TORSTAR CORPORATION

TORONTO STAR PENSION PLAN

Actuarial Valuation as at December 31, 2013

September 2014

Registration Number 0346171

TOWERS WATSON

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Introduction

Purpose

This report with respect to the Toronto Star Pension Plan has been prepared for Torstar Corporation, the plan administrator, and presents the results of the actuarial valuation of the plan as at December 31, 2013.

The principal purposes of the report are:

- to present information on the financial position of the plan on both going concern and solvency bases;
- to review the hypothetical windup status of the plan;
- to provide the basis for employer contributions; and
- to provide certain additional information required for the administration of the plan.

This report outlines the changes in the plan's financial situation since the previous actuarial valuation at September 1, 2013, provides the information and the actuarial opinion required by the *Pension Benefits Act (Ontario)* and Regulation thereto and provides the information required to maintain plan registration under the *Income Tax Act (Canada)* and Regulations thereto.

This report summarizes the results of the actuarial valuation and contains an actuarial opinion as an integral part of the report. Supporting detailed information on the significant terms of engagement, assets, actuarial basis, membership data and plan provisions is contained in the Appendices.

The information contained in this report was prepared for Torstar Corporation, for its internal use and for filing with the Financial Services Commission of Ontario and the Canada Revenue Agency, in connection with the actuarial valuation of the plan prepared by Towers Watson Canada Inc. ("Towers Watson"). This report is not intended, nor necessarily suitable, for other parties or for other purposes. Further distribution of all or part of this report to other parties (except where such distribution is required by applicable legislation) or other use of this report is expressly prohibited without Towers Watson's prior written consent. Towers Watson is available to provide additional information with respect to this report to the above-mentioned intended users upon request.

The numbers in this report are not rounded. The fact that numbers are not rounded does not imply a greater level of precision than if the numbers had been rounded.

Significant Events Since Previous Actuarial Valuation

Investment Policy

A new investment policy came into force on June 1, 2014 and has been reflected in this report.

Actuarial Basis

Since the previous actuarial valuation, the assumptions used in the solvency and hypothetical windup valuations have been updated to reflect market conditions at the actuarial valuation date. In addition, there have been changes to the going concern actuarial basis, as follows:

- Change in the mortality assumption.

Plan Provisions

This actuarial valuation reflects the plan provisions as at December 31, 2013 and does not make any provision for the possibility that a change or action (retroactive or otherwise) may be imposed by order of a regulatory body or a court as we were not aware of any definitive events that would require such change or action at the time this actuarial valuation was completed.

There have been no changes to the plan provisions since the previous actuarial valuation that affect the actuarial valuation's results.

Effective May 15, 2013, the union representing some members of the plan negotiated a potential base year update from 2005 to 2006 when the blended solvency discount rates increase by 200 basis points. As the 200 basis points triggering event has not been reached, this potential base year update does not have any impact on the December 31, 2013 valuation.

Legislative and Actuarial Standards Updates

On December 8, 2010, Ontario Bill 120, *Securing Pension Benefits Now and for the Future Act, 2010*, received Royal Assent. The amendments under Bill 120 provide a framework for certain changes in funding rules for plans registered in the province of Ontario and will be effective at a date to be proclaimed. The effect of these future changes to funding rules resulting from Bill 120 has not been reflected in this report. Future changes to contribution requirements resulting from Bill 120 will be reflected in the first actuarial opinion prepared and filed on or after the effective date of the relevant section(s) of Bill 120.

A solvency relief report for the plan was filed with an effective date of December 31, 2011. In that report, the plan administrator elected the following temporary solvency funding relief options contained in the Regulation to the *Pension Benefits Act (Ontario)*:

- Option 4: Consolidate the remaining solvency schedules established in valuation reports prior to the solvency relief report and amortize the consolidated schedule over a five-year period beginning on the date of the solvency relief report.

The contribution requirements presented in this report have been determined in accordance with the temporary solvency funding relief rules under the Regulation applicable to amortization payments that were consolidated or established in the solvency relief report.

Subsequent Events

We completed this actuarial valuation in September 2014.

To the best of our knowledge and on the basis of our discussions with Torstar Corporation, no events which would have a material financial effect on the actuarial valuation occurred between the actuarial valuation date and the date this actuarial valuation was completed.

Section 1: Going Concern Financial Position

1.1 Statement of Financial Position

	December 31, 2013	September 1, 2013
Going Concern Value of Assets		
Defined benefit provision	$ 372,636,830	$ 363,891,254
Optional ancillary contributions	1,819,540	1,835,953
Total going concern value of assets	$ 374,456,370	$ 365,727,207
Actuarial Liability		
Defined Benefit Provision		
Active and disabled members	$ 109,192,460	$ 124,758,862
Retired members and beneficiaries	225,676,336	204,819,690
Terminated vested members	5,984,972	6,094,631
Total	$ 340,853,768	$ 335,673,183
Optional ancillary contributions	1,819,540	1,835,953
Total Actuarial Liability	$ 342,673,308	$ 337,509,136
Actuarial Surplus (Unfunded Actuarial Liability)	$ 31,783,062	$ 28,218,071
Prior Year Credit Balance	(18,751,891)	(14,337,305)
Actuarial Surplus (Unfunded Actuarial Liability) After Prior Year Credit Balance	$ 13,031,171	$ 13,880,766

Comments:

- The financial position of the plan on a going concern basis is determined by comparing the going concern value of assets to the actuarial liability and is a reflection of the assets available for the benefits accrued in respect of credited service prior to the actuarial valuation date assuming the plan continues indefinitely.

- The prior year credit balance is employer contributions made prior to the actuarial valuation date that are in excess of the minimum required and are set aside as a reserve for application towards future contribution requirements.

- The increase in the defined benefit actuarial liability as at December 31, 2013, which would result from a 1% decrease in the assumed liability discount rate, is $40,590,452. For purposes of this calculation, no changes were made to any of the other actuarial assumptions or actuarial methods.

1.2 Reconciliation of Financial Position

Actuarial surplus (unfunded actuarial liability) as at September 1, 2013		$ 28,218,071
Net special payments		6,269,956
Application of:		
• Actuarial surplus	$ 0	
• Prior year credit balance	0	0
Expected interest on:		
• Actuarial surplus (unfunded actuarial liability)	$ 517,331	
• Net special payments and transfer deficiency payments	57,475	
• Application of actuarial surplus	0	
• Application of prior year credit balance	0	574,806
Plan experience:		
• Investment gains (losses)	$ 6,858,819	
• Retirement gains (losses)	(36,675)	
• Withdrawal gains (losses)	(2,998,225)	
• Mortality gains (losses)	(156,949)	
• Transfers gains (losses) [1]	2,343,716	
• Gains (losses) from miscellaneous sources	(481,710)	5,528,976
Change in actuarial basis:		(8,808,747)
Change in plan provisions		0
Actuarial surplus (unfunded actuarial liability) as at December 31, 2013		$ 31,783,062

Note:

[1] The transfers gains (losses) are attributable to the mismatch between the timing of the liability transfer and the timing or the asset transfer.

1.3 Reconciliation of Prior Year Credit Balance

Prior year credit balance as at September 1, 2013		$ 14,337,305
Actual employer contributions:		
● Defined benefit normal actuarial cost	$ 1,144,576	
● Going concern amortization payments	0	
● Solvency amortization payments	1,855,370	
● Transfer deficiency payments	0	
● Prior year credit balance	4,414,586	
● Other contributions	0	7,414,532
Minimum employer contributions required:		
● Defined benefit normal actuarial cost	$ (1,144,576)	
● Going concern amortization payments	0	
● Solvency amortization payments	(1,855,370)	
● Transfer deficiency payments	0	
● Other contributions	0	(2,999,946)
Application against unfunded actuarial liability		0
Prior year credit balance as at December 31, 2013		$ 18,751,891

Section 2: Solvency and Hypothetical Windup Financial Position

2.1 Statement of Solvency Financial Position

	December 31, 2013	September 1, 2013
Solvency Value of Assets		
Defined Benefit Provision		
Market value of assets	$ 393,608,865	$ 374,100,986
Provision for plan windup expenses	(650,000)	(650,000)
Total	$ 392,958,865	$ 373,450,986
Optional ancillary contributions	1,819,540	1,835,953
Total Solvency Value of Assets	$ 394,778,405	$ 375,286,939
Solvency Liability		
Defined Benefit Provision		
Active and disabled members	$ 147,443,161	$ 172,472,118
Retired members and beneficiaries	251,757,700	236,859,606
Terminated vested members	7,745,017	8,195,136
Total	$ 406,945,878	$ 417,526,860
Optional ancillary contributions	1,819,540	1,835,953
Total Solvency Liability	$ 408,765,418	$ 419,362,813
Solvency Surplus (Unfunded Solvency Liability)	$ (13,987,013)	$ (44,075,874)

Comments:

- The financial position of the plan on a solvency basis is determined by comparing the solvency value of assets to the solvency liability (the actuarial present value of benefits accrued in respect of credited service prior to the actuarial valuation date, calculated as if the plan were wound up on that date).

