Board of Governors PENSION & BENEFITS COMMITTEE Friday 22 October 2021 9:30 a.m. to 12:00 noon

This meeting will be held via Microsoft Teams

Non-members may arrange to join the open session of the electronic meeting by contacting Melissa Holst, <u>mjholst@uwaterloo.ca</u>

		CONFIDENTIAL SESSION	ACTION
9:30	1.	RFP Recommendation – Carrier to Insure/Adjudicate LTD, Health and Dental+	Recommendation to open session
		OPEN SESSION	
9:45	2.	RFP Recommendation – Carrier to Insure/Adjudicate LTD, Health and Dental** <i>NB:</i> following item #1, a recommendation will be brought to open session; an exhibit will be distributed in support of this recommendation at the meeting	Decision
	3.	Approval of the 10 September 2021 Minutes (Open Session)* and Business Arising	Decision
	4.	Execution Against the Work Plan* [Wickens]	Information
	5.	Update on Government Pension Plan Initiatives [Shapira]	Information
10:00	6.	Report from the Pension Investment Committee* [Sheryl Kennedy]	Information
	7.	Draft Revised SIPP, and Fund Implementation Procedures (FIP, new companion to SIPP), and Responsible Investment Policy* [Sheryl Kennedy] These documents are provided to both FI and PB for discussion and feedback; revision and a final version for recommendation will come to a future meeting	Discussion
10:20	8.	Follow-up Activity – Data Analysis and Policy 23/59 Legal Opinion [Hornberger]	Discussion
		CONFIDENTIAL SESSION	
	9.	Approval of the 10 September 2021 Minutes (Confidential Session)+ and Business Arising	Decision
	10	. Next Steps – Services Review [Huber]	Discussion
	Ne	ext Meeting: Friday 19 November 2021, 9:30 a.m. – 12:00 noon	
		*attached	

** to be distributed + distributed separately

18 October 2021

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

University of Waterloo Board of Governors PENSION & BENEFITS COMMITTEE Minutes of the 10 September 2021 Meeting [in agenda order]

Present: Peter Barr, Terrence Birmingham, Ted Bleaney, Sara Cressman, Mike Grivicic (secretary), Michael Herz, Dennis Huber, Ranjini Jha, Jim Rush, David Saunders, David Taylor, Ken Vetzal

Regrets: Tony Giovinazzo, Marilyn Thompson

Consultant: Linda Byron, Allan Shapira

Guest: Vivek Goel

Resources: Sarah Hadley, Lee Hornberger, Joan Kennedy, Sue McGrath

Organization of Meeting: Peter Barr took the chair, and Mike Grivicic acted as secretary. The secretary advised that a quorum was present. The meeting was held via videoconference.

1. APPROVAL OF THE 18 JUNE 2021 MINUTES (OPEN SESSION) AND BUSINESS ARISING

One member noted minor amendments, and by consensus the minutes were approved as amended. a. Update from June meeting – Discussion at PIC re: Endorsement of Responsible Investment Advisory Group Recommendations by the Board of Governors. The secretary observed that PIC agreed with the proposal to bring the recommendations for a legal opinion at the same time as the draft responsible investment policy. b. Progress on Benefits Plan Marketing. Byron indicated that the working group has received replies to the RFP and that meetings with finalists will occur in the near term.

c. Filing of January 1, 2021 Valuation. Byron noted that the pension plan valuation has been filed with the regulator.

2. EXECUTION AGAINST THE WORK PLAN

This item was received for information.

3. UPDATE ON GOVERNMENT PENSION PLAN INITIATIVES

Shapira observed that the University Pension Plan is now operational, with the faculty group from Trent expected to join in January 2022. The province has not be active in pension plan space since the last meeting.

4. PENSION RISK MANAGEMENT DASHBOARD, Q2 2021

Byron provided an overview of the distributed material. Member noted the shrinking going concern deficit since the last update, and suggested that a future iteration of the dashboard provide some indication of the impact of the changes in contribution rates. Given the current funded status of the plan, it may be advantageous to file a valuation in 2022.

5. INVESTMENTS UPDATE, Q2 2021

Huber observed that 15 year returns have been added (where available), and that recent rates of return exceed the actuarial assumptions.

6. APS AGREEMENT WITH LIFEWORKS

McGrath spoke to the exhibit, noting that the hourly support from the vendor varies based on needs/requests that arise from time to time. A motion was heard to approve the renewal of the agreement as presented. Huber and Bleaney. Carried.

