Board of Governors PENSION & BENEFITS COMMITTEE Friday 15 November 2019 9:30 a.m. to 12:00 noon NH 3318

		OPEN SESSION	ACTION
9:30	1.	Approval of the 18 October 2019 Minutes (Open Session)* and Business Arising	Decision
	2.	Execution Against the Work Plan* [Grivicic]	Information
	3.	Update on Government Pension Plan Initiatives [Shapira]	Information
9:35	4.	Extended Health and Dental Benefits – Indexation of Maxima Effective January 1, 2020* [Hornberger]	Decision
	5.	Employee and Family Assistance Program – Utilization Report* [Hornberger]	Information
9:50	6.	Annual Review of Statement of Investment Policies and Procedures* [Huber]	Decision
10:00	7.	Employee Representatives Appointed to Pension Investment Committee [Jha]	Information
	8.	Updated Presentation for Pension Information Sessions [Shapira/Byron]	Information
	9.	Update re: Holistic Benefits Working Group	Information
	10.	Other Business	
		CONFIDENTIAL SESSION	
	11.	Approval of the 18 October 2019 Minutes (Confidential)+ and Business Arising	Decision
	Nex	at Meeting: Friday 13 December 2019, 9:30 a.m. – 12:00 noon in NH 3318	
		*attached ** to be distributed + distributed separately	
	11 No	ovember 2019 Mike Grivicic	

Associate University Secretary

Please convey regrets to Melissa Holst at 519-888-4567 x36125 or mjholst@uwaterloo.ca

Future Agenda Items

- a. Pension Contribution for Members of LTD
- b. Level of LTD coverage vs. practical requirements
- c. Discussion of \$3,400 cap appropriateness, and potential RPP/PPP combination

University of Waterloo Board of Governors PENSION & BENEFITS COMMITTEE Minutes of the 18 October 2019 Meeting [in agenda order]

Present: Peter Barr (chair), Terrence Birmingham, Dennis Huber, Ranjini Jha, David Kibble, Alice Raynard (secretary), Jim Rush, David Saunders, Stewart Forrest (for Mary Thompson), Michelle Hollis (for Marilyn Thompson), Ken Vetzal

Absent: Kathy Bardswick*, Ted Bleaney, Michael Herz, Marilyn Thompson, Mary Thompson *regrets

Consultant: Linda Byron, Allan Shapira

Resources: Sarah Hadley

Organization of Meeting: Peter Barr took the chair and Alice Raynard acted as secretary. The secretary advised that a quorum was present.

1. APPROVAL OF THE 20 SEPTEMBER 2019 MINUTES (OPEN SESSION) AND BUSINESS ARISING

A motion was heard to approve the minutes. Jha and Saunders. Carried. There was no business arising.

2. EXECUTION AGAINST THE WORK PLAN

This item was received for information.

3. UPDATE ON GOVERNMENT PENSION PLAN INITIATIVES

Shapira noted the upcoming Fall Economic Statement from the province. More information on the "double dipping" provisions proposed by the province is to come. Government wishes to consult on benefits pulling in with umbrella policies of groups such as government agencies, hospitals, colleges and universities. The format of consultations is yet to be determined.

4. UPDATE ON BECOMING A SIGNATORY TO THE UNITED NATIONS PRINCIPLES FOR RESPONSIBLE INVESTMENT

Huber indicated that this proposal is further to the work by the Investment Working Group last year; it is consistent with the ESG principles. [Note: A recommendation was made at the Board of Governors' 29 October 2019 meeting.] Members discussed: opportunity to qualify responses to questions in the United Nations' survey; United Nations annually publish a transparent report; retention of portfolio managers and quality of the latter's reporting; potential effect on SIPP and other universities; various levels of incorporation of ESG principles by universities.

5. INVESTMENT FUND PERFORMANCE REPORTS FROM AON – Q2 2019

Huber spoke to the document, noting Q2 markets had been flat and that over the one year period, in aggregate, the investment managers have provided value added above the target return. Target objectives (four-year return sheet) will be distributed to members and YTD will be added to help with tracking.

6. DRAFT PRESENTATION FOR PENSION INFORMATION SESSIONS

Shapira spoke to the draft presentation, which will provide an overview of the proposed changes on contributions and benefits. Information sessions will take place in November 2019. Members discussed: making clearer that the institution will not diminish its contribution and the reasons for "50-50 contribution" model; definition of the plan; funding sources; funding ratios; comparison to other universities; format and audience of sessions.

7. UPDATE RE: HOLISTIC BENEFITS WORKING GROUP

Kibble reported that the survey had be issued on 11 October 2019 to all employees; about 1,400 responses have been received. A preliminary analysis will begin once all response are received.

8. OTHER BUSINESS

a. Update re: Pension Investment Committee. Huber informed members that the PIC will begin its work early in the new year. The P&B Committee will review at its next meeting employee representatives.

b. Other Business. The Faculty Association of the University of Waterloo requested a copy of the 2018 benefits index results. AON and the Committee secretary will connect on this item.

With no further business in open session, the committee proceeded into confidential session.

NEXT MEETING

The next meeting is scheduled for Friday 15 November 2019, 9:30 a.m. - 12:00 noon in NH 3318

11 November 2019

Alice Raynard Associate University Secretary

Execution against Work Plan

Pension & Benefits Committee, Board of Governors, University of Waterloo

The below represents the annual responsibilities of the P&B Committee and has been prepared as an aid to planning only. The committee's activities are much broader, however, and include: legislative changes, plan changes and improvements; selection of managers and service providers; and requests from the UW community regarding pension and benefits plans.

Task	Frequency (Target month)	9 Nov 2018	14 Dec 2018	18 Jan 2019	22 Feb 2019	8 Mar 2019	16 May 2019	14 June 2019	20 Sept 2019	18 Oct 2019	15 Nov 2019
Approval of Actuarial Valuation Assumptions	Annual (Jan)			\checkmark							
Investment Status of PPP	Annual (Jan)			\checkmark							
Cost-of-living Increase for Pensioners	Annual (Feb)				\checkmark						
Pensions for Deferred Members	Annual (Feb)				\checkmark						
Salaries for Pension Purposes for Individuals on Long-term Disability	Annual (Feb)				\checkmark						
Actuarial Valuations (RPP and PPP), with posting to website once approved	Annual (Mar)					\checkmark					
Review of Contribution and Protocol Caps (RPP and PPP)	Annual (Mar)					~					
Benefits Plan Premium Renewals	Annual (Mar)					\checkmark					
Indexing of Long-term Disability Plan Benefits and Maxima	Annual (Mar)					\checkmark					
Annual Committee Self-Assessment	Annual (Mar)					\checkmark					
Budget Overview	Annual (May)						\checkmark				
Previous Years' Fees and Expenses	Annual (May)						\checkmark				
Annual Audit of the Pension Plan Fund Financial Statements	Annual (May)						~				

