



UNIVERSITY OF  
**TORONTO**

**University of Toronto Pension Plans**

**Annual Financial Report**

**For the Year Ended June 30, 2014**

## University of Toronto Pension Plan Eleven-year Review

(Canadian \$ millions)	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
<b>CHANGE IN NET ASSETS</b>											
<b>Income</b>											
Investment income	\$527.2	\$330.2	\$46.1	\$286.1	\$182.7	(\$721.5)	(\$147.4)	\$499.4	\$197.1	\$244.0	\$296.4
Contributions											
Members/transfers in	56.2	46.9	41.7	41.9	37.6	36.8	34.8	32.4	29.7	28.0	27.8
University	307.1	157.2	133.8	242.9	88.4	87.1	71.4	69.4	84.0	60.6	41.0
<b>Total income</b>	<b>890.5</b>	<b>534.3</b>	<b>221.6</b>	<b>570.9</b>	<b>308.7</b>	<b>(597.6)</b>	<b>(41.2)</b>	<b>601.2</b>	<b>310.8</b>	<b>332.6</b>	<b>365.2</b>
<b>Expenditures</b>											
Benefits paid/transfers out	182.5	178.3	166.5	154.3	145.6	143.7	136.6	136.8	125.9	109.4	103.5
Investment expenses	26.3	24.5	23.7	22.2	22.1	25.7	25.4	22.5	13.8	12.9	11.5
Client service expenses	1.7	2.2	1.9	2.0	1.9	2.4	2.3	2.1	1.8	1.5	1.6
<b>Total expenditures</b>	<b>210.5</b>	<b>205.0</b>	<b>192.1</b>	<b>178.5</b>	<b>169.6</b>	<b>171.8</b>	<b>164.3</b>	<b>161.4</b>	<b>141.5</b>	<b>123.8</b>	<b>116.6</b>
<b>Increase/(decrease) in net assets</b>	<b>\$680.0</b>	<b>\$329.3</b>	<b>\$29.5</b>	<b>\$392.4</b>	<b>\$139.1</b>	<b>(\$769.4)</b>	<b>(\$205.5)</b>	<b>\$439.8</b>	<b>\$169.3</b>	<b>\$208.8</b>	<b>\$248.6</b>
<b>NET ASSETS</b>											
<b>Investments</b>											
Fixed income											
Bonds	\$843.4	\$641.1	\$622.8	\$511.3	\$402.8	\$308.5	\$634.2	\$659.5	\$535.6	\$796.0	\$804.5
Public Equities											
Canadian	356.2	242.6	417.7	381.9	269.9	199.8	425.2	453.0	293.9	315.5	307.6
Non-Canadian	1011.9	754.5	514.8	775.5	594.0	537.3	977.3	1199.6	980.7	661.1	919.2
Private equities	430.1	385.7	332.8	330.4	354.4	281.3	236.3	119.9	81.9	73.5	55.5
Commodities	54.9	57.4	52.2	51.6	48.1	38.3	41.0	76.4	68.8	9.6	0.3
Real assets											
Real estate	74.5	113.8	78.8	70.8	55.2	56.3	72.7	43.0	17.2		
Infrastructure	23.7	26.1	25.7	25.6	20.0	13.5	7.5				
Hedge Funds	425.0	406.0	365.6	304.5	344.8	380.2	226.7	197.0	442.8	416.7	15.8
Money market	269.7	220.6	92.4	5.6	16.5	148.2	132.0	65.1	35.3	33.4	15.0
Derivative-related net receivable (payable)	24.3	(10.9)	3.0	18.4	(22.0)	(17.4)	(37.2)	110.3	26.7	7.0	(11.7)
<b>Net investments</b>	<b>3,513.7</b>	<b>2,836.9</b>	<b>2,505.8</b>	<b>2,475.6</b>	<b>2,083.7</b>	<b>1,946.0</b>	<b>2,715.7</b>	<b>2,923.8</b>	<b>2,482.9</b>	<b>2,312.8</b>	<b>2,106.2</b>
Other assets	15.5	15.5	13.8	12.4	12.7	12.2	12.5	10.3	11.8	10.8	8.8
<b>Total assets</b>	<b>3,529.2</b>	<b>2,852.4</b>	<b>2,519.6</b>	<b>2,488.0</b>	<b>2,096.4</b>	<b>1,958.2</b>	<b>2,728.2</b>	<b>2,934.1</b>	<b>2,494.7</b>	<b>2,323.6</b>	<b>2,115.0</b>
Liabilities	(4.1)	(7.3)	(3.8)	(1.7)	(2.5)	(3.4)	(4.0)	(4.4)	(4.8)	(3.0)	(3.2)
<b>Net assets</b>	<b>3,525.1</b>	<b>2,845.1</b>	<b>2,515.8</b>	<b>2,486.3</b>	<b>2,093.9</b>	<b>1,954.8</b>	<b>2,724.2</b>	<b>2,929.7</b>	<b>2,489.9</b>	<b>2,320.6</b>	<b>2,111.8</b>
Accrued pension benefits	4,222.2	3,800.6	3,631.0	3,443.5	3,126.0	2,983.8	2,889.6	2,745.8	2,540.6	2,407.0	2,225.0
<b>GOING CONCERN (DEFICIT)/SURPLUS</b>	<b>(\$697.1)</b>	<b>(\$955.5)</b>	<b>(\$1,115.2)</b>	<b>(\$957.2)</b>	<b>(\$1,032.1)</b>	<b>(\$1,029.0)</b>	<b>(\$165.4)</b>	<b>\$183.9</b>	<b>(\$50.7)</b>	<b>(\$86.4)</b>	<b>(\$113.2)</b>
<b>SOLVENCY (DEFICIT)/SURPLUS</b>	<b>(\$1,011.1)</b>	<b>(\$1,314.9)</b>	<b>(\$1,747.9)</b>	<b>(\$1,011.5)</b>	<b>(\$1,171.3)</b>	<b>(\$880.0)</b>	<b>(\$65.5)</b>	<b>\$300.3</b>	<b>\$21.3</b>	<b>(\$10.6)</b>	<b>\$200.7</b>
<b>HYPOTHETICAL WIND-UP DEFICIT</b>	<b>(\$2,721.8)</b>	<b>(\$2,910.5)</b>	<b>(\$3,103.5)</b>	<b>(\$2,269.3)</b>	<b>(\$2,151.7)</b>	<b>(\$1,826.3)</b>	<b>(\$1,139.0)</b>	<b>(\$512.9)</b>	<b>(\$800.1)</b>	<b>(\$701.1)</b>	<b>(\$487.3)</b>
<b>PERFORMANCE (%)</b>											
Rate of return	17.4	12.1	0.9	12.7	8.2	(27.6)	(5.9)	20.0	7.0	10.9	16.3
Target return	6.2	5.2	5.5	7.2	5.0	3.7	7.1	6.2	6.5	5.7	6.5
<b>PARTICIPANTS</b>	<b>17,701</b>	<b>17,252</b>	<b>16,854</b>	<b>16,437</b>	<b>16,041</b>	<b>15,595</b>	<b>15,253</b>	<b>14,727</b>	<b>14,254</b>	<b>13,934</b>	<b>13,403</b>
<b>GOING CONCERN KEY ACTUARIAL ASSUMPTIONS</b>											
Increase in consumer price index (CPI)	2.00%	2.25%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Increase in salaries	4.00%	4.25%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.00%
Discount rate on liabilities	5.75%	6.00%	6.25%	6.25%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%

# University of Toronto (OISE) Pension Plan Eleven-year Review

(Canadian \$ millions)	2014	2013	2012	2011	2010	2009	2008	2007	2006	2005	2004
<b>CHANGE IN NET ASSETS</b>											
<b>Income</b>											
Investment income	\$14.5	\$9.8	\$1.4	\$10.3	\$7.1	(\$28.2)	(\$6.3)	\$23.0	\$9.1	\$11.6	\$14.4
Contributions											
Members/transfers in	0.4	0.4	0.4	0.5	0.5	0.5	0.6	0.6	0.6	0.6	0.7
University	4.1	4.2	7.2	0.0	0.0	0.0	0.0	0.0	0.0	0.0	0.0
<b>Total income</b>	<b>19.0</b>	<b>14.4</b>	<b>9.0</b>	<b>10.8</b>	<b>7.6</b>	<b>(27.7)</b>	<b>(5.7)</b>	<b>23.6</b>	<b>9.7</b>	<b>12.2</b>	<b>15.1</b>
<b>Expenditures</b>											
Benefits paid/transfers out	6.5	7.6	7.1	6.1	4.9	5.1	18.4	4.3	3.9	4.0	2.9
Investment expenses	0.9	0.8	1.2	1.2	1.0	1.4	1.4	1.3	0.7	0.7	0.7
Client service expenses	0.2	0.2	0.3	0.2	0.4	0.2	0.2	0.2	0.3	0.3	0.2
<b>Total expenditures</b>	<b>7.6</b>	<b>8.6</b>	<b>8.6</b>	<b>7.5</b>	<b>6.3</b>	<b>6.7</b>	<b>20.0</b>	<b>5.8</b>	<b>4.9</b>	<b>5.0</b>	<b>3.8</b>
<b>Increase/(decrease) in net assets</b>	<b>\$11.4</b>	<b>\$5.8</b>	<b>\$0.4</b>	<b>\$3.3</b>	<b>\$1.3</b>	<b>(\$34.4)</b>	<b>(\$25.7)</b>	<b>\$17.8</b>	<b>\$4.8</b>	<b>\$7.2</b>	<b>\$11.3</b>
<b>NET ASSETS</b>											
<b>Investments</b>											
<b>Fixed income</b>											
Bonds	\$22.4	\$18.6	\$19.0	\$15.6	\$14.1	\$11.4	\$26.6	\$29.6	\$24.5	\$37.5	\$38.8
Public Equities											
Canadian	9.5	7.0	12.7	11.6	9.4	7.4	17.8	20.4	13.5	14.8	14.8
Non-Canadian	26.9	21.8	15.7	23.6	20.8	19.8	41.0	53.9	44.9	31.0	44.4
Private equities	11.4	11.2	10.1	10.1	12.4	10.4	9.9	5.4	3.7	3.5	2.7
Commodities	1.5	1.7	1.6	1.6	1.7	1.4	1.7	3.4	3.1	0.5	
<b>Real assets</b>											
Real estate	2.0	3.2	2.4	2.2	1.9	2.1	3.1	1.9	0.8		
Infrastructure	0.6	0.7	0.8	0.8	0.7	0.5	0.3				
Hedge Funds	11.4	11.8	11.1	9.3	12.0	14.0	9.5	8.9	20.3	19.6	0.8
Money market	7.1	6.4	2.8	(0.8)	1.7	6.3	7.9	(3.3)	0.2	1.3	1.3
Derivative-related net receivable (payable)	0.6	(0.3)	0.1	1.4	(1.9)	(1.6)	(3.8)	11.1	2.6	0.7	(1.2)
<b>Net investments</b>	<b>93.4</b>	<b>82.1</b>	<b>76.3</b>	<b>75.4</b>	<b>72.8</b>	<b>71.7</b>	<b>114.0</b>	<b>131.3</b>	<b>113.6</b>	<b>108.9</b>	<b>101.6</b>
Other assets	0.6	0.6	0.6	1.2	0.5	0.4	0.4	0.4	0.4	0.3	0.3
<b>Total assets</b>	<b>94.0</b>	<b>82.7</b>	<b>76.9</b>	<b>76.6</b>	<b>73.3</b>	<b>72.1</b>	<b>114.4</b>	<b>131.7</b>	<b>114.0</b>	<b>109.2</b>	<b>101.9</b>
Liabilities	(0.3)	(0.4)	(0.4)	(0.5)	(0.5)	(0.6)	(8.5)	(0.1)	(0.2)	(0.2)	(0.1)
<b>Net assets</b>	<b>93.7</b>	<b>82.3</b>	<b>76.5</b>	<b>76.1</b>	<b>72.8</b>	<b>71.5</b>	<b>105.9</b>	<b>131.6</b>	<b>113.8</b>	<b>109.0</b>	<b>101.8</b>
Accrued pension benefits	126.0	116.0	117.8	116.1	109.0	106.6	104.2	115.3	108.6	103.7	97.6
<b>GOING CONCERN (DEFICIT)/SURPLUS</b>	<b>(\$32.4)</b>	<b>(\$33.7)</b>	<b>(\$41.3)</b>	<b>(\$40.0)</b>	<b>(\$36.2)</b>	<b>(\$35.1)</b>	<b>\$1.7</b>	<b>\$16.3</b>	<b>\$5.2</b>	<b>\$5.3</b>	<b>\$4.2</b>
<b>SOLVENCY (DEFICIT)/SURPLUS</b>	<b>(\$43.9)</b>	<b>(\$48.9)</b>	<b>(\$63.1)</b>	<b>(\$46.1)</b>	<b>(\$45.1)</b>	<b>(\$33.0)</b>	<b>\$3.2</b>	<b>\$17.3</b>	<b>\$5.0</b>	<b>\$8.1</b>	<b>\$15.3</b>
<b>HYPOTHETICAL WIND-UP DEFICIT</b>	<b>(\$89.3)</b>	<b>(\$94.4)</b>	<b>(\$102.1)</b>	<b>(\$86.0)</b>	<b>(\$77.9)</b>	<b>(\$67.4)</b>	<b>(\$35.1)</b>	<b>(\$11.7)</b>	<b>(\$27.7)</b>	<b>(\$18.8)</b>	<b>(\$6.9)</b>
<b>PERFORMANCE (%)</b>											
Rate of return	17.4	12.1	0.9	12.7	8.2	(27.6)	(5.9)	20.0	7.0	10.9	16.3
Target return	6.2	5.2	5.5	7.2	5.0	3.7	7.1	6.2	6.5	5.7	6.5
<b>PARTICIPANTS</b>	<b>247</b>	<b>251</b>	<b>259</b>	<b>265</b>	<b>270</b>	<b>270</b>	<b>274</b>	<b>304</b>	<b>308</b>	<b>319</b>	<b>322</b>
<b>GOING CONCERN KEY ACTUARIAL ASSUMPTIONS</b>											
Increase in consumer price index (CPI)	2.00%	2.25%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%	2.50%
Increase in salaries	4.00%	4.25%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.50%	4.00%
Discount rate on liabilities	5.75%	6.00%	6.25%	6.25%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%

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## Purpose of this Report

The Governing Council of the University of Toronto (the “University of Toronto” or the “University”) provides pension benefits to current and future retired members via three defined benefit pension plans:

- the University of Toronto Pension Plan (RPP).
- the University of Toronto (OISE) Pension Plan (RPP(OISE)).
- the Supplemental Retirement Arrangement (SRA), an unregistered arrangement that provides pensions above the maximum pension benefit allowed under the Income Tax Act, up to a University specified maximum salary of \$150,000.

The Governing Council of the University of Toronto is the legal administrator of the registered RPP and RPP(OISE), both of which are separate legal entities.

The Pension Committee of Governing Council is composed of 11 members of Governing Council and 9 members representing employee groups with members who participate in the pension plans. It has delegated authority<sup>1</sup> to act for Governing Council in respect of the administration of the pension plans except for matters which Governing Council or its Business Board are required by statute to approve; or which are reserved to Governing Council or the Business Board via the Pension Committee terms of reference, as amended from time to time by Governing Council.

Plan advisors are State Street Trust Company (custodian of assets), Aon Hewitt (actuaries), Ernst & Young LLP (external auditors) and University of Toronto Asset Management Corporation (“UTAM”, investment manager).

The Vice-President, Human Resources and Equity is responsible for formulation of pension policy, member communication, benefits administration and negotiation of benefits. The Chief Financial Officer is responsible for the financial administration of the funds including liaison with the custodian, actuarial consultant, investment manager and external auditors.

This report provides an evaluation of the financial health of the pension plans. It also provides the status of the pension liability, pension asset and pension deficit for the RPP and the RPP (OISE). Included in this report are links to the audited financial statements for the RPP and the RPP(OISE) at June 30, 2014, and the actuarial reports, at July 1, 2014.

