

JOINT PENSION BOARD
Statement of Investment Beliefs

Investment Belief	Rationale <i>(Basis behind the belief)</i>	Supporting Research <i>(Practical or Academic Research Supporting the Belief)</i>	Investment Strategy <i>(How the investment belief can be applied)</i>	Organization <i>(Links the practical application of the belief to organizational choices and performance measures)</i>
<p>1. Good governance policies improve investment returns</p> <ul style="list-style-type: none"> • Governance is defined as the decision and oversight structure established for an investment fund (such as our Retirement Plans). Good Governance can be defined as an effective decision and oversight structure, that is customized to your plan and which is constantly refined to bring about good decision-making to add value over the long term. 	<ul style="list-style-type: none"> • Intuitively, one would expect that over the longer term, well-governed funds should be able to generate higher returns. 	<ul style="list-style-type: none"> • Curwood, Bruce. “A Comprehensive Risk Management Framework for Investment Funds”, <i>The Journal of Investment Consulting</i>, Vol. 8, No. 2, Summer 2007, pp. 55-67 • Curwood, Bruce. “Narrowing The Knowing-Doing Gap In Investments Through Effective Fund Governance”, <i>Russell Investments Monograph</i>, October 2006. • Ambachtsheer, Keith, Capelle, Ronald, and Lum, Hubert. “The Pension Governance 	<ul style="list-style-type: none"> • Develop a Statement of Investment Policies and Procedures to facilitate efficient operations • Develop appropriate risk management processes • Delegate authority appropriately between Joint Pension Board and administration 	<ul style="list-style-type: none"> • Review SIPP at least once a year • Review the Statement of Investment Beliefs every year • Review metrics of the risk management process • Review the application of the Joint Pension Board principles every year • Joint Pension Board approves policies and is ultimately responsible for results attained • Administration designs and implements policies directly and through contracted agents • Review compliance to

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		Deficit: Still With Us”, <i>Rotman International Journal of Pension Management</i> , Volume1, Issue 1, Fall 2008. • Ilkiw, John. “Prudence is Process, Not Performance”, <i>Russell Canada Monograph</i> , Monograph No. 9, February 1996.		the CAPSA guidelines every year
2. Diversification is an investment risk management mechanism; it should provide protection on the downside and the long-term	<ul style="list-style-type: none"> • Combining assets with correlation of returns lower than one should reduce the volatility of a portfolio (it limits returns both on the upside and the downside) 	<ul style="list-style-type: none"> • Modern Portfolio Theory • Markowitz, Harry. “Portfolio Selection”, <i>Journal of Finance</i>, pp. 77-91, 1952. 	<ul style="list-style-type: none"> • Build portfolios that are diversified by: 1) asset class (debt, equity, cash, REITs); 2) sector; 3) region; 4) investment style; 5) currency 	<ul style="list-style-type: none"> • Monitor the risk of the portfolio • Select investment managers with a demonstrated ability to protect investors on the downside
3. Asset classes have specific risk/return characteristics	<ul style="list-style-type: none"> • Cash is usually the lowest returning asset class for a long term investor and should in most cases be minimized. • Equities should 	<ul style="list-style-type: none"> • Historical return database 	<ul style="list-style-type: none"> • Provide investment options encompassing the full range of risk/return opportunities • Provide members with education about their investment horizon and 	<ul style="list-style-type: none"> • Prepare communication material highlighting the benefits of investing for the long term • Determine an appropriate level of risk to expose the portfolios

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	<p>outperform bonds over the longer term, but with more risk</p> <ul style="list-style-type: none"> Emerging markets tend to be riskier than other equity markets due to poor legal enforcement, and disclosure, as well as greater volatility, but offer superior expected returns. 		<p>the characteristics of various asset classes</p>	<p>to</p> <ul style="list-style-type: none"> Offer a broad range of investment options to take into account the risk tolerance of our membership Provide members with education about frequency of negative returns Provide probability of not having enough money to live on Provide additional information about the risk of the investment options
<p>4. Alternative investments should be considered on a case by case basis and should meet the following three conditions:</p> <ul style="list-style-type: none"> They're fully liquid They have a consistent valuation 	<ul style="list-style-type: none"> Alternative investments typically have low correlation to capital markets (potential diversification) and usually higher costs. Transparency is a problem with some alternative investments, such as hedge funds; it 	<ul style="list-style-type: none"> Smith, Mike. "Private Equity's Strategic Role in Institutional Investment Funds", <i>Russell Consulting Practice Note</i>, October 2000. Eidelson, Bruce A. "Constructing a Real Estate Portfolio", 	<ul style="list-style-type: none"> Add appropriate alternative investments as diversifiers Consider alternatives where appropriate in the context of a diversified portfolio 	<ul style="list-style-type: none"> Follow the Joint Pension Board due diligence practice when considering alternative investments Test the addition of alternatives with the seven principles of the Joint Pension Board Allocate appropriate

