	2.50% for first 2 years and 3.00% thereafter	3.00%
Future mortality improvements:	MP-2019	MP-2016

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, 2020. Our valuation reflects the financial position of the Plan as of this valuation date and does not take into account any experience after the valuation date, except as noted herein.

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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 based on a discount rate of 7.25% for the first year, 6.75% for the second year and 6.25% per year thereafter, compared with those from the previous valuation, are summarized below:

(000's)	01.01.2020	01.01.2017
Ultimate discount rate	*7.25%*	*6.25%*
Assets		
Market value of assets - DB	$11,616	$9,701
Market value of assets – DC	$2,105	$1,164
Market value of Plan assets	$13,721	$10,865
Funding target		
Active members	$3,647	$2,982
Pensioners and survivors	$18,153	$15,630
Deferred pensioners	$1,693	$1,714
Outstanding payments	n/a	$430[3]
Total DB Liabilities	$23,493	$20,756
DC Account Balances	$2,105	$1,164
Total past service liability	$25,598	$21,920
Deferred investment gain not reflected in DC account	$153	n/a
Funding excess (shortfall)	($12,030)	($11,055)
Total Funding Ratio (DB +DC)	53%	50%
DB Funding Ratio	49%	47%

[3] Payment made after valuation date in respect of members who terminated prior to January 1, 2017.

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

Reconciliation of Financial Status ($000s)

Funding excess (shortfall) as at previous valuation		($11,055)
Interest on funding excess (shortfall) at 8% for first year, 7.625% for the second year and 7.5% for the third year		($2,727)
Employer's contributions to fund the deficit		$2,883
Expected funding excess (shortfall)		($10,899)
Net experience gains (losses)		
• Net investment return greater than previous valuation interest rate (net of DC accounts deferred gains)	$1,477	
• Loss due to salary increase lower than 3.0% per year	$106	
• Loss due to post retirement indexation greater than 2.0% per year	($700)	
• Mortality	($232)	
• Retirement	$611	
Total experience gains (losses)		$1,262
Impact of changes in assumptions		
• Lower valuation interest rate	($1,803)	
• Future mortality improvement rates	$268	
• Lower salary increases	$2	
Total assumption changes impact		($1,533)
New retirement due to amendment and rehired		($917)
Net Impact of other elements of gains and losses		$57
Funding excess (shortfall) as at current valuation		($12,030)

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)	01.01.2020	01.01.2017
Defined Contribution Part of the Plan		
Total employer and employee contributions		
Employee DC	$137	$124
Employer DC	$147	$132
Total DC cost % of DC pay	12.4%	12.4%
Employer DC cost as % of DC pay	6.4%	6.4%
Defined Benefit Contribution Part of the Plan		
Total normal cost	$253	$247
Estimated members' required contributions	($33)	($31)
Estimated employer's normal cost	$220	$216
Expense allowance	$50	$50
Employer normal cost including expense allowance	$270	$266
Total DB Normal Cost (employer and employee)	$303	$297
Total DB cost as % of DB payroll	55.7%	57.2%
Employer DB cost as a % of DB payroll	49.7%	51.2%

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

Employer’s DB normal cost as at previous valuation	51.2%
Demographic changes	(4.9%)
Changes in assumptions	3.4%
Employer’s normal cost as at current valuation	49.7%

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Contribution Requirements

The Board has established an objective that the Plan be fully funded in 20 years from the valuation date. Based on the assumptions and methods described in this report, in order to achieve this objective, contributions should be made as described in the table below. The contributions recommended in the previous valuation are shown for comparison:

	Jan 1, 2020	Jan 1, 2017
Ultimate discount rate	*6.25%*[4]	*7.25%*[5]
Defined Contribution (DC) Part of the Plan		
Employee contributions (% of pay)	6.0%	6.0%
Employer required contributions (% of DC payroll)	6.4%	6.4%
Defined Benefit (DB) Part of the Plan		
Employee contributions (% of DB pay)	6.0%	6.0%
Employer normal cost (% of DB pay)[6]	49.7%	51.2%
Employer contributions to fund past service deficit ($000 per year)	$1,049	$1,034

[4] 7.25% for first year, 6.75% for second year and 6.25% thereafter

[5] 8% for first year, 7.625% for second year and 7.25% thereafter

[6] Include expense allowance of $50,000 per year

An estimate of the contributions that would be required in the three years following the valuation, assuming salaries increased at a rate of 2.50% for the first two years and 3% per annum thereafter, are shown in the table below:

($000's)	2020	2021	2022
Defined Contribution Part of the Plan			
Employee contributions	$137	$141	$145
Employer required contributions	$147	$150	$155
Total employee and employer contributions	$284	$291	$300
Defined Benefit (DB) Part of the Plan			
Employee contributions	$33	$33	$34
Employer normal cost including expense allowance	$270	$276	$282
Employer contributions to amortization past service liability over 20 years	$1,049	$1,049	$1,049
Employer required contributions	$1,319	$1,325	$1,331
Total employee and employer contributions	$1,352	$1,358	$1,365
Total Plan (DB + DC)			
Total employee contributions	$170	$174	$179
Total employer required contributions (DB +DC)	$1,466	$1,475	$1,486

The required contributions based on the January 1, 2020 valuation using an ultimate discount rate of 6.25% are marginally lower than the rate established in the prior valuation, with the exception that the January 1, 2020 valuation requires contributions be maintained at these levels for 20 years (until 2040).

