UNIVERSITY SECRETARIAT
• Board of Governors
• Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140, Ext. 24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

BOARD OF GOVERNORS
Thursday, October 24, 2019 at 9:00 a.m.
Gilmour Hall, Council Room (Room 111)

AGENDA

NOTE: Members who wish to have items moved from the Consent to the Regular Agenda should contact the University Secretariat before the Board meeting. Members may also request to have items moved when the Agenda is presented for approval at the Board meeting.

Page

A. OPEN SESSION

1. REMARKS FROM THE CHAIR

2. NOTICE OF MEETING - OCTOBER 15, 2019

3. APPROVAL OF THE AGENDA - OPEN SESSION

CONSENT (9:00 a.m.)

4. MINUTES OF PREVIOUS MEETING – JUNE 6, 2019 (OPEN SESSION)

Approval

6 - 14 **a.** Minutes - June 6, 2019 (Open Session)

5. BUSINESS ARISING (none)

6. REPORT FROM SENATE

Approval/Information

a. Title Change - Continuing Health Sciences Education (CHSE) Program

15 - 17 **b. Request from the Committee to Recommend a President**
Report from Senate

7. COMMITTEE REPORTS

a. EXECUTIVE AND GOVERNANCE COMMITTEE

Information

18 - 19 **i.** Actions Taken on Behalf of the Board

b. REMUNERATIONS COMMITTEE

Approval

20 - 24 **i.** Ratification of Tentative Agreement - UNIFOR Local 5555, Unit 4 (Special Constables)

c. PLANNING AND RESOURCES COMMITTEE

Approval

i. Statement of Investment Policies and Objects

ii. Statement of Investment Policy and Procedures - Hourly Plan

iii. Statement of Investment Policies and Procedures - Salaried Pension Plan

25 - 210 **iv. Pension Plan Text Amendment**
Report from the Planning and Resources Committee

MOTION: That items 4 to 7 be approved or received for information by consent.

REGULAR (9:05 a.m.)

8. BUSINESS ARISING (none)

9. COMMUNICATIONS

Information

211 **a.** Letter from CUPE Local 3906

10. PRESIDENT'S REPORT TO THE BOARD (9:25 a.m.)

Information

212 - 215 **a.** President's Report to the Board

11. COMMITTEE REPORTS (9:40 a.m.)

a. AUDIT AND RISK COMMITTEE

Approval

216 - 233 **i. Annual Financial Report 2018-2019**
Power Point Presentation - Annual Financial Report 2018-2019

234 - 304 **ii. Appointment of External Auditor for 2019-2020**
Report from the Audit and Risk Committee

b. EXECUTIVE AND GOVERNANCE COMMITTEE

Notice of Motion/Information

305 - 317 **i.** Revisions to Board By-Laws

ii. Board Evaluation - Results and Recommendations (*verbal)*

c. REMUNERATIONS COMMITTEE

Approval

318 - 353 **i.** Total Compensation Plan Redesign Recommendations for The Management Group (TMG)

12. REPORTS RECEIVED FOR INFORMATION (10:15 a.m.)

Information

354 - 359 **a.** Report from Health, Safety and Risk Management

13. PRESENTATION TO THE BOARD OF GOVERNORS (10:25 a.m.)

Name: Dr. Parminder Raina
Professor, Department of Health Research Methods, Evidence and Impact
Scientific Director, McMaster Institute for Research on Aging (MIRA)
Title: Presentation to the Board of Governors

14. OTHER BUSINESS (11:00 a.m.)

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140Ext. 24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

REPORT TO THE BOARD OF GOVERNORS
from the
SENATE

i. Title Change – Continuing Health Sciences Education (CHSE) Program

At its meeting on October 9, 2019 Senate approved, on the recommendation of the Committee on Appointments, a title change of the head of the Continuing Health Sciences Education (CHSE) Program. Details of the proposed title change are contained in Attachment I of the circulated report.

It is now recommended,

that the Board of Governors approve the title change of the head of the Continuing Health Sciences Education (CHSE) Program to Associate Dean, effective July 1, 2019.

ii. Request from the Committee to Recommend a President

At its meeting on September 11, 2019 Senate approved, on the recommendation of the Committee to Recommend a President, a request to extend the Committee's nine-month reporting deadline until December 31, 2019. Details of the approved extension are contained in Attachment II of the circulated report and are now presented to the Board of Governors for information.

Board of Governors: FOR APPROVAL/INFORMATION
October 24, 2019

Attachment I

McMaster University | HEALTH SCIENCES
Office of the Dean

Dean & Vice President
HSC-2E1
1280 Main Street West
Hamilton, ON L8S 4K1

(905) 525-9140 x 22100
(905) 546-0800
deanfhs@mcmaster.ca
fhs.mcmaster.ca

July 22, 2019

Senate Committee on Appointments
c/o University Secretariat
Gilmour Hall, Room 210

Re: Recommendation to change the title of the head of the Continuing Health Sciences Education (CHSE) Program.

Currently the CHSE program is headed by an Assistant Dean. However, in keeping with realigned titles brought forward last year, this position should have been renamed to be an Associate Dean.

I am asking for approval of this name change to correct this omission effective July 1, 2019. The current incumbent in the position, Dr. Khalid Azzam, will remain in this retitled role for the remainder of his term. No changes have been made to the terms of reference except the title.

Thank you for considering this recommendation. If you need further information, please do not hesitate to contact me.

Yours sincerely,

Paul M. O'Byrne, MB, FRCPC, FRSC
Dean and Vice President

Encl.

POB/rc

Attachment II

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140,Ext.24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

September 4, 2019

TO: Members of the McMaster University Senate

FROM: Ms A. Thyret-Kidd
University Secretary
Secretary of the Committee to Recommend a President

RE: Request from the Committee to Recommend a President

In December 2018 and January 2019, McMaster's Board of Governors and Senate, in accordance with section 16 (3) of *The McMaster University Act, 1976,* and their respective By-laws, appointed members to the Committee to Recommend a President. As outlined in the Act:

> *….any recommendation of the committee shall be made in writing and signed by at least eight members and delivered to the Senate within nine months after the date on which the Senate shall have named the five persons to be named by it, and failing such recommendation, the Senate may nominate and the Board may appoint the President.*

On October 8, 2019, the nine-month period will have concluded. The Committee to Recommend a President is pleased with the work that has been accomplished and it would like to inform Senate that it is making good progress. However, the Committee is writing to advise Senate that it is not yet in a position to present a recommendation. The Committee has functioned effectively since inception selecting an executive search firm, consulting widely across campus, and developing the Executive Profile and selection criteria. The Committee has also worked with Dr. Arig al Shaibah, Associate Vice-President, Equity and Inclusion, who is a consultant to the Committee, on all aspects of the process.

The Committee to Recommend a President is in the later stages of its work and expects to make a recommendation later in the fall semester. It is requested that Senate permit an extension of the nine-month reporting deadline until December 31, 2019.

Senate: September 11, 2019

cc: Members of the Committee to Recommend a President

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140, Ext.24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

REPORT TO THE BOARD OF GOVERNORS
from the
EXECUTIVE AND GOVERNANCE COMMITTEE

Actions Taken on Behalf of the Board of Governors:

i. Faculty Professional Development Allowance Plan (PDA) Policy and Procedures

A recommendation to approve revisions to the Faculty Professional Development Allowance Plan (PDA) Policy and Procedures was approved by the Executive and Governance Committee on June 27, 2019.

ii. Terms of Reference

A recommendation to approve the following terms of reference was approved by the Executive and Governance Committee on June 27, 2019.

a. Assistant Dean, Child Life and Pediatric Psychosocial Care Graduate Program
b. Director, Chemical Biology Graduate Program
c. Associate Director, Chemical Biology Graduate Program

iii. Revisions to the Tenure and Promotion Policy

A recommendation to approve revisions to the Tenure and Promotion Policy was approved by the Executive and Governance Committee on June 27, 2019.

iv. Establishment of the McMaster Institute on Health Equity

A recommendation to approve the establishment of the McMaster Institute on Health Equity was approved by the Executive and Governance Committee on June 27, 2019.

v. Termination of the McMaster Institute for Healthier Environments

A recommendation to approve the termination of the McMaster Institute for Healthier Environments was approved by the Executive and Governance Committee on June 27, 2019.

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140, Ext.24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

vi. Revisions to Board By-Laws

A recommendation to approve revisions to the Board By-Laws was approved by the Executive and Governance Committee on June 27, 2019.

vii. Committee for Recommending a President – Revised Membership

A recommendation to approve a revision to the composition to the Board component of the Committee for Recommending a President was approved by the Executive and Governance Committee on July 29, 2019.

viii. Ratification of Tentative Agreement – UNIFOR Local 5555, Unit 1 (Non-Academic, Administrative, Professional and Technical Employees)

A recommendation to approve the tentative agreement reached between McMaster University and UNIFOR Local 5555, Unit 1 (Non-Academic, Administrative, Professional and Technical Employees). The agreement is for a 3-year term, effective May 1, 2019 and expiring April 30, 2022.

Documents detailing items for information are available for review in the University Secretariat.

Board of Governors: FOR INFORMATION
October 24, 2019

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140, Ext.24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

REPORT TO THE BOARD OF GOVERNORS
from the
REMUNERATIONS COMMITTEE

i. Ratification of Tentative Agreement – UNIFOR Local 5555, Unit 4 (Special Constables)

At its meeting on October 15, 2019, the Remunerations Committee reviewed and approved the tentative agreement between McMaster University and UNIFOR, Local 5555, Unit 4, representing Special Constables. Details of the agreement are provided in Attachment I of the circulated report.

The Remunerations Committee now recommends,

that the Board of Governors approve the tentative agreement between McMaster University and UNIFOR, Local 5555, Unit 4 (Special Constables) for a 4-year term effective October 2, 2019, and expiring September 30, 2023, with terms outlined in the circulated report.

Board of Governors: FOR APPROVAL
October 24, 2019

Attachment I

Board of Governors Decision Summary

October 24, 2019

Recommendation

The Board of Governors ratify the tentative agreement reached with Unifor Local 5555, Unit 4 (Special Constables) for the period October 2, 2019, to September 30, 2023.

Prior Committee Review

Remunerations Committee: approval

Description

Renewal of the collective bargaining agreement with Unifor for 20 Special Constables, negotiated within mandate.

Financial Implications

Baseline Total Compensation: $1,384,732.40 per annum

	Across the Board ("ATB") Increases	Market Adjustment
Year 1	1.0%	
Year 2	1.0%	
Year 3	1.0%	
Year 4	1.0%	3.9%

Alignment with University Strategy

Institutional Alignment	Reduced administrative complexity; increased flexibility in hiring and assignment of work.
Fiscal Responsibility	Financial outcomes within mandate and in compliance with Bill 124 as drafted; closed Post-Retirement Benefits plan to new employees hired on or after 2023; movement to reduce complexity of benefits plans; increased pension contributions; achieved a signed Pay Equity Maintenance Plan.
Inclusive Excellence	Enabled selection of the best qualified candidate; affirmed the union's commitment to Employment Equity and embedded employment equity as an express consideration in the hiring process; established a Joint Anti-Harassment Committee for investigations; introduced paid leave for Domestic & Sexual Violence; incorporated gender-neutral language.
Labour Relations Stability	Actively engaged in interest-based discussions, with a view to maintaining and enhancing the with Unifor is strong.

Important Considerations

The parties agreed to market adjustment increases in Year 4 of the agreement, to address the known market lag in wages, while remaining in compliance with Bill 124 as currently drafted.

Major Risks and Mitigating Factors Identified

Risk of non-compliance with Bill 124, law, or government directive	Agreed to increases in compliance with Bill 124 as drafted, including market adjustments in Year 4, outside of the 3-year moderation period currently prescribed in the draft legislation.

Prepared By: Wanda McKenna, AVP & Chief Human Resources Officer

Reviewed by: Roger Couldrey, Vice President (Administration)

Request for Ratification of Tentative Agreement

between

McMaster University

and

Unifor Local 5555, Unit # 4
Representing Special Constables

Prepared for: Board of Governors

Background

On August 9, 2019, the University's Bargaining Team reached a tentative agreement with Unifor Local 5555, Unit 4, representing Special Constables. The bargaining unit includes **20 employees** (8 Part Time and 12 Full Time), with a total compensation cost of **$1,384,732.40**.

The Remunerations Committee approved the mandate for this round of collective bargaining in May 2019. Subsequently, on June 5, 2019, the provincial government tabled Bill 124: *An Act to implement moderation measures in respect of compensation in Ontario's public sector*, which is still pending in the legislative process. The legislation as currently drafted restricts annual wage increases to 1%, and further restricts incremental increases to existing compensation entitlements to 1% (inclusive of wage increases).

The University and the Union agreed to recommend the ratification of the tentative agreement to their respective principals. On August 14, 2019, Unifor confirmed its membership ratified the tentative agreement.

A summary of the tentative agreement is provided below.

SUMMARY OF TERMS OF TENTATIVE AGREEMENT

Term:

- 4 years, effective October 2, 2019, and expiring September 30, 2023

Wages:
Agreed to wage increases that include a market adjustment to address our ability to compete in the local market and retain our employees.

For Special Constable and Investigator positions, the parties negotiated the following increases:

	Across the Board ("ATB") Increases	Market Adjustment
Year 1	1.0%	
Year 2	1.0%	
Year 3	1.0%	
Year 4	1.0%	3.9%

Pension & Benefits

- Closed the Post-Retirement Benefits Plan to new hires, effective July 1, 2023. Reduced the employee co-pay portion (from 100% to 75%) for existing employees with 10-20 years of service.

- Agreed to establish a joint working group to discuss CPP integration with pension plan;

- Achieved increases to the employee pension contribution rates to 8% & 11% (below & above the YMPE, respectively) effective Year 4 (with offset of 1% lump sum payment to affected Employees);

- Provided benefit improvements to reduce complexity among identified “Skilled Employee Groups”:
    - Eyeglasses and cataract surgery coverage, from $250 to $400
    - Hearing aids, adjustment to 100% when prescribed, up to a maximum of $500 per person per ear over a period of 3 benefit years;

- Provided other benefit improvements to align with recent strategic improvements in other groups:
    - Increased support for mental health benefits, to $3000 per person per benefit year in total for registered psychologists, social workers, and psychotherapists;
    - Continuous Glucose Monitor
    - Licensed occupational therapists as a paramedical service
    - Assignment of dental claims to the dental office;

- Reduced the amount of paid vacation Employees earn while on leaves of absence;

- Further discussion will be required with Unifor to resolve the potential human rights issue with existing pregnancy and parental leave supplemental benefit provisions.

Leave Provisions:

- Agreed to transition from the current sick bank provisions to a salary continuance program aligned with Unifor Unit 1, effective in Year 4;

- Enhanced domestic and sexual violence leave to provide for additional 5 paid days, effective in Year 2.

Legislative Compliance:

- Achieved compliance with the Pay Equity Act, including establishment of job descriptions, agreement on evaluation plan and outcomes, and a signed Pay Equity Maintenance Plan.

Operational and Other Highlights:

- Increased flexibility to assign additional hours of work to part time employees;

- Achieved flexibility to assign employees to work at off-site locations, without changing the current scope of the bargaining unit;

- Aligned language items where appropriate with the Unifor Units 1, 3, and 5 collective agreements, for consistency and ease of administration;

- Introduced the Joint Anti-Harassment Committee from Unifor Units 1, 3, and 5, to investigate harassment and discrimination complaints in accordance with University policies;

- Agreed to partially reimburse employees for the cost of medical notes, when required.

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140Ext. 24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

REPORT TO THE BOARD OF GOVERNORS
from the
PLANNING AND RESOURCES COMMITTEE

i. Statement of Investment Policies and Objects

At its meeting on September 26, 2019, the Planning and Resources Committee reviewed and approved the revised Investment Pool Statement of Investment Policies and Objectives ("SIP&O"). Details of the revised statement are contained in Attachment I of the circulated report.

It is now recommended,

that the Board of Governors approve the revised Investment Pool Statement of Investment Policies and Procedures ("SIP&O"), as contained in the attached.

ii. Statement of Investment Policies and Procedures – Hourly Plan

At its meeting on September 26, 2019, the Planning and Resources Committee reviewed and approved the revised Hourly Pension Plan Statement of Investment Policies and Procedures ("SIP&P"). Details of the revised statement are contained in Attachment II of the circulated report.

It is now recommended,

that the Board of Governors approve the revised Hourly Pension Plan Statement of Investment Policies and Procedures ("SIP&P"), as contained in the attached.

iii. Statement of Investment Policies and Procedures – Salaried Pension Plan

At its meeting on September 26, 2019, the Planning and Resources Committee reviewed and approved the revised Salaried Pension Plan Statement of Investment Policies and Procedures ("SIP&P"). Details of the revised statement are contained in Attachment III of the circulated report.

It is now recommended,

that the Board of Governors approve the revised Salaried Pension Plan Statement of Investment Policies and Procedures ("SIP&P"), as contained in the attached.

iv. Pension Plan Text Amendment

At its meeting on September 26, 2019, the Planning and Resources Committee reviewed and approved Amendment #2 to the Contributory Pension Plan for Salaried Employees of McMaster University Including Divinity College 2000 (Plan 2000). Details of Amendment #2 are contained in Attachment IV of the circulated report.

It is now recommended,

that the Board of Governors approve Amendment #2 to the Contributory Pension Plan for Salaried Employees of McMaster University including McMaster Divinity College 2000, as contained in the attached.

Board of Governors: FOR APPROVAL
October 24, 2019

PRC/BOG Summary of Approval Request

September 24, 2019

Statement of Investment Policies and Objectives

Recommendation

That the Planning and Resources Committee approve, for recommendation to the Board of Governors, the revised Investment Pool Statement of Investment Policies and Objectives ("SIP&O").

Financial Implications: No immediate implications.

Description/Background: The Investment Pool Committee (IPC) completed an in depth review of the SIP&O with its investment consultant following a risk review of the portfolio. As an outcome, the investment beliefs, risk related sections, target returns and asset mix have been updated. In addition, the environmental, social, and governance details have been further described under a new section. The attached summary IPC memo identifies these and other additional housekeeping changes and provides both a blackline and clean copy of the SIP&O, along with a new risk tolerance guideline for internal monitoring use.

Alignment with university strategy: The policy updates are aligned with the committees risk review, return objectives, and directions relative to sustainable development goals.

Important considerations: The SIP&O changes, once approved, will result in a modification to the IPC's quarterly monitoring scorecard. In addition, the IPC have added the following next steps to their workplan:

- reviewing investment manager style offsets along with performance tracking errors,
- reviewing return expectations for active equity managers on a gross and net basis relative to passive investing on the same basis, and,
- reviewing hedge effectiveness,

Major risks: Underperformance and mis-alignment to the SIP&O.

