

#### FOR INFORMATION

CONFIDENTIAL

**CLOSED SESSION** 

TO:	Business Board	
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DATE:	January 10, 2014 for January 27, 2014	
AGENDA ITEM:	3	

#### **ITEM IDENTIFICATION:**

Pension Plans Annual Financial Report for the Year Ended June 30, 2013.

#### JURISDICTIONAL INFORMATION:

The Business Board reviews the annual financial report on the pension plans.

#### **GOVERNANCE PATH:**

- 1. Audit Committee (November 26, 2013)
- 2. Pension Committee (December 11, 2013)
- 3. Business Board [For Information] (January 27, 2014)

#### **PREVIOUS ACTION TAKEN:**

The *Pension Plans Annual Financial Report* for the year ended June 30, 2013 was provided for context to the Audit Committee at its meeting on November 26, 2013 and approved by the Pension Committee at its meeting on December 11, 2013.

#### HIGHLIGHTS:

The University of Toronto provides pension benefits to current and future retirees via two registered defined benefit pension plans – the University of Toronto pension plan and the University of Toronto (OISE) pension plan – and one unregistered defined benefit plan – the Supplemental Retirement Arrangement (SRA).

This report brings together in one place, and places in historical perspective, information on the funded status of the pension plans, the plan liabilities (including participants, benefit provisions

and assumptions) and plan assets (including contributions, investment earnings, fees and expenses, and payments to pensioners). It includes the audited financial statements at June 30, 2013 and excerpts from the actuarial reports at July 1, 2013.

At June 30, 2013, the three plans and the pension reserve taken together had a market deficit of \$1,006.0 million, a decrease of \$172.3 million from June 30, 2012, mainly due to investment returns of 12.1%, which were higher than the nominal target investment return of 5.2% for the year. Other contributing factors were special payment contributions of \$66.6 million, partly offset by actuarial assumption changes.

At June 30, 2013, the registered plans had a solvency deficit of \$1,363.8 million, a decrease of \$447.2 million from June 30, 2012, due mainly to an increase of 0.45% in current long-term bond rates that are required to be utilized to discount the solvency liabilities.

The pension contribution strategy will be updated during 2014-15 to take into account actual results since it was established effective July 1, 2011. That update will also consider other possible future changes to actuarial assumptions, and will assess the Government's amended solvency relief regulations, which offer some additional flexibility in the timing of net solvency payments.

## FINANCIAL IMPLICATIONS:

**RECOMMENDATION:** 

For information

## DOCUMENTATION PROVIDED:

*University of Toronto Pension Plans Annual Financial Report For the Year Ended June 30, 2013.* 



# UNIVERSITY OF TORONTO

# **University of Toronto Pension Plans**

**Annual Financial Report** 

For the Year Ended June 30, 2013

# Highlights<sup>1</sup>

## As at July 1, 2013

### With Comparative Figures at July 1, 2012

At July 1, 2013 (millions of dollars)			
	<u>Accrued</u> Liabilities	Market Value of Assets	<u>Market Surplus</u> (Deficit)
University of Toronto Pension Plan (RPP)			
Going concern actuarial valuation	3,800.6	2,845.1	(955.5)
Solvency actuarial valuation <sup>2</sup>	4,159.0	2,844.1	(1,314.9)
Hypothetical wind-up actuarial valuation <sup>2</sup>	5,754.6	2,844.1	(2,910.5)
<u>University of Toronto (OISE) Pension Plan -</u> <u>RPP(OISE)</u>			
Going concern actuarial valuation	116.0	82.3	(33.7)
Solvency actuarial valuation <sup>2</sup>	130.8	81.9	(48.9)
Hypothetical wind-up actuarial valuation <sup>2</sup>	176.3	81.9	(94.4)
Supplemental Retirement Arrangement (SRA)			
Going concern actuarial valuation	132.9	113.7	(19.2)
Pension Plan Reserve		2.4	2.4

At July 1, 2012 (millions of dollars)			
	<u>Accrued</u> Liabilities	<u>Market Value of</u> <u>Assets</u>	<u>Market Surplus</u> (Deficit)
University of Toronto Pension Plan (RPP)			
Going concern actuarial valuation	3,631.0	2,515.8	(1,115.2)
Solvency actuarial valuation <sup>2</sup>	4,262.7	2,514.8	(1,747.9)
Hypothetical wind-up actuarial valuation <sup>2</sup>	5,618.3	2,514.8	(3,103.5)
University of Toronto (OISE) Pension Plan - RPP(OISE)			
Going concern actuarial valuation	117.8	76.5	(41.3)
Solvency actuarial valuation <sup>2</sup>	139.2	76.1	(63.1)
Hypothetical wind-up actuarial valuation <sup>2</sup>	178.2	76.1	(102.1)
Supplemental Retirement Arrangement (SRA)			
Going concern actuarial valuation	135.2	111.0	(24.2)
Pension Plan Reserve		2.4	2.4

<sup>&</sup>lt;sup>1</sup> Going concern valuations assume that the plan is continuing to operate for the foreseeable future. Solvency and hypothetical wind-up valuations assume that the plan will be wound-up as at the valuation date. See pages 12 to 14 for a full discussion of the different types of valuations.

 <sup>&</sup>lt;sup>2</sup> The market value of assets are net of wind-up expenses which are estimated to be \$1.0 million for the RPP and \$0.4 million for the RPP(OISE).

## Highlights (continued)

## As at July 1, 2013

## With Comparative Figures at July 1, 2012

Participants	July 1, 2013	July 1, 2012
RPP	17,252	16,854
RPP(OISE)	251	259

	For the year-ended	
Contributions	June 30, 2013	June 30, 2012
Employer - Current service	94.8	92.9
Employer - Special payments	66.6	50.6
Total Employer *	161.4	143.5
Total Employee - Current Service	44.7	40.0

\* Employer contributions for the year-ended June 30, 2014 are estimated to be \$312.7 million, which include \$96.1 million current service funding and \$216.6 million special payment funding. Of the \$216.6 million special payment funding, \$66.6 million represents required going concern special funding and \$150.0 million represents additional lump sum payments to be made into the RPP prior to July 1, 2014, in line with the pension contribution strategy.

	For the year	For the year-ended	
Investment Earnings	June 30, 2013	June 30, 2012	
Actual investment return **	12.1%	0.9%	
Target return (4.0% plus CPI)	5.2%	5.5%	

\*\* Returns are time-weighted, calculated in accordance with industry standards, and are net of investment fees and expenses.

Going Concern Key Actuarial Assumptions	July 1, 2013	July 1, 2012
Increase in consumer price index (CPI)	2.25%	2.50%
Increase in salaries	4.25%	4.50%
Discount rate on liabilities	6.00%	6.25%

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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.

<sup>&</sup>lt;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.

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 is the audited financial statements for the RPP and the RPP(OISE) at June 30, 2013 and relevant excerpts of actuarial reports.

## 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.

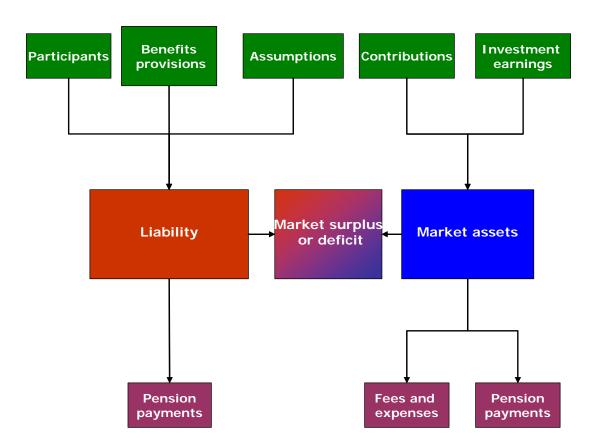
A defined benefit pension plan provides pension benefits to each retiring member on the basis of defined percentages applied to salary and years of service. Members and the employer provide funding, and the member will ultimately receive pension benefits that result from the salary and years of service 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 consumer price index (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.

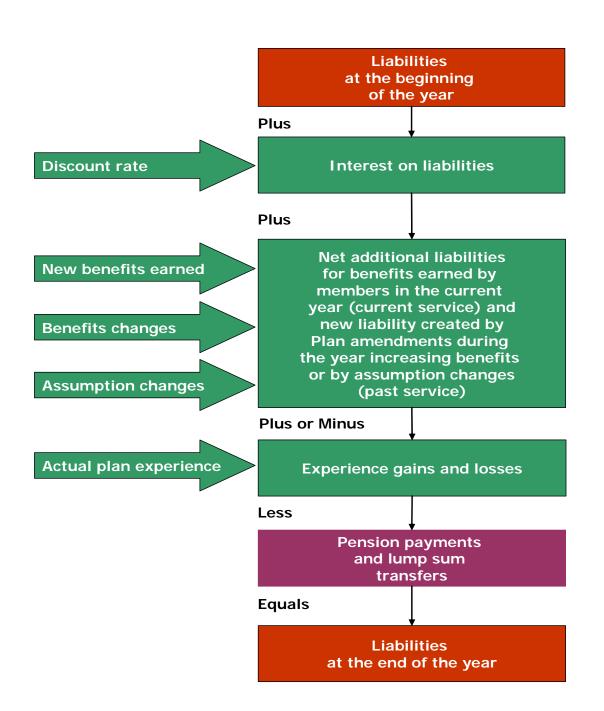
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As you can see from the diagram, the difference between the estimated net present value of current and future pensions (the liabilities), and the amount of funds actually on hand (the market assets) is the market surplus or deficit.

## 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:

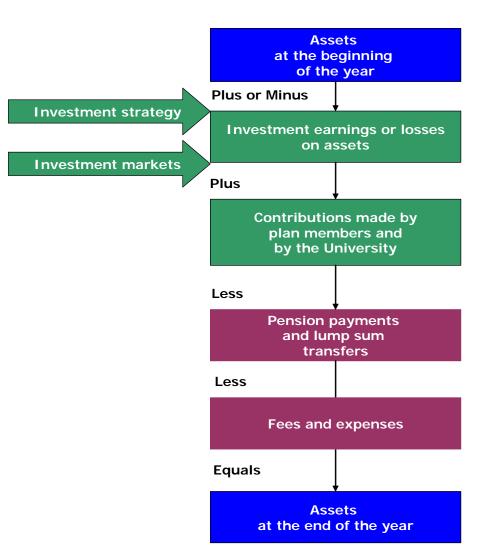
- members work an additional year, thus increasing their pension benefit at retirement. This is known as current service and increases the liability.
- members receive a larger pension benefit for the same salary and years of service through improvements to past service benefits. This increases the liability.
- 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 SRA assets are University assets which are reported in the University's financial statements at April 30 of each year and which are also valued at June 30 each year and included in a footnote in the SRA actuarial report.) 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 deficit.

## **Tools for Assessment of Pensions**

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

- Pension financial statements provide an audited confirmation of the fair value (essentially market value) of the pension assets contained in each registered plan, which is a separate legal entity, at the valuation date. The plan fiscal year for the RPP and RPP(OISE) 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*. (SRA assets are University assets, which are reported on the University's audited financial statements.) The changes in the pension liabilities from one year to the next are shown on the *statement of 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 longterm. 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. It 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. It 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. SRA assets are not taken into account in the accounting 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, 2013 and will apply the elements of defined benefit pension plans shown in the diagram on page 8 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, 2013

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	
Total	4,049.5	3,043.5	(1,006.0)	(25%)

At July 1, 2013, the going concern accrued liabilities<sup>1</sup> and market value of assets for the University of Toronto defined benefit plans were:

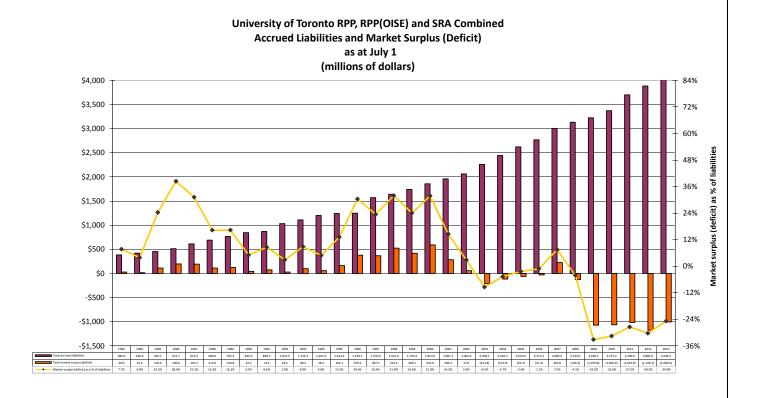
At July 1, 2012, the liabilities and assets for the University of Toronto defined benefit plans were:

July 1, 2012	Going Concern Liabilities <sup>1</sup>	Market Value of Assets	Market Surplus (Deficit)	Market Surplus (Deficit) as % of Liabilities
RPP	3,631.0	2,515.8	(1,115.2)	(31%)
RPP(OISE)	117.8	76.5	(41.3)	(35%)
SRA	135.2	111.0	(24.2)	(18%)
Pension Reserve		2.4	2.4	
Total	3,884.0	2,705.7	(1,178.3)	(30%)

As you can see from the above tables, the overall financial health of pensions showed some improvement between July 1, 2012 and July 1, 2013 due mainly to a) investment returns of 12.1% that exceeded the target return of 5.2% for the period, and b) employer special payments totaling \$66.6 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>&</sup>lt;sup>1</sup> Using new assumptions for (1) Increase in the Consumer Price Index changes from 2.5% to 2.25%, (2) Increase in CPP Maximum Salary changes from 3.5% to 3.0%, Income Tax Maximum Pension changes from 3.5% to 3.0%; (3) Increase in Salaries changes from 4.5% to 4.25%; and (4) Discount Rate (Investment Return) changes from 6.25% to 6.0%.



As you can see from the above chart, for the entire period from 1983 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 2013, the financial position of the plans improved again, mainly as a result of investment returns in excess of target returns.

## **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.

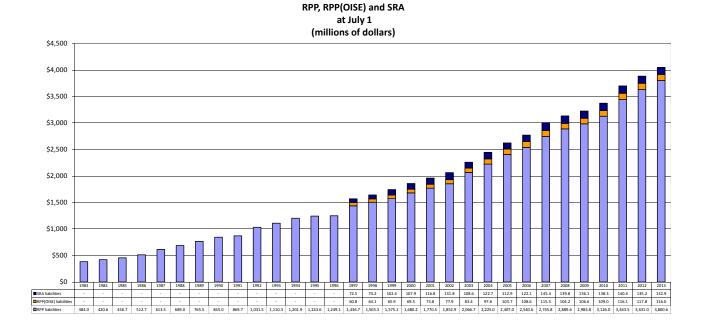
## **Pension Liabilities**

Going concern pension liabilities for the University of Toronto plans totaled \$4,049.5 million at July 1, 2013, comprising:

- \$ 3,800.6 million RPP pension liabilities
- \$ 116.0 million RPP(OISE) pension liabilities
- \$ 132.9 million SRA pension liabilities

The growth in those liabilities since 1983 is shown on the following chart.

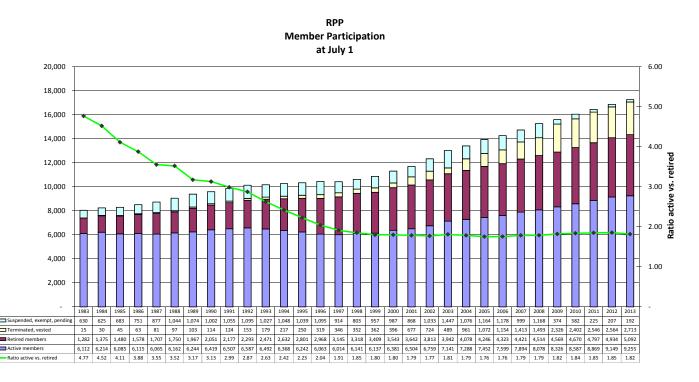
**Going Concern Pension Liabilities** 



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.

# Pension Liabilities Participants

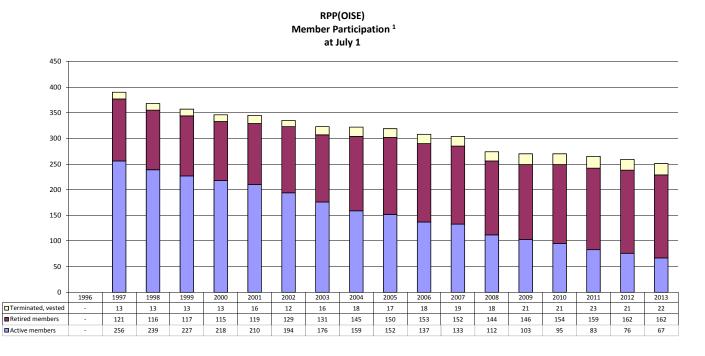
The RPP is a growing plan, with member participation increasing over time. An increase in the number of plan participants adds to pension liabilities over time. At July 1, 2013, total member participation was 17,252.



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.

Duration is a weighted-average sensitivity measure which calculates the average length of time to the payment of benefits.

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 251 at July 1, 2013.



<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 Liabilities 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 annum.

#### 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 annum 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 Consumer Price Index for Canada (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, 2013.

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 (currently just under \$147,000) 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 fluctuates depending upon the relationship between salary increases for member plan participants and the increase in the Income Tax Act maximum pension.

Over time, provided that government policy remains unchanged and the Income Tax Act maximum pension continues to increase at the rate of increase in national real wages, and provided that the RPP and RPP(OISE) retain maximum salaries at \$150,000, participation in the SRA is expected to decline, eventually to zero once the Income Tax Act maximum pension is reached at a salary of \$150,000. At the current rates of increase, this would be expected to occur in 2014. The liabilities in the SRA decreased from \$135.2 million in 2012 to \$132.9 million in 2013 due to pension payments exceeding new accruals under the plan.

# Pension Liabilities 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. Key actuarial assumptions at July 1, 2013 are as follows (see appendix 3 for a full list).