- The solvency actuarial valuation results presented in this report are determined under a scenario where, following a plan windup, the employer continues its operations.

- Under an amendment to the Regulation to the *Pension Benefits Act (Ontario)*, effective November 26, 1992, the employer had the option to make an election to exclude from the solvency liability any benefits relating to plant closure and permanent layoff. This plan does not have any such benefits.

- In addition, the Regulation permits certain benefits to be excluded from the solvency liability, without requiring the employer to make an election. No such benefits have been excluded from the solvency liability.

- The increase in the defined benefit solvency liability as at December 31, 2013, which would result from a 1% decrease in the assumed liability discount rate, is be $49,996,890. For purposes of this calculation, no changes were made to any of the other actuarial assumptions or actuarial methods.

2.2 Hypothetical Windup Financial Position

The hypothetical windup valuation results presented in this report are determined under the same scenario used for the solvency valuation.

If the plan were to be wound up on the actuarial valuation date, the hypothetical windup value of assets would be equal to the solvency value of assets and the hypothetical windup liability would be equal to the solvency liability. Consequently, the hypothetical windup surplus (unfunded hypothetical windup liability) as at the actuarial valuation date is $(13,987,013).

2.3 Solvency Incremental Cost

The solvency incremental cost for a given year represents the present value, at the actuarial valuation date, of the expected aggregate change in the defined benefit solvency liability during the year, increased for expected benefit payments during the year. The solvency incremental costs in respect of each year between December 31, 2013 and December 31, 2016, the next actuarial valuation date, are derived from the projection of the solvency liability, as follows:

	2014	**2015**	**2016**
Projected solvency liability as at beginning of year	$ 406,945,878	$ 405,437,406	$ 402,937,900
Solvency incremental cost for the year[1]	5,678,854	5,403,504	5,095,428
Interest on projected solvency liability, solvency incremental cost and expected benefit payments	14,750,023	14,739,123	14,736,290
Expected benefit payments during year	(21,937,349)	(22,642,133)	(23,131,424)
Projected solvency liability as at end of year	$ 405,437,406	$ 402,937,900	$ 399,638,194

Note:

[1] These amounts are as at the beginning of the year. The solvency incremental cost, discounted with interest to December 31, 2013, is $5,212,129 for 2015 and $4,740,068 for 2016.

2.4 Determination of the Statutory Solvency Excess (Statutory Solvency Deficiency)

The minimum funding requirements under the Regulation to the *Pension Benefits Act (Ontario)* are based on the statutory solvency excess (statutory solvency deficiency) as at the actuarial valuation date. In calculating the statutory solvency excess (statutory solvency deficiency), various adjustments can be made to the solvency financial position including:

- recognition of the present value of existing amortization payments, including any going concern amortization payments established at the actuarial valuation date, due to be paid within the periods prescribed by the Regulation;
- smoothing of the asset value by use of an averaging technique;
- adjustment to the solvency liability by use of an averaging technique in determining the discount rate used to value the liabilities; and
- removal of any prior year credit balance from the asset value.

To the extent that there exists a statutory solvency deficiency, after taking account of these adjustments, additional amortization payments must be made. If there is no statutory solvency deficiency, the statutory solvency excess may be used to reduce the period of any existing solvency amortization payments. The statutory solvency excess may also be used to reduce the amount of any remaining solvency amortization schedules that were established or consolidated in the plan's December 31, 2011 solvency relief report, provided one or more solvency funding relief options were elected.

Statutory Solvency Excess (Statutory Solvency Deficiency)

	December 31, 2013	September 1, 2013
Solvency surplus (unfunded solvency liability)	$ (13,987,013)	$ (44,075,874)
Adjustments to solvency position:		
• Present value of existing amortization payments	$ 57,180,791	$ 104,768,973
• Smoothing of asset value	0	0
• Averaging of liability discount rate	0	0
• Prior year credit balance	(18,751,891)	(14,337,305)
• Total	$ 38,428,900	$ 90,431,668
Statutory solvency excess (statutory solvency deficiency)	$ 24,441,887	$ 46,355,794

Comment:

- Further details on the present value of existing amortization payments at December 31, 2013 are provided below.

Details of Present Value of Existing Amortization Payments

Type of payment	Effective date	Month of last payment recognized in calculation	Annual amortization payment	Present value as at December 31, 2013 (at 3.66% per annum)
Solvency [1]	Jan. 1, 2013	Dec. 2017	$ 5,566,109	$ 20,706,786
Solvency [2]	Jan. 1, 2014	Dec. 2018	7,981,926	36,474,005
Total			$ 13,548,035	$ 57,180,791

Notes:

1 This schedule resulted from the consolidation of pre-existing solvency payment schedules in the December 31, 2011 solvency relief report. Furthermore, this schedule was reduced as at September 1, 2013.

2 This schedule resulted from the statutory solvency deficiency revealed in the December 31, 2012 actuarial valuation report.

Comments:

The statutory solvency excess shall be applied to reduce the payment amounts of the solvency amortization payments as follows:

- Annual payment of $5,566,109 in effect on January 1, 2013 resulting from the consolidation of pre-existing solvency schedules in the solvency relief report filed as of December 31, 2011 shall cease to be paid in their entirety.

- Annual payment of $7,981,926 in effect on January 1, 2014 resulting from the statutory solvency deficiency revealed in the actuarial valuation report filed as of December 31, 2012 shall cease to be paid on June 30, 2018.

Consequently, the remaining statutory solvency excess at the actuarial valuation date is $0.

Section 3: Contribution Requirements

3.1 Contribution for Current Service (Ensuing Year)

	December 31, 2013	September 1, 2013
Employer Normal Actuarial Cost		
Estimated contribution	$ 3,053,851	$ 3,433,727
Estimated payroll [1]	39,134,777	45,823,969
% of payroll	7.80%	7.49%
Estimated Member Contributions		
Defined benefit provision	$ 1,733,731	$ 2,094,128

Note:

[1] Includes an adjustment for members accruing less than a full year of service.

Comments:

- The employer defined benefit normal actuarial cost rate changed by 0.06% of payroll due to changes in membership profile and by 0.25% of payroll due to changes in the actuarial basis since the previous actuarial valuation.

- The increase in the employer normal actuarial cost rate between the actuarial valuation date and the next actuarial valuation date, which would result from a 1% decrease in the assumed liability discount rate, is 2.23% of payroll. For purposes of this calculation, no changes were made to any of the other actuarial assumptions or actuarial methods.

3.2 Contributions for Past Service

Solvency Amortization Payments

The statutory solvency excess, prior to taking in account permissible reductions in existing solvency amortization payments, revealed at this actuarial valuation is $24,442,087. The remaining statutory solvency deficiency from the previous actuarial valuation, after reducing existing solvency amortization payments, must be liquidated by employer amortization payments at least equal to the amounts, payable monthly in arrears, and for the periods set forth below in order to comply with the *Regulation to the Pension Benefits Act (Ontario).*

Effective date	Month of last payment	Annual amortization payment	Present value as at December 31, 2013 (at 3.66% per annum)
Jan. 1, 2014	Jun. 2018	$ 7,981,926	$ 32,738,904

For the amortization payment effective January 1, 2014, the last payment due on June 30, 2018 is $223,389.

The employer may establish a letter of credit in order to cover all of or a portion of the above amortization payments that are due on or after January 1, 2014, to the extent the letter(s) of credit does not exceed 15% of the solvency liabilities.

3.3 Estimated Minimum Employer Contribution (Ensuing Year)

	December 31, 2013	September 1, 2013
Employer Normal Actuarial Cost	$ 3,053,851	$ 3,433,727
Amortization Payments		
Going concern	$ 0	$ 0
Solvency	7,981,926	10,887,393
Total	$ 7,981,926	$ 10,887,393
Application of Prior Year Credit Balance	(18,751,691)	(14,337,305)
Application of Surplus	0	0
Estimated Minimum Employer Contribution	$ 0	$ 0

Comment:

- This actuarial valuation reveals that the plan has an actuarial surplus. Notwithstanding the actuarial surplus, as a result of the statutory solvency deficiency present in this actuarial valuation, the plan sponsor must remit contributions not less than the minimum required by the *Pension Benefits Act (Ontario)* and Regulation thereto.

