



**BCE INC. PENSION PLAN**

**ACTUARIAL VALUATION  
AS AT DECEMBER 31, 2016**

**FSCO Registration #0908061**

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**September 2017**

**BCE Inc. Pension Plan  
Actuarial Valuation as at December 31, 2016**

**TABLE OF CONTENTS**

I.	INTRODUCTION .....	1
II.	VALUATION RESULTS .....	3
III.	EMPLOYER CONTRIBUTIONS.....	7
IV.	ACTUARIAL OPINION .....	9

**Appendices**

A.	Assets
B.	Valuation Results Breakdown by Participating Company
C.	Actuarial Surplus Reconciliation
D.	Actuarial Assumptions
E.	Membership Data
F.	Actuarial Cost Method
G.	Minimum Contribution Requirements
H.	Maximum Eligible Contributions
I.	Pension Benefits Guarantee Fund Assessment
J.	Statutory Filings
K.	Summary of Plan Provisions
L.	Certificate of the Employer

## I – INTRODUCTION

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This report has been prepared for BCE Inc. (“BCE”) and presents the results of the actuarial valuation of the BCE Inc. Pension Plan (referred to as the “Plan”) as at December 31, 2016. The Plan consists of a defined benefit component (“DB Component”) and a defined contribution component (“DC Component”). The Plan is governed by the Ontario Pension Benefits Act and Regulations (referred to as the “PBA”). The last complete actuarial valuation of the Plan filed with the government authorities was conducted as at December 31, 2013.

Since the previous valuation, the plan was amended December 31, 2015 to increase Members’ voluntary contribution levels under the DC Component, which has no financial impact on the plan. No changes have been made to the actuarial methods.

The actuarial assumptions used for the purposes of this valuation are different from those used for the previous valuation to adjust to prevailing market conditions and long-term economic and demographic expectations as at the current valuation date as well as BCE’s terms of engagement. The assumptions are outlined in Appendix D.

As at the valuation date, the following companies participate in the Plan:

- BCE Inc. (referred to as “BCE”);
- Bimcor Inc. (referred to as “Bimcor”);
- Bell Conferia Inc. (referred to as “Conferia”);
- The Createch Group (referred to as “Createch”);
- Dome Productions Partnership (referred to as “DOME”); and
- Exploration Production Inc. (referred to as “EPI”).

In this report, the results are shown separately for each participating company where applicable. Residual pension assets and liabilities of defunct participating companies have been consolidated and are shown separately in the appendices under “Inactive cos”.

The purposes of the report are:

- to present information on the financial position of the Plan;
- to review the solvency of the Plan;
- to determine the minimum and maximum funding requirements for 2017; and
- to provide the information and actuarial opinion required by the Financial Services Commission of Ontario (“FSCO”) and the Canada Revenue Agency.

Here are the highlights of this valuation:

- as at December 31, 2016, for the DB Component, the actuarial value of assets of the Plan is \$419,162,000 and the going-concern actuarial liability is \$452,204,000. The going-concern actuarial deficit is estimated at \$33,042,000;
- as at December 31, 2016, for the DC Component, the actuarial value of assets of the Plan is equal to the liabilities of the Plan at \$102,982,000;
- the aggregate Employer normal actuarial costs for 2017 is estimated at \$19,722,000 (\$9,846,000 for the DB Component and \$9,876,000 for the DC Component) or 8.0% of the estimated aggregate Pensionable Earnings of \$247,969,000;

## **I – Introduction (cont'd)**

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- as at December 31, 2016, the Plan has a transfer ratio of 73.6% and a solvency deficiency of \$71,756,000; and
- amortization payments are required to liquidate the going-concern actuarial deficit and the solvency deficiency. The minimum amortization payments for 2017 are \$18,397,000 and, as per the PBA, payments can be deferred for up to 12 months after the valuation date.

The directives of the FSCO require that an actuarial valuation report must be filed at least every three years, or annually if the report indicates solvency concerns as defined under the PBA. Based on that regulation, the actuarial opinion contained in this report is only valid for 2017 and the next valuation report must have a valuation date no later than December 31, 2017.

The Ontario government intends to introduce a new funding framework for defined benefit pension plans in the fall of 2017. As the new regulations are not yet effective, they have not been reflected in this actuarial valuation report.

To our knowledge, there has been no other specific event subsequent to the valuation date which would have a material impact on the results shown in this report.

## II – VALUATION RESULTS

### ASSETS

The assets of the DB Component are invested in units of the BCE Master Trust Fund, while the assets of the DC Component are invested in pooled funds. For the purposes of the valuation, we have used the information contained in the annual financial statements of the Plan as at December 31, 2014, December 31, 2015 and December 31, 2016, audited by Deloitte LLP, as well as the monthly financial statements issued by RBC Investor and Treasury Services, adjusted for pending individual transfers under reciprocal agreements.

The actuarial value of assets has been calculated using a method that recognizes market values but amortizes market value fluctuations of public equities of the DB Component over four years.

	December 31, 2016	December 31, 2013
<u>DB Component</u>		
<b>Market Value of Assets</b>	\$423,824,000	\$300,295,000
<b>Actuarial Value of Assets</b>	\$419,162,000	\$289,484,000
<b>Ratio of Actuarial Value to Market Value</b>	98.9%	96.4%
<u>DC Component</u>		
<b>Market/Actuarial Value of Assets</b>	\$102,982,000	\$58,499,000
<u>Total</u>		
<b>Market Value of Assets</b>	\$526,806,000	\$358,794,000
<b>Actuarial Value of Assets</b>	\$522,144,000	\$347,983,000

The development of asset values for the Plan is presented in Appendix A.

### GOING-CONCERN VALUATION

The actuarial liability is the portion of the total funding requirement of the Plan allocated to prior years by the actuarial cost method and assumptions. Likewise, the normal actuarial cost represents the portion of the total funding requirement allocated to a particular year of membership. The total funding requirement was determined on the basis of:

- the Plan provisions in effect on the valuation date;
- the actuarial cost method and assumptions which were selected in the context of the long-term funding of the Plan and which are based on BCE's terms of engagement. Although the assumptions are intended to have long-range validity, emerging experience in any given year may differ from the assumptions and can result in experience gains and losses which will be revealed in future valuations; and
- the membership data which, after appropriate validation, was found to be sufficient and reliable for the purposes of the valuation.

The actuarial cost method and assumptions, provisions for expenses and adverse deviation, the membership data and the Plan provisions are summarized in the appendices.

## II – Valuation Results (cont'd)

### Financial position of the Plan

The financial position of the Plan is measured by comparing the actuarial value of Plan assets with the going-concern actuarial liability. The financial position of the Plan can be summarized as follows:

	December 31, 2016	December 31, 2013
<u>DB Component</u>		
<b>Actuarial Value of Assets</b>	<b>\$419,162,000</b>	<b>\$289,484,000</b>
<b>Actuarial Liability</b>		
Active Members	\$138,172,000	\$99,699,000
Pensioners	270,479,000	138,663,000
Beneficiaries	3,675,000	2,945,000
Deferred Pensions	38,718,000	39,122,000
Outstanding Payments	<u>1,160,000</u>	<u>677,000</u>
<b>Total</b>	<b>\$452,204,000</b>	<b>\$281,106,000</b>
<b>Actuarial Surplus/(Deficit)</b>	<b>(\$33,042,000)</b>	<b>\$8,378,000</b>
<u>DC Component</u>		
<b>Actuarial Value of Assets/Liability</b>	<b>\$102,982,000</b>	<b>\$58,499,000</b>
<u>Total</u>		
<b>Actuarial Value of Assets</b>	<b>\$522,144,000</b>	<b>\$347,983,000</b>
<b>Actuarial Liability</b>	<b>\$555,186,000</b>	<b>\$339,605,000</b>
<b>Actuarial Surplus/(Deficit)</b>	<b>(\$33,042,000)</b>	<b>\$8,378,000</b>

The reconciliation of the actuarial surplus since the last valuation is presented in Appendix C.

### Normal Actuarial Cost

	2017			2014		
	DB	DC	Total	DB	DC	Total
Estimated Employer Cost (% of Pensionable Earnings)	\$9,846,000 14.0%	\$9,876,000 5.5%	\$19,722,000 8.0%	\$10,161,000 11.6%	\$8,656,000 5.5%	\$18,817,000 7.7%
Estimated Member Voluntary Contributions (% of Pensionable Earnings)	n/a	3,144,000 1.8%	3,144,000 1.3%	n/a	2,655,000 1.7%	2,655,000 1.1%
Estimated Member Additional Contributions (% of Pensionable Earnings)	n/a	1,813,000 1.0%	1,813,000 0.7%	n/a	878,000 0.6%	878,000 0.4%
<b>Total Normal Actuarial Cost (% of Pensionable Earnings)</b>	<b>\$9,846,000 14.0%</b>	<b>\$14,833,000 8.3%</b>	<b>\$24,679,000 10.0%</b>	<b>\$10,161,000 11.6%</b>	<b>\$12,189,000 7.8%</b>	<b>\$22,350,000 9.1%</b>
Estimated Pensionable Earnings	\$70,188,000	\$177,781,000	\$247,969,000	\$87,431,000	\$156,862,000	\$244,293,000

The breakdown of the actuarial liability, the actuarial surplus/(deficit) and the normal actuarial cost by participating company is presented in Appendix B.

### Sensitivity Analysis

If a 1.0% lower discount rate would be used, the impact on the actuarial liability and the normal actuarial cost of the DB Component would be an increase of \$75,166,000 and \$2,224,000 respectively.

## II – Valuation Results (cont'd)

### SOLVENCY VALUATION

The PBA requires that the solvency of a pension plan be ascertained when a valuation is performed. The purpose of the regulatory provisions in relation with the solvency test is to accelerate the funding of a pension plan when its financial position falls below the prescribed level.

The following table presents the solvency valuation results of the DB Component of the Plan:

	December 31, 2016	December 31, 2013
<b>Solvency Assets</b>		
Market Value of Assets	\$423,824,000	\$300,295,000
Letters of credit	14,195,000	-
PV of next 5 years of amortization payments	14,064,000	-
Wind-up Expenses	<u>(775,000)</u>	<u>(500,000)</u>
<b>Total</b>	<b>\$451,308,000</b>	<b>\$299,795,000</b>
<b>Solvency Liability</b> <sup>(1)</sup>		
Active Members	\$159,223,000	\$108,967,000
Pensioners	310,966,000	155,056,000
Beneficiaries	4,273,000	3,300,000
Deferred Pensions	47,442,000	44,624,000
Outstanding Payments	<u>1,160,000</u>	<u>677,000</u>
<b>Total</b>	<b>\$523,064,000</b>	<b>\$312,624,000</b>
<b>Solvency Deficiency</b>	<b>(\$71,756,000)</b>	<b>(\$12,829,000)</b>
<b>Solvency Liability</b> with excluded benefits <sup>(2)</sup>	\$574,830,000	\$344,471,000
<b>Transfer Ratio</b> <sup>(3)</sup>	<b>73.6%</b>	<b>87.0%</b>

<sup>(1)</sup> Excluding pension indexation liabilities for non-Quebec Members (“excluded benefits”)

<sup>(2)</sup> The present value of excluded benefits as at December 31, 2016 is \$51,766,000 (\$31,847,000 as at December 31, 2013)

<sup>(3)</sup> Ratio of the market value of assets less wind-up expenses, over the solvency liability including the liability for excluded benefits

The breakdown of the actuarial liability by participating company is presented in Appendix B and the actuarial assumptions used in the calculation of the solvency liability are described in Appendix D.