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

Mortality rates:	1994 Uninsured Pensioner	Increases in life span
mortanty rates:		
	Mortality Table with fully	increase liabilities.
	generational mortality	
	improvements under scale	
	AA	
Increase in Consumer	2.25% per annum (previous	An increase in CPI alone
Price index (CPI):	valuation used 2.50% per	increases liabilities, but
	annum).	should be considered in
		concert with salary
		increases and discount
		rate.
Cost of living	1.6875% per annum (75%	An increase in cost of
adjustments:	of CPI) (previous valuation	living adjustments
	used 1.875% per annum).	increases liabilities.
Increase in CPP	3.00% per annum (previous	An increase in CPP
maximum salary:	valuation used 3.50% per	maximum salary
	annum).	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.
Increase in Income Tax	\$2,696.67 in 2013	An increase in the Income
Act maximum benefit	increasing by 3.00% per	Tax Act maximum pension
limit:	annum thereafter (assumes	increases the liability in
	a highest average maximum	the RPP and decreases the
	salary of \$146,967 in 2013	liability in the SRA.
	increasing by 3.00% per	
	annum thereafter).	
Increase in	4.25% per annum (2.25%	An increase in the total
Salaries:	CPI plus 2.0% merit and	assumption, whether
	promotion/progression)	impacted by CPI or by
	(previous valuation used	merit and
	4.5% per annum).	promotion/progression,
		increases liabilities.

Interest rate	6.00% per annum (2.25%	An increase in the interest
(Discount rate on	CPI plus 3.75% real	rate, whether through an
liabilities):	investment return) (previous	increase in CPI or real
	valuation used 6.25% per	return, DECREASES
	annum).	liabilities. Conversely, a
		decrease in the interest
		rate INCREASES liabilities.

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.

For 2013, the assumption regarding increases in CPI was changed from 2.5% to 2.25% to reflect a downward trend in both current and expected inflation. This assumption 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 will also be reduced by 0.25%. A further modest reduction from 1.0% to 0.75% in estimated growth in national real wages is also recommended, which further impacts the CPP maximum salary increase and ITA maximum pension increase assumptions.

As a result of the above assumption changes, the following going concern assumptions were used in 2013:

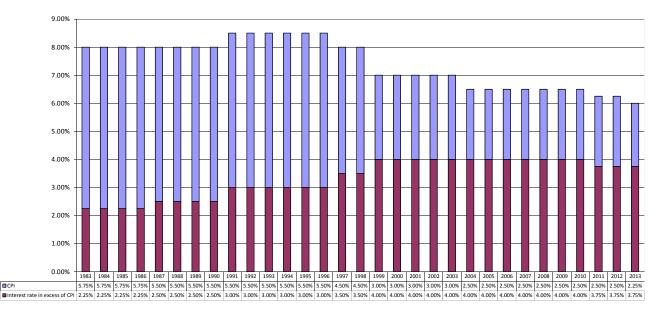
- Increase in CPI changes to 2.25% from 2.5%;
- Cost-of-living Adjustments remains at 75% of increase in CPI, but the percentage change to 1.6875% (75% of 2.25%) from 1.875% (75% of 2.5%);

- Increase in CPP Maximum Salary changes to 3.0% (made up of 2.25% increase in CPI + 0.75% estimated growth in national real wages) from 3.5%;
- Increase in ITA Maximum Pension changes to 3.0% (made up of 2.25% increase in CPI + 0.75% estimated growth in national real wages) from 3.5%;
- Increase in Salaries changes to 4.25% (made up of 2.25% CPI plus 2.0% merit and promotion / progression) from 4.5%; and
- *Discount Rate (Investment Return)* changes to 6.0% (made up of 2.25% CPI plus 3.75% real investment return) from 6.25%.

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

The following chart illustrates the history of this assumption from 1983 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 on liabilities was reduced to 6.00% from 6.25%, reflective July 1, 2013 the discount rate on liabilities was reduced to 6.00% from 6.25%, reflecting a deduction in the increase in the CPI from 2.50% to 2.25%.

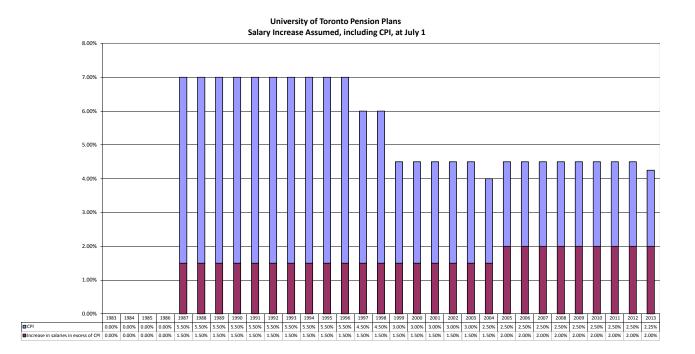
#### University of Toronto Pension Plans Interest Rate Assumed on Investments, including CPI, at July 1



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 last year, and with the exception of 2004, the salary increase assumption has remained steady at 4.5% since 1999. In 1997 and 1998, the assumption was 6%, and between 1987 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, are 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%.



#### **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. The current assumption utilizes the *1994 Uninsured Pensioner Mortality Table with Generational Projections using projection scale AA* for all University of Toronto pension plans. It was put in place effective July 1, 2011. No change is proposed for 2013 to the mortality rate tables; however, it is likely that a change will be proposed for 2014 as a result of the draft *Report on Canadian Pensioners Mortality* released by the Canadian Institute of Actuaries (CIA) in July 2013.

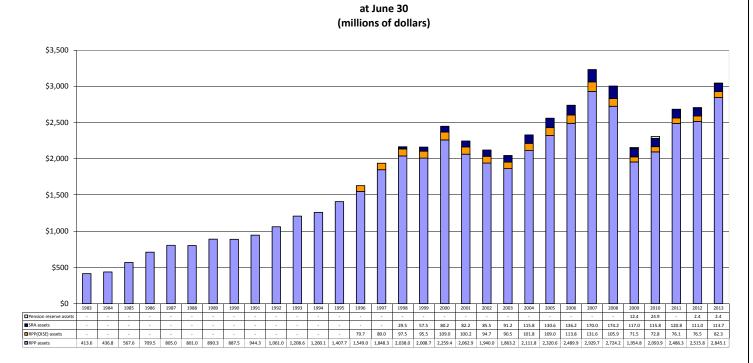
## **Pension Assets**

Total assets for the three pension plans and the pension reserve were \$3,043.5 million at June 30, 2013, comprising:

\$2	,845.1 million	RPP pension assets
\$	82.3 million	RPP(OISE) pension assets
\$	113.7 million	SRA university assets
\$	2.4 million	Pension reserve university assets

The change in those assets since 1983 is shown on the following chart.

Market Value of Pension Assets 1, 2



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

 $^{\rm 2}$  Pension reserve assets of \$25.0 million were transferred to the RPP in 2011.

The RPP and RPP(OISE) represent separate legal trusts containing pension assets, and their financial statements are attached 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. The SRA is invested together with the University's endowments under those policies. The investment issues for the SRA, however, are 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.

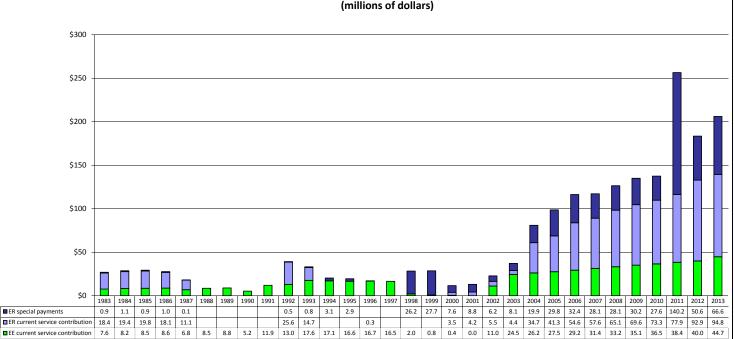
It is important to note that there is a strong relationship between contributions and investment earnings. Since the amount that must be set aside in assets is driven by the pension liabilities, the key question on the asset side is:

## 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.

# Pension Assets 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 1983.



Contributions by Source (Employee and Employer) Across All Plans <sup>1, 2</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.

**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).

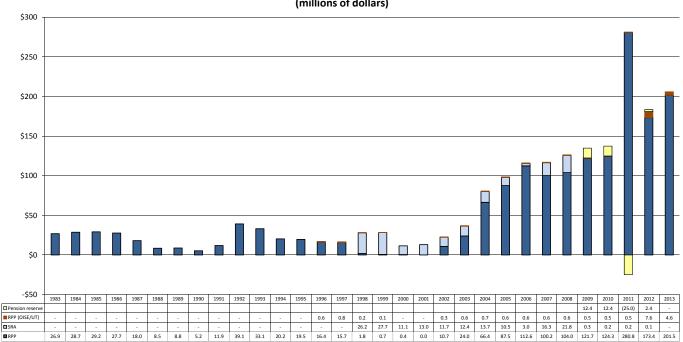
During most years from the late 1980's to 2002, the RPP had a sufficiently high actuarial surplus that no employer contributions were permitted except for two years where a partial contribution was permitted, and four years (1990-1994) where a full contribution was permitted. Members experienced a pension 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 1983.



#### Allocation of Contributions (both Employer and Employee) by Plan<sup>1</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.

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 annum 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 annum.
  - 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 annum, 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 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 proposed amended solvency relief regulations, the University would also have the option to elect 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). This proposal is still in the consultation stage. The impact on the University has not yet been assessed, and will be addressed as part of the updated pension contribution strategy in early 2014.

### Update on pension contribution strategy:

What has been the impact on the pension contribution strategy of the actual results to July 1, 2013? With respect to going concern results, there has been an actual nominal investment return of 12.1% as compared to 6.25% assumed by the strategy. Given the nature of the Government's solvency relief program, there is no impact on the going concern special payments for 2012, 2013 or 2014.

Any possible impact on the net solvency payment is much harder to gauge. A key requirement for acceptance to stage 2 of the temporary solvency relief program in its current form was an increase in member contributions. The University has put in place the required increases to member contributions, thus meeting the requirements for stage 2 acceptance and thus meeting the fundamental assumption in the pension contribution strategy with respect to solvency payments. However, whether or not universities will be permitted to deal with net solvency payments via letters of credit is still uncertain. And interest rates continue to be volatile, making it very hard to predict what the solvency deficit might be at July 1, 2014, and therefore what the net solvency payments might be beginning July 1, 2015, even with acceptance to stage 2. In addition, as mentioned above, the proposed amendments to the solvency funding relief regulations could delay required solvency payments for an additional 3 years, though any solvency payments at the end of that 3-year

period would have to be amortized over the remaining 7 years. Also, as per the pension contribution strategy, the University plans to contribute \$150 million in additional special payments to the registered pension plans by July 1, 2014 utilizing SRA assets and internal borrowing. Finally, as mentioned previously, it is likely that a change will be proposed for 2014 to the mortality rates assumption as a result of the draft *Report on Canadian Pensioners Mortality* released by the Canadian Institute of Actuaries (CIA) in July 2013. Canadians are living longer and this should be reflected in the mortality tables being used for our pension plans. The University will be working with our actuaries to review the final recommendations of the CIA, as well as conduct research on the mortality experience specific to our pension plans. The result will likely be mortality rate tables that will reflect increasing life spans and, therefore, increased liabilities.

# Pension Assets 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 fees and expenses incurred in administering and investing the pension plans, payments to retired members and lump sum transfers. 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 plan for?
- what investments do we make the investment strategy, including the 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 which combines for investment purposes the assets of the RPP and the RPP(OISE). The pension master trust was created on August 1, 2000 to provide the two funds' assets with the same economies of scale, diversification and investment performance.

Investment risk and return objectives are established on the basis of actuarial modeling that evaluates the likely outcome of various investment strategies under a large variety of market conditions. The Financial Services Commission of Ontario requires annual review of the investment policies and procedures and their confirmation or amendment as appropriate.

The Pension Fund Master Trust Statement of Investment Policies and Procedures<sup>1</sup> ("policy"), approved by the Pension Committee on June 5, 2013, stipulated a real investment return of at least 4.0% over 10-year periods, while taking on an appropriate amount of risk to achieve this target, but without undue

see <u>http://www.finance.utoronto.ca/Assets/Finance+Digital+Assets/policies/PFMTSIPG.pdf</u> for the most recent policy.

risk of loss. Additional risk protection strategies in place include the 0.25% real difference between the 3.75% real discount rate and the 4.0% target real investment return.

The University owns the University of Toronto Asset Management Corporation (UTAM). The University has formally delegated to UTAM the authority for management of pension master trust investments. UTAM reports on the investments under management to the University Administration and to the Pension Committee.

Strategic counsel on asset management is obtained from an independent blue-ribbon Investment Advisory Committee, which meets regularly.

The pension master trust investment strategy was established, and designed, to deliver the desired performance based on a long-term horizon as stipulated by the policy and its return and risk targets, against which investment performance should be evaluated.

While a longer term perspective is important, it is also useful to regularly assess the pension master trust short term returns compared to the objective set by the University. In this regard, performance is assessed, as stated above, versus the 4% real return (net of fees and expenses) objective. Performance is also measured against the Reference Portfolio<sup>1</sup> benchmark that was revised during 2012. The Reference Portfolio represents a "shadow" portfolio which is believed to be appropriate to the pension master trust's long-term horizon and risk profile and yet capable of achieving the return objective. The principle underlying its composition requires exposures which are: low-cost, simple and passive; representative of the investable market; and, appropriate to the objectives of the University.

Given the current environment, it is believed that a Reference Portfolio that is limited to 60% equity exposure (and the associated level of risk) may have difficulty achieving the 4% real return objective. It is currently projected that it would earn about 3.5% real return. In order to achieve the 4.0% real return objective,

<sup>&</sup>lt;sup>1</sup> Until April 30, 2012 the Reference Portfolio comprised 35% Cdn Universe Bonds, 5% Cdn Real Return Bonds, 30% Cdn Equities, 15% US Equities (half currency hedged), and 15% International Equities (half currency hedged). Beginning May 1, 2012, the new reference portfolio benchmark comprised 60% Equities (16% Cdn, 18% US, 16% EAFE, and 10% Emerging Markets), 20% Credit, and 20% rates, hedging 75% of developed markets' currency exposures and 0% of emerging markets currency exposure.

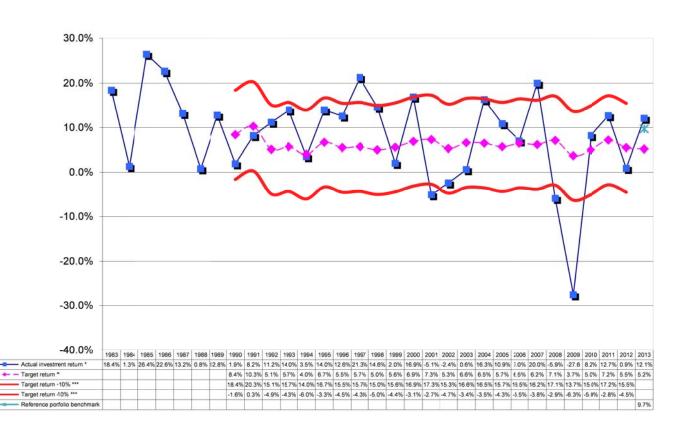
successful active management is required. This includes altering asset class weights, adding assets and strategies not included in the Reference Portfolio and hiring top tier managers, etc. while ensuring that such changes do not result in the assumption of undue risk.

Given this decision to allow an active management approach as defined above, it is prudent to establish a pension master trust-level risk limit, integrating market risk and credit risk within which UTAM has discretion to make and implement investment decisions with the objective of earning returns above the Reference Portfolio. This pension master trust-level risk limit is defined as the risk determined for the Reference Portfolio plus 75 basis points (0.75%).

The one-year return to June 30, 2013 for the pension master trust was 12.1%, net of all investment-related fees and expenses, which was above the University's target return of 5.2% (4.0% real return plus 1.2% CPI) due to positive capital markets conditions. In local currency terms, major developed market equities advanced during the year, with the TSX gaining 7.9%, the U.S. S&P 500 20.6%, the U.K. FTSE 15.8%, the German DAX 24%, the French CAC 20%, while the MSCI Emerging Markets equities index gained 6.0%. However fixed income, as represented by the DEX Universe, lost 1.1%.

The following charts show the actual, nominal returns, compared to the pension plan target return, and compared to the 10% risk corridor that was in place until the March 2012 update to the Pension Fund Master Trust Statement of Investment Policies and Procedures. The first chart shows the nominal one-year returns from 1983 (and target returns from 1990 to 2012) and the second chart shows the actual ten-year rolling average returns from 1983 (and the target ten-year rolling average returns between 1999 and 2012).

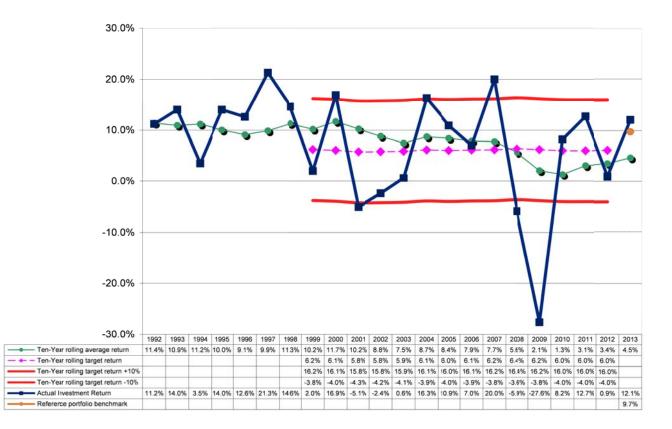
#### Pension Master Trust 1-Year Annual Rates of Return



- \* 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.
- \*\* 4% plus CPI
- \*\*\* Beginning in 2013, investment performance will be compared to a new reference portfolio benchmark return. The return objective remains a real investment return of at least 4.0% over 10-year periods; however, this objective assumes an appropriate amount of risk is taken to achieve this target without taking undue risk of loss, which has changed from a risk objective of annual standard deviation of 10.0% or less in nominal terms over 10-year periods.

If we look at the long-term investment history of the pension plan since 1990 (we have also included returns between 1983 and 1989 for information), and if we ascribe to the same +/-10% corridor to nominal returns for the entire period from 1990 to 2012 as those in place for the master trust since 2003, we find the following: over the 23-year period, the returns for 18 (78%) of the years were within the 10% risk corridor, and those for 5 (22%) of the years were outside the risk corridor (2 above and 3 below). For the 19-year period from 1990 to 2008, the average annual actual return was 8.2% compared to an average annual target return of 6.3%. If we include the years 2009 through 2012, a 23-year period, the average annual actual return was 6.2% compared to the average annual target return of

6.1%. Over the period since 1990, actual returns have slightly exceeded the University target return of CPI + 4%. In 2013, the actual return was 12.1%, which exceeded the 5.2% new reference portfolio benchmark return for the year.