3.4 Estimated Maximum Employer Contribution (Ensuing Year)

	December 31, 2013	September 1, 2013
Employer Normal Actuarial Cost	$ 3,053,851	$ 3,433,727
Greater of the Unfunded Actuarial Liability and the Unfunded Hypothetical Windup Liability	13,987,013	44,075,874
Estimated Maximum Employer Contribution	$ 17,040,864	$ 47,509,601

Comment:

- The *Income Tax Act (Canada)* permits the employer to make contributions up to the above amount less the amortization payments made in respect of periods since December 31, 2013, provided that all assumptions made for the purposes of the hypothetical windup valuation remain reasonable at the time each contribution is made. In addition, the maximum employer contribution is to be adjusted with interest for the period between the actuarial valuation date and the date each contribution is made.

3.5 Timing of Contributions

To satisfy the requirements of Ontario pension legislation, the employer normal actuarial cost must be paid monthly and within 30 days of the month to which it pertains while the amortization payments must also be paid monthly but within the period to which they are applicable. Members' contributions must be remitted to the fund monthly and within 30 days of the month to which they pertain.

In addition, within 60 days after this report is filed with the Financial Services Commission of Ontario, the employer must make a special contribution equal to the excess, if any, of:

- the amount of employer contributions (employer normal actuarial cost and amortization payments) that should have been paid after December 31, 2013 according to the minimum contribution requirements revealed by this report (determined with regard to any reported prior year credit balance available to meet these minimum contribution requirements), over

- the actual amount of employer contributions in respect of periods after December 31, 2013.

Interest must be added to this excess, with such interest determined by reference to the going concern discount rate for payments in respect of employer normal actuarial cost or going concern amortization payments and the solvency discount rate for payments in respect of solvency amortization payments.

To satisfy the requirements of the *Income Tax Act (Canada)*, employer contributions that are remitted to the plan in the taxation year or within 120 days after the end of such taxation year are deductible in such taxation year provided they were made to fund benefits in respect of periods preceding the end of the taxation year.

3.6 Other Statutory Contributions

Additional contributions may be required in respect of the transfer values for members who terminate employment or active plan membership. Where applicable, such additional contributions must be remitted before the related transfer value may be paid in full to the terminated member. Details are provided in Appendix G.

3.7 Future Contribution Levels

Future contribution levels may change as a result of future changes in the actuarial methods and assumptions, the membership data, the plan provisions and the legislative rules, or as a result of future experience gains or losses, none of which has been anticipated at this time. Emerging experience, differing from the assumptions, will result in gains or losses that will be revealed in future actuarial valuations.

Section 4: Actuarial Certification and Opinion

4.1 Actuarial Certification

Based on the results of these actuarial valuations, we hereby certify that, in our opinion, as at December 31, 2013:

- The plan has a prior year credit balance of $18,751,691. The employer may use this prior year credit balance to meet the future contribution requirements of the plan.

- The actuarial surplus (unfunded actuarial liability), determined by comparing the actuarial liability, the measure of obligations of the plan on a going concern basis, to the going concern value of assets, is $31,783,062.

- The solvency surplus (unfunded solvency liability), determined by comparing the solvency liability, as defined in the Regulation to the *Pension Benefits Act (Ontario)*, to the solvency value of assets, is $(13,987,013).

- The statutory solvency excess (statutory solvency deficiency), prior to reducing existing solvency amortization payments, revealed at this actuarial valuation is $24,442,087. The remaining statutory solvency deficiency from the previous actuarial valuation, after reducing existing solvency amortization payments, must be liquidated by employer amortization payments at least equal to the amounts and for the periods set forth in Section 3 in order to comply with the Regulation to the *Pension Benefits Act (Ontario)*.

- Alternatively, the employer may establish a new or increased letter of credit for any newly forgone solvency amortization payments, and may either pay the monthly amount of interest accruals thereon to the plan or establish a new or increased letter of credit for such accruals.

- The hypothetical windup surplus (unfunded hypothetical windup liability), determined by comparing the hypothetical windup liability, the measure of the obligations of the plan on a hypothetical windup basis including the value of any potential obligations that may have been excluded for purposes of the solvency valuation, to the hypothetical windup value of assets, is $(13,987,013).

- The excess actuarial surplus, pursuant to section 147.2(2) of the *Income Tax Act (Canada)*, is $0.

- The rule for computing the employer defined benefit normal actuarial cost is 7.80% of payroll. Based on the plan membership used for this actuarial valuation, the normal actuarial cost for the next three years is estimated to be:

	Year		
	2014	**2015** [1]	**2016** [1]
Estimated employer normal actuarial cost	$ 3,053,851	$ 3,145,467	$ 3,239,831
Estimated member contributions	$ 1,733,731	$ 1,785,743	$ 1,839,315

Note:

[1] Assumes that employer normal actuarial cost and member contributions increase by 3.0% each year following the actuarial valuation date based on expected payroll increases.

The employer is required to make normal actuarial cost contributions to the plan in accordance with the above rule until the effective date of the next actuarial opinion.

- The maximum employer contributions permissible under the *Income Tax Act (Canada)* are described in Section 3.

- The transfer ratio, as defined in the Regulation to the *Pension Benefits Act (Ontario)*, is 92%. The solvency ratio, defined as the ratio of the solvency value of assets prior to deduction of the provision for plan windup expenses to the solvency liabilities, is 97%.

- The assessment base determined for the Pension Benefits Guarantee Fund (PBGF) is $13,337,013. The PBGF liabilities are $406,945,878. Additional liabilities for excluded plant closure benefits, in accordance with section 37(4)(a)(ii) of the Regulation to the *Pension Benefits Act (Ontario)*, are $0.

- In accordance with the Regulation to the *Pension Benefits Act (Ontario)*, the next actuarial valuation should be performed with an effective date not later than December 31, 2016. The basis for employer contributions presented in this report is effective until the next actuarial opinion is filed.

- The pension benefits provided under the plan are not subject to the limitation imposed under Section 8504(6) of the Regulations to the Income Tax Act (Canada).

4.2 Actuarial Opinion

In our opinion:

- the membership data on which the actuarial valuations are based are sufficient and reliable for the purposes of the going concern, solvency and hypothetical windup valuations,
- the assumptions are appropriate for the purposes of the going concern, solvency and hypothetical windup valuations, and
- the methods employed in the actuarial valuation are appropriate for the purposes of the going concern, solvency and hypothetical windup valuations.

This report has been prepared, and our opinion has been given, in accordance with accepted actuarial practice in Canada. The actuarial valuations have been conducted in accordance with our understanding of the funding and solvency standards prescribed by the *Pension Benefits Act (Ontario)* and Regulation thereto, and in accordance with our understanding of the requirements of the *Income Tax Act (Canada)* and Regulations thereto. This actuarial opinion forms an integral part of the report.

The results presented in this report have been developed using a particular set of actuarial assumptions. Other results could have been developed by selecting different actuarial assumptions. The results presented in this report are reasonable actuarial results based on actuarial assumptions reflecting our expectation of future events.

Towers Watson Canada Inc.

Chen Muthukumaraswamy
FCIA

Benoit Coulombe
FCIA

Toronto, Ontario
September 2014

Appendix A: Significant Terms of Engagement

For purposes of preparing this actuarial valuation report, the plan administrator has directed that:

- The actuarial valuation is to be prepared as at December 31, 2013.
- For purposes of the going concern valuation, the terms of engagement require the use of the margins for adverse deviations mentioned in Appendix C.
- For purposes of determining the going concern liability discount rate, the target asset class distribution is to be established in accordance with the investment policy effective June 1, 2014, which is the most up to date version.
- For purposes of determining the going concern financial position of the plan, the going concern value of assets is to be determined using the averaging technique described in the Asset Valuation Method section in Appendix C.
- Since to the best of the knowledge of the plan administrator, there is no partial plan windup with an effective date prior to the date of this actuarial valuation, involving members employed in Ontario, not yet completed where the partial windup portion of the plan is in a surplus position on the date of this actuarial valuation, this report is to be prepared on the basis that there will be no retroactive changes to previously filed partial windup reports, if any, and neither the applicable pension regulator nor the plan sponsor will order/declare any partial plan windup with an effective date prior to the actuarial valuation date.
- The hypothetical windup valuation results presented in this report are to be determined under a scenario where the employer continues to operate and certain expenses are paid from the pension fund (consistent with past practice) while the employer pays other plan expenses.
- This report is to be prepared on the basis that the employer is entitled to apply the actuarial surplus, if any, revealed in an actuarial valuation report to meet its contribution requirements under the plan while the plan remains a going concern, to the extent permitted by applicable pension legislation. (This report does not address the disposition of any surplus assets remaining in the event of plan windup.) If an applicable pension regulator or other entity with jurisdiction directs otherwise, certain financial measures contained in this report, including contribution requirements, may be affected.
- This report is to be prepared on the basis that the plan administrator is deferring the commencement of new going concern and solvency special payments determined in this report for 12 months.