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<sup>1</sup> *The Pension Committee performs the role with respect to pension plan administration that was previously delegated by the Governing Council to the Business Board. The general limitations on that delegated authority are identical to those that apply to the Governing Council's delegation of authority to the Business Board.*

## How a Defined Benefit Pension Plan Works

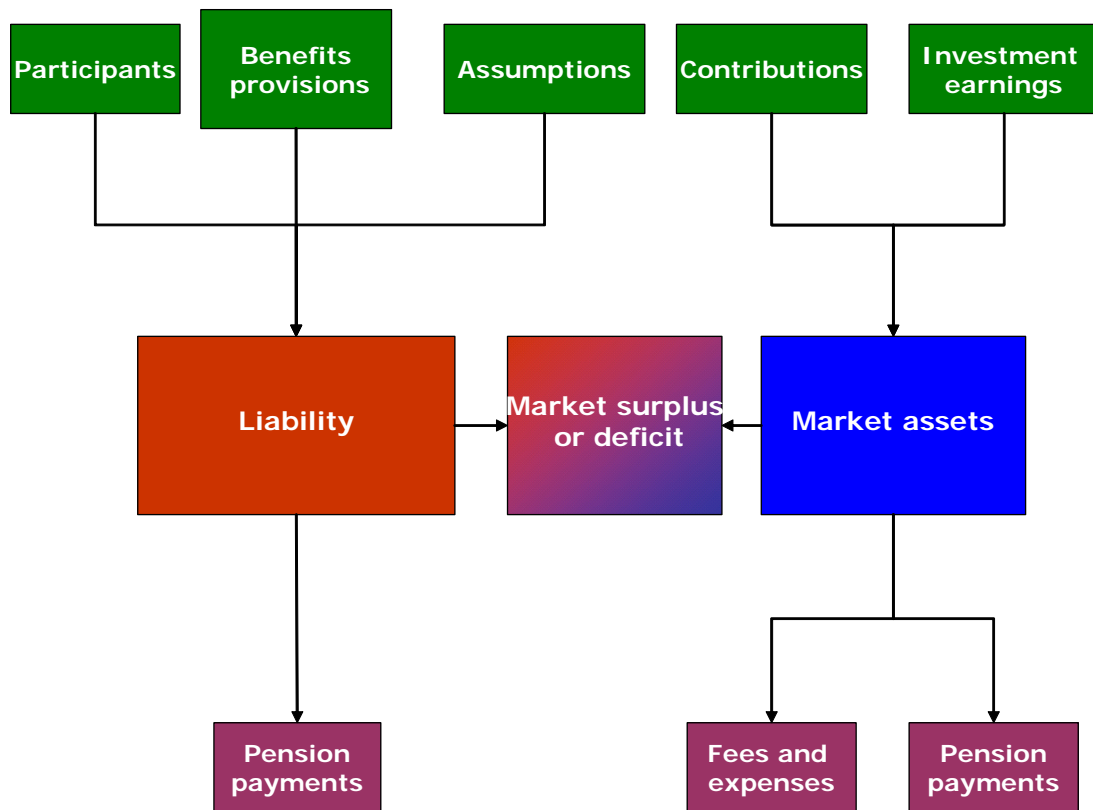
A pension plan is any arrangement by which an employer promises to provide retirement income to members. There are essentially two types of pension plans currently permitted under pension legislation in Ontario – a defined contribution plan and a defined benefit plan. A defined contribution plan provides pension benefits to each retired member on the basis of member and employer contributions and investment earnings on those contributions over time. The ultimate pension benefit depends on the amount of funding contributed and the investment earnings both before and after the date of retirement. The investment risk is borne by the member in a defined contribution plan.

A defined benefit pension plan provides pension benefits to each retiring member on the basis of defined percentages applied to salary and years of service. Members and the employer provide funding, and the member will ultimately receive pension benefits that result from the salary and years of service formula. The investment risk is borne by the employer in a defined benefit plan.

The University of Toronto pension plans are defined benefit plans. For each year that the member works and participates in the plan, an additional year of pensionable service is earned. At retirement, the number of years of pensionable service is multiplied by a percentage of the average of the highest 36 months of average earnings to determine the annual pension payable to that person. After retirement, pension payments are indexed at 75% of the increase in the Consumer Price Index for Canada (CPI).

The objective of a defined benefit pension plan is to ensure that there are sufficient resources to pay for the current pensions of retired members and to ensure that there will be sufficient funds to pay for the pensions of members who will retire in the future. The plan engages an actuary to determine what the annual funding of the plan must be to ensure that this objective is met.

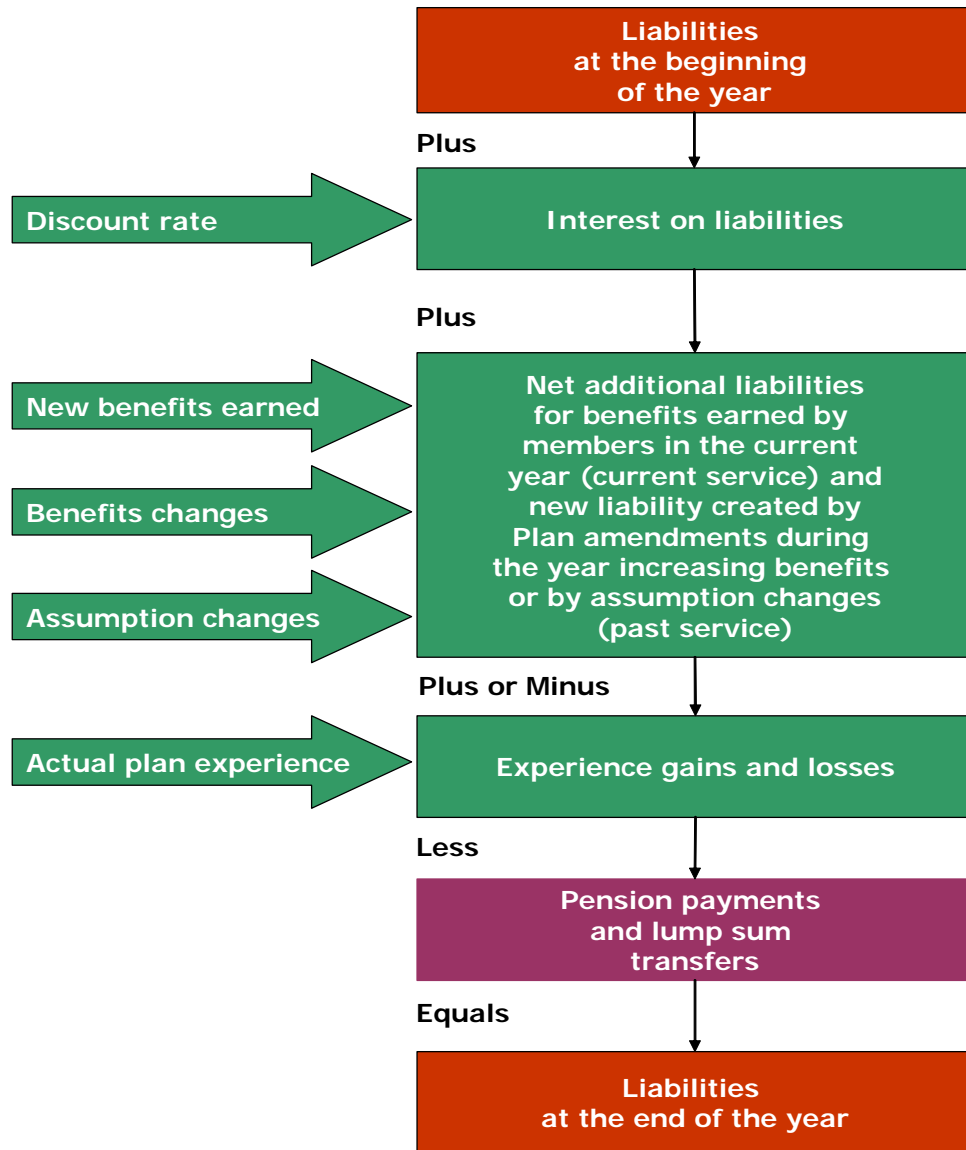
The challenge for defined benefit plans is to find a way to reasonably estimate the current net present value of what pensions will be paid to retired members over time (the liabilities) and to set aside money now to support payment of those pensions in future (the assets). The relationship is illustrated as follows:



As you can see from the diagram, the difference between the estimated net present value of current and future pensions (the liability), and the amount of funds actually on hand (the market assets) is the market surplus or deficit.

## The Liability

The net present value of current and future pensions (the liability) depends on assumptions made about the members in the pension plan, including their length of service, their estimated salaries at retirement, the kinds of benefits they are receiving or will receive, and future inflation. The liability represents the discounted net present value of pension benefits earned for service up to the valuation date, based on those assumptions. The following table shows how liabilities change from year to year.



As shown above, liabilities change when:

- members work an additional year, thus increasing their pension benefit at retirement. This is known as current service and increases the liability.
- members receive a larger pension benefit for the same salary and years of service through improvements to past service benefits. This increases the liability.
- new participants are added to the plan. This adds to the liability over time.
- assumptions that forecast the amount of pension benefits to be paid in future (e.g. salary increase assumption) change. These changes may increase or decrease the liability.
- assumptions that discount future liabilities to the present change. Increases in the discount rate DECREASE the liability while decreases in the discount rate INCREASE the liability.

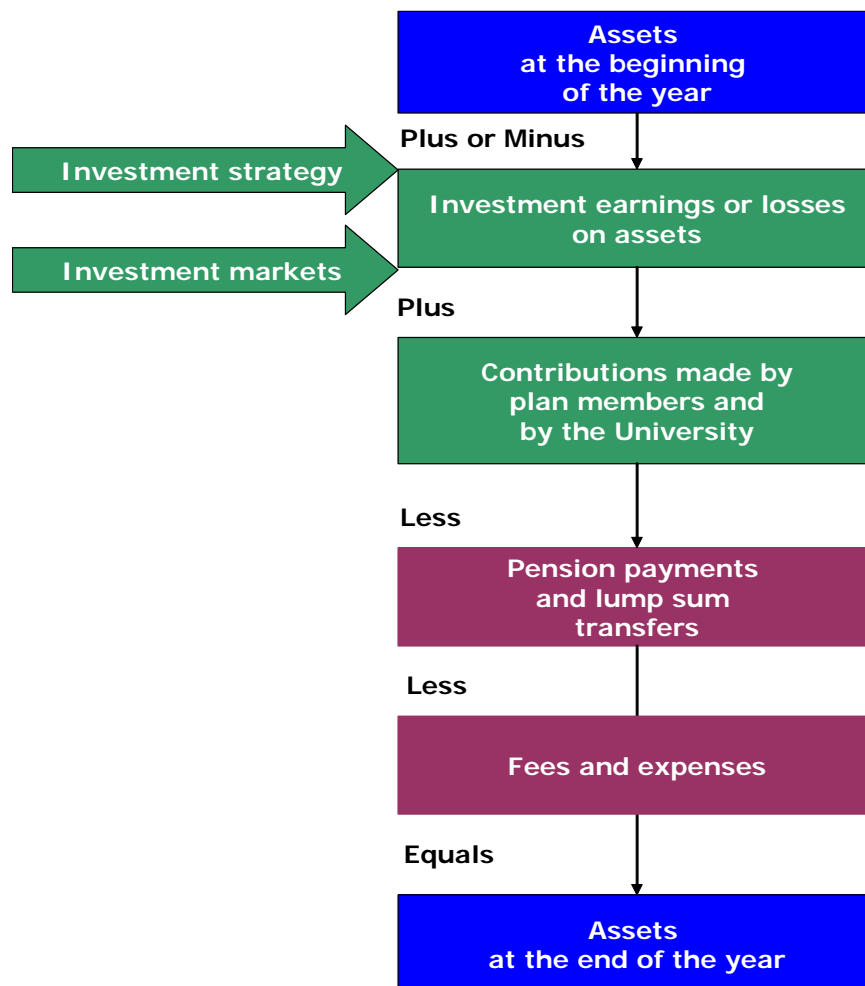


- actual experience in the plan (e.g. actual salary increases, terminations, longevity, etc.) results in actual benefit payments that are different from those expected according to the actuarial assumptions. Actual experience may increase or decrease the liability.

Liabilities also have interest calculated on them, just like any other discounted obligation that has to be paid in future. This interest is added to the liabilities and also increases them.

## The Assets

The amount of money that has actually been set aside (the assets) comes from only two sources: 1) contributions from members and from the University (including transfers in from other plans), and 2) investment earnings. The pension financial statements report the assets at fair value (which is essentially market value) at June 30. The following table shows how assets change from year to year:



## The Surplus or Deficit

The difference between the liabilities and assets is a surplus if the assets exceed liabilities or a deficit if liabilities exceed assets. When the assets are valued at market value, the difference is a “market” surplus or deficit. Pension regulation also permits an “actuarial” surplus or deficit, whereby changes in market value are smoothed over more than one year instead of being recognized immediately. The actuarial surplus is used for certain requirements under the Pension Benefits Act. However, for our financial evaluation purposes, to assess the financial health of our plans, the market surplus or deficit is more useful since it records all gains or losses immediately. This report focuses primarily on the market value of assets and the market surplus or deficit.

## Tools for Assessment of Pensions

The key tools for assessing the current financial health of the pension plans are financial statements and actuarial reports:

- **Pension financial statements** provide an audited confirmation at the valuation date of the fair value (essentially market value) of the pension assets. It also provides an audited confirmation of the pension obligations at the valuation date. The plan fiscal year for the RPP and RPP(OISE), each of which is a registered plan and separate legal entity, is July 1 to June 30. Assets for each registered plan are valued at June 30 of each year and reported on the registered pension plan balance sheets, which are called the *statement of financial position*. The changes in assets from one year to the next are shown on the registered pension plan income statements, which are called the *statement of changes in net assets available for benefits*. The changes in the pension liabilities from one year to the next are shown on the *statement of changes in pension obligations*.
- **Pension actuarial reports** estimate the net present value of the pension benefits based on assumptions, as noted earlier, and compare that net present value to the audited assets reported in the financial statements to determine the financial status of the plan at the valuation date. For all plans, the actuarial valuation date is July 1 of each year, incorporating the annual salary increases that become effective on that date.

Various financial reporting and regulatory requirements result in four types of valuations that make different assumptions and that produce very different results. Under these different types of valuations, the liabilities can change dramatically. However the assets are normally valued at fair value as of the date of valuation, with some very minor adjustments made to

asset values for different types of valuations. Here are the similarities and differences between them.

**Going Concern Actuarial Valuation:**

This valuation assumes that the pension plan is a going concern. This means that it is expected to be continuing to operate for the foreseeable future. Assumptions that determine the net present value of the benefits are long-term. Assets are valued at the fair value as of the date of valuation as reported on the audited financial statements. This valuation is done for a single point in time, as of July 1 each year, and is used for purposes of funding the pension plan.

**Solvency Actuarial Valuation:**

This valuation varies from the going concern valuation in that it assumes the plan will be wound-up on the valuation date and uses a market interest rate assumption. It assumes that benefits will be settled through purchase of annuities or payment of lump sum values. However, indexation (inflation) after termination or retirement is excluded from the liability calculation, in accordance with regulation. This valuation utilizes the audited fair value of the assets as reported on the audited financial statements, and adjusts that audited value with a provision for hypothetical wind-up costs. This valuation is done on the plan year, as of July 1 each year. To the extent there is a deficiency under a filed solvency valuation, additional funding may be required.

**Hypothetical Wind-up Actuarial Valuation:**

This valuation takes the solvency valuation and provides for the indexation that occurs before and after retirement. It also assumes that benefits will be settled through purchase of annuities or payment of lump sum values. And it also adjusts the audited fair value of the assets with a provision for hypothetical wind-up costs. This valuation is done on the plan year, as of July 1 each year.

**Accounting Valuation:**

This valuation is done for accounting purposes and estimates numbers that are required to be included in the University's financial statements (not the pension financial statements). This valuation is done on the University's fiscal year end, April 30. Pension liabilities are valued using the funding assumptions utilized for the going concern valuation.

While it is important to be aware of the existence of these various valuations, and their purposes, this report assumes that the pension plans are going concerns and evaluates pension financial health using the going concern actuarial valuation. The following sections will show the status of the pension plans at July 1, 2014 and will apply the elements of defined

benefit pension plans (shown in the diagram on page 7) to the University pensions, with particular emphasis on the assumptions, the contributions, and the investment earnings, and their associated policies and strategies.