Task	Frequency	9 Nov 2018	14 Dec 2018	18 Jan 2019	22 Feb 2019	8 Mar 2019	16 May 2019	14 June 2019	20 Sept 2019	18 Oct 2019	15 Nov 2019
Benefits Utilization Report	Annual (June)							\checkmark			
Annual review re: benefits added/removed from insured plans in the market	Annual (June)							\checkmark			
Indexing of Plan Maxima – Health, Dental, Retiree Life Insurance	Annual (Nov)	\checkmark									\checkmark
Employee and Family Assistance Program – report on utilization	Annual (Nov)	\checkmark									~
Cost-of-living adjustment to payroll pension plan limit	Annual (Dec)		\checkmark								
Total Fund Overview	Quarterly		\checkmark		\checkmark		\checkmark			\checkmark	
Investment Manager Review	Semi-annually										
Approval of the Statement of Investment Policies and Procedures (SIPP)	Annual										\checkmark
Annual Report to the Community	Annual			\checkmark	\checkmark						
Actuarial Filing											
Minimum every three years - most recent filings in 2017 and 2018											

Extended Health and Dental Benefits

Indexation of Maxima effective January 1, 2020

The University's plan design for healthcare benefits is subject to an annual cost of living adjustment for the plan maxima.

Indexing Model

The adjustment to the maxima has been calculated as in previous years and the impact is identified in the table below. Aon has advised that to increase the benefit maxima for January 1, 2020 based on 1 year inflation results in a \$31,000 annual on-going cost.

Provision	Current Maxima	Proposed Maxima (1 Year Inflation)	Change
Paramedical/Hearing Aids	\$704	\$717	1.85% ¹
Private Duty Nursing	\$21,344	\$21,739	1.85% ¹
Out of pocket max: Single	\$127	\$129	$1.34\%^{2}$
Out of pocket max: Family	\$256	\$259	$1.34\%^{2}$
Dental Basic	\$2,234	\$2,328	4.19% ³
Dental Major	\$3,367	\$3,508	4.19% ³
Dental Orthodontia	\$3,367	\$3,508	4.19% ³
Total Additional Annu	al Cost of Indexing:		\$31,000 ⁴

¹ Percentage increases are calculated from Stats Can Other Health Care index rates for each year that the inflation is applied.

² Percentage increases are calculated from Stats Can Medicinal and Pharmaceutical index and Other Health Care index rates for each year that the inflation is applied based on 60%/40% weighting.

³ Dental Maxima increases based on the 2019 increase to the dental fee guide as an estimate for 2020 fee guide increase (current year fee guide applies)

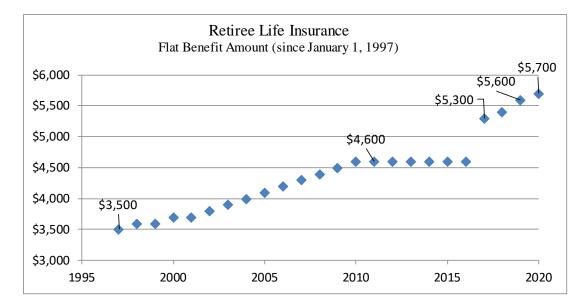
⁴ These costs are above the annual total claims costs projected based on UW's claims experience from January 2019 to September 2019 (annualized), inclusive of administration fees and applicable taxes. These are not a one-time cost, but will be additional costs to claims experience on an on-going basis. This amount does not include any increase to the non-pension postretirement benefits liability or annual expense related to the plan amendment created by improving the ongoing retiree benefits design.

Action Required: Decision

Retiree Life Insurance

Indexation of Coverage effective January 1, 2020

Employees with 10 years of continuous regular service are eligible for a University paid life insurance benefit at retirement as long as they elect an immediate pension at their date of retirement. Eligible employees who retired prior to January 1, 1997 received coverage based on a percentage of earnings; however, eligible employees who retired on or after January 1, 1997 have been eligible for a flat benefit amount with changes occurring January 1st if applicable, as follows:



Note: Eligible retirees receive the life insurance coverage in effect as at their date of retirement; the volume is not subject to change during their retirement.

The University's retiree life plan design is subject to an annual cost of living adjustment to the flat benefit amount for future eligible retirees.

Indexing Model

The proposed adjustment to the flat benefit amount for eligible individuals who retire on or after January 1, 2020 has been calculated based on indexing over the last year.

	Retiree Life Insurance Coverage				
Effective Date	For eligible individuals who retire on or after January 1, 2020				
	Current	Proposed			
January 1, 2020	\$5,600	\$5,700 ¹			

¹Based on the Consumer Price Index (Stats Can All Items) from September to August (annualized), rounded to the nearest \$100 of benefit.

Action Required: Decision

Employee and Family Assistance Program – 3rd Annual Utilization Report for the September 2018 to August 2019 period

The Employee and Family Assistance Program (EFAP) was implemented with Homewood Health effective September 1, 2016 with a 3-year renewable contract at an employer paid cost of \$2.50 per employee per month. Homewood Health agreed to maintain the current rate for the September 1, 2019 to August 31, 2021 period and a competitive bidding process will occur to confirm the provider effective September 1, 2021.

Employees within the University of Waterloo as well as the Affiliated and Federated Institutes of Waterloo (AFIW) who are enrolled in the full benefits program, are eligible for the EFAP along with their eligible family members, if applicable. Effective October 1, 2018, St. Jerome's University College no longer participates in the program due to an equivalent arrangement with Homewood Health available through their payroll provider.

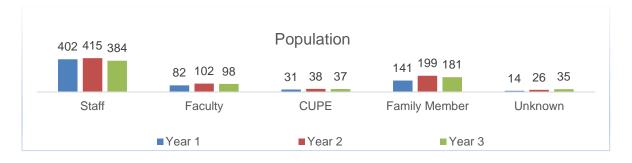
The EFAP can be accessed on a 24/7/365 basis through a toll-free number or by calling collect if the individual is located internationally (note: some services are not available outside of Canada and/or North America). There are five key components of the EFAP; the first three are accessed by individuals confidentially and directly, whereas the latter two are coordinated centrally, as follows:

- Counselling Services unlimited number of sessions within a short-term outcome based model; services are available in person, by telephone, or online
- Life Smart Coaching a series of work-life balance services available by telephone
- Online Services elder/childcare locator, e-learning courses and health risk assessments
- Crisis Management Services (CMS) onsite counselling assistance for individuals and/or groups in the event of employment termination/suspension or traumatic event
- Wellness Sessions 10 sessions per policy year for the first 3 years and 6 sessions per policy for the next 2 years are included in the contract (any sessions scheduled outside of regular work hours or with an audience in excess of 35 individuals is subject to a surcharge); additional sessions are available at a charge of \$495 per session

