UNIVERSITY OF
TORONTO

Pension
Investment Risk and Return Targets

December 17, 2007

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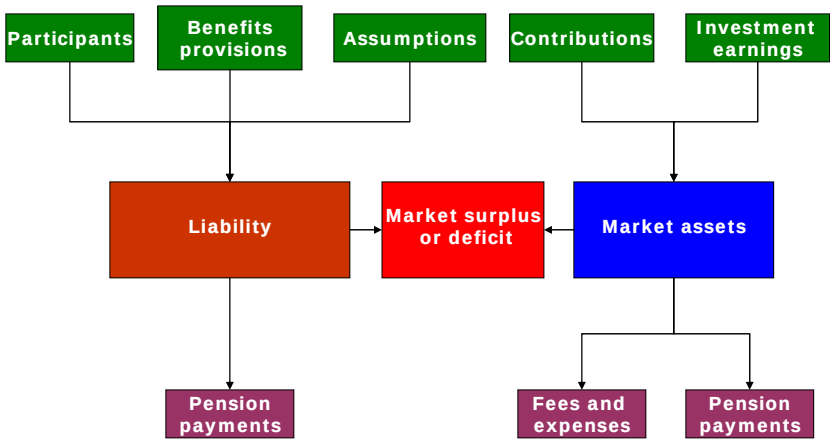
Introduction

The University of Toronto provides pension benefits to current and future pensioners via three defined benefit pension plans:

- the registered University of Toronto pension plan (RPP).
- the registered University of Toronto (OISE) pension plan (RPP (OISE)).
- the unregistered Supplemental Retirement Arrangement (SRA).

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 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:



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. These sources of funding must pay for the payments to retired members, lump sum transfers, and fees and expenses incurred in administering and investing the pension plans.

In the funding model described above, there is obviously pressure to earn good investment returns. However, the overriding purpose of the pension assets – to be there to fund payments to current and future retired members – means that pension plans should not incur too much risk of loss in trying to earn good investment returns. In establishing investment risk and return targets for pension assets, we must ask what is the appropriate trade-off between required rate of return and volatility of return.

The purpose of this report is to describe the current investment risk and return targets for pension assets, to present and discuss an asset/liability study prepared by the plan actuaries, Hewitt Associates Corp., and to recommend the investment risk and return targets for the future.

Current Investment Approach

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 master trust was created on August 1, 2000 to provide the two funds' assets with the same economies of scale, diversification and investment performance. (SRA assets are university assets which are invested in the long-term capital appreciation pool (LTCAP), and are not included in this pension asset/liability study.)

The current investment risk and return targets for the pension master trust are a risk target of a 10% annual standard deviation over 10 years and a real return target of 4%, net of investment fees and expenses over ten years. These targets were established in 2003, at the same levels as the investment risk and return targets for LTCAP (which is predominantly endowment funds) because the long-term investment horizon and short-term annual requirement for cash to fund payouts for pensions were considered to be very similar to requirements for endowments. The possible alternatives that were identified in the 2003 LTCAP study are shown below.

Alternatives Along Risk/Reward Spectrum

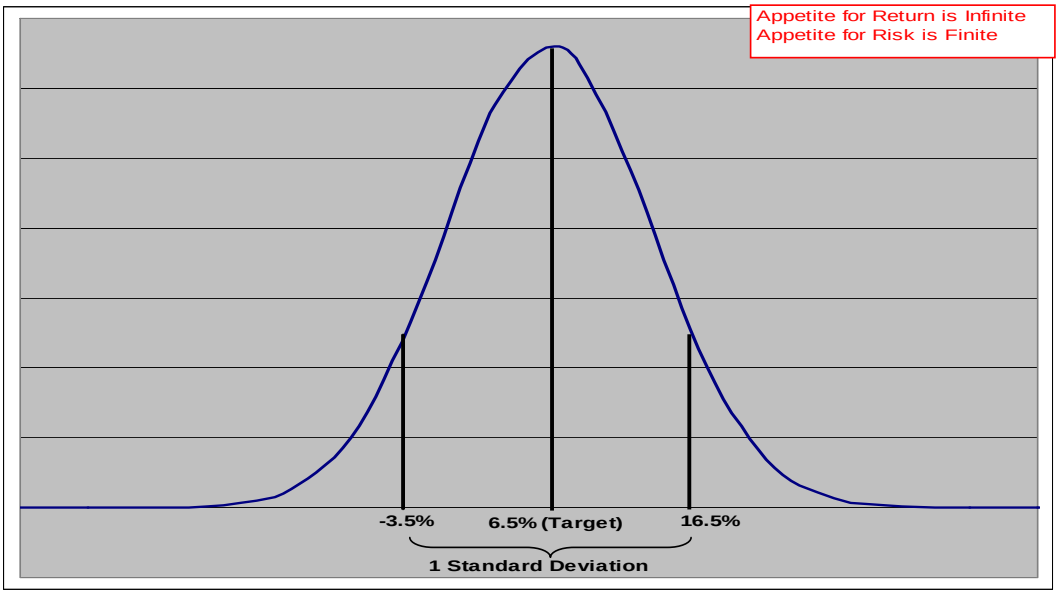
Payout Basis	Payout Rate	University Levy	Asset Mix	Probability of Shortfall >$0 Million	Probability of Shortfall >$10 Million	Probability of Loss of 10% of Purchasing Power	Probability of Loss of 25% of Purchasing Power
Market (no reset)	5.0%	0.5%	High Equity Bias	70%	40%	42%	33%
Adjusted Book (reset)	5.0%	0.5%	High Equity Bias	37%	23%	42%	34%
Adjusted Book (reset)	4.5%	0.5%	Equity Bias	30%	16%	38%	29%
Adjusted Book (reset)	4.0%	0.5%	Balanced (Equity/Bond)	23%	9%	31%	23%
Adjusted Book (reset)	2.75%	0.5%	100% federal real return bonds) (RRB)	0%	0%	0%	0%