## Pension Status at July 1, 2014

At July 1, 2014, the going concern accrued liabilities<sup>1</sup> and market value of assets for the University of Toronto defined benefit plans were:

July 1, 2014	Going Concern Liabilities <sup>1</sup>	Market Value of Assets	Market Surplus (Deficit)	Market Surplus (Deficit) as % of Liabilities
RPP	4,222.2	3,525.1	(697.1)	(17%)
RPP(OISE)	126.0	93.7	(32.4)	(26%)
SRA <sup>2</sup>	140.2		(140.2)	(100%)
Pension Reserve		8.6	8.6	
<b>Total</b>	<b>4,488.4</b>	<b>3,627.4</b>	<b>(861.1)</b>	<b>(19%)</b>

At July 1, 2013, the liabilities and assets for the University of Toronto defined benefit plans were:

July 1, 2013	Going Concern Liabilities <sup>1</sup>	Market Value of Assets	Market Surplus (Deficit)	Market Surplus (Deficit) as % of Liabilities
RPP	3,800.6	2,845.1	(955.5)	(25%)
RPP(OISE)	116.0	82.3	(33.7)	(29%)
SRA	132.9	113.7	(19.2)	(14%)
Pension Reserve		2.4	2.4	
<b>Total</b>	<b>4,049.5</b>	<b>3,043.5</b>	<b>(1,006.0)</b>	<b>(25%)</b>

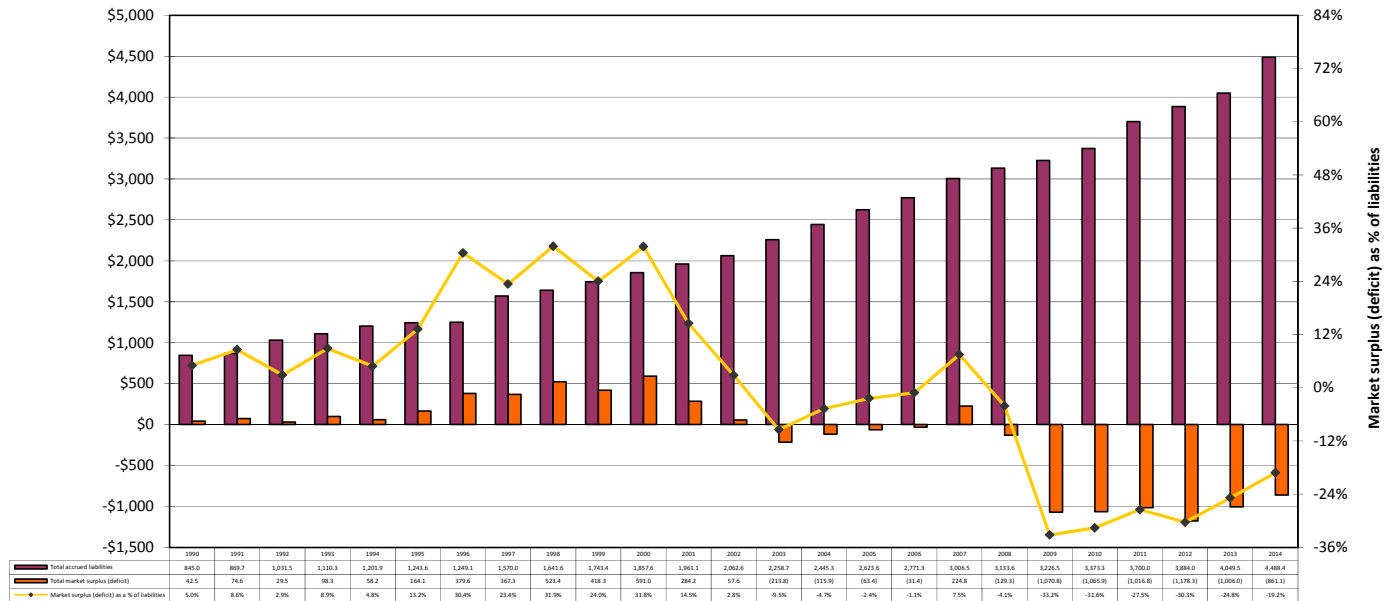
As you can see from the above tables, the overall financial health of pensions showed significant improvement between July 1, 2013 and July 1, 2014 due mainly to a) investment returns of 17.4% that exceeded the target return of 6.2% for the period, and b) employer special payments totaling \$216.6 million, which were partly offset by actuarial assumption changes.

A longer history of combined results for the three plans is shown on the following chart.

<sup>1</sup> Using new assumptions for (1) Mortality, (2) Retirement rates for Academic Staff and Librarians, (3) Proportion of active members with spouse at retirement, (4) Increase in the Consumer Price Index changes from 2.25% to 2.00%, (5) Increase in CPP Maximum Salary changes from 3.00% to 2.75%, (6) Increase in Salaries changes from 4.25% to 4.00%, (7) Investment Return (Discount) Rate changes from 6.00% to 5.75%, and (8) Interest rate on participant contributions changes from 3.00% to 2.50%.

<sup>2</sup> All assets that had been set aside for the SRA were transferred to the RPP during 2013-14 as an additional special payment.

**University of Toronto RPP, RPP(OISE) and SRA Combined  
Accrued Liabilities and Market Surplus (Deficit)  
as at July 1  
(millions of dollars)**



As you can see from the above chart, for the entire period from 1990 to 2002, the plans were in surplus. A deficit emerged in 2003 which was extinguished by 2007. Beginning in 2008, and much more pronounced in 2009, the impact of the global financial crisis was to reduce market returns significantly. The overall financial position of the plans was essentially unchanged between 2009 and 2010, improved somewhat in 2011 as a result of a rebound in markets and additional special contributions from the University, and in 2012, with markets underperforming target returns, the market deficit of the plans increased slightly. In both 2013 and 2014, the financial position of the plans has improved, mainly as a result of investment returns in excess of target returns, offset by changes to actuarial assumptions, the net of which increased pension liabilities.

## **IMPORTANT NOTE**

For the purposes of this report, we have added together the three plans so that the big picture can easily be discerned.

However, it is very important to note that each of the registered plans (RPP, RPP(OISE)) is a separate legal entity in which the assets are held in trust. Funds cannot be transferred between the two registered plans or from either of the registered plans to the SRA or the pension reserve.

SRA assets and pension reserve assets are not held in trust. For financial accounting purposes the University from time to time appropriates funds which are set aside as a "fund for specific purpose" in respect of the obligations under the SRA. In accordance with an Advance Income Tax Ruling, which the University has received, such assets do not constitute trust property, are available to satisfy University creditors, may be applied to any other purpose that the University may determine from time to time, are commingled with other assets of the University, and are not subject to the direct claim of any members.

Strategies that are put in place from time to time must take these important restrictions into account. Nevertheless, it is helpful to consider the registered plans, the SRA and the pension reserve together since the pension payment to any particular member may include two of these entities. Liabilities move back and forth between the RPP and the SRA depending on increases in the Income Tax Act maximum pension, increases in salaries and age at retirement.

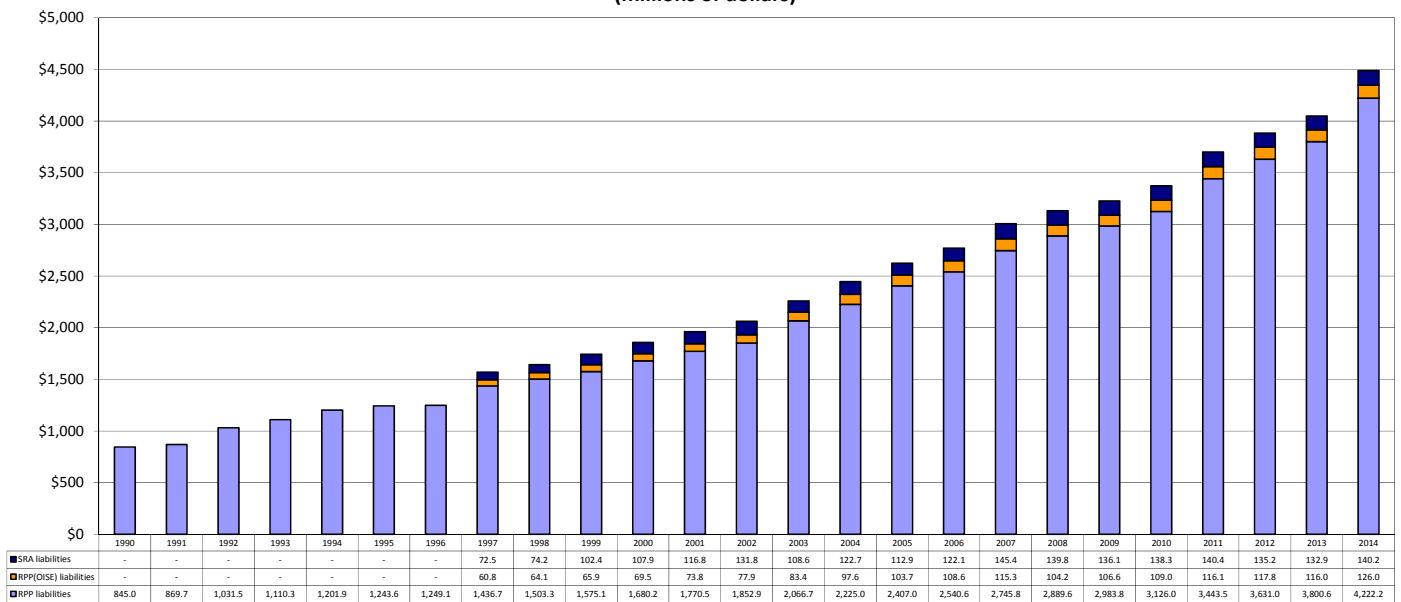
## Pension Liabilities

Going concern pension liabilities for the University of Toronto plans totaled \$4,488.4 million at July 1, 2014, comprising:

\$ 4,222.2 million	RPP pension liabilities
\$ 126.0 million	RPP(OISE) pension liabilities
\$ 140.2 million	SRA pension liabilities

The growth in those liabilities since 1990 is shown on the following chart.

**Going Concern Pension Liabilities  
RPP, RPP(OISE) and SRA  
at July 1  
(millions of dollars)**



As noted earlier, pension liabilities are valued at July 1 and are dependent on a number of factors. The following sections will examine the impact of these factors on the total going concern pension liabilities for the University of Toronto plans.

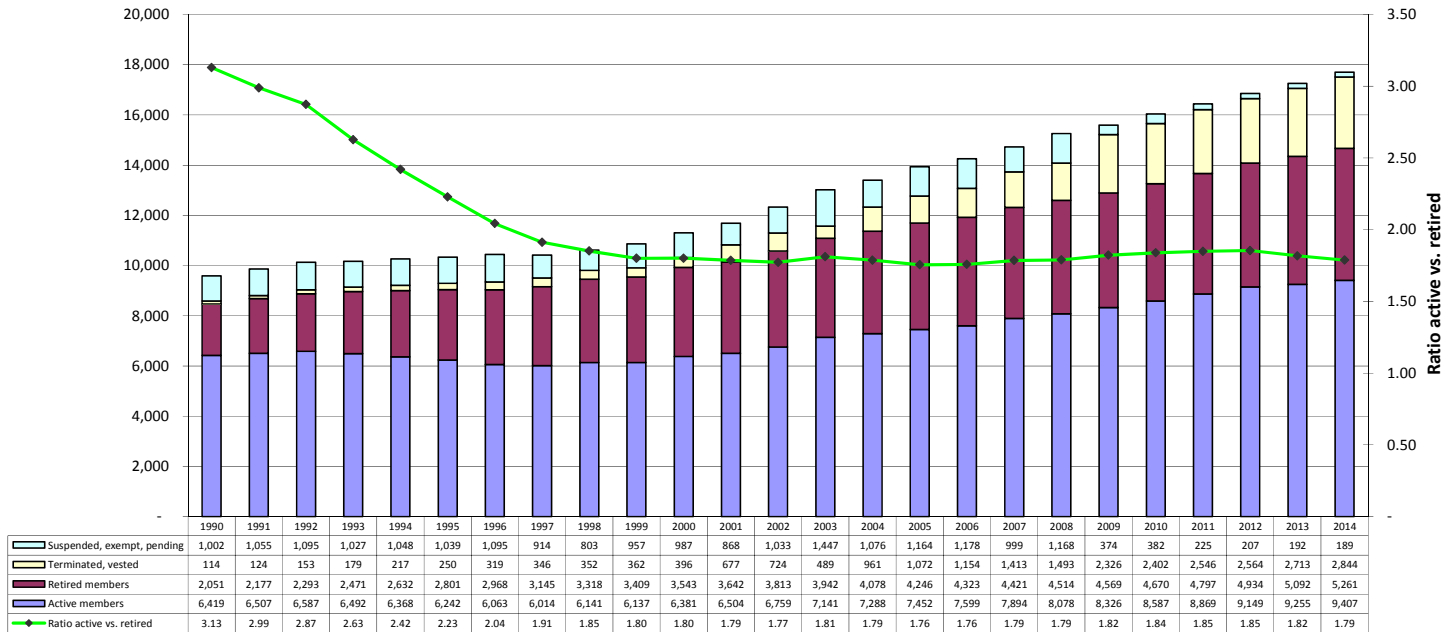


## Participants

### RPP

The RPP is a growing plan, with member participation increasing over time. An increase in the number of plan participants adds to pension liabilities over time. At July 1, 2014, total member participation was 17,701.

**RPP  
Member Participation  
at July 1**



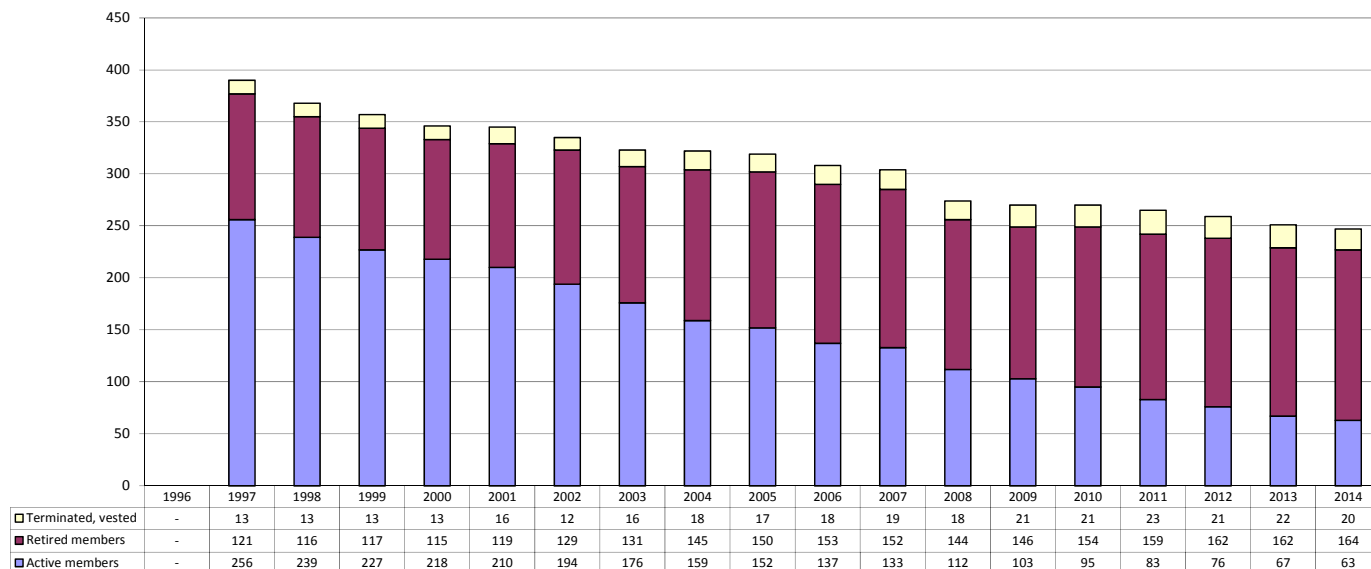
The continued growth in active membership helps to maintain a stable duration<sup>1</sup> of liabilities, with the ratio of active to retired liabilities remaining relatively constant. It also supports the growth of cash flow into the plan due to increasing contributions from both participants and the University.

### RPP(OISE)

The RPP(OISE) is a closed plan, and has been closed to new entrants since 1996 when the Ontario Institute for Studies in Education merged with the University of Toronto's Faculty of Education. All new employees who are eligible for the University's pension plan become members of the RPP. Therefore, the RPP(OISE) has a declining participation that totaled 247 at July 1, 2014.

<sup>1</sup> Duration is a weighted-average sensitivity measure which calculates the average length of time to the payment of benefits.