7. COMMUTED VALUE – POTENTIAL ENHANCEMENT TO MYPENSIONINFO

McGrath provided an overview of the exhibit, and members discussed: carrying out commuted value calculations carries an imputed cost in the form of staff time/resources; plan members are not always aware of restrictions around accessing the commuted value of pensions; quote is considered to be competitive with market offerings. Members requested additional background information: number of requests per year; time/resources needed for

requests; potential caveat wording to include when providing calculations to members; functionality to choose current/past/future dates for calculations; utility of these calculations for instances where members have US tax obligations. This will come to an upcoming meeting.

OTHER BUSINESS

Members ascertained that work on interpretation re: Policies 23 and 59 is ongoing, and an update is expected at the next meeting.

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

NEXT MEETING

The next regular meeting is scheduled for Friday 22 October 2021, 9:30 a.m. – 12:00 noon.

18 October 2021

Mike Grivicic 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)	16 Oct 2020	20 Nov 2020	15 Dec 2020	15 Jan 2021	11 Feb 2021	12 Mar 2021	14 May 2021	18 June 2021	10 Sept 2021	22 Oct 2021
Approval of Actuarial Valuation Assumptions	Annual (Jan)				\checkmark						
Investment Status of PPP	Annual (Feb)					\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)					~					
Actuarial Valuations (RPP and PPP), with posting to website once approved	Annual (Mar)						~				
Review of Contribution and Protocol Caps (RPP and PPP)	Annual (Mar)						\checkmark				
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	16 Oct 2020	20 Nov 2020	15 Dec 2020	15 Jan 2021	11 Feb 2021	12 Mar 2021	14 May 2021	18 June 2021	10 Sept 2021	22 Oct 2021
Benefits Utilization Report	Annual (June)								\checkmark		
Annual review re: benefits added/removed from insured plans in the market	Annual (June)								\checkmark		
Review of Committee Terms of Reference	Annual (June)								\checkmark		
Indexing of Plan Maxima – Health, Dental, Retiree Life Insurance	Annual (Nov)		√								
Employee and Family Assistance Program – report on utilization	Annual (Nov)	√									
Maximum pension limits and caps adjustments, based on average industrial wage increase (AIW)	Annual (Dec)			√							
Total Fund Overview	Quarterly		\checkmark				\checkmark		\checkmark	\checkmark	
Investment Manager Review	Semi-annually										
Approval of the Statement of Investment Policies and Procedures (SIPP)	Annual										
Annual Report to the Community	Annual					\checkmark					
Actuarial Filing - Minimum every three years Most recent filings: 2017, 2018, 2020, 2021											

Report to the Pension & Benefits Committee and the Finance & Investment Committee Pension Investment Committee 16 September 2021

The Pension Investment Committee (PIC) met on 8 September 2021 and agreed to forward the following items to the Committee for information or approval as noted below.

INFORMATION

Seeking review/input for SIPP/FIPP/Responsible Investment Policy. PIC continued work over the summer months to refine the draft amendments to the Statement of Investment Policies and Procedures (SIPP) along with it's draft new companion Fund Implementation Policies and Procedures (FIPP), and further to devise a new Responsible Investment Policy for the university's investment funds. These documents will be brought to both committee's to seek their review and input in Fall 2021, and it would be expected that this would be repeated later for the revised draft(s) en route to prospective Board approval in early 2022.

For the Responsible Investment, PIC would like to seek a legal opinion of a draft of this document (in tandem with the Board-approved Responsible Investment Advisory Group report of June 2021) ahead of being brought forward for approval to the Board of Governors via the Pension & Benefits Committee and the Finance & Investment Committee.

Infrastructure Investment Subcommittee. The subcommittee has been formed and will begin its work in earnest in Fall 2021, and is chaired by Julie Cays. The membership includes representatives from the among the Board, external and employee members of PIC (including those with cross-membership on F&I and P&B), along with support from Aon, Finance and the Secretariat.

Investment Reporting. PIC reviewed the total fund, asset class and investment manager performance for the second quarter of 2021 and noted the improvement in going concern and solvency funding status. PIC has requested that an analysis of investment performance attribution be included with the regular investment performance reports, to help delineate the relative contribution of individual investment types/managers to the overall return. The investment consultant Aon has provided an initial version of these reports for the most recent quarter, and PIC aims to refine these reports to best suit the needs of the committee. PIC will be meeting with the global equity investment managers in November 2021 and will be reviewing their investment processes and reporting consistent with the University's integrated ESG and climate change investing commitments.

Funding Policy. While reviewing the SIPP and fund performance, PIC identified a need to develop a formal funding policy for the pension plan that would go beyond the provisions of the existing plan text and current commitments, to codify a transparent framework for funding of the plan.

Sheryl Kennedy Chair, Pension Investment Committee

То:	Finance & Investment Committee Pension & Benefits Committee
From:	Sheryl Kennedy, Chair, Pension Investment Committee
Re:	Draft Investment Policies/Procedures – Request for Review and Comment
Date:	22 September 2021

While in the process of preparing administrative amendments to the Statement of Investment Policies and Procedures (SIPP) in Fall 2020, it was agreed that work should be undertaken to complete a fundamental review and revision of the SIPP to reflect changes in governance and investment approach in recent years and also evolving best practices.