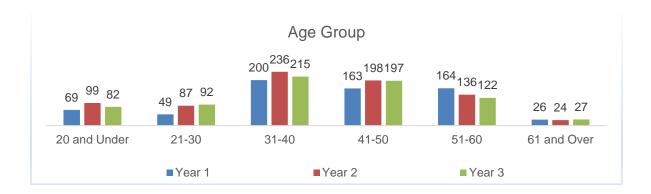
Overall Utilization

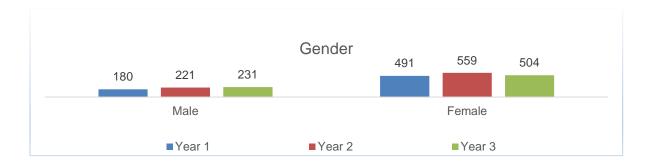
In total, there were 744.17 cases (640 counselling, 95 life smart coaching, and 9.17 online services) opened in Year 3 which represents an overall utilization rate of 15.94%. This is a slight decrease from the 16.99% utilization rate in Year 2 but an increase from the 15.28% utilization rate in Year 1. Year 3 utilization is higher than Homewood Health's utilization benchmark of 10.84% on an overall basis and slightly lower than the 16.11% benchmark for the higher education sector.

The distribution of the cases, excluding online services (based on how individuals selfidentify - Homewood Health does not maintain eligibility data), is illustrated below:

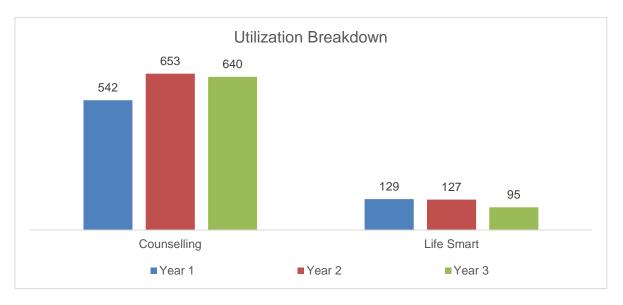






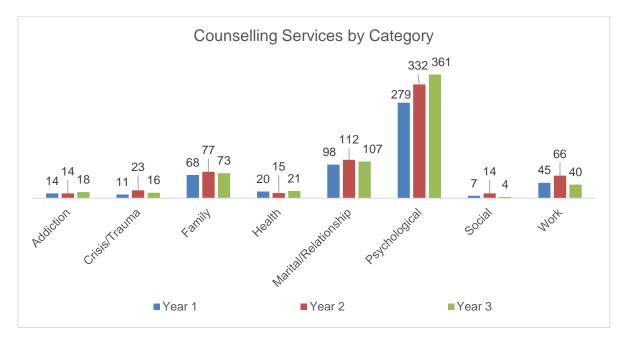


P&B Committee November 15, 2019 Excluding online services, 87.1% of the utilization is associated with counselling services, with 640 cases in Year 3. This is slightly less than the number of cases in Year 2 (653 or 83.7%) but more than the number of cases in Year 1 (542 or 80.9%). Homewood Health's benchmark for the higher education sector indicates 75.6% of utilization is typically aligned with counselling services.

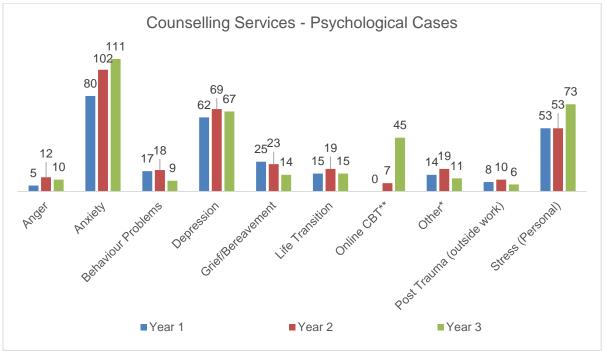


Counselling Services

Of the 640 cases, 56.4% correspond with psychological issues (versus 51.4% in Year 1 and 50.8% in Year 2); this proportion is higher than Homewood Health's benchmark of 50% for the higher education sector. Other significantly present categories continue to include marital/relationship, family, and work issues.



Within the Psychological category, the leading presenting issues are anxiety (29% in Year 1 and 31% in Year 2/3), depression (22% in Year 1, 21% in Year 2, and 19% in Year 3), and personal stress (19% in Year 1, 16% in Year 2, and 20% in Year 3).

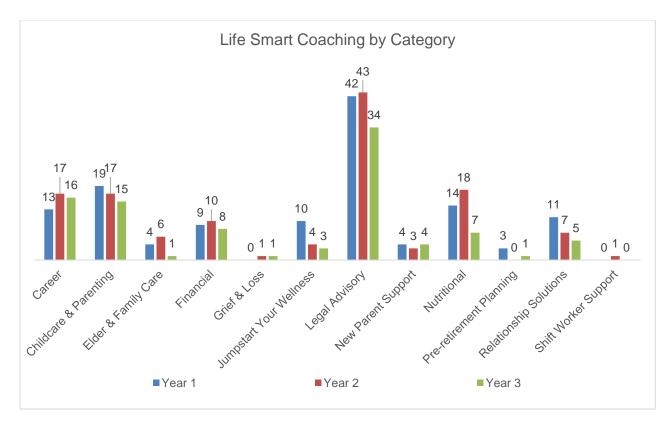


*Includes sexuality, learning disabilities, eating disorders, self-esteem, and other **Online CBT (Cognitive Behavioural Therapy) was launched in June 2018

Life Smart Coaching

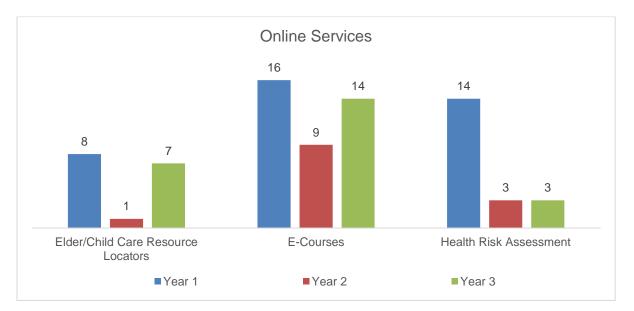
12.9% of the utilization (excluding online services) is associated with life smart coaching, with 95 cases in Year 3. This is approximately 25% less than the number of cases in Year 2 (127) and Year 1 (129).

