

## 2011-2012 Risk Management Plan

December 14, 2011

### Management of Risks with the Retirement Programs

The following table describes the risks that the retirement programs are exposed to, including strategies we currently use to manage the risks as well as the resources necessary to effectively manage the risks.

- i. Investment Risk: market, credit, performance and illiquidity risk inherent in investing in capital market
  - ii. Operational Risk: risk faced by the administration of the retirement plans
  - iii. Legal and Compliance Risk: meeting requirements from trust law, provincial pension legislation and regulations, and the tax act and considering and managing litigation risk as required
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- a) **Risk Description / Event Identification:** internal and external events affecting achievement of the retirement plans objectives are identified.
  - b) **Control Activities**
    - **Risk Management Process:** policies and procedures are established and implemented to help ensure risk responses are implemented
    - **Skill/set Tools Required:** recourses and tools are identified for risk response implementation.
  - c) **Variables and Sensitivities/ Risk assessment:** risks are assessed considering likelihood and impact as part of the basis on how they should be managed
  - d) **2011/2012 Risk Management Strategies/Risk Response:** a set of actions to align risk with the retirement management with identified risks.<sup>1</sup>

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<sup>1</sup> Concepts taken in part from the COSO – Enterprise Risk Management Framework

## Investment Risk

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Market risk:</b> The risk that market fluctuations may negatively impact the value of an investment. This could involve investments in any asset class, but more particularly equity investments.</p>	<ul style="list-style-type: none"> <li>• Design investment portfolios that are appropriate given an investors' time horizon</li> <li>• Use quantitative analysis to identify investments with high probability of preserving capital over the targeted investment horizon</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of investment time horizon</li> <li>• Knowledge of universe of investment opportunity</li> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> </ul>	<ul style="list-style-type: none"> <li>• A market correction (decline in value of more than 20%) would exacerbate the situation and cause a permanent impairment to members of the RIF program, who need to take regular payments</li> <li>• Probability is low to high, depending on the fund</li> <li>• The impact can potentially be high for equity funds</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Maintain diversified equity portfolios</li> </ul>
<p><b>Volatility in returns:</b> The risk that the actual return experience is significantly different from the expected returns during the period of investment.</p>	<ul style="list-style-type: none"> <li>• Use quantitative analysis before investment and during the life of an investment to monitor volatility</li> <li>• Diversify portfolio to minimize volatility</li> <li>• Clearly communicate to investors the expected volatility and returns of the investment</li> <li>• Set asset allocations so that highly volatile assets do not over-influence the results</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Knowledge of universe of investment opportunity</li> <li>• Knowledge of modern portfolio theory</li> <li>• Strong, clear communication development and updates</li> </ul>	<ul style="list-style-type: none"> <li>• A period of high volatility, which is generally combined with increased correlation, would make it difficult to minimize the volatility through diversification</li> <li>• Probability is low to high, depending on the fund</li> <li>• The impact can potentially be high for equity funds</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Keep track of volatility of the investment options to ensure that the hierarchy of risk is consistent.</li> <li>• Complete review of diversified equity/bond funds</li> </ul>

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<p><b>Interest rates changes:</b> The risk that the value of investments and expected returns vary with changes in prevailing interest rates. Associated is the risk that retirement income is insufficient based on annuity rates in force at retirement.</p>	<ul style="list-style-type: none"> <li>• Offer investment choices that allow investors to choose interest rate exposure (short-mid-long)</li> <li>• Diversify bond fund</li> <li>• Allow for deferred annuity purchases</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of universe of investment opportunity</li> <li>• Knowledge of capital asset pricing models</li> <li>• Understanding of annuity industry trends and actuarial calculations</li> <li>• Understanding of macroeconomic factors and relationships</li> </ul>	<ul style="list-style-type: none"> <li>• A prolonged period of low interest rates would make it difficult for members to achieve good investment returns in less risky fixed income funds</li> <li>• An increase in inflation would cause interest rates to go up and create losses to fixed income funds</li> <li>• Probability is high for fixed income funds</li> <li>• The impact is low for the Money Market Fund, moderate for the Target-Date Funds and high for the other fixed income funds</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Maintain diversified fixed income portfolios and provide investment options with short duration</li> </ul>
<p><b>Currency exposure:</b> The risk that Canadian investments relative to other opportunities reduce in value because of the Canadian \$ exchange rate</p>	<ul style="list-style-type: none"> <li>• Diversify bond and equity portfolios to gain exposure to other currencies</li> <li>• Member option US Equity Fund (\$Cdn-Hedged)</li> <li>• Significant amount of diversified bond fund is hedged</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of macro economic theory</li> <li>• Understanding of influences that political and monetary policies have on currency values</li> </ul>	<ul style="list-style-type: none"> <li>• The presence of fiscal and trade deficits in the U.S. could potentially cause the U.S. currency to be devalued, which would have a negative impact on funds exposed to U.S. currency fluctuations</li> <li>• Probability: moderate on funds exposed to currency fluctuations</li> <li>• Impact: moderate on funds exposed to currency</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Maintain partial currency hedge</li> </ul>