The Pension Investment Committee (PIC) struck a working group with support from Finance staff to propose revisions, and the group undertook to: examine the SIPP documents of other organizations; review regulatory requirements; consider changes recommended by staff; examine pertinent documents and templates for related procedures; consider current practices of the University and industry best practices; and identify topic areas and issues to be addressed in the SIPP.

On the basis of the research undertaken and review of comparators and best practices, the group has prepared a draft recommendation to revise the SIPP. The working group recommends streamlining the SIPP to focus on policy and related procedures which require filing with the relevant regulators, while creating a second document (the "Fund Implementation Procedures" or FIP) to include procedures and guidelines pertinent to implementation of the SIPP and administration of the Fund. This draft benefitted from a review by Aon, the Pension Fund's actuary and investment advisor.

PIC is comfortable forwarding the aforementioned documents to both F&I and P&B for their review and input. Input from these groups will serve to finalize the drafting of the documents, and thereon it is anticipated that the revised SIPP will be recommended to the Board of Governors (officially through P&B, with F&I approval to be sought in parallel) while the FIP would be recommended to P&B for approval (subject to Board approval of the SIPP, given that these are companion documents).

Separately: following the Board of Governors' adoption of the recommendations of the Responsible Investment Advisory Group (RIAG) in June 2021, a request was made to Finance staff to draft a new Responsible Investment Policy (RIP). This draft has been reviewed/amended by PIC and is being similarly forwarded to P&B and F&I for review and input. Following this, PIC recommends that the University seek a legal opinion on the RIP and RIAG report recommendations before recommending final approval for the RIP via F&I and P&B to the Board of Governors for their approval.

I would like to thank Julie Cays, Ranjini Jha, Dennis Huber, and Sarah Hadley for their contributions on the working group, as well as thanking Rebecca Wickens and Mike Grivicic for their excellent support.

DRAFT

Statement of Investment Policies and Procedures

University of Waterloo Pension Plan (2011)

Registration number: 0310565

Effective <mark>[insert date of approval by the Board of Governors]</mark>

September 17, 2021 draft

Replaces previous version which was last revised and effective on [insert last amendment date]

Contents

Introduo	ction	1
1)	Purpose and Scope of Policy	1
2)	Overview of the Plan and its Governance	1
Investm	2	
3)	Plan Objectives	2
4)	Investment Objectives	2
5)	Portfolio Return Objectives	2
6)	Expected Volatility	2
7)	Equity Returns/Risk	2
8)	Active and Passive Investments	2
9)	Diversification	3
10)	Liability Hedging	2 2 2 2 2 2 2 3 3 3 3 3 3 3 3 3
11)	Liquidity	3
12)	Currency Hedging	
13)	Asset Mix	3
14)	Rebalancing	4
15)	Responsible Investing	4
Permitte	ed and Prohibited Investments	5
16)	Permitted Investments	5
17)	Minimum Quality Requirements	6
18)	Maximum Quantity Restrictions	6 7
19)	Fund Manager Compliance	
20)	Securities and Cash Lending	7
	Short Selling	8
22)	Borrowing	8
23)	Monitoring	8
Genera	l Provisions	9
24)	Conflicts of Interest	9
25)	Voting Rights	9
26)	Valuation of Investments Not Regularly Traded	9
27)	Related Party Transactions	10

1) Purpose and Scope of Policy

- a) This Statement of Investment Policies and Procedures (the "Policy") sets out the investment principles, guidelines and procedures for investing and managing the assets and the associated risks for the University of Waterloo Pension Plan (2011), registration number 0310565, as amended (the "Plan").
- b) The University of Waterloo (the "University") was established by an Act of Legislature in the Province of Ontario. The University's Board of Governors (the "Board") has established a governance structure to administer the Plan.
- c) The Policy is informed by the requirements of 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 law governing the investment of pension funds, including Schedule III to the *Pension Benefits Standards Regulation, 1985* (Canada) ("PBSA") (the foregoing are, collectively, the "Applicable Law").
- d) The Policy is intended to summarize and explain the investment approach but does not supersede the Plan text, resolutions of the Board of Governors or the Applicable Law (the "Governing Documents"). In case of any dispute between this document and the Governing Documents, the Governing Documents shall prevail.
- e) The Pension & Benefits Committee and the Pension Investment Committee shall annually review and either confirm or recommend amendments to this Policy to the Board who may amend this Policy and direct the University to file any such amendments with the regulator in accordance with the Applicable Law. The University will provide any amended copy of this Policy to the Fund Managers and the Plan's actuary.