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<p>method</p> <ul style="list-style-type: none"> • They're fully transparent <p>Alternatives include investments in real estate, hedge funds, private equity, infrastructure, long/short strategies, tactical asset allocation, commodities, etc.</p>	<p>would increase the amount of internal resources to monitor them</p> <ul style="list-style-type: none"> • Real estate is not a diversifier when we look at members' total portfolio, but could be to some extent if it is not residential in London, Ontario • Special hurdles for DC plans versus DB plans; e.g. communication, education and liquidity 	<p><i>Russell Research</i>, June 2007.</p> <ul style="list-style-type: none"> • Ansley, Craig. "Asset Allocation and Alternative Investments: How to Make Prudent and Profitable Decisions", <i>Russell's Research for Excellence</i>, 2004. • Ross, Leola B. "Risk Exposure and Hedge Funds", <i>Russell Research Commentary</i>, November 2002. • Collie, Robert. "Ten Things Investors Should Know about Hedge Funds", <i>Viewpoint</i>, September 2001. • Ilkiw, John, Scheer, Karl, and Payne, David. "Relative Importance of Manager Selection in the US Private and Public Equity Markets", 		<p>resources for communication and member education</p>

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		<p><i>Consulting Practice Note, January 2003.</i></p> <ul style="list-style-type: none"> Broad, Carol. “Why Invest in Real Estate?”, <i>Russell Investment Group</i>, April 2005. 		
<p>5. Portfolio rebalancing between asset classes allows members to maintain the risk of the portfolio and is the member’s responsibility (except for the Balanced Growth & Balanced Income funds).</p>	<p>Re-establishing the portfolio to its target asset mix has several advantages:</p> <ul style="list-style-type: none"> Since accurately forecasting equity returns is hard, it is extremely difficult to identify clear patterns that would allow a drifting policy to outperform. Over several market cycles a rebalancing policy dominate a drift policy, as the former has lower drawdowns, on average, and achieves the same long run target return Exploiting timing 	<ul style="list-style-type: none"> Winkellman, K., Tavares, C. and Misra, R. 2008. “Rebalancing Policy – Time to Revisit?” <i>Global Investment Strategies Research Note</i>. November 2008. Masters, S. 2002. “Is There a Better Way to Rebalance?” <i>AllianceBernstein Global Investment Research</i>. Weinstein, S., Tsai, C. and Laurie, J. 2003. “The Importance of Portfolio Rebalancing in Volatile Markets.” <i>Retirement Planning</i>, July-August 2003. 	<ul style="list-style-type: none"> Maintain a policy to systematically rebalance the two balanced funds 	<ul style="list-style-type: none"> Establish threshold for rebalancing the Balanced Funds Ensures that monthly cash flows are taken into account to reduce the transaction costs Provide education and communication material to members on the benefits of rebalancing and how it can enhance their returns Send reminders to members Help members maintain a disciplined investment approach

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	<p>requires substantial investment knowledge and risk (deviations in weights).</p> <ul style="list-style-type: none"> • If investors’ long-term views on asset returns haven’t changed, they should maintain their rebalancing policy, as rebalancing will allow them to maintain the risk of their portfolio at a constant level. • Consistent with the principle of selling high and buying low. 			
<p>6. Passive is the most effective investment choice in markets deemed to be relatively efficient but active management may add value in some markets that are not deemed to be as efficient. Passive management is the Pension Board’s</p>	<p>Market efficiency implies prices fully and immediately reflect all relevant information. Passive management is defined as investing in low-cost investment products designed to efficiently capture the risk premium associated with an asset class such as equity, fixed</p>	<ul style="list-style-type: none"> • Yasenchak, Richard. “Active Management Headwinds Reverse Course”, <i>Russell Research</i>, May 2009. 	<ul style="list-style-type: none"> • Beta drivers, other than classic beta (i.e. the replication of a broad market index), should also be considered as passive management. These include sector, regional, alternative or fundamental indexing. • Maintain active investment strategy for 	<ul style="list-style-type: none"> • Monitor the success of active investment strategies • Keep up to date with research on active management • Monitor investment management fees paid to ensure that we maintain a net value added