Pension Master Trust Ten-Year Rolling Average Returns with Annual Returns

If we look at the ten-year rolling averages, we find that for the entire period from 1999 to 2007, the actual 10-year average returns were at or above the University's target return, and that all years were within the 10% risk factor.

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 UTAM investment performance was excellent, outperforming the target real return and exceeding benchmarks. Results were within the target range except in 2007, when they exceeded the top of the corridor. In 2008, the global financial crisis ensued and the master trust suffered a negative return of 5.9%, although the result was still within the risk corridor. In 2009, the bottom fell out of global markets, and the result was a negative return of 27.6%, although the 10-year return remained

positive and within the corridor. During 2010 and 2011, all major financial markets rebounded from the meltdown experienced in 2008 and 2009. In 2012, the master trust had a return of 0.9% which was below the target return, however the 10-year return increased slightly from the previous year. Beginning in 2013, the actual returns are compared to the new reference portfolio benchmark returns. In 2013, the actual investment return of 12.1% exceeded the reference portfolio benchmark returns return of 5.2%.

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 <u>www.utam.utoronto.ca</u>. Please see the next section for a discussion of fees and expenses.

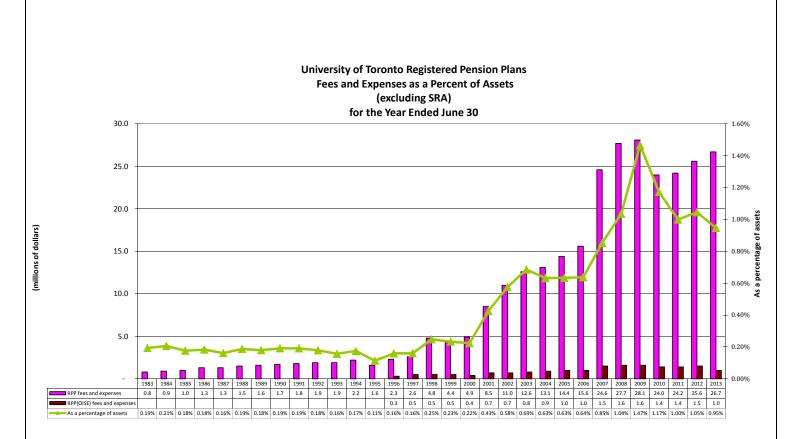
# Pension Assets Fees and Expenses

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, 2013 were as follows, for the RPP and RPP(OISE), in millions of dollars:

	RPP	RPP(OISE)	2013 Total	2012 Total	
- Investment management fees - external managers	20.4	0.6	21.0	21.2	
Investment management costs - UTAM	2.6	0.1	2.7	2.8	
Transaction fees <sup>1</sup>	1.0	0.0	1.0	0.3	
Pension administration services	0.7	0.1	0.8	0.8	
University of Toronto administrative costs	0.5	0.1	0.6	0.6	
Actuarial and administration fees	0.4	0.1	0.5	0.6	
Custodial costs	0.4	0.0	0.4	0.5	
Other fees	0.7	0.0	0.7	0.3	
Total	26.7	1.0	27.7	27.1	

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

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



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 0.89% in 2012-13, a decrease from 0.96% in 2011-12.

External investment management fees, which represent just over 77% of total master trust fees in 2013 (78% in 2012), are normally related to the size of assets under management. During 2013, RPP and RPP(OISE) assets under management increased from \$2,592.3 million to \$2,927.4 million. The one-year return of the pension master trust ending June 30, 2013 net of all investment-related expenses was 12.1%, which was above the University's target return of 5.2% (i.e. CPI + 4.0%). Total external investment management fees fell slightly to \$21.0 million in 2013 from \$21.2 million in 2012.

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 were subsequently 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 from 1.05% in 2012 to 0.95% in 2013, mainly due to an increase in the market value of pension assets while fees and expenses increased only slightly during the year. 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.

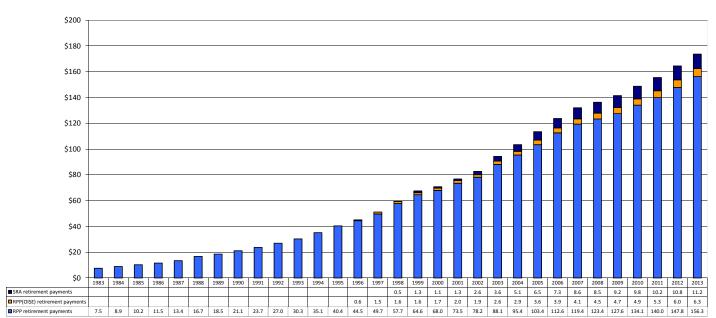
For more information on fees and expenses refer to note 6 of the University of Toronto Pension Plan financial statements (page 97 of this report), and note 6 of the University of Toronto (OISE) Pension Plan financial statements (page 118 of this report).

# Pension Assets Payments

The section on participants showed that the number of retired members in the RPP has increased from 1,282 in 1983 to 5,092 in 2013, an increase of 297.2%; the number of retired members in the RPP(OISE) has increased from 121 in 1997 to 162 in 2013, an increase of 33.9%. 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 \$7.5 million in 1983 to \$173.8 million in 2013.

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)

### **Pension Market Deficit**

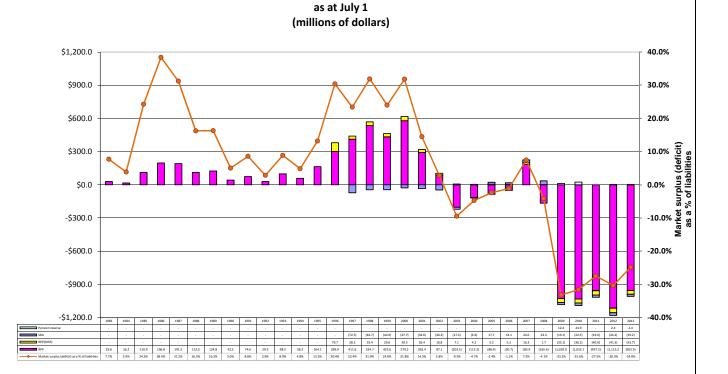
Going concern pension liabilities minus pension assets at market value result in the net funded status of the pension plans, the market surplus or market deficit. The going concern market deficit at July 1, 2013 totaled \$1,006.0 million, comprising:

\$ (955.5) million	RPP market deficit
\$ (33.7) million	RPP(OISE) market deficit
\$ (19.2) million	SRA market deficit
\$ 2.4 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.

**Going Concern Market Surplus (Deficit)** 

The change in the market surplus or deficit since 1983 is shown on the following chart:



Since 1983, 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 \$955.5 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.

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.

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). The current position in the SRA is a deficit of \$19.2 million. The surplus/deficit changes with the variation in where liabilities are recorded, reflecting the impact of the Income Tax Act maximum pension.

The financial position of all of the plans has worsened since 2008, moving from a small deficit overall, representing about 4% of liabilities to a much larger deficit overall representing about 25% of liabilities in 2013. As noted earlier, the

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

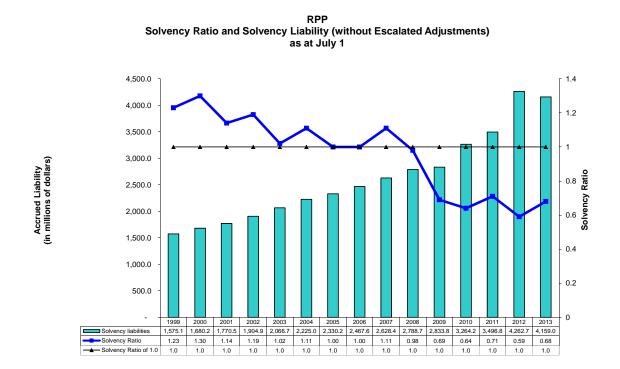
Ontario Government has put in place a two stage process that is intended to provide institutions in the broader public sector (which includes universities) with an opportunity to make net solvency payments over a longer period than would otherwise be required. The University has been accepted to stage 1 of this process and expects to qualify for stage 2 given the increases being made to member contribution rates. 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 proposed amendments to the solvency funding relief regulations could delay required solvency payments for an additional 3 years, though any solvency payments at the end of that 3-year period would have to be amortized over the remaining 7 years. This will be addressed as part of the updated pension contribution strategy in early 2014.

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 0.59 at July 1, 2012 to 0.68 at July 1, 2013. As of July 1, 2013, the plan had a solvency deficit of \$1.31 billion versus a solvency deficit of \$1.75 billion as of July 1, 2012. 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 continuing decline in the discount rates that must be used to value solvency liabilities, and lengthening life spans which has required an update to the table used for the mortality rates assumption in 2011.



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 1 of the temporary solvency relief funding process, the effective date of the next required actuarial valuation to be filed with the regulators is July 1, 2014.

The hypothetical wind-up valuation extends the solvency valuation by adding in the indexing and incorporating early retirement windows. On a hypothetical windup basis, the RPP market deficit would be \$2.91 billion <sup>1</sup>.

The RPP(OISE) solvency ratio was 0.63 at July 1, 2013, an increase from a solvency ratio of 0.55 at July 1, 2012.

The RPP solvency ratio of 0.68 at July 1, 2013 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 1 of this process and has put into place member contribution increases to meet the conditions required for acceptance to stage 2 of the process. As described earlier in this document (page 35), a revised pension contribution strategy reflecting plans to deal with the pension deficit was approved by the Business Board on May 3, 2012.

<sup>&</sup>lt;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 escalater. The impact would be to reduce the wind-up liabilities by approximately \$0.71 billion.

Under the proposed amended solvency relief regulations, the University would also have the option to elect 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). This proposal is still in the consultation stage. The impact on the University has not yet been assessed, and will be addressed as part of the updated pension contribution strategy in early 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, and making it much more difficult to achieve investment returns. This is reflected in the pension deficit, which has only marginally improved since 2009 even though significant contributions have been made into the pension plans and investment returns have been above target in three of the last four years. The market deficit for the three plans combined has decreased from 30% of liabilities at July 1, 2012 to 25% of liabilities at July 1, 2013 due primarily to investment returns exceeding the target return for the period and employer special payments partly offset by actuarial assumption changes. The solvency ratio or the RPP has improved from 0.59 to 0.68, due to an increase in the prescribed interest rate from 3.05% per annum at July 1, 2012 to 3.50% per annum at July 1, 2013, and investment returns exceeding the target return in 2013.

From a going concern perspective, the current strategy of increased member contributions, which enhance the sustainability of the pension plans by providing additional funding to the plans, and the pension contribution strategy, which provides significant additional University funding to address the deficit, continue to be reasonable.

From a solvency perspective, continued low interest rates makes more difficult the Government's efforts to deal with this regulatory issue through its temporary solvency relief program. Proposed amendments to the solvency funding relief regulations could delay required solvency payments for an additional 3 years, though any solvency payments at the end of that 3-year period would have to be amortized over the remaining 7 years. University administration will be updating the pension contribution strategy in early 2014, taking into account these amendments.

# Appendix 1

## **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

## Appendix 2

# Pension Fund Master Trust -Statement of Policies and Goals

The Pension Fund Master Trust Statement of Policies and Procedures approved by the Pension Committee on June 5, 2013 may be found at the following link:

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

## **Appendix 3**

**RPP Actuarial Report (Excerpts)** 

# **Actuarial Report (Excerpts)**

University of Toronto Pension Plan (RPP)

As of July 1, 2013

### Summary

(Thousands of Dollars)	As of July 1, 2012			
Going Concern Valuation Results				
Past Service – Market Value of Assets				
Market Value of Assets	\$ 2,515,770	\$ 2,845,138		
Less: Accrued Liability	3,630,969	3,800,650		
Surplus/(Unfunded Accrued Liability)	\$ (1,115,199)	\$ (955,512)		
Past Service - Actuarial Value of Assets				
Actuarial Value of Assets	\$ 2,893,135 <sup>1</sup>	\$ 3,036,688		
Less: Accrued Liability	3,630,969	3,800,650		
Surplus/(Unfunded Accrued Liability)	\$ (737,834)	\$ (763,962)		
Current Service				
Total Current Service Cost	\$ 135,894	\$ 140,741		
Less: Required Participant Contributions <sup>2 3</sup>	41,825	51,307		
University Current Service Cost	\$ 94,069	\$ 89,434		
As a % of Participant Salary Base (Capped at \$150,000)	12.31%	11.33% <sup>4</sup>		
Participant Salary Base (Capped at \$150,000)	\$ 764,024	\$ 789,196		

<sup>1</sup> Actuarial value of assets capped at 115% of market value of assets 2

Includes participant contributions made by University on behalf of disabled participants 3

Does not include change in required participant contributions coming into effect after the valuation date Estimated to be 10.82% of participant salary base (capped at \$150,000) after all increases in required participant contributions come 4 into effect, resulting in the University's share of the total current service cost being 60.5% and the participants' share of the total current service cost being 39.5%.

### Summary (continued)

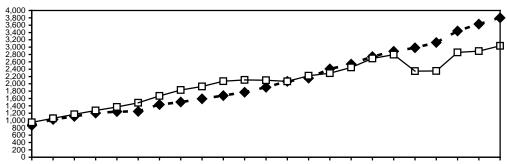
(Thousands of Dollars)		As of July 1, 2012	As of July 1, 2013
Solvency Valuation Results	•	/ /	•
Solvency Assets <sup>1</sup>	\$	2,514,770	\$ 2,844,138
Solvency Liability—Without Escalated Adjustments	—	4,262,724	4,159,040
Solvency Excess/(Deficit)	\$	(1,747,954)	\$ (1,314,902)
Solvency Ratio		0.59	0.68
Hypothetical Wind-Up Valuation Results Wind-Up Assets <sup>1</sup>	\$	2,514,770	\$ 2,844,138
Wind-Up Liability—With Escalated Adjustments		5,618,319	5,754,646
Wind-Up Excess/(Deficit)	\$	(3,103,549)	\$ (2,910,508)
Transfer Ratio		0.45	0.49

Net of provision of \$1,000,000 for estimated wind-up expenses
 (\$2,202,232) or 0.56 if escalated adjustments are fixed based on expected inflation at date of wind-up, to reflect capacity constraints in group annuity market for floating rate indexed annuities

## Summary (continued)

(Thousands of Dollars)	As of July 1, 2012 <sup>1</sup>	As of July 1, 2013 <sup>12</sup>
Going Concern Funding Requirements		
Required Participant Contributions	\$ 41,825	\$ 51,307
University Current Service Cost	\$ 92,905 <sup>3</sup>	\$ 93,599 <sup>4</sup>
Plus: Special Payments to Amortize Unfunded Liability	63,516	63,516
Total University Contributions	\$ 156,421	\$ 157,115
As a % of Participant Salary Base (Capped at \$150,000)	20.63%	19.91%
Personnel Data		
Active and Disabled Participants	9,149	9,255
Retired Participants	4,934	5,092
Terminated Vested Participants	2,564	2,713
Suspended, Exempt or Pending Status	207	192
Total	16,854	17,252

On basis of solvency funding relief granted on February 16, 2012
 After change in actuarial assumptions
 12.16% of Participant Salary Base (capped at \$150,000) in accordance with July 1, 2011 actuarial valuation
 11.86% of Participant Salary Base (capped at \$150,000) in accordance with July 1, 2011 actuarial valuation



# History of Accrued Liability and Surplus/(Deficit) Millions of Dollars

1991 1992 1993 1994 1995 1996 1997 1998 1999 2000 2001 2002 2003 2004 2005 2006 2007 2008 2009 2010 2011 2012 2013

Year

-	•	-	Accrued Liability		<ul> <li>Actuarial Value of Assets</li> </ul>
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Year	rial Value ets (AVA)	Lial	Accrued bility (AL)	Surplus/	(Deficit)	Surplus/(Deficit) as a Percentage of AL
(millions of dollars)						
1991	\$ 949.4	\$	869.7	\$	79.8	9.2%
1992	\$ 1,061.0 <sup>1</sup>	\$	1,031.5 <sup>1</sup>	\$	29.4 <sup>1</sup>	2.9%
1993	\$ 1,169.3	\$	1,110.3	\$	59.1	8.3%
1994	\$ 1,271.7	\$	1,201.9	\$	69.9	5.8%
1995	\$ 1,370.5	\$	1,243.6	\$	126.9	10.2%
1996	\$ 1,484.3	\$	1,249.1 <sup>2</sup>	\$	235.2 <sup>2</sup>	18.8%
1997	\$ 1,671.4	\$	1,436.7 <sup>3</sup>	\$	234.7 <sup>3</sup>	16.3%
1998	\$ 1,830.6	\$	1,503.3	\$	327.4	21.8%
1999	\$ 1,927.2 <sup>4</sup>	\$	1,593.6 <sup>4</sup>	\$	333.6 <sup>4</sup>	20.9%
2000	\$ 2,072.0	\$	1,680.2	\$	391.9	23.3%
2001	\$ 2,108.2	\$	1,770.5	\$	337.7	19.1%
2002	\$ 2,098.9	\$	1,904.9 <sup>5</sup>	\$	194.1 <sup>₅</sup>	10.1%
2003	\$ 2,068.9	\$	2,066.7	\$	2.2	0.1%
2004	\$ 2,155.8	\$	2,225.0	\$	$(69.2)^{6}$	(3.1%)
2005	\$ 2,289.8	\$	2,407.0	\$	(117.2) <sup>7</sup>	(4.8%)
2006	\$ 2,447.3	\$	2,540.6 <sup>8</sup>	\$	(93.4) <sup>8</sup>	(3.7%)
2007	\$ 2,690.0	\$	2,745.8 <sup>9</sup>	\$	(55.8) <sup>9</sup>	(2.0%)
2008	\$ 2,797.1	\$	2,889.6	\$	(92.5)	(3.2%)
2009	\$ 2,345.8 <sup>10</sup>	\$	2,983.8	\$	(638.0)	(21.4%)
2010	\$ 2,349.9	\$	3,125.9	\$	(776.0)	(24.8%)
2011	\$ 2,856.1 <sup>11</sup>	\$	3,443.5 <sup>11</sup>	\$	(587.4)	(17.1%)
2012	\$ 2,893.1	\$	3,630.9	\$	(737.8)	(20.3%)
2013	\$ 3,036.7	\$	3,800.7 <sup>12</sup>	\$	(764.0)	(20.1%)