### Transfer Deficiency

As at December 31, 2016, the DB Component of the Plan has a transfer ratio equal to 73.6%. Subject to section 19(6) of the Ontario Pension Regulations, the employer may transfer the full commuted value of a pension, deferred pension or an ancillary benefit from the Plan if an amount equal to the transfer deficiency has been remitted to the pension fund or if the aggregate of transfer deficiencies for all transfers made since the last review date does not exceed five per cent of the assets of the Plan at that time. In line with this last requirement, BCE will monitor the sum of all transfers made out of the Plan and will remit to the pension fund any transfer deficiencies exceeding the five per cent threshold.

## II – Valuation Results (cont'd)

### Sensitivity Analysis

If a 1.0% lower discount rate would be used, the impact on the solvency liability of the DB Component would be an increase of \$93,365,000.

### Incremental Cost

The incremental cost represents the present value, at valuation date, of the expected aggregate change in the solvency liability between the valuation date and the next valuation date.

The incremental cost for the DB Component between December 31, 2016 and December 31, 2017 is estimated at \$19,862,000.

The actuarial assumptions used in the determination of the incremental cost are the same as those used for the determination of the solvency liability. The calculation methodology is described in Appendix F.

### DC Component

As at December 31, 2016, in addition to the above DB Component, the DC Component of the Plan has a market value of assets equal to liabilities of \$102,982,000 (\$58,499,000 as at December 31, 2013).

### HYPOTHETICAL WIND-UP VALUATION

The Canadian Institute of Actuaries (“CIA”)’s Standards require actuaries to report the financial position of a pension plan on the assumption that the plan is wound up on the effective date of the valuation, with benefits determined on the assumption that the pension plan has neither a surplus nor a deficit. The scenario which has been hypothesized is that the employer’s business would be discontinued and all BCE pension plans would be terminated on the valuation date. Although no benefits are directly dependent on the postulated scenario, the approach to settle benefits may be impacted by such scenario.

The following table presents the hypothetical wind-up valuation results of the DB Component of the Plan:

	December 31, 2016	December 31, 2013
<b>Hypothetical Wind-up Assets</b>		
Market Value of Assets	\$423,824,000	\$300,295,000
Letters of credit	\$14,195,000	-
Wind-up Expenses	<u>(775,000)</u>	<u>(500,000)</u>
<b>Total</b>	<b>\$437,244,000</b>	<b>\$299,795,000</b>
<b>Hypothetical Wind-up Liability <sup>(1)</sup></b>		
Active Members	\$176,783,000	\$121,631,000
Pensioners	339,900,000	168,051,000
Beneficiaries	4,575,000	3,451,000
Deferred Pensions	52,412,000	50,661,000
Outstanding Payments	<u>1,160,000</u>	<u>677,000</u>
<b>Total</b>	<b>\$574,830,000</b>	<b>\$344,471,000</b>
<b>Hypothetical Wind-up Deficiency</b>	<b>(\$137,586,000)</b>	<b>(\$44,676,000)</b>

<sup>(1)</sup> Including pension indexation liabilities for non-Quebec Members

### III – EMPLOYER CONTRIBUTIONS

#### EMPLOYER CONTRIBUTIONS

The financial position of the Plan as at December 31, 2016 shows the presence of a going-concern actuarial deficit of \$33,042,000 and a solvency deficiency of \$71,756,000.

The Employer funding requirement for 2017 consists of:

- the **Normal Actuarial Cost**, which is the portion of the total funding requirement of the Plan allocated to the current year by the actuarial funding method and assumptions, and
- the **Amortization Payments**, which are required to liquidate the solvency deficiency
  - As per the PBA, the commencement of any going-concern or solvency schedules can be deferred for up to 12 months after the valuation date. In addition, letters of credit can be deposited into the pension fund in lieu of making cash payments to amortize the solvency deficiency.

#### AMORTIZATION PAYMENTS

The annual going-concern amortization payments required to liquidate the going-concern actuarial deficit are equal to \$3,015,000, as follows:

Type of Amortization Payments	Deferred Annual Amortization Payments	Deferred Amortization Period	Years remaining as at December 31, 2016	Going-Concern present value as at December 31, 2016
Going-Concern	\$3,015,000	01/2018 - 12/2032	15	\$33,042,000

The annual solvency amortization payments required to liquidate the solvency deficiency are equal to \$15,382,000, as follows:

Type of Amortization Payments	Deferred Annual Amortization Payments	Deferred Amortization Period	Years remaining as at December 31, 2016	Solvency present value as at December 31, 2016
Solvency	\$15,382,000	01/2018 - 12/2022	5	\$71,756,000

Taking into account the above solvency amortization payments, going-concern amortization payments will no longer be required after five years, as the going-concern actuarial deficit will be fully liquidated due to the additional solvency amortization payments. Therefore, the following table summarizes the total minimum required amortization payments:

Type of Amortization Payments	Deferred Annual Amortization Payments	Deferred Amortization Period	Present Value as at December 31, 2016	
			Going-Concern (5 years)	Solvency (5 years)
Going-Concern	\$3,015,000	01/2018 - 12/2022	\$13,507,000	\$14,064,000
Solvency	<u>\$15,382,000</u>	01/2018 - 12/2022	<u>\$68,908,000</u>	<u>\$71,756,000</u>
<b>Total</b>	<b>\$18,397,000</b>		<b>\$82,415,000</b>	<b>\$85,820,000</b>

### III – Employer Contributions (cont'd)

#### MINIMUM CONTRIBUTION REQUIREMENTS / MAXIMUM ELIGIBLE CONTRIBUTIONS

The minimum and maximum Employer funding requirements for 2017 are as follows:

	Minimum	Maximum
Employer Normal Actuarial Cost		
DB Component	\$9,846,000	\$9,846,000
DC Component <sup>(1)</sup>	<u>9,876,000</u>	<u>9,876,000</u>
Total	\$19,722,000	\$19,722,000
Deferred Amortization Payments <sup>(2)</sup>	<u>\$18,397,000</u>	<u>\$151,781,000</u> <sup>(3)</sup>
<b>Employer Contribution</b>	<b>\$38,119,000</b>	<b>\$171,503,000</b>

<sup>(1)</sup> The estimated amounts are based on Members' contribution rates as at the valuation date, including bonuses at target levels

<sup>(2)</sup> Can be deferred up to 12 months after the valuation date

<sup>(3)</sup> The employer may make larger amortization payments, up to the greater of (i) the hypothetical wind-up deficiency plus the face value of any letter of credit and (ii) any going-concern actuarial deficit

Given the transfer ratio of the Plan and in line with section 19(6) of the Ontario Pension Regulations, BCE will monitor the sum of all transfers made out of the Plan and will remit to the pension fund any transfer deficiencies when and if necessary.

Appendix G sets out the minimum contribution requirements. Appendix H describes the maximum eligible contributions.

#### PENSION BENEFITS GUARANTEE FUND (“PBGF”) ASSESSMENT

As at December 31, 2016, the PBGF assessment base and the PBGF liabilities are equal to \$37,768,002.50 and \$197,469,000 respectively. The 2017 Guarantee Fund assessment required to be paid to the PBGF is equal to \$306,547.76.

Details on the determination of the PBGF assessment are found in Appendix I.

## IV – ACTUARIAL OPINION

In our opinion, for the purposes of this actuarial valuation, the data used is sufficient and reliable, the assumptions made are appropriate and the methods employed are appropriate. This actuarial opinion forms an integral part of the report.

Based on the results of this valuation, we hereby certify that, as at December 31, 2016:

- The Plan has total liabilities of \$555,186,000 and has a going-concern actuarial deficit of \$33,042,000.
- The Plan has a solvency deficiency of \$71,756,000 and the transfer ratio of the Plan is 73.6%.
- In our opinion, the value of the Plan assets would be less than the actuarial liability by \$137,586,000 if the Plan were to be wound up on the valuation date.
- The going-concern actuarial deficit and the solvency deficiency must be liquidated by Employer amortization payments at least equal to the amounts and for the periods indicated below in order to comply with the Ontario Pension Benefits Act and Regulations:

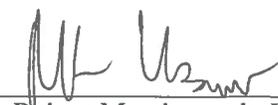
Type of Amortization Payments	Deferred Annual Amortization Payments	Amortization Period	Years remaining
Going-Concern	\$3,015,000	01/2018 - 12/2022	5
Solvency	15,382,000	01/2018 - 12/2022	5
<b>Total</b>	<b>\$18,397,000</b>		

- The rules for computing the Employer normal actuarial cost under the DB Component of the Plan for 2017 are as follows:

	% of DB Payroll	2017
BCE	14.0%	\$9,622,000
Bimcor	16.2%	185,000
Conferia	15.3%	17,000
Createch	17.1%	22,000
<b>Total</b>	<b>14.0%</b>	<b>\$9,846,000</b>

- The rules for computing the Employer contribution under the DC Component of the Plan is 4% of Pensionable Earnings, plus a matching of Member contributions up to a maximum of 2% of Pensionable Earnings, except for Conferia where it is equal to the Member's rate of contribution into the Group RRSP, subject to a minimum of 1% and a maximum of 3% of the DC Member's Pensionable Earnings. The estimated Employer contribution amounts for 2017 is \$9,876,000, based on Member's contribution rates as at the valuation date, including bonuses at target levels.

This actuarial opinion has been given and this report has been prepared in accordance with accepted actuarial practice in Canada and in conformity with the funding and solvency standards prescribed by the PBA. The report conforms with the recommendations adopted by the Canadian Institute of Actuaries for the valuation of pension plans.



Robert Marchessault, F.C.I.A.  
September 2017



Stéphan Cliche, F.C.I.A.

# APPENDICES

**Market Value of Assets**

The information on assets of the Plan has been taken from the annual financial statements of the funds as at December 31, 2014, December 31, 2015 and December 31, 2016, audited by Deloitte LLP, as well as the monthly financial statements issued by RBC Investor & Treasury Services. Plan assets were further adjusted for pending individual transfers under reciprocal agreements.