**RPP(OISE)  
Member Participation <sup>1</sup>  
at July 1**



<sup>1</sup> Including partial wind-up members up to 2007. The partial wind-up distribution was approved by the Financial Services Commission of Ontario on October 1, 2007, and partial wind-up members have been excluded since 2008.

## Pension Benefit Provisions

The pension benefit is the provision of retirement income to participants in the pension plan. It is calculated on the basis of defined percentages (“benefit rates”) applied to the salary and years of pensionable service for each plan participant. Pension benefits are the same for the members in any particular member group, and the SRA provides coverage for all members whose salary exceeds the Income Tax Act maximum pension, regardless of whether they have service in the RPP or the RPP(OISE).

Benefits improvements arise from negotiations with member groups and from mediation and arbitration and are not normally determined unilaterally. Pension benefits are the same for the RPP and the RPP(OISE), with the SRA providing pensions above the Income Tax Act maximum benefit in support of both plans.

Key benefit provisions are as follows:

### **Benefits**

**accrual:** Pension benefits accrue at the rate of 1.5% of highest average salary up to the average CPP maximum salary (1.6% for USW members, various other unions

and non-unionized administrative staff) plus 2.0% of highest average salary in excess of the average CPP maximum salary to a maximum of \$150,000 per year.

### **Retirement**

**dates:** The normal retirement date is the June 30 following the 65<sup>th</sup> birthday. Retirement is possible within 10 years of the normal retirement date, with a minimum of 2 years of service, with a reduction of 5% per year between actual retirement and normal retirement. No reduction is applied once members reach 60 years of age, and meet certain service requirements, which vary by staff group. There is no longer a requirement to retire at age 65.

### **Cost of living**

**adjustments:** The pension benefits of retired members are subject to cost of living adjustments equal to the greater of a) 75% of the increase in the CPI for the previous calendar year to a maximum CPI increase of 8% plus 60% of the increase in CPI in excess of 8% and b) the increase in the CPI for the previous calendar year minus 4.0%. The first cost of living adjustment is made at date of retirement.

An improvement in the benefit being provided to current retired members and/or to be provided to future retired members results in an increase to the pension liabilities. **There were no new benefits improvements during the year ended June 30, 2014.**

When benefits improvements are agreed, they may be implemented in various ways – for active participants only, or for both retired and active participants, on current service only or on both current and past service. When provided for current service, they require current service contributions from members and the University on a go forward basis. When provided for past service as well as current service, they require current service contributions and funding of past service costs as well. Benefits improvements to retired persons, such as augmentation, generate past service costs. There are only two ways of funding defined benefit pension plans, including benefits improvements – contributions and investment earnings. These elements of defined benefit plans will be discussed in later sections of this report.

As noted earlier, the SRA provides defined benefits for members with salaries in excess of the highest average salary at which the Income Tax Act maximum pension is reached to a capped maximum salary of \$150,000 per year. For many years, the Income Tax Act maximum pension was fixed, resulting in growing membership in the SRA. Beginning in 2004, the Income Tax Act maximum pension started to increase at a fixed rate through 2009 and then, in 2010, at the rate of increase in national real wages. Therefore, beginning in 2004,

participation in the SRA fluctuated depending upon the relationship between salary increases for member plan participants and the increase in the Income Tax Act maximum pension. In 2014, the Income Tax Act maximum pension now exceeds the capped maximum salary of \$150,000. The liabilities in the SRA increased from \$132.9 million in 2013 to \$140.2 million in 2014 mainly due the updated mortality actuarial assumption.

## Assumptions

No one knows what salaries will be for plan participants at retirement, and therefore, what their actual pension benefit will be, nor does anyone know how long plan participants will receive those benefits after retirement or what the cost of living adjustments will be after retirement. Actuarial assumptions are used to estimate the pension benefits that will be paid to current and future retired members in the future. Those estimated pension benefits are then discounted to the present time, using an interest discount rate to calculate the net present value.

Changes in actuarial assumptions impact the value of the liabilities. Some changes increase liabilities while other changes decrease liabilities and some assumptions are interrelated in their impact on the value of the liabilities.

Actuarial assumptions are approved annually by the Pension Committee. The same actuarial assumptions are in place for all three pension plans. All actuarial assumptions can be found in the full actuarial reports located at <http://www.finance.utoronto.ca/alerts/pensionrpts.htm>. Key actuarial assumptions at July 1, 2014 are as follows:

Assumption	Description	Impact of assumption change on liabilities
<b>Retirement age</b>	<i>Academic staff and librarians</i> – retirement rates from ages 60 to 70, but not earlier than one year after valuation date, subject to early retirement provisions, if applicable.  <i>Administrative Staff, unionized administrative staff, unionized staff and research associates</i> – age 63, subject to early retirement provisions. ( <i>previous valuation reflected earlier retirement ages for Academics and Librarians</i> ).	The earlier the retirement age with an unreduced pension, the higher the liability.

<b>Mortality rates:</b>	Canadian Pensioner Mortality 2014 Public Table with Improvement Scale CPM-B ( <i>previous valuation used 1994 Uninsured Pensioner Mortality Table with fully generational mortality improvements under scale AA</i> ).	Increases in life span increase liabilities.
<b>Increase in Consumer Price index (CPI):</b>	2.00% per year ( <i>previous valuation used 2.25% per year</i> ).	An increase in CPI alone increases liabilities, but should be considered in concert with salary increases and discount rate.
<b>Cost of living adjustments:</b>	1.50% per year (75% of CPI) ( <i>previous valuation used 1.6875% per year</i> ).	An increase in cost of living adjustments increases liabilities.
<b>Increase in CPP maximum salary:</b>	2.75% per year ( <i>previous valuation used 3.00% per year</i> ).	An increase in CPP maximum salary decreases liability since pensionable service is accumulated at 1.5% or 1.6% up to the CPP maximum salary and at 2.0% over that maximum.
<b>Increase in <i>Income Tax Act</i> maximum benefit limit:</b>	\$2,770.00 in 2014 increasing by 2.75% per year thereafter ( <i>previous valuation was \$2,696.67 increasing by 3.00% per year thereafter</i> ).	An increase in the Income Tax Act maximum pension increases the liability in the RPP and decreases the liability in the SRA.
<b>Increase in Salaries:</b>	4.00% per year (2.00% CPI plus 2.00% merit and promotion/progression) ( <i>previous valuation used 4.25% per year</i> ).	An increase in the total assumption, whether impacted by CPI or by merit and promotion/progression, increases liabilities.

<b>Interest rate (Discount rate on liabilities):</b>	5.75% per year (2.00% increase in CPI plus 3.75% real investment return, net of fees) ( <i>previous valuation used 6.00% per year</i> ).	An increase in the interest rate, whether through an increase in CPI or real return, DECREASES liabilities. Conversely, a decrease in the interest rate INCREASES liabilities.
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It is very important to note that these assumptions are **long-term** assumptions. In other words, they predict the results over a very long-term horizon.

Each year, the actuarial valuation records the actual results and compares them to the assumptions. These variances, over time, provide a rationale for ongoing adjustments to the assumptions. Consistent variances in one direction, either negative or positive, suggest that an assumption needs to be changed. When actuarial assumptions do change, they tend to be adjusted in very small increments, rather than in the larger swings that can be experienced in the short and medium term.

The annual review of actuarial assumptions resulted in several assumption changes in 2014. These included changed mortality tables to reflect increasing longevity (see more detail later in this section), changed retirement rates for Academic Staff and Librarians to reflect later retirement ages (see more detail later in this section), changed proportion of active members with spouse at retirement to reflect changing experience, change in interest rate on participant contributions from 3.00% to 2.50%, and reduction of 0.25% to Increase in CPI from 2.25% to 2.00%, to reflect ongoing low inflation rates which themselves are reflective of Canadian monetary policy. The 2.00% rate is the mid-point of the Bank of Canada’s 1% to 3% inflation corridor and represents its target rate.

The change in the Increase in CPI assumption from 2.25% to 2.00% also affects the assumptions for cost-of-living adjustments, CPP maximum salary increases, ITA maximum pension increases, salary increases, and nominal investment return. As a result, each of these assumptions was also be reduced by 0.25%.

As a result of the above assumption changes, the following going concern assumptions were used in 2014:

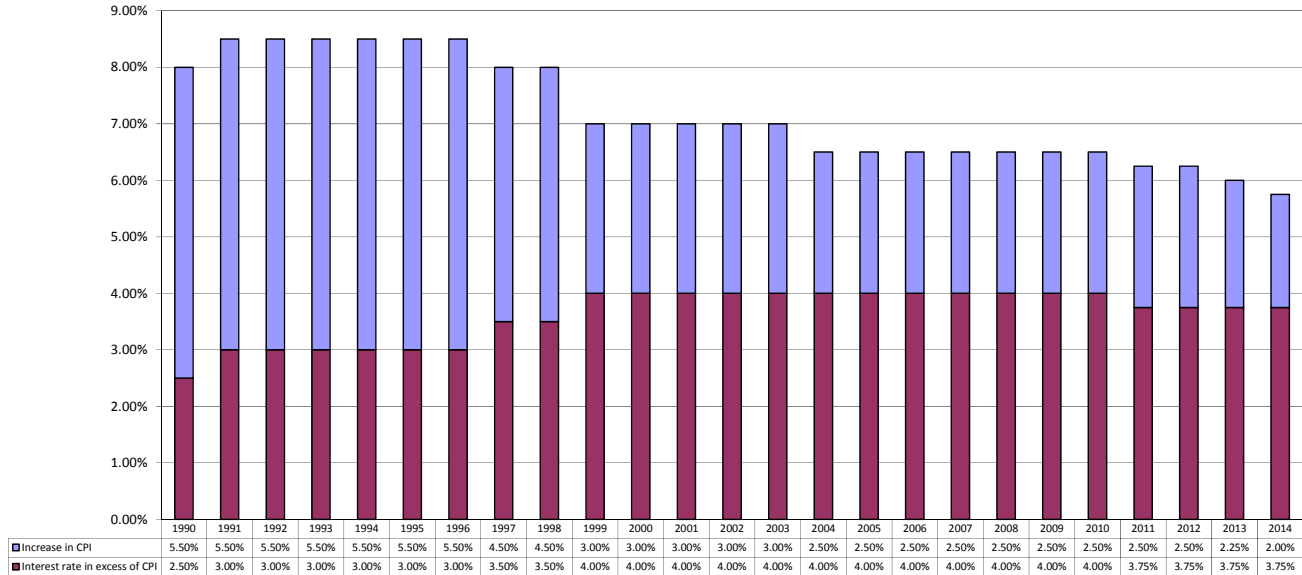
- *Mortality Rates:* Now using the CPM 2014 Public Mortality Table with Improvement Scale CPM-B, rather than using the 1994 Uninsured Pensioner Mortality Table, with full generational mortality improvements using projection Scale AA;
- *Retirement Age:* see section below

- *Percentage With Spouse*: Male participants – 85% of participants have a spouse at retirement with spouse four years younger. Female participants – 70% of participants have a spouse at retirement with spouse two years older. Previous valuation used 86.7% with female spouse four years younger than male spouse;
- *Increase in CPI* changes to 2.00% from 2.25%;
- *Cost-of-living Adjustments* remains at 75% of increase in CPI, but the percentage change to 1.50% (75% of 2.00%) from 1.6875% (75% of 2.25%);
- *Increase in CPP Maximum Salary* changes to 2.75% (made up of 2.00% increase in CPI + 0.75% estimated growth in national real wages) from 3.00%;
- *Increase in ITA Maximum Pension* changes to 2.75% (made up of 2.00% increase in CPI + 0.75% estimated growth in national real wages) from 3.00%;
- *Increase in Salaries* changes to 4.00% (made up of 2.00% CPI plus 2.00% merit and promotion / progression) from 4.25%; and
- *Discount Rate (Investment Return)* changes to 5.75% (made up of 2.00% CPI plus 3.75% real investment return) from 6.00%.

#### **Discount Rate on Liabilities**

The following chart illustrates the history of this assumption from 1990 and shows that the discount assumption had remained quite steady over the past several years with the only variation coming from changes in CPI. For purposes of the actuarial report, a 4.0% real return discount assumption had been in place for many years. Effective July 1, 2011 the discount rate on liabilities was reduced to 6.25% from 6.50%, reflecting a reduction in the real return discount assumption from 4.00% to 3.75% (the CPI assumption remaining at 2.50%), with the discount rate assumption remaining at 6.25% in 2012. Effective July 1, 2013 the discount rate on liabilities was reduced to 6.00% from 6.25%, reflecting a reduction in the increase in the CPI from 2.50% to 2.25%, and effective July 1, 2014 the discount rate was reduced again, from 6.00% to 5.75%, reflecting a further reduction in the increase in the CPI from 2.25% to 2.00%.

**University of Toronto Pension Plans  
Interest Rate Assumed on Investments, including Increase in CPI, at July 1**



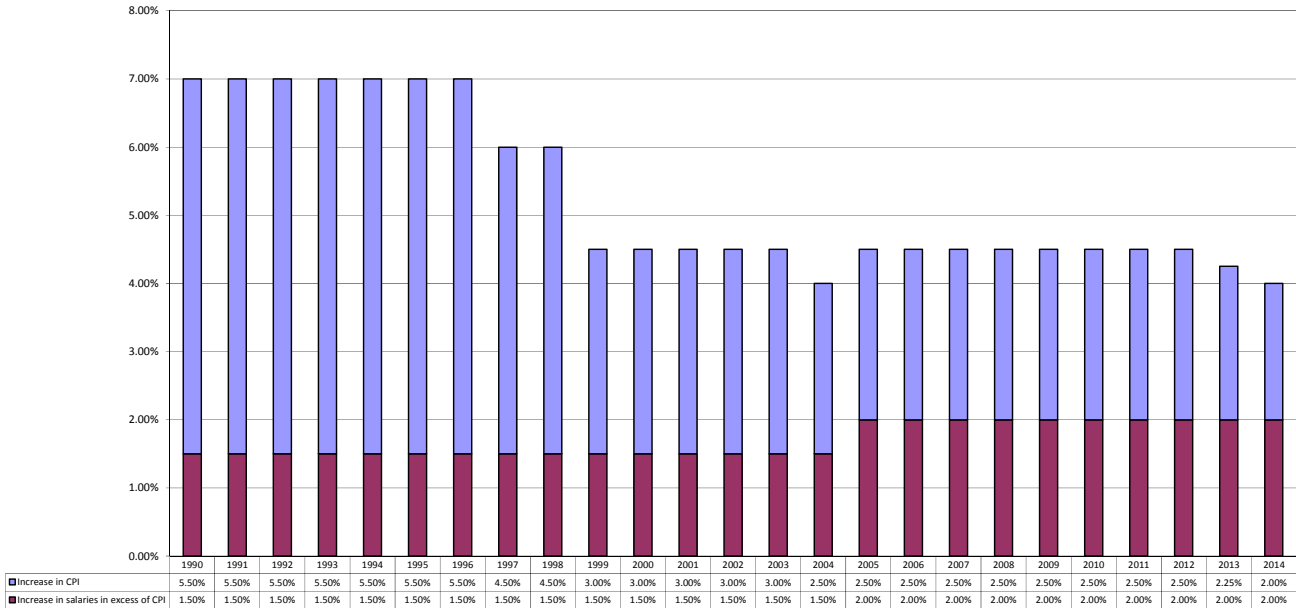
The significance of this assumption is that the liabilities represent the discounted net present value of future pension payments, and the discount rate is used to discount the pension payments to the present. The lower the discount rate, the higher the liabilities and the higher the funding needed for the defined benefit pension. Or another way of looking at this, the lower the expected investment earnings, the more funding that has to come from contributions.

**Salary increase assumption**

Until 2012, with the exception of 2004, the salary increase assumption remained steady at 4.5% since 1999. In 1997 and 1998, the assumption was 6%, and between 1990 and 1996 the assumption was 7%. This assumption attempts to predict what salary increases will be over the long term, and thus what will be the 36 months of highest average earnings for each plan participant at retirement. The percentage increase in salary in excess of CPI was adjusted in 2005 to reflect ongoing salary settlements that, including merit and promotion/progression, were trending higher than 4.00%. Although the inflation assumption was reduced, the salary settlements themselves did not seem to decline. Therefore, the 4.50% total percentage assumption was re-established in 2005 and remained in effect through 2012. In 2013, the salary increase assumption was changed to 4.25% from 4.50% to reflect the change in the increase in the CPI from 2.50% to 2.25%, and changed again in 2014 to 4.00% from 4.25% to reflect the change in the increase in the CPI from 2.25% to 2.00%.