1 After plan amendments and restatement of actuarial value of assets

2 After six-year deferral of the increase in the maximum pension limit

3 After plan amendments and change in actuarial assumptions

4 After plan amendments for all staff groups (interim cost certificate) and change in assumptions

5 After plan amendments

6 After plan amendments and change in actuarial assumptions 7

After plan amendments and change in actuarial assumptions

8 After plan amendments (and related assumptions changes) 9

After plan amendments and change in actuarial assumptions

<sup>10</sup> After reflecting maximum value of 120% of market value <sup>11</sup> After change in actuarial assumptions and asset valuation method <sup>12</sup> After change in actuarial assumptions 62

### Going Concern Valuation Results (Thousands of Dollars)

The going concern valuation results are shown below with the Accrued Liability broken down by participant category:

Past Service			
Actuarial Value of Assets		\$	3,036,688
Less: Accrued Liability			
Active and Disabled Participants Retired Participants Terminated Vested Participants Suspended, Exempt or Pending Status	\$ 1,895,568 1,777,748 121,770 <u>5,564</u>		
Total		<u>\$</u>	3,800,650
Surplus (Unfunded Accrued Liability)		\$	(763,962)
As a % of Accrued Liability			(20.1%)
Market Value of Assets		\$	2,845,138
Deferred Asset Gain (Loss)		\$	(191,550)
Current Service			
Total Current Service Cost		\$	140,741
Less: Required Participant Contributions			51,307 <sup>1</sup>
University Current Service Cost		\$	89,434
As a % of Participant Salary Base (With \$150,000 Pay Cap)			11.33%
Participant Salary Base (With \$150,000 Pay Cap)		\$	789,196
As a % of Capped Participant Salary Base Under Assumed Retirement Age <sup>2</sup>			11.88%
Capped Participant Salary Base Under Assumed Retirement Age		\$	752,588

 <sup>&</sup>lt;sup>1</sup> Includes participant contributions made by University on behalf of disabled participants; does not reflect increase in required participant contributions coming into affect after the valuation date
 <sup>2</sup> Excludes salary for members of the administrative staff, unionized administrative staff and unionized staff who are not included in

Current Service Cost since they are over the assumed retirement age of age 63

(Thousands of Dollars)		Solvency Valuation		Hypothetical Jp Valuation
(1) Market Value of Assets	\$	2,845,138	\$	2,845,138
(2) Less: Estimated Wind-Up Expenses		1,000		1,000
(3) Assets Net of Wind-Up Expenses	\$	2,844,138	\$	2,844,138
<ul> <li>(4) Solvency/Wind-Up Liability</li> <li>Active and Disabled Participants</li> <li>Retired Participants</li> <li>Terminated Vested Participants</li> <li>Suspended, Exempt or Pending Status</li> </ul>	\$	2,104,029 1,905,473 143,974 <u>5,564</u>	\$	3,000,511 2,471,984 276,587 <u>5,564</u>
Total	<u>\$</u>	4,159,040	<u>\$</u>	5,754,646
(5) Surplus/(Deficiency), (3) – (4)	\$	(1,314,902)	\$	(2,910,508)
(6) Solvency Ratio, (1)/(4)		0.68		N/A
(7) Transfer Ratio, (1)/(4)		N/A		0.49

### Solvency and Hypothetical Wind-Up Valuation Results

As provided under the Regulations to the *Pension Benefits Act* (Ontario), the Solvency Liability excludes the liabilities associated with escalated adjustments (future indexing). Reflecting future escalated adjustments in the Hypothetical Wind-Up Valuation increases the liabilities by \$1,595,606,000

The assumptions used to determine the Solvency Liability are summarized on page 49 of this report. Note that the interest rates-with escalated adjustments reflect the value of future indexation of pensions during both the preretirement and postretirement periods.

In our opinion, the value of Plan assets, less a reasonable allowance for wind-up expenses, would be less than the actuarial liabilities (including escalated adjustments) by \$2,910,508,000 if the Plan were wound-up on the valuation date, assuming that there is a competitive market for inflation-indexed annuities.

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 escalater. The impact would be to reduce the wind-up liabilities by approximately \$708,276,000.

			2012/2013
Surplus/	(Unfunded Liability) at Beginning of Year	\$	(737,834)
Less:	University Current Service Cost		93,676
Plus:	University Current Service Cost Contributions		93,676
Plus:	University Special Payments		63,516
Plus:	Interest at 6.25% per annum		(44,160)
Plus:	Expected Recognition of the July 1, 2012 Deferred Asset Gain/(Loss)		<u>(100,238</u> )
Equals:	Expected Surplus/(Unfunded Liability) at End of Year, Before Experience Gains/(Losses)	\$	(818,716)
Plus:	Increase/(Decrease) Due to: Gains/(Losses): Return on Assets Indexation of Benefits Increase in Salaries Increase in Income Tax Act Maximum Pension Increase in CPP Maximum Salary Termination Experience Retirement Experience Mortality Experience All Other Sources	_	36,400 21,105 6,847 12,371 (1,683) 2,042 2,980 (16,535) (987)
Equals:	Surplus/(Unfunded Liability) at End of Year, Before Changes in Assumptions/Methods	\$	(756,176)
Plus:	Increase/(Decrease) Due to Change in Actuarial Assumptions	_	<u>(7,786</u> )
Equals:	Surplus/(Unfunded Accrued Liability) at End of Year	\$	(763,962)

# Reconciliation of Going Concern Surplus/(Deficit) (Thousands of Dollars)

### Comments Regarding Experience from July 1, 2012 to July 1, 2013

### **Return on Assets**

The total return after expenses based on the actual market value of assets after allowing for the full amount of capital appreciation during the year, assuming contributions and benefit payments take place in the middle of the year, was 12.0%. The assumed rate of return for actuarial valuation purposes was 6.25% per annum resulting in a gain of \$145,600,000 on a market value basis. The gain on the actuarial value of assets (net of the expected recognition of the July 1, 2012 deferred asset gain/(loss)) is equal to 25% of the gain on the market value of assets, or \$36,400,000.

### Indexation of Benefits

Benefit entitlements for retired and terminated vested participants were increased by 0.62% at July 1, 2013 under the regular indexation formula. The increase was lower than the 1.875% increase anticipated under the actuarial assumptions, resulting in an actuarial gain of \$21,104,500.

### **Increase in Salaries**

The assumed salary increase used for the July 1, 2012 actuarial valuation was 4.5% per year. Actual salary increases varied by staff group but on average were lower than assumed, resulting in an actuarial gain of \$6,847,200.

### Income Tax Act Maximum Pension

The increase in the *Income Tax Act* maximum pension from 2012 to 2013 was 1.9%. This was lower than the expected 3.5% per year, resulting in an actuarial gain of \$12,370,900.

### **CPP Maximum Salary**

The increase in the CPP Maximum Salary from 2012 to 2013 was 2.0% which was lower than the expected 3.5% per year, resulting in an actuarial loss of \$1,682,700.

### **Termination Experience**

Termination experience since July 1, 2012 was higher than expected under the valuation assumptions. This resulted in an actuarial gain of \$2,042,000.

### **Retirement Experience**

Retirement ages for retirements since July 1, 2012 were slightly later than expected under the valuation assumptions. This resulted in an actuarial gain of \$2,979,900.

### **Mortality Experience**

Mortality rates since July 1, 2012 were lower than expected under the valuation assumptions. This resulted in an actuarial loss of \$16,535,200.

### All Other Sources

Other factors such as personnel changes and data adjustments, etc., deviated from expected, resulting in a net actuarial loss of \$987,000.

Going Concern Valuation Demographic Assumptions	
Retirement Age	Academic Staff and Librarians In accordance with Table A following, but no earlier than one year after valuation date, subject to early retirement provisions.
	Administrative Staff, Unionized Administrative Staff, Unionized Staff and Research Associates Age 63, subject to early retirement provisions
	<b>Terminated Vested Participants</b> Age 65 <sup>1</sup> / <sub>2</sub> <sup>1</sup> .
Mortality Rates	1994 Uninsured Pensioner Mortality Table, with fully generational mortality improvements under Scale AA.
Withdrawal Rates	Table B following.
Disability Rates	None assumed.
Percentage With Spouse	86.7%; female spouse assumed to be 4 years younger than male spouse.
Economic Assumptions	
Increase in Consumer Price Index (CPI)	2.25% per annum (previous valuation used 2.50% per annum).
Cost-of-Living Adjustments	1.6875% per annum (75% of CPI) (previous valuation used 1.875% per annum).
Increase in CPP Maximum Salary	3.00% per annum (previous valuation used 3.50% per annum).
Increase in Income Tax Act Maximum Pension	\$2,696.67 in 2013; increasing by 3.00% per annum thereafter.
Increase in Salaries	4.25% per annum (previous valuation used 4.50% per annum). (2.25% CPI + 2.00% merit and promotion/progression).
Discount Rate	6.00% per annum (previous valuation used 6.25% per annum). (2.25% CPI + 3.75% real return, net of all fees).
Interest Rate on Participant Contributions	3.00% per annum.
Loading for Administrative Expenses	Implicit in investment return.

<sup>1</sup> Reflects that Normal Retirement Date is June 30<sup>th</sup> coincident with or following age 65

# Going Concern Valuation (continued) Methods

Valuation of Assets

The actuarial value of assets has been determined by writing up the prior year's actuarial value and net cash flow at the valuation interest rate and then adjusting the result 25% toward market value. The Actuarial Value of Assets is limited to 115% of the Market Value of Assets.

Actuarial Cost Method

Unit credit cost method.

# **RPP (OISE)** Actuarial Report (Excerpts)

# **Actuarial Report (Excerpts)**

University of Toronto (OISE) Pension Plan (RPP (OISE))

As of July 1, 2013

### Summary

Summary (Thousands of Dollars)		As of July 1, 2012	As July 1, 20		
Going Concern Valuation Results <sup>1</sup>					
Past Service – Market Value of Assets Market Value of Assets	\$	76 402	\$	00.000	
Market value of Assets	Φ	76,493	Φ	82,293	
Less: Accrued Liability		117,768		116,018	
Surplus/(Unfunded Accrued Liability)	\$	(41,275)	\$	(33,725)	
	Ŧ	(,)	Ŷ	(00,120)	
Past Service – Actuarial Value of Assets					
Actuarial Value of Assets	\$	87,967 <sup>2</sup>	\$	88,416	
Less: Accrued Liability		117,768		116,018	
Surplus/(Unfunded Accrued Liability)	\$	(29,801)	\$	(27,602)	
Current Service					
Total Current Service Cost	\$	1,550	\$	1,417	
Less: Required Participant Contributions <sup>3 4</sup>		402		435	
University Current Service Cost	\$	1,148	\$	982	
As a % of Participant Salary Base (Capped at \$150,000)		15.02%		14.39%	
Participant Salary Base (Capped at \$150,000)	\$	7,645	\$	6,826	

<sup>&</sup>lt;sup>1</sup> On August 16, 2000, the Superintendent of Financial Services ordered that the Plan be wound-up in part in relation to participants who terminated employment between February 1996 and June 1996 under special voluntary retirement or severance programs in effect at that time. On June 23, 2005, a Partial Plan Wind-Up Report was filed with the Financial Services Commission of Ontario to determine the portion of assets allocable to the partial wind-up group as of June 30, 1996, and to update the assets allocable to the partial windup group to June 30, 2004. For valuations on or after July 1, 2005, the valuation results exclude assets and liabilities related to partial wind-up participants <sup>2</sup> Actuarial value of assets capped at 115% of market value of assets <sup>3</sup> Includes participant contributions made by University on behalf of disabled participants

<sup>&</sup>lt;sup>4</sup> Does not include changes in Required Participant Contributions coming into effect after the valuation date

## Summary (continued)

(Thousands of Dollars)	As of July 1, 2012 <sup>1</sup>		As of July 1, 2013 <sup>1 2</sup>	
Funding Requirements				
Required Participant Contributions	\$	403	\$	435
University Current Service Cost	\$	1,105 <sup>3</sup>	\$	976 <sup>4</sup>
Less: Permitted Application of Surplus		0		0
Plus: Special Payments to Amortize Unfunded Liability		3,100		3,100
Plus: Special Payments to Amortize Solvency Deficiency		0		0
Minimum Required University Contributions	\$	4,205	\$	4,076
Solvency Valuation Results				
Solvency Assets <sup>5</sup>	\$	76,093	\$	81,893
Solvency Liability—Without Escalated Adjustments		139,177		130,788
Solvency Excess/(Deficit)	\$	(63,084)	\$	(48,895)
Solvency Ratio		0.55		0.63
Hypothetical Wind-Up Valuation Results				
Wind-Up Assets <sup>5</sup>	\$	76,093	\$	81,893
Wind-Up Liability—With Escalated Adjustments		178,218		176,287
Wind-Up Excess/(Deficit)	\$	(102,125)	\$	(94,394)
Transfer Ratio		0.43		0.47

 <sup>&</sup>lt;sup>1</sup>Based on solvency relief granted February 16, 2012
 <sup>2</sup>After change in actuarial assumptions
 <sup>3</sup>14.49% of Participant Salary Base (capped at \$150,000) in accordance with July 1, 2011 actuarial valuation
 <sup>4</sup>14.30% of Participant Salary Base (capped at \$150,000) in accordance with July 1, 2011 actuarial valuation
 <sup>5</sup>Net of provision of \$400,000 for estimated wind-up expenses

## Summary (continued)

	As of July 1, 2012	As of July 1, 2013
Personnel Data		
Participants Not Affected by Partial Wind-Up		
Active and Disabled Participants	73	64
Retired Participants	162	162
Terminated Vested Participants	21	22
Suspended/Pending Participants	3	3
Total	259	251

## Going Concern Valuation Results (Thousands of Dollars)

The going concern valuation results are shown below with the Accrued Liability broken down by participant category:

Past Service Actuarial Value of Assets	\$	88,416
Less: Accrued Liability		·
Retired Participants 73	9,366 3,398 2,978 <u>276</u>	
Total	<u>\$</u>	116,018
Surplus (Unfunded Accrued Liability)	\$	(27,602)
As a % of Accrued Liability		(23.8%)
Market Value of Assets	\$	82,293
Deferred Asset Gain (Loss)	\$	(6,123)
Current Service Total Current Service Cost	\$	1,417
Less: Required Participant Contributions		435 <sup>1</sup>
University Current Service Cost	\$	982
As a % of Participant Salary Base (With \$150,000 Pay Cap)		14.39%
Participant Salary Base (With \$150,000 Pay Cap)	\$	6,826
As a % of Capped Participant Salary Base Under Assumed Retirement Age <sup>2</sup>		15.43%
Capped Participant Salary Base Under Assumed Retirement Age	\$	6,367

 <sup>1</sup> Includes participant contributions made by University on behalf of disabled participants
 <sup>2</sup> Excludes salary for members of the administrative staff, unionized administrative staff and unionized staff who are not included in Current Service Cost since they are over the assumed retirement age of age 63 73

## **Solvency Valuation Sensitivity Results**

The CIA practice-specific standards for pension plans require the disclosure of the impact on the Solvency Liability of using a discount rate 1.00% lower than that used for the Solvency Valuation. The table below shows both the impact of using a discount rate 1.00% lower than that used for the Solvency Valuation and the impact of using a discount rate 1.00% higher than that used for the Solvency Valuation.

Solvency Valuation Sensitivity Results	Ju	July 1, 2013 (000's)	
Solvency Liability			
Solvency Liability at solvency discount rates	\$	130,788	
Solvency Liability at solvency discount rates less 1.00%	\$	145,842	
Impact of 1.00% decrease in solvency discount rates	\$	15,054	
Percentage increase from 1.00% decrease in solvency discount rates		11.5%	
Solvency Liability at solvency discount rates plus 1.00%	\$	118,197	
Impact of 1.00% increase in solvency discount rates	\$	12,591	
Percentage decrease from 1.00% increase in solvency discount rates		9.6%	

## **Solvency Valuation Incremental Cost**

The CIA practice-specific standards for pension plans also require the calculation of the incremental cost on a solvency basis. This represents the present value at July 1, 2013 of the expected aggregate change in the Solvency Liability between July 1, 2013 and June 30, 2014, the date of the next required valuation. The Actuarial Assumptions section of this report provides more detail regarding the calculation methodology and assumptions. An educational note was published in December 2010 by the Canadian Institute of Actuaries to provide guidance to actuaries for this calculation.

The main purpose of this new disclosure requirement is to provide insight regarding the expected growth in the Solvency Liability, assuming there will be no change in applicable discount rates. This disclosure requirement is more useful when combined with the expected return on Plan assets and comparing this net amount with the total current service cost contributions and special payments expected to be paid into the fund between those dates.

Based on this methodology and on these assumptions, the incremental cost on a solvency basis for the period from July 1, 2013 to June 30, 2014 is estimated to be \$1,535,000.

		:	2012/2013
Surplus/	Unfunded Liability) at Beginning of Year	\$	(29,801)
Less:	University Current Service Cost		1,147
Plus:	University Current Service Cost Contributions		1,147
Plus:	University Special Payments		3,100
Plus:	Interest at 6.25% per annum		(1,768)
Plus:	Expected Recognition of the July 1, 2012 Deferred Asset Gain/(Loss)		(3,049)
Equals:	Expected Surplus/(Unfunded Liability) at End of Year, Before Experience Gains/(Losses)	\$	(31,518)
Plus:	Increase/(Decrease) Due to: Gains/(Losses): Return on Assets Indexation of Benefits Increase in Salaries Increase in <i>Income Tax Act</i> Maximum Pension Termination Experience Retirement Experience Mortality Experience All Other Sources		1,007 1,039 122 375 215 597 460 530
Equals:	Surplus/(Unfunded Liability) at End of Year, Before Changes in Assumptions/Methods	\$	(27,173)
Plus:	Increase/Decrease Due to Changes in Actuarial Assumptions		(429)
Equals:	Surplus/(Unfunded Accrued Liability) at End of Year	\$	(27,602)

## Reconciliation of Going Concern Surplus/(Deficit) (Thousands of Dollars)

# Comments Regarding Experience from July 1, 2012 to July 1, 2013

#### **Return on Assets**

The total return after expenses based on the actual market value of assets after allowing for the full amount of capital appreciation during the year, assuming contributions and benefit payments take place in the middle of the year, was 12.0%. The assumed rate of return for actuarial valuation purposes was 6.25% per annum resulting in a gain of \$4,028,000 on a market value basis. The gain on the actuarial value of assets (net of the expected recognition of the July 1, 2012 deferred asset gain/(loss)) is equal to 25% of the gain on the market value of assets, or \$1,007,000.