DB Component

The changes in the market value of assets since the last valuation can be summarized as follows:

	2016	2015	2014
Market value of DB assets as at January 1 (as per financial statements)	\$360,125,000	\$333,132,000	\$293,151,000
Correction to invested assets <sup>(1)</sup>	<u>1,797,000</u>	=	=
Market value of DB assets as at January 1 (as per corrected financial statements)	\$361,922,000	\$333,132,000	\$293,151,000
<u>Adjustments</u>			
Pending individual transfers under reciprocal agreements	<u>19,972,000</u>	<u>18,436,000</u>	<u>7,144,000</u>
<b>Market value of DB assets as at January 1 (after adjustments)</b>	<b>\$381,894,000</b>	<b>\$351,568,000</b>	<b>\$300,295,000</b>
Plus			
Employer contributions	8,969,000	9,622,000	10,161,000
Transfers from other pension plans	29,445,000	32,178,000	24,718,000
Investment income	51,000	47,000	43,000
Increase in value of investments	17,887,000	14,367,000	30,852,000
Less			
Pension payments	(16,051,000)	(13,862,000)	(12,073,000)
Lump sum withdrawals	(4,129,000)	(3,992,000)	(3,555,000)
Transfers to other pension plans	(7,178,000)	(10,634,000)	(9,341,000)
Investment expenses	(422,000)	(350,000)	(336,000)
Non-investment expenses	<u>(504,000)</u>	<u>(383,000)</u>	<u>(488,000)</u>
Market value of DB assets as at December 31 (as per financial statements)	\$389,990,000	\$360,125,000	\$333,132,000
<u>Adjustments</u>			
Pending individual transfers under reciprocal agreements	<u>33,834,000</u>	<u>19,972,000</u>	<u>18,436,000</u>
<b>Market value of DB assets as at December 31 (after adjustments)</b>	<b>\$423,824,000</b>	<b>\$380,097,000</b>	<b>\$351,568,000</b>

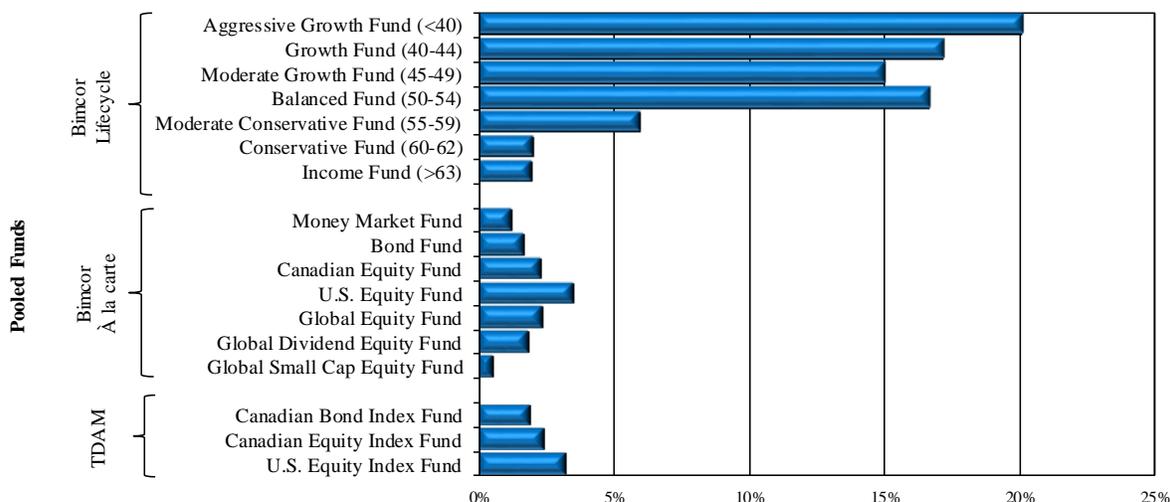
<sup>(1)</sup> The net assets available for the DB Component were adjusted in the December 31, 2016 financial statements to correct the omission of an investment in publicly traded stocks

Market Value of Assets (cont'd)

DC Component

	2016	2015	2014
<b>Market value of DC assets as at January 1</b> (as per financial statements)	<b>\$83,474,000</b>	<b>\$72,141,000</b>	<b>\$58,499,000</b>
Plus			
Employer contributions	9,238,000	9,115,000	8,657,000
Member contributions	4,464,000	3,723,000	3,474,000
Transfers from other pension plans	5,981,000	620,000	17,000
Investment income	5,488,000	4,010,000	2,098,000
Increase in value of investments	3,137,000	564,000	4,589,000
Less			
Lump sum withdrawals	(8,782,000)	(6,682,000)	(5,138,000)
Transfers to other pension plans	(14,000)	-	(39,000)
Investment expenses	(4,000)	(17,000)	(16,000)
<b>Market value of DC assets as at December 31</b> (as per financial statements)	<b>\$102,982,000</b>	<b>\$83,474,000</b>	<b>\$72,141,000</b>

The DC Component's asset mix is determined by the investment options selected by Plan Members. The investment breakdown of the DC Component assets of the Plan as at December 31, 2016 is as follows:



Note: New lifecycle options have been offered since 2016 and are now the default option.

The following table summarizes the DB Component asset mix at the valuation date and the ranges as per the Plan's investment policy, as well as the long-term expected return for each asset class:

	Minimum	Allocation at Valuation Date	Maximum	Long-Term Expected Return
<b>Low Risk Assets</b> <i>(target = 70%)</i>	<b>60.0%</b>	<b>70.0%</b>	<b>80.0%</b>	
Real Return Bonds	5.0%	9.0%	15.0%	2.5%
Nominal Bonds	45.0%	55.2%	75.0%	3.4%
Infrastructure Equity	0.0%	2.6%	10.0%	6.2%
Real Estate	0.0%	0.3%	10.0%	5.4%
Cash & Money Market	0.0%	2.9%	10.0%	2.0%
<b>Return Generating Assets</b> <i>(target = 30%)</i>	<b>20.0%</b>	<b>30.0%</b>	<b>40.0%</b>	
Canadian Equities	0.0%	4.1%	12.0%	6.6%
Non-Canadian Equities	0.0%	14.1%	30.0%	6.6%
Dividend Equities	0.0%	3.8%	7.0%	7.1%
Private Equity	0.0%	3.4%	8.0%	9.8%
Hedge Funds	0.0%	3.0%	10.0%	5.0%
Other <sup>(1)</sup>	n/a	1.6%	n/a	3.6%

<sup>(1)</sup> Includes High Yield Bonds, Loans, Risk Parity and units of diversified pooled funds

Because of the mismatch between the Plan's assets (which are invested in accordance with the above investment policy) and the Plan's liabilities (which tend to behave like long bonds), the Plan's financial position will fluctuate over time. These fluctuations could be significant and could cause the Plan to become under, or over, funded even if the participating companies contribute to the Plan based on the funding requirements presented in this report.

**Actuarial Value of Assets**DB Component

The actuarial value of assets is an adjusted value intended to stabilize the impact on the Plan's funding requirement of short-term fluctuations in the market value of public equities, while valuing the remaining assets at market value.

The adjustment ratio for public equities is obtained by comparing, over a four-year period, the market value of \$1 of the public equity portion of the fund at the beginning of the period with a target value which is based on the annual increase in the Consumer Price Index ("CPI"), rounded to the nearest basis point, plus the expected real rate of return on the public equity portion of the fund ("Real Equity Return"). The adjustment ratio for public equities is equal to the average of the year-end ratios of market value to target value divided by the ratio prevailing as at the valuation date.

The overall adjustment ratio is set equal to the adjustment ratio for public equities multiplied by the relative weight of the public equity portion of the fund according to the asset allocation as at the valuation date, plus the relative weight of the remaining assets portion of the fund according to the asset allocation as at the valuation date, but without falling outside a corridor of  $\pm 10\%$ .

The same asset valuation method was used in the previous valuation.

<b>Year</b>	<b>Target Value (b.o.y.)</b>	<b>CPI + Real Equity Return <sup>(1)</sup></b>	<b>Target Value (e.o.y.)</b>	<b>Market Value (e.o.y.)</b>	<b>Ratio of Market to Target Values</b>
2013	1.0000	6.74%	1.0674	1.2960	121.4%
2014	1.0674	6.97%	1.1418	1.4826	129.8%
2015	1.1418	7.11%	1.2230	1.7183	140.5%
2016	1.2230	6.50%	1.3025	1.8266	140.2%
Average Ratio:					133.0%
Adjustment Ratio for Public Equities:					94.9%
Public Equity Portion of the Fund:					22.0%
Overall Adjustment Ratio:					98.9%

<sup>(1)</sup> Real Equity Return equal to 5.5% for 2013, 2014, 2015 and 5.0% for 2016

DC Component

The market value of assets is used as the actuarial value of assets.

Total

The total market value of assets and the actuarial value of assets as at December 31, 2016 is as follows:

	DB Component	DC Component	TOTAL
<b>Market value of assets (as per financial statements)</b>	<b>\$389,990,000</b>	<b>\$102,982,000</b>	<b>\$492,972,000</b>
Adjustments (pending individual transfers under reciprocal agreements)	<u>33,834,000</u>	=	<u>33,834,000</u>
<b>Market value of assets (after adjustments)</b>	<b>\$423,824,000</b>	<b>\$102,982,000</b>	<b>\$526,806,000</b>
Overall Adjustment Ratio	98.9%	100.0%	98.9% / 100.0%
<b>Actuarial value of assets (after adjustments)</b>	<b>\$419,162,000</b>	<b>\$102,982,000</b>	<b>\$522,144,000</b>

**Letters of Credit**

The reconciliation since the previous valuation of the use of letters of credit (“LOC”) in lieu of making cash payments to amortize the solvency deficiency is as follows:

	2016	2015	2014
<b>Face value of letters of credit as at January 1</b>	<b>\$13,711,000</b>	<b>\$10,499,000</b>	<b>\$ -</b>
- Solvency amortization payments covered by LOC	-	2,762,000	10,370,000
- Interest on payments covered by LOC <sup>(1)</sup>	484,000	450,000	129,000
<b>Face value of letters of credit as at December 31</b>	<b>\$14,195,000</b>	<b>\$13,711,000</b>	<b>\$10,499,000</b>

<sup>(1)</sup> Determined using an average interest rate (weighted by relevant solvency liabilities) of 2.72% for 2014 and 3.53% for 2015 and 2016