The LTCAP targets were selected by the President and Vice-Presidents Group (PVP) through an evaluation of the potential impact of risk on the University's operating budget. PVP considered the alternatives and chose the 4% payout, which was associated with a 9% probability of a shortfall greater than $10 million. This choice meant that there was only a 9% chance in any one year that a shortfall in investment return would require a top-up of more than $10 million from the University's operating fund in order to maintain the annual payout to endowment unit holders in the LTCAP pool. (The need to maintain a steady and predictable annual payout, which increases with inflation each year, is the overriding objective for endowments.) This choice of a 4% payout translated to a 4% real investment return target, net of investment fees and expenses over ten years, and was associated with a 10% annual standard deviation over ten years. This choice by PVP was presented to Business Board and approved by the Board in April 2003.

A pension review was later conducted, with the conclusion that the same investment risk and return targets that had been selected for LTCAP were also suitable for pension assets. Business Board approved the 4% real investment return target and the 10% risk target over ten years in January 2004. Although the LTCAP study provided for a 0.5% administrative levy at the time, pensions were subject to foreign content investment restrictions that were considered to provide a dampening effect on returns similar to the size of the LTCAP levy.

What does this actually mean in terms of the risk that we are taking and the range of returns that we can expect?

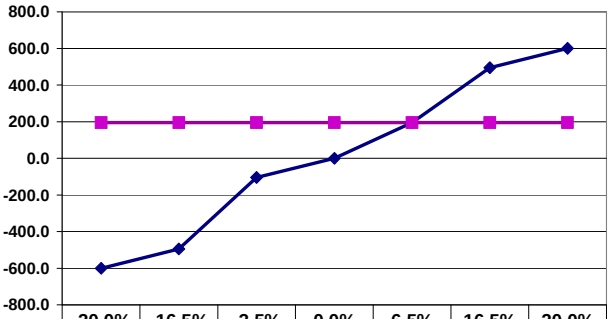
The following graph shows what this means. The expected real return of 4% plus inflation of 2.5% results in an expected nominal return of 6.5% over a ten year period. The risk tolerance is an annual standard deviation of 10% over ten years. Therefore, over a ten year period, annual nominal return is expected to be between 16.5% and -3.5 two thirds of the time, with the remaining 1/3 expected to be outside that range.



What do these risk and return targets mean in terms of actual potential dollar gains and losses?

Assuming hypothetical pension master trust assets of about $3 billion, some possible investment earnings for a one year period are shown in the next graph:

A Possible Range of Annual Investment Earnings on a $3 Billion Investment (millions of dollars)

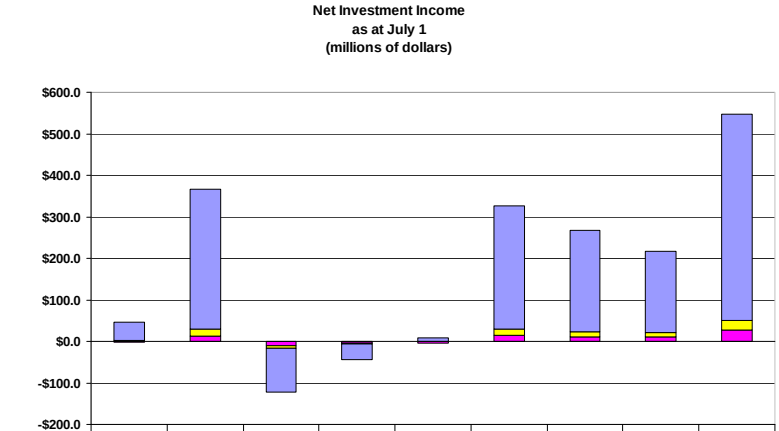


	-20.0%	-16.5%	-3.5%	0.0%	6.5%	16.5%	20.0%
Investment earnings	-600.0	-495.0	-105.0	0.0	195.0	495.0	600.0
Interest on pension liability of $3B	195.0	195.0	195.0	195.0	195.0	195.0	195.0

The above graph shows that, assuming a $3 billion portfolio of assets, one year returns at 6.5% would be $195.0 million. One year returns at 16.5% would be $495.0 million. One year returns at -3.5% would be a loss of $105.0 million. Note that annual interest on hypothetical pension liabilities of $3 billion would be $195.0 million (at 6.5% per annum).

Can the pension plan weather the kinds of losses that could occur with the 10% risk tolerance and can the University provide the funding required by legislation in the event that such losses occur?

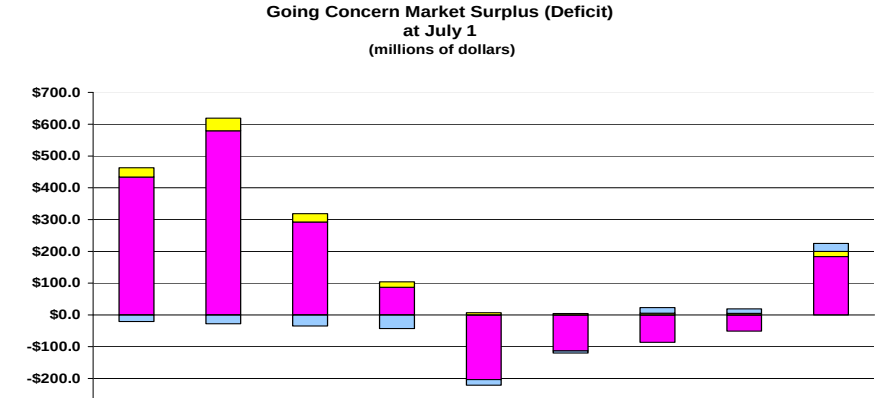
The answer is yes. In fact, the pension plans have already weathered periods of loss. The following diagram shows the history of investment earnings for the past several years.