#### Indexation of Benefits

Benefit entitlements for retired and terminated vested participants were increased by 0.62% at July 1, 2013 under the 75% of CPI indexing provision (and corresponding higher percentages for retirees under one of the pre-integration provisions). The increases were less than the 1.875% increase anticipated under the actuarial assumptions, resulting in an actuarial gain of \$1,039,000.

#### **Increase in Salaries**

The assumed salary increase used for the July 1, 2012 actuarial valuation was 4.5% per year. Actual salary increases varied by staff group, but on average were lower than assumed resulting in an actuarial gain of \$122,000.

#### Income Tax Act Maximum Pension

The increase in the *Income Tax Act Maximum Pension* from 2012 to 2013 was 1.9%. This was lower than the expected 3.5%, resulting in an actuarial gain of \$375,000.

#### **Termination Experience**

Termination experience since July 1, 2012 was higher than expected under the valuation assumptions. This resulted in an actuarial gain of \$215,000.

#### **Retirement Experience**

The age at which members retired since July 1, 2012 was later than expected under the valuation assumptions. This resulted in an actuarial gain of \$597,000.

#### **Mortality Experience**

Mortality rates since July 1, 2012 were higher than expected under the valuation assumptions. This resulted in an actuarial gain of \$460,000.

#### All Other Sources

Other factors such as personnel changes and data adjustments, etc., deviated from expected, resulting in a net actuarial gain of \$530,000.

## Change in Economic Assumptions

The following changes in economic assumptions were made as of July 1, 2013:

- The Increase in CPI was reduced from 2.50% per annum to 2.25% per annum
- The Increase in CPP Maximum Salary and Increase in ITA Maximum Pension were reduced from 3.50% per annum to 3.00% per annum
- The Increase in Salaries was reduced from 4.50% per annum to 4.25% per annum
- The Discount Rate was reduced from 6.25% per annum to 6.00% per annum

These changes in aggregate increased the going concern liabilities by \$429,000, and the total current service cost by \$1,000.

# SRA Actuarial Report (Excerpts)

# **Actuarial Report (Excerpts)**

Supplemental Retirement Arrangement

As of July 1, 2013

## Valuation Results

The going concern actuarial valuation of the SRA is prepared based on the same actuarial assumptions and methods used for the actuarial valuation of the Registered Pension Plan.

(Thousands of Dollars)	Ju	As of Ily 1, 2012	As o July 1, 201	
Going Concern Valuation Results Past Service <sup>1</sup>				
Accrued Liability for SRA				
Active Participants	\$	5,138	\$	1,742
Retired Participants		130,049		131,188
Total	\$	135,187	\$	132,930
Current Service				
Current Service Cost for SRA	\$	147	\$	41
As a % of Participant Salary Base (With \$150,000 Pay Cap)		0.02%		0.005%
Participant Salary Base	\$	771,669	\$	796,022

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. The assets in this fund are \$113,656,577 as of June 30, 2013. 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.

<sup>&</sup>lt;sup>1</sup> Includes participants in both the University of Toronto Pension Plan and University of Toronto (OISE) Pension Plan

# Appendix 4(a) – Pension Financial Statements University of Toronto Pension Plan

# **Financial Statements**

University of Toronto Pension Plan

June 30, 2013

## **INDEPENDENT AUDITORS' REPORT**

#### To the Administrator of the University of Toronto Pension Plan

We have audited the accompanying financial statements of the **University of Toronto Pension Plan**, which comprise the statement of financial position as at June 30, 2013, and the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the **University of Toronto Pension Plan** as at June 30, 2013, and the changes in its net assets available for benefits and changes in its pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

Toronto, Canada, December 11, 2013.

Crost + young LLP

Chartered Accountants Licensed Public Accountants

#### STATEMENT OF FINANCIAL POSITION

(with comparative figures as at June 30, 2012) (thousands of dollars)

As at June 30

	2013	2012
	\$	\$
ASSETS		
Investment in Master Trust, at fair value (note $3(a)$ )	2,836,871	2,505,689
Receivables and prepaid expenses	15,561	13,845
	2,852,432	2,519,534
LIABILITIES		
Refunds payable	3,324	2,435
Accrued expenses	3,970	1,329
	7,294	3,764
Net assets available for benefits	2,845,138	2,515,770
Pension obligations (note 7)	3,800,650	3,630,969
Deficit	(955,512)	(1,115,199)

See accompanying notes

On behalf of the Governing Council of the University of Toronto:

(signed)

Ms. Sheila Brown Chief Financial Officer

(signed)

Mr. Louis Charpentier Secretary of the Governing Council

## STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

(with comparative figures for the year ended June 30, 2012) (thousands of dollars)

Year ended June 30

	2013	2012
	\$	\$
INCREASE IN NET ASSETS		
Increase in fair value of investment in Master Trust		
( <i>note</i> 3( <i>b</i> ))	330,324	46,147
Employer contributions (note 4)	157,192	133,782
Employee contributions (note 1(b))	44,288	39,578
Transfers from other plans	2,562	2,109
Total increase in net assets	534,366	221,616
DECREASE IN NET ASSETS		
Retirement benefits	156,308	147,845
Refunds and transfers (note 5)	21,958	18,706
Fees and expenses (note 6)	26,732	25,567
Total decrease in net assets	204,998	192,118
Net increase in net assets for the year	329,368	29,498
Net assets available for benefits, beginning of year	2,515,770	2,486,272
Net assets available for benefits, end of year	2,845,138	2,515,770

See accompanying notes

## STATEMENT OF CHANGES IN PENSION OBLIGATIONS

(with comparative figures for the year ended June 30, 2012) (thousands of dollars)

Year ended June 30

	2013	2012
	\$	\$
INCREASE IN PENSION OBLIGATIONS		
Interest on accrued benefits	225,692	215,350
Benefits accrued	135,918	129,978
Assumption changes	7,786	
Transfers from other plans	2,562	2,109
Total increase in pension obligations	371,958	347,437
DECREASE IN PENSION OBLIGATIONS		
Benefits paid	178,266	166,551
Experience gains	24,011	12,209
Assumption changes	,	548
Total decrease in pension obligations	202,277	179,308
Net increase in pension obligations for the year	169,681	168,129
Pension obligations, beginning of year	3,630,969	3,462,840
Pension obligations, end of year	3,800,650	3,630,969

See accompanying notes

#### NOTES TO FINANCIAL STATEMENTS

#### JUNE 30, 2013

### 1. Description of Plan

The following description of the University of Toronto Pension Plan (the "Plan") is a summary only. For more complete information, reference may be made to the official Plan text.

#### a) General

The Plan is a contributory defined benefit plan open to all full-time and part-time employees of the University of Toronto (the "University") meeting the eligibility conditions.

The Plan is registered under the Pension Benefits Act (Ontario) (Ontario Registration Number 0312827) and with the Canada Revenue Agency.

The Governing Council of the University of Toronto acts as administrator for the Plan and the investments, through the University of Toronto Master Trust ("Master Trust"), are managed by the University of Toronto Asset Management Corporation ("UTAM"), a wholly-owned subsidiary of the University.

#### b) Funding

Plan benefits are funded by contributions and investment income. Required member contributions are made in accordance with a prescribed formula. The University's contributions are determined annually on the basis of an actuarial valuation taking into account the assets of the Plan and all other relevant factors.

#### c) Retirement benefits

At retirement, the number of years of pensionable service earned by a member is multiplied by a percentage of the average of the highest 36 months of earnings to determine the annual pension payable to that member. There are various early retirement provisions in place for different employee groups. Benefits are also payable in the case of termination of employment prior to retirement.

#### d) Death benefits

Death benefits are available for beneficiaries on the death of an active member and may be taken in the form of a survivor pension or a lump-sum payment. Death benefits may also be available for a spouse on the death of a retired member.

#### e) Escalation of benefits

The pension benefits of retirees are subject to cost of living adjustments equal to the greater of: i) 75% of the increase in the Consumer Price Index in Canada ("CPI") for the previous calendar year to a maximum CPI increase of 8% plus 60% of the increase in CPI in excess of 8%, or ii) the increase in the CPI for the previous calendar year minus 4%.

## 2. Summary of significant accounting policies

#### a) Basis of presentation

These financial statements have been prepared by the University in accordance with Canadian accounting standards for pension plans in Part IV (Section 4600) of the Chartered Professional Accountants of Canada (CPA Canada) (formerly, the Canadian Institute of Chartered Accountants) Handbook applied within the framework of the significant accounting policies summarized below.

Section 4600 provides specific accounting guidance on investments and pension obligations. In accordance with Section 4600, Canadian accounting standards for private enterprises in Part II of the CPA Canada Handbook have been chosen for accounting policies that do not relate to the investment portfolio or pension obligations to the extent that those standards do not conflict with the requirements of Section 4600.

#### b) Investments and investment income

Investments are carried at fair value. The Plan is invested in the Master Trust. The unit value of the Master Trust is calculated based on the fair value of the underlying investments of the Master Trust.

Income from investments is recorded on an accrual basis. Distributions from a master trust arrangement are recorded when declared. Changes in fair values, representing realized and unrealized gains and losses, from one year to the next are reflected in the statement of changes in net assets available for benefits.

#### c) University of Toronto Master Trust

Investments within the Master Trust are carried at fair value. Fair value amounts represent estimates of the consideration that would be agreed upon between knowledgeable, willing parties who are under no compulsion to act. It is best evidenced by a quoted market price, if one exists. The calculation of estimated fair value is based upon market conditions at a specific point in time and may not be reflective of future fair values.

Fair values of the investments held by the Master Trust are determined as follows:

- (i) Short-term notes and treasury bills are valued based on cost plus accrued interest, which approximates fair value.
- (ii) Bonds and equities are valued based on quoted closing market prices. If quoted closing market prices are not available for bonds, estimated values are calculated using discounted cash flows based on current market yields and comparable securities, as appropriate.
- (iii) Investments in pooled funds (other than private investment interests and hedge funds) are valued at their reported net asset value per unit.
- (iv) Hedge funds are valued based on the most recently available reported net asset value per unit adjusted for the expected rate of return of the fund through June 30. The University believes the carrying amount of these financial instruments is a reasonable estimate of fair value.
- (v) Private investment interests consisting of private equities and real assets are comprised of private externally managed funds with underlying investments in equities, debt, real estate assets and

commodities. The investment managers of these interests perform valuations of the underlying investments on a periodic basis and provide valuations periodically. Annual financial statements of the private investment interests are audited and are also provided by the investment managers. The value of the investments in these interests is based on the most recent valuation provided, adjusted for subsequent cash receipts and distributions from the fund and cash disbursements to the fund through June 30. The University believes the carrying amount of these financial instruments is a reasonable estimate of fair value.

(vi) Derivative financial instruments are used to manage particular market and currency exposures for hedging and risk management purposes with respect to the Master Trust's investments and as a substitute for more traditional investments. Derivative financial instruments and synthetic products that may be employed include debt, equity, commodity and currency futures, options, swaps and forward contracts. These contracts are supported by liquid assets with a fair value approximately equal to the fair value of the instruments underlying the derivative contract.

For all derivative financial instruments, the gains and losses arising from changes in the fair value of such derivatives are recognized as investment income (loss) in the year in which the changes in fair value occur. The fair value of derivative financial instruments reflects the daily quoted market amount of those instruments, thereby taking into account the current unrealized gains or losses on open contracts. Investment dealer quotes or quotes from a bank are available for substantially all of the Master Trust's derivative financial instruments.

(vii) Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at the exchange rate in effect at year end.

Interest income is recorded by the Master Trust on an accrual basis. Dividends are recorded by the Master Trust as revenue on the record date. Realized gains and losses on investments are recorded based on the average cost of the related investments. Unrealized gains and losses on investments are recorded by the Master Trust as a change in fair value since the beginning of the year or since the date of purchase when purchased during the year.

Income and expenses are translated at exchange rates in effect on the date of the transaction. Gains or losses arising from those translations are included in income.

Purchases and sales of investments are recorded by the Master Trust on a trade date basis and transaction costs are expensed as incurred.

#### d) Revenue and expense recognition

All employer and employee contributions and other revenue are reflected in the year in which they are due. All expenses are recorded on an accrual basis.

#### e) Use of estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of increases and decreases in net assets during the reporting period. Actual results could differ materially from those estimates.

#### f) Pension obligations

Pension obligations are determined based on an actuarial valuation prepared by an independent firm of actuaries using an actuarial valuation report prepared for funding purposes. This valuation uses the projected benefits method pro-rated on service and management's best estimate of various economic and non-economic assumptions.

## 3. University of Toronto Master Trust

On August 1, 2000, the Master Trust was established to facilitate the collective investment of the assets of the University's pension plans. Each pension plan holds units of the Master Trust. The value of each unit held by a plan increases or decreases monthly based on the change in fair value of the underlying assets of the Master Trust. This value is used as the basis for the purchase and sale of units by the pension plans in the following month.

On May 31, 2011, substantially all of the Master Trust's publicly traded investments were transferred into four new unitized investment pooled funds which are managed by UTAM. The overall investment strategy and risk profile of the Master Trust was not changed as a result of the new pooled funds. The directly held investments of the UTAM pooled funds are considered to be directly held investments of the Master Trust for risk analysis disclosure purposes. As at June 30, 2013, the UTAM pooled funds accounted for 41.4% (2012 - 45.0%) of the Master Trust's investments.

## a) Investment in Master Trust

(thousands of dollars)

As at June 30, 2013, the Plan's investment in the Master Trust consisted of 19,293,515 (2012 - 19,190,644) of the 19,850,247 (2012 - 19,773,064) outstanding units of the Master Trust. The Plan's investment in the Master Trust was \$2,836,871 (2012 - \$2,505,689) of the total fair value of \$2,919,010 (2012 - \$2,581,980) of the Master Trust.

The investments of the Master Trust and the Plan's investments, if the Plan's investment in the Master Trust had been proportionately consolidated, consisted of the following as at June 30, taking into account certain reclassifications resulting primarily from the allocation of the effect of futures contracts. These future contract reclassifications at the Master Trust level resulted in \$200,636 (2012 - \$140,627) of short-term investments being reclassified to Canadian equities of \$108,951 (2012 - \$69,050), to United States equities of \$67,153 (2012 - \$51,649), to international equities of nil (2012 - \$19,374), to emerging markets equities of \$15,859 (2012 - nil) and to government and corporate bonds of \$8,673 (2012 - \$554), as well as \$10,468 (2012 - nil) of international equities being reclassified to short-term investments.

			University	of Toronto
	Master Trust		Pensio	n Plan
	<b>2013</b> 2012		2013	2012
	\$	\$	\$	\$
Short-term investments	1,316	95,151	1,279	92,339
Government and corporate bonds	882,348	761,019	857,520	738,532
Canadian equities	459,407	515,848	446,479	500,606
United States equities	522,095	455,104	507,404	441,657
International equities	478,883	377,567	465,407	366,411
Emerging markets equities	302,129	116,483	293,628	113,042
Absolute return funds	284,043	257,730	276,050	250,115
	2,930,221	2,578,902	2,847,767	2,502,702
Derivative-related net receivable				
(payable) (note 3(d))	(11,211)	3,078	(10,896)	2,987
	2,919,010	2,581,980	2,836,871	2,505,689
	·			

Short-term investments consist of cash, money market funds, short-term notes and treasury bills.

Included within the Master Trust's investments are hedge funds, private equities and real assets. These investments have been classified as follows:

				2013						
	Government									
	Canadian equities \$	United States equities \$	International equities \$	Emerging markets equities \$	and corporate bonds \$	Absolute return funds \$	Total \$			
Hedge funds				33,080	100,723	284,043	417,846			
Private equities	28,688	189,802	62,099	37,122	79,167		396,878			
Real assets	42,432	71,957	59,256		29,260		202,905			
	71,120	261,759	121,355	70,202	209,150	284,043	1,017,629			

				2012					
	Government								
	Canadian equities \$	United States equities \$	International equities \$	Emerging markets equities \$	and corporate bonds \$	Absolute return funds \$	Total \$		
Hedge funds				31,885	87,104	257,730	376,719		
Private equities	31,029	188,156	59,922	31,713	32,095		342,915		
Real assets	54,420	66,457	40,588				161,465		
	85,449	254,613	100,510	63,598	119,199	257,730	881,099		

#### b) Changes in the Master Trust

(thousands of dollars)

The increase in fair value of the Master Trust was \$340,085 (2012 - \$47,640) of which the increase in fair value of the Plan's investment was \$330,324 (2012 - \$46,147). The following table shows the components of the net increase in the net assets of the Master Trust for the years ended June 30:

	2013 \$	2012 \$
Increase in fair value	<u> </u>	· · · ·
Interest income		
Government and corporate bonds	21,730	17,493
Short-term investments	1,627	2,618
Dividend income		
Canadian	11,946	8,763
Foreign	43,104	12,947
Other income	123	213
	78,530	42,034
Net realized and unrealized gains from investments	261,555	5,606
Total increase in fair value of the Master Trust	340,085	47,640
Cash received on purchase of Master Trust		
units by pension plans	208,678	183,049
Cash paid on redemption of Master Trust		
units by pension plans	(211,733)	(199,677)
Net increase in net assets for the year	337,030	31,012
Net assets, beginning of year	2,581,980	2,550,968
Net assets, end of year	2,919,010	2,581,980

If the Plan had proportionately consolidated its share of the Master Trust, the investment income and changes in fair value of investments for the years ended June 30 would be comprised of the following:

	2013 \$	2012 \$
Interest income	22,687	19,481
Dividend income	53,470	21,030
Other income	119	206
	76,276	40,717
Net realized and unrealized gains from investments	254,048	5,430
	330,324	46,147

#### c) Individually significant investments

(thousands of dollars)

The details of investments where the fair value exceeds 1% of the total fair value or cost of the Master Trust in the underlying portfolios are listed below:

	Fair Value \$
Government and corporate bonds	
UTAM Canadian Fixed Income Fund	291,966
UTAM Canadian Credit Fund	279,743
Blackrock Canada Credit-Screened Bond Index Fund	90,678
OZ Structured Product Overseas Feeder Index II, L.P.	33,982
Q Residential Real Estate Investment Trust	29,260
Canadian equities	
UTAM Canadian Equity Fund	279,335
United States equities	
GMO Quality Fund IV	80,905
UTAM US Equity Fund	62,126
ValueAct Capital International II, L.P.	49,927
International equities	
UTAM International Equity Fund	293,762
Cevian Capital Fund II Ltd.	36,816
Emerging markets equities	
Emerging Market Alpha Advantage Fund Ltd.	149,005
LSV Emerging Market Equity Value	67,063
Other	
GSA Capital International Fund	33,513

#### d) Derivative financial instruments

(thousands of dollars)

#### Description

The Master Trust has entered into equity and commodity index futures contracts which oblige it to pay the difference between a predetermined amount and the market value when the market value is less than the predetermined amount, or receive the difference when the market value is more than the predetermined amount.