35.8% of cases correspond with Legal Advisory Services (23.2% of which correspond with family/divorce/custody issues) which is higher than the sector benchmark of 28.2% and the overall benchmark of 33.9%. Other significantly present categories include childcare/parenting services and career coaching.



Online Services

A total of 24 online service counts (representing 9.17 cases) occurred in Year 3; in comparison, there were 13 online service counts in Year 2 and 38 in Year 1. Most of the access in Year 3 related to e-courses.

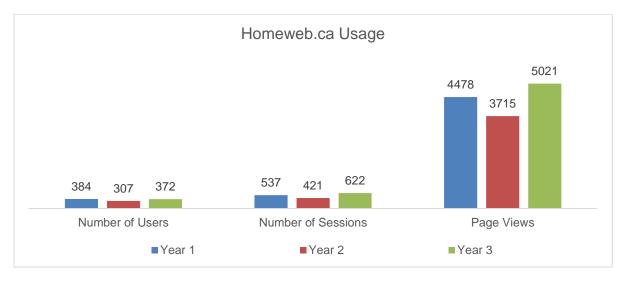


Note: 1 service count is tracked as 0.33 of a case for e-courses and the health risk assessment whereas 1 service count is tracked as 0.50 for the child/elder care resource locator

Nine e-courses are available to eligible individuals. The most popular course in Year 3 was Taking Control of Stress.



The Homeweb.ca website was used by 327 users with 622 sessions in Year 3 and the average time on the site was 8 minutes and 24 seconds (an increase from the 6.5 minute average for Year 1 and 2).



Crisis Management Services (CMS)

Nineteen CMS cases were utilized in Year 3 (15 employment terminations/suspensions, 1 related to death, 1 concern for an employee, and 1 disruptive event); in comparison, there were eleven CMS cases utilized in Year 2 (8 employment terminations/suspensions and 3 related to death). These services are not included in the cost of the program and are charged by Homewood Health at an hourly rate.

Wellness Sessions

The allocation of 10 wellness sessions for Year 3 was as follows:

Торіс	Date	Audience
Respectful Relationships in the	May 7, 2019	Plant Operations (early morning
Workplace		schedule required the use of 2 sessions
		to deliver 1)
	May 9, 2019	Plant Operations (early morning
		schedule required the use of 2 sessions
		to deliver 1)
Healthy Sleep Habits	October 16, 2019	All Campus (3 rd annual KW&W day)
Respectful Relationships in the		- Audience for each in excess of 35
Workplace		required use of 6 sessions to deliver 3
Managing Your Time and Energy		

Note: although some sessions occurred outside the September 1, 2018 to August 31, 2019 period (i.e. Year 3), all were scheduled prior to August 31, 2019

Effective September 1, 2019, the number of wellness sessions available through the contract at no additional charge was reduced from 10 to 6 per policy year. Although the Healthy Workplace Committee manages the allocation of wellness sessions, the EAP Committee monitors the usage of wellness sessions on a quarterly basis.

Action Required: None

Statement of Investment Policies and Procedures

University of Waterloo Pension Plan (2011)

Registration number: 0310565

Effective November 1, 2018

APPROVED on this 30th day of October 2018

Replaces previous version which was last revised and effective on January 1, 2017.

Contents

Section 1—	- Overview	1
1.01	Purpose of Statement	1
1.02	Standard of Care	1
1.03	Objective of the Plan	1
1.04	Administration	1
1.05	Background of the Plan	1
Section 2 -	 Asset Mix and Diversification Policy 	3
2.01	Risk/Return Considerations	3
2.02	Investment and Risk Philosophy	3
2.03	Portfolio Return Expectations	4
2.04	Expected Volatility	4
2.05	Asset Mix	4
2.06	Management Structure	5
Section 3 -	 Permitted and Prohibited Investments 	6
3.01	General Guidelines	6
3.02	Permitted Investments	6
3.03	Minimum Quality Requirements	7
3.04	Maximum Quantity Restrictions	7
3.05	Environmental, Social and Governance Factors	8
3.06	Prior Notice Required	8
3.07	Securities and Cash Lending	9
3.08	Short Selling	9
3.09	Liquidity	9
3.10	Borrowing	9
Section 4 –	- Monitoring and Control	10
4.01	Delegation of Responsibility	10
4.02	Performance Measurement	12
4.03	Compliance Reporting by Investment Manager	13
4.04	Audit	13
Section 5 –	- Administration	14
5.01	Conflicts of Interest	14
5.02	Monitoring of Asset Mix	14
5.03	Selecting Fund Managers	14
5.04	Monitoring Manager Performance	15
5.05	Dismissal of an Investment Manager	15
5.06	Voting Rights	15
5.07	Valuation of Investments Not Regularly Traded	15

Section 6 -	General Provisions	16
6.01	Related Party Transactions	16
6.02	Policy Review	17
Appendix A	Investment Manager Compliance Letter	18

1.01 Purpose of Statement

This Statement of Investment Policies and Procedures (the "Policy") provides the framework for the investment of the assets for the University of Waterloo Pension Plan (2011), registration number 0310565 (the "Plan"). The University of Waterloo ("UW") is the sponsor and legal administrator of the Plan.

This Policy is based on the "prudent person approach" to ensure the prudent investment and administration of the assets of the Plan. The Plan will be managed in accordance with the parameters set out in the *Income Tax Act* (Canada) ("ITA") and the *Pension Benefits Act* (Ontario) ("PBA"), including their respective Regulations and all subsequent amendments, and any other applicable federal or provincial legislation and regulations governing the investment of pension funds, including Schedule III to the *Pension Benefits Standards Regulation, 1985* (Canada) ("PBSA").

This Policy also seeks to establish ongoing communication between UW and others engaged in the administration of the Plan. It is intended to summarize and explain the investment beliefs but does not supersede the formal plan documents or the applicable provisions of the Acts governing the Plan. In case of any dispute between this document and the formal Plan documents, the formal Plan documents shall prevail.

1.02 Standard of Care

This Policy is based on the "prudent person approach" to ensure the prudent investment and administration of the assets of the Plan within the parameters set out in the PBA and the Regulations thereunder. UW shall exercise the care, diligence and skill in the administration and investment of the Plan that a person of ordinary prudence would exercise in dealing with the property of another person. Such persons must further use all knowledge and skill that they possess or ought to possess.

1.03 Objective of the Plan

The objective of the Plan is to provide members of the Plan with the retirement benefits prescribed under the terms thereof.

1.04 Administration

UW is the sponsor and legal administrator of the Plan and is therefore responsible for all matters relating to the administration, interpretation and application of the Plan.

1.05 Background of the Plan

The Plan is a contributory defined benefit plan, based upon an individual's final average salary and years of participation in the Plan prior to retirement.