	1999	2000	2001	2002	2003	2004	2005	2006	2007
RPP	44.9	336.5	(104.7)	(37.2)	7.5	296.5	244.0	197.2	497.8
RPP(OISE)	1.8	16.2	(5.6)	(1.8)	0.4	14.4	11.6	9.2	22.8
SRA	(1.7)	12.9	(11.1)	(4.9)	(4.1)	15.0	11.0	10.8	27.4

The graph above shows the range of investment earnings for the three plans from 1999 to 2007. Investment earnings for the RPP have ranged from a low of $104.7 million loss in 2001 to a high of $497.8 million in 2007.

Investment earnings, together with other factors, such as actuarial assumption changes, and interest on the pension liabilities resulted in the following surpluses and deficits over this period, as shown below.



	1999	2000	2001	2002	2003	2004	2005	2006	2007
SRA	(20.4)	(27.7)	(34.6)	(42.7)	(17.4)	(6.9)	17.7	14.1	24.6
OISE/UT	29.6	39.6	26.4	16.8	7.1	4.2	5.3	5.2	16.3
RPP	433.6	579.2	292.4	87.1	(203.5)	(113.2)	(86.4)	(50.7)	183.9

As you can see from the graph above, the RPP financial position changed from a surplus of $579.2 million in 2001 to a deficit of $203.5 million in 2003, largely due to poor investment markets and the resulting poor investment earnings.

The University responded to these changes in the surplus/deficit position of the plans by changing the investment return targets to a real return of 4.0% (from 5.0%), and introducing the risk targets that are currently in place (April 2003) and by establishing a pension contribution strategy (January 2004). The contribution strategy's provisions included full current service funding and an annual special payment budget of $26.4 million (subsequently increased to $27.2 million). The amount budgeted for special payments was larger than the amount required under legislation to fund the deficit over 15 years, and was provided as an annual budget allocation from the University's operating fund. Therefore, the University has demonstrated its capability to deal with potential losses at the levels contemplated by the current risk tolerance of 10%.

Since 2003, the RPP deficit of $203.5 million has been reduced, such that the RPP now has a market surplus of $183.9 million by 2007, an improvement of $387.4 million, due partly to special payments and good investment returns over this period.

Hewitt Associates Asset/Liability Study

The current Hewitt Associates study was conducted in Spring 2007 and focused solely on pensions. It focused on risk and return targets after inflation, investment fees and expenses. It took account of the elimination of foreign content restrictions.

Process:

Hewitt's followed a process that identified several portfolios on the efficient frontier. (which represents the highest expected return that can be achieved at a specific level of risk) and then ran Monte Carlo simulations to assess the possible range of outcomes for each of those portfolios over a ten-year period. They:

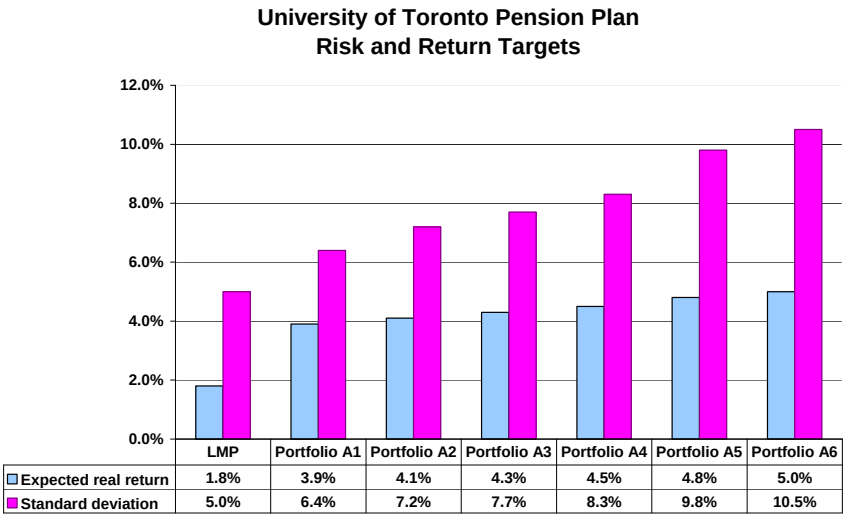
- Valued the liabilities by adjusting the July 1, 2006 actuarial valuation for planned changes to assumptions about life expectancy and going forward, assuming that the valuation discount rate would vary with changes in real return and nominal return.
- Identified the minimal investment risk method (not zero risk, which is not possible) to invest the assets. This is known as the liability matching portfolio (LMP).
- Selected optimal portfolios for these liabilities with the highest expected return for a given amount of risk or the lowest level of relative risk for a given amount of return (known as efficient frontier analysis).
- Identified the expected risk and return targets associated with selected candidate portfolios which represent points on the efficient frontier.
- Ran 5,001 different market scenarios for each portfolio over a 10 year period to determine the range of outcomes for each portfolio under different market conditions.
- Estimated the range of surpluses and deficits associated with these outcomes.
- Estimated the probability of special payments at various levels to crystallize the risk associated with the outcomes in operating budget terms. In doing this it is important to note that the analysis assumed that all special payments would be added to the pension funds regardless of the size of the surplus.(In practice, deposits into the pension funds are governed by *The Income Tax Act* which prohibits contributions when a pension surplus exceeds 10% of pension assets).