Should these directions from the plan administrator be amended or withdrawn, Towers Watson reserves the right to amend or withdraw this report.

Appendix B: Assets

Statement of Market Value

	December 31, 2013	September 1, 2013
Defined Benefit Provision		
Invested assets:		
• Master fund	$ 394,953,579	$ 367,256,587
Adjustment for lump sum payments	$ 0	$ 4,541,396[1]
Net outstanding amounts:		
• Transfers receivable (payable)	$ (744,748)	$ 2,303,003
• Benefits payable	(599,966)	0
• Total net outstanding amounts	$ (1,344,714)	$ 2,303,003
Total	$ 393,608,865	$ 374,100,986
Optional ancillary contributions		
Invested assets	$ 1,819,540	$ 1,835,953
Total Assets	$ 395,428,405	$ 375,936,939

Note:

[1] No changes were assumed to plan members' status between December 31, 2012 and September 1, 2013. Therefore, the invested assets at September 1, 2013 were increased by the amount of year to date lump sum payments at September 1, 2013 (other than those outstanding at the previous valuation date) to ensure that assets and liabilities were determined using a consistent approach.

Comments:

- The invested assets under the defined benefit provision and the optional ancillary contribution are held by CIBC Mellon under account TQFS00020002.

- The data relating to the invested assets are based on the trust statements issued by CIBC Mellon. The data relating to net outstanding amounts were furnished by Torstar Corporation. All such data has been relied upon by Towers Watson following tests of reasonableness with respect to contributions, benefit payments, tranfers and investment income. However, Towers Watson has not independently audited or verified this data.

Asset Class Distribution

The following table shows the target asset allocation stipulated by the plan's defined benefit component investment policy in respect of various major asset classes and the actual asset allocation as at December 31, 2013.

	Target asset allocation [1]	**Asset allocation as at December 31, 2013** [2]
Canadian equities	20%	12.1%
Foreign equities	30%	29.9%
Fixed income	48%	55.9%
Cash and equivalents	2%	2.1%
Total	100%	100%

Notes:

[1] This information was obtained from the investment policy in effect for the plan as at June 1, 2014.

[2] This information was obtained from Metroland Media Group Ltd. All such data have been relied upon by Towers Watson and compared against the target asset allocation to assess reasonableness. However, Towers Watson has not independently audited or verified these data.

Reconciliation of Invested Assets (Market Value) — Defined Benefit Provision

Assets as at September 1, 2013		$ 367,256,587
Receipts:		
• Contributions:		
– Employer normal actuarial cost	$ 1,144,576	
– Employer amortization payments	1,855,370	
– Employer prepayments	4,414,586	
– Members' required contributions	603,621	
– Employer transfer deficiency payments	0	$ 8,018,153
• Investment return, net of all expenses		23,919,657
• Other receipts		0
• Total receipts		$ 31,937,810
Transfers:		
• Net inter-plan transfers		$ 4,822,403
• Net external transfers		0
• From optional ancillary contributions		0
• Total transfers		$ 4,822,403
Disbursements:		
• Benefit payments:		
– Pension payments	$ 6,663,963	
– Lump sum settlements	2,399,258	
– Other benefit payments	0	$ 9,063,221
• Other disbursements		0
• Total disbursements		$ 9,063,221
Assets as at December 31, 2013		$ 394,953,579

Comments:

- This reconciliation is based on the trust statements issued by CIBC Mellon. All such data has been relied upon by Towers Watson following tests of reasonableness with respect to contributions, benefit payments, transfers and investment income. However, Towers Watson has not independently audited or verified this data.
- The rate of return earned on the market value of assets, net of all expenses, from September 1, 2013 to December 31, 2013 is approximately 20.7% p.a.
- The reconciliation of invested assets do not include active members' optional ancillary contributions.

Development of the Going Concern Value of Assets

	2009	2010	2011	2012	2013
Master Trust adjusted market value as at December 31, 2009	653,155,362				
Net cash flow for period	(18,789,850)				
Assumed interest earned for period (at 6.25%)	40,243,926				
Master Trust adjusted market value as at December 31, 2010	674,609,438	699,179,871			
Net cash flow for period	8,330,679	8,330,679			
Assumed interest earned for period (at 6.25%)	42,419,478	43,955,130			
Master Trust adjusted market value as at December 31, 2011	725,359,595	751,465,680	709,988,117		
Net cash flow for period	19,250,005	19,250,005	19,250,005		
Assumed interest earned for period (at 5.75%)	42,253,880	43,754,979	41,370,020		
Master Trust adjusted market value as at December 31, 2012	786,863,480	814,470,664	770,608,142	785,932,326	
Net cash flow for period	8,170,475	8,170,475	8,170,475	8,170,475	
Assumed interest earned for period (at 5.50%)	43,499,172	45,017,567	42,605,129	43,447,959	
Master Trust adjusted market value as at December 31, 2013	838,533,127	867,658,706	821,383,746	837,550,760	901,146,271
Weighting for the adjusted market values	20%	20%	20%	20%	20%

Going Concern Value of Assets	
Weighted average of the adjusted market values for the Master Trust as at December 31, 2013	853,254,522
Ratio of weighted average of adjusted market values to actual market value for the Master Trust (prior to application of 15% market value corridor)	0.9469
Adjustment to adjusted market values for the Master Trust due to application of market value corridor	0.0000
Ratio of weighted average of adjusted market values to actual market value for the Master Trust (after application of 15% market value corridor)	0.9469
Market value of assets for the Toronto Star Pension Plan (prior to outstanding amounts)	394,953,579
Going concern value of assets (0.9469 x $394,953,579)	373,981,544
Net receivables (payables)	(1,344,714)
Going concern value of assets (net of outstanding amounts)	372,636,830

Comments:

- The asset valuation method is described in Appendix C.
- The starting value for each column is the actual market value of invested assets in the Master Trust at the indicated date excluding Defined Contribution balances for the Harlequin pension plan and members' optional ancillary contributions.
- The Master Trust includes the pension fund assets of various pension plans sponsored by the parent company, Torstar Corporation.
- The data related to the Master Trust assets is based on financial statements issued by CIBC Mellon This information has been relied upon by Towers Watson without further verification.
- Net cash flow was calculated as contributions less benefit payments and adjusted for net transfers on a cash basis during the year.

Appendix C: Actuarial Basis – Going Concern Valuation

Methods

Defined Benefit Provision

Asset Valuation Method

At this valuation, the going concern value of assets was calculated as the average of the market value of invested assets at the valuation date and the four previous years' adjusted market values. To obtain these adjusted market values, the market values at December 31 of each of the four preceding years were accumulated to the valuation date with net cash flow (i.e., contributions less benefit payments and adjusted for net transfers) and assumed interest earned. Net cash flows were assumed to occur uniformly throughout each year. Assumed interest earned for a year was set at the liability discount rate.

The going concern value of assets is developed in respect of the Master Trust, excluding members' optional ancillary contributions and Defined Contribution balances for the Harlequin pension plans. The ratio of the Master Trust actuarial value of assets and market value at the valuation date was then applied to the market value of invested assets of the Metroland Pension Plan. If necessary, the ratio was adjusted so that the going concern value of assets does not deviate more than 15%, in absolute terms, from the actual market value. Finally, the going concern value of assets was further adjusted for optional ancillary contribution account balances and net outstanding amounts.

The objective of the asset valuation method is to produce a smoother pattern of going-concern surplus (deficit) and hence a smoother pattern of contributions, consistent with the long-term nature of a going concern valuation.

Actuarial Cost Method

The actuarial liability and the normal actuarial cost were calculated using the traditional unit credit cost method.

The actuarial liability for each active members and members on long-term disability was calculated as the actuarial present value of the member's benefits accrued to date. The calculation of the actuarial present value of the member's benefits reflects additional entitlements which may arise due to the application of the 50% employer cost-sharing rule, and is at least equal to the member's contributions with interest.

The actuarial liability for retired members and beneficiaries and terminated vested members was calculated as the actuarial present value of their respective benefits.

The normal actuarial cost in respect of benefits for each active members and members on long-term disability was calculated as the actuarial present value of the member's benefits accruing in respect of credited service in the ensuing year, but not less than the member's required contributions. The employer normal actuarial cost for each active and disabled member was determined as the excess of the total normal actuarial cost over the member's required contributions. The normal actuarial cost rate determined by the traditional unit credit cost method will be stable over time if the demographic characteristics of the active and disabled members remain stable from actuarial valuation to actuarial valuation. All other things being equal, a population of active and disabled members whose average age increases (decreases) between actuarial valuations will result in an increasing (decreasing) normal actuarial cost rate.