**University of Toronto Pension Plans**  
**Salary Increase Assumed, including Increase in CPI, at July 1**



### Mortality rates

The mortality rate assumption tries to predict the rate at which plan participants will die, either before or after retirement. It is important to note that an increase in life span increases plan liabilities. Since 2011, the assumption utilized the *1994 Uninsured Pensioner Mortality Table with Generational Projections using projection scale AA* for all University of Toronto pension plans. In 2014, to reflect that actual longevity of plan participants has continued to improve at a faster rate than assumed, the plans will adopt the *Canadian Pensioner Mortality 2014 Public Table with Improvement Scale CPM-B*. This new table issued by the Canadian Institute of Actuaries will better reflect the actual experience of the University, as well as reflect that Canadians tend to live longer than Americans. The following chart compares the old and new mortality tables:

Current Age	UP94 Generational With Scale AA		CPM 2014 Public With Scale B	
	Life Expectancy at Age 65 <sup>1</sup>		Life Expectancy at Age 65 <sup>1</sup>	
	Male	Female	Male	Female
25	22.6	23.7	24.6	26.3
45	21.3	22.9	23.7	25.5
60	20.2	22.3	22.9	24.8
65	19.8	22.1	22.6	24.5
75	12.0	14.1	13.9	15.6

<sup>1</sup> or current age, if older

### Retirement Age Assumption

The retirement age assumption reflects plan provisions and the legislative/regulatory climate in Ontario. There is no mandatory retirement in Ontario. The Plan provides for a normal retirement date, as required by pension legislation, which is the June 30th coincident with or next following the 65th birthday. It also provides for an unreduced pension beginning at age 60 with different service requirements by employee group. It is important to note that the earlier the retirement age with an unreduced pension, the higher the liability incurred. The retirement age assumption was most recently updated in 2007. Since then, the average retirement age has increased.

No change was made to the retirement rates for administrative and unionized staff (the assumed retirement age under the actuarial valuation is age 63). The average age at retirement for academic staff and librarians has increased steadily from age 64.8 in 2007/2008 to 67.3 in 2012/2013 and a change in the retirement assumption has been made for this group. The following table shows the current retirement rates for academic staff and librarians with 10 or more years of pensionable service along with the proposed new assumption for retirement rates effective July 1, 2014:

<b>Retirement Rates for Academic Staff and Librarians</b>				
<b>Age</b>	<b>Previous Rates</b>		<b>New Rates</b>	
	<b>10 or More Years of Pensionable Service</b>	<b>Less Than 10 Years of Pensionable Service</b>	<b>10 or More Years of Pensionable Service</b>	<b>Less Than 10 Years of Pensionable Service</b>
60	10% <sup>1</sup>	-	5% <sup>1</sup>	-
61	5%	-	5%	-
62	5%	-	5%	-
63	5%	-	5%	-
64	5%	-	5%	-
65	50%	50%	30%	30%
66	25%	25%	30%	30%
67	50%	50%	30%	30%
68	50%	50%	30%	30%
69	75%	75%	50%	50%
70	100%	100%	50%	50%
71	N/A	N/A	100%	100%

<sup>1</sup> Applies at age 60 or, if later, first age at which participant is eligible for an unreduced pension

This change has the effect of decreasing the accrued liability and reducing the current service cost.

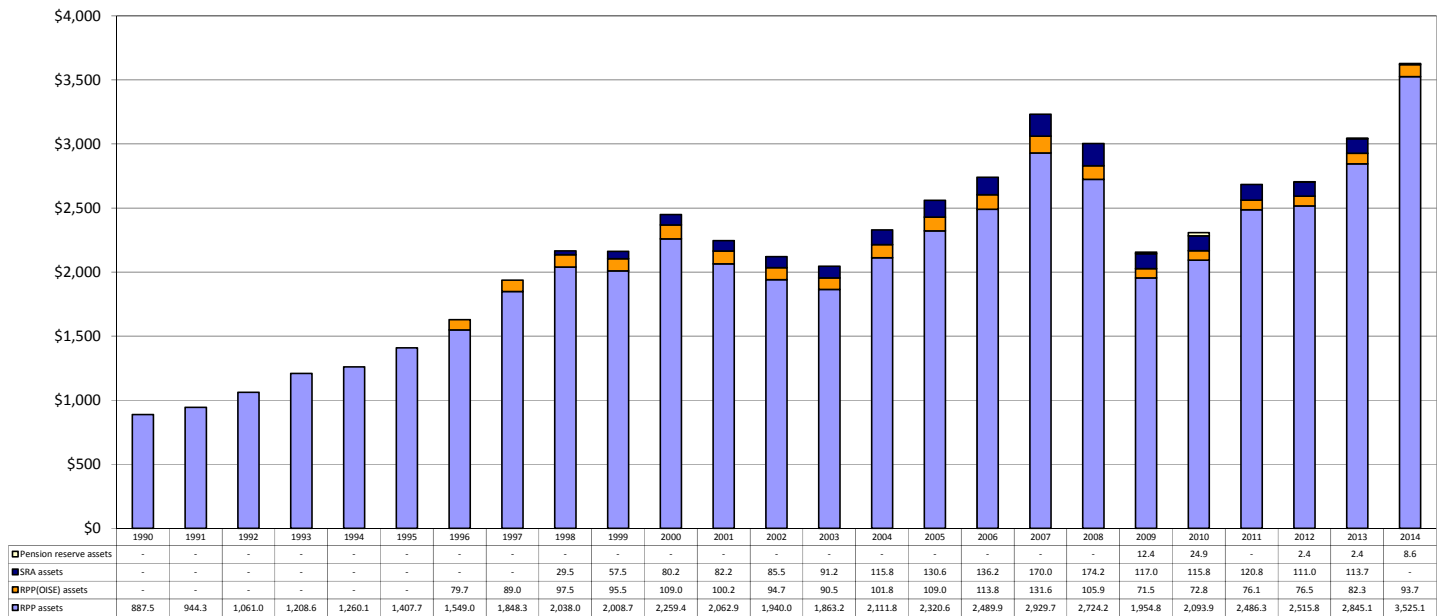
## Pension Assets

Total assets for the three pension plans and the pension reserve were \$3,627.4 million at June 30, 2014, comprising:

\$ 3,525.1 million	RPP pension assets
\$ 93.7 million	RPP(OISE) pension assets
\$ 8.6 million	Pension reserve university assets

The change in those assets since 1990 is shown on the following chart.

**Market Value of Pension Assets <sup>1, 2, 3</sup>  
at June 30  
(millions of dollars)**



<sup>1</sup> Including partial wind-up members in RPP(OISE) assets in years up to 2007.

<sup>2</sup> Pension reserve assets of \$25.0 million were transferred to the RPP in 2011.

<sup>3</sup> All SRA assets were transferred to the RPP in 2014.

The RPP and RPP(OISE) represent separate legal trusts containing pension assets, and a link to their financial statements is included in appendix 4. The SRA assets and pension reserve assets are University funds that are not held in trust. This report considers contributions to the SRA and the pension reserve but does not focus on investment earnings of those funds. Until 2014, the SRA was invested together with the University's endowments under those policies, with the investment issues for the SRA being similar to those for pension assets.

As noted earlier, there are only two ways of funding a defined benefit pension plan – contributions and investment earnings. Contributions, plus investment earnings, minus the fees and expenses incurred in administering the pension plans and earning investment returns, and minus the payments to retired members result in the pension assets that are on hand and set aside to meet the pension liabilities.

It is important to note that there is a strong relationship between contributions and investment earnings. Since the amount that must be set aside in assets is driven by the pension liabilities, the key question on the asset side is:

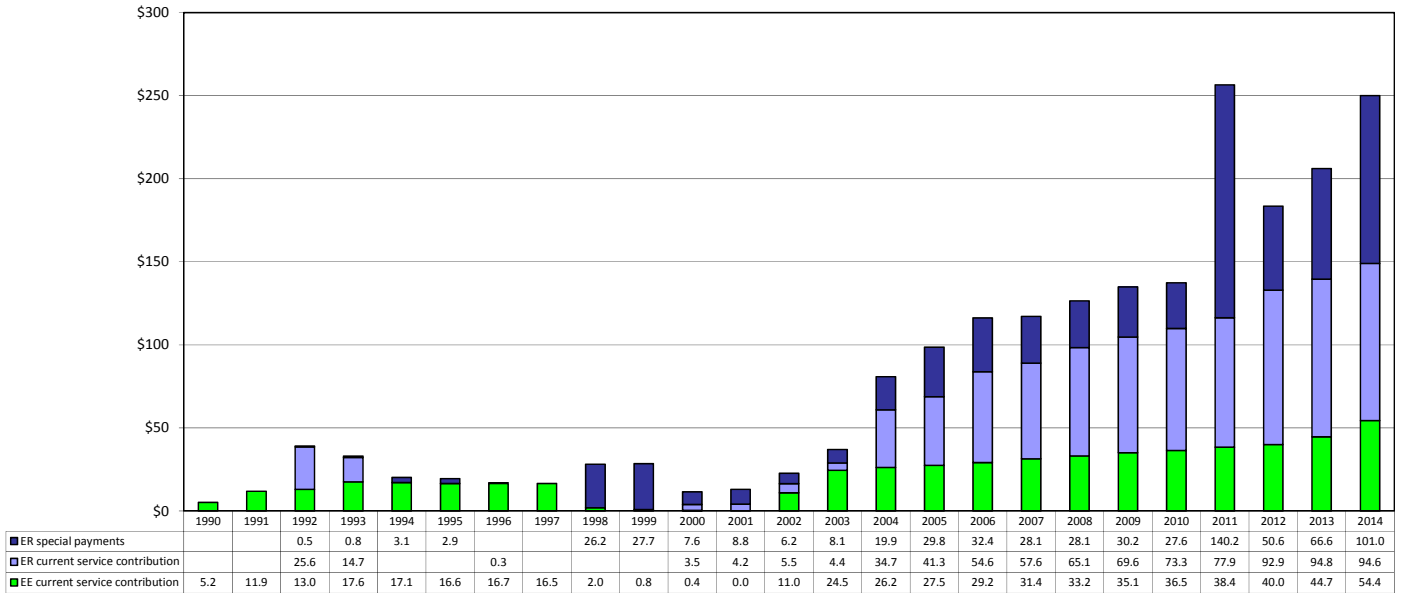
**How much of the pension funding should be targeted to come from CONTRIBUTIONS and how much should be targeted to come from INVESTMENT EARNINGS?**

The higher the investment earnings that can be generated, the lower the contributions needed to be provided by members and by the University. However, there are significant risks inherent in investment markets and the higher the return that is targeted, the higher the risk of losing money is likely to be. The next two sections will examine the role of contributions and investment earnings and the following two sections will discuss fees and expenses and payments.

## **Contributions**

The University of Toronto pension plans are defined benefit **contributory** plans. As noted earlier, there are only two ways of funding a defined benefit pension plan – contributions and investment earnings. This section focuses on the contributions that have been made by the University and by employees. The following chart shows the contributions made by the University and by employees since 1990.

**Contributions by Source (Employee and Employer) Across All Plans <sup>1, 2, 3</sup>**  
**for the year ended June 30**  
**(millions of dollars)**



<sup>1</sup> Voluntary Early Academic Retirement Program (VEARP) contributions included in ER special payments.

<sup>2</sup> ER special payments in 2011 exclude the \$25.0 million transfer of pension reserve assets to the RPP (for total ER special payments to the RPP of \$165.2 million) since increases to pension reserve assets had already been included as contributions in previous years for the purposes of the Pension Report. In 2014, ER special payments include a contribution to the pension reserve of \$6.2 million.

<sup>3</sup> ER special payments in 2014 exclude the \$121.8 million transfer of SRA assets to the RPP since increases to SRA assets had already been included as contributions in previous years for the purposes of the Pension Report. The transfer of SRA assets to the RPP also includes accumulated investments earnings on these assets.

**Contributions** are to be made by members and by the employer to fund pension benefits earned in the current year, also known as the current service cost. The member share of those contributions is determined by formula, with the employer contribution representing the difference between the total current service contribution required (actuarially determined) and the portion paid by members.

**Contributions** by employers are not permitted under the Income Tax Act (Canada) into registered plans when there is an actuarial surplus greater than 25% of accrued liabilities (changed from 10% in 2010).

**Contributions** by employers are required to fund any going concern deficits over 15 years. These special payment contributions are in addition to regular current service contributions.

**Contributions** by employers are required to fund any solvency deficits over 5 years. These special payment contributions are in addition to regular current service contributions. (The

Province of Ontario has established a temporary solvency funding relief program that makes provision to vary this requirement – described later in this section).

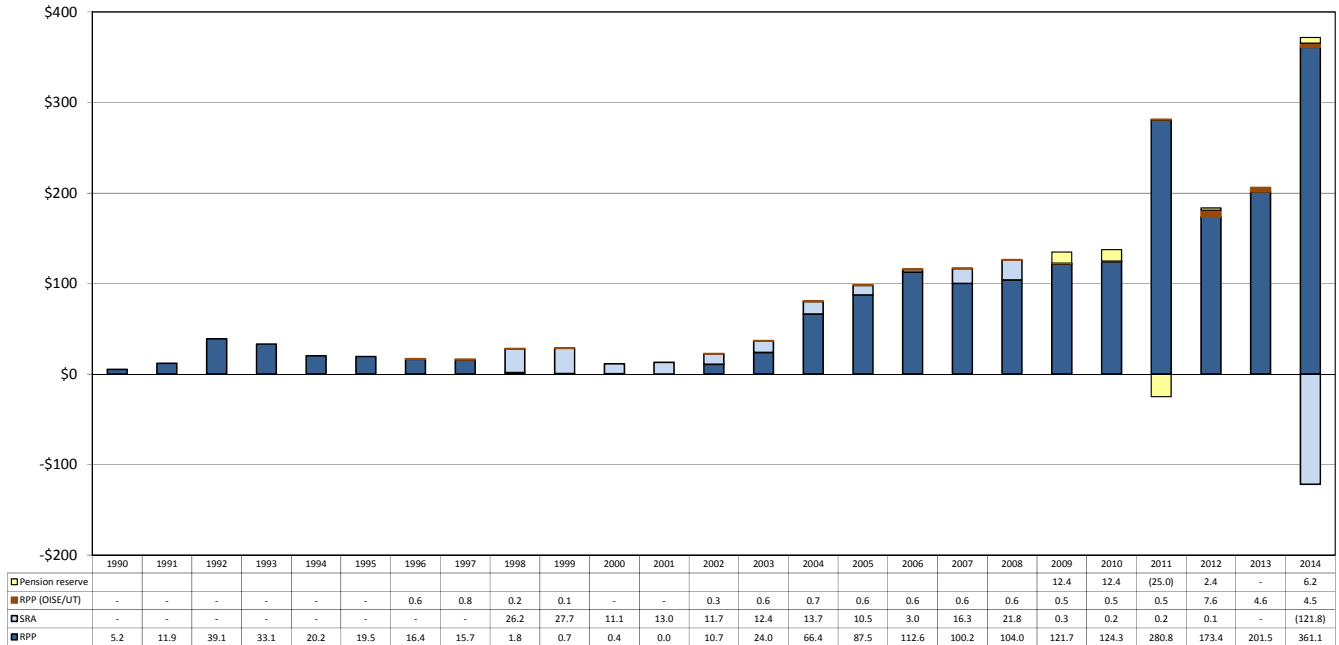
During most years from the late 1980's to 2002, the RPP had a sufficiently high actuarial surplus that no employer contributions were permitted except for two years where a partial contribution was permitted, and four years (1990-1994) where a full contribution was permitted. Members experienced a pension contribution holiday from 1997 to 2002. The University redirected \$88.1 million of its contribution holiday to fund the SRA over the 5 year period following its establishment in 1997, which included current service contributions and special payments to fund past service. The RPP(OISE) was in surplus throughout the period.