Most pensions paid under the Plan are escalated annually by the cost-of-living factor described in the Plan. For benefits accrued prior to January 1, 2014, liabilities will grow in direct relation to the

increase in the Consumer Price Index ("CPI"). For benefits accrued on or after January 1, 2014, liabilities will increase by 75% of the increase in CPI. A protocol has been developed to set out the parameters under which the Pension and Benefits Committee ("P&B Committee"), which has been set up by the Board to assist with the management of the pension plan, would increase the level of indexation beyond 75%. Notwithstanding the foregoing, if the increase in CPI in a given year exceeds 5%, then the indexation paid in that year will be determined by the P&B Committee, in its discretion, taking into account the Plan's ability to afford such an increase.

Thus, to provide pensions at a reasonable cost, it is necessary to strive for sufficient/appropriate real investment returns on the Plan assets over medium- and long-term periods. The investment philosophy, policies and procedures adopted in this document will assist in the achievement of this goal in a prudent and effective manner.

This Policy has been developed taking into account factors such as:

- a) The nature of the Plan's liabilities;
- b) The allocation of such liabilities between active and retired members;
- c) The funded and solvency positions of the Plan;
- d) The net cash flow position of the Plan;
- e) The investment horizon of the Plan;
- f) Historical and expected capital market returns; and
- g) The benefits of investment diversification.

2.01 Risk/Return Considerations

Investment objectives for the Plan have been established (a minimum return of CPI +3.6% net of expenses) with regard to the:

- a) Structure and design of, and benefits provided by, the Plan;
- b) Rate of return which would provide appropriate appreciation on the assets in the Plan;
- c) Financial position of the Plan, as provided by actuarial valuations and projections;
- d) The risk tolerance which is acceptable to UW in the Plan;
- e) Demographics of the Plan membership; and
- f) Special factors, if any, which UW considers significant.

2.02 Investment and Risk Philosophy

UW recognizes that, based on historical data, the asset classes most likely to produce the greatest return over time are also likely to exhibit the most volatility. Conversely, the asset classes likely to be the least volatile are likely to produce the lowest returns over time. Therefore, the investment philosophies and strategies must take into account both return and risk objectives.

a) Investment Philosophy

The investment management structure employs a mix of active and passive management styles. Active management has been adopted for portions of the assets as it provides the opportunity to outperform common market indices over the long-term, while controlling active risk levels. Passive management has been adopted for portions of the assets as it minimizes the risk of underperformance relative to a benchmark index and is generally less expensive than active management. For information on how environmental, social and governance factors are considered in selecting investment managers, refer to Section 3.05.

Active equity fund managers are to apply the long-term value approach by investing in companies at prices below their underlying long-term values to protect capital from loss and earn income over time. The fund managers will attempt to identify financially-sound companies with good potential profitability which are selling at a discount to their intrinsic value. Appropriate measures of low prices may consist of: low price-earnings, high dividend yields, significant discounts to book value and low price to free cash flow. Downside protection is obtained by seeking a margin of safety in terms of sound financial position and a low price in relation to intrinsic value. Appropriate measures of financial integrity include debt/equity ratios, financial leverage, asset turnover, profit margin, return on equity, and interest coverage. It is anticipated that purchases will be made when economic and issue-specific conditions are less than ideal and sentiment is uncertain or negative. Conversely, it is expected that gains will be realized when issue-specific factors are positive and sentiment is buoyant. Assets of the Fund are administered and managed on a combined

basis through specialist portfolios. Fund managers will be expected to generate a rate of return in the first quartile or better over a market cycle.

b) Risk Philosophy

In order to achieve its long-term investment goals, the Plan must invest in assets that have uncertain returns. However, UW attempts to reduce the overall level of risk by diversifying the asset classes and further diversifying within each individual asset class.

2.03 Portfolio Return Expectations

The annualized rate of return of the Plan must exceed the annualized rate of increase in the CPI by at least 360 basis points net of the associated investment management fees over rolling ten-year period.

2.04 Expected Volatility

The volatility of the assets of the Plan is directly related to its asset mix. Since the fund managers do not have authority to make any type of leveraged investment on behalf of the Plan, the volatility of the assets of the Plan should be similar to the volatility of the Benchmark Portfolio set out in section 4.02 (Performance Measurement).

2.05 Asset Mix

The following benchmark portfolio is used by the Consulting Actuary to calculate the return assumptions for the Plan. At all times, the market value of the individual asset classes will be within the minimum and maximum aggregate investment limits as listed.

Assets	Minimum %	Maximum %	Benchmark Portfolio %	Benchmark
Cash	0.0	15.0	2.0	FTSE TMX Canada 91-Day T-Bill
Fixed Income	30.0	70.0	33.0	FTSE TMX Universe Bond
Total Fixed Income	30.0	70.0	35.0	
Canadian Equity			15.0	S&P/TSX Composite
Global Equity			40.0	MSCI World (CAD)
Total Equity	30.0	70.0	55.0	
Infrastructure			5.0	UBS 50/50 (CAD)
Real Estate			5.0	FTSE EPRA/NAREIT Developed (CAD)
Total Alternatives	0.0	20.0	10.0	

For the purpose of the total asset mix described above, the fund managers' asset class pooled funds are deemed to be 100% invested, even though these funds may contain a portion held in cash and cash equivalent instruments.

The asset mix may deviate from the above mix, within the limits prescribed in the Policy. The monitoring of the asset mix and rebalancing guidelines are set out in Section 5.02 (Monitoring of Asset Mix). In order to ensure that the assets operate within the minimum and maximum ranges, UW shall review the asset mix on a quarterly basis. Rebalancing will be conducted as required.

The Plan's target asset allocation for each investment category listed in subsection 76(12) of the regulations to the *Pension Benefits Act* (Ontario) is as follows:

	Long Term Target	Accessed Through Pooled
Asset Class under Sub-section 76(12) of the Pension Benefits Act (Ontario)	Allocation	Funds (Y/N)
1. Insured Contracts	0.0%	-
2. Mutual or pooled funds or segregated funds	0.0%	-
3. Demand deposits and cash on hand	2.0%	-
4. Short-term notes and treasury bills	0.0%	-
5. Term Deposits and guaranteed investment certificates	0.0%	-
6. Mortgage Loans	0.0%	-
7. Real Estate	5.0%	N
8. Real Estate Debentures	0.0%	-
9. Resource properties	0.0%	-
10. Venture Capital	0.0%	-
11. Corporations referred to in subsection 11(2) of Schedule III to the federal investment regs	0.0%	-
12. Employer issued securities	0.0%	-
13. Canadian stocks other than investments referred to in 1 to 12 above	15.0%	Ν
14. Non-Canadian stocks other than investments referred to in 1 to 12 above	40.0%	
a) Oldfield		Y
b) Walter Scott		Y
c) TD Emerald U.S. Pooled		Y
d) TD Emerald International Equity Index		Y
15. Canadian bonds and debentures other than investments referred to in 1 to 12 above	33.0%	
a) TDAM Universe Index		Y
b) TDAM Active Short Term Corporate		N
16. Non-Canadian bonds and debentures other than investments referred to in 1 to 12 above	0.0%	-
17. Investments other than investments referred to in 1 to 16 above	5.0% ¹	Ν

2.06 Management Structure

A diversified management structure has been adopted for the Plan consisting of several managers. This structure has been adopted as it is believed that the different investment mandates will result in increased diversification, while reducing the 'manager risk' effect for the Plan.