Mitigating factors identified: IPC will continue to use a quarterly review scorecard to monitor investment objectives to performance overall and by asset class (across both active and passive holdings). Further the scorecard will include an additional section for the risk tolerance in accordance with a new monitoring guideline. IPC will continue to draw on the expertise of its membership, peer performance comparisons, and review steps above conducted with the IPC third party consultant.

Prepared By: Financial Affairs

Reviewed by: AVP (Administration) & CFO

McMaster University

Steven Moore, MBA, CPA, CGA, CFA, CIPM, CTP
Treasurer

One James North, Rm 417
1 James Street North
Hamilton, Ontario, Canada
L8R 2K3

Phone: 905.525.9140, Ext. 24790
Fax: 905.529.3272
E-mail: moores11@mcmaster.ca

Date: September 9, 2019

To: Planning and Resource Committee

From: Investment Pool Committee

Subject: **Statement of Investment Policies and Objectives - Revisions**

Recommendation:
That the Planning and Resources Committee and approve, for recommendation to the Board of Governors, the updated Asset Mix and other changes to Statement of Investment Policies and Objectives for the Investment Pool as shown in Appendix A.

The Investment Pool Statement of Investment Policy and Objectives (SIP&O) is subject to an annual review. Russell Investments and Treasury have reviewed the existing policy, with the support of a working group representing as a subset of the full Investment Pool Committee (IPC). The proposed revisions update the policy to align with industry practices and investment strategy review recommendations, which was circulated at Planning and Resources Committee (PRC) see Appendix B for the May 2019 PRC memo. In addition, there are proposed changes to reflect several items of a housekeeping nature. Appendix A is the revised SIP&O with blacklined changes. A summary of key changes to the policy are in the table 1 below.

Investment Strategy Review - Recommendations[1]

The investment pool's strategic asset allocation has been effective in achieving the 5% target real return by generating 5.2% net real return since 1993. However, analysis prepared by Russell Investment Consulting, informed the IPC that the current strategic asset mix is not projected to achieve the target real return of 5% due to lower expected future equity and bond returns.

The investment pool asset mix has not changed materially over the past 10 years. By comparison during this period, the asset mix of McMaster's peer group (U15 Group of Research Universities) has reduced allocations to Canadian equities (21% to 13%) and bonds (24% to 15%) and increased allocations to other non-public assets (16% to 32%).

Since late 2017, IPC reviewed investment alternatives and scenario asset mixes. The Committee identified and recommends the following actions to improve return projections and manage risk:

1. Increase the real assets allocation to 20% from 5% by reducing fixed income to 20% (from 35%); and
2. Reduce the Canadian equities allocation to 10% from 20% and increase non-Canadian equities to 25% from 20% (5% increase for each: U.S. and non-North American equities).

An interim asset mix is reflected in the updated SIP&O while the increased allocation to real assets occurs.

Rationale

Russell and IPC believe that long-term real rates of returns will remain low for some time. The IPC agrees that the policy asset mix is a long term investment strategy that should not be changed for short-term market conditions; however the asset mix changes are viewed as a strategy to preserve returns while managing risks during a prolonged period of expected low future returns related to equity and bond assets.

[1] Investment Pool Return period ended April 30, 2019: 10 yr. return: 8.96% (Policy: 8.85% 10 yr. Volatility 6.56% (Policy: 6.00%)

The recommended asset mix changes increase allocations to real assets (real estate and infrastructure) and reduce weighting to Canadian equities for the following reasons (refer also to Appendix B):

- To improve expected returns without materially changing portfolio risk of the portfolio;
- To improve the Investment Pool's carbon footprint by virtue of breadth of assets held;
- To preserve the annual 5% payout rate on endowed funds;
- To better match the asset mix with the lower liquidity requirements of the endowed funds* and long term horizon of other funds invested, which is expected to improve return by capturing the liquidity premium; and
- To reduce the current portfolio overweight to Canadian equities (20% allocation) while improving portfolio diversification; given Canadian equities represent only 3.3% of the world's market capitalization.

The projected long-term impact of the asset mix policy changes is for future real returns to increase by 45bps, modestly reduce risk (as measured by scenarios of current and new mix and the average worst 5% of returns), and increase the probability of achieving the 5% real return (Appendix B- PRC Memo refer to: table 1 and Appendix 2).

For risk management purposes, the reallocation of funds into non-Canadian equities will be on unhedged basis. The rationale is that the Canadian dollar is pro-cyclical and therefore tends to weaken when markets decline, which in turn lessens the impact of negative returns on non-Canadian equities.

*Annual expenses funded from the External Endowment in the Investment Pool in FY2018 was $23.4 million.
**As per SIP&O a minimum of 20% of foreign Equities is hedged to Canadian dollars.

Summary of Proposed Changes to SIP&O

Table 1. Summary of Proposed Policy Changes

Reference	Comments
Section 2. Definitions (pg.3)	The definition of Long-term has be included
Section 7. Risk Appetite (pg.5&6)	New subsection - Risk Appetite statement included which is aligned with the investment strategy review
Section 7. Investment Beliefs (pg.6)	Investment beliefs have been updated to reflect the investment strategy review and responsible investing
Section 7. Liquidity Risk (pg.7)	New subsection on liquidity risk section has been included.
Section 7. Benchmark Portfolio (pg. 7&8))& Section 8 Asset Mix (pg.10)	Asset mix has been changed to reflect the updated investment strategy and transition to Real Assets. In recognition of the extended timing associated with the transition to Real Assets, a transition asset mix has been included to facilitate benchmarking and monitoring. (refer to Appendix B Investment Pool Committee – Investment Strategy Update)
Section 7. Expectations from Active Management (pg.8)& Appendix 1 (pg.19)	Excess return expectations from active management has been updated to reflect the investment strategy review and updated strategic asset mix. The increase to 60bps reflects the higher allocation to Real Assets. (Investment Pool investment manager fees for FY2018: ~34 bps)
Section 8. Investment Risk Tolerance (pg.10)	New subsection - Investment Risk Tolerance summarizes volatility expectations and updates the policy to reflect the enhanced Investment Risk monitoring process for the Investment Pool which has been enhanced to monitor investment risk relative to the expectations and risk tolerance. Commencing in Q4, 2019 the Investment Pool Committee will monitor the actual volatility of the investment pool relative to target and maximum risk benchmark. The maximum risk represents the maximum allocation of assets to higher return assets and the minimum allocation to fixed income and diversifying assets (Real Assets) as permitted by the SIP&P asset mix ranges. Refer to Appendix C – Guideline – Investment Risk Monitoring – Investment Pool Committee
Section 11. Delegation of Voting Rights (pg.14) and Section 16. Other Policy Items (pg.16)	These sections are updated to reflect feedback from our Real Asset Consultant to provide clarity with respect to reporting requirements and valuations associated with Real Assets.
Section 17- Responsible Investing (pg.18)	New Section - Responsible Investing has been added to the SIP&O which aligns with the plan to fulfil the University's President's Advisory Committee on Fossil Fuels Divestment (PACFFD) recommendation to become a signatory to the United Nations Principles for Responsible Investment (UNPRI).

Conclusion: IPC approved the SIP&O (refer to Appendix C) at the September 11, 2019 meeting.

Appendix A.

Investment Pool Statement of Investment Policies and Objectives

McMaster University

Policies, Procedures and Guidelines

Complete Policy Title: Statement of Investment Policies and Objectives – Investment Pool	Policy Number (if applicable):
Approved by: Board of Governors	Date of Most Recent Approval: ~~June 8, 2017~~ October [24], 2019
Date of Original Approval(s): October 19, 1995	Supersedes/Amends Policy dated: ~~October 22, 2015~~ June 8, 2017
Responsible Executive : Assistant Vice-President (Administration)	Enquiries: University Secretariat

DISCLAIMER: If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.

McMaster University

Statement of Investment Policies and Objectives

Investment Pool

Planning and Resources Committee – APPROVED
~~May 25, 2017~~
September [26], 2019

Board of Governors - APPROVED
~~June 8, 2017~~October [24], 2019

~~TABLE OF CONTENTS~~

Table of Contents

Section 1 – Preamble

As of May 1, 1998, the General Trust and Endowment Funds (as defined below) and the Capital Fund were pooled and unitized for investment purposes. This larger investment pool benefits from economies of scale, offers more options to optimize future returns and provides more administrative efficiencies. Although other funds have been added to the Investment Pool, the investment policies and objectives of the Investment Pool mainly reflect the needs of the General Trust and Endowment Funds.

Donations to the University from private sources for specific or designated purposes are placed in "trust funds", and those for unrestricted use in "endowment funds". Donations may take the form of cash, securities in-kind, gifts in-kind, bequests or planned gifts among others.

While some gifts and legacies are free from restrictions as to the preservation of the capital, it is the policy of the University to maintain the original capital of the funds in "real dollar" terms, and to provide a relatively stable annual expenditure rate through investment in long-term securities.

Section 2 – Definitions

The "Total Rate of Return" is the time-weighted rate of return based on the change in market value of the Fund over a measured period of time, calculated in conformity with the standards established by the CFA Institute.

A "Fund Manager" is an external investment manager who invests a segment of the Fund according to guidelines specified in this policy and the mandate given by the University.

The "Trust Fund Administrator" is a University officer who is responsible for administering the fund in accordance with specifications made by the donor and in accordance with the 'Operational Policy and Procedures for Trust and Endowment Fund Management", the 'Expenditure Policy External Restricted Endowments" and "Expenditure Policy Internal Restricted Endowments'.

The "Fund" is the assets of the Investment Pool.

"Real Assets" includes both real estate and infrastructure investments.

"Long Term" is defined as a period of 10 years or longer

Section 3 – Trust Funds

Specific purpose, or designated, donations are placed in trust funds and, in doing so, the

University agrees to the terms and conditions for the use of the funds as established by the donor and the University and/or legal requirements. Trust funds are classified as externally restricted endowments in the University's audited financial statements.

General Trust Funds are either:

- Perpetual Trusts – funds from which only the income earned on the capital may be expended; or,

- Long-Term Trusts – funds from which both the income and capital may be expended. Any capital to be spent from long-term trusts must be defined as expendable.

Specific Trust Funds are short term, and are funds received which are to spend in the current year for some express purpose. These funds are invested in the Cash and Short Term Investment Portfolio.

Trust funds are combined for investment purposes in the Investment Pool which is invested by external Fund Managers under this policy. Some trust funds may consist of securities received with the stipulation that they be retained and that the income be used for specific purposes.

Section 4 – Endowment Funds

Internally Restricted Endowment funds have been established by the Board of Governors. The Board can approve borrowings and/or permanent reductions from the funds through its annual budget process and in accordance with the 'Expenditure Policy for Internally Restricted Endowments'.

General Endowment Fund

- Proceeds from bequests and insurance policies and other donations received by the University, the use of which has not been designated by the donor, are pooled in a fund designated the "General Endowment Fund".

- The income of this fund is used to support scholarship and bursary programs of the University and such other purposes as approved by the Board of Governors during the University's budgeting process.

H. L. Hooker Endowment Fund

- A legacy from Dr. H. L. Hooker, the use of which is not designated by the donor, is held in the "H. L. Hooker Endowment Fund".

- The use of the income from this fund is approved by the Board of Governors during the University's budgeting process, but the programs supported by this fund must enrich the academic achievements of the University and must provide a

suitable memorial to Dr. Hooker.

Pension Surplus Fund

- In 2003, the University's portion of the Salaried Pension Plan's excess surplus was transferred to an internally restricted endowment. The income from the Pension Surplus Fund is used to support general operating purposes as approved by the Board of Governors during the annual budget approval process.

Endowment funds are combined for investment purposes in the Investment Pool which is invested by external Fund Managers.

Section 5 – Financial Objectives

The following are the financial objectives of the University for the Investment Pool.

- To achieve a Total Rate of Return sufficient to support stable and growing expenditures for University purposes.
- To preserve the original capital in "real" terms.
- To provide capital growth.

Section 6 – Fund Governance

The University is the administrator of the Investment Pool and the Board of Governors is responsible for the overall management. The Board of Governors has delegated certain duties and responsibilities (including the power to sub-delegate) to the Planning and Resources Committee which, in turn, has delegated certain duties and responsibilities to the Investment Pool Committee and the Treasury ~~Operations~~ Department and to various agents it has retained to assist in carrying out its duties in respect to the Investment Pool.

Section 7 – Investment Objectives, Beliefs, Risk Appetite, and Mandates

In order to achieve the financial objectives, the Fund Managers are expected to maximize the Total Rate of Return within their defined mandates and policy constraints with respect to diversification, quality of securities and liquidity.

Investment Objectives:

The University expects the Fund to earn an annualized 5.0% (4% payout +1% administration fee) real rate of return, after investment management fees, over the longer term. In any one year, however, the annual return may be significantly above or below the 5.0% real return. Investment strategies at the asset class and Fund Manager level will have specific objectives that when combined are expected to earn the total Fund level objective of 5%.

Risk Appetite:

Based on the characteristics of the Investment Pool, the Committee has determined that the Investment Pool has a moderate to high risk appetite for investment risk, as demonstrated by the approved asset classes, investment targets and limits within this policy.

Investment Beliefs:

The University has from time to time reviewed and confirmed its investment beliefs. A summary of the major beliefs is outlined below. Currently, the University believes:

the The bias of the fund is towards being substantially fully invested over time;

- that equity investments will provide greater long-term returns than fixed income investments, although with greater short-term volatility;
- the Investment Pool has moderate cash requirements and therefore it is appropriate to accept a higher degree of liquidity risk;
- Investments in real estate and infrastructure ("Real Assets") are appropriate for the Investment Pool as source of diversification and investment return;
- that investment in hedge funds and private equity are not appropriate investment at this time;
- that it is prudent to diversify the Fund across the major asset classes;
- that a meaningful allocation to foreign equities will increase portfolio diversification and, thereby, decrease portfolio risk while at the same time providing the potential for enhanced long-term returns;
  - the University will employ a rebalancing policy, to be implemented by the Treasury Operations Department, within prescribed ranges around the long-term asset mix policy;
  - that it is appropriate to employ specialist, external investment managers to invest the Fund in an efficient and effective manner;
  - that investment managers with active mandates can reduce portfolio risk below market risk and potentially add value through security selection strategies, and that a substantial portion of the Fund should be allocated to such active mandates;
  - that a component of passive management can be appropriate in certain asset classes, and that a portion of the Fund may be invested in passive mandates;
- that it is appropriate to hedge a minimum 20% of foreign equities back to the Canadian dollar;
- that it is appropriate to retain more than one investment manager, given the size of the Fund, provided that such managers offer asset class or style diversification;
  - that investment in hedge funds and private equity are not appropriate investments: and,
- the University recognizes that, environmental, social and corporate governance (ESG) issues, including government/public policy and disclo sure c onc ern s can affect the performance of companies in which the Fund invest and consideration should be given to how managers analyze and integrate ESG factors into their investment process when selecting Fund

Managers.;

- the University refers to the United Nations Sustainability Principals when discussing the investments that our Investment Managers are making;
- the University refers to Sustainable Accounting Standards in the development of transparent investment reporting.

The University has low annual cash funding requirements from the Investment Pool relative to total assets (approximately 5% of market value of assets). Therefore, the University is able to invest the Investment Pool assets for a long term horizon, accept short-term volatility and invest in assets with a moderately high degree of liquidity risk.

Liquidity Risk

The Investment Pool liquidity requirements primarily relate to the annual spending and expenses associated with the University's externally restricted endowments. The requirements are approximately 5% of the market value of the externally restricted endowments. Other requirements are long-term and relate to internally restricted endowments (e.g. bond sinking funds).

The Investment Pool long-term strategic asset mix is structured to maintain sufficient liquid assets to ensure that annual spending requirements are met.

Benchmark Portfolio:

- The University believes that a portfolio invested in the following asset mix (based on market value) can, over the long term, achieve the stated investment objectives.

Long-term Strategic Asset Mix

Asset Class	Benchmark Index	% Allocation
Canadian Equities	S&P/TSX Composite Index	~~20~~10%
U.S. Equities		
- U.S. Large Cap	Russell 1000 Index (Cdn. $)	~~6~~7.5%
- U.S. Large Cap	Russell 1000 Index (Hedged)	~~10~~12.5%
- U.S. Small Cap	Russell 2000 Index (Cdn. $)	~~4~~5%
Non-North American Equities	MSCI EAFE Index (Net)	~~20~~25%
Bonds	FTSE TMX Universe Bond Index	~~35~~20%
Short/Medium Term Bonds	FTSE TMX Universe+Maple Short-term Corporate Bond Index	0%
Real Assets	CPI + 4%	20%

Note: An initial investment of $5 million (effective April 2019) of the Investment Pool assets is allocated to a Social Responsible Investment fund. This allocation is benchmarked separately from the rest of the Investment Pool investments.

Transition Asset Mix

The long–term policy mix contains allocations to asset classes (real estate and infrastructure) that take longer to implement. The investment pool will be subject to the transition benchmark portfolio for performance measurement purposes. For benchmarking purposes, the benchmark will be updated as real asset investments are implemented. The Investment Pool Committee is authorized to adjust the investment pool benchmark portfolio mix as real assets are funded, subject to the constraints set forth in the Long-term total Fund Asset Mix noted above. Updates to the transition asset mix will occur annually as required.

Transition Asset Mix

Asset Class	Benchmark Index	% Allocation
Canadian Equities	S&P/TSX Composite Index	10%
U.S. Equities		
- U.S. Large Cap	Russell 1000 Index (Cdn. $)	7.5%
- U.S. Large Cap	Russell 1000 Index (Hedged)	12.5%
- U.S. Small Cap	Russell 2000 Index (Cdn. $)	5%
Non-North American Equities	MSCI EAFE Index (Net)	25%
Bonds	FTSE TMX Universe Bond Index	30%
Short/Medium Term Bonds	FTSE TMX Universe+Maple Short-term Corporate Bond Index	5%
Real Assets	CPI + 4%	5%

For the purpose of measuring performance against the benchmark asset allocation guidelines of Section 7, any use of cash or other short-term investments as part of a strategy shall be considered either an equity or bond allocation, not a cash or short-term allocation.

The actual asset mix may vary at any time since a large percentage of the Fund is actively managed and asset classes provide different returns. Section 8 defines the limit for such deviations.

Expectations from Active Management

Based upon policy weighted allocations, the gross expectation for value added from active management is approximately 100 basis points before fees. Recognizing that value added from active management varies over time, it is assumed that this level of value added is achieved approximately 60% of the time. Thus, the long-term 100 basis point value-added gross expectation is pro-rated to 60 basis points. On this basis, ~~T~~the long-term overall quantitative performance of the Fund from active management shall be considered satisfactory if the total annualized returns earned by the Fund exceed by ~~50~~60 basis points (see Appendix 1 for detailed calculation) the returns that could be earned on a passive basis.