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<p><b>Credit risks:</b> The risk that the issuing institution of a payment promise fails to meet their promise. This includes bond issues as well as life insurance firms providing annuities.</p>	<ul style="list-style-type: none"> <li>• Set minimum credit risk ratings for bond portfolios</li> <li>• Monitor credit ratings of insurance providers and only purchase annuities from highly rated</li> <li>• Only purchase annuity income up to Comcorp guarantee (\$2000/mth)</li> </ul>	<ul style="list-style-type: none"> <li>• Understanding of financial statements and credit evaluation process</li> <li>• Access to current credit rating agency data</li> <li>• Ability to monitor the managers' selection and review process (transparency)</li> </ul>	<ul style="list-style-type: none"> <li>• A recession would increase the risk of defaults</li> <li>• Probability: low since minimum credit ratings are set</li> <li>• Impact: low since minimum credit ratings are set</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Assess the investment manager's expertise in managing credits. Review portfolio and attribution analysis to determine the magnitude of active management risk taken.</li> </ul>
<p><b>Cost of Living:</b> The risk that the capital invested or the income provided fails to retain its purchasing power.</p>	<ul style="list-style-type: none"> <li>• Offer investment portfolios which, based on quantitative history, have ability to provide positive real returns over the time horizon</li> <li>• Offer option of indexed pension</li> <li>• Retirement Income Funds</li> <li>• Provisions allow Diversified Bond fund to invest in Real Return Bonds</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quant data and knowledge of application of quantitative data</li> <li>• Administrative systems and skills to calculate and make payments</li> </ul>	<ul style="list-style-type: none"> <li>• A period of high inflation would be harmful for retirees</li> <li>• Probability: low since the Bank of Canada is committed to control inflation</li> <li>• Impact: High</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitor changes in purchasing power</li> </ul>
<p><b>Illiquidity:</b> The risk that invested assets are not available to an investor when needed.</p>	<ul style="list-style-type: none"> <li>• Design portfolio mandates that include assets with a high level of marketability</li> <li>• Design administrative procedures to provide appropriate level of access to members</li> <li>• Develop an adequate valuation methodology to prevent any potential arbitrage from members</li> <li>• Set a limit for the maximum amount of illiquid assets a fund can have</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of universe of investment opportunity including marketability of assets</li> <li>• Knowledge of operational restrictions imposed by securities legislation, custodian or managers</li> </ul>	<ul style="list-style-type: none"> <li>• A market crisis, such as the non-bank ABCP illiquidity event of August 2007 would make it difficult for members to make redemptions</li> <li>• Probability: low</li> <li>• Impact: moderate (on members)</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Review the liquidity of asset classes being considered for the retirement plans</li> </ul>