# Valuation Results Breakdown by Participating Company

# Appendix B

## Going-Concern Valuation

	December 31, 2016							December 31, 2013	
	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Creotech</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u>	<u>TOTAL</u>	<u>TOTAL</u>
<u>DB Component</u>									
<b>Actuarial Value of Assets</b>								<b>\$419,162,000</b>	<b>\$289,484,000</b>
<b>Actuarial Liability</b>									
Active Members	\$109,323,000	\$4,524,000	\$856,000	\$337,000	-	-	\$23,132,000	\$138,172,000	\$99,699,000
Pensioners	183,770,000	15,715,000	1,551,000	-	-	-	69,443,000	270,479,000	138,663,000
Survivors	741,000	470,000	-	-	-	-	2,464,000	3,675,000	2,945,000
Deferred Pensions	8,623,000	686,000	468,000	-	-	-	28,941,000	38,718,000	39,122,000
Outstanding Payments	<u>249,000</u>	<u>19,000</u>	<u>5,000</u>	-	-	-	<u>887,000</u>	<u>1,160,000</u>	<u>677,000</u>
<b>Total</b>	<b>\$302,706,000</b>	<b>\$21,414,000</b>	<b>\$2,880,000</b>	<b>\$337,000</b>	<b>-</b>	<b>-</b>	<b>\$124,867,000</b>	<b>\$452,204,000</b>	<b>\$281,106,000</b>
<b>Actuarial Surplus / (Deficit)</b>								<b>(\$33,042,000)</b>	<b>\$8,378,000</b>
<u>DC Component</u>									
<b>Actuarial Value of Assets/Liability</b>	<b>\$80,820,000</b>	<b>\$2,641,000</b>	<b>\$1,187,000</b>	<b>\$7,159,000</b>	<b>\$7,749,000</b>	<b>\$2,720,000</b>	<b>\$706,000</b>	<b>\$102,982,000</b>	<b>\$58,499,000</b>
DB Employer Normal Actuarial Cost	\$9,622,000	\$185,000	\$17,000	\$22,000	-	-	-	\$9,846,000	\$10,161,000
<i>(% of DB Pensionable Earnings)</i>	<i>14.0%</i>	<i>16.2%</i>	<i>15.3%</i>	<i>17.1%</i>	<i>-</i>	<i>-</i>	<i>-</i>	<i>14.0%</i>	<i>11.6%</i>
DC Employer Cost (estimated) <sup>(1)</sup>	\$7,604,000	\$158,000	\$75,000	\$1,275,000	\$533,000	\$231,000	-	\$9,876,000	\$8,656,000
<i>(% of DC Pensionable Earnings)</i>	<i>5.5%</i>	<i>5.6%</i>	<i>3.0%</i>	<i>5.8%</i>	<i>6.0%</i>	<i>5.7%</i>	<i>-</i>	<i>5.5%</i>	<i>5.5%</i>
DC Member Voluntary Cont. (est.) <sup>(1)</sup>	\$2,446,000	\$53,000	-	\$398,000	\$177,000	\$70,000	-	\$3,144,000	\$2,655,000
<i>(% of DC Pensionable Earnings)</i>	<i>1.8%</i>	<i>1.9%</i>	<i>-</i>	<i>1.8%</i>	<i>2.0%</i>	<i>1.7%</i>	<i>-</i>	<i>1.8%</i>	<i>1.7%</i>
DC Member Additional Cont. (est.) <sup>(1)</sup>	\$1,518,000	\$56,000	-	\$123,000	\$94,000	\$22,000	-	\$1,813,000	\$878,000
<i>(% of DC Pensionable Earnings)</i>	<i>1.1%</i>	<i>2.0%</i>	<i>-</i>	<i>0.6%</i>	<i>1.1%</i>	<i>0.5%</i>	<i>-</i>	<i>1.0%</i>	<i>0.6%</i>
<b>Total Normal Actuarial Cost</b>	<b>\$21,190,000</b>	<b>\$452,000</b>	<b>\$92,000</b>	<b>\$1,818,000</b>	<b>\$804,000</b>	<b>\$323,000</b>	<b>-</b>	<b>\$24,679,000</b>	<b>\$22,350,000</b>
<i>(% of Total Pensionable Earnings)</i>	<i>10.3%</i>	<i>11.4%</i>	<i>3.5%</i>	<i>8.2%</i>	<i>9.0%</i>	<i>8.0%</i>	<i>-</i>	<i>10.0%</i>	<i>9.1%</i>
DB Pensionable Earnings	\$68,804,000	\$1,144,000	\$111,000	\$129,000	-	-	-	\$70,188,000	\$87,431,000
DC Pensionable Earnings	<u>\$137,606,000</u>	<u>\$2,837,000</u>	<u>\$2,496,000</u>	<u>\$21,913,000</u>	<u>\$8,907,000</u>	<u>\$4,022,000</u>	<u>-</u>	<u>\$177,781,000</u>	<u>\$156,862,000</u>
<b>Total Pensionable Earnings</b>	<b>\$206,410,000</b>	<b>\$3,981,000</b>	<b>\$2,607,000</b>	<b>\$22,042,000</b>	<b>\$8,907,000</b>	<b>\$4,022,000</b>	<b>-</b>	<b>\$247,969,000</b>	<b>\$244,293,000</b>

<sup>(1)</sup> Based on Members' contribution rates as at the valuation date, including bonuses at target level

# Valuation Results Breakdown by Participating Company (cont'd)

# Appendix B

## Solvency Valuation

	December 31, 2016							December 31, 2013	
	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u>	<u>TOTAL</u>	<u>TOTAL</u>
<u>DB Component</u>									
<b>Solvency Assets</b>									
Market Value of Assets								\$423,824,000	\$300,295,000
Letters of credit								14,195,000	-
PV of next 5 year of amortization payments								14,064,000	-
Wind-Up expenses								(775,000)	(500,000)
<b>Total</b>								<b>\$451,308,000</b>	<b>\$299,795,000</b>
<b>Solvency Liability</b>									
Active Members	\$125,739,000	\$5,243,000	\$958,000	\$421,000	-	-	\$26,862,000	\$159,223,000	\$108,967,000
Pensioners	212,400,000	18,273,000	1,778,000	-	-	-	78,515,000	310,966,000	155,056,000
Survivors	803,000	587,000	-	-	-	-	2,883,000	4,273,000	3,300,000
Deferred Pensions	11,773,000	872,000	542,000	-	-	-	34,255,000	47,442,000	44,624,000
Outstanding Payments	<u>249,000</u>	<u>19,000</u>	<u>5,000</u>	-	-	-	<u>887,000</u>	<u>1,160,000</u>	<u>677,000</u>
<b>Total</b>	<b>\$350,964,000</b>	<b>\$24,994,000</b>	<b>\$3,283,000</b>	<b>\$421,000</b>	<b>-</b>	<b>-</b>	<b>\$143,402,000</b>	<b>\$523,064,000</b>	<b>\$312,624,000</b>
<b>Solvency Surplus/(Deficiency)</b>								<b>(\$71,756,000)</b>	<b>(\$12,829,000)</b>
<b>Minimum Required Amortization Payments<sup>(1)</sup></b>								<b>\$15,382,000</b>	<b>\$13,132,000</b>
<u>DC Component</u>									
Actuarial Value of Assets/Liability	\$80,820,000	\$2,641,000	\$1,187,000	\$7,159,000	\$7,749,000	\$2,720,000	\$706,000	\$102,982,000	\$58,499,000

<sup>(1)</sup> The total minimum required amortization payment must be paid by the participating companies in accordance with agreements/arrangements that can be entered into with the plan sponsor (i.e. BCE Inc.)

**Financial Position of the Plan**

	December 31, 2016	December 31, 2013
Actuarial Value of Assets	\$522,144,000	\$347,983,000
Actuarial Liability	\$555,186,000	\$339,605,000
Actuarial Surplus/(Deficit)	(\$33,042,000)	\$8,378,000

**Sources of Change in Financial Position**

Since the last valuation, the going-concern actuarial surplus of \$8,378,000 has become a going-concern actuarial deficit of \$33,042,000. This is the result of several factors which are estimated as follows:

<b>Actuarial surplus as at December 31, 2013</b>		<b>\$8,378,000</b>
Deficit amortization and expected interest:		
- Minimum required amortization payments	\$13,132,000	
- Use of letters of credit in lieu of amortization payments	(13,132,000)	
- Expected interest	1,460,000	
	<u>1,460,000</u>	1,460,000
Main components of experience:		
- Gain/(Loss) from investment income	\$31,671,000	
- Gain/(Loss) from salary increases	2,223,000	
- Gain/(Loss) from YMPE increases	(672,000)	
- Gain/(Loss) from indexation of pensions	1,562,000	
- Gain/(Loss) from retirement	(464,000)	
- Gain/(Loss) from mortality	(2,750,000)	
- Gain/(Loss) from withdrawal	(4,046,000)	
- Gain/(Loss) from other membership movements <sup>(1)</sup>	(14,504,000)	
- Gain/(Loss) from non-investment expenses	119,000	
- Gain/(Loss) from correction to Plan assets <sup>(2)</sup>	1,797,000	
- Gain/(Loss) from miscellaneous factors	(13,000)	
	<u>\$14,923,000</u>	14,923,000
Impact of other changes:		
- Gain/(Loss) from change in discount rate (from 5.5% to 4.5%)	(\$59,149,000)	
- Gain/(Loss) from change in other assumptions	1,346,000	
	<u>(\$57,803,000)</u>	(57,803,000)
<b>Actuarial deficit as at December 31, 2016</b>		<b>(\$33,042,000)</b>

<sup>(1)</sup> Gain/(Loss) related to individual transfer of employees between and among BCE Inc., Bell Canada, their affiliates and associates, with amount of transferred assets calculated based on the reciprocal transfer agreement entered into by each party

<sup>(2)</sup> Correction for the omission of an investment in publicly traded stock.

Summary of Assumptions

	Going-Concern Basis	Solvency Basis	
<u>Economic Factors</u>		<u>Annuity Purchase</u>	<u>Commuted Value</u>
Discount Rate	4.50% <i>(previously: 5.50%)</i>	3.14% <sup>(1)</sup> <i>(previously: 3.89%)</i>	2.20% for 10 years; 3.50% thereafter <i>(previously: 3.00% for 10 years; 4.60% thereafter)</i>
Inflation	2.00%	1.70% <i>(previously: 1.88%)</i>	1.09% for 10 years; 2.17% thereafter <i>(previously: 1.28% for 10 years; 2.25% thereafter)</i>
Pension Indexation	1.50% until age 65; 1.60% thereafter	1.75% until age 65; 2.02% thereafter <i>(previously: 1.85% until age 65; 2.15% thereafter)</i>	- for the first 10 years: 1.09% <i>(previously: 1.28%)</i> - after 10 years: 1.57% until, <i>(previously: 1.65% for until age 65 1.75% thereafter)</i>
Basic Salary Increases	2.25% <i>(previously: 2.50%)</i>		n/a
Merit and Promotional Scale	Table 1 for managers only <i>(previously: Table 1 for all)</i>		n/a
Escalation of YMPE under Canada/Quebec Pension Plan	2.50%		n/a
Maximum pension per year of service under the Income Tax Act	\$2,914.44 in 2017 indexed at 2.50% per annum from 2018 <i>(previously: \$2,770.00)</i>		\$2,890.00 <sup>(2)</sup> <i>(previously: \$2,696.67)</i>

<sup>(1)</sup> Determined as the unadjusted CANSIM V39062 (2.21%) increased arithmetically by a spread of 93 bps, based on the duration of the liabilities expected to be settled through the purchase of annuities of 11.7

<sup>(2)</sup> As per plan provisions, the maximum pension amount applicable is the one at the time of termination or retirement

Summary of Assumptions (cont'd)

	Going-Concern Basis	Solvency Basis
<b><u>Decrement Rates</u></b>		
Mortality	Table 2 (CPM Private adjusted for experience of Bell Canada and its affiliated companies)	CPM projected with scale B <sup>(1)</sup> <i>(Previously: UP94 Generational projected with Scale AA)</i>
Disability	Nil	Nil
Withdrawal	Table 3	100% <sup>(2)</sup>
Retirement		
- Active Members	Table 4 <i>(Modified since previous valuation)</i>	100% <sup>(3)</sup>
- Disabled Members	Age 65 <i>(Previously: same rates as active Members)</i>	100%
<b><u>Other Assumptions</u></b>		
Age difference between spouses	Males 3 years older	Males 3 years older
Proportion opting for survivor pension	66.7% <i>(Previously: 80%)</i>	66.7% <i>(Previously: 80%)</i>
Proportion opting for commuted values	n/a	Table 5 <i>(Modified since previous valuation)</i>
Incentive compensation payout	at target	n/a
Explicit provision for expenses	\$500,000 for annual on-going non-investment expenses included in normal actuarial cost	\$775,000 for wind-up expenses deducted from plan assets <i>(Previously: \$500,000)</i>

<sup>(1)</sup> Benefits expected to be settled by a commuted value transfer are valued using a unisex mortality table (50% male / 50% female), which represents the actual proportion male/female at the valuation date (previously: commuted value transfer were valued using a sex distinct mortality table for Quebec female Members)

<sup>(2)</sup> Ontario Members with sum of age and years of service of at least 55 are assumed to retire at the age where the pension benefits have the greatest value. Otherwise, pension deferred at Normal Retirement Date or age 60 for Members eligible to the Protection of Pension Rights