Results:

The following chart shows the candidate portfolios that were selected and modeled. Each portfolio was constructed with an asset mix that includes various asset classes. All of the investment portfolios that were selected for modeling were located on the efficient frontier. The portfolios shown in the following graphs, contain alternative investments, which are demonstrated to enhance returns for a given level of risk, with the exception of the liability matching portfolio, which only contains bonds. The table below shows the asset mix for each portfolio.

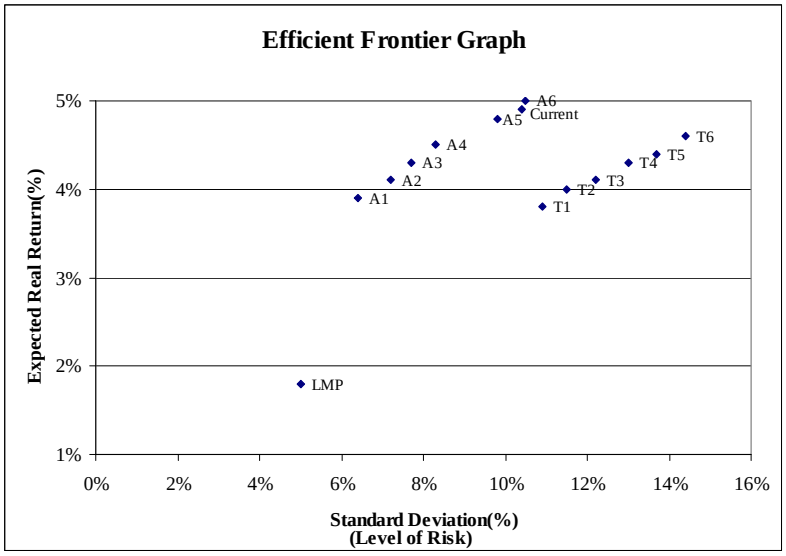
	LMP	Portfolio A1	Portfolio A2	Portfolio A3	Portfolio A4	Portfolio A5	Portfolio A6
Short-term bonds	-	-	-	-	-	-	-
Mid-term bonds	10%	10%	0%	0%	0%	0%	0%
Long-term bonds	15%	27%	30%	25%	20%	20%	15%
Real return bonds	75%	10%	10%	10%	10%	0%	0%
Total bonds	100%	47%	40%	35%	30%	20%	15%
Canadian equity	0%	3%	5%	7%	8%	12%	13%
U.S. equity	0%	3%	5%	7%	8%	12%	13%
EAFE equity	0%	3%	5%	7%	8%	12%	13%
Total public equity	0%	8%	15%	20%	25%	35%	40%
Hedge funds (absolute return)	-	15%	15%	15%	15%	15%	15%
Real estate	-	15%	15%	15%	15%	15%	15%
Private equity	-	15%	15%	15%	15%	15%	15%
Total allocation	100%	100%	100%	100%	100%	100%	100%

The following chart shows the risk tolerance and associated real return target for each portfolio.



As shown on the graph above, in comparison to the current investment risk and return targets of 10% and 4%, this study found a target real return of 4.8% at a 9.8% risk level (portfolio A5), while a 4.1% real return target had a risk at 7.2% (portfolio A2). The LMP had an expected real return of 1.8% with a risk of 5%.

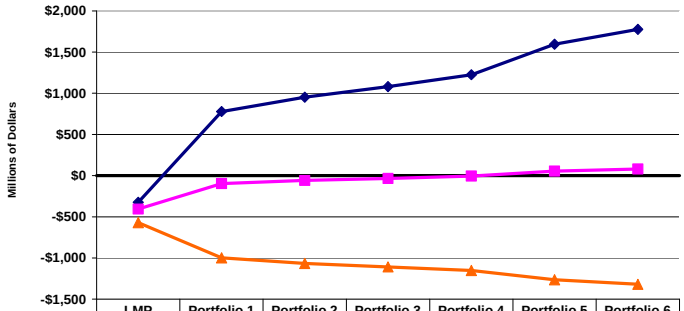
The next graph shows the positioning of the portfolios with respect to risk and return. This graph also shows the same set of portfolios A1 through A6, but without the inclusion of alternative investments in their asset mixes. They are labeled T1 through T6. Their results illustrate the impact of alternative investments in reducing risk for a given level of return. The objective is to select an investment risk and return combination that is positioned highest and furthest to the left in the graph.



The next step by Hewitt was to run the 5,001 different market scenarios for each portfolio over a 10 year period. The graph on the next page shows the potential range of surpluses and deficits associated with these portfolios under various market conditions. Note that the asset mixes are the same and the market conditions are different, showing that any particular asset mix can have widely different outcomes under varying market conditions[1].

[1] For purposes of the analysis, the study focused on a 5 year period, since these studies are redone every 4 to 5 years.

University of Toronto Pension Plan
Surplus/Deficit Probabilities in 2011
over 5,001 Market Scenarios for each Portfolio

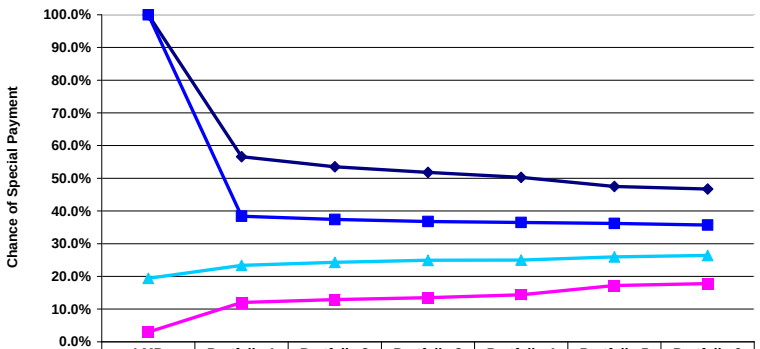


	LMP	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6
5th percentile	(323)	778	952	1,081	1,225	1,596	1,776
Median	(407)	(96)	(59)	(35)	(5)	55	80
95th percentile	(571)	(998)	(1,066)	(1,108)	(1,153)	(1,265)	(1,320)

The above graph shows that there is a very wide range of possible outcomes under varying market conditions.