2) Overview of the Plan and its Governance

- a) 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. Pensions paid under the Plan are escalated annually by the cost-of-living factor as described in the Governing Documents.
- b) The University is the sponsor and legal administrator of the Plan for the purposes of Applicable Law. The University through its Board is ultimately responsible for all aspects of managing the Plan, including the prudent investment and administration of the assets of the Plan. In accordance with the Governing Documents, the Board has created committees and subcommittees, delegated to University administrators, and appointed external agents, to carry out certain of its responsibilities.
- c) The University will comply with the Governing Documents and will exercise the care, diligence and skill in the administration and investment of the Plan's assets (the "Fund") that a person of ordinary prudence would exercise in dealing with the property of another person. The individuals acting on behalf of the University in furtherance of its duty will use all knowledge and skill that they possess or ought to possess in the administration and investment of the Fund.

3) Plan Objectives

- a) The University established the Plan to provide members with a defined level of retirement income in accordance with the Plan's terms. Further, the intent is to ensure that retirement benefits, and University and member contributions remain reasonable and relatively stable over the life of the Plan while ensuring its sustainability.
- b) To achieve the Plan's goals, its assets will be invested in a prudent and efficient manner. The Plan will strive to maximize long-term real returns on its invested assets subject to an appropriate level of risk.

4) Investment Objectives

Return and risk objectives are established taking into consideration factors, including the nature and sensitivity of the Plan's liabilities; allocation of liabilities between active and retired members; the going concern and solvency positions of the Plan, as calculated and projected by the Plan's actuary; net cash flow position of the Plan and liquidity needs to meet Plan obligations; investment horizon of the Plan; historical and expected capital market returns; volatility of different asset classes; financial implications of Environmental, Social and Governance ("ESG") factors; inflation and interest rate risks; benefits of investment diversification; and the University's risk tolerance with respect to the Fund.

5) Portfolio Return Objectives

The return objectives of the Fund are:

- a) Earn a minimum nominal rate of return, after investment expenses, of 6.0% (CPI + 4.0%) over fouryear moving periods. This objective is reviewed to ensure that it is realistic based on market conditions and consistent with the actuarial discount rate used to calculate the Plan's going concern liabilities
- b) Achieve a minimum absolute rate of return, after investment expenses, which exceeds the benchmark return by 0.25% over four-year moving periods

6) Expected Volatility

The volatility of the Fund's returns is directly related to the asset mix. The Benchmark Portfolio in Section 13 has been constructed with the expected returns and related risks in mind. Provided the Fund's investment structure stays within the permitted ranges for each asset class, the volatility of the Fund's returns should be similar that of the Benchmark Portfolio.

7) Equity Returns/Risk

While the level of equity exposure drives much of the risk level of the Fund assets, equities are expected to outperform fixed income over the long-term. Therefore, the investment strategy will include appropriate exposure to equities as part of providing the long-term risk adjusted returns necessary to fund the obligations of the Plan at a reasonable cost.

8) Active and Passive Investments

The investment strategy will employ a mix of active and passive management styles. Active management is adopted where there is a reasonable expectation of adding value relative to the relevant benchmark over the long-term, net of expenses. Passive management is adopted where the prospect of adding value above the relevant benchmark is diminished or for the purpose of managing active risk within asset classes.

9) Diversification

Diversification is intended to expose the Fund to opportunities for uncorrelated returns and for the reduction of investment concentration risk. The Fund will pursue diversification by asset class and geography in its asset mix and by investment style in the selection of its investment managers.

10) Liability Hedging

The Fund's investment strategy will consider the economic drivers and the sensitivity of the Plan's liabilities, and where there are opportunities for hedging those liabilities through investments.

11) Liquidity

The investment strategy should provide sufficient liquidity to meet the Plan's financial obligations as they come due, while ensuring the Fund does not contain excessive cash or low yielding liquid assets. Provided the liquidity requirements of the Plan are met, the University may consider investing a portion of the Fund in illiquid assets, where such investment has the potential of enhanced returns, in part, due to the illiquidity premium.

12) Currency Hedging

Currency movements relative to the Canadian dollar are not expected to have a significant impact over the long term. Over shorter periods, currency movements may increase volatility and currency hedging may be employed for non-domestic fixed income and real assets.

13) Asset Mix

a) The Fund will be invested in a broad range of assets with the goal of meeting or exceeding return expectations and mitigating investment risks. The following benchmark portfolio ("Benchmark Portfolio") is representative of the long-term asset mix policy for the Fund based on the analysis conducted in the asset-liability study.