<sup>(3)</sup> Immediate pension as at the current valuation date, except for Ontario Members with sum of age and years of service of at least 55 who are assumed to retire at the age where the pension benefits have the greatest value

Summary of Assumptions (cont'd)

**Table 1 - Merit and Promotional Scale (Sample)**

Age	Scale <sup>(1)</sup>
15	100
25	163
35	214
45	225
55	225
65	225

<sup>(1)</sup> Used for managers only as unionized employees are all considered to have reached their highest employment level (previously used for all Members)

**Table 2 - Mortality Rates**

	Mortality Assumption	Future improvements
Males	80% of the male rates of the 2014 Private Sector Mortality Table	100% of CPM Improvement Scale B
Females	115% of the female rates of the 2014 Private Sector Mortality Table	100% of CPM Improvement Scale B

**Table 3 - Withdrawal Rates (Sample)**

Age	Rates
40 and -	7.0%
45	4.7%
50	2.3%
55 and +	nil

Summary of Assumptions (cont'd)

**Table 4 - Retirement Rates**

Age	Dec. 31, 2016		Dec. 31, 2013 <sup>(1)</sup>
	Rates for Members eligible to the Protection of Pension Rights	Rates for Members not eligible to the Protection of Pension Rights	
55	45%	10%	15%
56 to 59	25%	10%	15%
60	25%	10%	40%
61	25%	15%	25%
62	25%	20%	25%
63	25%	25%	25%
64	25%	30%	60%
65	100%	100%	100%

<sup>(1)</sup> For Members eligible to the Protection of Pension Rights, 20% was added to the applicable rate upon reaching pre-1987 early retirement criteria, if before age 60. For other Members, 20% was added at age 55

**Table 5 - Proportion opting for commuted values**

Members	December 31, 2016	December 31, 2013
Members not in receipt of a payment:		
- Quebec Members <sup>(1)</sup>	100%	100%
- non-Quebec Members:		
• under age 55	100%	100%
• above age 55 <sup>(2)</sup>	50%	0%
Members in receipt of a payment	0%	0%

<sup>(1)</sup>As per Quebec legislation, liabilities for all Quebec Members not yet receiving a pension are expected to be settled by a commuted value transfer

<sup>(2)</sup>As per Ontario legislation, portability must be offered to all Members not in receipt of a pension, even if, as per plan provisions, Members eligible for early retirement are not allowed to receive the commuted value of their benefits

Comments on Assumptions

Going-Concern Valuation

The discount rate for the going-concern actuarial valuation has decreased from 5.50% to 4.50%. This rate is based on an assumed gross rate of investment return derived from a model developed by Mercer, actuarial and investment consultants (“Mercer”), taking into account the target asset mix of the fund and the long-term expected rate of return, as presented in Appendix A. The discount rate is developed as follows :

	Discount rate	Impact on actuarial liabilities	Impact on normal actuarial cost
Gross rate of investment return	4.78%		
Added value up to active management expenses	0.15%	} <i>offset each other</i>	<i>offset each other</i>
Active management expenses	(0.15%)		
Provision for adverse deviation <sup>(1)</sup>	(0.15%)	+ \$9,810,000	+ \$282,000
Passive investment expenses <sup>(2)</sup>	(0.02%)	+ \$1,321,000	+ \$38,000
Rounding to the nearest 0.25%	<u>(0.11%)</u>		
Net Discount Rate	4.50%		

<sup>(1)</sup> As per BCE Inc's terms of engagement

<sup>(2)</sup> The Plan's assets are managed by the same investment managers as the BCE Master Trust Fund, a fund with over \$19 billion of invested assets at the valuation date, and as such, the Plan's investments benefit from the same level of investment expenses

Basic salary increases assumption was reduced from 2.50% to 2.25%, while the merit scale for unionized employees has been eliminated since they are all considered to have reached their highest employment level. The merit scale is now used for managers only. YMPE escalation assumption and increases in the maximum pension permitted under the Income Tax Act have remained unchanged at 2.50%. These assumptions reflect long-term expectations, given prevailing industry and economic conditions and are in line with the inflation assumption, which has remained unchanged at 2.00%. The pension indexation assumption has also remained unchanged at a rate of 1.50% before age 65 and a rate of 1.60% thereafter (more details on how the pension indexation has been derived is found herebelow under Additional comments on pension indexation assumptions).

Mortality rates have remained unchanged, reflecting plan experience supported by a mortality study conducted in 2014 considering Bell Canada and its affiliated companies' experience. The study revealed mortality rates for retirees are lower for males and higher for females than the rates of the CPM 2014 Private table. The size of the group included in the study being credible, adjustments supported by the study were used as best estimate of current mortality rates. If the CPM 2014 Private table had been used, the impact on the actuarial liability and the normal actuarial cost would have been a decrease of \$1,402,000 and \$31,000 respectively. Withdrawal rates also remained unchanged since the previous valuation.

Retirement rates and proportion of members opting for a survivor pension at retirement have been updated since the previous valuation to better reflect the Plan experience. No assumptions are made for disability, other than expected retirement age, as they would have a negligible impact on the valuation results.

The explicit provision for non-investment expenses has remained unchanged since the previous valuation.

The maximum pension permitted under the Income Tax Act has been increased to \$2,914.44 in 2017 and is projected at 2.50% until the Member terminates employment, retires or dies.

**Comments on Assumptions (cont'd)**Solvency Valuation and Hypothetical Wind-Up Valuation

The CIA's Standards require actuaries to report the financial position of a pension plan on the assumption that the plan is wound up on the effective date of the valuation, with benefits determined on the assumption that the pension plan has neither a surplus nor a deficit ("Hypothetical wind-up basis"). The Act also requires the financial position of the Plan to be determined on a solvency basis. The basis used for the solvency valuation reflects the situation that could have prevailed had the Plan been terminated as at the valuation date. The scenario which has been hypothesized is that the employer's business would be discontinued and all BCE pension plans would be terminated on the valuation date. Although no benefits are directly dependent on the postulated scenario, the approach to settle benefits may be impacted by such scenario. As per plan provisions and BCE's rules, the applicable maximum pension amount and Members' pensionable earnings are those at the time of termination or retirement from the plan, which is as at the valuation date in this scenario. As per applicable legislation, pension indexation for non-Quebec Members was excluded from our calculations of the solvency liabilities, but was included in the hypothetical wind-up liabilities. Solvency assumptions and methods are determined under applicable legislation and actuarial standards and are updated at each valuation date as required.

Liabilities in respect of benefits expected to be settled by a commuted value transfer have been determined as described in the CIA's *Practice-Specific Standards for Pension Plans* with the pension indexation assumption calculated as described herebelow under Additional comments on pension indexation assumptions.

Liabilities in respect of benefits expected to be settled by a purchase of annuities have been determined based on non-indexed annuity pricing assumptions in the CIA's *Practice-Specific Standards for Pension Plans* and based on the CIA's Educational Note, *Assumptions for Hypothetical Wind-Up and Solvency Valuations with Effective Dates Between December 31, 2016 and December 30, 2017*. The plan indexation assumption was calculated as described herebelow under Additional comments on pension indexation assumptions.

The explicit provision for wind-up expenses reflects the actuary's best estimate assumption and has been revised to reflect a two year period required to settle all benefits. As such, the explicit provision for wind-up expenses has been increased from \$500,000 to \$775,000.

**Additional comments on pension indexation assumptions**Going-concern valuation and Solvency valuation in respect of benefits expected to be settled by a purchase of annuities

The pension indexation assumption was derived from a stochastic model for inflation developed by Mercer. The model produces 1000 scenarios over a 20-year period and has the following characteristics:

Annualized inflation over 20 years:	Median: 2.00%
	Minimum: 0.30%
	Maximum: 4.80%
	80% of scenarios between 1.3% and 2.9%
Volatility of inflation:	Annual standard deviation of 1.5% over a single year in the long-term (lower in the short-term due to serial correlation)
	Average standard deviation over 20 years (over the 1000 scenarios): 1.3%

The model recognizes that future inflation will continue to be actively managed by the Bank of Canada but that it can also be impacted by external economic factors (such as US Monetary policies) beyond local control. Consequently, future annual inflation may be outside the 1%-3% range currently targeted by the Bank of Canada. The model also displays relatively high serial correlation i.e. years of high inflation tend to be followed by years with similarly high inflation, and the same with low inflation.

The indexation assumption is then derived from the above stochastic model, based on the plan-specific indexation formula, with results rounded to the nearest 5 basis points.

- For the going-concern valuation, our best estimate indexation assumptions of 1.5% before age 65 and 1.6% after age 65 are equal to the median indexation rate (based on median inflation of 2.0%).
- For the solvency valuation, an equivalent indexation assumption was derived based on the tail end of the distribution of indexation (95th percentile). Such equivalent indexation rates are equal to 1.75% before age 65 and 2.02% after age 65 at the valuation date. These rates compare to the best estimate median indexation of 1.30% before age 65 and 1.42% after age 65 (based on median inflation of 1.70%).

The difference between the discount rates for non-indexed pensions (3.14%) and for fully indexed pensions (-0.09%) can be broken down into best estimate of future inflation (1.70%) and an inflation risk premium (1.53%). This premium represents the additional cost over the price that an insurer would charge if costs were based only on the best estimate inflation.

Based on the partial indexation formulae applicable under the plan, only a portion of this inflation risk premium is to be included. The portion of the inflation risk premium to be included should reflect the fact that it is mainly the adverse scenarios which lead insurers to apply an inflation risk premium. The cap and percentages applicable under the indexation formulae would provide protection to an insurer against the most extreme scenarios. To adjust for the effect of the percentages and caps on the annuity pricing, we have reflected a portion but not all of the inflation risk premium through the higher indexation rates.

**Additional comments on pension indexation assumptions (cont'd)**Solvency valuation in respect of benefits expected to be settled by a commuted value transfer

For liabilities in respect of benefits expected to be settled by a commuted value transfer under the solvency valuation, the indexation assumption has been derived from a methodology developed by Morneau Shepell. The indexation assumptions are the same as those used in the actual calculation of commuted values by the plan administrator for employees terminating their employment and eligible to portability.

The method produces adjustment factors that are used to calculate the monthly indexation rate. It takes into account the likelihood of the maximum annual indexation increase, as per the plan-specific indexation formulae, which impacts the pension payable in any year based on the long-term historical experience with respect to the inflation in Canada and on the current economic environment.

Both models by Mercer and Morneau Shepell, and their underlying characteristics, are reviewed annually, which may produce different results in the future.

### Source of Data

Data was extracted from the Benefits Administrator's database as at December 31, 2016. Data was provided for active Members, Members on special leaves, pensioners, beneficiaries, terminated Members entitled to a deferred pensions and outstanding payments.

### Data Validation Tests

Tests were made to ensure that the data was consistent both internally and with prior valuation data. More specifically, we have:

- confirmed membership movements between valuation dates;
- validated dates, codes and amounts; and
- verified the consistency of service and earnings data with previous years.

In our opinion, these tests indicated that the data was sufficient and reliable for the purposes of the valuation. No assumptions were necessary with respect to incomplete data. The Plan sponsor has stated that the membership data is complete and accurate (Appendix L).