Any contribution level adopted by the Board for recommendation to Cabinet must at minimum meet the Parliamentary Pensions Plan Law (2010 Revision) Section 10 test. The above contributions would meet those requirements.

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Actuarial Opinion

In our opinion, for the purposes of the valuations,

- 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 the Caribbean Actuarial Association Standards of Practice – APS3.

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

Angelita Graham
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

September 21, 2020

Date

Manuel Monteiro
Fellow of the Society of Actuaries
Fellow of the Canadian Institute of Actuaries

September 21, 2020

Date

Appendix A
Plan Assets

The Defined Benefit assets as well as the Defined Contribution assets of the Plan are held as a part of the Public Service Pension Fund ("the Fund") and managed by the PSPB. The assets of two other pension plans, 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 PSPB. The Fund assets are held in trust by CIBC Mellon. We have relied on the data provided to us by 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:

	2017	2018	2019
January 1	$567,916,294	$685,529,998	$663,728,784
PLUS			
Member contributions	$14,634,135	$16,183,268	$17,513,784
Employer contributions	$40,238,799	$35,698,116	$38,855,052
Investment earnings	$105,254,223	($28,480,531)	$178,486,008
	$160,127,157	$23,400,853	$234,854,845
LESS			
Pensions paid	$34,015,799	$37,863,081	$34,584,523
Administration and investment fees	$8,497,653	$7,338,986	$10,395,711
	$42,513,452	$45,202,067	$44,980,234
December 31	$685,529,998	$663,728,784	$853,603,395
Gross rate of return[7]	18.33%	-4.13%	26.66%
Rate of return net of expenses[8]	16.73%	-5.17%	24.92%

[7] Assuming mid-period cash flows.

[8] Assuming mid-period cash flows.

The market value of assets shown in the above table is adjusted to reflect in-transit amounts as follows:

	Current Valuation	Previous Valuation
Market value of invested assets	$853,603,395	$567,916,294
In-transit amounts		
• Members' contributions	$0	$0
• Employer's contributions	$4,881,813	$0
• Expenses	($0)	($0)
• Benefit payments	($0)	($0)
Market value of assets adjusted for in-transit amounts	$858,485,208	$567,916,294

The notional asset value allocated to the Plan as at December 31, 2019 was $13.7 million. 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, 2019, we started with the asset value disclosed in the prior valuation report as at January 1, 2017, adjusted for the Plan's cash flow, and allocated investment income based on the investment returns earned by the Fund over the 3-year period.

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

	2017	2018	2019
January 1	$13,081,393	$11,933,772	$11,290,784
Adjustment for reallocation to CIG-PSPP	($2,217,000)		
PLUS			
Member contributions	$154,041	$179,275	$170,369
Employer contributions	$1,315,040	$1,340,275	$1,589,766
Investment earnings	$1,914,315	($490,230)	$2,984,488
	$3,383,396	$1,029,320	$4,744,623
LESS			
Pensions paid	$2,151,455	$1,544,550	$1,777,837
Administration and investment fees	$162,562	$127,758	$176,843
	$2,314,017	$1,672,308	$1,954,680
December 31	$11,933,772	$11,290,784	$14,080,727
Adjustment for reallocation to CIG-PSPP			($359,833)
Market Value after reallocation			$13,720,894
Gross rate of return[9]	16.57%	-4.13%	26.66%
Rate of return net of expenses[10]	15.06%	-5.18%	24.89%

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 as at January 1, 2020 in respect to the Parliamentary plan as provided by PSPB is $2,105,291.

[9] Assuming mid-period cash flows.

[10] Assuming mid-period cash flows.

The DB assets value of the Plan as at January 1, 2020 is $11.616 million.

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 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, 2020
	Minimum	Target	Maximum	
Global Equities	55%	80%	85%	79%
Global Fixed Income	15%	20%	45%	20%
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 or smoothed value of assets 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:	7.25% for the first year, 6.75% for the second year, 6.25% thereafter	8.00% for the first year, 7.625% for the second year, 7.25% thereafter
Explicit expenses:	$50,000	$50,000
Inflation:	2.00%	2.00%
Pensionable earnings increases:	2.50% for the first two years, 3.00% thereafter	3.00%
Post-retirement pension increases:	2.00%	2.00%
Retirement rates:	Age 55 and 10 years of service	Age 55 and 10 years of service
Termination rates:	None	None
Election for 25% commutation of pension:	100% election	100% election

Assumption	Current valuation	Previous valuation
Mortality rates:	100% of the rates of the RP-2014 Mortality Table scaled back to 2006 using Scale MP-2019	100% of the rates of the RP-2014 Mortality Table scaled back to 2006 using Scale MP-2016
Mortality improvements:	Fully generational using Scale MP-2019	Fully generational using Scale MP-2016
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:	Same as prior valuation	Assumed to be cost neutral; liabilities recognized once members retire
Cost of DC death benefit	Same as prior valuation	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.