Assets	Minimum %	Maximum %	Benchmark Portfolio %	Benchmark
Cash	0	5	2	FTSE TMX Canada 91-Day T-Bill
Fixed Income	20	35	25	FTSE TMX Universe Bond
Total Fixed Income	20	40	27	
Canadian Equity	0	10	5	S&P/TSX Composite
Global Equity	40	55	48	MSCI ACWI
Total Equity	40	65	53	
Infrastructure	5	15	10	FTSE Developed Core Infrastructure 50/50
Real Estate	5	15	10	FTSE EPRA/NAREIT Developed (CAD)
Total Real Assets	10	30	20	

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 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:

Asset Class under Sub-section 76(12) of t Re nsion Benefits Ad(Ontario)	Long Term Target Allocation	Accessed Through Pooled 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	1.0%	- ·
4. Short-term notes and treasury bills	1.0%	- ·
5. Term Deposits and guaranteed investment certificates	0.0%	- ·
6. Mortgage Loans	0.0%	-
7. Real Estate	10.0%	Ν
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	5.0%	
14. Non-Canadian stocks other than investments referred to in 1 to 12 above	48.0%	
15. Canadian bonds and debentures other than investments referred to in 1 to 12 above	25.0%	
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 (1) Refers to the long-term target allocation to Direct Infrastructure	10.0%	(1) N

14) Rebalancing

At all times, the market value of the individual asset classes will be within the minimum and maximum aggregate investment limits prescribed in Section 13 but may deviate from the benchmark portfolio.

The minimum portfolio weight for the real estate asset class will be achieved over a market cycle and may be held in fixed income and equities during the intervening period.

15) Responsible Investing

Consistent with its fiduciary duty, when selecting Fund Managers or direct investments, the University considers criteria that include: the Fund Manager's business and staff; historical performance; the integration of environmental, social and governance (ESG) factors, including climate change risks and opportunities, which may have a financial impact on the investments, as well as the Fund Manager's Responsible Investing Policy. The adoption of sound ESG practices is intended to reduce financial risk over time and offer enhanced long-term value to the Fund.

16) Permitted Investments

In general, and subject to the restrictions in Sections 17 & 18, the Fund 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, Global 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 Law and must be invested and managed in accordance with regulatory derivatives best practices.

e) Infrastructure

Listed, direct or indirect investments in the debt or equity securities of infrastructure entities including the transportation, energy, utilities, telecommunications and social infrastructure sectors

f) Real Estate

REITs, direct or indirect investments in the debt or equity securities of real property assets including industrial, office, retail, multi-residential, agriculture and timberland properties.

g) Private Debt

Investments in non-publicly traded unlevered fixed income assets such as senior and subordinated loans, mortgages, structured credit instruments, and investments with credit attributes such as royalties and insurance.

h) Private Equity

Investments in non-publicly traded equity assets.

i) Pooled Funds

Investments in open-ended or closed-ended pooled funds provided that the assets of such funds are permissible investments under this Policy. 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 the pooled fund. In that case, the pooled fund policy shall dominate. The Fund manager shall ensure that the University has received a copy of the most recent version of the pooled fund policy.

17) Minimum Quality Requirements

a) Quality Standards

- 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 Fund Manager will notify the University of the downgrade at the earliest possible opportunity;
 - Within ten business days of the downgrade, the Fund Manager will advise the University in writing of the course of action taken or to be taken by the Fund Manager, and its rationale; and
 - Immediately upon downgrade, the Fund Manager will place the asset on a Watch List subject to monthly review by the Fund Manager with the University 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 this policy.
- ii. In cases in which the Recognized Bond Agencies 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 middle of the three ratings; or
 - If four agencies rate a security, use the middle of the three lowest ratings.

b) Rating Agencies

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

- i. DBRS Morningstar;
- ii. Standard & Poor's;
- iii. Moody's Investors Services; and
- iv. Fitch Ratings

18) Maximum Quantity Restrictions

a) Total Plan Level

The University 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.
- Holdings issued by the Government of Canada and its agencies are exempt from the abovementioned 10% limitations.

The University 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 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 Fund.

19) Fund Manager Compliance

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

20) 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 Applicable Law.

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 the University.

21) Short Selling

Short selling and/or pair trading are not permitted.

22) 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 and the ITA.

23) Monitoring

Compliance with this Policy, together with relevant risk metrics, will be monitored quarterly including:

- Achievement of the total return objective
- Liquidity requirements
- Asset mix limits
- Credit quality requirements
- Single issuer limits
- Fund Manager Performance and related ESG integration

24) Conflicts of Interest

a) Responsibilities

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

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

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 the University

No Affected Person shall accept a gift or gratuity or other personal favour, other than one of nominal value, from a person with whom 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 the University immediately. The University, 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.

25) 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 best interests of the Plan. Fund Managers shall report their voting activities to the University on a quarterly basis documenting how they voted as well as how ESG factors were included in the rationale for the voting decision.