Membership Reconciliation – Active Members accruing DB service

	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u> <sup>(1)</sup>	<u>TOTAL</u>
<b>Number as at 2013/12/31</b>	<b>904</b>	<b>11</b>	<b>5</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>160</b>	<b>1,081</b>
Transfers								
- From another plan/participating company	63	-	-	-	-	-	-	63
- To another plan/participating company	(47)	-	(4)	-	-	-	(33)	(84)
Terminations								
- Paid out	(14)	-	-	-	-	-	-	(14)
- Deferred Pension	(18)	-	-	-	-	-	-	(18)
Retirements	(179)	(1)	-	-	-	-	-	(180)
Deaths								
- With a survivor pension	-	-	-	-	-	-	-	-
- Paid out	(2)	-	-	-	-	-	-	(2)
<b>Number as at 2016/12/31</b>	<b>707</b>	<b>10</b>	<b>1</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>127</b>	<b>846</b>

<sup>(1)</sup> These Members transferred out of the Plan for future benefit accrual, with past DB service and liabilities remaining in the Plan

## Membership Data (cont'd)

## Appendix E

### Membership Reconciliation – Active Members accruing DC benefits (with past DB service)

	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u> <sup>(1)</sup>	<u>TOTAL</u>
<b>Number as at 2013/12/31</b>	<b>146</b>	<b>3</b>	<b>1</b>	-	-	-	<b>44</b>	<b>194</b>
Rehired	1	-	-	-	-	-	-	1
Transfers								
- From another plan/participating company	18	-	-	-	-	-	-	18
- To another plan/participating company	(10)	-	-	-	-	-	(11)	(21)
Terminations								
- DB Service : Paid out								
- DC Benefits : Paid out	(2)	-	-	-	-	-	-	(2)
- DC Benefits : Not paid out	-	-	-	-	-	-	-	-
- DB Service : Deferred Pension								
- DC Benefits : Paid out	(5)	-	-	-	-	-	-	(5)
- DC Benefits : Not paid out	(2)	-	-	-	-	-	-	(2)
Retirements								
- DC Benefits : Paid out	-	-	-	-	-	-	-	-
- DC Benefits : Not paid out	(1)	-	-	-	-	-	-	(1)
Deaths	-	-	-	-	-	-	-	-
<b>Number as at 2016/12/31</b>	<b>145</b>	<b>3</b>	<b>1</b>	-	-	-	<b>33</b>	<b>182</b>

<sup>(1)</sup> These Members transferred out of the Plan for future benefit accrual, with past DB service and liabilities remaining in the Plan

## Membership Data (cont'd)

## Appendix E

### Membership Reconciliation – Active Members accruing DC benefits (without past DB service)

	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u>	<u>TOTAL</u>
<b>Number as at 2013/12/31</b>	<b>1,035</b>	<b>20</b>	<b>31</b>	<b>182</b>	<b>92</b>	<b>35</b>	-	<b>1,395</b>
New Members and Rehired	635	6	4	148	36	45	-	874
Transfers								
- From another plan/participating company	107	-	2	-	3	3	-	115
- To another plan/participating company	(94)	-	(2)	(1)	(1)	(6)	-	(104)
Terminations								
- Paid out	(342)	(3)	-	(79)	(7)	(15)	-	(446)
- Not paid out	(213)	(8)	-	(50)	(12)	(15)	-	(298)
Deaths								
- Paid out	(2)	-	-	-	-	-	-	(2)
- Not paid out	(3)	-	-	(1)	-	-	-	(4)
<b>Number as at 2016/12/31</b>	<b>1,123</b>	<b>15</b>	<b>35</b>	<b>199</b>	<b>111</b>	<b>47</b>	-	<b>1,530</b>

**Membership Reconciliation – Pensioners and Survivors (DB Component)**

	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u>	<u>TOTAL</u>
<b>Number as at 2013/12/31</b>	<b>125</b>	<b>28</b>	<b>1</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>194</b>	<b>348</b>
New Retirements from								
- Active Members	180	1	-	-	-	-	-	181
- Deferred Pensions	3	-	1	-	-	-	33	37
- Deceased active Members	-	-	-	-	-	-	-	-
End of guarantee period	-	-	-	-	-	-	-	-
Deaths (no further benefits)	-	-	-	-	-	-	(2)	(2)
<b>Number as at 2016/12/31</b>	<b>308</b>	<b>29</b>	<b>2</b>	<b>-</b>	<b>-</b>	<b>-</b>	<b>225</b>	<b>564</b>

## Membership Data (cont'd)

## Appendix E

### Membership Reconciliation – Members entitled to Deferred Pensions (DB Component)

	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u>	<u>TOTAL</u>
<b>Number as at 2013/12/31</b>	<b>62</b>	<b>9</b>	<b>7</b>	-	-	-	<b>442</b>	<b>520</b>
New Deferred Pensions								
- Active Members	25	-	-	-	-	-	-	25
- Transferred Members	-	-	-	-	-	-	-	-
Past service transferred to another plan	-	-	-	-	-	-	(1)	(1)
Rehired as Active Members	(1)	-	-	-	-	-	-	(1)
Paid out	(22)	(1)	(3)	-	-	-	(14)	(40)
Retirements	(3)	-	(1)	-	-	-	(33)	(37)
Deaths (paid out)	-	(1)	-	-	-	-	-	(1)
Data Corrections	1	-	-	-	-	-	1	2
<b>Number as at 2016/12/31</b>	<b>62</b>	<b>7</b>	<b>3</b>	-	-	-	<b>395</b>	<b>467</b>

## Membership Data (cont'd)

## Appendix E

### Membership Reconciliation – Former Members with DC Benefits not paid out or not yet transferred to another plan

	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u>	<u>TOTAL</u>
<b>Number as at 2013/12/31</b>	<b>84</b>	<b>3</b>	<b>46</b>	<b>30</b>	<b>6</b>	<b>3</b>	<b>168</b>	<b>340</b>
New								
- from termination	215	8	-	50	12	15	-	300
- from death	3	-	-	1	-	-	-	4
- from retirement	1	-	-	-	-	-	-	1
- from transfer out	79	-	1	1	1	2	-	84
Paid out	(176)	(4)	(5)	(48)	(11)	(5)	(28)	(277)
Rehired	(16)	-	-	-	-	(1)	-	(17)
Data Corrections	1	-	-	-	-	-	(1)	-
<b>Number as at 2016/12/31</b>	<b>191</b>	<b>7</b>	<b>42</b>	<b>34</b>	<b>8</b>	<b>14</b>	<b>139</b>	<b>435</b>

## Membership Data (cont'd)

## Appendix E

### Data Summary – Active Members

	December 31, 2016							December 31, 2013	
	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u> <sup>(1)</sup>	<u>TOTAL</u>	<u>TOTAL</u>
<b>Active Members</b>									
<u>Members accruing DB service</u>									
Number	707	10	1	1	-	-	127	846	1,081
Average age	50.6	52.2	-	-	-	-	49.5	50.5	48.7
Average DB pensionable service	10.5	23.9	-	-	-	-	10.4	10.7	7.7
Average pensionable earnings	\$97,318	\$114,388	-	-	-	-	\$93,098	\$96,940	\$94,092
<u>Members accruing DC benefits (with past DB service)</u>									
Number	145 <sup>(2)</sup>	3	1	-	-	-	33	182	194
Average age	44.8	48.6	-	-	-	-	48.9	45.6	42.5
Average DB pensionable service	1.7	4.7	-	-	-	-	4.1	2.2	1.9
Average pensionable earnings	\$124,303	\$234,027	-	-	-	-	\$98,808	\$121,250	\$112,620
<u>Members accruing DC benefits (without past DB service)</u>									
Number	1,123	15	35	199	111	47	-	1,530	1,395
Average age	40.1	41.9	45.0	42.7	41.2	40.9	-	40.7	40.9
Average pensionable earnings	\$106,485	\$142,322	\$69,004	\$110,117	\$80,243	\$85,578	-	\$103,905	\$99,714
<u>Total</u>									
Number	1,975	28	37	200	111	47	160	2,558	2,670
Average age	44.2	46.3	45.2	42.8	41.2	40.9	49.4	44.3	44.1
Average pensionable earnings	\$104,511	\$142,171	\$70,468	\$110,209	\$80,243	\$85,578	\$94,275	\$102,836	\$98,376

(1) These Members transferred out of the Plan for future benefit accrual, with past DB service and liabilities remaining in the Plan

(2) Of the 145 Members, 40 Members have past DB service under the Plan, while the other 105 Members have past DB service under the Bell Canada Pension Plan

## Membership Data (cont'd)

## Appendix E

### Data Summary – Inactive Members <sup>(1)</sup>

	December 31, 2016								December 31, 2013
	<u>BCE</u>	<u>Bimcor</u>	<u>Conferia</u>	<u>Createch</u>	<u>DOME</u>	<u>EPI</u>	<u>Inactive cos</u>	<u>TOTAL</u>	<u>TOTAL</u>
<b>Pensioners</b>									
Number	306	28	2	-	-	-	210	546	332
Average age	59.8	71.5	62.4	-	-	-	70.5	64.5	65.2
Average annual pension	\$40,406	\$37,047	50,271	-	-	-	\$23,695	\$33,843	\$30,956
<b>Beneficiaries</b>									
Number	2	1	-	-	-	-	15	18	16
Average age	61.7	-	-	-	-	-	78.3	76.3	76.2
Average annual pension	23,452	-	-	-	-	-	\$19,126	\$20,870	\$21,617
<b>Members Entitled to Deferred Pensions</b>									
Number	62	7	3	-	-	-	395	467	520
Average age	45.6	53.6	53.9	-	-	-	52.1	51.3	49.1
Average annual pension	\$16,548	\$8,382	\$12,423	-	-	-	\$5,567	\$7,111	\$7,807
<b>Former DC Members <sup>(2)</sup></b>									
Number	191	7	42	34	8	14	139	435	340
Average DC account	\$27,434	\$42,563	\$8,798	\$20,238	\$9,454	\$21,538	\$5,017	\$17,632	\$12,595

<sup>(1)</sup> In addition: - The Outstanding Payments at the valuation date are attributable to 29 former Members, with a total liability of \$1,160,000  
- There are 50 pensioners or beneficiaries and 7 deferred pensioners who have their pension entirely insured with L'Industrielle-Alliance

<sup>(2)</sup> Former DC Members with DC Benefits not paid out or not yet transferred to another plan