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<p><b>Commodity Risk:</b> A fund may invest in companies engaged in the energy or natural resources industries that produce various commodities, such as oil, gold, copper, etc. This is the risk that the stock price of these companies is affected by changes in the price of commodities, which could be substantial over short periods of time.</p>	<ul style="list-style-type: none"> <li>Design portfolios taking into account that the Canadian equity market is heavily weighted towards commodities</li> <li>Diversify equity portfolios by adding exposure to markets with a smaller commodity weighting</li> <li>Develop model that would estimate the sensitivity of a fund to changes in commodity prices</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative tools and/or provider of quantitative data</li> <li>Skill in applying quantitative data</li> <li>Knowledge of universe of investment opportunity</li> <li>Understanding of macroeconomic factors and relationships</li> </ul>	<ul style="list-style-type: none"> <li>A prolonged decline in commodity impact would negatively impact Canadian equities</li> <li>Probability: low to moderate</li> <li>Impact: high for Canadian equities, moderate for other equity markets</li> </ul>	<ul style="list-style-type: none"> <li>On-going – Maintain diversified portfolios</li> </ul>
<p><b>Concentration risk:</b> When a fund invests a substantial proportion of its assets in a single security (typically more than 10%), it is said to be concentrated. Concentrated funds tend to be more volatile and/or less liquid.</p>	<ul style="list-style-type: none"> <li>Ensure that fund investment guidelines limit the weight of any single security to 10%</li> </ul>	<ul style="list-style-type: none"> <li>Quantitative tools and/or provider of quantitative data</li> <li>Skill in applying quantitative data</li> </ul>	<ul style="list-style-type: none"> <li>Probability: low</li> <li>Impact: low</li> </ul>	<ul style="list-style-type: none"> <li>On-going – Ensure that fund investment guidelines limit the weight of any single security to 10%</li> </ul>
<p><b>Credit spread risk:</b> The credit spread is the difference in interest rates between an issuer's bond and a similar bond (other than credit) issued by the Federal Government. When fixed income investors collectively determine that a higher return is required to compensate for the risk of owning the security, credit spreads widen. When the credit spread of a security widens, the value of a fixed income security decreases.</p>	<ul style="list-style-type: none"> <li>Set minimum credit risk ratings for bond portfolios</li> </ul>	<ul style="list-style-type: none"> <li>Understanding of financial statements and credit evaluation process</li> <li>Access to current credit rating agency data</li> <li>Ability to monitor the managers' selection and review process (transparency)</li> </ul>	<ul style="list-style-type: none"> <li>A period characterized by high risk aversion from investors would cause credit spreads to widen and cause investment losses</li> </ul>	<ul style="list-style-type: none"> <li>On-going - Review the investment guidelines of the Diversified Bond Fund to ensure that the active credit risk taken by the portfolio manager won't increase the risk of the portfolio</li> </ul>

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<p><b>Derivative risk:</b> A derivative is an investment that bases its value on how well another kind of investment, like a stock, bond, currency or market index, is doing. Examples of derivatives include options, forwards, futures and swaps. There are risks associated with the use of derivatives, even if derivatives are used to help offset losses or what is called “hedging”.</p> <p>For example, there’s no guarantee that a fund will be able to buy or sell a derivative at the right time to make a profit or limit a loss. There’s no guarantee that the other party in the contract (known as a “counterparty”) will live up to its obligations, failure of which could result in a financial loss for the fund. If the other party a fund is dealing with goes bankrupt, the fund could lose any deposits that were made as part of the contract. If the derivatives are being traded on foreign markets, it may be more difficult and take longer to complete a deal. Foreign derivatives can also be more risky than derivatives traded on North American markets. Securities exchanges could set daily trading limits on</p>	<ul style="list-style-type: none"> <li>• Ensure that the use of derivatives is for hedging only, not to leverage the portfolio</li> <li>• Monitor the financial strength of counterparties used in derivatives transactions</li> <li>• Maintain a list of approved counterparties</li> <li>• Ask investment managers to report on the use of derivatives as part of annual Manager reviews</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of derivatives products</li> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Ability to monitor the manager’s portfolio (transparency)</li> </ul>	<ul style="list-style-type: none"> <li>• Unauthorized use of derivatives by an investment manager</li> <li>• Probability: low</li> <li>• Impact: potentially high</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitor the use of derivatives in investment options</li> </ul>

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<p>options and futures contracts. This could prevent a fund from completing an options or futures deal, making it impossible to hedge properly, make a profit or limit a loss. If a fund is required to give a security interest in order to enter into a swap, there is a risk that the other party may try to enforce the security interest against the fund's assets. There's no guarantee that a hedging strategy will always work. A derivative won't always offset a drop in the value of a security, even if it has usually worked out that way in the past. Hedging doesn't prevent changes in the prices of the securities in a fund's portfolio, or prevent losses if the prices of the securities go down. Hedging can also prevent a fund from making a gain if the value of the currency, stock, or bond goes up. A fund might not be able to make a deal to hedge against an expected change in a market if most other people are expecting the same change. Hedging may be costly.</p>				

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<p><b>Foreign investment risk:</b> This is the risk that investing in securities issued by a foreign issuer may be impacted by characteristics unique to the issuer's country. These differences may include lower or lack of regulations, which may result in less reliable accounting, auditing and financial reporting standards. The local government may impose taxes or make other decisions that negatively impact the value of an investment. Wars or civil unrests, low standards of business practices and lack of financial information available may also negatively impact the value of an investment.</p>	<ul style="list-style-type: none"> <li>• Hire experienced and knowledgeable investment firms that have the expertise to invest in foreign markets</li> <li>• Design diversified investment portfolios to reduce the exposure to single markets, especially those lacking proper regulations</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Knowledge of universe of investment opportunity</li> <li>• Understanding of macroeconomic factors and relationships</li> </ul>	<ul style="list-style-type: none"> <li>• Situation where an investment in a foreign country turned out to be worthless because because of local government intervention</li> <li>• Probability: low</li> <li>• Impact: high</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Maintain diversified portfolios</li> </ul>
<p><b>Large transaction risk:</b> When a large number of investors make redemptions from or contributions to a fund that are large with respect to the value of the fund, it may negatively impact the return of the fund. When large redemptions are made, the portfolio manager may be forced to sell investments at a loss to cover the redemption. When large purchases are made, the portfolio manager may be forced to hold a large amount of cash until it can find suitable investments.</p>	<ul style="list-style-type: none"> <li>• Ensure that the investment manager will protect unitholders in case of a large redemption or contribution</li> <li>• Monitor monthly investment returns to identify irregularities</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Knowledge of operational restrictions imposed by securities legislation, custodian or managers</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: low</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitoring through monthly cash flow process and review of monthly investment returns</li> </ul>