The next graph shows the probability of special payments under this same range of possible outcomes.

University of Toronto Pension Plan
Probability of University Special Payments Exceeding Various Levels (2011-2012), Including $27 Million 2007-2011



	LMP	Portfolio 1	Portfolio 2	Portfolio 3	Portfolio 4	Portfolio 5	Portfolio 6
>$0	100.0%	56.6%	53.5%	51.8%	50.3%	47.5%	46.7%
>$27 M	100.0%	38.4%	37.4%	36.8%	36.5%	36.2%	35.7%
>$50 M	19.4%	23.4%	24.3%	24.9%	25.0%	26.0%	26.4%
>$75 M	3.0%	12.0%	12.9%	13.5%	14.4%	17.2%	17.8%

This graph shows that the requirement for special payments, however, is quite similar for the various portfolios,(except for the liability matching portfolio, which has a much lower return target, and therefore, much higher required contributions). This difference between the range of possible outcomes with respect to surplus/deficit and the range of probabilities for special payments is due to several factors including the requirement that deficits may be funded over time. This has a smoothing effect on the impact of deficits on funding requirements.

So, how do we use these results to select pension risk and return targets?

The Role of Judgment

The mean variance analysis and Monte Carlo simulations conducted by Hewitt Associates represent state-of-the-art risk analysis. The following table summarizes all of the results shown on the three earlier graphs. For each portfolio selected, it shows the risk and return targets, the probability that required special payments would exceed $27 million per annum, and the possible range of surpluses or deficits that could occur by 2011 for these portfolios under varying market conditions. For purposes of the analysis, the study focused on a 5 year period since these studies are redone every 4 to 5 years.

	Risk and Return Targets		Probability of University Special Payments Exceeding Various Levels in 2011-2012, Assuming $27 M Contributed 2007-2011				Surplus/Deficit Possible Outcomes in 2011 over 5,001 Scenarios Assuming $27 M Contr. 2007-2011		
Portfolios	Risk Target	Return Target	>$0	>$27 M	>$50 M	>$75 M	5th Percentile	Median	95th Percentile
Liabiity matching portfolio	5.0%	1.8%	100.0%	100.0%	19.4%	3.0%	(323.0)	(407.0)	(571.0)
Portfolio A1	6.4%	3.9%	56.6%	38.4%	23.4%	12.0%	778.0	(96.0)	(998.0)
Portfolio A2	7.2%	4.1%	53.5%	37.4%	24.3%	12.9%	952.0	(59.0)	(1,066.0)
Portfolio A3	7.7%	4.3%	51.8%	36.8%	24.9%	13.5%	1,081.0	(35.0)	(1,108.0)
Portfolio A4	8.3%	4.5%	50.3%	36.5%	25.0%	14.4%	1,225.0	(5.0)	(1,153.0)
Portfolio A5	9.8%	4.8%	47.5%	36.2%	26.0%	17.2%	1,596.0	55.0	(1,265.0)
Portfolio A6	10.5%	5.0%	46.7%	35.7%	26.4%	17.8%	1,776.0	80.0	(1,320.0)

In summary, the risk of having to make payments greater than $27 million in 2011-12 is approximately the same for all portfolios except for the liability matching portfolio. The portfolio volatility of approximately 10% (9.8%) is associated with an expected real return of 4.8%, which is higher than the 4% target calculated in 2003. An expected real return target of about 4% (4.1%) is associated with a portfolio volatility of 7.2%, which is considerably lower than the 10% calculated in 2003. In all cases, the range of surpluses and deficits is wide.

It is important to note that this modeling focuses on portfolio volatility and that volatility for an individual asset class varies over time. There are also more risks associated with investments than just volatility, such as liquidity risk (the risk that the money will not be available when it is needed for spending) and the risk associated with the complexity of individual transactions and with asset classes as a whole.

There are no mathematical models that capture all elements of risk, or that can predict what behaviours will ensue as various possible outcomes begin to unfold. (For example, if the returns are not good, we would likely change our strategy, not wait for large deficits to emerge.) The mathematical models should be viewed as tools that help in assessing risk, but they do not provide a complete and comprehensive assessment of all the risks associated with making investment choices. This is partly why the range of outcomes for a given asset mix can be so broad under different market scenarios. Judgment must be applied to the results obtained from modeling and to take into account the broader environment in which the targets are being established.

This pension asset liability study was conducted in Spring 2007, before the investment returns to July 1, 2007 were known and before the current credit markets turmoil ensued. Therefore, part of our assessment was to determine the extent to which recent events have affected the study results. When the study was prepared, the investment volatilities were somewhat lower than they are now. At the present time, a risk tolerance of 10% is associated with an expected real return target of about 4.66%, as compared to the 4.8% expected real return target associated with a 10% risk tolerance earlier in the year. This change demonstrates how the relationship between these parameters varies over time, and shows that a 4% target real return is still comfortably achievable at a 10% risk tolerance. Pension investment returns for the 2006-07 year were also 20% (nominal), well in excess of the target return of 4% real return plus inflation.