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default choice.	income, commodities, or real estate. Active management involves attempting to exploit a perceived informational advantage in the financial markets with the purpose of generating excess returns. It is the belief of the Joint Pension Board, based upon the survey of research that has been done for the Board, advice from the Board's investment consultant, and the Board's own historical experience, that in general active investment management cannot be expected to outperform passive management on a risk adjusted basis in markets deemed to be efficient but active management may be appropriate in certain markets where there is convincing evidence of inefficiencies.		Canadian equities, global equities, international equities, U.S. small cap equities, international fixed income and money market; maintain passive investment strategy for U.S. large and mid cap equities and Canadian fixed income. <ul style="list-style-type: none"> • Regularly revisit our beliefs on the appropriateness of a passive or active strategy for a specific asset class • Revisit using active management for Canadian and global bonds 	

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	<p>Furthermore, the Board recognizes that active management is more costly than passive management and so anticipated added value through active management must exceed additional costs.</p> <p>Possible grounds for exception:</p> <ul style="list-style-type: none"> • Implementation problems: for some asset classes it may be difficult to adopt a completely passive management policy. • Attractive active management: in some instances there may be good reasons to believe that such a manager could achieve out-performance and be easily monitored as to effectiveness. • No clearly attractive 			

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	passive benchmark available.			
7. Liquidity is extremely important for a Defined contribution plan	<ul style="list-style-type: none"> If members are to be free to make investment changes on a monthly basis, we need to offer only investments that have sufficient liquidity. 	<ul style="list-style-type: none"> UWO Joint Pension Board Principles Leung, Andrew and Warren, Geoff. “Liquidity, A Story of Haircuts and Perms”, <i>Russell Update</i>, September 2007. “Redemption Activity of Mutual Fund Owners”, <i>Investment Company Institute</i>, Vol. 10, No. 1, March 2001. Leibowitz, Martin and Bova, Anthony. “Portfolio Liquidity”, <i>Morgan Stanley Research</i>, January 13, 2009. 	<ul style="list-style-type: none"> Invest in investment products that offer at least monthly valuation Invest in asset classes that offer significant liquidity and are less susceptible to face a period of illiquidity 	<ul style="list-style-type: none"> Ensure that investment managers can meet our monthly cash flow requirements Monitor the liquidity of our investments on an annual basis Ask Northern Trust about securities for which there is no liquid market Monitor the liquidity constraints that the manager can impose
8. It is very difficult to repeatedly time the market through ongoing changes to the equity/bond mix	<ul style="list-style-type: none"> Research suggests that market timing generally doesn’t work 	<ul style="list-style-type: none"> “Short-Term Market Pains Can Lead to Long-Term Gains”, <i>Russell Update</i>, January 2008. 	<ul style="list-style-type: none"> Build portfolios using a strategic asset allocation 	<ul style="list-style-type: none"> Regularly revisit long-term return assumptions Stick to monthly valuation to prevent members from timing

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				the market
9. Investment costs must be monitored	<ul style="list-style-type: none"> Costs have a significant impact on pension accounts over the long term 	<ul style="list-style-type: none"> Internal research, annual report, annual member meeting 	<ul style="list-style-type: none"> Portfolio returns must be evaluated on net of fees basis 	<ul style="list-style-type: none"> Review investment costing – find a benchmark for our costs Take fees into consideration when selecting managers Monitor costs of retail investing Monitor total costs of offering the retirement plans, including administrative costs not borne by plan members
10. Foreign currency hedging is desirable to reduce risk	<ul style="list-style-type: none"> Due to the diversity of our membership, members should be provided the choice to select a hedged or unhedged product Where fund unable to allow selection (e.g. Balanced Income & Balanced Growth funds), we need to provide for some currency hedging on 	<ul style="list-style-type: none"> Curwood, Bruce, Maeda, Yoshimori, and Robinson, Mary. “Currency Hedging Policy Formulation for Canadian Investors”, <i>Russell Research</i>, October 2005. 	<ul style="list-style-type: none"> The largest factors in considering a hedging policy are the proportion of equities invested outside of Canada and the investor’s time horizon Implement passive currency hedging strategies, unless the manager has a proven capability in active currency management. 	<ul style="list-style-type: none"> Proportion of equities outside Canada needs to be monitored and investors’ time horizon need to be assessed

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	assumption that most UWO plan members would have obligations in CDN\$		<ul style="list-style-type: none"> • Any time there is currency exposure, a partial hedge should be used, where appropriate. • The \$US and the Euro should be considered for hedging. 	