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OFFICE OF THE VICE-PRESIDENT, BUSINESS AFFAIRS

TO: Business Board

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DATE: June 12, 2003 for June 19, 2003

AGENDA ITEM: 5

ITEM IDENTIFICATION:

Investments: Long-Term Capital Appreciation Pool Performance Benchmark – Interim Report

JURISDICTIONAL INFORMATION:

Business Board terms of reference make the Board responsible for "approval of the conditions for the delegation of authority to a University-controlled asset management corporation for the management of the investment of University funds."

PREVIOUS ACTION TAKEN:

The Board, at its meeting of April 7, 2003, approved a revised Investment Policy for University Funds. That Policy:

(a) established a more conservative return objective for the Long-Term Capital Appreciation Pool (L.T.CAP) - a 4.0% real, inflation-adjusted return over a 10-year period, net of all fees and levies;

(b) specified the University's risk tolerance for the L.T.CAP, stating that "to keep risk at a reasonable level, UTAM shall manage the asset portfolio to achieve a target standard deviation of 10.0% or less in nominal terms"; and

(c) made it clear that UTAM was responsible for selecting the appropriate asset mix to achieve the return objectives within the stated risk tolerance.

UTAM's performance is to be measured against performance benchmarks to be included in Schedule "C" of the service agreement between the University and UTAM.

HIGHLIGHTS:

A major step towards the development of the new benchmark was taken on June 11, 2003, when the Board of the University of Toronto Asset Management Corporation (UTAM) met and approved a revised asset mix as follows:

	Minimum Weight (% Weight)	**Usual Weight** (% Weight)	**Maximum Weight** (% Weight)
Equities			
Canadian equities		10	
US equities		20	
Non-North-American equities		20	
Total equities	45	50	55
Bonds			
Universe bonds		5	
Long-Term bonds		5	
Real Return Bonds		10	
Total bonds	15	20	25
Alternatives			
Real assets		10	
Private equity		10	
Absolute Return		10	
Total alternatives	25	30	35

The proposed asset mix is similar to the current mix, except for (a) the introduction of real-return bonds (which would reduce the allocation to regular bonds); and (b) an increase in investment in real assets (such as real estate, oil and gas properties, timberlands, etc) and in private equity, along with a reduction in absolute-return hedge funds. UTAM will within the next two months develop a plan to move the L.T.CAP investments into conformity with the above asset mix

UTAM will also work to develop appropriate performance benchmarks based on the new asset mix, to be reflected in a revised Schedule "C" to the service agreement between the University and UTAM. There are to be two benchmarks: comparison to a composite market index and comparison to an appropriate peer universe. It is not intended to continue to use the current peer universe, the Cambridge Associates College and University Endowment Universe, which consists predominantly of U.S. endowments.

FINANCIAL AND/OR PLANNING IMPLICATIONS:

It is expected that, over a ten-year time horizon, the above asset mix will meet the University's return objective (according to modeling, the expected real return is 5.10% per year), and do so within the University's risk tolerance (the expected standard deviation is 9.84%). This mix also reduces the risk of the University being unable to meet the endowment payout requirement and reduces the risk of a long-term impairment in the purchasing power of the endowment funds.

RECOMMENDATION:

None. For information. The revised Schedule "C" to the service agreement, containing the new benchmarks, will be forwarded for approval.

University of Toronto Asset Management Corporation

REPORT ON THE ENDOWMENT FUND ASSET MIX STUDY AND UTAM'S RECOMMENDATION

JUNE 2003

Following a review by the University of Toronto of the endowment fund's liability structure and the University's tolerance for investment risk, new targets have been adopted by the University. The revised return objective is for a 4.0% real return plus 0.5% for levies, for a total target real return of 4.5% net of investment fees. Risk tolerance has been specified as 10% annual standard deviation. UTAM is responsible for selecting an asset mix that meets these risk and return requirements specified for LTCAP.

UTAM hired JP Marshall (JPM), a Hewitt Company, to manage the asset modelling process. JPM and UTAM management together developed the assumptions for asset class real returns, volatility, and correlations. The assumptions for asset class real returns reflect expected returns from active management, net of investment management fees, over a 10-year horizon. The expected returns and volatility by asset class and the proposed asset mix is outlined in Attachment A. For comparison, the existing policy asset mix (80% equities/20% bonds) and the actual asset mix, as of April 30, 2003, are provided. The full JPM study is contained in Attachment B.