After 2002, due in large part to poor investment markets, the surplus declined significantly. The University adopted a new pension contribution strategy, approved by the Business Board in January 2004, with the objective of providing smoothed funding to deal with these deficits over a multi-year period, while permitting stable, predictable funding via the University's operating budget and while taking the Income Tax Act funding constraint into account. The key elements of the 2004 pension contribution strategy were as follows:

- Members and the University contribute 100% annual current service contributions (no contribution holidays).
- The SRA would be "funded" on the same basis as the registered pension plans, that is over 15 years.
- The University would allocate special payments of no less than \$26.4 million (increased to \$27.2 million to reflect subsequent benefits enhancements) to deal with the RPP and SRA deficits by way of a smoothed budget allocation over 15 years. This smoothed approach provided for higher payments than required in the earlier years, with the intent of protecting against solvency issues and providing for budget predictability within the University's operating fund.
- If some, or all, of the special payment amount is not needed or permitted to be made into the RPP under the Income Tax Act, it must be set aside and reserved outside the RPP.

The following chart shows the allocation of contributions by plan since 1990.

**Allocation of Contributions (both Employer and Employee) by Plan <sup>1,2</sup>**  
**for the year ended June 30**  
**(millions of dollars)**



- <sup>1</sup> Pension reserve assets were transferred to the RPP in 2011. Since additions to the pension reserve in 2009 and 2010 were shown as contributions in those years, the transfer of pension reserve assets to the RPP in 2011 is shown as a negative contribution to the pension reserve in that year, and a positive contribution to the RPP.
- <sup>2</sup> SRA assets were transferred to the RPP in 2014. Since University allocations to SRA assets between 1998 and 2012 were shown as contributions in those years, the transfer of SRA assets to the RPP in 2014 is shown as a negative contribution to the SRA assets in that year, and a positive contribution to the RPP.

This contribution strategy delivered additional funding to the pension plan to deal with the deficit that had emerged in 2003 and, through the requirement to maintain the \$27.2 million per year special payments budget even after the deficit was extinguished, made provision for a base funding level in the event of future deficits.

Beginning in 2008, and much more pronounced in 2009, the impact of the global financial crisis was to reduce market returns significantly, necessitating an overhaul of the pension contribution strategy to address the resulting large deficit. Rapidly falling interest rates also impacted solvency calculations, necessitating government action around solvency funding regulations.

In 2010 the Province of Ontario put in place a two stage process that is intended to provide institutions in the broader public sector (which includes universities) with an opportunity to make net solvency payments over a longer period than would otherwise be required. The University has been accepted to stage 1 of this process, which means that required special payments are known for the period July 1, 2011 through June 30, 2015, absent any plan

changes that would require that actuarial valuations be filed with the Financial Services Commission of Ontario during the intervening period.

To qualify for stage 2 of this process, the Government expected institutions to negotiate with plan members, and their representatives, ways to enhance the long term sustainability of defined benefit pension plans. The University has put into place member contribution increases to meet the conditions required for acceptance to stage 2 of the process. The Government also requires that during the relief period, and for a significant period of time following the relief period, contribution holidays would be restricted and any benefit improvements would require accelerated funding.

The pension contribution strategy was significantly revised to address the deficit and to reflect the Government's temporary solvency relief program. This revised pension contribution strategy, including a plan for funding the pension deficit, was approved by the Business Board on May 3, 2012 based on actuarial results to July 1, 2011 and assumptions about future years to 2030. The key elements of the current pension contribution strategy are as follows:

- Members and the University make 100% of required current service contributions into the registered pension plans each year.
- University pension plan current service contributions are to be no less than 10.77% of the capped participant salary base.
- In the event that legislation or regulation prohibits some or all of the University current service contributions from being deposited into the registered pension plans, those contributions will be reserved for pensions outside the registered pension plans.
- Supplemental Retirement Arrangement (SRA):
  - No further current service or special payment contributions will be made into the SRA.
  - The balance of the SRA assets will be deposited into the registered pension plan(s) by June 30, 2014 (see point below regarding second lump sum payment).
  - SRA payments to current and future pensioners will be made by the University.
- A second lump sum payment in the amount of \$150 million will be made into the registered pension plans before July 1, 2014, utilizing SRA assets (see above) and approved internal borrowing as required.
- Up to \$150 million of internal borrowing for pensions (Note: the Business Board approved internal borrowing for pensions of up to \$150 million on January 31, 2011. Inclusion of this item again here is for completeness).
- Letters of Credit will be utilized to address the net solvency special payments to the fullest extent permitted by legislation and regulation.
- Increase Operating Fund Special Payments Budget:



- To an amount deemed sufficient to meet the plan's special payment funding requirements, currently estimated to be \$97.2 million per year.
- To fund special payments into the registered pension plans and other costs related to this pension contribution strategy such as borrowing repayment costs, SRA pension payments for pensioners, letter of credit fees, and Pension Benefit Guarantee Fund (PBGF) fees.
- Maintain that higher budget, currently estimated at \$97.2 million, until the pension deficit is extinguished.
- Maintain the annual special payments budget at \$27.2 million per year, even after the deficit and other costs related to this strategy have been extinguished.
- Maintain the Pension Reserve structure.

The full text of the Pension Contribution Strategy can be found on the governing council website at: <http://www.governingcouncil.utoronto.ca/AssetFactory.aspx?did=8516>.

Under current solvency funding relief regulations, the solvency deficit as of July 1, 2014 would have to be amortized over 10 years based on qualifying for stage 2 of the process. Under the amended solvency funding relief regulations, the University has elected an additional 3-year period during which the minimum special payment is the interest on the solvency deficit. After the 3-year period, any solvency deficit at that time would be amortized over 7 years (the remaining period in the original 10-year period). As a result, for the 7-year period beginning July 1, 2018 and ending June 30, 2025, the annual solvency special payments with stage 2 solvency funding relief will be \$58.68 million. This is in addition to the annual going concern special payments of \$78.66 million for the 15-year period beginning July 1, 2015.

The following certification summarizes the contributions to the plans for the period from July 1, 2013 to June 30, 2014:



December 9, 2014

Governing Council of the University of Toronto  
27 King's College Circle  
Toronto, ON M5S 1A1

**Contributions to:      University of Toronto Pension Plan  
                                         University of Toronto (OISE) Pension Plan**

This letter confirms that the University of Toronto has made all required pension contributions to the University's registered pension plans for the pension fiscal year ending June 30, 2014. The contributions to the plans totaled \$365,571,364. The following table summarizes the contributions by plan and by type:

	<u>RPP</u>	<u>RPP(OISE)</u>	<u>Total</u>
Employee – current service	\$ 53,964,574	\$ 415,790	\$ 54,380,364
Employer – current service	93,599,000	976,000	94,575,000
Employer – special required	63,516,000	3,100,000	66,616,000
Employer – special additional	<u>150,000,000</u>	<u>-</u>	<u>150,000,000</u>
<b>Totals</b>	<b><u>\$ 361,079,574</u></b>	<b><u>\$ 4,491,790</u></b>	<b><u>\$ 365,571,364</u></b>

The above contributions to the plans exclude portability and reciprocal transfers from other plans of \$2,224,366.

(signed)

Sheila Brown  
Chief Financial Officer

## Investment Earnings

As noted earlier, pension assets arise from only two sources of funding – contributions (including transfers in) and investment earnings. These sources of funding must pay for the payments to retired members and lump sum transfers, and for the fees and expenses incurred in administering and investing the pension plans. Investment earnings are dependent on several elements:

- How much risk are we willing to take to try to achieve an acceptable level of investment earnings, understanding that the higher the investment earnings we want, generally speaking, the higher the risk of loss we are going to have to tolerate and to plan for?
- What investments do we make – the investment strategy, including asset mix – to try to achieve investment earnings?
- How are investment markets performing, in Canada and around the world?

The registered pension plans are invested through the unitized pension master trust (PMT) which combines for investment purposes the assets of the RPP and the RPP (OISE). The PMT was created on August 1, 2000 to provide the assets of the two registered pension plans with the same economies of scale, diversification and investment performance. The pension assets in the PMT are invested by the University of Toronto Asset Management Corporation (UTAM) on behalf of the pension plans. The current framework for investment policy, strategy and monitoring for the PMT is as follows:

- The investment return and risk targets are developed by the University administration, reviewed by the President's Investment Advisory Committee (IAC), embedded in the Pension Fund Statement of Investment Policies and Procedures (SIP&P) and approved by the University of Toronto Pension Committee.
- The Reference Portfolio, which is both the policy asset mix and the benchmark portfolio with respect to passive investing, is based on the investment return and risk targets. It is developed by the IAC and UTAM, working together, embedded in the SIP&P, and approved by the Pension Committee. The Reference Portfolio and the associated risk limits, once approved, also constrain the flexibility that UTAM can exercise in actively managing the actual portfolio.
- Investment performance is monitored by UTAM, the IAC, the University administration and the Pension Committee through regular reporting by UTAM to these various groups. That reporting includes current period and multi-year comparisons of actual performance to the PMT target returns and risk limits and to the Reference Portfolio's returns and risk limits.

It is important to note that investment performance is NOT evaluated based on peer comparisons. Peer comparisons assume that the return target and risk appetite of peers are similar, which is typically not the case. Indeed such comparisons can be dangerous, particularly if they influence investment decisions without taking into account the important decision parameters. These include the parameters of our plan, including the benefits promised to our members, and our appetite for risk.

The current methodology is based on a belief that we should primarily be concerned with the achievement of the risk and return targets as stated in the SIP&P. Achieving the return target is paramount because, as noted above, funding for the pension plans comes only from two sources – contributions (from plan members and the University) and investment earnings. While there is a margin of error for adverse events (3.75% real investment return discount rate actuarial assumption as compared to the real investment return target of 4.0% in the SIP&P, both net of investment fees and expenses), it is still very important that actual investment returns meet the investment return target over the long-term, to sustain the pension plans over the long-run.

The challenge is to find a way to evaluate performance towards these longer-term investment return targets over a multi-year period while taking into account the influence of underlying financial markets conditions on short-term results, and to put those short-term results in perspective.

At the present time, the University evaluates investment performance for the PMT against the investment return targets, the risk limits, and the Reference Portfolio returns, as specified in the SIP&P. The primary objective must be the achievement of the PMT investment return targets while controlling risk to within the specified risk limits.

Here is the evaluation of actual PMT performance against the investment return targets and the Reference Portfolio returns.

<b>Evaluation of PMT Investment Performance - Comparing Actual Results, Target and Benchmark Returns</b>					
	YTD Jan - Jun 2014	1 Year July 13 - June 14	2 Years July 12 - June 14	4 Years July 10 - June 14	5 Years July 09 - June 14
PMT actual investment return	7.80%	17.43%	14.73%	10.61%	10.13%
Reference/benchmark portfolio return	6.51%	15.88%	12.76%	9.34%	9.13%
PMT target investment return - 4.0% + CPI	3.70%	6.20%	5.72%	6.01%	5.83%
Difference between PMT actual and target	4.10%	11.23%	9.01%	4.60%	4.30%
Of which:					
the % attributable to good inv't markets is:	2.81%	9.68%	7.04%	3.33%	3.30%
the % attributable to active management decisions is:	<u>1.29%</u>	<u>1.55%</u>	<u>1.97%</u>	<u>1.27%</u>	<u>1.00%</u>
	4.10%	11.23%	9.01%	4.60%	4.30%
<b>Note: all investment return percentages are net of all investment fees and expenses.</b>					

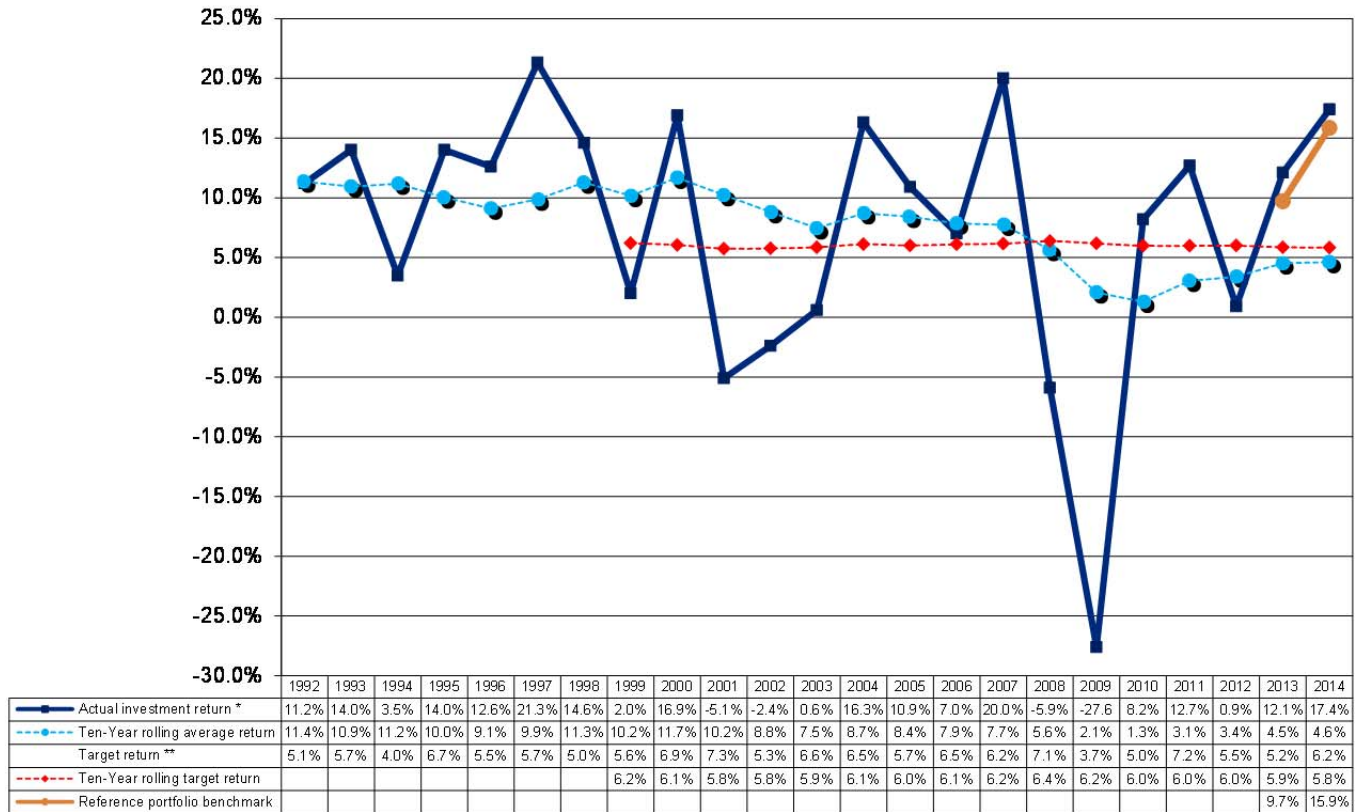
As you can see from the above table, for the one-year period of July 1, 2013 to June 30, 2014, the target investment return for the PMT was 6.2%, representing 4.0% real investment return plus inflation of 2.2%, net of investment fees and expenses. The actual return for the year was 17.43%.

- Was that a good thing for the PMT? Using the evaluation embedded in the SIP&P and described in this section, the answer is yes. Actual returns for the year exceeded the target by 11.23% (17.43% - 6.2%), which is a good thing.
- What about active management? Actual returns for the year also exceeded the Reference Portfolio return (which is the benchmark return to indicate how markets performed) by 1.55% (17.43% - 15.88%) meaning that active management added value.
- And it is important to emphasize that all of the return percentages are net of investment fees and expenses.

The same analytical framework applies to the other periods shown in the graph above. For the five-year period from July 1, 2009 to June 30, 2014, the actual return for the PMT was 10.13%. This actual return exceeded the target of 5.83% by 4.3% (10.13% - 5.83%). This actual return exceeded the Reference/benchmark return of 9.13% by 1.0% (10.13% - 9.13%).

Of course, applying the methodology and evaluating performance over a multi-year period is better than considering short periods, given the long-term nature of the pension plans and the investment return target.

**Pension Master Trust**  
**Ten-Year Rolling Average Actual/Target Returns, Annual Returns, Reference Portfolio Returns**



\* Returns are time-weighted, calculated in accordance with industry standards, are net of investment fees and expenses, and exclude returns on private investment interests prior to 2008.  
 \*\* Target return is 4.0% plus CPI.

If we look at the ten-year rolling-average returns, we find that for the entire period from 1999 to 2007, the actual ten-year rolling average returns were at or above the University’s target return.