We also reviewed and rejected the liability matching portfolio (LMP) with its 5% risk tolerance and very low real return target, because it resulted in a very low proportion of pension funding being derived from investment earnings. In our view this does not represent an appropriate balance between contributions and investment earnings.

Finally, in common with most investors, we hope for more upside and less downside to our returns. However, the mathematical model cannot be constructed asymmetrically. We would, however, like UTAM to focus on minimizing the downside, that is, the risk of loss, and particularly to focus on avoiding returns less than 0%. While it cannot be conveyed in mathematical terms, we also believe that this should be conveyed to UTAM as part of the target to help UTAM to construct portfolios with less downside risk.

Our overall assessment is that while the expected investment return associated with a 10% risk tolerance is now greater than our current 4% real return target, the overall investment climate, which features increasing volatility for a given unit of risk, suggests that it would not be prudent to increase our target return beyond the current 4%. We do think that it would be appropriate to characterize the 4% real return target as a minimum target, providing that it can be achieved within the 10% risk tolerance, which we consider to be the overriding parameter. In other words, under no circumstances do we want to be subjected to risk greater than 10% over 10 years and if it is not possible to achieve a 4% real return within that constraint, then so be it. As with previous reviews, the President and Vice-Presidents Group has reviewed the results of the pension asset liability study and confirmed their comfort with the 10% risk tolerance and its associated return target.

The pension investment risk and return targets will continue to be reviewed every 4 to 5 years, or when market conditions or actual investment results suggest a change is in order. The pension contribution strategy, which represents the reserving mechanism for risk, is currently being reviewed to determine what it should be going forward.

Summary of Recommendations

1. **Risk target:**

   Maintain the risk tolerance at an annual standard deviation of 10% over 10 years and confirm that it is the overriding objective.

   Expand the description of acceptable risk to provide additional information on the University's lower tolerance for downside risk. Specify that the University has less appetite for the downside than for the upside, that the preference is to not lose money, and that this preference is stronger than the desire for upside. This should help UTAM design an "all weather" portfolio that is designed to protect pension assets during market downturns.

2. **Return Target:**

   State the return objective as "at least" a 4% real return objective plus CPI over ten years, within the overall constraint of a risk tolerance of a maximum 10% annual standard deviation over 10 years. This provides for at least a 4% real return and the opportunity for a somewhat higher return, depending on the relationship between risk and return at any given point in time.

3. **Liability matching:**

   Do not follow a minimum risk approach. That choice would have been the liability matching portfolio (LMP) with targets of 5% risk tolerance and 1.8% real return. Both employee and employer current service contributions and special payments would have to be much higher under this alternative.

4. **Reserving against risk:**

   Continue to review the pension contribution strategy to determine the appropriate reserving going forward (the current strategy provides for a $27 million per annum special payment budget).

Attachment 1
For approval

UNIVERSITY OF
TORONTO

PENSION FUND MASTER TRUST INVESTMENT POLICY

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UNIVERSITY OF TORONTO

PENSION FUND MASTER TRUST INVESTMENT POLICY

(STATEMENT OF INVESTMENT POLICIES & PROCEDURES)

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UNIVERSITY OF TORONTO

PENSION FUND MASTER TRUST INVESTMENT POLICY

(STATEMENT OF INVESTMENT POLICIES & PROCEDURES)

PREAMBLE

The Governing Council of the University of Toronto is the legal administrator of the University of Toronto Pension Plan and the University of Toronto (OISE) Pension Plan to provide pension benefits to its employees. These plans are contributory defined benefit pension plans registered under and subject to the Ontario Pension Benefits Act.

For investment purposes, the University of Toronto pension plan and the plan for its OISE employees are pooled into a pension master trust. This pooling enables both funds to enjoy economies of scale and eliminates discrepancies in investment performance.

The University determines the return expectation and risk tolerance via this *University of Toronto Pension Fund Master Trust Investment Policy*, which is approved annually by its Business Board.

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 by resolution of the Business Board of Governing Council and establishes the terms and conditions under which UTAM provides investment management services. The investment decisions of UTAM and its Board of Directors are subject to the overall policy direction of the University.

1. PLAN DESCRIPTION AND GOVERNANCE

1.1 TYPE OF PENSION PLAN

The pension plans are contributory defined benefit plans registered under and subject to the Ontario Pension Benefits Act. The Governing Council of the University of Toronto is the registered plan administrator. The current plans provide defined pension benefits for eligible employees, currently members of the academic, librarian, administrative and unionized staff of the University, the OISE division of the University, and its related affiliated organizations.

As of August 1, 2000, the University of Toronto pension fund for its OISE division was pooled into a master trust for investment purposes with the University's main pension fund. While they are two separate and distinct plans (University of Toronto Pension Plan registration number 0312827 and OISE Pension Plan registration number 0353854), the pooling for investment purposes enables both funds to enjoy economies of scale and eliminates discrepancies in investment performance. The plan provisions for the OISE Plan are identical to the University of Toronto Pension Plan. Required member contributions under the plan each year are 4.5% or 5% of salary (depending on the staff group) up to the year's maximum pensionable earnings (YMPE), plus 6% of salary in excess of the YMPE.

1.2 Nature of Plan Liabilities

The purpose of the plans is to provide retirement income for members of its plans. The plans provide an annual pension benefit to members based on a prescribed formula applied to years of participation.

Pension benefits are adjusted each year by an amount equal to the greater of:

(a) 75% increase in the Consumer Price Index (CPI) for the previous year; or
(b) the increase in the CPI for the previous year minus four percentage points.