Monte Carlo simulations were undertaken to test the portfolios (see page 2 of Attachment A) with respect to:

1. Payout Disruption Risk (the probability of a spending shortfall), and
2. Capital Impairment Risk (the probability of a loss in purchasing power).

The recommended portfolio meets the return and risk volatility targets and is significantly superior with respect to payout disruption and capital impairment risks.

The proposed asset mix is similar to the actual asset mix as of April 30, 2003. However there are a number of significant differences:

a) the introduction of Real Return Bonds with a corresponding decrease in allocation to straight bonds; and

b) an increase in Real Assets and Private Equity and a lower level of Absolute Return hedge funds.

With regard to (b), the following should be noted about the actual asset mix as of April 30, 2003:

- The 3% allocation to Private Equity represents the amount of capital already invested. Current commitments not yet invested total an additional 7%. As such, current commitments already reflect a full allocation to this asset class. This additional 7% will however take some time to be fully invested.
- The 24% allocation to Absolute Return contains hedge funds that are more properly classified as equity-like. Assigning the hedge funds that have positive correlations with equities to the equity class categories reduces the Absolute Return class by 14%, resulting in this class reflecting a full allocation. It also implies that equity classes are overweight and will need to be reduced.

- The increase in Real Assets will in part be filled by current commitments of 2% to timberland and oil and gas that are not yet invested. This class will require further analysis and measured implementation given current resources and opportunities.

- The return and volatility asumptions for the Alternative asset classes are much less rigorous than for equities and bonds. This is a function of data availability and the diverse approaches reflected by these asset classes.

Overall the proposed asset mix increases the amount allocated to Real Assets reflecting their absolute lower volatility and correlations with more traditional asset classes to effect diversification.

Upon approval by UTAM's Board of the proposed asset mix, the next steps include:

1. Developing an execution plan to effect the change.

2. Establishing minimum and maximum deviation bands around the policy asset mix for rebalancing and tactical asset allocation.

3. Establishing appropriate performance benchmarks.

Felix P. Chee
President and Chief Executive Officer

June 12, 2003

Asset Mix Model Recommendation

	Asset Class Expectations		Existing Policy	Actual Mix April 30, 2003	Recommended Asset Mix (1)
	Real Return	Standard Deviation	% Weight	% Weight	% Weight
Equities					
Canadian Equities	5.0%	17.5%	10.0	8.0	10.0
US Equities	5.0%	16.6%	35.0	20.0	20.0
NNA Equities	5.5%	18.8%	35.0	24.0	20.0
Total Equities			80.0	52.0	50.0
Bonds					
Universe Bonds	3.0%	6.8%	12.0	12.0	5.0
Long Term Bonds	3.3%	7.0%	8.0	5.0	5.0
Real Return Bonds	3.5%	9.0%	0.0	0.0	10.0
Total Bonds			20.0	17.0	20.0
Alternatives					
Real Assets	4.0%	14.0%	0.0	4.0	10.0
Private Equity	10.0%	30.0%	0.0	3.0	10.0
Absolute Return	4.5%	12.0%	0.0	24.0	10.0
Total Alternatives			0.0	31.0	30.0
Total Fund			100.0	100.0	100.0
Expected Real Return			4.82	4.80	5.10
Expected Standard Deviation			13.03	10.16	9.84

(1) Recommended Asset Mix is Portfolio B as per Hewitt Asset Mix Study, June 2003.

Simulation Results

Payout Disruption and Capital Impairment Risk Analysis

The table below shows the probabilities of various possible outcomes based on our Monte Carlo simulations.

- Payout disruption risk refers to a shortfall in payouts in real terms.
- Capital impairment risk refers to a reduction in purchasing power of the Endowment Fund.

Portfolio	Payout Disruption Risk Analysis						Capital Impairment Risk Analysis					
	Shortfall In Any Given Year			Shortfall Over Rolling 5-Year Period			10 Year Horizon			20 Year Horizon		
	>0%	*>5%*	*>10%*	*>0%*	*>5%*	*>10%*	*>0%*	*>10%*	*>25%*	*>0%*	*>10%*	*>25%*
Existing Policy	31%	26%	22%	37%	29%	23%	40%	31%	18%	37%	32%	23%
Actual Mix	24%	18%	14%	29%	19%	14%	36%	25%	13%	32%	25%	15%
B (Proposed 1)	18%	13%	10%	22%	14%	10%	29%	20%	9%	24%	19%	10%