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<p><b>Leverage risk:</b> When a fund borrows to make investments, it is leveraged. This is the risk that capital losses are magnified by the use of borrowing.</p>	<ul style="list-style-type: none"> <li>• Design portfolios where leverage is not allowed</li> <li>• Attribution analysis of performance</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Ability to monitor the manager's portfolio (transparency)</li> <li>• Tracking of market benchmarks and ability to identify strategies that led to performance results</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: low</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitor leverage in investment portfolios</li> </ul>
<p><b>Prepayment risk:</b> Certain fixed income securities, including mortgage-backed or other asset-backed securities, can be prepaid before maturity. If this happens unexpectedly or faster than predicted, the fixed income security can offer less income and/or potential for capital gains.</p>	<ul style="list-style-type: none"> <li>• Hire investment managers with the expertise to assess prepayment risk</li> <li>• Design diversified fixed income portfolios to minimize the risk</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Knowledge of universe of investment opportunity</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: low</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitor composition of fixed income portfolios</li> </ul>
<p><b>Reinvestment risk:</b> This is the risk that a fund may be forced to invest the proceeds of maturing securities in securities paying a lower interest rate.</p>	<ul style="list-style-type: none"> <li>• Design diversified fixed income portfolios to minimize the risk</li> <li>• Offer investment options that would benefit from declining interest rates (long-term bond fund, equity funds)</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Knowledge of universe of investment opportunity</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: moderate for fixed income funds</li> <li>• Impact: moderate for fixed income funds</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitor composition of fixed income portfolios</li> </ul>

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<p><b>Repurchase, reverse repurchase transactions and securities lending risk:</b> A repurchase transaction is where a fund sells a security to a party for cash and agrees to buy the same security back from the same party for cash. Securities lending is similar to a repurchase transaction, except that instead of selling the security and agreeing to buy it back later, the fund loans the security and can demand the return of the security at any time. In a reverse repurchase transaction a fund buys a security at one price from a party and agrees to sell the same security back to the same party at a higher price later on. It is a way for the fund to earn interest on cash balances. The risk with these types of transactions is that the other party may default under the agreement or go bankrupt, which would create losses for the fund.</p>	<ul style="list-style-type: none"> <li>• Monitor securities lending program</li> <li>• Avoid cash collateral programs</li> <li>• Select financially sound counterparties</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Knowledge of securities lending</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: low</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitor securities lending program</li> </ul>

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<p><b>Small Cap risk:</b> Smaller companies are typically riskier than larger ones because smaller companies are harder to value, they have smaller financial resources and they may be less liquid.</p>	<ul style="list-style-type: none"> <li>• Design diversified portfolios to limit the exposure to small caps</li> <li>• Monitor the level of small cap assets managed the investment manager</li> <li>• Combine small cap mandate with a large cap mandate to allow flexibility to the manager regarding redemptions and contributions</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Ability to monitor the manager's portfolio (transparency)</li> </ul>	<ul style="list-style-type: none"> <li>• Small cap securities may become illiquid and difficult to value</li> <li>• Probability: low</li> <li>• Impact: moderate</li> </ul>	<ul style="list-style-type: none"> <li>• On-going - monitor the liquidity issues surrounding small cap investments</li> </ul>
<p><b>Specialization risk:</b> This is the risk that is present when a fund invests in a particular part of the world, a particular industry or using specific investment style, such as value or growth.</p>	<ul style="list-style-type: none"> <li>• Design portfolios with offsetting investment styles, diversify geographically and by industry</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Ability to monitor the manager's portfolio (transparency)</li> <li>• Knowledge of universe of investment opportunity</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: moderate for Canadian Equity Fund and SRI Global Equity Fund</li> <li>• Impact: moderate for Canadian Equity Fund and SRI Global Equity Fund</li> </ul>	<ul style="list-style-type: none"> <li>• On-going – Monitoring of Canadian Equity Fund and SRI Global Equity Fund</li> </ul>
<p><b>Active management styles:</b> The risk that the degree of freedom provided to the selector of securities is inappropriate given the investment objective. Also, the risk that the managers' skill in selecting securities is poor.</p>	<ul style="list-style-type: none"> <li>• Choose active investment management where greatest potential to add value and where is appropriate for the investment objective</li> <li>• Monitor active management closely</li> <li>• Due diligence of investment management firm prior to and during appointment</li> <li>• Design diversified portfolios with offsetting investment styles</li> </ul>	<ul style="list-style-type: none"> <li>• Quantitative tools and/or provider of quantitative data</li> <li>• Skill in applying quantitative data</li> <li>• Understanding of managers' mandate and investment strategy and ability to assess the success of the strategy</li> <li>• Ability to qualitatively assess firms and individuals</li> </ul>	<ul style="list-style-type: none"> <li>• Market downturn could affect resources for research personnel for fund managers</li> <li>• Active management may lead to significant periods of underperformance</li> <li>• Probability: high</li> <li>• Impact: high</li> </ul>	<ul style="list-style-type: none"> <li>• Continued use of external consultant in performance monitoring</li> </ul>