For the purpose of measuring the Fund's and each Fund Manager's total rate of return, all returns shall be measured before investment management fees, but after transaction costs, and over four-year rolling periods. All index returns shall be total returns, and all foreign index returns shall be Canadian dollar returns.

Performance Objectives:

The following table outlines the value-added expectations for the active component of each asset class. Individual Fund Manager benchmark indices and returns may differ from these. Fund Manager fee levels compared to value added expectations are an important criteria in the manager selection process.

Asset Class	Benchmark Index	Value-Added Expectation (4-Year Rolling Annualized Basis)
Canadian Equities	S&P/TSX Composite Index	75 basis points
U.S. Equities	Russell 1000 Index (Cdn. $)	
	Russell 1000 Index (Hedged)	50 basis points
	Russell 2000 Index (Cdn. $)	
Non-North American Equities	MSCI EAFE Index (Net)	150 basis points
Bonds	FTSE TMX Universe Bond Index	20 basis points
Real Assets	CPI + 4%	200 basis points

The primary performance objective for a Fund Manager with an active mandate shall be to exceed the annualized return of the representative benchmark index, plus a value-added expectation, specific to their mandate. The secondary performance objective, where appropriate, shall be to exceed the median return of other managers with comparable mandates in a well-recognized manager performance universe.

A Fund Manager with a passive mandate shall manage with the objective of minimizing the tracking error. Tracking error is generated from the difference between the return of the Fund Manager's portfolio and that of the applicable benchmark index. The quantitative performance of the passive manager shall be considered satisfactory if the tracking error is within the objective stated in the mandate.

Section 8 – Asset Mix, Investment Risk Tolerance and Rebalancing Policies

Asset Mix Policy:

The Asset Mix Policy represents the risk limits that align investment objectives, with investment beliefs and risk appetite and risk tolerance. The maximum and minimum ranges are the quantitative boundaries that constrain investment risk-taking activities.

The market values of the individual asset class components of the Fund shall be within the following minimum and maximum ranges.

Long-Term Strategic Asset Mix Policy

Asset Class	Minimum	Benchmark	Maximum
Canadian Equities	~~10~~5%	~~20~~10%	~~30~~20
U.S. Equities	10%	~~20~~25%	30%
Non-North American Equities	10%	~~20~~25%	30%
Bonds	~~25~~15%	~~35~~20%	~~45~~30
Real Assets	~~2.5~~10%	~~5~~20%	~~10~~30

During the transition period, while the Real Asset investments are being implemented, the interim mix policy will apply and will be updated annually, as appropriate.

Interim Asset Mix Policy

Asset Class	Minimum	Benchmark	Maximum
Canadian Equities	5%	10%	20%
U.S. Equities	10%	25%	30%
Non-North American Equities	10%	25%	30%
Bonds	20%	35%	45%
Real Assets	2.5%	5%	20%

Notwithstanding the asset mix ranges shown above, the Investment Pool Committee may recommend temporary asset mix positions outside these ranges under unusual market conditions.

Investment Risk Tolerance - Expected Volatility

The expected volatility of investment returns for the Investment Pool is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities, Canadian bonds and real assets. Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined above. It is expected that the volatility of Investment Pool returns should be similar to the volatility of the Long Term Strategic Asset Mix Portfolio in Section 7.

The Committee will monitor the volatility of the Fund and underlying Fund Managers on an ongoing basis.

Rebalancing Policy:

It is recognized that the actual allocations to these asset classes, to Fund Managers, and across mandates will change over time. This will largely be due to reasons such as the following:

- Different asset classes will provide different rates of return
- Within an asset class, different Fund Managers and styles will provide different rates of return.
- Cash flow into the Fund will affect the allocations.

Should any asset class fall outside of the minimum and maximum ranges, excluding the ~~5%~~ Real Asset Benchmark allocation, outlined on the previous page, the Treasurer shall rebalance the total Fund back to the Benchmark Portfolio. The Treasurer shall rebalance as soon as is practicable, but not later than three months after any breach of the ranges.

Section 9 – Permitted Investments

The following investments may be made either directly, through pooled or mutual funds, through private partnerships, or through insurance contracts. The list of permitted investments and constraints outlined below apply to all relevant mandates. Additional constraints may be imposed on the Fund Managers through their specific mandate.

Investments:

- Publicly traded Canadian common stocks, rights, warrants, instalment receipts and debt securities convertible into common stock.
- Publicly traded U.S. and international common stocks, American depository receipts, global depository receipts, rights, warrants, instalment receipts and debt securities convertible into common stock.
- Publicly traded income trusts.
- Private placements.
- Debt securities of Canadian issuers, including bonds, debentures, or other debt instruments of corporations, Canadian Governments, Canadian Government agencies, or guaranteed by Canadian Governments; mortgage-backed securities; asset-backed securities; and, real return bonds.
- Mortgages.
- Publicly traded preferred shares.
- Foreign issuers of Canadian-denominated bonds.
- Canadian cash on hand, demand deposits, treasury bills, short-term notes and bankers' acceptances, term deposits and guaranteed investment certificates having a term of equal or less than one year.
- Foreign bonds.
- Initial public offerings.
- Exchange traded funds.
- Real estate.
- Infrastructure.

Derivatives:

Derivatives such as options, futures, swaps and forward contracts on any security allowable under this Statement are permitted, including but not limited to index option and futures, index participation units and equivalents. Derivatives may be used:

- to hedge (i.e. reduce) fully or partially any investment risk, including market interest rate, credit, liquidity and currency risk.
- replicate direct investments in the underlying assets or groups of assets (i.e. indices) so as to achieve some advantage of lower cost or market exposure.
- to effect cash and asset mix rebalancing.

Derivatives shall not be used to create leverage or for speculative purposes.

The Fund Managers shall be responsible for assessing all counter party risk associated

with derivative instruments, with regard to credit rating and total exposure limits for each derivative securities dealer and bank. The minimum credit quality for the counter party of any derivative transaction shall be consistent with the credit quality requirements set out in the Fund Manager's mandate. The managers shall implement internal procedures and controls in order to ensure that derivatives are used in compliance with this Statement and their mandate at all times.

Quality Requirements:

Minimum quality requirements will be established by the Investment Committee and listed in each of the Fund Managers specific mandate, and may vary between managers within an asset class and across asset classes. Copies of mandates are available for review in the Treasury ~~Operations~~ Department.

Quantity Requirements:

Maximum limits or prohibitions will be established by the Investment Committee and listed in each of the Fund Managers specific mandate, and may vary between managers within an asset class and across asset classes. Copies of mandates are available for review in the Treasury ~~Operations~~ Department.

Section 10 – Securities Lending

Securities held by the Investment Pool may be loaned by the Trustee under a properly approved contract with the University. Such loans must be secured by cash or readily marketable securities with a quality rating of R1 or higher, a market value of at least 105% with the level of security maintained daily, and an indemnity by the custodian against all losses as a result of the custodian's securities lending program. Collateral provided with respect to any such securities lending agreement must have free and clear title and may not be subject to any right of set-off. It is recognized that this policy on security lending is not enforceable to the extent that the investment is in pooled funds.

Section 11– Delegation of Voting Rights

The University has delegated to the Fund Managers the responsibility of exercising all voting rights acquired through the Fund. The Fund Managers shall exercise such voting rights with the intent of fulfilling the investment objectives and policies of this Statement and for the long-term benefit of the Fund.

The Fund Managers shall provide their voting right policies to the Treasury ~~Operations~~ Department. Each Fund Manager shall provide the Treasury ~~Operations~~ Department with an annual report outlining how they voted and whether ESG was factored into the proxy voting decision making process and any departures from, or exceptions to, the policies and any other extraordinary matters.

At least annually, a summary report of investment manager proxy voting actions and how ESG factored into the voting shall be provided to the Planning and Resource Committee of the Board of Governors.

Fund managers associated with Real Assets are excluded from this requirement.

Section 12– Fund Manager Reporting

Each Fund Manager shall provide the Treasury ~~Operations~~ Department with quarterly statements including the performance, attribution of the performance, future investment strategy, compliance with the mandate and a listing of the assets in the portfolio. At least annually, each fund manager shall provide Treasury with a report of proxy voting actions and how ESG factored into the voting.

In the event that a Fund Manager is not in compliance with their mandate, the Fund Manager is required to notify the Treasurer as to the reasons for the non-compliance and to outline the course of action, including timing that will rectify the situation. The Treasurer will inform the Investment Pool Committee of the situation.

Fund Managers will make a presentation to the Investment Pool Committee on a periodic basis.

Section 13 - Conflict between Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, 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. However, wherever such a conflict results in non-compliance with the Policy, the Fund Manager must report this conflict explicitly in its compliance report.

Section 14– Conflict of Interest

For the purpose of this statement a conflict of interest is defined as any event in which any employee or member of or consultant to:

- Board of Governors,
- Planning and Resources Committee,
- Audit Committee,
- Investment Pool Committee,
- Investment Manager(s),
- Custodian/Trustee, and/or
- Consultant,

or any directly related party may gain a financial or other advantage from knowledge of, or participation in, an investment decision of the Fund, or a circumstance that could reasonably be interpreted as impairing his/her ability to render unbiased and objective advice or to fulfil his/her fiduciary responsibilities to act in the best interest of the Fund.

It is not possible to anticipate in advance, in this statement, the multitude of situations which can arise. All persons listed above must, therefore, be cognizant of the possibility that conflicts, or perceived conflicts, may arise and must make timely and full disclosure in accordance with generally accepted concepts of fiduciary responsibilities and in accordance with the procedures set forth below:

Responsibilities
This standard applies to the persons named above in the execution of their responsibilities (the "Affected Persons").

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 Fund's assets.

Further, it is required 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 his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour that is material, from a person with whom the Affected Person deals in the course of performance of his or her duties and responsibilities for the Fund.

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

in writing to the Chair of the respective Committee within three business days after the individual becomes aware of the conflict of interest. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of the Fund's business. The respective committee, 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 Committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the manner in which the conflict was resolved will be recorded in the minutes of the Committee.

Section 15 – Related Party Transactions

The Investment Pool Committee, on behalf of the Fund, may not enter into a transaction with a related party unless:

- The transaction is both required for operation and or administration of a Fund and the terms and conditions of the transaction are not less favourable than market terms and conditions; or,

- Securities of the related party are acquired at a public exchange.

A "related party" is defined to mean the administrator of the Fund, including any officer, director or employee of the administrator, or any person who is a member of the Committee. It also includes the Investment Managers and their employees, 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. The concept of "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 Fund, where that person is not the administrator of the Fund.

Section 16 – Other Policy Items

Valuation of Securities:

It is expected that all of the securities held by the Fund will have an active market and that the values of such securities will be based on their market values. The exception to this is ~~real estate~~Real Assets (Private Infrastructure and Private Real Estate) where it will be based generally on appraisals conducted on a periodic basis.

Investments that are not regularly traded shall be valued at least annually by the Fund's custodian in co-operation with the Fund Manager. In making such valuations, consideration

shall be given to bid and ask prices, previous transaction prices, discounted cash flow, independent appraisal values, the valuations of other comparable publicly- traded investments and other valuation techniques that are judged relevant to the specific situation.

Policy Review:

This Statement shall be reviewed at least annually by the Investment Pool Committee, the Planning and Resources Committee and by the Board of Governors with respect to the appropriateness of the policies and objectives contained therein.

Investment Pool Carbon Footprint Reporting:

At least every five years (ideally annually), a report summarizing the measurement of the Investment Pool's carbon footprint shall be made available for review by the Investment Pool Committee and Planning and Resources Committee.

Section 17 - Responsible Investing:

McMaster's responsible investing approach is to integrate environmental, social and governance (ESG) factors into investment processes and decision-making in order to better manage risk and generate sustainable long-term returns. The University believes that ESG factors can have a material impact and financial implication on the risk and return profile of its investments

The University recognizes that, environmental, social and corporate governance (ESG) issues, including government/public policy and disclosure concerns can affect the performance of companies in which the Investment Pool invests and consideration should be given to how managers analyze and integrate ESG factors into their investment process when selecting fund managers.

The University responsible investment approach aligns with the United Nations supported Principles for Responsible Investment ("PRI"). The University is committed ~~in~~ to taking the appropriate steps to making investment decisions that incorporates ESG issues, data and factors while meeting its fiduciary responsibilities and duties to optimize long-term investment returns.

Where consistent with fiduciary responsibilities, the University is committed to the six PRI principles listed below[1].

- Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.
- Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.
- Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.
- Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.
- Principle 5: We will work together to enhance our effectiveness in implementing the Principles.
- Principle 6: We will report on our activities and progress towards implementing the Principles.

Scope

The responsible investment approach is applicable to Investment Pool assets invested in listed equities and listed infrastructure. Other asset classes will be considered, including fixed income and real asset classes, to the extent that the investment manager has discretion for the portfolio and sufficient data is available to evaluate ESG criteria.

[1] The implementation will be aligned with the investment type (e.g. pooled funds vs. direct investments).

Appendix 1

MCMASTER UNIVERSITY
INVESTMENT POOL VALUE ADDED RATE OF RETURN OBJECTIVE

ASSET CLASS	ALLOCATION TO ACTIVE MANAGEMENT %	EXPECTED ANNUALIZED VALUE ADDED BY ASSET CLASS (bps) (a)	ACTIVE COMPONENT OF ASSET MIX % (b)	EXPECTED ANNUALIZED VALUE ADDED FROM ACTIVE MANAGEMENT (bps) (a x b)
CANADIAN EQUITY	100%	75	~~20~~10	~~15~~7.5
U.S. EQUITY	100%	50	~~20~~25	~~10~~12.5
EAFE EQUITY	100%	150	~~20~~25	~~30~~37.5
BONDS ~~(1)~~	79%	20	~~27.5~~20	~~6~~4
REAL ~~ESTATE~~ASSETS	100%	200	~~5~~20	~~10~~40
				~~71~~101.5
	Assume ~~70~~60% Success Rate (Management Estimate)			~~70~~60%
	Total Fund Value Added Rate of Return Objective*			~~50~~60

*intentionally rounded down from 60.9 to 60 bps

(1) ~~78.5%~~Pending the full funding of the ~~total bond allocation~~Real Asset portion of ~~35%~~the portfolio, we expect the Total Fund Value Added Rate of Return Objective to be lower than what is ~~actively managed.~~ stated in the table above.

McMaster University

Policies, Procedures and Guidelines

Complete Policy Title:
Statement of Investment Policies and Objectives – Investment Pool

Policy Number (if applicable):

Approved by:
Board of Governors

Date of Most Recent Approval:
October [24], 2019

Date of Original Approval(s):
October 19, 1995

Supersedes/Amends Policy dated:
June 8, 2017

Responsible Executive :
Assistant Vice-President (Administration)

Enquiries:
University Secretariat

DISCLAIMER: If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.

McMaster University

Statement of Investment Policies and Objectives

Investment Pool

Planning and Resources Committee – APPROVED
September [26], 2019

Board of Governors - APPROVED
October [24], 2019

Table of Contents

Section 1 – Preamble

As of May 1, 1998, the General Trust and Endowment Funds (as defined below) and the Capital Fund were pooled and unitized for investment purposes. This larger investment pool benefits from economies of scale, offers more options to optimize future returns and provides more administrative efficiencies. Although other funds have been added to the Investment Pool, the investment policies and objectives of the Investment Pool mainly reflect the needs of the General Trust and Endowment Funds.

Donations to the University from private sources for specific or designated purposes are placed in "trust funds", and those for unrestricted use in "endowment funds". Donations may take the form of cash, securities in-kind, gifts in-kind, bequests or planned gifts among others.

While some gifts and legacies are free from restrictions as to the preservation of the capital, it is the policy of the University to maintain the original capital of the funds in "real dollar" terms, and to provide a relatively stable annual expenditure rate through investment in long-term securities.

Section 2 – Definitions

The *"Total Rate of Return"* is the time-weighted rate of return based on the change in market value of the Fund over a measured period of time, calculated in conformity with the standards established by the CFA Institute.

A *"Fund Manager"* is an external investment manager who invests a segment of the Fund according to guidelines specified in this policy and the mandate given by the University.

The *"Trust Fund Administrator"* is a University officer who is responsible for administering the fund in accordance with specifications made by the donor and in accordance with the 'Operational Policy and Procedures for Trust and Endowment Fund Management", the 'Expenditure Policy External Restricted Endowments" and "Expenditure Policy Internal Restricted Endowments'.

The *"Fund"* is the assets of the Investment Pool.

"Real Assets" includes both real estate and infrastructure investments.

"*Long Term*" is defined as a period of 10 years or longer

Section 3 – Trust Funds

Specific purpose, or designated, donations are placed in trust funds and, in doing so, the University agrees to the terms and conditions for the use of the funds as established by the donor and the University and/or legal requirements. Trust funds are classified as externally restricted endowments in the University's audited financial statements.

General Trust Funds are either:

- Perpetual Trusts – funds from which only the income earned on the capital may be expended; or,

- Long-Term Trusts – funds from which both the income and capital may be expended. Any capital to be spent from long-term trusts must be defined as expendable.

Specific Trust Funds are short term, and are funds received which are to spend in the current year for some express purpose. These funds are invested in the Cash and Short Term Investment Portfolio.

Trust funds are combined for investment purposes in the Investment Pool which is invested by external Fund Managers under this policy. Some trust funds may consist of securities received with the stipulation that they be retained and that the income be used for specific purposes.

Section 4 – Endowment Funds

Internally Restricted Endowment funds have been established by the Board of Governors. The Board can approve borrowings and/or permanent reductions from the funds through its annual budget process and in accordance with the 'Expenditure Policy for Internally Restricted Endowments'.

General Endowment Fund

- Proceeds from bequests and insurance policies and other donations received by the University, the use of which has not been designated by the donor, are pooled in a fund designated the "General Endowment Fund".

- The income of this fund is used to support scholarship and bursary programs of the University and such other purposes as approved by the Board of Governors during the University's budgeting process.

H. L. Hooker Endowment Fund

- A legacy from Dr. H. L. Hooker, the use of which is not designated by the donor, is held in the "H. L. Hooker Endowment Fund".

- The use of the income from this fund is approved by the Board of Governors during the University's budgeting process, but the programs supported by this fund must enrich the academic achievements of the University and must provide a suitable memorial to Dr. Hooker.

Pension Surplus Fund

- In 2003, the University's portion of the Salaried Pension Plan's excess surplus was transferred to an internally restricted endowment. The income from the Pension Surplus Fund is used to support general operating purposes as approved by the Board of Governors during the annual budget approval process.

Endowment funds are combined for investment purposes in the Investment Pool which is invested by external Fund Managers.