Optional Ancillary Benefit Provision

Optional ancillary contribution account balances have been included in the going concern value of assets and in the actuarial liabilities.

Actuarial Assumptions — Defined Benefit Provision

	December 31, 2013	September 1, 2013
Economic Assumptions (per annum)		
Liability discount rate	5.50%	same
Escalation of YMPE under Canada/Québec Pension Plan [1]	3.00%	same
Escalation of *Income Tax Act (Canada)* maximum pension limitation [2]	3.00%	same
Rate of inflation	2.00%	same
Interest on members' contributions	3.50%	same
Demographic Assumptions		
Mortality	99% of 2014 Private Sector Canadian Pensioners' Mortality Table, projected generationally using Scale B	95% of 1994 Uninsured Pensioner Mortality Table, projected generationally using Scale AA
Withdrawal	Service-related rates (see Table 1)	same
Percentage of involuntary terminations of employment	Nil	same
Disability incidence/recovery	Nil	same
Retirement from active membership	Age-related rates (see Table 2)	same
Pension commencement after termination of employment	Age 60	same
Other		
Percentage of members with eligible spouses at pension commencement and electing joint and survivor pension form	66.67%	same
Years male spouse older than female spouse	3	same
Provision for non-investment expenses	None; return on plan assets is net of all expenses	same

Notes:

[1] The YMPE of $52,500 for 2014 is the starting value for the YMPE projection as at the current actuarial valuation and is indexed starting in 2015.

[2] The *Income Tax Act (Canada)* maximum pension limit of $2,770.00 per year of service in 2014 is the starting value for maximum pension limit projection as at the current valuation and is indexed starting in 2015.

Table 1 — Withdrawal Rates

Annual Rates

Service	Rate
0 to 3	0.100
4 to 7	0.100
8 to 11	0.050
12 to 15	0.050
16 to 19	0.040
20 to 23	0.030
24 to 27	0.030
over 27	0.000

Table 2 — Retirement Rates

Annual Rates

Age	Rate
55 to 59	0.080
60	0.200
61	0.300
62	0.400
63	0.300
64	0.300
65	1.000

Rationale for Actuarial Assumptions

The rationale for the material actuarial assumptions used in the going concern valuation is summarized below.

The going concern assumptions do not include margins for adverse deviations, except as noted below.

Liability discount rate

The assumption is an estimate of the expected long-term return on plan assets, a detailed determination of the discount rate is as follows:

Assumed asset mix	50% equity / 50% bonds
Assumed rate of inflation	2.00%
Expected long-term real return on equity portfolio	5.24%
Expected long-term real return on bonds portfolio	1.64%
Expected long-term real return on total portfolio	3.44%
Diversification and re-balancing effect	0.47%
Provision for estimated investment expenses (reflecting only passive management fees)	-0.05%
Provision for non-investment expenses expected to be paid from the plan	-0.20%
Margin for adverse deviation	-0.25%
Total, before rounding	5.41%
Rounded (nearest 25 bps) discount rate	5.50%

The expected long-term return is based on returns for each major asset class in which the plan is expected to be invested (net of investment expenses), the plan's investment policy with consideration of the effects of diversification and periodic rebalancing to maintain the target mix of the plan's investment policy. We have assumed that additional returns associated with employing an active investment management strategy would equal the additional expenses associated with employing such strategy. Consequently, we have disregarded any potential additional returns.

In carrying out the plan's investment policy, the plan administrator has opted to invest the plan's assets in a diversified portfolio, which includes certain asset classes subject to risk that provide potential for higher return. The expected long-term return for asset classes subject to risk includes an estimated risk premium. Based on historical experience, assets invested in instruments subject to risk are normally expected to yield higher returns in the long-run than assets invested in low-risk investments, but these returns may fluctuate significantly from year to year and not necessarily in line with changes in the plan's liabilities over long periods of time. As a result, investing in riskier asset classes will generally increase the potential for future asset-liability mismatch, which could lead to greater volatility in the plan's financial position and minimum contribution requirements.

Escalation of YMPE under Canada/Québec Pension Plan

The YMPE is indexed annually based on increases in the Industrial Aggregate Wage index for Canada. The assumption reflects an assumed rate of inflation of 2.00% per annum, plus an allowance of 1.00% per annum for the effect of real economic growth and productivity gains in the economy.

Escalation of Income Tax Act (Canada) maximum pension limitation

The maximum pension limitation under the *Income Tax Act (Canada)* is scheduled to be indexed annually based on assumed increases in the Industrial Aggregate Wage index. The assumption reflects an assumed rate of inflation of 2.00% per annum, plus an allowance of 1.00% per annum for the effect of real economic growth and productivity gains in the economy.

Rate of inflation

The assumption reflects an estimate of future rates of inflation considering economic and financial market conditions at the actuarial valuation date.

Mortality

The 2014 Private Sector Canadian Pensioners' Mortality Table (CPM2014Priv) is based on a mortality experience study for calendar years 1999 to 2008 conducted by the Canadian Institute of Actuaries on a sample of Canadian registered pension plans. The CPM2014Priv table allows adjustments to the mortality rates based on pension size and/or industry classification. Improvement Scale B (CPM-B) is a two-dimensional scale developed by the Canadian Institute of Actuaries based primarily on the mortality experience of pensioners under the Canada Pension Plan (CPP) and the Québec Pension Plan (QPP) up to 2007 as well as the assumptions used in the 26th CPP Actuarial Report.

Base mortality rates from the CPM2014Priv table, with a multiplier of 99% based on pension size, are considered reasonable for the actuarial valuation of the plan given that the mortality experience of the plan membership is insufficient to assess plan-specific experience, and there is no reason to expect the mortality experience of the plan to differ significantly from that of other pension plans covering membership groups with similar characteristics. Applying improvement scale CPM-B generationally provides allowance for improvements in mortality after 2014 and is considered reasonable for projecting mortality experience into the future.

No allowance has been made for mortality prior to retirement with respect to terminated vested members in order to approximate the value of pre-retirement death benefits.

At the previous actuarial valuation, the 1994 Uninsured Pensioner Mortality Table projected generationally using Scale AA was used, with a multiplier of 95%.

Withdrawal

The rates of withdrawal were developed based on a review of plan experience for the years 2001 to 2006 and an assessment of future expectations.

Percentage of involuntary terminations of employment

No allowance has been made for involuntary terminations of employment on the basis that the impact of including such an assumption and valuing statutory grow-in rights would not have a material impact on the actuarial valuation results.

Disability incidence/recovery

There are no disability benefits under the plan other than the accrual of retirement income (earnings remain constant) during disability. Consequently, the assumption of no incidence of disability or recovery therefrom makes an appropriate allowance, in combination with the other assumptions, for such continued accruals.

Retirement from active membership

The rates of retirement were developed based on a review of plan experience for the years 2001 to 2006 and an assessment of future expectations.

Pension commencement after termination of employment

All terminated members are assumed to commence their pension at age 60, which is the average expected pension commencement age for terminated members.

Percentage of members with eligible spouses at pension commencement and electing joint and survivor pension form

When provided, the actual data on the spouse and form of payment were used for retired members. For other members, the assumed percentage of members with a spouse is based on the percentages for the general population. All members with eligible spouses were assumed to elect a joint and survivor pension form.

Years male spouse older than female spouse

When provided, the actual data on the spouse were used for retired members. For other members, the assumption is based on surveys of the age difference in the general population and an assessment of future expectations for members of the plan.

Provision for non-investment expenses

The liability discount rate is net of all expenses (with the exception of any fees associated with employing an active investment management strategy). The assumed level of expenses reflected in the liability discount rate is based on recent experience of the plan and an assessment of future expectations.

Appendix D: Actuarial Basis – Solvency and Hypothetical Windup Valuations

Methods

Defined Benefit Provision

Asset Valuation Method

The market value of assets, adjusted for net outstanding amounts, has been used for the solvency and hypothetical windup valuations. The resulting value has been reduced by a provision for plan windup expenses.

Liability Calculation Method

The solvency and hypothetical windup liabilities were calculated using the traditional unit credit cost method.

The solvency and hypothetical windup liabilities for active members and members on long term disability were calculated as the actuarial present value of all benefits accrued up to the actuarial valuation date (treating all members as if vested). This calculation reflects additional entitlements which may arise due to the application of the 50% employer cost-sharing rule, and is at least equal to the member's contributions with interest.

The solvency and hypothetical windup liabilities for retired members and beneficiaries and terminated vested members were calculated as the actuarial present value of their respective benefits.