26) 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.

c) Real Assets

The fair value of infrastructure and real estate investments is determined by the general partner or the pooled Fund Manager based on industry standards which may include consideration of previous transaction prices, discounted cash flow, and the valuations of other comparable publicly traded investments. Limited partnerships and pooled funds will be audited annually by a qualified independent third party.

27) Related Party Transactions

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

- a) The transaction is 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;
- b) 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 Fund 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 the University, 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 the University;
- 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.

DRAFT - Fund Implementation Procedures

University of Waterloo Pension Plan (2011)

Registration number: 0310565

Effective: [date of approval by Pension & Benefits Committee]

September 17, 2021

Replaces previous version which was last revised and effective on [not applicable]

Contents

1)	Delegation of Responsibility	1
2)	Performance Measurement & Monitoring	3
3)	Compliance Reporting by Fund Manager	4
4)	Audit	4
5)	Monitoring of Asset Mix	4
6)	Selecting Fund Managers	4
7)	Monitoring Fund Manager Performance	4
8)	Dismissal of Fund Manager	4
9)	Rebalancing Policy	5
Ар	pendix A – Fund Manager Compliance Letter	6

This Fund Implementation Procedures (FIP) document outlines the monitoring and reporting obligations of Board committees, University administration, and third parties engaged to provide services to the Plan.

1) 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 and execution of the University's overall investment philosophy, policies, objectives and strategies for the Plan, a Finance & Investment Committee (F&I) with responsibilities including to provide expert advice to PIC, and a Pension & Benefits Committee (P&B) to provide oversight of the pension plan. These various committees will carry out the responsibilities listed below.

- a) PIC will:
 - i. review this document annually with input from F&I and recommend any changes to P&B;
 - ii. review pension fund on at least a semi-annual basis;
 - iii. review Fund Manager performance on at least a semi-annual basis;
 - iv. with support from F&I, make recommendations on the selection of Fund Managers to P&B;
 - v. 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. consult with F&I, prior to making recommendations to P&B, for additional investment decisions which cumulatively impact more than 15% of the Plan's total assets as measured at the beginning of the calendar year;
 - vii. convene a meeting with P&B in the event of a significant market event or shift to discuss issues and market opportunities; and
 - viii. provide quarterly reports to P&B and F&I.
- b) P&B will make recommendations to the Board in the following areas, working with PIC with respect to investment philosophy, policies, objectives and strategies for the Plan:
 - i. the content of the SIPP after its annual review and consideration of recommendations from PIC;
 - ii. the selection of a Consulting Actuary;
 - iii. the selection of an Investment Consultant;
 - iv. the selection of Fund Managers, based on the recommendation from PIC;
 - v. 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
 - vi. the selection of a Custodian/Trustee to hold the pension fund assets.
- c) In addition, the P&B Committee will:
 - i. approve the content of the FIP in consultation with PIC;
 - ii. review reports from PIC on pension fund performance on at least a semi-annual basis;
 - iii. review reports from PIC on Fund Manager performance on at least a semi-annual basis;
 - iv. provide cash flow information as necessary or requested by PIC;

- v. be responsible for the delegation of any responsibilities not specifically mentioned; and
- vi. report to Plan members on at least an annual basis.
- d) The Fund Managers will:
 - i. forward to the University (for review and discussion at 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, the SIPP and any other supplementary documents provided by the University;
 - iii. forward to the University (for review and discussion at PIC) quarterly reports describing their ESG analysis, approach and metrics, and periodically forward a climate risk assessment of their portfolio including any scenario analysis;
 - iv. advise the University 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 Applicable Laws concerning the investment of the pension fund;
 - vi. complete and deliver a compliance report (see Appendix A) to the University and the Fund's Investment Consultant each quarter. The compliance report will indicate whether or not the Fund Manager was in compliance with the SIPP during the quarter. In the event that the Fund Manager is not in compliance with the SIPP, the Fund Manager is required to advise the University immediately, detail the nature of the non-compliance 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 a Fund Manager of ordinary prudence would use in dealing with pension plan assets; and
 - ix. use all relevant knowledge and skill that they possess or ought to possess as a prudent Fund Manager.
- e) The Consulting Actuary (or his/her delegate approved by P&B) will:
 - i. assist in the preparation and subsequent annual reviews of the SIPP and any supplementary documents;
 - ii. comment on any changes in the Plan's benefits, membership or contribution flow which may affect how the Plan's assets are invested;
 - iii. assist in the implementation of the SIPP and this document;
 - iv. support PIC and P&B on matters related to investment risk management and administration of the Plan; and
 - v. meet with the University, PIC and P&B as required.
- f) Investment Consultant will:
 - i. participate in all reviews of the Fund Managers;
 - ii. report quarterly on the performance of the Fund Managers and the Plan;
 - iii. comment on the impact of potential investment opportunities/strategies/legislative changes which may affect how the Plan's assets are invested;
 - iv. monitor the performance of the Plan and the Fund Managers on a regular basis, and contact the University immediately if there are adverse changes of any kind, which warrant further review and/or investigation;