The Master Trust enters into foreign currency forward contracts to minimize exchange rate fluctuations and the resulting uncertainty on future financial results. All outstanding contracts have a remaining term to maturity of less than one year. The Master Trust has significant contracts outstanding held in United States Dollars, Euros, Japanese Yen and British Pound Sterling.

The notional amounts of the derivative financial instruments do not represent amounts exchanged between parties and are not a measure of the Master Trust's exposure resulting from the use of financial instrument contracts. The amounts exchanged are based on the applicable rates applied to the notional amounts.

#### Risks

The Master Trust is exposed to credit-related losses in the event of non-performance by counterparties to these financial instruments, but it does not expect any counterparties to fail to meet their obligations given their high credit ratings.

#### Terms and conditions

The maturity dates of the derivative financial instrument contracts as at June 30, 2013 range from July 2013 to September 2013. Collateral has been provided against these contracts as at June 30, 2013 in the form of short-term investments with a fair value of 5,345 (2012 – 7,644). The notional and fair value amounts of the derivative financial instruments as at June 30 are as follows:

	2013 \$		201 \$	2
	Notional Value	Fair Value	Notional Value	Fair Value
Foreign currency forward contracts: - United States Dollar - Euro - Other	648,963 184,935 118,323	(9,905) 246 (178) (9,837)	568,554 132,085 131,067	360 (351) (351) (342)
Equity and commodity index futures contracts: - United States Dollar - Other	81,944 5,514	(1,275) (99)	50,388 87,314	1,736 1,684
Total	5,514	(1,374) (11,211)		3,420 3,078

#### e) Risk management

Risk management relates to the understanding and active management of the risks associated with all areas of the Master Trust's investments. The investments of the Master Trust are primarily exposed to market risk (which includes foreign currency, interest rate and other price risks), credit risk and liquidity risk. To manage these risks within reasonable risk tolerances, the Master Trust, through UTAM, has formal policies and procedures in place governing asset mix among equity, fixed income and alternative assets, requiring diversification within categories, and setting limits on the size of exposure to individual investments and counterparties. In addition, derivative instruments are used in the management of these risks (see note 3(d)).

#### f) Market risk

Market risk is the risk that the value of an investment will fluctuate because of changes in market prices. The Master Trust is exposed to market risk from its investing activities. Market risk encompasses a variety of financial risks, such as foreign currency risk, interest rate risk and other price risk. Significant volatility in interest rates, equity values and the value of the Canadian dollar against the currencies in which the Master Trust investments are held can significantly impact the value of these investments. The Master Trust manages market risk by investing across a wide variety of asset classes according to the approved policy asset mix and hedging strategies established in the University of Toronto Pension

Master Trust Statement of Investment Policies and Procedures (SIP&P). The following are the key components of market risk:

#### (i) Foreign currency risk

Foreign currency exposure arises from the Master Trust's direct holdings of investments denominated in currencies other than the Canadian dollar. Fluctuations in the relative value of the Canadian dollar against these foreign currencies can result in a positive or a negative effect on the fair value of investments. To manage foreign currency risk, the currency hedging policy, effective May 1, 2012, is to hedge 75% of developed markets' currency exposures and 0% of emerging markets' currency exposures. Previously, a 50% hedging policy was in place for the Master Trust. The Plan also has an indirect exposure to foreign currency risk to the extent that the Master Trust's direct holdings have underlying investments denominated in foreign currencies.

The following table summarizes the Master Trust's directly held investment holdings and the underlying investments in the UTAM pooled funds by currency exposure, the impact of the currency hedging program and the net currency exposure as at June 30:

	(thousands of dollars) 2013 \$		2012 \$	
	-	Net	Net	Net
	Currency	Currency	Currency	Currency
	Exposure	Hedge	Exposure	Exposure
United States Dollar	901,565	(648,963)	252,602	398,877
Chinese Renminbi	54,974	· · · ·	54,974	
South Korean Won	44,039		44,039	
British Pound Sterling	67,530	(26,863)	40,667	20,636
Japanese Yen	90,623	(52,647)	37,976	11,535
New Taiwan Dollar	35,887		35,887	
Brazilian Real	34,155		34,155	
Euro	210,227	(184,935)	25,292	43,986
South African Rand	21,681		21,681	
Indian Rupee	20,479		20,479	
Russian Ruble	17,436		17,436	
Mexican Peso	16,381		16,381	
Swiss Franc	26,528	(11,312)	15,216	(4,119)
Australian Dollar	24,519	(9,607)	14,912	5,880
Malaysian Ringgit	12,198		12,198	
Indonesian Rupiah	9,619		9,619	
Swedish Krona	14,756	(9,307)	5,449	(372)
Thai Baht	8,483		8,483	
Other	48,538	(8,587)	39,951	202
Total	1,659,618	(952,221)	707,397	476,625

Since all other variables are held constant in assessing foreign currency risk sensitivity, it is possible to extrapolate a 5% absolute change in foreign exchange rates to any absolute percentage change in foreign exchange rates. A 5% absolute change in foreign exchange rates would have a

\$35.4 million (2012 - \$23.8 million) impact on the foreign currency assets, net of the currency hedges, of the Master Trust.

#### (ii) Interest rate risk

Interest rate risk refers to the effect on the fair value of the Master Trust's assets and liabilities due to fluctuations in interest rates. Among the Master Trust's assets, the most significant interest rate risk relates to its fixed income investments. These investments are in the form of fixed income securities directly held by the Master Trust and direct holdings of the Master Trust where there are underlying fixed income investments.

The following table summarizes the profile of the Master Trust's directly held fixed income securities and the underlying fixed income securities directly held by the UTAM pooled funds which are subject to interest rate risk, based on term to maturity as at June 30:

	(thousands of dollars)			
	2013		2012	
Maturity Range	Fair Value \$	Weighted Average Yield	Fair Value \$	Weighted Average Yield
0-5 years >5 years-10 years >10 years	205,037 160,994 107,131 473,162	1.94% 3.03% <u>3.66%</u> 2.70%	222,928 189,512 130,356 542,796	1.91% 2.91% 3.55% 2.65%
	4/3,102	2.70%	342,790	2.05%

As at June 30, 2013, for every 1% increase (decrease) in prevailing market interest rates, the fair value of the direct and indirect fixed income holdings in the Master Trust is estimated to decrease (increase) by approximately \$30.9 million (2012 - \$36.6 million).

#### (iii) Other price risk

(thousands of dollars)

Other price risk is the risk that the fair value of an investment will fluctuate because of changes in market prices (other than those arising from foreign currency risk or interest rate risk), whether those changes are caused by factors specific to the individual investment, its issuer, or factors affecting all similar securities traded in the market. The Master Trust's exposure to other price risk is primarily due to its equity investments. These investments are in the form of equity securities directly held by the Master Trust and direct holdings of the Master Trust where there are underlying equity investments.

The fair value of these equity investments subject to other price risk is 1,025,936 (2012 - 642,091). Since all other variables are held constant in assessing other price risk sensitivity, it is possible to extrapolate a 10% absolute change in the fair value to any absolute percentage change in fair value. A 10% absolute change in the fair value of these equity investments which are exposed to price risk is 102,594 (2012 - 64,209).

#### g) Credit risk

(thousands of dollars)

Credit risk of financial instruments is the risk of loss arising from the potential failure of a counterparty, debtor or issuer (collectively, the "debtor") to honour its contractual obligations. Credit risk can take the form of an actual default, such as a missed payment of borrowed principal or interest when it comes due, or can be based on an increased likelihood of default which could result in a credit rating downgrade by credit rating agencies. Both scenarios would result in a decrease in the fair value of the obligations issued by the debtor. The Master Trust's investments in non-government-guaranteed securities are exposed to credit risk. The fair value of these investments and other assets as presented in the statement of financial position represents the maximum credit risk exposure at the date of the financial statements. The use of forward foreign exchange contracts to hedge foreign currency risk exposure also exposes the Master Trust's direct holdings have underlying investments in non-government-guaranteed securities.

The following table summarizes the fair value of directly held fixed income securities and the underlying fixed income securities directly held by the UTAM Canadian Fixed Income Fund and the UTAM Canadian Credit Fund which are exposed to credit risk, by credit rating, as at June 30:

	2013		2	012
	Fair	% of Fixed	Fair	% of Fixed
	Value	Income	Value	Income
Credit Rating	\$	Securities	\$	Securities
AAA	188,250	39.78	178,525	32.89
AA	104,006	21.98	124,858	23.00
А	135,021	28.54	151,333	27.88
BAA and other	45,885	9.70	88,080	16.23
	473,162	100.00	542,796	100.00

#### h) Liquidity risk

Liquidity risk is the risk of the Plan not being able to settle or meet its commitments in a timely manner. These commitments include payment of the Plan's pension obligations and operating expenses, margin requirements associated with synthetic investment strategies, and the Master Trust's future commitments in private investment interests. These liquidity requirements are managed through income and distributions generated from investments, monthly contributions made by the University and Plan members, and having a sufficient amount of assets invested in liquid instruments that can be easily sold and converted to cash.

#### i) Fair value hierarchy

(thousands of dollars)

The Plan is required to disclose, for each class of financial instruments, the methods and, when a valuation technique is used, the assumptions applied in determining fair values, through a three-level hierarchy, as of the financial statement date. The three levels are defined as follows:

**Level 1:** Fair value is based on quoted market prices in active markets for identical assets or liabilities. Level 1 assets and liabilities generally include equity securities traded in an active exchange market.

**Level 2:** Fair value is based on observable inputs other than Level 1 prices, such as quoted market prices for similar (but not identical) assets or liabilities in active markets, quoted market prices for identical assets or liabilities in markets that are not active, and other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. This category generally includes mutual and pooled funds, hedge funds, Government of Canada, provincial and other government bonds, Canadian corporate bonds, and certain derivative contracts.

**Level 3:** Fair value is based on non-observable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Financial instruments are classified in this level when the valuation technique is based on at least one significant input that is not observable in the market or due to a lack of liquidity in certain markets. This category generally includes private investment interests (which are comprised of private, externally managed pooled funds with underlying investments in equities, real estate assets and commodities) and securities that have liquidity restrictions.

	2013			
	Level 1	Level 2	Level 3	Total
	\$	\$	\$	\$
Short-term investments	226,721	264		
Government and corporate bonds	305	723,535	144,979	868,819
Canadian equities	132,429	117,183	71,120	320,732
United States equities	61,938	130,832	261,759	454,529
International equities	,	367,487	121,355	488,842
Emerging markets equities		216,069	70,202	286,271
Absolute return funds		239,767	44,276	284,043
	421,393	1,795,137	713,691	2,930,221
Derivative-related net payable				
( <i>note</i> 3( <i>d</i> ))	(1,374)	(9,837)		(11,211)
	420,019	1,785,300	713,691	2,919,010
Plan's share of Master Trust	408,200	1,735,063	693,608	2,836,871

	2012			
	Level 1	Level 2	Level 3	Total
	\$	\$	\$	\$
Short-term investments	319,980	103,652		
Government and corporate bonds		671,364	79,915	751,279
Canadian equities	116,844	155,141	85,449	357,434
United States equities	44,556	103,547	254,613	402,716
International equities	116,744	52,374	100,510	269,628
Emerging markets equities		60,674	55,809	116,483
Absolute return funds		225,886	31,844	257,730
	598,124	1,372,638	608,140	2,578,902
Derivative-related net receivable				
(payable) (note $3(d)$ )	3,420	(342)		3,078
• • • • • • •	601,544	1,372,296	608,140	2,581,980
Plan's share of Master Trust	583,770	1,331,748	590,171	2,505,689

For purposes of the tables above, the fair value hierarchy of the underlying investments of the UTAM pooled funds held by the Master Trust has been disclosed, resulting in investments with a fair value of \$229,949 and \$976,983 (2012 - \$465,998 and \$690,383) being classified as Level 1 and Level 2 investments, respectively. The Master Trust's investments in the UTAM pooled funds would be considered Level 2 investments.

The following table summarizes the changes in the fair value of financial instruments classified in Level 3 of the Master Trust for the years ended June 30:

	2013 \$	2012 \$
Fair value, beginning of year	608,140	657,896
Purchases	161,197	80,875
Sales	(108,689)	(124,081)
Transfer out to Level $2^1$		(17,077)
Total realized gains (losses)	2,687	(5,541)
Total unrealized gains	50,356	16,068
Fair value, end of year	713,691	608,140

<sup>1</sup> A hedge fund investment was transferred out from Level 3 to Level 2 during 2012 due to the removal of the redemption restrictions.

#### j) Hedge funds and private investment interests

The Master Trust invests in certain hedge funds and private investment interests which are comprised of externally managed funds with underlying investments in equities, debt, real estate assets and commodities. Because these investment interests are not readily tradable, their estimated values are subject to uncertainty and therefore may differ from the value that would have been used had a ready market for such interests existed. Sensitivity analysis demonstrates that a 10% absolute change in the fair value of investments in hedge funds and private investment interests would result in a change to the total fair value of these investments of the Master Trust of \$101.8 million (2012 - \$88.1 million).

Refer to note 3(k) for a breakdown of the Master Trust's uncalled commitments related to private investment interests.

#### k) Uncalled commitments

As at June 30, 2013, approximately 20.5% (2012 - 19.5%) of the Master Trust's investment portfolio is invested in private investment interests managed by third party managers. These private investment interests typically take the form of limited partnerships managed by a General Partner. The legal terms and conditions of these private investment interests, which cover various areas of private equity investments and real asset investments (e.g., real estate and infrastructure), require that investors initially make an unfunded commitment and then remit funds over time (cumulatively up to a maximum of the total committed amount) in response to a series of capital calls issued to the investors by the manager. As at June 30, 2013, the Master Trust had uncalled commitments of approximately \$192.6 million (2012 - \$130.3 million). The capital committed is called by the manager over a pre-determined investment period, which varies by fund but is generally about three to five years from the date the fund closes. In practice, for a variety of reasons, the total amount committed to a fund is very rarely all called.

## 4. Employer contributions

The University has made \$93.7 million (2012 - \$91.6 million) in current service cost contributions and \$63.5 million (2012 - \$42.2 million) in additional special payments. The special payments were made to fund the unfunded liability, since the actuarial funding valuation as of July 1, 2011 showed the present value of accrued pension benefits exceeded the Plan's actuarial value of assets.

#### 5. Refunds and transfers

(thousands of dollars)

Refunds and transfers consist of the following:

	2013 \$	2012 \$
Refunds of contributions and other benefit payments:		
Upon termination	6,214	3,998
Úpon death	1,786	2,311
•	8,000	6,309
Transfers to other plans upon termination	13,958	12,397
	21,958	18,706

## 6. Fees and expenses

(thousands of dollars)

Fees and expenses consist of the following:

	2013	2012
	\$	\$
Investment management fees:		
External managers <sup>1</sup>	20,475	20,161
UTAM <sup>1,2</sup>	2,591	2,695
Transaction fees <sup>1,3</sup>	980	255
Pension records administration	686	662
Administration cost - University of Toronto <sup>2</sup>	508	492
Actuarial and related fees	456	520
Trustee and custodial fees <sup>1</sup>	379	543
External audit fees	43	45
Other fees	614	194
	26,732	25,567

<sup>1</sup> Reflect expenses that are directly charged to the Master Trust and are allocated back to the Plan.

In 2013, the allocation ratio has been changed from 95:5 to 97:3 between UofT and OISE plans.

<sup>&</sup>lt;sup>2</sup> Represent related party transactions.

<sup>&</sup>lt;sup>3</sup>Transaction fees represent the cost of purchasing and selling investments. The increase in transaction fees is due to the introduction of the new emerging markets equities asset class as a result of the adoption of the Reference Portfolio in May 2012.

## 7. Pension obligations

Pension obligations are determined by applying best estimate assumptions agreed to by the University and the projected benefits method pro-rated on service. The pension obligations were determined using an actuarial funding valuation performed as of July 1, 2013 by Aon Hewitt, a firm of actuaries.

Significant assumptions used in the actuarial valuation are as follows:

	2013 %	2012 %
Interest rate	6.00	6.25
Consumer Price Index	2.25	2.50
Salary escalation rate	4.25	4.50

## 8. Capital management

The funding surpluses or deficits determined periodically in funding valuations prepared by an independent actuary are defined as the Plan's capital. The actuary's funding valuation is used to measure the long term health of the Plan. A funding valuation is required to be filed with the pension regulator at least every three years. The most recently filed valuation was as of July 1, 2011 which disclosed an unfunded actuarial liability of \$957.2 million on a going concern basis and a deficit of \$1,011.5 million on a solvency basis. The next required actuarial funding valuation to be filed with the regulator must be at a date no later than July 1, 2014, absent of any changes that would trigger a valuation in the interim.

The objective of managing the Plan's capital is to ensure the Plan is funded to fully pay the benefits over the long term. The University negotiates with the various employee groups to change member contribution levels to meet the ongoing funding of the Plan and makes special contributions to eliminate any deficits, all subject to meeting regulatory requirements. In addition, the SIP&P provides guidance with respect to the investment of the Plan's assets in order to assist with the management of any funding surpluses or deficits. This guidance includes return objectives, normal risk tolerances, asset allocation and benchmarks for the evaluation of performance. The most recently amended SIP&P was approved by the administrator on June 5, 2013.