However, if we concentrate on the more recent past, returns are more variable, as expected when a shorter period is studied. From 2004 to 2007, investment performance was excellent, outperforming the target real return. In 2008 the PMT suffered a negative return of 5.9%, and in 2009 a negative return of 27.6%, due to the global financial crisis, although the ten-year return remained positive. During 2010 and 2011, all major financial markets rebounded from the meltdown experienced in 2008 and 2009.

What was the impact on the ten-year rolling average for the PMT?

In 2007, pre-financial crisis, the ten-year rolling average actual return of 7.7% exceeded the ten-year rolling average target return of 6.2% by 1.5%. By 2010, following the financial crisis, the ten-year rolling average actual return of 1.3% was less than the ten-year rolling average target return of 6.0% by 4.7%. By 2014, this ten-year rolling average actual return has rebounded to 4.6%, but is still less than the ten-year rolling average target investment return of 5.8% (by 1.2%). Please see the section Status of the Pension Plans – In Perspective for how investment performance impacts the financial health and status of the pension plans.

A detailed review of the investment performance, which is managed and measured on a calendar basis by UTAM, is available on the UTAM website at [www.utam.utoronto.ca](http://www.utam.utoronto.ca). Please see the next section for a discussion of fees and expenses.

## Fees and Expenses

It costs money to manage, administer and invest pension plan assets. There are several categories of fees, including those for pension administration services (e.g. recordkeeping, calculation of benefits, payments to retired members), custody of pension assets, and investment of pension funds. The fees and expenses incurred for the pension master trust (excluding the SRA which is managed together with University endowments) for the year ended June 30, 2014 were as follows, for the RPP and RPP(OISE), in millions of dollars:

	<b>RPP</b>	<b>RPP(OISE)</b>	<b>2014 Total</b>	2013 Total
Investment management fees - external managers	<b>22.7</b>	<b>0.7</b>	<b>23.4</b>	21.0
Investment management costs - UTAM	<b>3.0</b>	<b>0.1</b>	<b>3.1</b>	2.7
Pension administration services	<b>0.7</b>	<b>0.1</b>	<b>0.8</b>	0.8
University of Toronto administrative costs	<b>0.5</b>	<b>0.1</b>	<b>0.6</b>	0.6
Actuarial and administration fees	<b>0.5</b>	<b>0.1</b>	<b>0.6</b>	0.5
Custodial costs	<b>0.3</b>	<b>0.0</b>	<b>0.3</b>	0.4
Transaction fees <sup>1</sup>	<b>0.1</b>	<b>0.0</b>	<b>0.1</b>	1.0
Other fees	<b>0.2</b>	<b>0.0</b>	<b>0.2</b>	0.7
<b>Total</b>	<b>28.0</b>	<b>1.1</b>	<b>29.1</b>	27.7

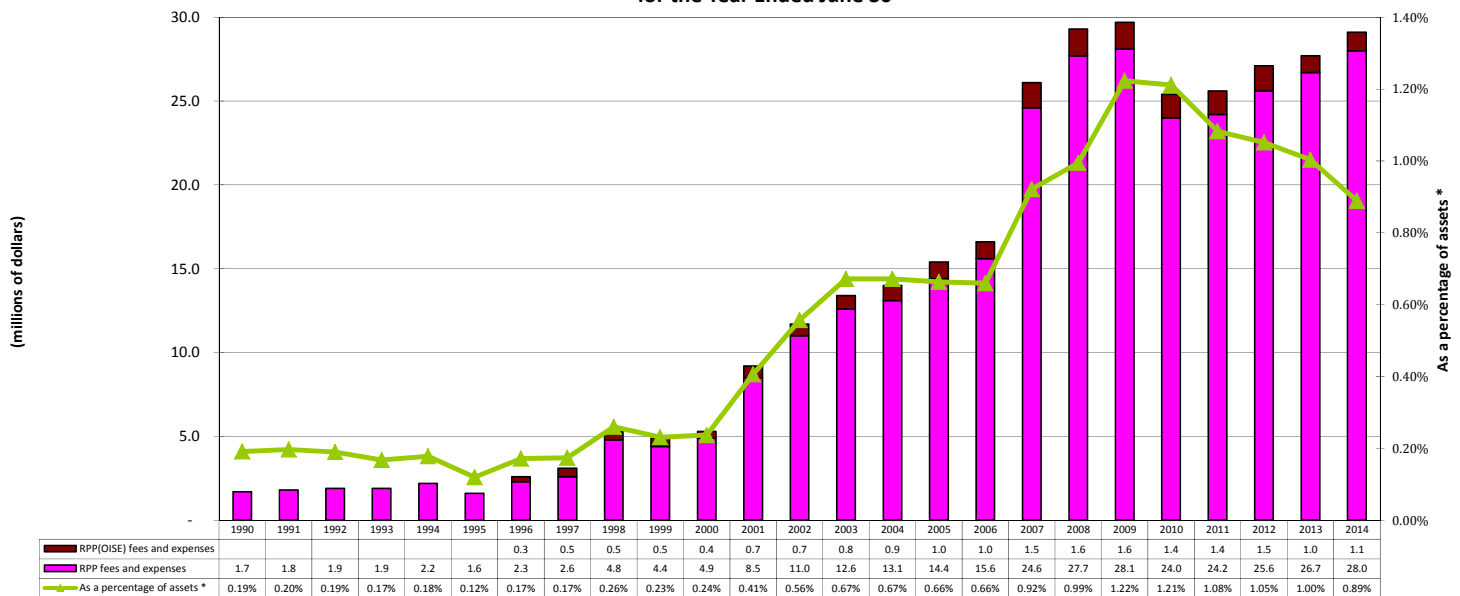
<sup>1</sup> decrease due to high fees in 2013 as a result of the introduction of the new emerging market asset class after the adoption of the Reference Portfolio in May 2012.

External investment management fees, which represent 80% of total fees and expenses in 2014 (76% in 2013), are normally related to the size of assets under management. Total

external investment management fees increased from \$21.0 million in 2013 to \$23.4 million in 2014.

The following chart provides a historical perspective on the fees and expenses:

**University of Toronto Registered Pension Plans  
Fees and Expenses as a Percent of Assets \*  
(excluding SRA)  
for the Year Ended June 30**



\* based on the average of opening and closing market value of assets.

During 2014, RPP and RPP(OISE) assets under management increased from \$2,927.4 million to \$3,618.8 million. Total fees and expenses increased from \$27.7 million in 2013 to \$29.1 million in 2014. As indicated in the above chart, total fees and expenses for the plans in 2014 were 0.89% of the average market value of assets of the pension master trust, a decrease from 1.00% in 2013.

The management expense ratio (MER) is a standard investment industry ratio which compares the costs of investment management, both direct and indirect, to the total assets under management. The MER includes expenses incurred by UTAM and all investment management fees. It excludes other pension administration costs such as external audit fees, records administration, actuarial fees and University of Toronto administrative fees. It also uses the average annual market values for the year. The MER for the pension master trust was 0.83% in 2014, a decrease from 0.89% in 2013.



A question of obvious interest is why total fees and expenses for the RPP and RPP(OISE) increased in percentage terms during the period from 2000 to 2003, and during the period 2007 to 2009. This was due to several factors. Investment management for the pension plans changed between 2000 and 2003 from a balanced fund type strategy, to an active professional investment strategy managed by UTAM since 2000. In addition, the investment strategy also placed increasing emphasis on alternative assets such as hedge funds and private investment interests, which generally have higher investment management fees than traditional investments such as public fixed income or public equities. It is anticipated that despite their higher management fees, alternative assets will generate higher investment returns in the long-run as well as diversify portfolio risk. It is also important to note that, prior to 1997, the University absorbed pension costs that in more recent years were charged to the pension plans when such pension costs were more fully identifiable.

It is important to note that fees and expenses cannot be evaluated on their own, but need to be viewed in the context of the underlying assets' return potential in the long-term. Fees and expenses as a percentage of assets, as can be seen from the previous chart, decreased over a two year period from 1.05% in 2012 to 0.89% in 2014, mainly due to an increase in the market value of pension assets while fees and expenses increased only slightly during these two years. While it is desirable to have positive and high investment returns each year, it is important to bear in mind that there will be variability in returns from one year to another due to general market cycle and conditions, but perhaps more importantly, that the investment strategy is crafted for a long-term horizon that aligns with the pension master trust's 10-year target objectives.

For more information on fees and expenses refer to note 6 of the University of Toronto Pension Plan financial statements, and note 6 of the University of Toronto (OISE) Pension Plan financial statements at <http://www.finance.utoronto.ca/alerts/pensionrpts.htm>.

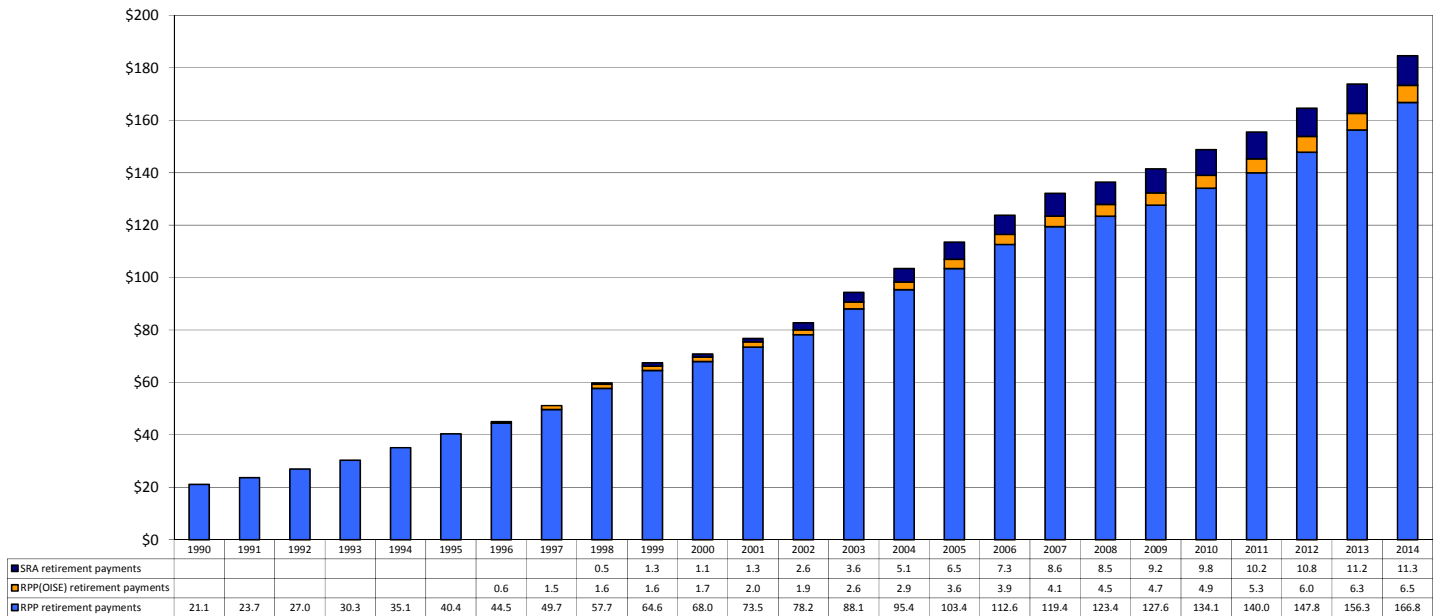
## **Pension Payments**

The section on participants showed that the number of retired members in the RPP has increased from 2,051 in 1990 to 5,261 in 2014, an increase of 156.5%; the number of retired members in the RPP(OISE) has increased from 121 in 1997 to 164 in 2014, an increase of 35.5%. Payments to retired members reflect this increase in numbers as well as the cost of living adjustments and augmentations that have occurred in certain years for certain member groups.

The dollar value of payments for the three plans has increased from \$21.1 million in 1990 to \$184.6 million in 2014.

The rate of increase in payments is higher than the rate of increase in the number of members mainly due to pension indexation, augmentation of existing pension payments and higher starting pensions for more recently retired members reflecting higher average earnings.

**University of Toronto Pension Plans  
Retirement Payments for the year ended June 30  
(millions of dollars)**



\* excluding refunds and transfers to other plans upon termination

## Pension Market Deficit

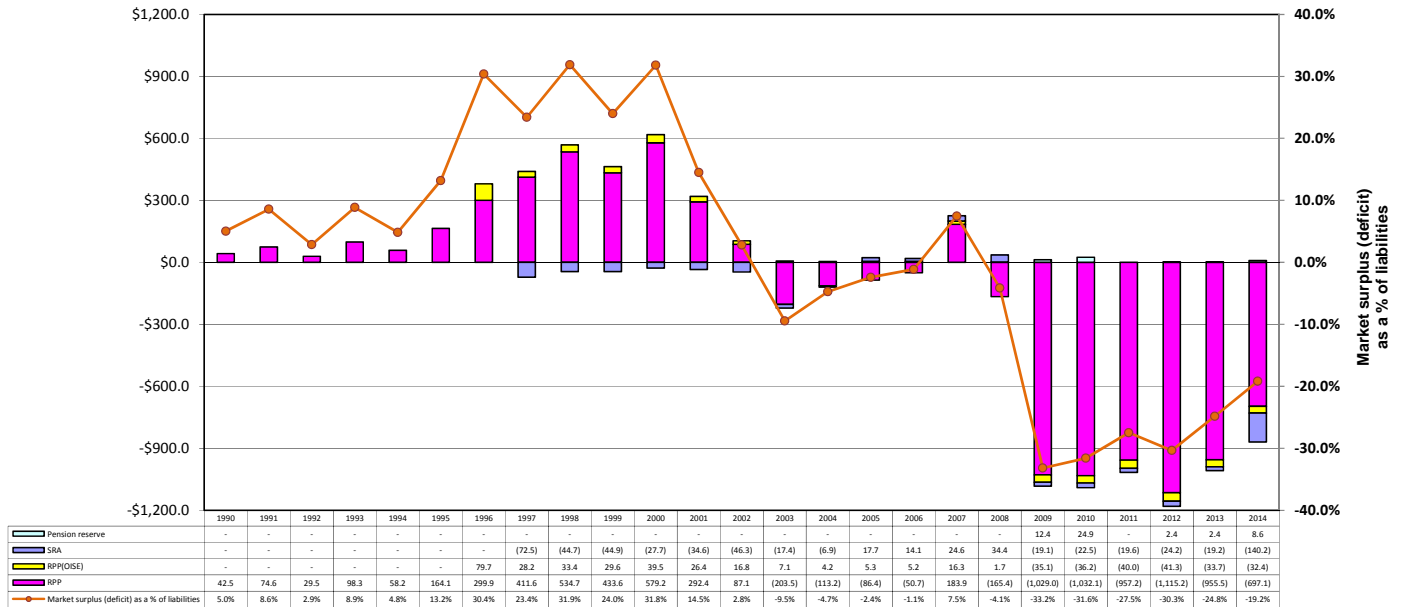
Going concern pension liabilities minus pension assets at market value result in the net funded status of the pension plans, the market surplus or market deficit. The going concern market deficit at July 1, 2014 totaled \$861.1 million, comprising:

\$	(697.1) million	RPP market deficit
\$	(32.4) million	RPP(OISE) market deficit
\$	(140.2) million	SRA market deficit
\$	8.6 million	Pension reserve university assets

As noted earlier, funds cannot be transferred between the two registered plans or from either of the registered plans to the SRA or the pension reserve. Funds can be transferred from the SRA or the pension reserve into either of the registered plans.

The change in the market surplus or deficit since 1990 is shown on the following chart:

**Going Concern Market Surplus (Deficit)  
as at July 1  
(millions of dollars)**



Since 1990, the RPP position has varied from a surplus high of \$579.2 million in 2000 to a deficit low of \$1,115.2 million in 2012. The current market deficit of \$697.1 million is due in large part to the unprecedented level of investment losses resulting from the global financial and economic crisis, which increased the market deficit from \$165.4 million in 2008 to \$1,029.0 million in 2009. In 2010, the deficit increased slightly to \$1,032.1 million, improved

in 2011 to a deficit of \$957.2 million (the net result of actuarial assumption changes offset by a \$150 million lump sum contribution and investment returns of 12.7%), increased to \$1,115.2 million mainly as a result of investment returns of only 0.9% in 2012 while pension liabilities continued their upward trend, and then improved in 2013 to a deficit of \$955.5 million, the net result of investment returns of 12.1% and special contributions of \$66.6 million partly offset by actuarial assumption changes. In 2014, the deficit reduced to \$697.1 million as a result of investment returns of 17.4% and a \$150 million lump sum contribution, partially offset by updated actuarial assumptions.