As of July 1, 2007, there were 7,894 active members in the University of Toronto Pension Plan, 4,421 retired participants, 1,413 terminated vested members and 999 exempt or pending status. The average age of active members was 47.1 years, average service 12.3 years, and average pay was $81,395. As of July 1, 2007 the market value of assets of the plan was $2,929.7 million versus going concern accrued liabilities of $2,745.8 million.

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The duration (a weighted-average sensitivity measure) of plan liabilities is 13.9 years and 12.6 years respectively for the University of Toronto and OISE pension plans. Duration is lengthened due to the plans' automatic inflation protection, which increases benefit payments over time. The long duration of liabilities is indicative of a long-term investment horizon for the assets.

Going-concern liabilities are determined using long-term assumptions and are not affected by short-term changes in interest rates. Solvency liabilities do fluctuate from year to year with market interest rates, but because the plans provide guaranteed indexing of 75% of the increase in the CPI, the market interest rate used to determine solvency liabilities depends more on the yield of real return bonds than on nominal bond yields. Real yields on real return bonds have been less volatile than nominal interest rates. Fluctuations in solvency liabilities caused by real interest rate changes can have an impact on cash contributions or pension expenses.

2. INVESTMENT POLICIES AND GOALS

2.1 Introduction

The University of Toronto has engaged the University of Toronto Asset Management Corporation (UTAM) to manage the pension master trust assets. As a client of UTAM, it is important that the University delivers to its fund manager a concise statement of return objectives as well as risk tolerance, and that these two components are congruous. The purpose of this policy is to establish both of these objectives with regard to the pension master trust.

2.2 Risk and Return Objectives

To keep risk at a reasonable level,the risk objective is an annual standard deviation of 10.0% or less in nominal terms over 10 year periods. The University has less appetite for downside risk than for

upside risk and prefers that risk be managed to minimize the downside, and particularly to avoid returns less than 0% where ever possible.

In order to meet the planned payments of pensions to pensioners, the return objective is at least a 4.0% real, inflation-adjusted return over a 10 year period, net of all investment fees and expenses, plus CPI, but with the target real return to be no greater than that which is achievable within the 10% allowable risk objective.

Actual investment performance will be evaluated against these objectives over time.

2.3 Asset Mix

The University has formally delegated to UTAM the authority for investment strategy and execution including. without limitation, establishment of the asset mix investment mandates, selection of investment managers to be responsible for the management of the portfolios in accordance with those mandates, determination of portfolio diversification, categories and subcategories of investments, use of derivatives, and investment restrictions.

Each investment manager shall adhere to this policy and shall follow the investment policies and goals with the care, diligence, and skill that a person skilled as a professional investment manager would use in dealing with pension plan assets and shall use all relevant knowledge and skill that the investment manager possesses or ought to possess. Investment managers are expected to be in compliance with the standards of professional conduct and code of ethics administered by the Association for Investment Management and Research (AIMR).

2.4 Restrictions

In addition to the restrictions developed by the University and UTAM, the policy will adhere to the restrictions specified within the Pensions Benefits Act, Regulation 909 of the Revised Regulations of Ontario 1990, and the Federal Income Tax Act, all as amended from time to time.

3. GENERAL

3.1 Conflict of Interest Guidelines

Anyone involved directly or indirectly with the University's fund investments shall immediately disclose to the Business Board, at the time of its discussion of the policy or of matters related to the investment of University funds, any actual or perceived conflict of interest that could be reasonably expected to impair, or could be reasonably interpreted as impairing, his/her ability to render unbiased and objective advice to fulfill his/her fiduciary responsibility to act in the best interests of the funds.

This standard applies to the University and to its employees, to the members of the Governing Council, its boards and committees and to employees and members of the board of UTAM, as well as to all agents employed by them in the execution of their responsibilities under the Pension Benefits Act (Ontario) (the "Affected Persons").

An "agent" is defined to mean a company, organization, association or individual, as well as its employees who are retained by the University to provide specific services with respect to the investment, administration and management of the assets of the Plan.
Disclosure:

In the execution of their duties, the Affected Persons shall disclose any conflict of interest relating to them, or any material ownership of securities, which could impair their ability to render unbiased advice, or to make unbiased decisions, affecting the administration of the Plan assets.

Further, it is expected that no Affected Person shall make any personal financial gain (direct or indirect) because of his or her fiduciary position. However, normal and reasonable fees and expenses incurred in the discharge of their responsibilities are permitted upon notification to the University.

No affected Person shall accept a gift or gratuity or other personal favour, other than one of nominal value, from a person with whom the employee deals in the course of performance of his or her duties and responsibilities for the Plan.

It is incumbent on any Affected Person who believes that he or she may have a conflict of interest, or who is aware of any conflict of interest, to disclose full details of the situation to the attention of the Business Board immediately. The Business Board in turn, will decide what action is appropriate under the circumstances but, at a minimum, will table the matter at the next regular meeting of the Business Board.

No Affected Person who has or is required to make a disclosure as contemplated in this Policy shall participate in any discussion, decision or vote relating to any proposed investment or transaction in respect of which he or she has made or is required to make disclosure, unless otherwise determined permissible by unanimous decision of the Business Board.

3.2 Custody

The University has overall responsibility for custody of pension assets, operational oversight of which it delegates to UTAM.

3.3 Related Party Transactions

The University, on behalf of the plan, may not enter into a transaction with a related party unless

a) the transaction is both required for operation and or administration of the Plan and the terms and conditions of the transaction are no less favourable than market terms and conditions;
b) securities of the related party are acquired at a public exchange; or
c) the combined value of all transactions with the same related party is nominal or the transaction(s) is immaterial to the fund.