Other Considerations

The solvency and hypothetical windup valuations have been prepared on a hypothetical basis. In the event of an actual plan windup, the plan assets may have to be allocated between various classes of plan members or beneficiaries as required by applicable pension legislation. Such potential allocation has not been performed as part of these solvency and hypothetical windup valuations.

Optional Ancillary Benefit Provision

Optional ancillary contribution account balances have been included in the solvency value of assets and in the solvency and hypothetical windup liabilities.

Solvency Incremental Cost Actuarial Method

The defined benefit solvency incremental cost for a given year represents the present value, at the actuarial valuation date, of the expected aggregate change in the solvency liability during the year, increased for expected benefit payments during the year.

The solvency incremental cost reflects expected decrements and related changes in membership status, accrual of service, any expected changes in benefits, entitlements, members' contributions, pension formula or increases in the maximum pension limits, and projected pensionable earnings during the year.

The solvency incremental cost has been calculated for the year following the actuarial valuation date as the projected solvency liability at the end of the year, minus the solvency liability at the beginning of the year, increased for expected benefit payments during the year. Each of these amounts is discounted to the actuarial valuation date using the projected solvency liability discount rate.

The method used to calculate the projected solvency liability at the end of the year is the same as used in the solvency valuation.

Actuarial Assumptions — Defined Benefit Provision

	December 31, 2013	**September 1, 2013**
Economic Assumptions (per annum)		
Liability discount rate for settlement by:		
• Annuity purchase	3.80%	3.70%
• Commuted value	3.00% for 10 years, 4.60% thereafter	3.20% for 10 years, 4.40% thereafter
Discount rate for determining amortization payments [1]	3.66%	3.61%
Escalation of *Income Tax Act (Canada)* maximum pension limitation	Nil	same
Demographic Assumptions		
Mortality	1994 Uninsured Pensioner Mortality Table, projected generationally using Scale AA	same
Withdrawal	N/A	same
Disability incidence/recovery	N/A	same
Retirement/pension commencement	Described in detail on page D-6	same
Other		
Percentage of members with eligible spouses at pension commencement and electing joint and survivor pension form	66.67%	same
Years male spouse older than female spouse	3	same

Percentage of members receiving settlement by commuted value transfer [2]		
• Retired members and beneficiaries	0%	same
• Other members aged 55 years and over	0%	same
• Other members under 55 years old	100%	same
Provision for expenses		
• Solvency	$650,000	same
• Hypothetical windup	$650,000	same

Notes:

[1] Equal to the liability-weighted average of the liability discount rates for settlements by commuted value transfer (rate in effect for the first 10 years) and annuity purchase.

[2] The balance are assumed to receive settlement by annuity purchase.

Rationale for Actuarial Assumptions

The rationale for the material actuarial assumptions used in the solvency and hypothetical windup valuations is summarized below.

The actuarial assumptions used in the solvency and hypothetical windup valuations do not include margins for adverse deviations.

Liability discount rate

In the event of a plan windup, it is expected that a portion of the liabilities will be settled by a group annuity purchase and the balance of the liabilities will be settled by commuted value transfers.

For the calculation of the portion of the solvency and hypothetical windup liabilities relating to the benefits that are expected to be settled by a group annuity purchase, the liability discount rate corresponds to an approximation of the annuity purchase rates as at the actuarial valuation date following application of the relevant guidance on assumptions for solvency and hypothetical windup valuations issued by the Canadian Institute of Actuaries’ Committee on Pension Plan Financial Reporting. Effective June 30, 2013, the guidance was revised to reflect the duration of the liabilities for non-indexed benefits assumed to be settled by group annuity purchase in the approximation of the annuity purchase rate. The duration of the liabilities assumed to be settled through the purchase of non-indexed annuities is 9.8.

For the calculation of the portion of the solvency and hypothetical windup liabilities relating to the benefits that are expected to be settled by commuted value transfers, the liability discount rates have been determined in accordance with the *Standards of Practice for Pension Commuted Values* published by the Canadian Institute of Actuaries effective April 1, 2009 and revised effective February 1, 2011. For this actuarial valuation, the December 2013 rates have been used.

Escalation of Income Tax Act (Canada) maximum pension limitation

The *Income Tax Act (Canada)* maximum pension limitation specified in the Act as at the actuarial valuation date is applied without consideration for future scheduled increases, as pension entitlements are determined as at the actuarial valuation date.

Mortality

For benefits that are expected to be settled by commuted value transfers, the assumption has been determined in accordance with the *Standards of Practice for Pension Commuted Values* published by the Canadian Institute of Actuaries effective April 1, 2009 and revised effective February 1, 2011. For the benefits that are expected to be settled by a group annuity purchase, the assumption has been set following application of the relevant guidance on assumptions for solvency and hypothetical windup valuations issued by the Canadian Institute of Actuaries’ Committee onPension Plan Financial

Reporting. No pre-retirement mortality has been assumed in order to approximate the value of pre-retirement death benefits.

Retirement/pension commencement

- Members eligible to retire: pension commences at the age that produces the highest actuarial value (including statutory grow-in rights for members in Ontario).
- Members with age plus continuous service greater than or equal to 55 years and employed in Ontario: pension commences at the age that produces the highest actuarial value of pension (including statutory grow-in rights).
- Other members: pension commences at age 65.

For benefits that are expected to be settled by commuted value transfers, this assumption is in accordance with the Canadian Institute of Actuaries' *Standards of Practice for Pension Commuted Values*. For the benefits that are expected to be settled by a group annuity purchase, this is consistent with the expected assumption that will be used by insurers to price the group annuity.

Percentage of members with eligible spouses at pension commencement and electing joint and survivor pension form

See rationale for going concern assumptions in Appendix C.

Years male spouse older than female spouse

See rationale for going concern assumptions in Appendix C.

Percentage of members receiving settlement by commuted value transfer

This assumption has been determined by considering the benefit provisions of the plan, legislative requirements to offer specific settlement options to various classes of members, and, in particular, the options to be provided to members upon plan windup.

The assumption also reflects the expectation that members further from retirement are more likely to elect to settle their pension benefit by a commuted value transfer, while members closer to retirement are more likely to elect to settle their pension benefit through a group annuity purchase where this option is available.

Provision for expenses

Allowance was made for normal administrative, actuarial, legal and other costs which would be incurred if the plan were to be wound up (excluding costs relating to the resolution of surplus or deficit issues). The actuarial valuation is premised on a scenario in which the employer continues to operate after the windup date. In establishing the allowance for plan windup costs, certain administrative costs were assumed to be paid from the pension fund (consistent with past practice) while other costs were assumed to be borne directly by the employer.

Solvency Incremental Cost Actuarial Assumptions

Demographic and Benefit Projection Actuarial Assumptions

Except as noted below, the projected population, benefits and members' contributions valued in the solvency liability projection are based on the demographic and benefit projection assumptions used for the going concern valuation described in Appendix C.

New entrants

No allowance has been made for new entrants between the current actuarial valuation date and next actuarial valuation date in the demographic projections on the basis that the plan is closed to new entrants.

Solvency Liability Projection Actuarial Assumptions

The solvency liability projections for purposes of calculating the solvency incremental cost are based on the assumptions used for the solvency valuation described previously.

Appendix E: Membership Data

Summary of Membership Data

Active and disabled members

	December 31, 2013	September 1, 2013
Defined Benefit Provision		
• Number [1]	546	631
• Average age	51.9	51.9
• Average credited service	20.0	20.1
• Annual payroll [2]	$ 39,332,879	$ 46,153,236
• Average salary	$ 75,786	$ 76,539

Notes:

[1] Includes 27 members not accruing service as at December 31, 2013 and 28 members not accruing service as at September 1, 2013.

[2] For members accruing service.

The following distribution relates to members under the defined benefit provision:

- Page E-3 Active and disabled members
- Page E-5 Retired members and beneficiaries
- Page E-6 Terminated vested members

The following definitions apply to the distribution that follow:

- Age Age as at December 31, 2013
- Credited Service Credited service as at December 31, 2013
- Accrued Pension Annual pension payable as at December 31, 2013, payable as follows:
  - Active and disabled members: accrued pension payable at earliest unreduced retirement age
  - Retired members and beneficiaries: payable as at December 31, 2013
  - Terminated vested members: payable at later of age 65 and age at December 31, 2013

  Active members' accrued pension are calculated prior to application of Income Tax Act maximum pension limitations.