Section 5 – Financial Objectives

The following are the financial objectives of the University for the Investment Pool.

- To achieve a Total Rate of Return sufficient to support stable and growing expenditures for University purposes.
- To preserve the original capital in "real" terms.
- To provide capital growth.

Section 6 – Fund Governance

The University is the administrator of the Investment Pool and the Board of Governors is responsible for the overall management. The Board of Governors has delegated certain duties and responsibilities (including the power to sub-delegate) to the Planning and Resources Committee which, in turn, has delegated certain duties and responsibilities to the Investment Pool Committee and the Treasury Department and to various agents it has retained to assist in carrying out its duties in respect to the Investment Pool.

Section 7 – Investment Objectives, Beliefs, Risk Appetite, and Mandates

In order to achieve the financial objectives, the Fund Managers are expected to maximize the Total Rate of Return within their defined mandates and policy constraints with respect to diversification, quality of securities and liquidity.

Investment Objectives:

The University expects the Fund to earn an annualized 5.0% (4% payout +1% administration fee) real rate of return, after investment management fees, over the longer term. In any one year, however, the annual return may be significantly above or below the 5.0% real return. Investment strategies at the asset class and Fund Manager level will have specific objectives that when combined are expected to earn the total Fund level objective of 5%.

Risk Appetite:

Based on the characteristics of the Investment Pool, the Committee has determined that the Investment Pool has a moderate to high risk appetite for investment risk, as demonstrated by the approved asset classes, investment targets and limits within this policy.

Investment Beliefs:

The University has from time to time reviewed and confirmed its investment beliefs. A summary of the major beliefs is outlined below. Currently, the University believes:

- The bias of the fund is towards being substantially fully invested over time;
- that equity investments will provide greater long-term returns than fixed income investments, although with greater short-term volatility;
- the Investment Pool has moderate cash requirements and therefore it is appropriate to accept a higher degree of liquidity risk;
- Investments in real estate and infrastructure ("Real Assets") are appropriate for the Investment Pool as source of diversification and investment return;
- that investment in hedge funds and private equity are not appropriate investment at this time;
- that it is prudent to diversify the Fund across the major asset classes;
- that a meaningful allocation to foreign equities will increase portfolio diversification and, thereby, decrease portfolio risk while at the same time providing the potential for enhanced long-term returns;
  - the University will employ a rebalancing policy, to be implemented by the Treasury Department, within prescribed ranges around the long- term asset mix policy;
  - that it is appropriate to employ specialist, external investment managers to invest the Fund in an efficient and effective manner;
  - that investment managers with active mandates can reduce portfolio risk below market risk and potentially add value through security selection strategies, and that a substantial portion of the Fund should be allocated to such active mandates;
  - that a component of passive management can be appropriate in certain asset classes, and that a portion of the Fund may be invested in passive mandates;
- that it is appropriate to hedge a minimum 20% of foreign equities back to the Canadian dollar;
- that it is appropriate to retain more than one investment manager, given the size of the Fund, provided that such managers offer asset class or style diversification;
- the University recognizes that, environmental, social and corporate governance (ESG) issues, including government/public policy and disclosure concerns can affect the performance of companies in which the Fund invest and consideration should be given to how managers analyze and integrate ESG factors into their investment process when selecting Fund Managers;
- the University refers to the United Nations Sustainability Principals when discussing the investments that our Investment Managers are making;

- the University refers to Sustainable Accounting Standards in the development of transparent investment reporting.

The University has low annual cash funding requirements from the Investment Pool relative to total assets (approximately 5% of market value of assets). Therefore, the University is able to invest the Investment Pool assets for a long term horizon, accept short-term volatility and invest in assets with a moderately high degree of liquidity risk.

Liquidity Risk

The Investment Pool liquidity requirements primarily relate to the annual spending and expenses associated with the University's externally restricted endowments. The requirements are approximately 5% of the market value of the externally restricted endowments. Other requirements are long-term and relate to internally restricted endowments (e.g. bond sinking funds).

The Investment Pool long-term strategic asset mix is structured to maintain sufficient liquid assets to ensure that annual spending requirements are met.

Benchmark Portfolio:

- The University believes that a portfolio invested in the following asset mix (based on market value) can, over the long term, achieve the stated investment objectives.

Long-term Strategic Asset Mix

Asset Class	**Benchmark Index**	**% Allocation**
Canadian Equities	S&P/TSX Composite Index	10%
U.S. Equities		
- U.S. Large Cap	Russell 1000 Index (Cdn. $)	7.5%
- U.S. Large Cap	Russell 1000 Index (Hedged)	12.5%
- U.S. Small Cap	Russell 2000 Index (Cdn. $)	5%
Non-North American Equities	MSCI EAFE Index (Net)	25%
Bonds	FTSE TMX Universe Bond Index	20%
Short/Medium Term Bonds	FTSE TMX Universe+Maple Short-term Corporate Bond Index	0%
Real Assets	CPI + 4%	20%

Note: An initial investment of $5 million (effective April 2019) of the Investment Pool assets is allocated to a Social Responsible Investment fund. This allocation is benchmarked separately from the rest of the Investment Pool investments.

Transition Asset Mix

The long–term policy mix contains allocations to asset classes (real estate and infrastructure) that take longer to implement. The investment pool will be subject to the transition benchmark portfolio for performance measurement purposes. For benchmarking purposes, the benchmark will be updated as real asset investments are implemented. The Investment Pool Committee is authorized to adjust the investment pool benchmark portfolio mix as real assets are funded, subject to the constraints set forth in the Long-term total Fund Asset Mix noted above. Updates to the transition asset mix will occur annually as required.

Transition Asset Mix

Asset Class	**Benchmark Index**	**% Allocation**
Canadian Equities	S&P/TSX Composite Index	10%
U.S. Equities		
- U.S. Large Cap	Russell 1000 Index (Cdn. $)	7.5%
- U.S. Large Cap	Russell 1000 Index (Hedged)	12.5%
- U.S. Small Cap	Russell 2000 Index (Cdn. $)	5%
Non-North American Equities	MSCI EAFE Index (Net)	25%
Bonds	FTSE TMX Universe Bond Index	30%
Short/Medium Term Bonds	FTSE TMX Universe+Maple Short-term Corporate Bond Index	5%
Real Assets	CPI + 4%	5%

For the purpose of measuring performance against the benchmark asset allocation guidelines of Section 7, any use of cash or other short-term investments as part of a strategy shall be considered either an equity or bond allocation, not a cash or short-term allocation.

The actual asset mix may vary at any time since a large percentage of the Fund is actively managed and asset classes provide different returns. Section 8 defines the limit for such deviations.

Expectations from Active Management

Based upon policy weighted allocations, the gross expectation for value added from active management is approximately 100 basis points before fees. Recognizing that value added from active management varies over time, it is assumed that this level of value added is achieved approximately 60% of the time. Thus, the long-term 100 basis point value-added gross expectation is pro-rated to 60 basis points. On this basis, the long-term overall quantitative performance of the Fund from active management shall be considered satisfactory if the total annualized returns earned by the Fund exceed by 60 basis points (see Appendix 1 for calculation) the returns that could be earned on a passive basis.

For the purpose of measuring the Fund's and each Fund Manager's total rate of return, all returns shall be measured before investment management fees, but after transaction costs, and over four-year rolling periods. All index returns shall be total returns, and all foreign index returns shall be Canadian dollar returns.

Performance Objectives:

The following table outlines the value-added expectations for the active component of each asset class. Individual Fund Manager benchmark indices and returns may differ from these. Fund Manager fee levels compared to value added expectations are an important criteria in the manager selection process.

Asset Class	Benchmark Index	Value-Added Expectation (4-Year Rolling Annualized Basis)
Canadian Equities	S&P/TSX Composite Index	75 basis points
U.S. Equities	Russell 1000 Index (Cdn. $)	50 basis points
	Russell 1000 Index (Hedged)	
	Russell 2000 Index (Cdn. $)	
Non-North American Equities	MSCI EAFE Index (Net)	150 basis points
Bonds	FTSE TMX Universe Bond Index	20 basis points
Real Assets	CPI + 4%	200 basis points

The primary performance objective for a Fund Manager with an active mandate shall be to exceed the annualized return of the representative benchmark index, plus a value-added expectation, specific to their mandate. The secondary performance objective, where appropriate, shall be to exceed the median return of other managers with comparable mandates in a well-recognized manager performance universe.

A Fund Manager with a passive mandate shall manage with the objective of minimizing the tracking error. Tracking error is generated from the difference between the return of the Fund Manager's portfolio and that of the applicable benchmark index. The quantitative performance of the passive manager shall be considered satisfactory if the tracking error is within the objective stated in the mandate.

Section 8 – Asset Mix, Investment Risk Tolerance and Rebalancing Policies

Asset Mix Policy:

The Asset Mix Policy represents the risk limits that align investment objectives, with investment beliefs and risk appetite and risk tolerance. The maximum and minimum ranges are the quantitative boundaries that constrain investment risk-taking activities.

The market values of the individual asset class components of the Fund shall be within the following minimum and maximum ranges.

Long-Term Strategic Asset Mix Policy

Asset Class	Minimum	Benchmark	Maximum
Canadian Equities	5%	10%	20%
U.S. Equities	10%	25%	30%
Non-North American Equities	10%	25%	30%
Bonds	15%	20%	30%
Real Assets	10%	20%	30%

During the transition period, while the Real Asset investments are being implemented, the interim mix policy will apply and will be updated annually, as appropriate.

Interim Asset Mix Policy

Asset Class	Minimum	Benchmark	Maximum
Canadian Equities	5%	10%	20%
U.S. Equities	10%	25%	30%
Non-North American Equities	10%	25%	30%
Bonds	20%	35%	45%
Real Assets	2.5%	5%	20%

Notwithstanding the asset mix ranges shown above, the Investment Pool Committee may recommend temporary asset mix positions outside these ranges under unusual market conditions.

Investment Risk Tolerance - Expected Volatility

The expected volatility of investment returns for the Investment Pool is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities, Canadian bonds and real assets. Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined above. It is expected that the volatility of Investment Pool returns should be similar to the volatility of the Long Term Strategic Asset Mix Portfolio in Section 7.

The Committee will monitor the volatility of the Fund and underlying Fund Managers on an ongoing basis.

Rebalancing Policy:

It is recognized that the actual allocations to these asset classes, to Fund Managers, and across mandates will change over time. This will largely be due to reasons such as the following:

- Different asset classes will provide different rates of return
- Within an asset class, different Fund Managers and styles will provide different rates of return.
- Cash flow into the Fund will affect the allocations.

Should any asset class fall outside of the minimum and maximum ranges, excluding the Real Asset Benchmark allocation, outlined on the previous page, the Treasurer shall rebalance the total Fund back to the Benchmark Portfolio. The Treasurer shall rebalance as soon as is practicable, but not later than three months after any breach of the ranges.

Section 9 – Permitted Investments

The following investments may be made either directly, through pooled or mutual funds, through private partnerships, or through insurance contracts. The list of permitted investments and constraints outlined below apply to all relevant mandates. Additional constraints may be imposed on the Fund Managers through their specific mandate.

Investments:

- Publicly traded Canadian common stocks, rights, warrants, instalment receipts and debt securities convertible into common stock.
- Publicly traded U.S. and international common stocks, American depository receipts, global depository receipts, rights, warrants, instalment receipts and debt securities convertible into common stock.
- Publicly traded income trusts.
- Private placements.
- Debt securities of Canadian issuers, including bonds, debentures, or other debt instruments of corporations, Canadian Governments, Canadian Government agencies, or guaranteed by Canadian Governments; mortgage-backed securities; asset-backed securities; and, real return bonds.
- Mortgages.
- Publicly traded preferred shares.
- Foreign issuers of Canadian-denominated bonds.
- Canadian cash on hand, demand deposits, treasury bills, short-term notes and bankers' acceptances, term deposits and guaranteed investment certificates having a term of equal or less than one year.
- Foreign bonds.
- Initial public offerings.
- Exchange traded funds.
- Real estate.
- Infrastructure.

Derivatives:

Derivatives such as options, futures, swaps and forward contracts on any security allowable under this Statement are permitted, including but not limited to index option and futures, index participation units and equivalents. Derivatives may be used:

- to hedge (i.e. reduce) fully or partially any investment risk, including market interest rate, credit, liquidity and currency risk.
- replicate direct investments in the underlying assets or groups of assets (i.e. indices) so as to achieve some advantage of lower cost or market exposure.
- to effect cash and asset mix rebalancing.

Derivatives shall not be used to create leverage or for speculative purposes.

The Fund Managers shall be responsible for assessing all counter party risk associated

with derivative instruments, with regard to credit rating and total exposure limits for each derivative securities dealer and bank. The minimum credit quality for the counter party of any derivative transaction shall be consistent with the credit quality requirements set out in the Fund Manager's mandate. The managers shall implement internal procedures and controls in order to ensure that derivatives are used in compliance with this Statement and their mandate at all times.

Quality Requirements:

Minimum quality requirements will be established by the Investment Committee and listed in each of the Fund Managers specific mandate, and may vary between managers within an asset class and across asset classes. Copies of mandates are available for review in the Treasury Department.

Quantity Requirements:

Maximum limits or prohibitions will be established by the Investment Committee and listed in each of the Fund Managers specific mandate, and may vary between managers within an asset class and across asset classes. Copies of mandates are available for review in the Treasury Department.

Section 10 – Securities Lending

Securities held by the Investment Pool may be loaned by the Trustee under a properly approved contract with the University. Such loans must be secured by cash or readily marketable securities with a quality rating of R1 or higher, a market value of at least 105% with the level of security maintained daily, and an indemnity by the custodian against all losses as a result of the custodian's securities lending program. Collateral provided with respect to any such securities lending agreement must have free and clear title and may not be subject to any right of set-off. It is recognized that this policy on security lending is not enforceable to the extent that the investment is in pooled funds.

Section 11– Delegation of Voting Rights

The University has delegated to the Fund Managers the responsibility of exercising all voting rights acquired through the Fund. The Fund Managers shall exercise such voting rights with the intent of fulfilling the investment objectives and policies of this Statement and for the long-term benefit of the Fund.

The Fund Managers shall provide their voting right policies to the Treasury Department. Each Fund Manager shall provide the Treasury Department with an annual report outlining how they voted and whether ESG was factored into the proxy voting decision making process and any departures from, or exceptions to, the policies and any other extraordinary matters.

At least annually, a summary report of investment manager proxy voting actions and how ESG factored into the voting shall be provided to the Planning and Resource Committee of the Board of Governors.

Fund managers associated with Real Assets are excluded from this requirement.

Section 12– Fund Manager Reporting

Each Fund Manager shall provide the Treasury Department with quarterly statements including the performance, attribution of the performance, future investment strategy, compliance with the mandate and a listing of the assets in the portfolio. At least annually, each fund manager shall provide Treasury with a report of proxy voting actions and how ESG factored into the voting.

In the event that a Fund Manager is not in compliance with their mandate, the Fund Manager is required to notify the Treasurer as to the reasons for the non-compliance and to outline the course of action, including timing that will rectify the situation. The Treasurer will inform the Investment Pool Committee of the situation.

Fund Managers will make a presentation to the Investment Pool Committee on a periodic basis.

Section 13 - Conflict between Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, 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. However, wherever such a conflict results in non-compliance with the Policy, the Fund Manager must report this conflict explicitly in its compliance report.

Section 14– Conflict of Interest

For the purpose of this statement a conflict of interest is defined as any event in which any employee or member of or consultant to:

- Board of Governors,
- Planning and Resources Committee,
- Audit Committee,
- Investment Pool Committee,
- Investment Manager(s),
- Custodian/Trustee, and/or
- Consultant,

or any directly related party may gain a financial or other advantage from knowledge of, or participation in, an investment decision of the Fund, or a circumstance that could reasonably be interpreted as impairing his/her ability to render unbiased and objective advice or to fulfil his/her fiduciary responsibilities to act in the best interest of the Fund.

It is not possible to anticipate in advance, in this statement, the multitude of situations which can arise. All persons listed above must, therefore, be cognizant of the possibility that conflicts, or perceived conflicts, may arise and must make timely and full disclosure in accordance with generally accepted concepts of fiduciary responsibilities and in accordance with the procedures set forth below:

Responsibilities
This standard applies to the persons named above in the execution of their responsibilities (the "Affected Persons").

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 Fund's assets.

Further, it is required 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 his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour that is material, from a person with whom the Affected Person deals in the course of performance of his or her duties and responsibilities for the Fund.

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

in writing to the Chair of the respective Committee within three business days after the individual becomes aware of the conflict of interest. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of the Fund's business. The respective committee, 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 Committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the manner in which the conflict was resolved will be recorded in the minutes of the Committee.

Section 15 – Related Party Transactions

The Investment Pool Committee, on behalf of the Fund, may not enter into a transaction with a related party unless:

- The transaction is both required for operation and or administration of a Fund and the terms and conditions of the transaction are not less favourable than market terms and conditions; or,

- Securities of the related party are acquired at a public exchange.

A "related party" is defined to mean the administrator of the Fund, including any officer, director or employee of the administrator, or any person who is a member of the Committee. It also includes the Investment Managers and their employees, 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. The concept of "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 Fund, where that person is not the administrator of the Fund.

Section 16 – Other Policy Items

Valuation of Securities:

It is expected that all of the securities held by the Fund will have an active market and that the values of such securities will be based on their market values. The exception to this is Real Assets (Private Infrastructure and Private Real Estate) where it will be based generally on appraisals conducted on a periodic basis.

Investments that are not regularly traded shall be valued at least annually by the Fund's custodian in co-operation with the Fund Manager. In making such valuations, consideration

shall be given to bid and ask prices, previous transaction prices, discounted cash flow, independent appraisal values, the valuations of other comparable publicly- traded investments and other valuation techniques that are judged relevant to the specific situation.

Policy Review:

This Statement shall be reviewed at least annually by the Investment Pool Committee, the Planning and Resources Committee and by the Board of Governors with respect to the appropriateness of the policies and objectives contained therein.

Investment Pool Carbon Footprint Reporting:

At least every five years (ideally annually), a report summarizing the measurement of the Investment Pool's carbon footprint shall be made available for review by the Investment Pool Committee and Planning and Resources Committee.

Section 17 - Responsible Investing:

McMaster's responsible investing approach is to integrate environmental, social and governance (ESG) factors into investment processes and decision-making in order to better manage risk and generate sustainable long-term returns. The University believes that ESG factors can have a material impact and financial implication on the risk and return profile of its investments

The University recognizes that, environmental, social and corporate governance (ESG) issues, including government/public policy and disclosure concerns can affect the performance of companies in which the Investment Pool invests and consideration should be given to how managers analyze and integrate ESG factors into their investment process when selecting fund managers.