## Breakdown of Investment Risk Per UWO Fund

Type of Risk	Money Market	TDF 2012	TDF 2014	TDF 2016	Diversified Bond	Canadian Bond	Long-Term Bond	Balanced Income	Balanced Growth	Diversified Equity	SRI Global Equity	U.S. Equity Hedged	U.S. Equity Unhedged	Non-North American Equity	Canadian Equity	Liquidating Trust
Active management risk	°				°			°	°	°	°			°	°	
Commodity risk								°	°	°					°	
Concentration risk																
Credit risk	°	°	°	°	°	°	°	°	°							°
Credit spread risk	°	°	°	°	°	°	°	°	°							°
Currency risk					°			°	°	°	°		°	°		
Derivative risk								°	°	°	°	°	°			
Foreign investment risk (including emerging markets)					°			°	°	°	°	°	°	°		
Interest rate risk	°	°	°	°	°	°	°	°	°							°
Large transaction risk																
Large unitholder risk																
Leverage risk																
Liquidity risk																°
Market risk								°	°	°	°	°	°	°	°	
Prepayment risk					°	°	°	°	°							°
Reinvestment risk	°				°	°	°	°	°							°
Repo and securities lending	°	°	°	°	°	°	°	°	°	°						
Small cap risk								°	°	°						
Specialization risk											°				°	°

## Operational Risks

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Operational Leverage:</b> The risk that the cost of borrowing funds erodes the returns of funds. It may also include the risk that the University's credit worthiness declines</p>	<ul style="list-style-type: none"> <li>• Careful attention to reconcile cash transactions and ensure that sufficient funds are available for transactions implemented</li> <li>• Cash balances monitored and manager's market values reconciled with custodian</li> <li>• Accounts payable settled within vendors time frame</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of generally accepted accounting principles</li> <li>• Time and system to review invoices and implement payment</li> <li>• Knowledge of operational restrictions imposed by securities legislation, custodian or managers</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: high</li> </ul>	<ul style="list-style-type: none"> <li>• Review of monthly cash flow processes</li> </ul>

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Concentration:</b> The risk that significant responsibilities are allocated to one firm or one individual and that entity is unable to meet the responsibilities usually because of an unpredictable event (e.g. accident, employee chooses to leave)</p>	<ul style="list-style-type: none"> <li>• Segregate duties</li> <li>• Choose financially stable team-based investment firms</li> <li>• Identify back ups for responsibilities</li> <li>• Provide fair compensation to individuals and other engagement strategies</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of organizational data for firms that have been delegated responsibilities</li> <li>• Knowledge of competitive compensation structures and engagement strategies</li> <li>• Sufficient funding and resources to segregate duties</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: medium</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to monitor the key personnel as part of fund manager review</li> <li>• Development of selection criteria for experts and consultants</li> <li>• Develop a list of alternate experts for : Audit, Actuarial and performance measurement services</li> </ul>
<p><b>Cash management:</b> The risk that funds are inappropriately invested or not invested at all when directed by investor, resulting in missed opportunity for investment income.</p>	<ul style="list-style-type: none"> <li>• Careful attention to reconcile cash transactions to administrative systems and custodian statements</li> <li>• Timely correction of any misplaced cash</li> <li>• Reconciliation of cash balances in custodian accounts</li> <li>• Annual external audit of transactions</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of generally accepted accounting principles</li> <li>• Time and system to review transactions consistently</li> <li>• Knowledge of all types of pension transactions and corresponding cash movements</li> <li>• Completely familiar with custodian financial statements</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: medium</li> <li>• Impact : medium</li> </ul>	
<p><b>Administration Errors :</b> The risk that errors are made in the administration of the members benefits given the complexity and high volume of transaction</p>	<ul style="list-style-type: none"> <li>• Staff Training and development and cross training were possible</li> <li>• Annual audit of controls and systems</li> <li>• Annual reporting from records system to members to verify data</li> <li>• Monthly verification of individual investment changes</li> <li>• Confirmation statement sent to member</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed knowledge of the retirement plans and pension regulations</li> <li>• Knowledge of the pension system and internal processes</li> <li>• Knowledge of custodian processes</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: medium</li> <li>• Impact : medium</li> </ul>	<ul style="list-style-type: none"> <li>• Process documentation</li> <li>• Identify inherent risks in processes and add controls</li> </ul>