The Plan holds units of the Master Trust, which invests across various asset classes and different geographical regions primarily through a number of segregated and pooled investments including third party managers and UTAM's pooled funds. The Plan's investments expose it to a variety of risks which are discussed in Notes 3(d) through 3(h). The Master Trust's asset allocation policy is governed and monitored by the University's Pension Advisory Committee (PAC). The performance of the Master Trust is reviewed periodically by the Plan's administrator, and this review includes an assessment of investment returns, comparison of returns to benchmarks contained within the SIP&P, ranking of returns in comparison to an appropriate investment universe, and other risk analyses required or requested by the PAC and the University.

Contributions to the Plan have complied with all regulatory funding requirements during the reporting periods. No required contributions were past due as of June 30, 2013. More details on member and employer contributions can be found in the statement of changes in net assets available for benefits and in Note 4 – Employer Contributions.

## 9. Comparative financial statements

The comparative financial statements have been reclassified from statements previously presented to conform to the presentation of the 2013 financial statements.

# Appendix 4(b) – Pension Financial Statements University of Toronto (OISE) Pension Plan

# **Financial Statements**

University of Toronto (OISE) Pension Plan

June 30, 2013

## **INDEPENDENT AUDITORS' REPORT**

#### To the Administrator of the University of Toronto (OISE) Pension Plan

We have audited the accompanying financial statements of the **University of Toronto (OISE) Pension Plan**, which comprise the statement of financial position as at June 30, 2013, and the statements of changes in net assets available for benefits and changes in pension obligations for the year then ended, and a summary of significant accounting policies and other explanatory information.

#### Management's responsibility for the financial statements

Management is responsible for the preparation and fair presentation of these financial statements in accordance with Canadian accounting standards for pension plans, and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

#### Auditors' responsibility

Our responsibility is to express an opinion on these financial statements based on our audit. We conducted our audit in accordance with Canadian generally accepted auditing standards. Those standards require that we comply with ethical requirements and plan and perform the audit to obtain reasonable assurance about whether the financial statements are free from material misstatement.

An audit involves performing procedures to obtain audit evidence about the amounts and disclosures in the financial statements. The procedures selected depend on the auditors' judgment, including the assessment of the risks of material misstatement of the financial statements, whether due to fraud or error. In making those risk assessments, the auditors consider internal control relevant to the entity's preparation and fair presentation of the financial statements in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the entity's internal control. An audit also includes evaluating the appropriateness of accounting policies used and the reasonableness of accounting estimates made by management, as well as evaluating the overall presentation of the financial statements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our audit opinion.

#### Opinion

In our opinion, the financial statements present fairly, in all material respects, the financial position of the **University of Toronto (OISE) Pension Plan** as at June 30, 2013, and the changes in its net assets available for benefits and changes in its pension obligations for the year then ended in accordance with Canadian accounting standards for pension plans.

Toronto, Canada, December 11, 2013.

Crost & young LLP

Chartered Accountants Licensed Public Accountants

## STATEMENT OF FINANCIAL POSITION

(with comparative figures as at June 30, 2012) (thousands of dollars)

As at June 30

	2013 \$	2012 \$
ASSETS		
Investment in Master Trust, at fair value (note $3(a)$ )	82,139	76,291
Receivables and prepaid expenses	580	571
	82,719	76,862
LIABILITIES Accrued expenses	426	369
	426	369
Net assets available for benefits	82,293	76,493
Pension obligations (note 7)	116,018	117,768
Deficit	(33,725)	(41,275)

See accompanying notes

On behalf of the Governing Council of the University of Toronto:

(signed)

Ms. Sheila Brown Chief Financial Officer

(signed)

Mr. Louis Charpentier Secretary of the Governing Council

## STATEMENT OF CHANGES IN NET ASSETS AVAILABLE FOR BENEFITS

(with comparative figures for the year ended June 30, 2012)

(thousands of dollars)

Year ended June 30

	2013	2012 \$
	\$	
INCREASE IN NET ASSETS		
Increase in fair value of investment in Master Trust ( <i>note 3(b</i> ))	9,761	1,493
	<i>,</i>	-
Employer contributions (note 4) $\sum_{i=1}^{n} (i + i) = (i + i)$	4,247	7,169
Employee contributions ( <i>note</i> 1( <i>b</i> ))	389	412
Total increase in net assets	14,397	9,074
DECREASE IN NET ASSETS		
Retirement benefits	6,295	6,002
Refunds and transfers (note 5)	1,258	1,121
Fees and expenses (note 6)	1,044	1,510
Total decrease in net assets	8,597	8,633
Net increase in net assets for the year	5,800	441
Net assets available for benefits, beginning of year	76,493	76,052
Net assets available for benefits, end of year	82,293	76,493

See accompanying notes

## STATEMENT OF CHANGES IN PENSION OBLIGATIONS

(with comparative figures for the year ended June 30, 2012) (thousands of dollars)

Year ended June 30

	2013 \$	2012 \$
INCREASE IN PENSION OBLIGATIONS		
Interest on accrued benefits	7,173	7,094
Benefits accrued	1,550	1,677
Assumption changes	429	
Total increase in pension obligations	9,152	8,771
DECREASE IN PENSION OBLIGATIONS Benefits paid		
Benefits paid		
Benefits para	7,553	7,123
Experience gains	7,553 3,349	7,123 114
		,
Experience gains Total decrease in pension obligations	3,349	114
Experience gains	3,349	114
Experience gains Total decrease in pension obligations Net increase(decrease) in pension obligations	3,349 10,902	114 7,233

See accompanying notes

## **NOTES TO FINANCIAL STATEMENTS**

### JUNE 30, 2013

## 1. Description of Plan

The following description of the University of Toronto Ontario Institute for Studies in Education (OISE) Pension Plan (the "Plan") is a summary only. For more complete information, reference may be made to the official Plan text.

#### a) General

The Plan is a defined benefit plan covering substantially all full-time and part-time employees of OISE who were members of the Plan as of June 30, 1996.

The Plan is registered under the Pension Benefits Act (Ontario) (Ontario Registration Number 0353854) and with the Canada Revenue Agency.

Effective July 1, 1996, the Governing Council of the University of Toronto (the "University") became the administrator of the Plan. Prior to July 1, 1996, the OISE Board of Governors acted as the administrator. The investments, through the University of Toronto Master Trust ("Master Trust"), are managed by the University of Toronto Asset Management Corporation ("UTAM"), a wholly-owned subsidiary of the University.

#### b) Funding

Plan benefits are funded by contributions and investment income. Required member contributions are made in accordance with a prescribed formula. The University's contributions are determined annually on the basis of an actuarial valuation taking into account the assets of the Plan and all other relevant factors.

#### c) Retirement benefits

At retirement, the number of years of pensionable service earned by a member is multiplied by a percentage of the average of the highest 36 months of earnings to determine the annual pension payable to that member. There are various early retirement provisions in place for different employee groups. Benefits are also payable in the case of termination of employment prior to retirement.

#### d) Death benefits

Death benefits are available for beneficiaries on the death of an active member and may be taken in the form of a survivor pension or a lump-sum payment. Death benefits may also be available for a spouse on the death of a retired member.

#### e) Escalation of benefits

The pension benefits of retirees are subject to cost of living adjustments equal to the greater of: i) 75% of the increase in the Consumer Price Index in Canada ("CPI") for the previous calendar year to a maximum CPI increase of 8% plus 60% of the increase in CPI in excess of 8%, or ii) the increase in the CPI for the previous calendar year minus 4%.

## 2. Summary of significant accounting policies

#### a) Basis of presentation

These financial statements have been prepared by the University in accordance with Canadian accounting standards for pension plans in Part IV (Section 4600) of the Chartered Professional Accountants of Canada (CPA Canada) (formerly, the Canadian Institute of Chartered Accountants) Handbook applied within the framework of the significant accounting policies summarized below.

Section 4600 provides specific accounting guidance on investments and pension obligations. In accordance with Section 4600, Canadian accounting standards for private enterprises in Part II of the CPA Canada Handbook have been chosen for accounting policies that do not relate to the investment portfolio or pension obligations to the extent that those standards do not conflict with the requirements of Section 4600.

#### b) Investments and investment income

Investments are carried at fair value. The Plan is invested in the Master Trust. The unit value of the Master Trust is calculated based on the fair value of the underlying investments of the Master Trust.

Income from investments is recorded on an accrual basis. Distributions from a master trust arrangement are recorded when declared. Changes in fair values, representing realized and unrealized gains and losses, from one year to the next are reflected in the statement of changes in net assets available for benefits.

#### c) University of Toronto Master Trust

Investments within the Master Trust are carried at fair value. Fair value amounts represent estimates of the consideration that would be agreed upon between knowledgeable, willing parties who are under no compulsion to act. It is best evidenced by a quoted market price, if one exists. The calculation of estimated fair value is based upon market conditions at a specific point in time and may not be reflective of future fair values.

Fair values of the investments held by the Master Trust are determined as follows:

- (i) Short-term notes and treasury bills are valued based on cost plus accrued interest, which approximates fair value.
- (ii) Bonds and equities are valued based on quoted closing market prices. If quoted closing market prices are not available for bonds, estimated values are calculated using discounted cash flows based on current market yields and comparable securities, as appropriate.
- (iii) Investments in pooled funds (other than private investment interests and hedge funds) are valued at their reported net asset value per unit.
- (iv) Hedge funds are valued based on the most recently available reported net asset value per unit adjusted for the expected rate of return of the fund through June 30. The University believes the carrying amount of these financial instruments is a reasonable estimate of fair value.

- (v) Private investment interests consisting of private equities and real assets are comprised of private externally managed funds with underlying investments in equities, debt, real estate assets and commodities. The investment managers of these interests perform valuations of the underlying investments on a periodic basis and provide valuations periodically. Annual financial statements of the private investment interests are audited and are also provided by the investment managers. The value of the investments in these interests is based on the most recent valuation provided, adjusted for subsequent cash receipts and distributions from the fund and cash disbursements to the fund through June 30. The University believes the carrying amount of these financial instruments is a reasonable estimate of fair value.
- (vi) Derivative financial instruments are used to manage particular market and currency exposures for hedging and risk management purposes with respect to the Master Trust's investments and as a substitute for more traditional investments. Derivative financial instruments and synthetic products that may be employed include debt, equity, commodity and currency futures, options, swaps and forward contracts. These contracts are supported by liquid assets with a fair value approximately equal to the fair value of the instruments underlying the derivative contract.

For all derivative financial instruments, the gains and losses arising from changes in the fair value of such derivatives are recognized as investment income (loss) in the year in which the changes in fair value occur. The fair value of derivative financial instruments reflects the daily quoted market amount of those instruments, thereby taking into account the current unrealized gains or losses on open contracts. Investment dealer quotes or quotes from a bank are available for substantially all of the Master Trust's derivative financial instruments.

(vii) Monetary assets and liabilities denominated in foreign currencies are translated into Canadian dollars at the exchange rate in effect at year end.

Interest income is recorded by the Master Trust on an accrual basis. Dividends are recorded by the Master Trust as revenue on the record date. Realized gains and losses on investments are recorded based on the average cost of the related investments. Unrealized gains and losses on investments are recorded by the Master Trust as a change in fair value since the beginning of the year or since the date of purchase when purchased during the year.

Income and expenses are translated at exchange rates in effect on the date of the transaction. Gains or losses arising from those translations are included in income.

Purchases and sales of investments are recorded by the Master Trust on a trade date basis and transaction costs are expensed as incurred.

#### d) Revenue and expense recognition

All employer and employee contributions and other revenue are reflected in the year in which they are due. All expenses are recorded on an accrual basis.

# e) Use of estimates

The preparation of financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and the disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of increases and decreases in net assets during the reporting period. Actual results could differ materially from those estimates.

### f) Pension obligations

Pension obligations are determined based on an actuarial valuation prepared by an independent firm of actuaries using an actuarial valuation report prepared for funding purposes. This valuation uses the projected benefits method pro-rated on service and management's best estimate of various economic and non-economic assumptions.

# 3. University of Toronto Master Trust

On August 1, 2000, the Master Trust was established to facilitate the collective investment of the assets of the University's pension plans. Each pension plan holds units of the Master Trust. The value of each unit held by a plan increases or decreases monthly based on the change in fair value of the underlying assets of the Master Trust. This value is used as the basis for the purchase and sale of units by the pension plans in the following month.

On May 31, 2011, substantially all of the Master Trust's publicly traded investments were transferred into four new unitized investment pooled funds which are managed by UTAM. The overall investment strategy and risk profile of the Master Trust was not changed as a result of the new pooled funds. The directly held investments of the UTAM pooled funds are considered to be directly held investments of the Master Trust for risk analysis disclosure purposes. As at June 30, 2013, the UTAM pooled funds accounted for 41.4% (2012 - 45.0%) of the Master Trust's investments.

# a) Investment in Master Trust

(thousands of dollars)

As at June 30, 2013, the Plan's investment in the Master Trust consisted of 556,732 (2012 – 582,420) of the 19,850,247 (2012 - 19,773,064) outstanding units of the Master Trust. The Plan's investment in the Master Trust was \$82,139 (2012 - \$76,291) of the total fair value of \$2,919,010 (2012 - \$2,581,980) of the Master Trust.

The investments of the Master Trust and the Plan's investments, if the Plan's investment in the Master Trust had been proportionately consolidated, consisted of the following as at June 30, taking into account certain reclassifications resulting primarily from the allocation of the effect of futures contracts. These future contract reclassifications at the Master Trust level resulted in \$200,636 (2012 - \$140,627) of short-term investments being reclassified to Canadian equities of \$108,951 (2012 - \$69,050), to United States equities of \$67,153 (2012 - \$51,649), to international equities of nil (2012 - \$19,374), to emerging markets equities of \$15,859 (2012 - nil) and to government and corporate bonds of \$8,673 (2012 - \$554), as well as \$10,468 (2012 - nil) of international equities being reclassified to short-term investments.

			University of To	oronto (OISE)
	Maste	er Trust	<b>Pension Plan</b>	
	2013	2012	2013	2012
	\$	\$	\$	\$
Short-term investments	1,316	95,151	37	2,812
Government and corporate bonds	882,348	761,019	24,828	22,487
Canadian equities	459,407	515,848	12,928	15,242
United States equities	522,095	455,104	14,691	13,447
International equities	478,883	377,567	13,476	11,156
Emerging markets equities	302,129	116,483	8,501	3,441
Absolute return funds	284,043	257,730	7,993	7,615
	2,930,221	2,578,902	82,454	76,200
Derivative-related net receivable			,	
(payable) (note 3(d))	(11,211)	3,078	(315)	91
	2,919,010	2,581,980	82,139	76,291

Short-term investments consist of cash, money market funds, short-term notes and treasury bills.

Included within the Master Trust's investments are hedge funds, private equities and real assets. These investments have been classified as follows:

				2013			
					Government		
	Canadian equities \$	United States equities \$	International equities \$	Emerging markets equities \$	and corporate bonds \$	Absolute return funds \$	Total \$
Hedge funds				33,080	100,723	284,043	417,846
Private equities	28,688	189,802	62,099	37,122	79,167		396,878
Real assets	42,432	71,957	59,256		29,260		202,905
	71,120	261,759	121,355	70,202	209,150	284,043	1,017,629

				2012			
					Government		
	Canadian equities \$	United States equities \$	International equities \$	Emerging markets equities \$	and corporate bonds \$	Absolute return funds \$	Total \$
Hedge funds				31,885	87,104	257,730	376,719
Private equities	31,029	188,156	59,922	31,713	32,095		342,915
Real assets	54,420	66,457	40,588				161,465
	85,449	254,613	100,510	63,598	119,199	257,730	881,099

### b) Changes in the Master Trust

(thousands of dollars)

The increase in fair value of the Master Trust was \$340,085 (2012 - \$47,640) of which the increase in fair value of the Plan's investment was \$9,761 (2011 - \$1,493). The following table shows the components of the net increase in the net assets of the Master Trust for the years ended June 30:

	2013 \$	2012 \$
Increase in fair value	<u> </u>	<u> </u>
Interest income		
Government and corporate bonds	21,730	17,493
Short-term investments	1,627	2,618
Dividend income		
Canadian	11,946	8,763
Foreign	43,104	12,947
Other income	123	213
	78,530	42,034
Net realized and unrealized gains from investments	261,555	5,606
Total increase in fair value of the Master Trust	340,085	47,640
Cash received on purchase of Master Trust		
units by pension plans	208,678	183,049
Cash paid on redemption of Master Trust		
units by pension plans	(211,733)	(199,677)
Net increase in net assets for the year	337,030	31,012
Net assets, beginning of year	2,581,980	2,550,968
Net assets, end of year	2,919,010	2,581,980

If the Plan had proportionately consolidated its share of the Master Trust, the investment income and changes in fair value of investments for the years ended June 30 would be comprised of the following:

	2013 \$	2012 \$
Interest income	670	630
Dividend income	1,580	680
Other income	4	7
	2,254	1,317
Net realized and unrealized gains from investments	7,507	176
	9,761	1,493

# c) Individually significant investments

(thousands of dollars)

The details of investments where the fair value exceeds 1% of the total fair value or cost of the Master Trust in the underlying portfolios are listed below:

	Fair Value \$
Government and corporate bonds	
UTAM Canadian Fixed Income Fund	291,966
UTAM Canadian Credit Fund	279,743
Blackrock Canada Credit-Screened Bond Index Fund	90,678
OZ Structured Product Overseas Feeder Index II, L.P.	33,982
Q Residential Real Estate Investment Trust	29,260
Canadian equities	
UTAM Canadian Equity Fund	279,335
United States equities	
GMO Quality Fund IV	80,905
UTAM US Equity Fund	62,126
ValueAct Capital International II, L.P.	49,927
International equities	
UTAM International Equity Fund	293,762
Cevian Capital Fund II Ltd.	36,816
Emerging markets equities	
Emerging Market Alpha Advantage Fund Ltd.	149,005
LSV Emerging Market Equity Value	67,063
Other	
GSA Capital International Fund	33,513

#### d) Derivative financial instruments

(thousands of dollars)

#### Description

The Master Trust has entered into equity and commodity index futures contracts which oblige it to pay the difference between a predetermined amount and the market value when the market value is less than the predetermined amount, or receive the difference when the market value is more than the predetermined amount.