The University responsible investment approach aligns with the United Nations supported Principles for Responsible Investment ("PRI"). The University is committed ~~in~~ **to** taking the appropriate steps to making investment decisions that incorporates ESG issues, data and factors while meeting its fiduciary responsibilities and duties to optimize long-term investment returns.

Where consistent with fiduciary responsibilities, the University is committed to the six PRI principles listed below[1].

- Principle 1: We will incorporate ESG issues into investment analysis and decision-making processes.
- Principle 2: We will be active owners and incorporate ESG issues into our ownership policies and practices.
- Principle 3: We will seek appropriate disclosure on ESG issues by the entities in which we invest.
- Principle 4: We will promote acceptance and implementation of the Principles within the investment industry.
- Principle 5: We will work together to enhance our effectiveness in implementing the Principles.
- Principle 6: We will report on our activities and progress towards implementing the Principles.

Scope

The responsible investment approach is applicable to Investment Pool assets invested in listed equities and listed infrastructure. Other asset classes will be considered, including fixed income and real asset classes, to the extent that the investment manager has discretion for the portfolio and sufficient data is available to evaluate ESG criteria.

[1] The implementation will be aligned with the investment type (e.g. pooled funds vs. direct investments).

Appendix 1

MCMASTER UNIVERSITY
INVESTMENT POOL VALUE ADDED RATE OF RETURN OBJECTIVE

ASSET CLASS	ALLOCATION TO ACTIVE MANAGEMENT %	EXPECTED ANNUALIZED VALUE ADDED BY ASSET CLASS (bps) (a)	ACTIVE COMPONENT OF ASSET MIX % (b)	EXPECTED ANNUALIZED VALUE ADDED FROM ACTIVE MANAGEMENT (bps) (a x b)
CANADIAN EQUITY	100%	75	10	7.5
U.S. EQUITY	100%	50	25	12.5
EAFE EQUITY	100%	150	25	37.5
BONDS	79%	20	20	4
REAL ASSETS	100%	200	20	40
				101.5
	Assume 60% Success Rate (Management Estimate)			60%
	Total Fund Value Added Rate of Return Objective*			60

*intentionally rounded down from 60.9 to 60 bps

(1) Pending the full funding of the Real Asset portion of the portfolio, we expect the Total Fund Value Added Rate of Return Objective to be lower than what is stated in the table above.

Appendix B.

Investment Pool –Investment Strategy Update

McMaster University TREASURY OPERATIONS

MAILING ADDRESS
OJN, Room 417
Treasury Operations,
1280 Main Street West
Hamilton, ON
L8S 4L8

COURIER ADDRESS
OJN, Room 417
Treasury Operations
1 James Street North
Hamilton, ON
L8R 2K3

Tel: 905.525.9140 Ext.24790
Fax: 905.529.3272

http://www.mcmaster.ca/bms/BMS_Treasury.htm

May 10, 2019

To: Planning and Resources Committee

From: Investment Pool Committee

Subject: Investment Pool Committee - Strategy Update

This memo summarizes the Investment Pool Investment Strategy review and proffers a recommendation to revise the strategic asset mix to improve expected future returns while managing risk and carbon footprint.

Background

Historically, the Investment Pool's strategic asset allocation has been effective in achieving the 5% target real by generating 5.2% net real return since 1993. However, analysis prepared by Russell Investment Consulting, informed the Investment Pool Committee ("Committee") that the current strategic asset mix is not expected to achieve the target real return of 5% due to lower expected future returns (equities and bonds).

Since late 2017, the Committee reviewed investment alternatives and scenario asset mixes. The Committee identified the best actions balancing returns and risk (refer to Appendix 1 for Analysis timeline) are to:

(1) increase allocation to real assets to 20% from 5% funded by reducing fixed income allocation to 20% (from 35%); and

(2) reduce the Canadian Equities allocation to 10% from 20% and increase the allocation for non-Canadian Equities to 25% from 20% (5% increase for each: U.S. and Non-North American Equities).

Rationale

Russell Investments and the Committee believe that long-term real rates of returns will likely remain low for some time. The Committee agrees that the policy asset mix is a long term investment strategy that is not be changed frequently for short-term market conditions, however suggests changes to asset mix will be necessary to preserve returns while managing risks during period of persistently low expected future returns.

The Committee will conclude its asset strategy review work by recommending changes to the Statement of Policies and Objectives in the fall of 2019. Asset mix changes increase allocations to real assets (real estate and infrastructure) and reduce weighting to Canadian equities for the following reasons:

- To improve expected returns without materially changing portfolio risk of the portfolio;
- To improve the Investment Pool's carbon footprint by virtue of breadth of assets held;
- To better match the investment mix with the lower liquidity requirements of endowed funds and long term horizon of other funds invested, which is expected to further diversify the portfolio and improve return by capturing the liquidity premium; and
- By reducing current portfolio overweight to Canadian equities (20% allocation) improves portfolio diversification, given Canadian Equities represent only 3.3% of the world's market capitalization.

Expected Impact of Changes Under Consideration
The expected long-term impact of the asset mix policy changes is for future expected real returns to increase by 45bps, modestly reduce risk (as measured by average worst 5% of returns) and increase the probability of achieving the 5% real return (refer to table 1 and Appendix 2).

Table 1- Strategic Asset Allocation Scenarios – Expected 20 yr. Return and Worst 5% (20 yr. Horizon)

Portfolio	**Expected 20 Yr. Annualized Real Return**	**Asset Mix Equities/Bonds /Real Assets**	**Average of Worst 5% (CTE95)**	**Probability of Achieving 5.0% Real Return**
Current Investment Policy Mix	4.05%	60/35/5	-0.5%	26%
Recommended Long-term Policy	4.50%	60/20/20	-0.3%	32%

(Source: Russell Investments- Asset Allocation Analysis – December 2018 – Expected Real Return is net of expected inflation)

The asset mix change may improve the carbon footprint of the Investment Pool driven by the reduction in Canadian equities, since Canadian equity markets are more carbon intense due to higher sector weightings in energy of 20% relative to global market weighting of 6.5% (refer to Appendix 3).

For risk management purposes, the reallocation of funds into non-Canadian equities will be on unhedged basis. The rationale is that the Canadian Dollar is pro-cyclical and therefore tends to weaken when markets decline, which in turn lessens the impact of negative returns on non-Canadian equities.

Russell Quantitative Analysis background
Russell Investments prepared risk analysis of the probability of the current (i.e. 60% equities, 35% bonds and 5% real assets) and alternative asset mixes exceeding a 5% real rate of return over the next 20 years. The asset class forecasting considers variations in asset returns through time and across possible market environments. Interdependence among returns is modelled using a correlation structure that applies proprietary expertise to historical information. Ultimately, 20-year paths across 1,000 possible scenarios was utilized using a range of projected economic factors such as inflation, interest rates, and asset class returns. The model generates a distribution of financial results along with downside risk and expected return outcomes. The model results indicated the probability of achieving a 5% real rate of return over the next 20 years was about 26% with the current policy asset mix[1]. The primary reason for the lower forecasted returns is the current low level of bond yields and the high prices for both bonds and equities compared to the historical period.

Next Steps
(1) Hire a Real Asset Consultant to advise the Investment Pool Committee on an implementation plan and strategy to increase the real asset target over time while managing risk (requires Planning and Resources Committee ("PRC") approval – on May 23, 2019 Agenda) - Target completion date: June 2019
(2) Update SIP&O to reflect the proposed Transition Asset Mix and Longer-term Asset Mix (requires PRC and Board of Governors approval) – Target completion date: October 2019
(3) Implement the reduction in Canadian Equities by reallocating to existing managers non-Canadian managers (excluding underperforming managers) and/or other approved investment managers, as appropriate – Target completion date: Q4, 2019
(4) Complete a review of the non-Canadian managers that have not met performance expectations – Target completion date: Q4, 2019
(5) Continue to monitor investment performance closely (ongoing)

[1] The model utilized the December 31, 2016 capital market assumptions. These were used throughout the different iterations of analysis for purposes of consistency.

Appendix 1. Background – Investment Strategy Analysis- Timeline

Q3, 2017: The Investment Committee reviewed Investment Pool Risk and Endowment analysis prepared by Russell Investments associated with the expected future probability of achieving the target net real return of 5%. This analysis identified that although the investment pool strategy was successful achieving the target net 5% real return historically, the probability of achieving the target in the future was low. The reason for the reduced expected future returns driven by high valuations for equity and fixed income assets,

Q4, 2017: The Investment Pool Committee asked Russell Investments ("Russell") to conduct an in depth investment strategy review comparing various investment mixes and average university asset mix (based on CAUBO U15 asset mix data). The analysis concluded that McMaster asset mix differed materially from that of its peers. McMaster's Investment Pool has a higher factor risk in equities and interest rates, lower exposure to alternatives than its peers.

Q1, 2018: The Investment Pool Committee reviewed various asset classes that could be potentially incorporated into the investment strategy mix. The Investment Pool provided instruction to Russell to prepare updated Asset Allocation scenarios for evaluation.

Q2, 2018: The Investment Pool Committee reviewed and discussed updated Russell analysis and agreed to increase the Investment Pool target allocation to Real Assets from 5% to 20% over time. However, as the consequence of the finalization of the report from the President Advisory Committee on Fossil Fuels Divestment ("PACFFD"), the Investment Committee was asked to investigate the possibility of revising the Investment Pool Investment Strategy to reduce its Carbon Footprint, while maintaining risk and/or maintaining or improving investment return.

Q4, 2018: The Investment Committee reviewed Russell risk and return analysis which compared various investment strategies that tilted the investment mix away from carbon intensive jurisdictions which if executed may result in reducing carbon footprint by comparing projected returns to risk

Q1, 2019: After a thorough discussion the Committee decided that the best option at this time would be to revise the current asset mix policy benchmarks increase allocation to Real Assets funded by a reduction in allocation to fixed income and to reduce weighting to Canadian Equities and increase weighting in U.S. and non-North American equities. for the following reasons:

The Committee agreed that although, the policy asset mix should be a long term investment strategy that should not be changed frequently in response to volatile short term market conditions, changes are necessary given the expectation of persistently low expected returns.

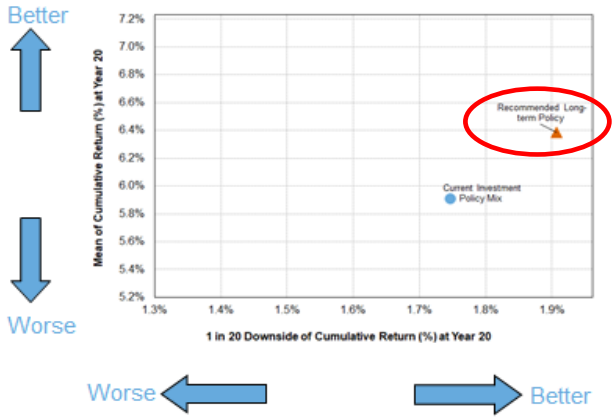
- Proposed changes improve expected returns but are not expected to materially change the risk of the portfolio and are expected to modestly improve the carbon footprint
- Increased allocation to real assets better matches the long-term investment profile and low liquidity requirements of the investment pool which is expected further diversify the portfolio and improve return by capturing the liquidity premium.
- Real assets with longer term cash flows provide a source of improved return by accepting a liquidity premium in exchange for accepting reduced liquidity
- Reducing current portfolio is overweight Canadian Equities (20% allocation) improves portfolio risk diversification, given Canadian Equities represent only 3-4% of world capitalization
- Annual payout rate on endowed funds is reviewed annually which continues to provide some additional flexibility to respond to any large short term negative returns that may occur

The Committee believes that long term real rates of returns will likely remain low for some time. Consequently, it is important to continue monitor returns and targets on a regular basis going forward.

Appendix 2- Russell Investment Return/Risk Analysis

Risk and Reward Trade-offs Across Portfolios

Annualized Nominal Return – 20 Year[1]



- Reward measured in terms of the mean of the key metric
- Top right corner of graph indicates better results; bottom left corner indicates less favorable results

1. "CR" = Carbon Reduction. All information is based on assumptions. Assumptions calculated using the allocations noted above and the Russell Capital Markets Assumptions (December 2016 - for consistency with previous presentations. Please refer to the Appendix) Expected returns employ proprietary projections of the returns of each asset class. *The assumptions take fees into consideration and all returns are assumed net of fees. Results include alpha and tracking error.* We estimate the performance of an asset class or strategy by analyzing current economic and market conditions and historical market trends. It is likely that actual returns will vary considerably from these assumptions. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve. Forecasting represents predictions of market prices and/or volume patterns utilizing varying analytical data. There is no guarantee that the stated results will occur.

p.5

Russell Investments

Risk and Reward Trade-offs Across Portfolios

Annualized Real Return – 20 Year[1]

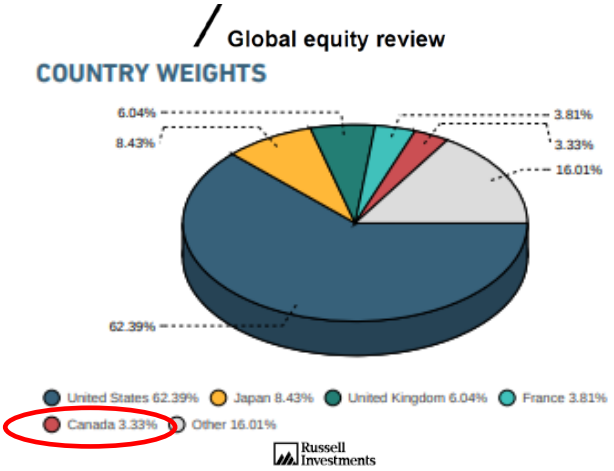
- Reward measured in terms of the mean of the key metric
- Top right corner of graph indicates better results; bottom left corner indicates less favorable results

1. "CR" = Carbon Reduction. All information is based on assumptions. Assumptions calculated using the allocations noted above and the Russell Capital Markets Assumptions (December 2016 - for consistency with previous presentations. Please refer to the Appendix) Expected returns employ proprietary projections of the returns of each asset class. *The assumptions take fees into consideration and all returns are assumed net of fees. Results include alpha and tracking error.* We estimate the performance of an asset class or strategy by analyzing current economic and market conditions and historical market trends. It is likely that actual returns will vary considerably from these assumptions. References to future returns for either asset allocation strategies or asset classes are not promises or even estimates of actual returns a client portfolio may achieve. Forecasting represents predictions of market prices and/or volume patterns utilizing varying analytical data. There is no guarantee that the stated results will occur.

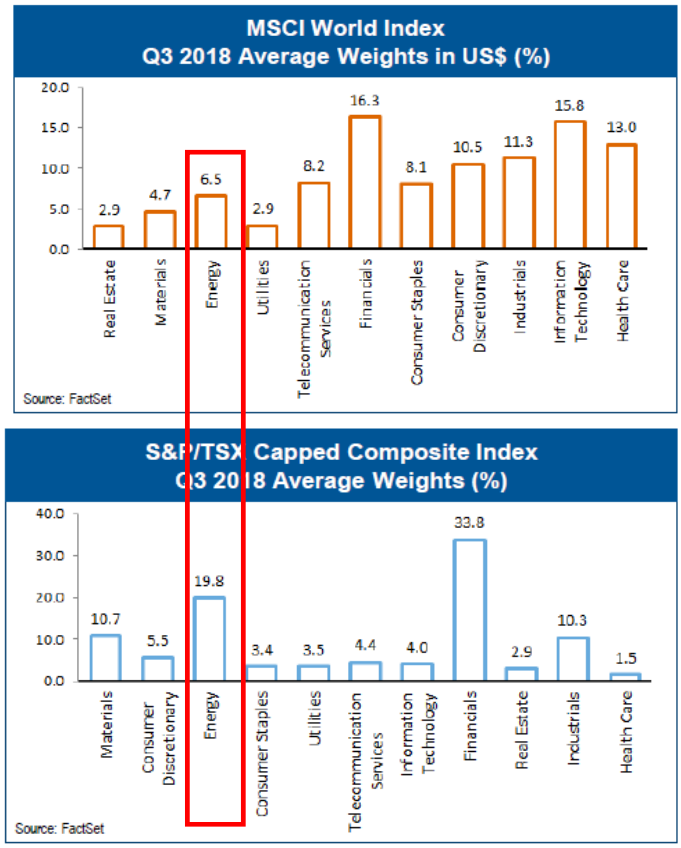
p.4

Russell Investments

Appendix 3. Global Public Equities - Country Weights



Appendix 3. Energy Sector Weights – MSCI World Index (World) vs. S&P/TSX (Canada)



Appendix C.

Guideline –Investment Risk Monitoring- Investment Pool Committee

Guideline - Investment Risk Monitoring – Investment Pool Committee

Date:	September 11, 2019
Approved:	Investment Pool Committee ("IPC")
Responsible Executive:	Treasurer

Background

This guideline outlines the investment risk monitoring associated with the Investment Pool investments. This Guideline is aligned with the Statement of Investment Policies and Objectives for the Investment Pool. ("SIP&O").

Investment Risk Tolerance – Expected Volatility

The expected volatility of investment returns for the Fund is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities, Canadian bonds and Real Assets. Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined in Section 8 of the SIP&O. It is expected that the volatility of Fund returns should be similar to the volatility of the Long –term Strategic Benchmark Portfolio set out in Section 7 of the SIP&O.

In addition to monitoring the asset mix and investment limits stipulated in the SIP&O, the Committee will further monitor the volatility of the Investment Pool and underlying Fund Managers on an ongoing basis.

Investment Risk Monitoring and Metrics

For the purposes of this Guideline, Investment Risk is defined as the volatility of total return measured on a rolling 10 year basis. The IPC will monitor the Investment Risk of investments on quarterly basis. The investment risk metric, target and maximum risk budget is defined in table 1 below.

If the Investment Portfolio volatility (measured at least annually) exceeds the volatility of the maximum risk budget, the Treasurer supported by the investment consultant will investigate and recommend a course of action, if appropriate.

Table 1 - Investment Risk Metric and Risk Budget

Item	Description
Investment Risk Metric	Volatility of Total Return of Actual Investment Portfolio
Risk Target	Volatility of Total Return Target Asset Mix Portfolio
Risk Budget (Limit)	Volatility of Total Return Maximum Risk Portfolio

Definition: Maximum Risk Portfolio – Represents the hypothetical passive investment portfolio comprised of the maximum allocation to equities (return seeking) and the minimum allocation to fixed income and real assets (risk reducing and diversifying assets). Refer to Appendix 1 for the asset mix associated with the target and maximum risk portfolios.

Appendix 1- Target and Maximum Risk Portfolio Asset Mix

Target Asset Mix*

	Strategic Asset Allocation	Transition Asset Allocation
Return Seeking Assets		
Equities	60%	60%
Real Assets	20%	5%
Total Return Seeking Assets	**80%**	**65%**
Risk Reducing		
Bonds	**20%**	**35%**
Total	**100%**	**100%**

*Note: During the transition to real assets the transition mix and limits will be used.