## Operational Risks

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Records and custodian Systems:</b> The risk that transactions and benefit entitlements are inaccurately recorded on the records or custodian systems, resulting in the wrong level of benefit payable to members</p>	<ul style="list-style-type: none"> <li>• Monthly reconciliation of payroll deposits to employer pay registers</li> <li>• Monthly reconciliation of units held by investment account to custodian</li> <li>• Monthly reconciliation of lump sum and periodic payments made</li> <li>• Custodian 5900 audit report, Custodian &amp; Investment Manager audit report 5970 or foreign equivalent audit report</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of pension statute, tax statute</li> <li>• Knowledge of customized systems, reporting software, critical analysis/problem solving</li> <li>• Understanding of efficient workflow and appropriate controls to be established</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: medium</li> <li>• Impact: medium</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to reduce manual transaction where possible</li> <li>• Request audit reports from all managers and custodial system service providers</li> </ul>
<p><b>Risk of Interruption in Custodian Systems:</b> Risk systems are unavailable or access to physical building is restricted for long period of time (ie. during a disaster or when required access to physical buildings is restricted)</p>	<ul style="list-style-type: none"> <li>• Ensure custodial system and service providers have sufficient business continuity plans</li> </ul>			<ul style="list-style-type: none"> <li>• Review external system service providers (Northern Trust, ACS)</li> </ul>

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Oversight/governance:</b> The risk that the development, implementation, reporting and review of policies is not effective, resulting in slow or non-reaction to operational or systematic issues when they arise.</p>	<ul style="list-style-type: none"> <li>• Documented governance policy, accountabilities and decision making responsibilities, fully open to plan members</li> <li>• Annual training and strategic planning for pension board and internal staff</li> <li>• Manager assigned full time to ensure reporting and monitoring</li> <li>• Pension Board to set annual priorities at retreat to set direction</li> <li>• Select expert consultants to provide assistance on identification of emerging issues</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of governance models for effective decision making</li> <li>• Disciplined, impartial, detail oriented manager of process</li> <li>• Reasonable pool of potential fiduciaries to draw upon</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: high</li> </ul>	<ul style="list-style-type: none"> <li>• On-going - application of Capsa Guideline No.3</li> <li>• On-going - monitor best practices for governance</li> <li>• Annually complete self assessment governance questionnaire</li> <li>• Annually review Statement of Investment Beliefs</li> <li>• Hire Regular Full Time Pension Operations Manager</li> </ul>
<p><b>Staffing, fiduciaries:</b> The risk that the number, diversity and skill set of staff and fiduciaries are insufficient to complete the accountabilities effectively.</p>	<ul style="list-style-type: none"> <li>• Significant effort in recruitment of internal staff</li> <li>• Regularly review and update job accountabilities and skills required</li> <li>• Annual and as needed performance reviews</li> <li>• Regularly review job descriptions for board members</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of all risks associated with the plans</li> <li>• Knowledge of professional training and on-going opportunities and needs</li> <li>• Budget and opportunities for seminar and conferences for board members</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: high</li> </ul>	<ul style="list-style-type: none"> <li>• On-going - monitoring</li> <li>• Training of internal staff on best practices related to risk/controls</li> </ul>
<p><b>Expense risk:</b> the risk that as the external environment become more complex costs of the programs will escalate</p>	<ul style="list-style-type: none"> <li>• Significant effort to pool investment funds to reduce management fees</li> <li>• Plan design for both pension plans to be aligned where possible</li> <li>• Adjust fees for participation in the RIF</li> <li>• Monitor consultant/actuarial/legal expenses – cap costs in contracts where possible</li> </ul>	<ul style="list-style-type: none"> <li>• Detailed contract terms on fees</li> <li>• Knowledge expenses for similar plans</li> <li>• Disclosure of fees paid by members.</li> <li>• Annual budget</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: low</li> <li>• Impact: high</li> </ul>	<ul style="list-style-type: none"> <li>• Consider alternative models for delivery of the RIF once regulations for Bill 120 are released.</li> </ul>



Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Member Engagement:</b> The risk that plan members will not actively manage their pension accounts and investment options or choose to participate when participation is mandatory that benefit adequacy may be an issue</p>	<ul style="list-style-type: none"> <li>• Detailed communications in multiple media</li> <li>• Pension Advisors provide individual counseling</li> <li>• Online education tools</li> <li>• Enrolment session for part time eligibility</li> <li>• Default options for the pension plans and annual mailings to members who have not made investment allocations</li> <li>• Ongoing education, annual meetings for all members and newsletters</li> <li>• Diligent selection of consultants to provide education and advice to members</li> <li>• Focus communication to promote understanding and responsibilities of members in a DC plan</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of the pension plan and resources available to members</li> <li>• Ability to communicate complex issues to a wide variety of members</li> <li>• Develop formal communication Plan for the retirement plans</li> <li>• Expert outside consultant for investment advice</li> <li>• Projections on annual statements</li> <li>• GAP statement tool</li> <li>• Seek to improve engagement of members</li> </ul>	<ul style="list-style-type: none"> <li>• Probability: medium</li> <li>• Impact: medium</li> <li>- ensure that member education and support is not financial advice</li> <li>- extensive communication may be overwhelming for some members</li> <li>•</li> </ul>	<ul style="list-style-type: none"> <li>• Continue to provide extensive member education and support</li> <li>• Identify best communication practices to engage members in saving for retirement</li> <li>• Ongoing contact annually with members enrolled in the default option</li> <li>• Introduce Journey Planning concept and the need for members to set a retirement goal</li> <li>• Increase regular contribution levels through the bargaining process</li> <li>• Develop Gap Statement tool - 2013</li> <li>• Gather information regarding member knowledge and member concerns</li> </ul>

## Legal Risks

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Fiduciary liability:</b> Risk that the internal staff, the pension board or the Board of Governors are held liable for breaching their responsibilities as fiduciaries to the beneficiaries of the retirement plan –this includes the statutory duty in the Pension Benefits Act and the fiduciary duty imposed at common</p>	<ul style="list-style-type: none"> <li>• Ensure all staff, board and governors are informed of their fiduciary duty</li> <li>• Report annually to the Board of Governors on policies, activities and issues</li> <li>• Consult legal counsel in areas where the obligations are unclear</li> <li>• Annual review of all Fund Mgrs and SIPP</li> <li>• Monitor legal decisions to be aware of potential risks</li> <li>• High quality education courses for JPB members identified and made accessible</li> <li>• Continue to recruit JPB with expertise</li> <li>• Consider best practices in governance</li> <li>• Orientation session provided to new JPB members</li> </ul>	<ul style="list-style-type: none"> <li>• Avenue to report annually to Board of Governors in appropriate format</li> <li>• Basic understanding, history and rationale for fiduciary obligations under various laws</li> <li>• Monitoring tool for the assessment of governance</li> <li>• Knowledge of CAPSA governance principles</li> <li>• Knowledge of fiduciary obligations</li> </ul>	<ul style="list-style-type: none"> <li>• Impact: High</li> <li>• Probability: Low</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing use of CAPSA’s model pension plan self governance questionnaire</li> <li>• Annual review of governance principles applied by the JPB</li> <li>• Consider outside director</li> <li>• Review and approve the SIPPs annually</li> <li>• Monitoring of Investment managers ongoing</li> <li>• Introduce monitoring for other agents</li> <li>• Review Risk Management Plan regularly (at least annually)</li> </ul>
<p><b>Pension Statute:</b> The risk that the Pension Benefits Act of Ontario is violated by the administrators or any pension agent, subjecting the administrators to fines and potentially jail time</p>	<ul style="list-style-type: none"> <li>• Thorough understanding of the Act and regulations by internal staff members</li> <li>• Established procedures and controls in accordance with the Act (e.g. timing of contribution deposits, timing of communications)</li> <li>• Consult legal counsel for clarification as needed</li> <li>• Keep updated on changes to statutes and seek opinions from external consultants on how to properly implement changes</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of current provincial legislation, legislation in other jurisdictions and any proposed amendments to law, including rationale for the proposed amendments</li> <li>• Accurate documentation of the Act, regulations and interpretation documents</li> <li>• Record manager compliance with mandate, SIP&amp;P and PBA, ITA.</li> </ul>	<ul style="list-style-type: none"> <li>• Impact: High</li> <li>• Probability: Low</li> <li>- Legislative changes to PBA and other statutes</li> </ul>	<ul style="list-style-type: none"> <li>• Review record keeping systems regularly with service provider</li> <li>• Ongoing use of a compliance checklist for annual FSCO &amp; CRA requirements</li> <li>• Amend pension plans and administrative process as needed for Bill 236, Bill 120, Bill 173 and Bill133</li> </ul>