## Membership Data (cont'd)

## Appendix E

Age/Service Chart of Active Members with DB service as at December 31, 2016

Age \ DB Service	0 - 5	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	TOTAL
30 - 35 : #	3	3	3						9
Total earnings	233,979	207,109	222,586						663,675
Average earnings	77,993	69,036	74,195						73,742
35 - 40 : #	13	40	10	8					71
Total earnings	1,139,833	3,767,826	729,953	580,171					6,217,782
Average earnings	87,679	94,196	72,995	72,521					87,574
40 - 45 : #	17	95	14	16	4				146
Total earnings	1,526,645	10,445,324	1,077,462	1,235,847	318,890				14,604,169
Average earnings	89,803	109,951	76,962	77,240	79,723				100,029
45 - 50 : #	13	126	15	23	15	10			202
Total earnings	1,427,597	12,515,808	1,330,841	2,547,164	1,091,964	898,789			19,812,162
Average earnings	109,815	99,332	88,723	110,746	72,798	89,879			98,080
50 - 55 : #	14	194	10	15	12	16	11	8	280
Total earnings	1,912,377	17,635,906	1,395,434	1,459,303	1,171,326	1,263,121	1,028,511	559,387	26,425,365
Average earnings	136,598	90,907	139,543	97,287	97,611	78,945	93,501	69,923	94,376
55 - 60 : #	10	111	3	4	5	10	5	9	157
Total earnings	1,033,831	11,324,396	314,961	283,804	586,980	1,975,029	516,118	827,632	16,862,752
Average earnings	103,383	102,022	104,987	70,951	117,396	197,503	103,224	91,959	107,406
60 - 65 : #	2	40	2	1	2	3		3	53
Total earnings	154,166	3,788,502	109,599		151,287	259,172		281,788	4,819,592
Average earnings	77,083	94,713	54,799		75,643	86,391		93,929	90,936
65 and + : #	1	4							5
Total earnings		380,801							496,869
Average earnings		95,200							99,374
<b>TOTAL</b>	<b>73</b>	<b>613</b>	<b>57</b>	<b>67</b>	<b>38</b>	<b>39</b>	<b>16</b>	<b>20</b>	<b>923 <sup>(1)</sup></b>
Total earnings	7,544,496	60,065,672	5,180,836	6,181,367	3,320,447	4,396,111	1,544,629	1,668,808	89,902,366
Average earnings	103,349	97,986	90,892	92,259	87,380	112,721	96,539	83,440	97,402

<sup>(1)</sup> Includes 77 members who are entitled to the additional pension for Members who elected to participate in the DC Component of the plan (with an average age of 46.2, average pensionable DB service of 5.0 years and average pensionable earnings of \$102,482)

# Membership Data (cont'd)

# Appendix E

Age/Service Chart of Active Members accruing DB service as at December 31, 2016

Age \ DB Service	5 - 10	10 - 15	15 - 20	20 - 25	25 - 30	30 - 35	35 - 40	TOTAL
30 - 35 : #	3	3						6
Total earnings	207,109	222,586						429,696
Average earnings	69,036	74,195						71,616
35 - 40 : #	27	9	8					44
Total earnings	2,653,105	671,286	580,171					3,904,562
Average earnings	98,263	74,587	72,521					88,740
40 - 45 : #	73	7	16	4				100
Total earnings	8,327,071	494,554	1,235,847	318,890				10,376,362
Average earnings	114,069	70,651	77,240	79,723				103,764
45 - 50 : #	111	6	17	14	10			158
Total earnings	11,132,497	510,153	1,791,622	1,031,283	898,789			15,364,344
Average earnings	100,293	85,026	105,390	73,663	89,879			97,243
50 - 55 : #	180	3	8	10	14	11	8	234
Total earnings	16,335,138	755,095	841,217	967,259	1,090,839	1,028,511	559,387	21,577,445
Average earnings	90,751	251,698	105,152	96,726	77,917	93,501	69,923	92,211
55 - 60 : #	102	2	2	2	6	5	9	128
Total earnings	10,497,225	247,837	133,647	237,953	1,491,420	516,118	827,632	13,951,832
Average earnings	102,914	123,918	66,824	118,976	248,570	103,224	91,959	108,999
60 - 65 : #	39	1		1	1		3	45
Total earnings	3,727,184						281,788	4,202,764
Average earnings	95,569						93,929	93,395
65 and + : #	4							4
Total earnings	380,801							380,801
Average earnings	95,200							95,200
<b>TOTAL</b>	<b>539</b>	<b>31</b>	<b>51</b>	<b>31</b>	<b>31</b>	<b>16</b>	<b>20</b>	<b>719</b>
Total earnings	53,260,131	2,947,057	4,582,504	2,628,724	3,555,956	1,544,629	1,668,808	70,187,807
Average earnings	98,813	95,066	89,853	84,798	114,708	96,539	83,440	97,619

# Membership Data (cont'd)

# Appendix E

**Chart of Active Members accruing benefits in the DC Component as at December 31, 2016**

Contribution level		<u>BCE</u>		<u>Bimcor</u>		<u>Conferia</u>		<u>Creotech</u>		<u>DOME</u>		<u>EPI</u>		<u>TOTAL</u>	
<u>Member</u>	<u>Employer</u>	#	avg. pens. earnings	#	avg. pens. earnings	#	avg. pens. earnings	#	avg. pens. earnings	#	avg. pens. earnings	#	avg. pens. earnings	#	avg. pens. earnings
0.0%	3.0%	-	-	-	-	36	\$69,330	-	-	-	-	-	-	36	\$69,330
0.0%	4.0%	81	\$77,318	-	-	-	-	18	\$98,940	1	-	9	\$57,051	109	\$78,907
1.0%	5.0%	10	\$73,282	-	-	-	-	4	\$101,681	1	-	-	-	15	\$79,008
2.0%	6.0%	691	\$109,275	7	\$165,513	-	-	129	\$112,983	65	\$78,103	25	\$93,747	917	\$107,593
3.0%	6.0%	76	\$88,537	1	-	-	-	5	\$95,114	9	\$81,603	5	\$64,682	96	\$87,188
4.0%	6.0%	251	\$120,907	3	\$225,357	-	-	36	\$114,132	23	\$83,011	7	\$108,769	320	\$118,135
5.0%	6.0%	26	\$129,019	2	\$135,520	-	-	-	-	3	\$54,258	-	-	31	\$122,203
6.0%	6.0%	58	\$104,845	2	\$152,798	-	-	3	\$68,837	7	\$110,538	1	-	71	\$104,889
7.0%	6.0%	7	\$92,794	-	-	-	-	-	-	-	-	-	-	7	\$92,794
8.0%	6.0%	18	\$105,677	-	-	-	-	1	-	1	-	-	-	20	\$102,619
9.0%	6.0%	4	\$105,428	1	-	-	-	1	-	-	-	-	-	6	\$99,795
10.0%	6.0%	7	\$83,901	2	\$119,831	-	-	1	-	-	-	-	-	10	\$93,553
11.0%	6.0%	1	-	-	-	-	-	-	-	-	-	-	-	1	-
12.0%	6.0%	38	\$130,490	-	-	-	-	1	-	1	-	-	-	40	\$128,042
<b>Total</b>		<b>1,268</b>	<b>\$108,522</b>	<b>18</b>	<b>\$157,606</b>	<b>36</b>	<b>\$69,330</b>	<b>199</b>	<b>\$110,117</b>	<b>111</b>	<b>\$80,243</b>	<b>47</b>	<b>\$85,578</b>	<b>1,679</b>	<b>\$105,885</b>

The purpose of an actuarial cost method is to assign a value to the benefits accrued to the valuation date under the plan and to measure the value of the benefits accruing in ensuing years. This actuarial valuation uses two cost methods: the Unit Credit method with salary projection for the measure of the plan's going-concern liabilities and the normal actuarial cost and the Unit Credit method for the solvency measure. A comparison of plan assets with the liabilities measured under these two methods gives an indication of the security of benefits accrued to the valuation date based on the actuarial assumptions described in this report.

**Going-Concern Basis: Unit Credit Actuarial Cost Method with Salary Projection**

Prospective benefits were calculated for each active Member according to the actuarial assumptions shown in Appendix D. The actuarial liability for each active Member was calculated as the actuarial present value of the projected benefits accrued for pensionable service prior to the valuation date.

The normal actuarial cost for each active Member was calculated as the actuarial present value of the increase in projected benefit for the following year. In order to reflect the fact that, on average, contributions are made in the middle of the year, six months of interest at the valuation interest rate assumption was added to the normal actuarial cost.

The normal actuarial cost (excluding non-investment expenses), determined as a percentage of payroll by the Unit Credit method with salary projection, will be stable over time if the demographic characteristics of the active plan membership remain stable from valuation to valuation. All other things being equal, an increase or decrease in average age of active Members will result in a similar shift in normal actuarial cost.

The actuarial liability for each inactive Member was calculated as the actuarial present value of their respective benefits.

**Solvency Basis: Unit Credit Actuarial Cost Method**

The solvency liability for active Members was calculated using the Unit Credit actuarial cost method, that is, the actuarial liability for each active Member was calculated as the actuarial present value of their accrued pension (determined on the basis of current earnings) with respect to service prior to the valuation date.

Active Members were valued as follows:

- if age is less than 55 years, a pension deferred to the earliest permitted retirement date for terminated Members as per the plan provisions;
- if age is equal or greater than 55 years, an immediate pension as per the plan provisions.

Notwithstanding the above, Ontario Members whose sum of age and years of service is at least 55 are assumed to retire at the age where the pension benefit has the greatest value.

The solvency liability for inactive Members was calculated as the actuarial present value of their respective benefits.

Incremental Cost

For Members not in receipt of a pension payment, the cost has been determined by calculating the projected solvency liability at the next valuation date, taking into account accrual of service, projection of pensionable earnings, benefits based on eligibility at that time and the reset of the select period in the discount rate assumption, if and when applicable, minus the solvency liability at the valuation date. Decrements prior to Normal Retirement Date have been ignored, considering materiality, and no new entrants have been assumed since participation in the DB Component is closed to new employees.

For Members in receipt of a pension payment, the cost has been determined as follows:

- for non-Quebec Members, the cost is equal to the present value of the pension indexation between the valuation date and the next valuation date;
- for Quebec Members, the cost is equal to zero since all benefits are already reflected in the liability at the valuation date.

The PBA require that certain minimum contributions be made for a plan to remain acceptable for registration. These minimum contributions are the sum of:

- the employer normal actuarial cost
- the amortization payments toward the amortization of the going-concern actuarial deficit or the solvency deficiency. Amortization payments must be sufficient to liquidate the going-concern actuarial deficit and the solvency deficiency over a period of fifteen and five years respectively.

Letters of credit can be deposited into the pension fund in lieu of making cash payments to amortize the solvency deficiency.

If a report discloses an actuarial gain under the Plan, the actuarial gain shall be applied firstly to reduce any going-concern actuarial deficit. The resulting reduced going-concern actuarial deficit may be reamortized over the remainder of the original amortization period for the liability or over a shorter period.

If, on any valuation date, the sum of the solvency assets and the solvency asset adjustment exceeds the sum of the solvency liabilities, the solvency liability adjustment and the prior year credit balance (such excess being referred to as the “solvency excess”), the special payments with respect to solvency deficiencies arising before the valuation date that are scheduled for payment after the valuation date shall be adjusted in accordance with the following rules:

- where the solvency excess is less than the present value of the special payments, the monthly rate of the special payments shall not be changed but the amortization period or periods for the special payments shall be reduced so as to reduce the solvency excess to zero;
- where the solvency excess is greater than or equal to the present value of the special payments, the special payments shall be reduced to zero.

When the plan is fully solvent and fully funded, the actuarial gains may be used to reduce employer contributions in respect of the normal actuarial cost. An actuarial surplus may also be applied to reduce employer contributions in respect of the normal actuarial cost.

The minimum contributions are payable not less frequently than monthly and not later than 30 days after the end of the period for which they are payable. As per the PBA, the commencement of any going-concern and solvency schedules can be deferred for up to 12 months after the valuation date.

In its fiscal year an employer may deduct contributions and certain administrative costs of a registered pension plan in accordance with the Income Tax Act.