3.01 General Guidelines

The investments of the Plan must comply with the requirements and restrictions imposed by the applicable legislation, including but not limited to the requirements of the ITA, the PBA and their respective Regulations, any other applicable federal or provincial legislation and regulations governing the investment of pension funds, including Schedule III to the PBSA and this Policy.

3.02 Permitted Investments

In general, and subject to the restrictions in this section (Section 3), the investment manager may invest in any of the following asset classes and in any of the investment instruments listed.

a) Cash and Short Term Investments

Cash on hand, demand deposits, treasury bills, short-term notes and bankers' acceptances, commercial paper, term deposits and guaranteed investment certificates having a term of less than or equal to one year.

b) Fixed Income

Bonds, debentures, or other debt instruments of corporations, Canadian Governments, Government agencies, or guaranteed by Governments, supranationals, federal real return bonds, mortgage-backed securities, mortgages, asset-backed securities, non-convertible preferred shares, term deposits, guaranteed investment certificates, insurance contracts, private placements and bonds where capital, interest or both are linked to increases in the cost-of-living (i.e. real return bonds).

c) Equities

Common shares, preferred shares, American Depository Receipts, Foreign Depository Receipts, rights, warrants, installment receipts, index units, income trust units (including real estate investment trusts) and securities convertible into common shares.

d) Derivatives

The pooled funds in which the Plan invests may invest directly in derivatives to create synthetic exposures, or for hedging purposes, if their objectives and strategies permit, and if the exposure to derivatives is subject to limits based on the intended use and strategies for derivatives and the risks associated with them. Derivatives may also be used to hedge currency. Derivatives may not be used for speculative trading or to create a portfolio with leverage. Investment funds that invest in derivatives must comply with all applicable statutory provisions and regulations, including the Prudent Person Rule and must be invested and managed in accordance with regulatory derivatives best practices.

e) Pooled Funds

Investments in open-ended or closed-ended pooled funds provided that the assets of such funds are permissible investments under this Policy. While the guidelines in this Policy are intended to guide the management of the assets, it is recognized that, where pooled funds are held, there may be instances where there is a conflict between this policy and the investment policy of a pooled fund. In that case, the pooled fund policy shall dominate, subject to the compliance reporting procedures outlined in Section 4.03. However, the investment manager is expected to advise UW in the event of any material discrepancies

between the above guidelines and the pooled fund's own investment guidelines. In addition, the investment manager will ensure that UW has received a copy of the most recent version of the pooled fund policy and of any amendments made to the pooled fund policy.

3.03 Minimum Quality Requirements

a) Quality Standards

Within the investment restrictions for individual portfolios, all portfolios should hold a prudently diversified exposure to the intended market.

- i. The minimum quality standard for individual bonds and debentures is 'BBB' or equivalent as rated by at least two Recognized Bond Rating Agencies, at the time of purchase. Where an investment in the portfolio is downgraded below a 'BBB' rating, the following steps will be taken:
 - The investment manager will notify UW of the downgrade by telephone at the earliest possible opportunity;
 - Within ten business days of the downgrade, the investment manager will advise UW in writing of the course of action taken or to be taken by the investment manager, and its rationale; and
 - Immediately upon downgrade, the investment manager will place the asset on a Watch List subject to monthly review by the investment manager with UW until such time as the security matures, is sold or until it is upgraded to a level consistent with the purchase quality standards as expressed in the guidelines mentioned above.
- ii. In cases in which the Recognized Bond Agencies to do not agree on the credit rating, the bond will be classified according to the methodology used by FTSE TMX, which states:
 - If two agencies rate a security, use the lower of the two ratings;
 - If three agencies rate a security, use the most common; or
 - If all three disagree, use the middle rating.

b) Rating Agencies

For the purposes of this Policy, the following rating agencies shall be considered to be 'Recognized Bond Rating Agencies:'

- i. Dominion Bond Rating Agency;
- ii. Standard and Poor's; and
- iii. Moody's Investors Services.

3.04 Maximum Quantity Restrictions

a) Total Plan Level

UW shall not, directly or indirectly, lend or invest moneys of the Plan to or in any one person, any associated persons or any affiliated corporations if:

- 10% or more of the total market value of the Plan's assets has already been lent or invested, in total, to or in the person, the associated persons or the affiliated corporations; or
- 10% or more of the total market value of the Plan's assets would be lent or invested, in total to or in the person, the associated persons or the affiliated corporations as a result of the loan or investment.

UW shall not, directly or indirectly, invest the moneys of the Plan in the securities of a corporation to which are attached more than 30% of the votes that may be cast to elect the directors of the corporation.

This section applies to those investments and loans subject to quantitative limit under Section 9(1) of Schedule III to *Pension Benefits Standards Regulations, 1985* (Canada).

b) Fixed Income

- i. Maximum 15% of the market value of the Canadian fixed income securities shall be invested in BBB bonds or debentures
- ii. Maximum 10% of the actively managed fixed income portfolio may be invested in debt denominated in US currency, including debt issued by the US Government, its agencies and instrumentalities. No other foreign currency debt will be purchased.

c) Equities

No one equity holding shall represent more than 10% of the total market value of the manager's portfolio.

3.05 Environmental, Social and Governance Factors

Consistent with its obligation to act in the best interest of the Plan, UW chooses investments and investment managers that it believes will deliver superior financial performance over the long term. In this regard, UW considers environmental, social and governance ("ESG") factors in selecting investment managers with whom it invests the assets of the Plan as well as assets that are directly held. UW recognizes; however, that managers may consider ESG factors in different ways in assessing whether a given investment will have the best economic outcome. In order to protect and enhance the value of the Plan's investments, when selecting investment managers or direct investments, UW considers criteria that include: the manager's business and staff; historical performance; and the consideration of ESG factors in the investment process. As well, the proactive disclosure and analysis of ESG factors by the investment manager will be considered in the monitoring of, and ongoing decisions pertaining to, the retention of investment managers. For the purposes of this section, ESG factors refer to the environmental, social and governance factors relevant to an investment that may have a financial impact on that investment. It is accepted that the understanding of and the impact from ESG factors may change over time.