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<p><b>Tax Statute:</b> The risk that tax is payable by the University or the pension trust because a provision of the Income Tax Act is violated. Also, risk that the plans are de-registered, subjecting all beneficiaries to tax.</p>	<ul style="list-style-type: none"> <li>• Thorough understanding of the provisions of the Act, regulations and interpretations relevant to pension plans, registered investments and RIFs by at least 2 internal staff members</li> <li>• Consult legal counsel for clarification as needed</li> <li>• Keep updated on changes to statutes and seek opinions from external consultants on how to properly implement changes</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of current tax legislation and any proposed budget changes, including rationale for the proposed amendments</li> <li>• Accurate documentation of the Act, regulations and interpretation documents</li> </ul>	<ul style="list-style-type: none"> <li>• Impact: High</li> <li>• Probability: Low</li> </ul> <p>-Significant and sudden tax changes -Tax changes suited to RIFs held by Financial Institutions</p> <ul style="list-style-type: none"> <li>• Pressure to keep RIF costs down</li> <li>• Constraints by securities exemptions</li> </ul>	<ul style="list-style-type: none"> <li>• Work with Northern trust and external legal counsel on issues as needed</li> </ul>
<p><b>Securities Statute:</b> The risk that the University offers an investment to beneficiaries without complying with securities law or without seeking exemption from securities law, subjecting the University to a fine or jail term.</p>	<ul style="list-style-type: none"> <li>• Seek securities opinion and approval from Securities commission for offering investments to individuals not considered covered under a pension plan exemption</li> <li>• Continually monitor changes in securities regulation to ensure exemptions and processes remain the same</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of current securities legislation and any proposed changes, including rationale for the proposed amendments</li> <li>• Accurate documentation of the Act, regulations and interpretation documents</li> </ul>	<p>Impact: High Probability: Low</p> <ul style="list-style-type: none"> <li>• Limits due to securities exemption</li> <li>• Changes in exemption rules through securities legislation</li> </ul>	<ul style="list-style-type: none"> <li>• On going assessment of securities issues including required securities exemptions.</li> <li>• Assess need for securities exemption in conjunction with analysis on the future of the RIF.</li> </ul>

Event Identification: Risk Description	Control Activity: Risk Management Process	Control Activity: Skill set/tools required	Risk Assessment: Variables – Sensitivities	Risk Response: 2011/2012 Risk Management Strategies
<b>Common Law and other statutes:</b> The risk that in fulfilling our duties another statute or a law is violated (e.g. family law act, employment standards act, privacy act, tort of negligent misrepresentation)	<ul style="list-style-type: none"> <li>• Consult legal counsel for clarification as needed</li> <li>• Keep updated on changes to statutes and seek opinions</li> <li>• Periodic review of processes, forms and other documents by external legal counsel</li> </ul>	<ul style="list-style-type: none"> <li>• Awareness of changes in employment related legislation</li> <li>• Affiliation with professional firm who will provide updates on recent court proceedings involving retirement plans</li> </ul>	<ul style="list-style-type: none"> <li>• Impact: High</li> <li>• Probability: Low</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing monitoring of case law and legislative updates</li> <li>• Provide update and information to Pension Board and Pension Administration staff as needed.</li> <li>• Additional controls and processes employed in day to day activities to protect member information</li> </ul>
<b>Labour Risk:</b> The risk that the bargaining groups will use grievances to advance pension claims	<ul style="list-style-type: none"> <li>• Liaise with HR staff relations and Faculty Relations as needed</li> </ul>	<ul style="list-style-type: none"> <li>• Knowledge of collective agreement provisions re pension plans</li> <li>• Seek outside counsel assistance as need</li> <li>• Knowledge of pension legislation</li> </ul>	<ul style="list-style-type: none"> <li>• Impact: Medium</li> <li>• Probability: Unknown</li> </ul>	<ul style="list-style-type: none"> <li>• Ongoing monitoring</li> <li>• Include unions and employee groups in the communication initiatives including the Communication plan</li> </ul>