- v. meet with the University, PIC and P&B as required.
- g) Performance Measurement Service Providers will:
 - i. Provide detailed performance reporting in the required format including ESG integration by Fund Managers as well the required carbon metrics for each Fund Manager and the total portfolio
- h) 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 the University; and
 - ii. provide the University with monthly portfolio reports of all assets of the Plan and transactions during the period.

2) Performance Measurement & Monitoring

For purposes of evaluating the performance of the Fund Managers, all rates of return 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.

Performance reporting provided by the Fund Managers and the Investment Consultant will include at least 15-year annualized returns when available; as well as a detailed attribution analysis for the most recent quarter and year-to-date periods.

The Investment Consultant will report on each Fund Manager's performance relative to their peers.

In addition to performance criteria, the following 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 including climate risk assessment and carbon metrics

3) Compliance Reporting by Fund Manager

The Fund Manager is required to complete and deliver a compliance report to the University and the Plan's investment consultant each quarter. The compliance report will indicate whether or not the Fund Manager was in compliance with the SIPP, FIP and the Responsible Investment Policy during the quarter.

In the event that a Fund Manager is not in compliance with the SIPP, FIP and/or the Responsible Investment Policy the Fund Manager is required to advise the University immediately, detail the nature of the non-compliance and recommend an appropriate course of action to remedy the situation.

While the guidelines in the SIPP 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 the SIPP 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 this section. However, the Fund Manager is required to

advise the University, in advance, if there are any material discrepancies between the SIPP and the pooled fund's own investment guidelines. In addition, the Fund Manager will ensure that the University has received a copy of the most recent version of the pooled fund policy and of any amendments made to the pooled fund policy.

4) Audit

The Plan's financial reporting for the regulatory authorities shall be audited annually by external auditors appointed by the University.

5) Monitoring of Asset Mix

In order to ensure that the assets of the Plan operate within the minimum and maximum asset mix ranges, as prescribed in the SIPP, the University and PIC shall review the asset mix at least quarterly. Please refer to the section on Rebalancing Policy.

6) Selecting Fund Managers

Should PIC determine that there is a requirement for an additional Fund Manager, PIC will establish a sub-committee to undertake a Fund Manager search. The criteria used for selecting a Fund Manager will be consistent with the investment and risk philosophy set out in the SIPP. Although each search process will apply a specific list of considerations, the evaluation criteria typically include:

- a) Establishing the relevant performance benchmark
- b) Performance history
- c) Quality of the firm and the fund specific investment team
- d) Quality and consistency of the fund's investment process
- e) Quality and transparency in reporting including valuation methods
- f) ESG integration within the investment process
- g) Risk management approach
- h) Competitiveness of fees

7) Monitoring Fund Manager Performance

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

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

8) Dismissal of Fund Manager

Reasons for considering the termination of the services of a Fund 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 Fund 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 the SIPP, FIP or Responsible Investment Policy.

9) Rebalancing Policy

The University and PIC shall monitor the asset mix and the net cash flow on a quarterly basis. Rebalancing will occur when the market value of an asset class varies from the limits set out in the SIPP or if any individual Fund Manager's component exceeds a limit set out in the SIPP.

Rebalancing will be generally implemented within two quarters by:

- a) Redirecting the net cash flows [administered monthly by the University and not included in PIC's cumulative 15% asset mix change threshold]
- b) Transfer of cash between portfolios
- c) Liquidating exceedances and directing those to assets below the benchmark taking into account the transaction costs and liquidity of the particular asset class

Notwithstanding the rebalancing policy, in certain circumstances, PIC may adjust the weight of any asset class within the permitted ranges for the purpose of protecting capital and managing risk.

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 2021 version of the Statement of Investment Policies and Procedures, the Fund Implementation Procedures for the University of Waterloo Pension Plan (2011), and the Responsible Investment Policy as approved by the Board of Governors of the University of Waterloo.

Signed	

On behalf of _____

Date ___

DRAFT University of Waterloo Responsible Investment Policy September 2021

1. Introduction

The University's Board of Governors ("Board") exercises oversight of the investment portfolios, including the pension and endowment funds, primarily through three Board Committees including the <u>Pension & Benefits Committee</u>, the <u>Pension Investment Committee</u>, and the <u>Finance & Investment Committee</u>. Each committee fulfills its Board-assigned responsibilities prudently, and applies Environment, Social and Governance ("ESG") factors as part of its investment decision making process, including the climate change mitigation/carbon reduction approach approved for those portfolios. In 2020, both the University and the Pension Plan for Faculty and Staff became signatories to the United Nations supported Principles for Responsible Investments ("UN PRI") which requires participation in a comprehensive annual assessment framework.