3.06 Prior Notice Required

The fund managers shall not make investments in asset categories other than those explicitly permitted in the Policy, unless UW first consents in writing. Each fund manager's portfolio shall also comply with all requirements and constraints in any supplementary document provided by UW.

3.07 Securities and Cash Lending

The fund managers and custodian may participate in securities lending programs for the purpose of generating revenue, subject to the provisions of the PBA, the ITA and their applicable Regulations.

Such loans must be secured by cash and/or readily marketable government bonds, treasury bills and/or letters of credit, discount notes, banker's acceptances of Canadian chartered banks or high quality, liquid equities. The amount of collateral taken for securities lending should reflect OSFI standards and best practices in local markets. This market value relationship must be calculated at least daily.

Fund managers and custodians participating in securities lending will make available the terms and conditions of any securities lending program(s) with UW.

3.08 Short Selling

Short selling and/or pair trading are not permitted.

3.09 Liquidity

Investments should be liquid enough so that they can be sold in a reasonable period of time. The investments should be valued at least monthly and selected to ensure sufficient liquidity to meet transaction needs.

3.10 Borrowing

The Plan shall not borrow money, except to cover short-term contingency and the borrowing is for a period that does not exceed ninety days, subject to the PBA, the ITA and the written permission of UW.

4.01 Delegation of Responsibility

The Board of Governors of the University of Waterloo (the "Board") has established a Pension Investment Committee ("PIC") to assist in the determination of UW's overall investment philosophy, policies, objectives and strategies for the Plan, and a P&B Committee to assist in the management of the pension fund. UW assists in carrying out the responsibilities listed below.

- a) PIC will:
 - i. review this document annually and recommend any changes to P&B;
 - ii. review pension fund performance on at least a semi-annual basis;
 - iii. review Fund Manager performance on at least a semi-annual basis;
 - iv. make recommendations on the selection of Fund Managers to P&B;
 - approve asset mix changes and investment decisions where the cumulative annual transaction(s) represent less than 15% of the Plan's total assets at the beginning of the calendar year;
 - vi. convene a meeting with the P&B Committee in the event of a significant market event or shift to discuss issues and market opportunities; and
 - vii. provide quarterly reports to P&B Committee and the Finance & Investment Committee
- b) Working with the PIC with respect to investment philosophy, policies, objectives and strategies, the P&B Committee will make recommendations to the Board in the following areas:
 - i. the content of this document after its annual review and consultation with PIC;
 - ii. the selection of a Consulting Actuary;
 - iii. the selection of Fund Managers based on the recommendation from PIC;
 - iv. asset mix changes and investment decisions where the cumulative annual transaction(s) exceed 15% of the Plan's total assets at the beginning of the calendar year based on the recommendation from PIC; and the selection of a Custodian/Trustee to hold the pension fund assets.
- c) In addition, the P&B Committee will:
 - i. consider reports from PIC on pension fund performance on at least a semi-annual basis;
 - ii. consider reports from PIC on Fund Manager performance on at least a semi-annual basis;
 - iii. provide cash flow information to the PIC, if necessary;
 - iv. be responsible for the delegation of any responsibilities not specifically mentioned; and
 - v. report to Plan members on at least an annual basis;
- d) The Fund Managers will:

- i. forward to PIC quarterly reviews of investment performance, expectations of future returns on various asset classes and proposed investment strategies for the following 12 to 24 months;
- ii. manage asset mix and select securities within each asset class, subject to applicable legislation and the philosophy and other constraints set out in this document;
- iii. forward to PIC quarterly reports describing their ESG analysis and approach;
- iv. advise PIC immediately of any changes in its senior investment personnel and/or significant changes in the size or mix of assets managed;
- v. comply with all relevant laws concerning the investment of the pension fund; and
- vi. complete and deliver a compliance report (see page 10) to PIC and the Fund's Consulting Actuary each quarter. The compliance report will indicate whether or not the Fund Manager was in compliance with this Statement during the quarter. In the event that the Fund Manager is not in compliance with this Statement, the Fund Manager is required to advise PIC immediately, detail the nature of the noncompliance and recommend the appropriate course of action to remedy the situation.
- vii. comply, at all times and in all respects, with the Code of Ethics and Standards of Professional Conduct as promulgated by the CFA Institute.
- viii. manage the assets with the care, diligence and skill that an investment manager of ordinary prudence would use in dealing with pension plan assets.
- ix. use all relevant knowledge and skill that they possess or ought to possess as a prudent investment manager.
- e) The Consulting Actuary (or his/her delegate approved by P&B Committee and PIC) will:
 - i. assist in the preparation and subsequent annual reviews of this document;
 - ii. participate in all reviews of the Fund Managers and the Plan;
 - iii. report, at least semi-annually, on the performance of the Fund Managers and the Plan;
 - iv. comment on any changes in the Plan's benefits, membership or contribution flow which may affect how the Plan's assets are invested;
 - v. comment on the impact of potential investment opportunities/strategies/legislative changes which may affect how the Plan's assets are invested;
 - vi. assist in the implementation of this document;
 - vii. monitor the performance of the Plan and the Fund Managers on a regular basis, and contact PIC immediately if there are adverse changes of any kind, which warrant further review and/or investigation;
 - viii. support PIC and the P&B Committee on matters related to investment management and administration of the Plan; and
 - ix. meet with UW and the PIC or P&B Committee as required.
- f) The Custodian/Trustee will:

- i. fulfill the regular duties required by law of a Custodian/Trustee and perform the specific duties required of the Custodian/Trustee pursuant to agreements entered into from time to time with UW; and
- ii. provide UW with monthly portfolio printouts of all assets of the Plan and transactions during the period.

4.02 Performance Measurement

For purposes of evaluating the performance of the Plan and the fund managers, all rates of returns are measured over rolling four-year periods. Return objectives are net of fees and include realized and unrealized capital gains or losses plus income from all sources.

(a) Total Fund

Investment weightings and results for the Plan are to be tested regularly against a long-term Benchmark Portfolio comprising:

Benchmark	%
FTSE TMX Canada 91-Day T-Bill	2.0
FTSE TMX Universe Bond	33.0
S&P/TSX Composite	15.0
MSCI World (CAD)	40.0
UBS 50/50 (CAD)	5.0
FTSE EPRA/NAREIT Developed (CAD)	5.0

(b) Investment Manager Mandates

Fund managers are subject to the following objectives on a gross of fees basis and over rolling four-year periods:

Investment Manager and Mandate	Objective
TDAM Universe Bond Index	Tracking error within +/- 6 basis points of index return
TDAM Short Term Corporate Bond	Index + 50 basis points
TDAM Emerald US Equity Index	Tracking error within +/- 8 basis points of index return
TDAM Emerald International Equity Index	Tracking error within +/- 20 basis points of index return
Sionna Canadian Equity	Index + 100 basis points
Oldfield Global Equity	Index + 200 basis points
Walter Scott Global Equity	Index + 200 basis points

(c) Qualitative Monitoring

In addition to performance criteria, the following qualitative factors will also be monitored and evaluated:

i. Stability of the investment firm (personnel, assets under administration, operational capabilities, etc.);

- ii. Investment objective and portfolio composition;
- iii. Changes in the investment philosophy used in the investment fund;
- iv. Consistency of style or approach;
- v. Adherence to investment policy statement; and
- vi. ESG analysis and reporting.