Sample Annual Commutations Factors

Age	Annual Rates
50	195.81
51	193.89
52	191.89
53	189.91
54	187.65
55 - 65	185.41

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
- Additional returns assumed to be achievable due to active equity management, equal to the fees related to active equity management. Such fees were determined by the difference between the provision for total investment expenses and the hypothetical fees that would be incurred for passive management of all assets.
- 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	5.85%
Investment expense	(0.70%)
Added value from manager selection	0.60%
Margin for adverse deviation	(0.00%)
Net interest rate	5.75%
Additional allowance for added value from Manager selection	0.50%
Net discount rate[11]	6.25%

[11] 7.25% for the first year, 6.75% for second year and 6.25% thereafter.

Expenses
$50,000. Represents portion of expenses allocated to DB component. Same assumption as the prior valuation.
Inflation
Based on market expectation of long-term inflation implied by the yield captured in U.S. Treasury prices at the valuation date.
Pensionable Earnings
This is a long term view of salary increases, based on the underlying inflation assumption plus the Board's best estimate assumption of general salary growth, merit and promotional increases of 1%.
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 Rates
None. All active members are over age 50 years and are eligible to retire.
Mortality Rates
The assumption for the mortality rates is based on the U.S. 2014 Retirement Plans' Mortality Table scaled back to 2006, generationally projected from 2006 using Scale MP-2019. Recent mortality studies in the U.S. and Canada show that people are living longer. New mortality tables have been issued by U.S. and Canada. The mortality table has been updated to better reflect actual mortality improvement rates experienced in the U.S. over the last 20 years. There is broad consensus amongst longevity experts that mortality improvement will continue in the future. In the U.S., the future mortality improvement scale has been updated to Scale MP-2019 from MP-2016.
Disability Rates
Use of a different assumption would not have a material impact on the valuation.

Eligible Spouse
The assumption is based on an industry standard for non-retired members (actual status used for retirees).
Spouse Age Difference
The assumption is based on an industry standard showing males are typically 3 years older than their spouse.

Appendix C
Membership Data

Analysis of Membership Data

The actuarial valuation is based on membership data as at January 1, 2020, 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, was 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.

	01.01.2020	01.01.2017
Active - DB		
Number	3	3
Total annual payroll	$542,808	$519,186
Average years of pensionable service	13.42	11.75
Average age	58.96	58.54
Active - DC		
Number	16	14
Total annual payroll	$2,288,748	$2,065,928
Total Account Balance	$1,814,392	$1,163,656
Average age	56.90	55.45
Deferred - DB		
Number	5	9
Total annual deferred pension	$181,855	$234,793
Average age	50.96	51.16
Deferred - DC		
Number	3	N/A
Total Account Balance	$290,899	N/A
Average age	51.61	N/A
Pensioners and Survivors		
Number	51	47
Total annual pension	$1,639,968	$1,444,049
Average age	75.18	77.00

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, 2017	**3**	**14**	**9**	**0**	**35**	**12**	**73**
New entrants		6					6
Rejoin	1		(1)				0
Termination		(3)		3			0
Deaths					(5)	(2)	(7)
Retirements	(1)	(1)	(2)		4		0
Survivors						2	2
Amendment					4		4
Corrections			(1)			1	0
Total at Jan 1, 2020	**3**	**16**	**5**	**3**	**38**	**13**	**78**

The distribution of the active members of the DB Part of the Plan by age and pensionable service as at 01.01.2020 is summarized as follows:

	Years of Pensionable Service			
Age	**5-9**	**10-14**	**15+**	**Total**
50 to 54	1			1
55 to 59			1	1
60 and over		1		1
Total	**1**	**1**	**1**	**3**

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	2	*
50 – 54	3	*
55 – 59		
60 – 64		
Total	5	$36,371

*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		
55 – 59	6	$32,907
60 – 64	3	*
65 – 69	6	$34,246
70 – 74	12	$46,230
75 – 79	4	$30,147
80 – 84	4	$40,517
85 – 89	8	$11,883
90 – 94	6	$13,493
95 and over	1	*
Total	51	$32,156

*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.
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 child in full-time education. In addition, there will be paid an amount equal to the excess, if any, of the greater of a lump sum equal to 12 months' Pensionable Earnings, or 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, 2020 of the Parliamentary Pension 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, 2020 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, 2020 and are appropriate for purposes of the valuation.

- All events subsequent to January 1, 2020 that may have an impact on the Plan have been communicated to the actuary.

23/9/2020
Date

J. Lindsey
Signed

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