The Committees execute this approach to investment decision making principally through the selection and retention of external investment managers, investing in institutional pooled funds which serve a range of clients on a comingled basis. The University may also elect to invest directly in securities to achieve specific outcomes.

2. Defining ESG

- Environmental factors which relate to the physical environment (including contamination, greenhouse gas emissions, extreme weather, water scarcity)
- Social factors arising from relationships with employees, consumers, suppliers, and communities (including labour rights, health & safety, equity, diversity & inclusion, product safety)
- Governance factors which relate to the structures in place to ensure the effective direction and control (including the delineation of roles, executive compensation, and board independence)

3. Responsible Investing Principles

Responsible investing actively incorporates ESG factors into each investment decision and monitors those decisions by practicing active ownership. While ESG factors are relevant throughout all stages of the investment process from pre-investment, to monitoring, to exiting, the degree to which ESG factors are integrated depends on many factors such as active vs. passive mandates, the asset type, the time horizon, and the specific investment strategy.

In June 2021, the Board of Governors affirmed climate change mitigation as a priority area requiring focused investment attention; the Board also recognized that further consideration is required relating to other ESG factors such as social justice, equity, diversity and inclusion.

4. Application

This policy applies to the University's endowment fund investments as well as to the investments within the Pension Plan for Faculty and Staff. This policy will be cited in both the pension and endowment

investment guidelines and communicated to each investment manager who, in turn, are required to integrate those ESG factors into their investment analysis and decision-making which are expected to have a financial impact (in conjunction with traditional financial analysis) to support the total portfolio's required risk-adjusted returns.

5. ESG Integration

The University's investment approach focuses on long-term value creation in a constantly changing environment experiencing many risks and opportunities. The University does not seek to limit an investment manager's investible universe (i.e., no exclusions) but does specify some traditional limitations such as minimum credit quality and maximum single security exposure which are stated within the fund's investment guideline and statement of investment policies and procedures.

This approach is to be executed principally through the rigorous selection of investment managers offering institutional pooled funds which are considered leaders in ESG integration. Each investment manager is monitored on a quarterly basis to ensure consistency of style/approach including their ESG integration, reviewing any significant personnel changes, reviewing the consistency of their proxy voting actions with their policy statement, and the fund's rolling annual and four-year investment performance metrics. The University encourages its investment managers to engage with companies on ESG matters and report on such engagement and how it supports their duty to act in the best interest of the fund.

Investment managers will be required to consistently enhance their quarterly reporting to address evolving areas such as ESG integration, carbon reporting, climate change risk assessment and scenario analysis.

The University prefers its investment managers to be signatories to UN PRI.

The University has approved an ambitious carbon footprint reduction plan for its endowment and pension funds which is reviewed annually. Investment managers must consider carbon-related emissions and climate change which may have a consequential impact on future investment values. Specifically, the University is:

- Targeting to achieve a 50% carbon reduction by 2030 (relative to base year 2018) with an aspirational target of achieving carbon neutrality by 2040. Any changes to these targets will be promptly reported to the investment managers
- Requiring investment managers to disclose how they address climate related risk and opportunities and potential impacts on their investment decisions
- Requiring investment managers to provide climate change related financial disclosures including appropriate carbon intensity measures which the University will consolidate to measure progress on a total portfolio basis
- Requesting investment managers to provide climate change risk assessments and scenario analysis when sufficient data becomes reliably available

6. ESG Engagement by the University

The University will participate in the appropriate investor coalitions and collectives (both formal and informal) where partner members have similar fiduciary responsibilities and will periodically review the effectiveness of those collective approaches.

7. ESG Analysis & Reporting by the University

The University will require that its investment consultant(s) have the necessary systems, resources, and experience to support evolving ESG analysis and reporting standards.

The University will provide responsible investment training opportunities for the staff involved in the administration of its investment portfolios.

The University will report annually on its and its investment managers' responsible investing activities including proxy voting, company engagement, carbon metrics as well as the outcomes from UN PRI's annual assessments.

The University will undertake a climate change risk assessment and scenario analysis at the portfolio level once sufficient reliable information is available.

8. Review

This Responsible Investment Policy will be reviewed concurrently with the review of the Pension Plan's Statement of Investment Policies & Procedures (by the Pension Investment Committee) and the Endowment's Investment Guidelines (by the Finance & Investment Committee) including an overall assessment of the current ESG landscape, future risk & opportunities, and the identification of any changes to priority areas of focus.