4.03 Compliance Reporting by Investment Manager

The investment manager is required to complete and deliver a compliance report to UW and the Plan's investment consultant each quarter. The compliance report will indicate whether or not the investment manager was in compliance with this Policy, including its ESG requirements, during the quarter.

In the event that an investment manager is not in compliance with this Policy, the investment manager is required to advise PIC immediately, detail the nature of the non-compliance and recommend an appropriate course of action to remedy the situation.

The Plan invests in pooled funds with separate investment policies. Should a conflict arise between those investment policies and this Policy, the investment manager's pooled fund policy shall dominate. However, the investment manager is required to advise PIC immediately, detail the nature of the conflict and recommend an appropriate course of action to remedy the situation.

4.04 Audit

At such time as an audit is required by the regulatory authorities, the Plan shall be audited annually as at the fiscal year of the Plan, by external auditors appointed by UW.

5.01 Conflicts of Interest

a) Responsibilities

This standard, which is consistent with UW Policy 69 (Conflict of Interest) applies to UW and the members of UW, as well as to all agents employed by them, in the execution of their responsibilities under the PBA (the "Affected Persons").

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

b) Disclosure

In the execution of their duties, the Affected Persons shall disclose any material 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 if documented and approved by UW

No Affected Person shall accept a gift or gratuity or other personal favour, other than one of nominal value, from a person with whom they deal with 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 UW immediately. UW, 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 appropriate committee.

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.

5.02 Monitoring of Asset Mix

In order to ensure that the assets of the Plan operate within the minimum and maximum ranges, as prescribed in the Policy in Section 2.05 (Asset Mix), PIC shall review the asset mix at least quarterly. Rebalancing will be conducted as required.

5.03 Selecting Fund Managers

In the event that a new investment manager must be selected or additional investment manager(s) added, PIC will undertake an investment manager search. The criteria used for selecting an Investment Manager will be consistent with the investment and risk philosophy set out in Sections 2.02 (Investment and Risk Philosophy) and 3.05 (Environmental, Social and Governance Factors).

5.04 Monitoring Manager Performance

At least quarterly, the PIC and UW will monitor and review:

- a) Each investment manager's staff turnover, consistency of style and record of service;
- b) Each investment manager's current economic outlook and investment strategies (including ESG approach);
- c) Each investment manager's compliance with this Policy; and
- d) Investment performance of the assets of the Plan in relation to the rate of return expectations outlined in this Policy.

5.05 Dismissal of an Investment Manager

Reasons for considering the termination of the services of an investment manager include, but are not limited to, the following factors:

- a) Performance results which are below the stated performance benchmarks;
- b) Changes in the overall structure of the Plan's assets such that the investment manager's services are no longer required;
- c) Change in personnel, firm structure or investment philosophy which might adversely affect the potential return and/or risk level of the portfolio; and/or
- d) Failure to adhere to this Policy.

The failure to achieve the goals stated in Section 4.02 (Performance Measurement) over a period of four consecutive years will require a reassessment of such goals and/or the appointment of an alternative investment manager.

5.06 Voting Rights

The voting rights acquired through the investments held by the Plan are delegated to the fund managers of the securities. Fund managers are expected to exercise all voting rights related to investments held by the Plan in the interests of the Plan's members.

5.07 Valuation of Investments Not Regularly Traded

The following principles will apply for the valuation of investments that are not traded regularly:

a) Equities

Average of bid-and-ask prices from two major investment dealers, at least once every month.

b) Fixed Income

Same as for equities.

6.01 Related Party Transactions

UW, on behalf of the Plan, may not enter into a transaction with a related party unless:

- a) The transaction is made for the operation or administration of the Plan under terms and conditions that are not less favourable to the Plan than market terms and conditions and such transaction does not involve the making of loans to, or investments in, the related party; or
- b) The combined value of all transactions with the same related party is nominal or the transaction(s) is immaterial to the Plan.

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. Transactions less than 0.5% of the combined market value of the assets of the Plan are considered nominal.

In addition, the prohibition to entering into transactions with a related party does not apply to investments:

- a) In an investment fund in which investors other than the Administrator and its affiliates may invest and that complies with the requirements set out in Sections 9 and 11 of Schedule III to the PBSA;
- In an unallocated general fund of a person authorized to carry on a life insurance business in Canada;
- c) In securities issued or fully guaranteed by the Government of Canada, the government of a province, or an agency of either one of them;
- d) In a fund composed of mortgage-backed securities that are fully guaranteed by the Government of Canada, the government of a province, or an agency of either one of them;
- e) In a fund that replicates the composition of a widely recognized index of a broad class of securities traded at a marketplace (as that term is defined in the PBSA); and
- f) That involve the purchase of a contract or agreement in respect of which the return is based on performance of a widely recognized index of a broad class of securities traded at a marketplace (as that term is defined in the PBSA).

A "related party" in respect of the Plan means:

- a) A person who is the administrator of the Plan including any officer, director or employee of the administrator. It also includes the 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;
- b) An officer, director or employee of one of the administrators of the Plan;
- c) A person responsible for holding or investing the assets of the Plan, or any officer, director or employee thereof;
- d) An association or union representing employees of UW, or an officer or employee thereof;

- e) A member of the Plan;
- f) The spouse or child of any person referred to in any of paragraphs (a) to (e);
- g) An affiliate of UW;
- h) A corporation that is directly or indirectly controlled by a person referred to in any of paragraphs (a) to (g); and/or
- i) An entity in which a person referred to in paragraph (a) or (b), or the spouse or a child of such a person, has a substantial investment.

6.02 Policy Review

The P&B Committee shall review and either confirm or amend this Policy at least annually. The P&B Committee will also provide any amended copy of this Policy to the investment manager and the Plan's actuary.

To be completed by fund managers each quarter.

UNIVERSITY OF WATERLOO

This is to certify that I/we have adhered to the guidelines contained in the November 2018 version of the "Statement of Investment Policies and Procedures" for the University of Waterloo Pension Plan (2011), approved by the Board of Governors of the University of Waterloo.

Signed _____

On behalf of _____

Date _____