Maximum Risk Benchmark Portfolio*

	Strategic Asset Allocation	Transition Asset Allocation
Return Seeking Assets		
Equities (A= 100% - (B+C))	75%	77.5%
Real Assets (B)	10%	2.5%
Total Return Seeking Assets (maximum)	**85%**	**80%**
Risk Reducing		
Bonds (C) (minimum)	**15%**	**20%**
Total (D)	**100%**	**100%**

Maximum Risk = Volatility of Maximum Risk Benchmark Portfolio

*Note: During the transition to real assets the transition mix and limits will be used.

PRC/BOG Summary of Approval Request

September 24, 2019

Statement of Investment Policies and Procedures

Recommendation

That the Planning and Resources Committee ("PRC") approve, for recommendation to the Board of Governors, the revised Hourly Pension Plan Statement of Investment Policies and Procedures ("SIP&P").

Financial Implications: No immediate implications.

Description/Background: The Hourly Pension Plan Committee (HPPC) completed an in depth review of the SIP&P with its investment consultant (Mercer) following an Asset/Liability (A/L) study and investment strategy review of the portfolio. As an outcome of this review, the investment beliefs, risk related sections, and asset mix have been updated. In addition, the policy includes updates to align with regulatory requirements and industry practice.

The attached summary HPPC memo identifies these and other additional housekeeping changes and provides both a blackline and clean copy of the SIP&P.

Alignment with university strategy: The policy updates are aligned with the HPPC investment strategy review and objectives.

Important considerations: The SIP&P changes, once approved, will result in a modification to HPPC's investment monitoring.

Major risks: If the updated SIP&P is not approved, the Hourly Pension Plan will not be aligned with the current regulatory requirements and industry practices.

Mitigating factors identified: HPPC will continue to monitor performance relative to investment objectives overall and by asset class. A new maximum risk tolerance limit will be implemented in Q4, 2019. The risk tolerance will be monitored in accordance with a new monitoring guideline to be approved at the Q4, 2019 HPPC meeting. HPPC will continue to draw on the expertise of its membership and third party consultant (Mercer) to manage risk with risk tolerance.

Prepared By: Financial Affairs

Reviewed by: AVP (Administration) & CFO

McMaster University

Steven Moore, MBA, CPA, CGA, CFA, CIPM, CTP
Treasurer

One James North, Rm 417
1 James Street North
Hamilton, Ontario, Canada
L8R 2K3

Phone: 905.525.9140, Ext. 24790
Fax: 905.529.3272
E-mail: moores11@mcmaster.ca

Date: September 10, 2019

From: Hourly Pension Plan Committee

To: Planning and Resources Committee

Subject: Statement of Investment Policies and Procedures – Hourly Plan

---

Recommendation:

That the Planning and Resources Committee approve for recommendation to the Board of Governors, the revised Statement of Investment Policies and Guidelines for Contributory Pension Plan for Hourly Employees as shown in Appendix A.

The Pension Benefits Act requires that the Contributory Pension Plan for Hourly-Rated Employees of McMaster University Including McMaster Divinity College's ("Hourly Plan") Statement of Investment Policy and Procedures (SIP&P) be reviewed each year. Mercer has reviewed the existing policy in detail. The proposed revisions update the policy to better align with the industry practices, reflect changes in legislative requirements, updates to reflect the investment strategy review/asset/liability study and to reflect several items of a housekeeping nature. Appendix A is the revised policy with blacklined changes.

The material changes to the policy are summarized in the table below:

Table 1. Summary of Proposed Policy Changes

Reference	Comments
a) Section 1.2 (pg. 1), 1.3 (c) (pg. 2) &Appendix A (pg. 32)	To align with industry practice and regulatory requirements Section 1.2, 1.3(c) and Appendix A have been removed from the Policy as they are not required in the SIP&P document. If included, these items may generate requirements for more frequent SIP&P updates than necessary in order to maintain data in these sections. To maintain transparency, the information in Appendix A will be made available in the notes to the Pension Plan Financial Statement
b) Section 1.5 (pg. 2&3)	The investment objectives and risk section of the SIP&P has been updated to reflect the results of the asset/liability study and investment strategy review. The updated language reflects the Plans objectives, risk appetite and risk tolerance of the Hourly Pension Plan Committee. The target portfolio mix was derived as the best fit portfolio, at this time, to manage the objectives of the Plan
d) Section 2.2 (pg. 10)	The investment risk monitoring for the pension has been enhanced to monitor the implementation of the strategic asset mix relative to the expectations and risk tolerance. Commencing in Q4, 2019, the Committee will monitor the

	actual volatility of the investment portfolio relative to target and maximum risk benchmark. The maximum risk represents the maximum allocation of assets into higher return seeking asset (equities) and the minimum allocation to risk reducing (fixed income) assets permitted by the asset mix ranges.
f) Section 2.4 (b) (pg.12)	A new table has been added to meet the new categorization requirements associated with the Pension Benefits Act. In addition, additional language associated with the minimum rating for investment allocation to fixed income securities has been incorporated.
h) Section 3.2 (pg. 13) and 5.9 (pg. 29)	New section regarding Derivatives, Option and Futures has been added to meet Form 14 requirement which replaces old section 3.2 d. and remove redundant section 5.9.
i) Section 3.3 (a) (pg. 13)	Updated language to align with McMaster Salaried Pension plan SIP&P and to provide more specificity
j) Section 3.5 (a) (v) (pg. 16)	Added in restriction limiting percentage of portfolio invested in Income Trusts and Royalty Trusts to be consistent with the McMaster Salaried Pension plan SIP&P
k) Section 3.5 (b) (v) (pg. 18)	Added in restriction limiting percentage of portfolio invested in bonds of foreign issuers to be consistent with the McMaster Salaried Pension plan SIP&P
l) Section 3.5 (b) (vi) (pg. 18)	Reduced maximum percentage of portfolio invested in private placements and asset backed securities in the bond portfolio.
m) Section 3.7 (d) (pg. 19)	Updated Prohibited Investments to include investments in securities issued by McMaster or its affiliates.
n) Section 3.8 (pg. 19)	Updated Securities lending language to align with other McMaster policies.
o) Section 3.10 (pg. 20 & 21)	Updated liquidity language section and remove redundant liquidity section
p) Section 3.11 (pg. 21)	Included updated ESG language to align with the McMaster Salaried Pension plan SIP&P
q) Section 4.3 (pg. 23)	Updated Standards of Professional Conduct to align with the McMaster Salaried Pension plan SIP&P
r) Section 5.2 (pg. 25)	Updated Related Party language to align with regulatory requirements and the McMaster Salaried Pension plan SIP&P
s) Section 5.6 (pg. 29)	Updated Voting Rights to align with industry practices and McMaster Salaried Pension plan SIP&P

Appendix A.

STATEMENT OF INVESTMENT POLICIES AND PROCEDURES

FOR

CONTRIBUTORY PENSION PLAN FOR HOURLY EMPLOYEES

Planning Resources Committee– **FOR APPROVAL**
September 26, 2019

McMaster University

Policies, Procedures and Guidelines

Complete Policy Title:
Statement of Investment Policies and Procedures

McMaster University Contributory Pension Plan for Hourly-Rated Employees

Policy Number (if applicable):
N/A

Approved by:
Board of Governors

Date of Most Recent Approval:
~~**October 22, 2015**~~**[TBD]**

Date of Original Approval(s):
February 17, 2005

Supercedes/Amends Policy dated:
October 22, 2015

Responsible Executive :
Assistant Vice-President (Administration)

Enquiries:
[**Business Management Services**]

DISCLAIMER: *If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.*

Contents

Section 1—Overview 1
- 1.1 Purpose of Statement 1
- 1.2 Background of the Plan 1
- 1.3 Plan Profile 1

Section 1—Overview

1.1 Purpose of Statement

This Statement of Investment Policies and Procedures (the 'Policy') is intended to set out the investment framework which shall apply at all times for the ~~McMaster University~~ Contributory Pension Plan for Hourly-Rated Employees of McMaster University Including McMaster Divinity College (the 'Plan').

This Policy is based on the 'prudent person portfolio approach' to ensure the prudent investment and administration of the assets of the Plan (the 'Fund') within the parameters set out in the Pension Benefits Act (Ontario) and the regulations thereunder. ~~This Policy recognizes the CFA Institute prudent investor guidelines, which require fund's fiduciaries to maintain overall portfolio risk at a reasonable level, i.e., risk and return objectives must be reasonable and suitable to the trust. (see Section 4.3)~~

1.2 Background of the Plan

McMaster University was established in 1887 by the bequest of William McMaster and is a university incorporated under the laws of the Province of Ontario, which provides operating grants annually to the University.

The University sponsors the Plan, which is a defined benefit pension plan into which its contributions and the employees' contributions are deposited. These contributions are made biweekly and are remitted before the end of the following month to the Plan's trustee.

As directed by the McMaster University Hourly Pension Plan Retirement Committee (the ~~Committee~~'Committee'), the University contracts with third parties to provide trustee, custodial, investment management, actuarial, and consulting services. ~~The Plan's current Trustee, Custodian of its assets, Investment Manager(s), Actuary, and Consultant are identified in Appendix A to this Statement. This appendix also provides information on the number of Plan Members and the value of Plan assets.~~

Retiree benefits are paid from the Plan. Also paid from the Plan are termination and death benefits, trustees' fees, audit fees, actuaries' fees, investment ~~counsel~~management fees, consultants' fees, filing fees and other related costs as approved by the Committee.

1.3 Plan Profile

(a) **Contributions**

The Plan is contributory. Each ~~Member~~Plan member is required to contribute in accordance with the Plan Text and limited by specified maximums, as applicable.

The University will pay the balance required to provide the cost of benefits. The minimum University contribution each year is an amount equal to the contributions made by the Plan ~~Members~~members during the year.

(b) **Benefits**

For service prior to January 1, 1986, the amount of annual pension will be the pension earned to December 31, 1985 increased in accordance with periodic amendments thereafter.

For service after December 31, 1985, the amount of annual pension payable to a ~~Member~~Plan member will be:

(i) 1.4% of Best Average Earnings up to the Average Year's Maximum Pensionable Earnings times years of Credited Service, plus

(ii) 2.0% of Best Average Earnings in excess of the Average Year's Maximum Pensionable Earnings times years of Credited Service.

The amount by which twice the ~~Member's~~Plan member's required contributions with interest exceed the ~~Commuted Value~~commuted value of the Member's benefit shall be paid to the ~~Member~~Plan member. Pensions in payment after January 1, 2003, will be increased by the excess over 6% of the 5 year average return on the ~~fund~~Fund, subject to a maximum increase equal to the change in the CPI for the previous Plan ~~Year~~year.

~~**Liabilities**~~

~~As of the most recent actuarial valuation dated July 1, 2013, the going concern liability of the Plan was $46.6 million. Approximately 48% of the liability was attributable to active Members and 50% of the liability was attributable to pensioners and survivors. The balance of the liability was attributed to deferred pensioners and inactive Members.~~

1.4 Objective of the Plan

The objective of the Plan is to provide participants with defined pension benefits based on a Best Average Earnings and with potential indexation of retirement benefits, as defined in the Plan Text. It is important to set up an appropriately diversified asset mix in order to ensure continued prudent and effective management of ~~pension fund assets~~the Fund.

1.5 Investment Objectives, Beliefs and Risk ~~Philosophy~~Appetite

Funding Objectives

The Plans' funding objectives are to:

(a) Manage the volatility and level of contributions;
(b) Maintain benefit security, and
(c) Reduce the likelihood of special solvency payments and target to maintain the solvency funded ratio above 85% at all future actuarial valuation dates.

Investment Objectives

The investment objective of the Plans' investments is to earn a return sufficient to keep the Plan sustainable over the long term, while keeping benefit levels and contribution rates stable. This requires an appropriate balance between risk and return.

Risk Appetite

Based on the characteristics of the Plan, the Committee has determined that the Plan has a

moderate ~~tolerance of investment risk. Therefore, a long-term asset mix strategy with an average equity content compared to other Plans has been adopted provided that the equity component is well diversified~~risk appetite for investment risk, as demonstrated by the approved asset classes, investment targets and limits within this policy.

Investment Beliefs

The Hourly Pension Committee ("Committee") has, from time to time, reviewed and confirmed its investment beliefs which take into consideration the types of investments and associated risks that are aligned with investment objectives and risk appetite.

The Committee recognizes that, based on historical data and on ~~forecast~~forecasted returns, the asset classes most likely to produce the greatest return in excess of inflation 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~~The investment philosophies and strategies must take into account both return and risk objectives.

Therefore, it is reasonable to adopt a long-term asset mix strategy with an appropriate equity content that is well diversified.

1.6 Delegation of Responsibility and Administration

The University is the legal administrator of the Plan and is therefore responsible for all matters relating to the administration, interpretation and application of the Plan, including developing, monitoring and amending this Policy. The Committee assists the University with the administration of the Plan.

Overall responsibility for the Plan ultimately rests with the Board of Governors of the University. The Committee assists the Board in fulfilling its fiduciary responsibilities. As well, other suppliers assist the University as described below.

(a) **The Board of Governors will:**

(i) Determine the level of the University's contribution to the Plan on the recommendation of the ~~Finance~~Planning and Resources Committee and in accordance with the guidelines set out in the Hourly Pension Plan text;

(ii) Consider items endorsed by the ~~Finance~~Planning and Resources Committee and approve where appropriate;

(iii) Be responsible for the delegation of any responsibilities not specifically mentioned.

(b) **The ~~Finance~~Planning and Resources Committee of the Board of Governors will:**

(i) Consider recommendations by the Committee concerning the level of the University's contribution to the plan and endorse those recommendations to the Board of Governors where appropriate;

(ii) Consider items brought forward by the Committee for approval and endorse recommendations to the Board of Governors where appropriate.

(c) The Committee will:

(i) Approve and make recommendations where necessary to the ~~Finance~~Planning and Resources Committee regarding changes to the Investment Manager(s), Custodian/Trustee, and Investment Consultant;

(ii) Monitor and review performance of the Investment Manager(s) on a qualitative and quantitative basis at least semi-annually;

(iii) Review the Fund's performance on a quarterly basis, and approve situations of deviations or proposed deviation by the Fund Manager from the Policy to the ~~Finance~~Planning and Resources Committee;

(iv) Discuss and promote awareness and understanding of the Plan by Members of the Plan and persons receiving benefits under the Plan;

(v) Review the Statement of Investment Policy and Procedures (the "Policy") at least annually, make changes, and endorse to the ~~Finance~~Planning and Resources Committee for approval as required;

~~(vii)~~(vi) Review the actuarial valuation, changes in methods and assumptions and its impact upon the Plan, and endorse to the ~~Finance~~Planning and Resources Committee for approval;

~~(viii)~~(vii) Review the financial statements and endorse to the ~~Finance~~Planning and Resources Committee for approval;

~~(ix)~~(viii) Approve and recommend to the ~~Finance~~Planning and Resources Committee proposed changes to the Plan text;

~~(x)~~(ix) Consider other matters as may be referred to the Committee by the participating unions, ~~Finance~~Planning and Resources Committee or the Board of Governors;

(d) **The Investment Manager(s) will:**

(i) Invest the assets of the Fund in accordance with this Policy and applicable legislation;

(ii) Notify the Committee, in writing, of any significant changes in the Investment Manager's philosophies and policies, personnel or organization and procedures;

(iii) Meet with the Committee as required and provide written reports regarding their past performance, their future strategies and other issues requested by the Committee; and

(iv) Provide semi- annual compliance reports that confirms that the Manager has complied with the Policy or identifies areas of non-compliance.

(e) **The Custodian/Trustee will:**

(i) Maintain safe custody over the assets of the Plan;

(ii) Execute the instructions of the University and the Investment Manager(s); and,

(iii) Record income and provide monthly financial statements to the University as required.

(f) **The Actuary will:**

(i) Perform actuarial valuations of the Plan as required;

(ii) Advise the Committee on any matters relating to the Plan design, membership and contributions;

(iii) File appropriate documents and reports with relevant authorities; and

(iv) Assist the Committee in any other way required.

~~(iv)~~

(g) **The Investment Consultant will:**

(i) Assist in the development and implementation of this Policy;

(ii) Monitor the performance of the Fund and the Investment Managers and advise the Committee on such performance;

(iii) Monitor the Investment Managers' compliance reports;

(iv) Support the Committee on matters relating to investment management and administration of the Fund; and,

(v) Meet with the Committee as required.

(h) **University Management will:**

(i) Comment and make recommendations to the ~~Finance~~Planning and Resources Committee on the appointment of the Actuary;

(ii) Ensure the plan's administration complies with all applicable legislation and regulations;

(iii) Make recommendations to the parties to the collective agreements regarding amendments to the plan text;

(iv) Perform any duties or obligations not noted above and as described in Article 13 – *Administration of the Plan* of the Plan text.

Section 2—Asset Mix and Diversification Policy

2.1 Investment Objectives - Portfolio Return Expectations

The Fund will be managed on a going-concern basis. The primary objective is to ensure that the benefits defined in the Plan can be paid.

The secondary performance objective is to outperform a benchmark portfolio constructed from rates of return (including income) of the Standard & Poor's Toronto Stock Exchange Composite Index (S&P/TSX Composite Index), the Standard & Poor's 500 Index (S&P 500 Index), the Morgan Stanley Capital International Europe, Australasia and Far East Index (MSCI EAFE Index) and the FTSE ~~TMX~~Canada Universe Bond Index over rolling four-year time periods.

2.2 Investment Risk Tolerance - Expected Volatility

The expected volatility of investment returns for the Fund is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities and Canadian bonds. ~~In that regard,~~Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined in Section 2.4. It is expected that the volatility of Fund returns should be similar to the volatility of the Total Combined Fund Benchmark Portfolio set out in Section 4.1.

The Committee will monitor the volatility of the fund and underlying manager(s).

2.3 Management Structure

The Committee believes that an Investment Manager with an active mandate can reduce portfolio risk below market risk and potentially add value both through security selection and asset allocation strategies.

2.4 Asset Mix

(a) **Overall Asset Mix**

The benchmark portfolio is representative of the long-term asset mix policy for the Fund as set out by the Committee. The ~~total~~Total Fund benchmark portfolio and asset mix guidelines (by market value) are set out below:

Assets	Minimum %	Benchmark %	Maximum %
Canadian equities	10	20	30
U.S. equities	8	18	28
Non-North American equities	7	17	27
Total equities	~~40~~35	55	70
Bonds	25	45	65
Cash and Short-term	0	0	10
Total Fixed Income	~~25~~30	45	65
Total		100	

The actual asset mix at any time may deviate from the Benchmark indicated above. The manager shall monitor and adjust the asset mix to ensure that the actual asset mix stays within the ranges as indicated by the minimums and maximums specified.