Active and Disabled Members

		Credited Service								
Age		*0 - 4*	*5 - 9*	*10 - 14*	*15 - 19*	*20 - 24*	*25 - 29*	*30 - 34*	*35 +*	*Total*
< 20	Number									
	Total Accrued Pension									
	Average Accrued Pension									
20 - 24	Number									
	Total Accrued Pension									
	Average Accrued Pension									
25 - 29	Number									
	Total Accrued Pension									
	Average Accrued Pension									
30 - 34	Number	3	4	2						9
	Total Accrued Pension	13,183	33,255	26,960						73,399
	Average Accrued Pension	4,394	8,314	13,480						8,155
35 - 39	Number	4	12	13	1					30
	Total Accrued Pension	14,520	112,927	145,293						
	Average Accrued Pension	3,630	9,411	11,176						
40 - 44	Number	1	6	29	14	3				53
	Total Accrued Pension		60,365	425,783	250,611	61,995				
	Average Accrued Pension		10,061	14,682	17,901	20,665				
45 - 49	Number	1	11	36	19	21	18			106
	Total Accrued Pension		104,452	486,669	367,745	485,488	461,107			
	Average Accrued Pension		9,496	13,519	19,355	23,118	25,617			
50 - 54	Number	1	10	30	26	26	48	20		161
	Total Accrued Pension		85,790	429,697	521,489	673,133	1,407,522	652,988		
	Average Accrued Pension		8,579	14,323	20,057	25,890	29,323	32,649		
55 - 59	Number	1	3	16	22	15	25	17	11	110
	Total Accrued Pension		31,263	251,133	448,634	431,792	845,891	598,221	396,126	
	Average Accrued Pension		10,421	15,696	20,392	28,786	33,836	35,189	36,011	
60 - 64	Number	1	2	8	6	11	14	8	16	66
	Total Accrued Pension		31,052	136,289	117,716	328,654	513,857	314,186	646,721	
	Average Accrued Pension		15,526	17,036	19,619	29,878	36,704	39,273	40,420	
65 +	Number	2		2	4		1		2	11
	Total Accrued Pension	976		44,010	108,067				115,982	
	Average Accrued Pension	488		22,005	27,017				57,991	
Total	Number	14	48	136	92	76	106	45	29	546
	Total Accrued Pension	42,060	459,104	1,945,835		1,981,061		1,565,395	1,158,829	12,259,843
	Average Accrued Pension	3,004	9,565	14,308		26,067		34,787	39,960	22,454

Average Age = 51.9 Average Credited Service = 20.0

Retired members and beneficiaries

	December 31, 2013	September 1, 2013
● Number	1,103	1,073
● Average age	72.9	73.5
● Total lifetime annual pension	$ 19,329,480	$ 18,442,094
● Average lifetime annual pension	$ 17,524	$ 17,187
● Total temporary annual pension to age 65	$ 1,081,011	$ 641,451

Terminated vested members

	December 31, 2013	September 1, 2013
● Number	80	84
● Average age	50.2	50.2
● Total annual pension	$ 700,701	$ 743,323
● Average annual pension	$ 8,759	$ 8,849

Retired Members and Beneficiaries

Age		*Total*
< 55	Number	5
	Total Pension	48,938
	Average Pension	9,788
55 - 59	Number	81
	Total Pension	1,711,582
	Average Pension	21,131
60 - 64	Number	168
	Total Pension	4,434,424
	Average Pension	26,395
65 - 69	Number	234
	Total Pension	5,569,970
	Average Pension	23,803
70 - 74	Number	177
	Total Pension	3,262,238
	Average Pension	18,431
75 - 79	Number	154
	Total Pension	2,198,808
	Average Pension	14,278
80 - 84	Number	149
	Total Pension	1,793,298
	Average Pension	12,036
85 - 89	Number	88
	Total Pension	1,015,040
	Average Pension	11,535
90 +	Number	47
	Total Pension	376,193
	Average Pension	8,004
Total	Number	1,103
	Total Pension	20,410,491
	Average Pension	18,505

Average Age = 72.9

Terminated Vested Members

Age		*Total*
< 30	Number	
	Total Pension	
	Average Pension	
30 - 34	Number	2
	Total Pension	4,742
	Average Pension	2,371
35 - 39	Number	8
	Total Pension	43,796
	Average Pension	5,475
40 - 44	Number	14
	Total Pension	84,691
	Average Pension	6,049
45 - 49	Number	16
	Total Pension	115,428
	Average Pension	7,214
50 - 54	Number	14
	Total Pension	150,097
	Average Pension	10,721
55 - 59	Number	16
	Total Pension	232,878
	Average Pension	14,555
60 - 64	Number	8
	Total Pension	64,361
	Average Pension	8,045
65 +	Number	2
	Total Pension	4,707
	Average Pension	2,354
Total	Number	80
	Total Pension	700,701
	Average Pension	8,759

Average Age = 50.2

Review of Membership Data

The membership data were supplied by ACS, Torstar Corporation's third party administrator, as at December 31, 2013.

The membership data have been relied upon by Towers Watson following tests for reasonableness and found to be sufficient and reliable for the purposes of the actuarial valuation. Elements of the data review included the following:

- ensuring that the data were intelligible (i.e., that an appropriate number of records was obtained, that the appropriate data fields were provided and that the data fields contained valid information);
- preparation and review of membership reconciliations to ascertain whether the complete membership of the plan appeared to be accounted for;
- preparation and review of age and service distributions for active and disabled members for reasonableness;
- review of consistency of individual data items and statistical summaries between the current actuarial valuation and the previous actuarial valuation;
- review of reasonableness of individual data items, statistical summaries and changes in such information since the previous actuarial valuation date; and
- comparison of the membership data and the plan's financial statements for consistency.

However, the tests conducted as part of the membership data review may not have captured certain deficiencies in the data. We have also relied on the certification of the plan administrator as to the quality of the data.

Membership Reconciliation — Defined Benefit Provision

	Active and disabled members	Retired members and beneficiaries	Terminated vested members	Total
As at September 1, 2013	631	1,073	84	1,788
• New entrants (including re-employed)	3	0	0	3
• Termination	(3)	0	3	0
• Settlement	(32)	0	(5)	(37)
• Transferred	(5)	0	0	(5)
• Retirement	(48)	49	(1)	0
• New beneficiaries	0	10	0	10
• Deceased (with beneficiary)	0	(10)	0	(10)
• Deceased (without beneficiary)	0	(24)	0	(24)
• Data correction	0	5	(1)	4
• Net change	(85)	30	(4)	(59)
As at December 31, 2013	546	1,103	80	1,729

Appendix F: Summary of Plan Provisions

The following is an outline of the principal features of the plan which are of financial significance to valuing the plan benefits. This summary is based on the most recently restated plan document as of September 30, 1953, as provided by Torstar Corporation, and does not make any provisions for the possibility that a change or action (retroactive or otherwise) could be imposed by order of a regulatory body or a court. It is not a complete description of the plan terms and should not be relied upon for administration or interpretation of benefits. For a detailed description of the benefits, please refer to the plan document.

Defined Benefit Provision

Definitions

Base Year

Year used in computing accrued pension. Effective January 1, 2008, the Base Year was updated from 2004 to 2005.

Credited Service

The sum of Credited Past Service, Credited Prior Service and Credited Future Service. Credited Past Service means pensionable service prior to the Plan Effective Date. Credited Prior Service means pensionable service from the Effective Date until the end of the Base Year. Credited Future Service means the portion of member's service which is subsequent to the Base Year. Credited Service is multiplied monthly by the ratio of part time hours worked to full time hours determined for the member's employment category.

Earnings

All compensation received by the member excluding job and shift differential pay, overtime pay, premium pay, expense allowances, bonuses and incentive payments.

Eligible Earnings

Earnings less 31.25% of the lesser of the YMPE and Earnings.

YMPE

Year’s Maximum Pensionable Earnings as defined in the Canada Pension Plan.

Employee

Person who is regularly employed and remunerated by the Employer, on a full-time or part-time basis and who is represented by a union with which the Employer has a collective bargaining agreement.

Employer

Torstar Corporation and such companies as may be designated by Torstar Corporation from time to time.

Required Contributions

Members are required to contribute 6% of Eligible Earnings. Photo-Engravers employed prior to July 21, 1992 can elect not to contribute and accrue non-contributory benefits. Required contributions in respect of members on long-term disability are made by the Employer on behalf of the members.

Eligibility for the Plan

A Prior Plan member who is not represented by a union with which the Employer has a collective bargaining agreement is automatically a member of the Plan on the Plan Effective Date.

A full-time Employee, other than a Photo-Engraver employed prior to July 21, 1992, becomes a member upon the completion of three months of service. A part-time Employee can elect to become a member upon the completion of three months of service.

A full-time Photo-Engraver employed prior to July 21, 1992 may elect to become a contributory member upon meeting the criteria above. If the full-time Photo-Engraver does not elect to become a contributory member, he shall become a non-contributory member upon the completion of three months of service and attainment of age 30.