The RPP(OISE) plan moved to a market deficit position in 2009 after being in a surplus position for many years<sup>1</sup>. The plan deficit position worsened slightly in 2010 mainly due to the increase in plan liabilities offset by an improved financial environment, worsened in 2011 mainly due to the increase in plan liabilities (primarily the result of changes to plan assumptions) offset by improved investment earnings, the deficit increasing further in 2012 with a continued increase in liabilities which was only slightly offset by investment earnings which were below target, and then improved in 2013 mainly due to investment returns above target partly offset by actuarial assumption changes. In 2014, similar to the RPP, the plan experiences positive investment returns offset by updated actuarial assumptions, with the deficit falling from \$33.7 million in 2013 to \$32.4 million in 2014.

The SRA was established in 1997, with a five year funding plan. Subsequent benefit enhancements affecting SRA funding were also funded over five years. In 2004, SRA funding was put on the same basis as the registered plans (deficits funded over 15 years). In 2013, the SRA was in a deficit position of \$19.2 million. During 2014, the assets set aside for the SRA were transferred to the RPP and, as a result, the current position of the SRA is a deficit of \$140.2 million comprised entirely of the SRA liability. Future SRA payments will be made from University operating funds.

The financial position of all of the plans has worsened since 2008, moving from a small deficit overall, representing about 4% of going concern liabilities to a much larger deficit overall representing about 19% of liabilities in 2014, though there has been a marked improvement since 2009 when the deficit represented over 33% of going concern liabilities. See the section "Status of the Pension Plans – In Perspective" on page 48 for more detailed analysis of the components of the change in the pension deficit over the past 8 years.

With respect to the solvency deficiency calculation, which is a regulatory calculation, the Ontario Government has put in place a two stage process that is intended to provide institutions in the broader public sector (which includes universities) with an opportunity to make net solvency payments over a longer period than would otherwise be required. The

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<sup>1</sup> A partial wind-up distribution was approved by the Financial Services Commission of Ontario on October 1, 2007.

University has recently been accepted to stage 2 of this process. A revised contribution strategy reflecting plans to deal with the pension deficit was approved by the Business Board on May 3, 2012. As stated earlier, the amendments to the solvency funding relief regulations have delayed required solvency payments for an additional 3 years (to July 1, 2018), with solvency payments at the end of that 3-year period being amortized over the remaining 7 years (July 1, 2018 to June 30, 2025). These changes, together with other updates since 2011, will be dealt with as part of the updated pension contribution strategy which is expected to be brought forward to the Business Board during 2015.

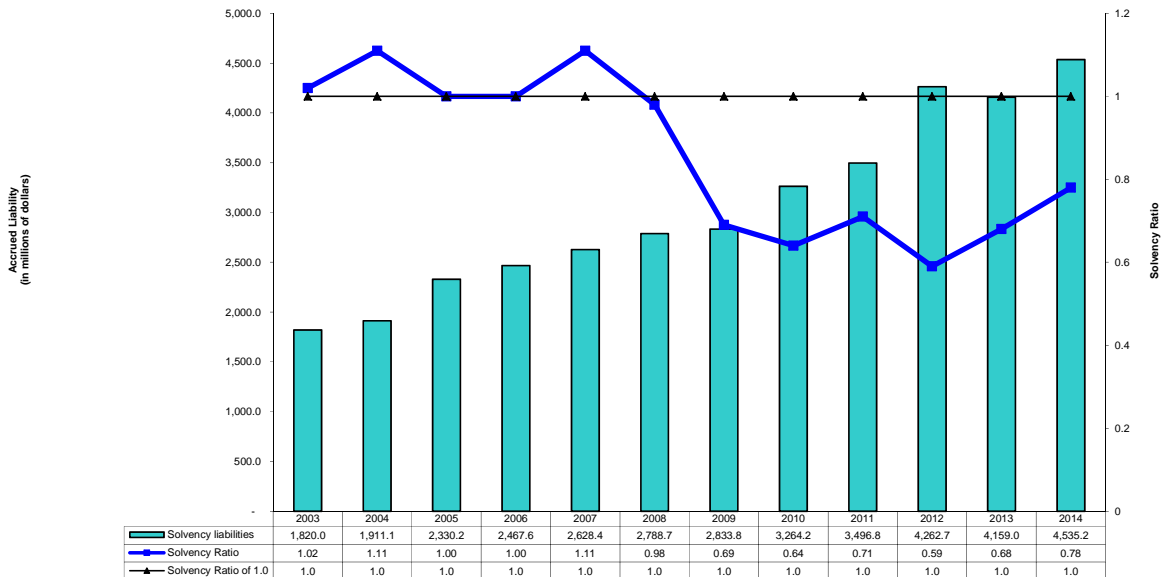
The market surplus (deficit) varies with the type of actuarial valuation and with the assumptions used to estimate the liabilities. The following section shows the impact of solvency and hypothetical wind-up assumptions on the surplus or deficit.

## The Role of Solvency and Hypothetical Wind-up Valuations

As noted earlier, we are legally required to calculate the solvency and hypothetical wind-up actuarial valuations, which have different assumptions from the going concern valuation. The solvency valuation essentially determines the status of a pension plan as if it were to be wound up on the valuation date and requires that the liabilities be discounted at current market rates, rather than at long-term rates, but without indexing.

The RPP solvency ratio (the ratio of assets to solvency liabilities) improved from 0.68 at July 1, 2013 to 0.78 at July 1, 2014. As of July 1, 2014, the plan had a solvency deficit of \$1.01 billion versus a solvency deficit of \$1.31 billion as of July 1, 2013. The main reasons for the current solvency deficit of the RPP include the unprecedented investment losses during 2008 and 2009, a continuing decline in interest rates that has resulted in a unprecedentedly low discount rates that must be used to value solvency liabilities, and lengthening life spans which required updated tables to be used for the mortality rates assumption in both 2011 and 2014.

**RPP  
Solvency Ratio and Solvency Liability (without Escalated Adjustments)  
as at July 1**



As stated previously, the solvency ratio refers to the ratio of solvency assets to solvency liabilities (excluding indexation). A solvency ratio of 1.0 or higher means that at a particular point in time there is a solvency excess. A solvency ratio of less than 1.0 indicates that at a

particular point in time there is a solvency deficit. If the solvency ratio is less than 0.85 at the time the valuation is filed with the regulators, an actuarial valuation must then be filed annually until such a point when the solvency ratio is above 0.85. Otherwise, valuations must be filed at least triennially. However, as a result of qualifying for stage 2 of the temporary solvency funding relief process, the effective date of the next required actuarial valuation to be filed with the regulators is July 1, 2017.

The hypothetical wind-up valuation extends the solvency valuation by adding in the indexing and incorporating early retirement windows. On a hypothetical wind-up basis, the RPP market deficit would be \$2.72 billion <sup>1</sup>.

The RPP(OISE) solvency ratio was 0.68 at July 1, 2014, an increase from a solvency ratio of 0.63 at July 1, 2013.

The RPP solvency ratio of 0.78 at July 1, 2014 would normally trigger large net solvency payments over a five year period. As noted earlier, the Ontario Government has put in place a two stage process that is intended to provide institutions in the broader public sector (which includes universities) with an opportunity to make net solvency payments over a longer period than would otherwise be required. The University has been accepted to stage 2 of this process. As described earlier in this document (page 32), a revised pension contribution strategy reflecting plans to deal with the pension deficit was approved by the Business Board on May 3, 2012, and it is expected that an updated pension contribution strategy will be brought forward to the Business Board in 2015.

Under the amended solvency relief regulations, the University has elected an additional 3-year period during which the minimum special payment is the interest on the solvency deficit (to June 30, 2018). After the 3-year period, the solvency deficit would be amortized over 7 years (the remaining period in the original 10-year period).

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<sup>1</sup> *There are in fact capacity constraints within the Canadian group annuity market that make it very unlikely that the indexed liabilities for a plan of this size could be settled through the purchase of indexed annuities. Based on Educational Notes prepared by the Canadian Institute of Actuaries, in such cases, the actuary may make a reasonable hypothesis on the manner in which benefits may be settled on wind-up. That could include a modification on the benefits provided such as converting from floating to fixed indexation. If such a change was made for this Plan with indexation fixed at 75% of the expected inflation underlying long-term Government of Canada bonds at the time of wind-up, the market would treat this as a non-indexed annuity with a fixed escalator. The impact would be to reduce the wind-up liabilities by approximately \$0.71 billion.*

## Status of the Pension Plans – In Perspective

The RPP is in a market deficit of \$697.1 million at June 30, 2014. This is in contrast to the small market deficit in the plan of \$50.7 million at June 30, 2006. We know that the global financial and economic crisis in 2008 and 2009 severely impacted investment returns, however this does not tell the whole story. It is important to look at all the components that contribute to the RPP's financial status.

As stated previously, **investment performance** is one of the key components of the financial health of the pension plans. If we look at the period from July 1, 2006 to June 30, 2014, investment earnings/(losses), net of fees and expenses, was just over \$1.0 billion as compared to a target return of \$1.2 billion for the period. However if we exclude the 2009 investment result (the year in which financial markets performed worse than any year since the Great Depression), the actual return for this 8-year period was above target by \$616 million, highlighting the magnitude that the low investment returns in 2009 had on the plans.

During the same period from July 1, 2006 to June 30, 2014, **contributions** totalled just under \$1.5 billion, which included \$621 million of employer current service contributions, \$328 million of employee current service contributions, \$236 million in required special payments, and \$300 million in additional lump sum payments.

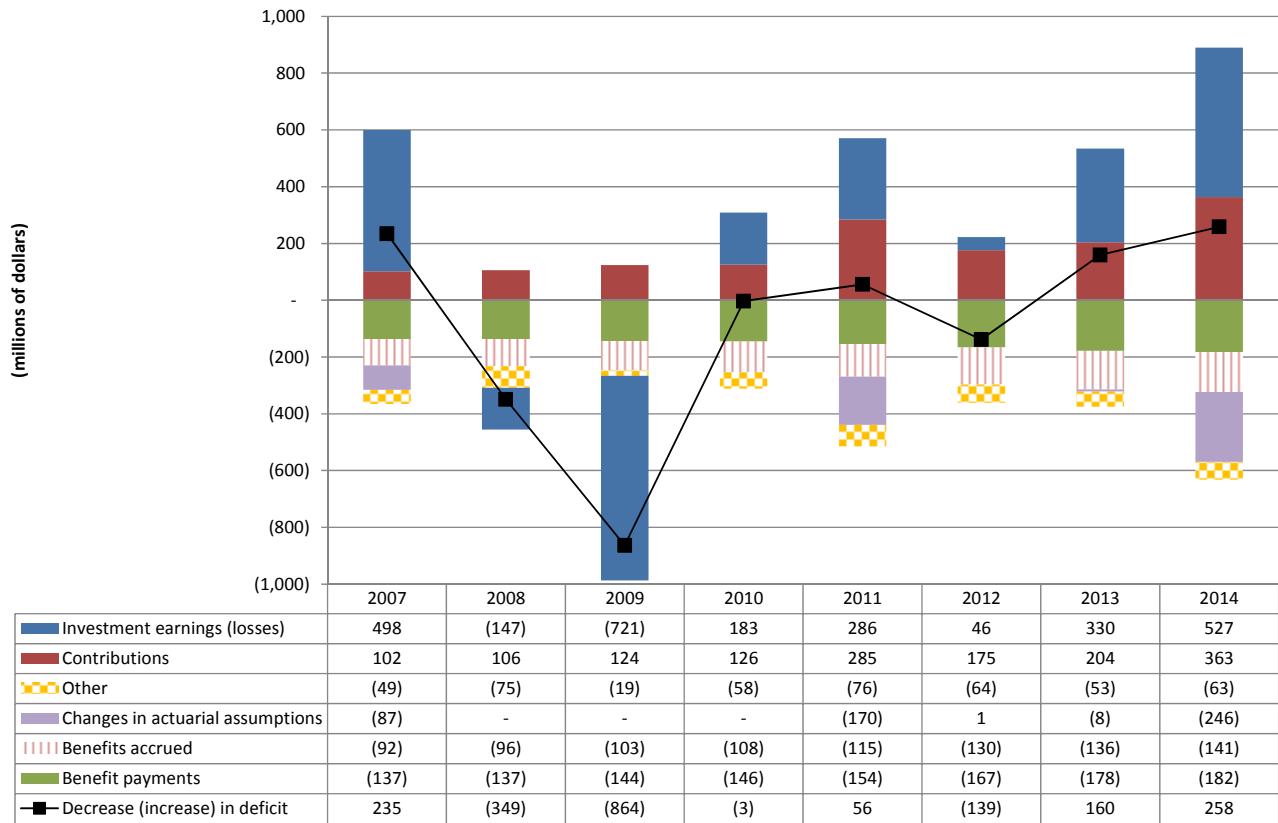
The **benefit payments** made from the plan during the period totalled \$1.2 billion, and **fees and expenses** (primarily investment management fees and expenses) totalled \$208 million.

In addition to the above inflows and outflows of pension assets, the pension status is also impacted by changes to pension liabilities. During the above period, the pension deficit increased by \$1.7 billion for these items. This increase in the deficit was comprised of \$510 million related to **changes in actuarial assumptions**, \$921 million of **benefits accrued**, and \$251 million of **other changes** (i.e. interest on accrued benefits net of actual benefit payments, experience gains/losses, plan amendments, and transfers from other plans).

The following shows graphically the components of the changes in the market deficit for the RPP from July 1, 2006 to June 30, 2014:



**University of Toronto Pension Plan (RPP)**  
**Components of Changes in Pension Deficit - July 1, 2006 to June 30, 2014**



## Conclusion

Both the overall economic and financial climate and the regulatory landscape continue to be very uncertain with respect to pensions. Interest rates continue to be at historic lows, affecting investment returns and risk taking, which will make it much more difficult to achieve desired investment returns going forward. This is reflected in the going concern pension deficit, which still exceeds \$700 million for the 2 registered plans despite \$300 million in additional special contributions made into the plans in recent years and investment returns that have been significantly above target over the past two years (though increased longevity of plan members has necessitated changing actuarial assumptions for mortality which has mitigated the impact of recent positive investment returns). The going concern market deficit for the three plans combined has decreased from 25% of liabilities at July 1, 2013 to 19% of liabilities at July 1, 2014. This is due primarily to investment returns exceeding the target return for the period and large additional employer special payment contributions to the plan, partially offset by actuarial assumption changes. Excluding the SRA deficit (the SRA plan benefits are now being funded by the University from the annual operating budget) the market deficit for the 2 registered plans was just under 17% of liabilities at July 1, 2014.

The solvency ratio for the RPP has improved from 0.68 to 0.78, with investment returns exceeding the target return in 2014, and despite prescribed interest rates falling from 3.50% per year at July 1, 2013 to 3.10% per year at July 1, 2014. From a solvency perspective, continued low interest rates makes it more difficult for the Government to deal with this regulatory issue through its temporary solvency funding relief program. Amendments to the solvency funding relief regulations have delayed required solvency payments until July 1, 2018, though any solvency payments starting July 1, 2018 would have to be amortized over the remaining 7 years. University administration will be updating the pension contribution strategy in 2015, taking into account these amendments.

## **Appendix**

### **Links to Other Pension Documents**

#### **Pension Contribution Strategy**

The pension contribution strategy approved by the Business Board on May 3, 2012 may be found at the following link:

<http://www.governingcouncil.utoronto.ca/AssetFactory.aspx?did=8516>

#### **Pension Fund Master Trust – Statement of Policies & Procedures**

The Pension Fund Master Trust Statement of Policies and Procedures approved by the Pension Committee on June 2, 2014 may be found at the following link:

<http://www.finance.utoronto.ca/Assets/Finance+Digital+Assets/policies/PFMTSIPG.pdf>

#### **Actuarial Reports for the Pension Plans**

The full actuarial reports for each of the University of Toronto Pension Plan, the University of Toronto (OISE) Pension Plan, and the Supplemental Retirement Arrangement can be found at the following link:

<http://www.finance.utoronto.ca/alerts/pensionrpts.htm>

#### **Audited Financial Statement for the Pension Plans**

The audited financial statements for the University of Toronto Pension Plan and the University of Toronto (OISE) Pension Plan can be found at the following link:

<http://www.finance.utoronto.ca/alerts/pensionrpts.htm>