The Investment Manager shall comply with restrictions imposed by federal or provincial legislation and regulations.

(b) Categorization per Pension Benefits Act

The target mix for each category listed in subsection 76(12) of the Regulations to the Pension Benefit Act (Ontario) is as follows:

Investment Category	Target Allocation
Insured contracts	0.0%
Mutual or pooled funds or segregated funds	0.0%
Demand deposits and cash on hand	0.0%
Short-term notes and treasury bills	0.0%
Term deposits and guaranteed investment certificates	0.0%
Mortgage loans	0.0%
Real estate	0.0%
Real estate debentures	0.0%
Resource properties	0.0%
Venture capital	0.0%
Corporations referred to in subsection 11(2) of Schedule III of the PBSR	0.0%
Employer issued securities	0.0%
Canadian stocks	20.0%
Non-Canadian stocks	35.0%
Canadian bonds and debentures	45.0%
Non-Canadian bonds and debentures	0.0%
Other investments	0.0%

The minimum rating for the target investment allocation of Canadian fixed income securities is BBB (or equivalent), as rated by at least one Recognized Bond Rating Agency as defined in section 3.4 (b). Notwithstanding this target, actual quality requirements and permitted ranges shall be determined by the Investment Manager(s) responsible for implementation of the strategy.

Section 3—Permitted and Prohibited Investments

3.1 General Guidelines

The investments of the Fund must comply with the requirements and restrictions imposed by the applicable legislation, including but not limited to the requirements of the Ontario Pension Benefits Act, the federal Income Tax Act (Canada) and any relevant regulations.

3.2 Derivatives, Options and Futures

The pooled funds may utilize derivatives, options or futures if their policies permit. The derivatives instruments allowable under the Policy may be used only when they are regularly traded upon a recognized marketplace. Any investment in derivative securities shall be solely for non-speculative and non-leveraged purposes.

~~3.2~~3.3 Permitted Investments

In general, and subject to the restrictions noted below, the Fund may invest in any of the asset classes and in any of the instruments listed below.

(a) **Canadian and Foreign Equities**

(i) Common and convertible preferred stock~~;~~ listed on a recognized exchange;

~~(i)~~

(ii) Debentures convertible into common or convertible preferred stock;

(iii) Rights, warrants and special warrants for common or convertible preferred stock;

(iv) Instalment receipts and American and Global Depository Receipts; and,

(v) Private placements of equities, where the security will be eligible for trading on a recognized exchange within a reasonable and defined time frame and subject to Section 3.4; and,

(vi) Canadian income trusts which provide provincially-legislated limited liability protection to the unitholders.

(b) **Bonds**

(i) Bonds, debentures, notes, non-convertible preferred stock and other evidence of indebtedness of Canadian and non-Canadian issuers whether denominated and payable in Canadian dollars or a foreign currency;

(ii) Mortgage-backed securities, guaranteed under the National Housing Act;

(iii) Term deposits and guaranteed investment certificates; and,

~~(iii)~~

(iv) Private placements of bonds and asset backed securities subject to Section 3.4.

(c) **Cash and Short Term Investments**

(i) Cash on hand and demand deposits;

(ii) Treasury bills issued by the federal and provincial governments and their agencies;

(iii) Obligations of trust companies and Canadian and foreign banks chartered to operate in Canada, including bankers' acceptances;

(iv) Commercial paper and term deposits; and,

(v) Deposit accounts of the custodian can be used to invest surplus cash holdings~~.~~

~~(v)~~

(d) **Derivative Instruments**
The use of derivative instruments which would be contracted on a leveraged basis is prohibited.

The following uses of non-leveraged derivative instruments for defensive purposes are permitted:

(i) Puts, calls, options, option contracts and futures or options on future contracts on securities that are permissible investments in accordance with this Statement;

(ii) The Investment Manager of an index portfolio may utilize fully backed, i.e. non- leveraged, derivative strategies designed to replicate the performance of specific market indices; and,

~~(iii) Currency futures contracts and forward contracts to hedge foreign currency exposure.~~

(e) **Other Investments**
Following appropriate consultation with and approval by the Committee, investment may be made in:

(i) Futures and options;

(ii) Pooled or mutual funds holding otherwise eligible investments, including any fund sponsored by the Investment Manager for the client's benefit;

(iii) Foreign investments other than U.S. and international equities as provided for above;

(iv) Real estate;

(v) Mortgages, including index-linked mortgages; and,

(vi) Index-linked annuities.

Such approval will be considered to be in effect until written notice has been received that it has been rescinded by the Committee.

~~3.3~~3.4 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 a ~~recognised bond rating agency~~Recognized Bond Rating Agency, at the time of purchase.

(ii) The minimum average rating of the overall bond portfolio must be 'A', or better.

(iii) The minimum quality standard for individual short term investments is 'R-1' or equivalent as rated by a ~~recognised bond rating agency~~Recognized Bond Rating Agency, at the time of purchase.

(b) **Rating Agencies**
For purposes of this Policy, the following shall be considered a 'Recognized Bond Rating ~~Agencies'~~Agency':

(i) Dominion Bond Rating Agency;

(ii) Standard & Poor's; and,

(iii) Moody's Investors Services.

Should the rating on a short-term or bond investment fall below the minimum standards outlined above, the Investment Manager must immediately notify the Treasurer and ~~make recommendations as to what~~ action should be taken. The Treasurer must report all such occurrences and action undertaken to remedy the situation to the Committee.

~~3.4~~3.5 Maximum Quantity Restrictions

The following restrictions are to be respected:

(a) **Equities**

(i) ~~In general, no~~No one equity holding shall represent more than 10% of the market value of any one ~~manager's~~Investment Manager's equity portfolio;

(ii) No one equity holding shall represent more than 10% of the voting shares of a corporation;

(iii) No one equity holding shall represent more than 10% of the available public float of such equity security; ~~and,~~

(iv) Private placements can be held to a maximum of 10% of the equity portfolio~~.~~; and

(v) No more than 15% of the market value of the equity Investment Manager's portfolio shall be invested in Royalty or Income Trusts

(b) **Bonds and Short Term Securities**

(i) Except for federal and provincial bonds, no more than 10% of ~~a manager's~~an Investment Manager's bond portfolio may be invested in the bonds of a single issuer and its related companies;

(ii) Except for federal and provincial bonds, no one bond holding shall represent more than 10% of the market value of the total outstanding for that bond issue;

(iii) No more than 10% of the market value of ~~a manager's~~an Investment Manager's bond portfolio shall be invested in bonds rated 'BBB' or equivalent and no bond rated 'BBB' or equivalent shall exceed 3% of the market value of the portfolio;

(iv) No more than 20% of the market value of ~~a manager's~~an Investment Manager's bond portfolio shall be invested in bonds denominated in a currency

other than Canadian dollars; ~~and,~~

(v) No more than 20% of the market value of a Investment Manager's bond portfolio shall be invested in bonds of foreign issuers; and,

~~(v)~~(vi) Private placements and asset-backed securities can be held to a maximum of ~~20~~15% of the bond portfolio. The ~~investment manager~~Investment Manager will advise the Committee when this category exceeds 10% of the bond portfolio.

~~3.5~~3.6 Prior Permission Required

The following investments are permitted provided that the Investment Manager has obtained prior written permission from the Committee:

(a) Investment in any asset or security previously disqualified by the Committee by written notice to the Investment Manager;

(b) Direct investments in a Canadian resource property;

(c) Direct investments in mortgages;

(d) Direct investments in any one parcel of real property;

(e) Direct investments in venture capital financing; and,

(f) Investments in a pooled fund with objectives that conflict with this Policy;

~~3.6~~3.7 Prohibited Investments

The Investment Managers shall not:

(a) Invest in companies for the purpose of managing them;

(b) Purchase securities on margin or engage in short sales, except in the case of a unleveraged synthetic index strategy where the manager will utilize futures contracts and short-term securities to attempt to create returns that match those of a specified index;

(c) Make any investment not specifically permitted by this Policy or the Investment Manager's investment mandate.

(d) Invest in any securities issued by McMaster or its affiliates; or

(e) Make any investment not specifically permitted by this Policy or Investment Manager's investment mandate.

~~3.7~~3.8 Securities Lending

The investments of the Fund may be loaned for the purpose of generating revenue for the Fund, subject to the provisions of the Pension Benefits Act (Ontario), the Income Tax Act (Canada), and applicable regulations, and provided that appropriate controls are in place and there is an indemnity by the custodian against all losses as a result of the custodian's securities lending program.

Such loans must be secured by cash and/or readily marketable high quality bonds, treasury bills, and ~~short-term~~/or letters of credit, discount notes and bankers's acceptances of Canadian chartered banks. The amount of collateral taken for securities ~~having~~lending should reflect best practices in local markets, but should be a market value of at least 105% of the market value of the loaned securities~~. This mark to~~ under an enhanced indemnity agreement. The market value relationship between collateral and securities on loan must be calculated at least daily.

If the Fund is invested in a pooled fund, security lending will be governed by the terms and conditions of the pooled fund contract.

~~3.8~~3.9 Borrowing

The Plan shall borrow money only for the purpose of covering a short-term contingency and the borrowing is for a period that does not exceed ninety days, subject to the Pension Benefits

Act (Ontario), the Income Tax Act and the prior written permission of the Board of Governors, endorsed by the Committee.

3.10 Liquidity

The Plan shall maintain assets that are sufficiently liquid in order to make necessary payments to member when required and to enable other changes, as required.

The Investment Manager is expected to have sufficient liquid assets to enable payment of the Plan's promised benefits in a timely manner.

3.11 Environmental, Social and Governance

"ESG" refers to the environmental, social and governance factors, including government/public policy and disclosure concerns, relevant to an investment that may have a financial impact on that investment. The university has a fiduciary duty to act in the long-term interests of the beneficiaries of the Plan. The Plan's Investment Manager(s) determine the stock holding of the Fund. Where relevant and material to the assessment of investment value and mitigation of investment risk, ESG factors should be evaluated alongside other considerations by the Plan's Investment Managers in the exercise of their delegated duties. The university does not impose specific constraints on portfolio investments on the sole basis of ESG factors.

~~3.9~~3.12 Conflicts Between the Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, there may be instances where there is a conflict between this ~~policy~~Policy and the investment policy of a pooled fund. In that case, the pooled fund policy shall dominate. However, wherever such a conflict results in non-compliance with the Policy, the Investment Manager must report this conflict explicitly in its ~~semi-annual~~quarterly compliance report.

~~3.10 Liquidity~~

~~The Investment Manager is expected to have sufficient liquid assets to enable payment of the Plan's promised benefits in a timely manner. Since pooled funds have regular capital infusion, the Plan's liquidity needs will largely be met by the use of pooled funds as the prime funding vehicle.~~

Section 4—Monitoring and Control

4.1 Performance Measurement

Evaluation of investment performance will be made by the Committee and will take place quarterly based on the results at March 31, June 30, September 30, and December 31.

(a) **Total Fund Benchmark**

The primary objective of the Fund is to earn a rate of return that exceeds the rate of return on the benchmark portfolio over rolling four-year time periods plus 0.75%. The benchmark consists of the following market index total returns weighted as indicated:

Benchmark	Weight (%)
S&P/TSX Composite Index	20
S&P 500 Index (Cdn~~. $)~~.$)	18
MSCI EAFE Index (Cdn~~. $)~~.$)	17
FTSE ~~TMX~~Canada Universe Bond Index	45
Total	100

A secondary objective of the Fund is to achieve, over a four (4) year period at least second quartile performance compared to a performance measurement service pension database.

Total rate of return is the time-weighted rate of return, before fees, based on the change of market value including realised and unrealised gains and losses and including income from all sources.

In addition to assessing performance relative to the Benchmark Portfolio, the Committee will examine risk factors and performance by asset class.

4.2 Compliance Reporting by the Investment Manager

The Investment Manager(s) must submit a compliance report on a semi-annual ~~basis to~~basisto the Committee. The compliance report should indicate whether or not the manager's portfolio was in compliance with this ~~policy~~Policy during the previous six months.

In the event that the Investment Manager's portfolio is not in compliance with this ~~policy~~Policy, the Investment Manager is required to detail the nature of the non-compliance in the ~~semi-annual~~quarterly compliance report as well as notify the Treasurer and to implement an appropriate course of action to remedy the situation, as soon as practical.

4.3 Standard of Professional Conduct

The Investment Manager(s) are expected to ~~be governed by the~~ comply at all times and in all respects with the Code of Ethics and Standards of Professional Conduct ~~of~~as promulgated by the CFA Institute or to a standard that is the equivalent of, or higher than that of the CFA.

The Investment Manager(s) will manage the assets with the care, diligence and skill that an Investment Manager of ordinary prudence would use in dealing with pension plan assets. The Investment Manager(s) will also use all relevant knowledge and skill that they possess, or ought to possess, as prudent fund managers..

Section 5—Administration

5.1 Conflicts of Interest

(i) **Definition**

For the purpose of this ~~statement~~Policy, a conflict of interest is defined as any event in which any employee or member of or consultant to:

(a) Board of Governors,

(b) ~~Finance~~Planning and Resources Committee,

(c) Audit Committee,

(d) The Committee,

(e) Actuary,

(f) Investment Manager(s),

(g) Custodian/Trustee, and/or

(h) Consultant,

or any directly related party may gain a financial or other advantage from knowledge of, or participation in, an investment decision of the ~~fund~~Fund, or a circumstance that could reasonably be interpreted as impairing his/her ability to render unbiased and objective advice or to fulfil his/her fiduciary responsibilities to act in the best interest of the beneficiaries of the Plan.

It is not possible to anticipate in advance, in this ~~statement~~Policy, the multitude of situations which can arise. All persons listed above must, therefore, be cognizant of the possibility that conflicts, or perceived conflicts, may arise and must make timely and full disclosure in accordance with generally accepted concepts of fiduciary responsibilities, and in accordance with the procedures set forth below:

(ii) **Responsibilities**

This standard applies to the persons named in Section 5.1(i) above in the execution of their responsibilities under the Pension Benefits Act (Ontario) (the "Affected Persons").

(iii) **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's assets.

Further, it is required 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 his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour, that is material, from a person with whom the Affected Person deals 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 in writing to the Chair of the Committee within three business days after the individual becomes aware of the conflict of interest. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of Plan business.

The Committee, 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 Committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the manner in which the conflict was resolved will be recorded in the minutes of the Committee.

5.2 Related Party Transactions

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

~~The~~For the purpose of this section, a "related party", "administration", and a "transaction" in respect of the Plan have the meanings given to such terms in Schedule III of the Pension Benefits Standards Regulations (Canada), as amended from time to time. The following related party transactions are among those permitted for the Plan:

~~( )~~ Any transaction that is ~~both~~ required for the operation ~~and~~ or administration of ~~a plan and~~ the Plan under terms and conditions ~~of the transaction~~ 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~~,~~

~~( ) Investment in a related party if the investment is in an investment fund or a segregated fund~~ investments in ~~which other investors may invest, and that complies with the general investment rules.~~

(a) ~~A "~~, the related party~~" is defined to mean the administrator of the Plan, including any officer, director or employee of the administrator, or any person who is a member of the Committee. It also includes the Investment 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. The concept of "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.~~; or

(b) Any transaction, where 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 3% of the combined market value of the assets of the plan are considered nominal. Two or more transactions with the same related party shall be considered a single transaction.

5.3 Selecting Investment Managers

In the event that a new Investment Manager must be selected or additional Investment Manager(s) added to the set of existing Investment ~~managers,~~Manager(s), the Committee will undertake a

~~Investment Manager~~investment manager search with the assistance of a third-party investment consultant. The criteria used for selecting ~~a Investment Manager~~an investment manager will be consistent with the investment and risk philosophy set out in Section 1.5 (Investment Objectives, Beliefs and Risk ~~Philosophy~~Appetitie).

5.4 Monitoring of Investment Managers

At least semi-annually, the Committee will monitor and review the:

(a) Assets and net cash flow of the Plan;

(b) Investment Manager's ~~financial stability~~, staff turnover, consistency of style and record of service;

(c) Investment Manager's current economic outlook and investment strategies;

(d) Investment Manager's compliance with this Policy, where ~~a~~an Investment Manager is required to complete and sign a compliance report; and

(e) Investment performance of the ~~assets of the Plan~~Fund in relation to the rate of return expectations outlined in this Policy.

~~(e) Investment manager's position on environmental, social and governance standards (ESG). The university has a fiduciary duty to act in the long-term interests of the beneficiaries of the Plan. The Plan's investment portfolio managers determine the stock holding of each fund. Where relevant and material to the assessment of investment value and mitigation of investment risk ESG factors should be evaluated alongside other considerations by the Plan's investment managers in the exercise of their delegated duties. The university does not impose specific constraints on portfolio investments on the sole basis of ESG factors. This review can also be conducted on an annual basis.~~

~~5.7~~5.5 Dismissal of ~~a~~an Investment Manager

The Committee shall consider from time to time whether ~~a~~an Investment Manager's investment performance or any other circumstances may warrant the introduction of a probationary period or a change in Investment Manager(s). Such circumstances would include but not be limited to:

(a) Significant turnover in staff of Investment Manager(s);

(b) Change in ownership of Investment Manager(s);

(c) Failure of the Investment Manager(s) to satisfy all of the responsibilities set out in Section 3 of this ~~Statement~~Policy;

(d) Desire to diversify the management of the ~~Pension~~ Fund or to add another Investment Manager(s);

(e) Unsatisfactory performance and/or compliance in relation to the performance standards specified in Sections 3 and 4 of this Policy.

~~5.8~~5.6 Voting Rights

The Committee has delegated voting rights acquired through the investments held by the Plan to the custodian of the securities to be exercised in accordance with the Investment Manager's instructions. Investment Managers are expected to exercise all voting rights related to investments held by the Fund in the interests of the Plan Members. The Investment Manager(s) shall provide their proxy policies to the Treasurer.
~~to investments held by the Fund in the interests of the Plan Members. On a semi-annual basis~~
At least annually, the Investment ~~Managers~~Manager(s) shall provide Treasury with a report ~~their~~of proxy voting ~~activities to~~actions and how ESG factored into the voting.

At least annually, a summary report of Investment Manager proxy voting action and how ESG factored into the voting shall be provided to the Planning and Resources Committee of the ~~Treasurer~~Board of Governors.

The Committee reserves the right to take-back voting rights of assets held in segregated portfolios for specific situations.

Further, the Investment Managers must maintain records documenting how they voted and will advise the Treasurer if they voted against its own share voting policy.

~~5.9~~5.7 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 calendar quarter.