Section 147.2 permits the deduction of contributions in respect of the employer normal actuarial cost. It also permits the deduction of the amortization payments up to the greater of (a) any going-concern actuarial deficit and (b) the face value of any letter of credit plus/minus the hypothetical wind-up deficiency/surplus. Contributions are subject to certification by the actuary (prepared not more than four years before the day on which the contribution is made) and approval by the Canada Revenue Agency.

These contributions are deductible in the fiscal year during which they are remitted or within 120 days after the end of such fiscal year provided they were made to fund benefits for periods before the end of the fiscal year.

Interpretation Bulletin IT-105 permits the deduction of the administrative costs of the Plan.

If the actuarial surplus exceeds 25% of the actuarial liability, then the employer's normal actuarial cost must be reduced to the extent of such excess. It should be noted that this provision of the tax rules limits the amount of employer contribution which may be made, not just the deductibility of contributions.

The PBA require that employers who sponsor a defined benefit plan having Ontario Members pay an annual assessment to the PBGF.

The assessment must be paid within nine months of the end of the plan year. A penalty tax of 20% of the assessment due is levied for late payment and interest is charged on the total amount due.

The annual assessment is equal to the greater of \$250 and the lesser of:

- i) \$5 per *Ontario plan Member* plus, if the plan has a solvency deficiency, the sum of:
  - 0.5% of that portion of the *PBGF assessment base* that is less than 10% of the *PBGF liabilities*;
  - 1.0% of that portion of the *PBGF assessment base* that is between 10% and 20% of the *PBGF liabilities*; and
  - 1.5% of that portion of the *PBGF assessment base* that is 20% or more of the *PBGF liabilities*, and
- ii) \$300 per Ontario plan Member.

**Ontario plan Members** include active Members employed in Ontario who are currently accruing or have defined benefit entitlements, pensioners and terminated vested Members with defined benefits entitlements who were employed in Ontario immediately prior to their termination of employment and surviving spouses and beneficiaries who are receiving benefits as a result of the death of an Ontario Member. The number of Ontario plan Members is determined as at the end of the plan year.

The **PBGF liability** is the portion of the solvency liability that relates to Ontario plan Members.

The **PBGF assessment base** is the excess of the PBGF liability over the portion of solvency assets attributed to the Ontario plan Members. This portion is calculated as the solvency assets, excluding the face value of any letter of credit and the present value of any amortization payments, multiplied by the PBGF liability and divided by the solvency liability.

The PBGF liability and PBGF assessment base used to determine a given plan year assessment fee are the ones set out in the last actuarial report filed with the Financial Services Commission of Ontario. However, the amount of special payments made in excess of the minimum set out in the last filed actuarial report can be used to reduce the PBGF assessment base. Also, the filing of an updated report triggers the recalculation of the assessment dues. In such event, an increase in the assessment dues must be paid within 60 days of the filing of the updated report. A decrease in the assessment dues will be refunded.

Additional provisions apply for employers who elected to exclude plant closure benefits or permanent layoff benefits from the solvency valuation and for qualified plans.

**Financial Services Commission of Ontario**

An actuarial valuation report must be filed at least every three years, or annually if the report indicates solvency concerns as defined under the PBA. An Actuarial Information Summary must be filed concurrently with the actuarial valuation.

Given the solvency ratio of the Plan, the actuarial opinion contained in this report is only valid for 2017 and the next valuation report must have a valuation date no later than December 31, 2017.

**Canada Revenue Agency**

To make an eligible contribution, an employer must seek the Minister of Finance's approval. Accordingly, the employer must file with the Minister a report prepared by the actuary that contains a certification and any other required information. The recommendation must be based on an actuarial valuation with an effective date not more than four years before the day on which the contribution is made and must be approved in writing by the Minister on the advice of the Superintendent of Financial Institutions. An Actuarial Information Summary must be filed concurrently with the actuarial valuation.

The following is a summary of the Plan's main provisions in effect as at December 31, 2016. It is not a complete description of the Plan provisions.

### **Eligibility for Membership**

All Employees become Members of the Plan after they have completed three months of service.

### **Pensionable Earnings**

Basic pay plus short-term incentive bonus and other forms of remuneration that are considered to be earnings for pension purposes under the applicable rules of the relevant Participating Company.

### **Vesting**

Immediate upon Plan membership.

## **DC COMPONENT**

### For all participating companies except Conferia:

Effective January 1, 2005, the Plan provides for defined contribution provisions for all new employees hired on or after October 1, 2004 and for active Members who elected to join this new DC Component. Members who did not originally elect to join the DC Component were given another opportunity to do so, effective January 1, 2008.

Any benefits provided under the DC Component are in addition to the benefits provided under the DB Component. Members shall not accrue Pensionable Employment while participating in the DC Component of the Plan.

Members are allowed to contribute up to 12% of Pensionable Earnings, on an optional basis. Employer contributions under the DC Component of the Plan are 4% of Pensionable Earnings, plus a matching of Member contributions up to a maximum of 2% of Pensionable Earnings.

Employer and Member contributions are invested in accordance with Members' selection of investment options. At termination of employment, death or retirement, the Member's DC account is payable in the form of a lump sum transfer, subject to applicable legislation.

### For Conferia:

Employer contributions are equal to the DC Member's rate of contribution into the Group RRSP, subject to a minimum of 1% and a maximum of 3% of the DC Member's Pensionable Earnings. There is no Member contribution under the Plan.

## **DB COMPONENT**

### **Member Contributions**

None.

### **Normal Retirement Date**

Age 65.

**Early Retirement Date**In respect of Pensionable Employment prior to January 1, 1987:

- Age 55 and sum of age and years of service equal to 85 or more, or
- Age 60 and sum of age and years of service equal to 80 or more, or

If not eligible under the above criteria, an actuarially reduced benefit is payable if at least age 55.

In respect of Pensionable Employment from January 1, 1987:

- Age 55

Members terminating employment after having attained age 55 shall be granted an annual pension (portability option not offered).

**Average Annual Pensionable Earnings (AAPE)**

Average annual Pensionable Earnings during the best 60 consecutive months.

**Defined Benefit Pension**1) In respect of Pensionable Employment prior to January 1, 1987

The pension under this section is converted into a level pension on an actuarial equivalent basis. For each year of Pensionable Employment prior to January 1, 1987, the amount of Annual Pension payable upon retirement is equal to the following:

- a) Prior to age 65:
  - i) 1.30% plus 0.01% for each 3 full months by which retirement age exceeds age 55 (up to a maximum of 1.50%) times AAPE, and
  - ii) a supplemental amount of 0.50% of the lesser of AAPE and \$10,000.
- b) On and after age 65:
  - i) 0.85% of AAPE, up to the Year's Maximum Pensionable Earnings (YMPE) under the C/QPP for the year in which the pension commences, and
  - ii) 1.30% plus 0.01% for each 3 full months by which retirement age exceeds age 55 (up to a maximum of 1.50%) times the amount by which the AAPE exceeds the YMPE

2) In respect of Pensionable Employment from January 1, 1987

For each year of Pensionable Employment from January 1, 1987, the amount of annual pension payable from Normal Retirement Date shall be equal to the sum of:

- i) 1.0% of that part of the Member's AAPE which does not exceed the YMPE, and
- ii) 1.7% of that part of the Member's AAPE in excess of the YMPE

Pension is reduced by  $\frac{1}{4}\%$  for each month that Early Retirement Date precedes Normal Retirement Date.

**3) Additional Pension for Members who elected to participate in the DC Component of the Plan**

The amount of additional annual pension payable from Normal Retirement Date shall be equal to 0.2% of that part of the Member's AAPE which does not exceed the YMPE for each year of Pensionable Employment before January 1, 2005. Such additional pension is reduced by ¼% for each month that Early Retirement Date precedes Normal Retirement Date.

**Maximum Pension**

No annual pension payable according to the defined benefit provisions upon retirement, death or termination of employment can exceed the limit determined under the Income Tax Act and 2% of the Member's AAPE times the number of years of Pensionable Employment.

**Normal Form of Pension**

Pension payable for life with no guarantee. Optional forms are available on an actuarially equivalent basis.

**Survivor Protection After Retirement**

Unless waived in writing prior to retirement, the defined benefit pension is payable in reduced amounts (on an actuarial equivalent basis) such that, in the event of the former employee's death, a survivor pension equal to 60% of the reduced pension will be paid for life to the eligible spouse.

In the case of Members entitled to Protection of Pension Rights and who retired in accordance with the pre-1987 Early Retirement criteria:

- a) if the spouse dies prior to the former employee, the normal pension is reinstated to the initial amount;
- b) the actuarial equivalent reduction is made on the basis that the Fund will subsidize one-third of the pension to the surviving spouse.

**Death Benefits Before Retirement**

- a) On the death of a Member before age 55, the surviving spouse is entitled to a benefit equal in value to the defined benefit pension.
- b) On the death of a Member aged 55 or more, the surviving spouse may instead elect a pension equal to 60% of the reduced pension that would have been payable to the deceased Member. This benefit shall be at least equivalent to the benefit provided under a).
- c) If the Member has no spouse on the date of death, the beneficiary or the estate is entitled to a benefit equal in value to the defined benefit pension.

**Termination Benefits**

In respect of defined benefit pension credits for service prior to January 1, 1987  
Deferred annuities payable from age 60 are provided.

In respect of pension credits for service from January 1, 1987:  
Deferred annuities payable from age 65 are provided.

**Pre-retirement Indexation**

Employees subject to the Quebec Supplemental Pensions Act who terminate employment or die on or after January 1, 2001 before having attained age 55, are entitled to an additional benefit for service from January 1, 2001, the value of which is equal to the actuarial equivalent value of the excess, if any, between the value of a deferred pension payable from age 65 and indexed from the date of termination of employment or death until the date the Employee would attain age 55, at an annual rate equal to 50% of the annual increase in the CPI but not exceeding 2%, over the value of the benefits otherwise payable from the Plan.

**Indexing of Pensions**

All defined benefit pensions under the Plan will be augmented by annual cost-of-living adjustments, not to exceed 2% per year, based on the increase in the CPI as published by Statistics Canada.

From age 65, if it is more generous than the formula described above, all pensions under the Plan will be augmented by annual cost-of-living adjustments, not to exceed 4% per year, corresponding to 60% of the annual increase in the CPI.

**Protection of Pension Rights**

Employees on December 31, 1986 who have maintained continuous employment are entitled, for their service on or after January 1, 1987, to the larger of the benefits calculated in accordance with the provisions applicable to pre-1987 service and the benefits calculated in accordance with the provisions applicable to post-1986 service.

**Disability Benefits**

A Member on Long Term Disability continues to accrue pensionable service while disabled to the earliest of age 65, retirement, termination or death.

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I hereby certify that, with respect to the actuarial valuation of BCE Inc. Pension Plan as at December 31, 2016, to the best of my knowledge and belief,

- the valuation reflects BCE's terms of engagement, including the requirement to include a margin in the discount rate used to perform the going-concern valuation;
- the information supplied to the actuary related to the Plan provisions, the membership data and the asset data is complete and accurate; and
- all events subsequent to December 31, 2016 that may have an impact on the Plan have been communicated to the actuary.



\_\_\_\_\_  
Signature

September 2017

\_\_\_\_\_  
Date

Eleanor Marshall

\_\_\_\_\_  
Name

Vice President - Pension & Benefits

\_\_\_\_\_  
Title