The Master Trust enters into foreign currency forward contracts to minimize exchange rate fluctuations and the resulting uncertainty on future financial results. All outstanding contracts have a remaining term to maturity of less than one year. The Master Trust has significant contracts outstanding held in United States Dollars, Euros, Japanese Yen and British Pound Sterling.

The notional amounts of the derivative financial instruments do not represent amounts exchanged between parties and are not a measure of the Master Trust's exposure resulting from the use of financial instrument contracts. The amounts exchanged are based on the applicable rates applied to the notional amounts.

# Risks

The Master Trust is exposed to credit-related losses in the event of non-performance by counterparties to these financial instruments, but it does not expect any counterparties to fail to meet their obligations given their high credit ratings.

# **Terms and conditions**

The maturity dates of the derivative financial instrument contracts as at June 30, 2013 range from July 2013 to September 2013. Collateral has been provided against these contracts as at June 30, 2013 in the form of short-term investments with a fair value of 5,345 (2012 – 7,644). The notional and fair value amounts of the derivative financial instruments as at June 30 are as follows:

	20 \$		2012 \$	
	Notional Value	Fair Value	Notional Value	Fair Value
Foreign currency forward contracts: - United States Dollar - Euro - Other	648,963 184,935 118,323	(9,905) 246 (178) (9,837)	568,554 132,085 131,067	360 (351) (351) (342)
Equity and commodity index futures contracts: - United States Dollar - Other	81,944 5,514	(1,275) (99) (1,374)	50,388 87,314 _	1,736 1,684 3,420
Total	-	(11,211)	=	3,078

# e) Risk management

Risk management relates to the understanding and active management of the risks associated with all areas of the Master Trust's investments. The investments of the Master Trust are primarily exposed to market risk (which includes foreign currency, interest rate and other price risks), credit risk and liquidity risk. To manage these risks within reasonable risk tolerances, the Master Trust, through UTAM, has formal policies and procedures in place governing asset mix among equity, fixed income and alternative assets, requiring diversification within categories, and setting limits on the size of exposure to individual investments and counterparties. In addition, derivative instruments are used in the management of these risks (see note 3(d)).

# f) Market risk

Market risk is the risk that the value of an investment will fluctuate because of changes in market prices. The Master Trust is exposed to market risk from its investing activities. Market risk encompasses a variety of financial risks, such as foreign currency risk, interest rate risk and other price risk. Significant volatility in interest rates, equity values and the value of the Canadian dollar against the currencies in which the Master Trust investments are held can significantly impact the value of these investments. The Master Trust manages market risk by investing across a wide variety of asset classes according to the approved policy asset mix and hedging strategies established in the University of Toronto Pension Master

Trust Statement of Investment Policies and Procedures (SIP&P). The following are the key components of market risk:

#### (i) Foreign currency risk

Foreign currency exposure arises from the Master Trust's direct holdings of investments denominated in currencies other than the Canadian dollar. Fluctuations in the relative value of the Canadian dollar against these foreign currencies can result in a positive or a negative effect on the fair value of investments. To manage foreign currency risk, the currency hedging policy, effective May 1, 2012, is to hedge 75% of developed markets' currency exposures and 0% of emerging markets' currency exposures. Previously, a 50% hedging policy was in place for the Master Trust. The Plan also has an indirect exposure to foreign currency risk to the extent that the Master Trust's direct holdings have underlying investments denominated in foreign currencies.

The following table summarizes the Master Trust's directly held investment holdings and the underlying investments in the UTAM pooled funds by currency exposure, the impact of the currency hedging program and the net currency exposure as at June 30:

	(thousands of dollars)				
		2013		2012	
		\$		\$	
		Net	Net	Net	
	Currency	Currency	Currency	Currency	
	Exposure	Hedge	Exposure	Exposure	
United States Dollar	901,565	(648,963)	252,602	398,877	
Chinese Renminbi	54,974	(******	54,974		
South Korean Won	44,039		44,039		
British Pound Sterling	67,530	(26,863)	40,667	20,636	
Japanese Yen	90,623	(52,647)	37,976	11,535	
New Taiwan Dollar	35,887		35,887		
Brazilian Real	34,155		34,155		
Euro	210,227	(184,935)	25,292	43,986	
South African Rand	21,681		21,681		
Indian Rupee	20,479		20,479		
Russian Ruble	17,436		17,436		
Mexican Peso	16,381		16,381		
Swiss Franc	26,528	(11,312)	15,216	(4,119)	
Australian Dollar	24,519	(9,607)	14,912	5,880	
Malaysian Ringgit	12,198		12,198		
Indonesian Rupiah	9,619		9,619		
Swedish Krona	14,756	(9,307)	5,449	(372)	
Thai Baht	8,483		8,483		
Other	48,538	(8,587)	39,951	202	
Total	1,659,618	(952,221)	707,397	476,625	

Since all other variables are held constant in assessing foreign currency risk sensitivity, it is possible to extrapolate a 5% absolute change in foreign exchange rates to any absolute percentage change in foreign exchange rates. A 5% absolute change in foreign exchange rates would have a \$35.4 million (2012 - \$23.8 million) impact on the foreign currency assets, net of the currency hedges, of the Master Trust.

#### (ii) Interest rate risk

Interest rate risk refers to the effect on the fair value of the Master Trust's assets and liabilities due to fluctuations in interest rates. Among the Master Trust's assets, the most significant interest rate risk relates to its fixed income investments. These investments are in the form of fixed income securities directly held by the Master Trust and direct holdings of the Master Trust where there are underlying fixed income investments.

The following table summarizes the profile of the Master Trust's directly held fixed income securities and the underlying fixed income securities directly held by the UTAM pooled funds which are subject to interest rate risk, based on term to maturity as at June 30:

	(thousands of dollars)				
	20	013	2	012	
Maturity Range	Fair Value \$	Weighted Average Yield	Fair Value \$	Weighted Average Yield	
0-5 years >5 years-10 years >10 years	205,037 160,994 107,131 473,162	1.94% 3.03% <u>3.66%</u> 2.70%	222,928 189,512 130,356 542,796	1.91% 2.91% 3.55% 2.65%	

As at June 30, 2013, for every 1% increase (decrease) in prevailing market interest rates, the fair value of the direct and indirect fixed income holdings in the Master Trust is estimated to decrease (increase) by approximately \$30.9 million (2012 - \$36.6 million).

# (iii) Other price risk

(thousands of dollars)

Other price risk is the risk that the fair value of an investment will fluctuate because of changes in market prices (other than those arising from foreign currency risk or interest rate risk), whether those changes are caused by factors specific to the individual investment, its issuer, or factors affecting all similar securities traded in the market. The Master Trust's exposure to other price risk is primarily due to its equity investments. These investments are in the form of equity securities directly held by the Master Trust and direct holdings of the Master Trust where there are underlying equity investments.

The fair value of these equity investments subject to other price risk is \$1,025,936 (2012 - \$642,091). Since all other variables are held constant in assessing other price risk sensitivity, it is possible to extrapolate a 10% absolute change in the fair value to any absolute percentage change in fair value. A 10% absolute change in the fair value of these equity investments which are exposed to price risk is \$102,594 (2012 - \$64,209).

# g) Credit risk

(thousands of dollars)

Credit risk of financial instruments is the risk of loss arising from the potential failure of a counterparty, debtor or issuer (collectively, the "debtor") to honour its contractual obligations. Credit risk can take the form of an actual default, such as a missed payment of borrowed principal or interest when it comes due, or can be based on an increased likelihood of default which could result in a credit rating downgrade by credit rating agencies. Both scenarios would result in a decrease in the fair value of the obligations issued by the debtor. The Master Trust's investments in non-government-guaranteed securities are exposed to credit risk. The fair value of these investments and other assets as presented in the statement of financial position represents the maximum credit risk exposure at the date of the financial statements. The use of forward foreign exchange contracts to hedge foreign currency risk exposure also exposes the Master Trust's direct holdings have underlying investments in non-government-guaranteed securities.

The following table summarizes the fair value of directly held fixed income securities and the underlying fixed income securities directly held by the UTAM Canadian Fixed Income Fund and the UTAM Canadian Credit Fund which are exposed to credit risk, by credit rating, as at June 30:

	2013		20	012
	Fair	% of Fixed	Fair	% of Fixed
	Value	Income	Value	Income
Credit Rating	\$	Securities	\$	Securities
AAA	188,250	39.78	178,525	32.89
AA	104,006	21.98	124,858	23.00
А	135,021	28.54	151,333	27.88
BAA and other	45,885	9.70	88,080	16.23
	473,162	100.00	542,796	100.00

# h) Liquidity risk

Liquidity risk is the risk of the Plan not being able to settle or meet its commitments in a timely manner. These commitments include payment of the Plan's pension obligations and operating expenses, margin requirements associated with synthetic investment strategies, and the Master Trust's future commitments in private investment interests. These liquidity requirements are managed through income and distributions generated from investments, monthly contributions made by the University and Plan members, and having a sufficient amount of assets invested in liquid instruments that can be easily sold and converted to cash.

# i) Fair value hierarchy

(thousands of dollars)

The Plan is required to disclose, for each class of financial instruments, the methods and, when a valuation technique is used, the assumptions applied in determining fair values, through a three-level hierarchy, as of the financial statement date. The three levels are defined as follows:

**Level 1:** Fair value is based on quoted market prices in active markets for identical assets or liabilities. Level 1 assets and liabilities generally include equity securities traded in an active exchange market.

**Level 2:** Fair value is based on observable inputs other than Level 1 prices, such as quoted market prices for similar (but not identical) assets or liabilities in active markets, quoted market prices for identical assets or liabilities in markets that are not active, and other inputs that are observable or can be corroborated by observable market data for substantially the full term of the assets or liabilities. This category generally includes mutual and pooled funds, hedge funds, Government of Canada, provincial and other government bonds, Canadian corporate bonds, and certain derivative contracts.

**Level 3:** Fair value is based on non-observable inputs that are supported by little or no market activity and that are significant to the fair value of the assets or liabilities. Financial instruments are classified in this level when the valuation technique is based on at least one significant input that is not observable in the market or due to a lack of liquidity in certain markets. This category generally includes private investment interests (which are comprised of private, externally managed pooled funds with underlying investments in equities, real estate assets and commodities) and securities that have liquidity restrictions.

	2013				
	Level 1	Level 2	Level 3	Total	
	\$	\$	\$	\$	
Short-term investments	226,721	264			
Government and corporate bonds	305	723,535	144,979	868,819	
Canadian equities	132,429	117,183	71,120	320,732	
United States equities	61,938	130,832	261,759	454,529	
International equities	,	367,487	121,355	488,842	
Emerging markets equities		216,069	70,202	286,271	
Absolute return funds		239,767	44,276	284,043	
	421,393	1,795,137	713,691	2,930,221	
Derivative-related net payable	,		,	, ,	
(note $3(d)$ )	(1,374)	(9,837)		(11,211)	
	420,019	1,785,300	713,691	2,919,010	
Plan's share of Master Trust	11,819	50,237	20,083	82,139	

	2012				
	Level 1	Level 2	Level 3	Total	
	\$	\$	\$	\$	
Short-term investments	319,980	103,652			
Government and corporate bonds		671,364	79,915	751,279	
Canadian equities	116,844	155,141	85,449	357,434	
United States equities	44,556	103,547	254,613	402,716	
International equities	116,744	52,374	100,510	269,628	
Emerging markets equities		60,674	55,809	116,483	
Absolute return funds		225,886	31,844	257,730	
	598,124	1,372,638	608,140	2,578,902	
Derivative-related net receivable					
(payable) (note $3(d)$ )	3,420	(342)		3,078	
	601,544	1,372,296	608,140	2,581,980	
Plan's share of Master Trust	17,774	40,548	17,969	76,291	

For purposes of the tables above, the fair value hierarchy of the underlying investments of the UTAM pooled funds held by the Master Trust has been disclosed, resulting in investments with a fair value of \$229,949 and \$976,983 (2012 - \$465,998 and \$690,383) being classified as Level 1 and Level 2 investments, respectively. The Master Trust's investments in the UTAM pooled funds would be considered Level 2 investments.

The following table summarizes the changes in the fair value of financial instruments classified in Level 3 of the Master Trust for the years ended June 30:

	2013 \$	2012 \$
Fair value, beginning of year	608,140	657,896
Purchases	161,197	80,875
Sales	(108,689)	(124,081)
Transfer out to Level $2^1$		(17,077)
Total realized gains (losses)	2,687	(5,541)
Total unrealized gains	50,356	16,068
Fair value, end of year	713,691	608,140

<sup>1</sup>A hedge fund investment was transferred out from Level 3 to Level 2 during 2012 due to the removal of the redemption restrictions.

#### j) Hedge funds and private investment interests

The Master Trust invests in certain hedge funds and private investment interests which are comprised of externally managed funds with underlying investments in equities, debt, real estate assets and commodities. Because these investment interests are not readily tradable, their estimated values are subject to uncertainty and therefore may differ from the value that would have been used had a ready market for such interests existed. Sensitivity analysis demonstrates that a 10% absolute change in the fair value of investments in hedge funds and private investment interests would result in a change to the total fair value of these investments of the Master Trust of \$101.8 million (2012 - \$88.1 million).

Refer to note 3(k) for a breakdown of the Master Trust's uncalled commitments related to private investment interests.

#### k) Uncalled commitments

As at June 30, 2013, approximately 20.5% (2012 - 19.5%) of the Master Trust's investment portfolio is invested in private investment interests managed by third party managers. These private investment interests typically take the form of limited partnerships managed by a General Partner. The legal terms and conditions of these private investment interests, which cover various areas of private equity investments and real asset investments (e.g., real estate and infrastructure), require that investors initially make an unfunded commitment and then remit funds over time (cumulatively up to a maximum of the total committed amount) in response to a series of capital calls issued to the investors by the manager. As at June 30, 2013, the Master Trust had uncalled commitments of approximately \$192.6 million (2012 - \$130.3 million). The capital committed is called by the manager over a pre-determined investment period, which varies by fund but is generally about three to five years from the date the fund closes. In practice, for a variety of reasons, the total amount committed to a fund is very rarely all called.

# 4. Employer contributions

The University has made \$1.1 million (2012 - \$1.1 million) in current service cost contributions and \$3.1 million (2012 - \$6.0 million) in additional special payments. The special payments were made to fund the unfunded liability, since the actuarial funding valuation as of July 1, 2011 showed the present value of accrued pension benefits exceeded the Plan's actuarial value of assets.

# 5. Refunds and transfers

(thousands of dollars)

Refunds and transfers consist of the following:

	2013 \$	2012 \$
Refunds of contributions and other benefit payments:		
Upon termination		296
Upon death	1,258	
	1,258	296
Transfers to other plans upon termination	-	825
	1,258	1,121

# 6. Fees and expenses

(thousands of dollars)

Fees and expenses consist of the following:

	2013 \$	2012 \$
Investment management fees:		
External managers <sup>1</sup>	633	1,061
UTAM <sup>1,2</sup>	78	143
Pension records administration	118	113
Actuarial and related fees	86	78
Administration cost - University of Toronto <sup>2</sup>	57	55
Transaction fees <sup>1,3</sup>	29	8
External audit fees	17	17
Trustee and custodial fees <sup>1</sup>	9	29
Other fees	17	6
	1,044	1,510

<sup>1</sup> Reflect expenses that are directly charged to the Master Trust and are allocated back to the Plan. In 2013, the allocation ratio has been changed from 5:95 to 3:97 between OISE and UofT plans.

<sup>2</sup> Represent related party transactions.

<sup>&</sup>lt;sup>3</sup> Transaction fees represent the cost of purchasing and selling investments. The increase in transaction fees is due to the introduction of the new emerging markets equities asset class as a result of the adoption of the Reference Portfolio in May 2012.

# 7. Pension obligations

Pension obligations are determined by applying best estimate assumptions agreed to by the University and the projected benefits method pro-rated on service. The pension obligations were determined using an actuarial funding valuation performed as of July 1, 2013 by Aon Hewitt, a firm of actuaries.

Significant assumptions used in the actuarial valuation are as follows:

	2013	2012	
	<u>%</u>	%	
Interest rate	6.00	6.25	
Consumer Price Index	2.25	2.50	
Salary escalation rate	4.25	4.50	

# 8. Capital management

The funding surpluses or deficits determined periodically in funding valuations prepared by an independent actuary are defined as the Plan's capital. The actuary's funding valuation is used to measure the long term health of the Plan. A funding valuation is required to be filed with the pension regulator at least every three years. The most recently filed valuation was as of July 1, 2011 which disclosed an unfunded actuarial liability of \$40.0 million on a going concern basis and a deficit of \$46.2 million on a solvency basis. The next required actuarial funding valuation to be filed with the regulator must be at a date no later than July 1, 2014, absent of any changes that would trigger a valuation in the interim.

The objective of managing the Plan's capital is to ensure the Plan is funded to fully pay the benefits over the long term. The University negotiates with the various employee groups to change member contribution levels to meet the ongoing funding of the Plan and makes special contributions to eliminate any deficits, all subject to meeting regulatory requirements. In addition, the SIP&P provides guidance with respect to the investment of the Plan's assets in order to assist with the management of any funding surpluses or deficits. This guidance includes return objectives, normal risk tolerances, asset allocation and benchmarks for the evaluation of performance. The most recently amended SIP&P was approved by the administrator on June 5, 2013.

The Plan holds units of the Master Trust, which invests across various asset classes and different geographical regions primarily through a number of segregated and pooled investments including third party managers and UTAM's pooled funds. The Plan's investments expose it to a variety of risks which are discussed in Notes 3(d) through 3(h). The Master Trust's asset allocation policy is governed and monitored by the University's Pension Advisory Committee (PAC). The performance of the Master Trust is reviewed periodically by the Plan's administrator, and this review includes an assessment of investment returns, comparison of returns to benchmarks contained within the SIP&P, ranking of returns in comparison to an appropriate investment universe, and other risk analyses required or requested by the PAC and the University.

Contributions to the Plan have complied with all regulatory funding requirements during the reporting periods. No required contributions were past due as of June 30, 2013. More details on member and employer contributions can be found in the statement of changes in net assets available for benefits and in Note 4 – Employer Contributions.

# 9. Comparative financial statements

The comparative financial statements have been reclassified from statements previously presented to conform to the presentation of the 2013 financial statements.