Effective January 26, 2008 an Employee who is hired on or after January 26, 2008 shall not be eligible to join the Plan but shall be eligible to join the applicable defined contribution pension plan or group registered retirement savings plan sponsored by the Company in accordance with the eligibility provisions of such plan.

Excess Contributions

The portion of the member's Required Contributions to the Plan made on and after January 1, 1987 together with interest, which is in excess of 50% of the commuted value of the contributory pension benefit earned on and after January 1, 1987.

Normal Retirement

Eligibility

Last day of the month in which the member attains age 65.

Accrued Benefit

Sum of the Past Service Benefit, Prior Service Benefit and the Future Service Benefit:

Past Service Benefit

2% (1% for non-contributory service) of Eligible Earnings in the Base Year multiplied by Credited Past Service.

Prior Service Benefit

2% (1% for non-contributory service) of Eligible Earnings in the Base Year multiplied by Credited Prior Service.

Future Service Benefit

2% (1% for non-contributory service) of Eligible Earnings in each year of Credited Future Service.

The commuted value of the member’s pension benefit accrued from January 1, 1966 to December 31, 1986 shall not be less than the balance of the member’s Required Contributions made during the period together with interest.

The Accrued benefit for members who suspended their membership in the plan as of August 30, 1992 is determined based on their Credited Service as of August 30, 1992 and using a Base Year of 1989.

Early Retirement

Eligibility

Last day of any month within the 10 years preceding normal retirement date.

Accrued Benefit

The normal retirement benefit accrued to date reduced by 1/12 of 4% for each month (if any) preceding age 62.

Postponed Retirement

Eligibility

With consent, a member may retire on the last day of any month preceding the first day of December in the year the member attains age 71.

Accrued Benefit

The normal retirement benefit with Credited Future Service continued to actual retirement.

Form of Payment

Normal Form

Single Members

Life with 10-year guarantee.

Members with Spouse

60% joint and survivor pension actuarially equivalent to the normal form for single members.

Optional Forms

Available on an actuarially equivalent basis.

Death Benefits

Prior to Retirement

Prior to Completing 15 Years of Credited Service:

- lump sum payment equal to Required Contributions before January 1, 1987 together with interest, plus Excess Contributions, if any; and
- commuted value of the benefit earned by the member for Credited Service on and after January 1, 1987.

After the Completion of 15 Years of Credited Service:

- spouse entitled to a monthly income equal to 50% of the benefit accrued before January 1, 1987 using the member's date of death as the date of determination. The value of this benefit must be greater than or equal to the Required Contributions made before January 1, 1987 together with interest. If there is no spouse, the beneficiary is entitled to the member's Required Contributions made before January 1, 1987 together with interest; and
- spouse entitled to a monthly income equal to 50% of the benefit accrued on and after January 1, 1987 using the member's date of death as the date of determination. The value of this benefit must be greater than or equal to the commuted value of the benefit earned by the member on and after January 1, 1987. If there is no spouse, the beneficiary is entitled to the commuted value of the benefit earned by the member on and after January 1, 1987; and
- the beneficiary or spouse is also entitled to a refund of Excess Contributions, if any.

After Retirement

In accordance with the form of pension payable.

Termination Benefit

Prior to Completing 15 Years of Credited Service

- lump sum payment equal to Required Contributions made before January 1, 1987 together with interest; and
- commuted value of the benefit earned for Credited Service on and after January 1, 1987; and
- Excess Contributions, if any.

After 15 Years of Credited Service and Prior to Attaining Age 45 and Completing 10 Years of Continuous Service

- lump sum payment equal to Required Contributions made before January 1, 1987 together with interest or the commuted value of the benefit earned for Credited Service before January 1, 1987; and
- commuted value of the benefit earned for Credited Service on and after January 1, 1987; and
- Excess Contributions, if any.

After Attaining Age 45 and Completing 10 Years of Continuous Service

- commuted value of the benefit earned; and
- Excess Contributions, if any.

In lieu of a commuted value, the member may elect to receive the corresponding benefit payable in accordance with the normal form and commencing at normal retirement. Earlier commencement is permitted on a reduced basis as follows:

Period in Months by Which the Pension Commencement Date Precedes the Normal Retirement Date	Early Retirement Factor
0	100%
12	100%
24	100%
36	100%
48	96%
60	90%
72	82%
84	72%
96	68%
108	64%
120	60%

Maximum Pension

The Accrued pension shall be limited to the current Income Tax Act (Canada) limit, or such higher amount as permitted from time to time. Upon early retirement, the Maximum Pension is reduced by ¼% per month that early retirement precedes the earliest of age 60, 30 years of continuous service or 80 points (age plus continuous service).

Optional Ancillary Contributions

Plan members are permitted to make optional contributions to the plan. The contributions, which are tracked individually by member, earn investment income based on investment returns in the Torstar master trust. Upon termination or retirement, a member's optional contributions with interest are used to purchase ancillary benefits (such as improved early retirement benefits, bridge pensions, subsidized spousal survivor pensions, indexation, etc.) to the extent permitted under the Income Tax Act (Canada). Any excess optional contributions which cannot be used to purchase ancillary benefits are forfeited and remain in the plan's fund.

Disability Benefits

Members continue to accrue credited service while on long-term disability based on their earnings just prior to becoming disabled. Members' required contributions stop during long-term disability and are paid by the Employer.

Appendix G: PBGF Assessment, Transfer Ratio and Solvency Ratio

PBGF Assessment

	December 31, 2013
PBGF Assessment	
Solvency liability:	
• Total	$ 408,765,418
• Ontario PBGF liability	408,765,418
• Ontario additional PBGF liability	0
Solvency value of assets:	
• Total	$ 395,428,405
• Ontario PBGF assets	395,428,405
PBGF assessment base	$ 13,337,013
Plan membership (including inactive members):	
• Total	1,729
• Ontario	1,729

Comments:

- The solvency value of assets reflects net outstanding amounts and optional ancillary contribution account balances. The solvency value of assets is prior to deduction of a provision for plan windup expenses.
- The Ontario PBGF liability used for purposes of calculating the PBGF assessment excludes the Ontario additional PBGF liability.
- As specified in the Regulation to the *Pension Benefits Act (Ontario)*, the additional PBGF liability is the additional solvency liability for plant closure and permanent layoff benefits excluded for those Ontario members who are immediately eligible for the benefit at the actuarial valuation date, if any.

Transfer Ratio and Solvency Ratio

	December 31, 2013
Transfer Ratio	
Solvency value of assets	$ 395,428,405
Lesser of estimated employer contributions for the period until the next actuarial valuation and prior year credit balance	$ 18,751,691
Hypothetical windup liability	$ 408,765,418
Transfer ratio	0.92
Solvency Ratio	
Solvency value of assets	$ 395,428,405
Solvency liability	$ 408,765,418
Solvency ratio	0.97

Comments:

- The solvency value of assets reflects net outstanding amounts and optional ancillary contribution account balances. The solvency value of assets is prior to deduction of a provision for plan windup expenses.
- As the transfer ratio is less than 1.00, transfer deficiencies must be paid over a maximum period of five years unless the cumulative transfer deficiencies are within the limits prescribed by the Regulation to the *Pension Benefits Act (Ontario)* or the employer remits additional contributions in respect of the transfer deficiencies. Pursuant to Regulations 19(4) or 19(5) to the *Pension Benefits Act (Ontario)*, approval of the Superintendent will be required to make commuted value transfers if there has been a significant decline in the transfer ratio after the actuarial valuation date.
- Based on the solvency ratio defined as the ratio of solvency value of assets to solvency liabilities, the next actuarial valuation of the plan is due with an effective date not later than December 31, 2016.

Appendix H: Certificate of the Plan Administrator

I hereby certify that to the best of my knowledge and belief:

- the significant terms of engagement contained in Appendix A of this report are accurate and reflect the plan administrator's judgement of the plan provisions and/or an appropriate basis for the actuarial valuation of the plan;
- the information on plan assets forwarded to Towers Watson Canada Inc. and summarized in Appendix B of this report is complete and accurate;
- the data forwarded to Towers Watson Canada Inc. and summarized in Appendix E of this report are a complete and accurate description of all persons who are members of the plan, including beneficiaries who are in receipt of a retirement income, in respect of service up to the date of the actuarial valuation;
- the summary of plan provisions contained in Appendix F of this report is accurate; and
- there have been no events which occurred between the actuarial valuation date and the date this actuarial valuation was completed that may have a material financial effect on the actuarial valuation.

Signature	Sept 26, 2014 Date
D.F. SMITH Name	TREASURER Title

Appendix I: Annual Information Summary