For the purposes of this section, only the market value of the combined assets of the Plan shall be used as the criteria to determine whether a transaction is nominal or immaterial to the Plan.

A 'related party' is defined to mean the administrator of the Plan, including any officer, director or employee of the administrator, or any person who is a member of the University. It also includes UTAM and their employees, investment managers and their employees, a union representing employees of the employer, a member of the plan, a spouse or child of the persons named previously, or a corporation that is directly or indirectly controlled by the persons named previously, among others. Related party does not include government or a government agency, or a bank, trust company or other financial institution that holds the assets of the Plan, where that person is not the administrator of the Plan.

3.4 Responsibilities of Fund Managers and Professionals

The University has overall responsibility for the plans. The University has delegated certain responsibilities to UTAM and to third party agents.

a) Investment managers
The University as delegated responsibility for investment managers to UTAM. The Investment managers will:

(i) invest the assets of the Plans in accordance with this Policy,
(ii) notify UTAM in writing of any significant changes in the investment manager's philosophies and policies, personnel or organization and procedures,
(iii) reconcile their own records with those of the custodian, at least monthly,
(iv) meet with UTAM as required and provide written reports regarding their past performance, their future strategies and other issues requested by UTAM,
(v) file compliance reports as frequently as required by UTAM.

b) Custodian/trustee:
The University has delegated responsibility to UTAM for the custodian/trustee. The custodian/trustee will:
(i) maintain safe custody over the assets of the Plans,
(ii) execute the instructions of the University, of UTAM and of the investment managers,
(iii) record income and provide monthly financial statements to the University and to UTAM as required,
(iv) meet with UTAM as required.

c) Actuary:
The University appoints the actuary. The actuary will:
(i) perform actuarial valuations of the Plans as required,
(ii) advise the University on any matters relating to the Plans design, membership and contributions, and
(iii) assist the University in any other way required,
(iv) meet with the University as required.

d) Accountant:
The University appoints the accountant. The accountant will provide annual audited financial statements of the Plans and meet with the University as required.

The University has the authority to retain other consultants/suppliers, as it deems necessary from time to time.

3.5 Policy Review

This statement shall be reviewed at least once a year and either confirmed or amended as necessary.

Catherine Riggall
Vice-President, Business Affairs
December 17, 2007

Attachment 2
For information

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UNIVERSITY OF
TORONTO

PENSION FUND MASTER TRUST INVESTMENT POLICY

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UNIVERSITY OF TORONTO

PENSION FUND MASTER TRUST INVESTMENT POLICY

(STATEMENT OF INVESTMENT POLICIES & PROCEDURES)

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UNIVERSITY OF TORONTO

PENSION FUND MASTER TRUST INVESTMENT POLICY

(STATEMENT OF INVESTMENT POLICIES & PROCEDURES)

PREAMBLE

The Governing Council of the University of Toronto is the legal administrator of the University of Toronto Pension Plan and the University of Toronto (OISE) Pension Plan to provide pension benefits to its employees. These plans are contributory defined benefit pension plans registered under and subject to the Ontario Pension Benefits Act.

For investment purposes, the University of Toronto pension plan and the plan for its OISE employees are pooled into a pension master trust. This pooling enables both funds to enjoy economies of scale and eliminates discrepancies in investment performance.

The University determines the return expectation and risk tolerance via this *University of Toronto Pension Fund Master Trust Investment Policy*, which is approved annually by its Business Board.

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 by resolution of the Business Board of Governing Council and establishes the terms and conditions under which UTAM provides investment management services. The investment decisions of UTAM and its Board of Directors are subject to the overall policy direction of the University.

1. PLAN DESCRIPTION AND GOVERNANCE

1.1 TYPE OF PENSION PLAN

The pension plans are contributory defined benefit plans registered under and subject to the Ontario Pension Benefits Act. The Governing Council of the University of Toronto is the registered plan administrator. The current plans provide defined pension benefits for eligible employees, currently members of the academic, librarian, administrative and unionized staff of the University, the OISE division of the University, and its related affiliated organizations.

As of August 1, 2000, the University of Toronto pension fund for its OISE division was pooled into a master trust for investment purposes with the University's main pension fund. While they are two separate and distinct plans (University of Toronto Pension Plan registration number 0312827 and OISE Pension Plan registration number 0353854), the pooling for investment purposes enables both funds to enjoy economies of scale and eliminates discrepancies in investment performance. The plan provisions for the OISE Plan are identical to the University of Toronto Pension Plan. Required member contributions under the plan each year are 4.5% or 5% of salary (depending on the staff group) up to the year's maximum pensionable earnings (YMPE), plus 6% of salary in excess of the YMPE.

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¶

1.2 Nature of Plan Liabilities

The purpose of the plans is to provide retirement income for members of its plans. The plans provide an annual pension benefit to members based on a prescribed formula applied to years of participation.

Pension benefits are adjusted each year by an amount equal to the greater of:

(a) 75% increase in the Consumer Price Index (CPI) for the previous year; or
(b) the increase in the CPI for the previous year minus four percentage points.

As of July 1, 2007, there were 7,894 active members in the University of Toronto Pension Plan, 4,421 retired participants, 1,413 terminated vested members and 999 exempt or pending status. The average age of active members was 47.1 years, average service 12.3 years, and average pay was $81,395. As of July 1, 2007 the market value of assets of the plan was $2,929.7 million versus going concern accrued liabilities of $2,745.8 million.

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2.2 Risk and Return Objectives

To keep risk at a reasonable level,the risk objective is an annual standard deviation of 10.0% or less in nominal terms over 10 year periods. The University has less appetite for downside risk than for

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Catherine Riggall
Vice-President, Business Affairs
December 17, 2007

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