(b) **Bonds**
Same as for equities.

(c) **Mortgages**
Unless in arrears, the outstanding principal plus/minus the premium/discount resulting from the differential between the face rate and the currently available rate for a mortgage of similar quality and term, determined at least once every calendar quarter.

(d) **Real Estate**
A certified written appraisal from a qualified independent appraiser at least every two years.

(e) **Resource Properties and Venture Capital**
A written market value assessment prepared by party qualified to make such assessments, at least every two years.

~~**Derivatives, Options, and Futures**~~

~~The Fund itself may invest in derivatives, options, and futures, to gain efficiencies of cost or market exposure, provided such investments do not create financial leverage for the Fund, unless it is used as capital efficient approach to hedge against Plan risks such as interest rate risk.~~

~~5.11 Liquidity~~

~~The Pooled Funds are valued daily and are highly liquid.~~

~~5.12~~5.8 Valuation of Investments

The trustees of the ~~Pooled Funds~~pooled funds shall value the ~~Pooled Fund~~pooled fund units.

~~5.13~~5.9 Life Annuities

Nothing in the ~~Statement~~Policy shall preclude the Fund from purchasing life annuities to secure the pensions of the Members in whole or in part.

~~5.14~~5.10 Policy Review

The Policy may be reviewed and revised at anytime, but it must be formally reviewed by the Committee at least annually.

~~Appendix A~~

~~McMaster University has contracted with the following to provide services:~~

~~Investment Managers~~

~~(a) Jarislowsky Fraser Limited~~

~~Actuary~~

~~(a) Mercer Human Resource Consulting Ltd.~~

~~Custodian/Trustee~~

~~(a) CIBC Mellon Trust Company~~

~~Pension Investment Consulting and Monitoring~~

~~(a) Mercer Investment Consulting~~

~~Plan Status~~

~~As of the last filed actuarial valuation July 1, 2013, the Plan had 232 active Members, 294 retired Members, and 48 former Members with deferred benefits and assets, at market value, of $42.4 million.~~

~~The going concern liability of the Plan was $46.6 million compared to the actuarial value of the assets, which was $41.0 million, leaving a deficit of $5.6 million. Approximately 48% of the liability was attributable to active Members and 50% of the liability was attributable to pensioners and survivors. The balance of the liability was attributed to deferred pensioners and inactive Members.~~

Policies, Procedures and Guidelines

Complete Policy Title:
Statement of Investment Policies and Procedures

McMaster University Contributory Pension Plan for Hourly-Rated Employees

Policy Number (if applicable):
N/A

Approved by:
Board of Governors

Date of Most Recent Approval:
[TBD]

Date of Original Approval(s):
February 17, 2005

Supercedes/Amends Policy dated:
October 22, 2015

Responsible Executive :
Assistant Vice-President (Administration)

Enquiries:
[**Business Management Services]**

DISCLAIMER: *If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.*

Contents

Section 1—Overview

1.1 Purpose of Statement

This Statement of Investment Policies and Procedures (the 'Policy') is intended to set out the investment framework which shall apply at all times for the Contributory Pension Plan for Hourly-Rated Employees of McMaster University Including McMaster Divinity College (the 'Plan').

This Policy is based on the 'prudent person portfolio approach' to ensure the prudent investment and administration of the assets of the Plan (the 'Fund') within the parameters set out in the Pension Benefits Act (Ontario) and the regulations thereunder.

1.2 Background of the Plan

McMaster University was established in 1887 by the bequest of William McMaster and is a university incorporated under the laws of the Province of Ontario, which provides operating grants annually to the University.

The University sponsors the Plan, which is a defined benefit pension plan into which its contributions and the employees' contributions are deposited. These contributions are made biweekly and are remitted before the end of the following month to the Plan's trustee.

As directed by the McMaster University Hourly Pension Plan Retirement Committee (the 'Committee'), the University contracts with third parties to provide trustee, custodial, investment management, actuarial, and consulting services.

Retiree benefits are paid from the Plan. Also paid from the Plan are termination and death benefits, trustees' fees, audit fees, actuaries' fees, investment management fees, consultants' fees, filing fees and other related costs as approved by the Committee.

1.3 Plan Profile

(a) **Contributions**

The Plan is contributory. Each Plan member is required to contribute in accordance with the Plan Text and limited by specified maximums, as applicable.

The University will pay the balance required to provide the cost of benefits. The minimum University contribution each year is an amount equal to the contributions made by the Plan members during the year.

(b) **Benefits**

For service prior to January 1, 1986, the amount of annual pension will be the pension earned to December 31, 1985 increased in accordance with periodic amendments thereafter.

For service after December 31, 1985, the amount of annual pension payable to a Plan member will be:

(i) 1.4% of Best Average Earnings up to the Average Year's Maximum Pensionable Earnings times years of Credited Service, plus

(ii) 2.0% of Best Average Earnings in excess of the Average Year's Maximum Pensionable Earnings times years of Credited Service.

The amount by which twice the Plan member's required contributions with interest exceed the commuted value of the Member's benefit shall be paid to the Plan member. Pensions in payment after January 1, 2003, will be increased by the excess over 6% of

the 5 year average return on the Fund, subject to a maximum increase equal to the change in the CPI for the previous Plan year.

1.4 Objective of the Plan

The objective of the Plan is to provide participants with defined pension benefits based on a Best Average Earnings and with potential indexation of retirement benefits, as defined in the Plan Text. It is important to set up an appropriately diversified asset mix in order to ensure continued prudent and effective management of the Fund.

1.5 Investment Objectives, Beliefs and Risk Appetite

Funding Objectives

The Plans' funding objectives are to:

(a) Manage the volatility and level of contributions;
(b) Maintain benefit security, and
(c) Reduce the likelihood of special solvency payments and target to maintain the solvency funded ratio above 85% at all future actuarial valuation dates.

Investment Objectives

The investment objective of the Plans' investments is to earn a return sufficient to keep the Plan sustainable over the long term, while keeping benefit levels and contribution rates stable. This requires an appropriate balance between risk and return.

Risk Appetite

Based on the characteristics of the Plan, the Committee has determined that the Plan has a moderate risk appetite for investment risk, as demonstrated by the approved asset classes, investment targets and limits within this policy.

Investment Beliefs

The Hourly Pension Committee ("Committee") has, from time to time, reviewed and confirmed its investment beliefs which take into consideration the types of investments and associated risks that are aligned with investment objectives and risk appetite.

The Committee recognizes that, based on historical data and on forecasted returns, the asset classes most likely to produce the greatest return in excess of inflation 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. The investment philosophies and strategies must take into account both return and risk objectives.

Therefore, it is reasonable to adopt a long-term asset mix strategy with an appropriate equity content that is well diversified.

1.6 Delegation of Responsibility and Administration

The University is the legal administrator of the Plan and is therefore responsible for all matters relating to the administration, interpretation and application of the Plan, including developing, monitoring and amending this Policy. The Committee assists the University with the administration of the Plan.

Overall responsibility for the Plan ultimately rests with the Board of Governors of the University. The Committee assists the Board in fulfilling its fiduciary responsibilities. As well, other suppliers assist the University as described below.

(a) **The Board of Governors will:**

(i) Determine the level of the University's contribution to the Plan on the recommendation of the Planning and Resources Committee and in accordance with the guidelines set out in the Hourly Pension Plan text;

(ii) Consider items endorsed by the Planning and Resources Committee and approve where appropriate;

(iii) Be responsible for the delegation of any responsibilities not specifically mentioned.

(b) **The Planning and Resources Committee of the Board of Governors will:**

(i) Consider recommendations by the Committee concerning the level of the University's contribution to the plan and endorse those recommendations to the Board of Governors where appropriate;

(ii) Consider items brought forward by the Committee for approval and endorse recommendations to the Board of Governors where appropriate.

(c) The Committee will:

(i) Approve and make recommendations where necessary to the Planning and Resources Committee regarding changes to the Investment Manager(s), Custodian/Trustee, and Investment Consultant;

(ii) Monitor and review performance of the Investment Manager(s) on a qualitative and quantitative basis at least semi-annually;

(iii) Review the Fund's performance on a quarterly basis, and approve situations of deviations or proposed deviation by the Fund Manager from the Policy to the Planning and Resources Committee;

(iv) Discuss and promote awareness and understanding of the Plan by Members of the Plan and persons receiving benefits under the Plan;

(v) Review the Statement of Investment Policy and Procedures (the "Policy") at least annually, make changes, and endorse to the Planning and Resources Committee for approval as required;

(vi) Review the actuarial valuation, changes in methods and assumptions and its impact upon the Plan, and endorse to the Planning and Resources Committee for approval;

(vii) Review the financial statements and endorse to the Planning and Resources Committee for approval;

(viii) Approve and recommend to the Planning and Resources Committee proposed changes to the Plan text;

(ix) Consider other matters as may be referred to the Committee by the participating unions, Planning and Resources Committee or the Board of Governors;

(d) **The Investment Manager(s) will:**

(i) Invest the assets of the Fund in accordance with this Policy and applicable legislation;

(ii) Notify the Committee, in writing, of any significant changes in the Investment Manager's philosophies and policies, personnel or organization and procedures;

(iii) Meet with the Committee as required and provide written reports regarding their past performance, their future strategies and other issues requested by the Committee; and

(iv) Provide semi- annual compliance reports that confirms that the Manager has complied with the Policy or identifies areas of non-compliance.

(e) **The Custodian/Trustee will:**

(i) Maintain safe custody over the assets of the Plan;

(ii) Execute the instructions of the University and the Investment Manager(s); and,

(iii) Record income and provide monthly financial statements to the University as required.

(f) **The Actuary will:**

(i) Perform actuarial valuations of the Plan as required;

(ii) Advise the Committee on any matters relating to the Plan design, membership and contributions;

(iii) File appropriate documents and reports with relevant authorities; and

(iv) Assist the Committee in any other way required.

(g) **The Investment Consultant will:**

(i) Assist in the development and implementation of this Policy;

(ii) Monitor the performance of the Fund and the Investment Managers and advise the Committee on such performance;

(iii) Monitor the Investment Managers' compliance reports;

(iv) Support the Committee on matters relating to investment management and administration of the Fund; and,

(v) Meet with the Committee as required.

(h) **University Management will:**

(i) Comment and make recommendations to the Planning and Resources Committee on the appointment of the Actuary;

(ii) Ensure the plan's administration complies with all applicable legislation and regulations;

(iii) Make recommendations to the parties to the collective agreements regarding amendments to the plan text;

(iv) Perform any duties or obligations not noted above and as described in Article 13 – *Administration of the Plan* of the Plan text.

Section 2—Asset Mix and Diversification Policy

2.1 Investment Objectives - Portfolio Return Expectations

The Fund will be managed on a going-concern basis. The primary objective is to ensure that the benefits defined in the Plan can be paid.

The secondary performance objective is to outperform a benchmark portfolio constructed from rates of return (including income) of the Standard & Poor's Toronto Stock Exchange Composite Index (S&P/TSX Composite Index), the Standard & Poor's 500 Index (S&P 500 Index), the Morgan Stanley Capital International Europe, Australasia and Far East Index (MSCI EAFE Index) and the FTSE Canada Universe Bond Index over rolling four-year time periods.

2.2 Investment Risk Tolerance - Expected Volatility

The expected volatility of investment returns for the Fund is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities and Canadian bonds. Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined in Section 2.4. It is expected that the volatility of Fund returns should be similar to the volatility of the Total Combined Fund Benchmark Portfolio set out in Section 4.1.

The Committee will monitor the volatility of the fund and underlying manager(s).

2.3 Management Structure

The Committee believes that an Investment Manager with an active mandate can reduce portfolio risk below market risk and potentially add value both through security selection and asset allocation strategies.

2.4 Asset Mix

(a) **Overall Asset Mix**

The benchmark portfolio is representative of the long-term asset mix policy for the Fund as set out by the Committee. The Total Fund benchmark portfolio and asset mix guidelines (by market value) are set out below:

Assets	Minimum %	Benchmark %	Maximum %
Canadian equities	10	20	30
U.S. equities	8	18	28
Non-North American equities	7	17	27
Total equities	35	55	70
Bonds	25	45	65
Cash and Short-term	0	0	10
Total Fixed Income	30	45	65
Total		100	

The actual asset mix at any time may deviate from the Benchmark indicated above. The manager shall monitor and adjust the asset mix to ensure that the actual asset mix stays within the ranges as indicated by the minimums and maximums specified.

The Investment Manager shall comply with restrictions imposed by federal or provincial legislation and regulations.

(b) **Categorization per Pension Benefits Act**

The target mix for each category listed in subsection 76(12) of the Regulations to the Pension Benefit Act (Ontario) is as follows:

Investment Category	Target Allocation
Insured contracts	0.0%
Mutual or pooled funds or segregated funds	0.0%
Demand deposits and cash on hand	0.0%
Short-term notes and treasury bills	0.0%
Term deposits and guaranteed investment certificates	0.0%
Mortgage loans	0.0%
Real estate	0.0%
Real estate debentures	0.0%
Resource properties	0.0%
Venture capital	0.0%
Corporations referred to in subsection 11(2) of Schedule III of the PBSR	0.0%
Employer issued securities	0.0%
Canadian stocks	20.0%
Non-Canadian stocks	35.0%
Canadian bonds and debentures	45.0%
Non-Canadian bonds and debentures	0.0%
Other investments	0.0%

The minimum rating for the target investment allocation of Canadian fixed income securities is BBB (or equivalent), as rated by at least one Recognized Bond Rating Agency as defined in section 3.4 (b). Notwithstanding this target, actual quality requirements and permitted ranges shall be determined by the Investment Manager(s) responsible for implementation of the strategy.

Section 3—Permitted and Prohibited Investments

3.1 General Guidelines

The investments of the Fund must comply with the requirements and restrictions imposed by the applicable legislation, including but not limited to the requirements of the Ontario Pension Benefits Act, the federal Income Tax Act (Canada) and any relevant regulations.

3.2 Derivatives, Options and Futures

The pooled funds may utilize derivatives, options or futures if their policies permit. The derivatives instruments allowable under the Policy may be used only when they are regularly traded upon a recognized marketplace. Any investment in derivative securities shall be solely for non-speculative and non-leveraged purposes.

3.3 Permitted Investments

In general, and subject to the restrictions noted below, the Fund may invest in any of the asset classes and in any of the instruments listed below.

(a) **Canadian and Foreign Equities**

(i) Common and convertible preferred stock listed on a recognized exchange;

(ii) Debentures convertible into common or convertible preferred stock;

(iii) Rights, warrants and special warrants for common or convertible preferred stock;

(iv) Instalment receipts and American and Global Depository Receipts; and,

(v) Private placements of equities, where the security will be eligible for trading on a recognized exchange within a reasonable and defined time frame and subject to Section 3.4; and,

(vi) Canadian income trusts which provide provincially-legislated limited liability protection to the unitholders.

(b) **Bonds**

(i) Bonds, debentures, notes, non-convertible preferred stock and other evidence of indebtedness of Canadian and non-Canadian issuers whether denominated and payable in Canadian dollars or a foreign currency;

(ii) Mortgage-backed securities, guaranteed under the National Housing Act;

(iii) Term deposits and guaranteed investment certificates; and,

(iv) Private placements of bonds and asset backed securities subject to Section 3.4.

(c) **Cash and Short Term Investments**

(i) Cash on hand and demand deposits;

(ii) Treasury bills issued by the federal and provincial governments and their agencies;

(iii) Obligations of trust companies and Canadian and foreign banks chartered to operate in Canada, including bankers' acceptances;

(iv) Commercial paper and term deposits; and,

(v) Deposit accounts of the custodian can be used to invest surplus cash holdings

(d) **Derivative Instruments**

The use of derivative instruments which would be contracted on a leveraged basis is prohibited.

The following uses of non-leveraged derivative instruments for defensive purposes are permitted:

(i) Puts, calls, options, option contracts and futures or options on future contracts on securities that are permissible investments in accordance with this Statement;

(ii) The Investment Manager of an index portfolio may utilize fully backed, i.e. non- leveraged, derivative strategies designed to replicate the performance of specific market indices; and,

(e) **Other Investments**

Following appropriate consultation with and approval by the Committee, investment may be made in:

(i) Futures and options;

(ii) Pooled or mutual funds holding otherwise eligible investments, including any fund sponsored by the Investment Manager for the client's benefit;

(iii) Foreign investments other than U.S. and international equities as provided for above;

(iv) Real estate;

(v) Mortgages, including index-linked mortgages; and,

(vi) Index-linked annuities.

Such approval will be considered to be in effect until written notice has been received that it has been rescinded by the Committee.

3.4 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 a Recognized Bond Rating Agency, at the time of purchase.

(ii) The minimum average rating of the overall bond portfolio must be 'A', or better.

(iii) The minimum quality standard for individual short term investments is 'R-1' or equivalent as rated by a Recognized Bond Rating Agency, at the time of purchase.

(b) **Rating Agencies**

For purposes of this Policy, the following shall be considered a 'Recognized Bond Rating Agency':

(i) Dominion Bond Rating Agency;

(ii) Standard & Poor's; and,

(iii) Moody's Investors Services.

Should the rating on a short-term or bond investment fall below the minimum standards outlined above, the Investment Manager must immediately notify the Treasurer and action should be taken. The Treasurer must report all such occurrences and action undertaken to remedy the situation to the Committee.

3.5 Maximum Quantity Restrictions

The following restrictions are to be respected:

(a) **Equities**

(i) No one equity holding shall represent more than 10% of the market value of any one Investment Manager's equity portfolio;

(ii) No one equity holding shall represent more than 10% of the voting shares of a corporation;

(iii) No one equity holding shall represent more than 10% of the available public float of such equity security;

(iv) Private placements can be held to a maximum of 10% of the equity portfolio; and

(v) No more than 15% of the market value of the equity Investment Manager's

portfolio shall be invested in Royalty or Income Trusts

(b) **Bonds and Short Term Securities**

(i) Except for federal and provincial bonds, no more than 10% of an Investment Manager's bond portfolio may be invested in the bonds of a single issuer and its related companies;

(ii) Except for federal and provincial bonds, no one bond holding shall represent more than 10% of the market value of the total outstanding for that bond issue;

(iii) No more than 10% of the market value of an Investment Manager's bond portfolio shall be invested in bonds rated 'BBB' or equivalent and no bond rated 'BBB' or equivalent shall exceed 3% of the market value of the portfolio;

(iv) No more than 20% of the market value of an Investment Manager's bond portfolio shall be invested in bonds denominated in a currency other than Canadian dollars;

(v) No more than 20% of the market value of a Investment Manager's bond portfolio shall be invested in bonds of foreign issuers; and,

(vi) Private placements and asset-backed securities can be held to a maximum of 15% of the bond portfolio. The Investment Manager will advise the Committee when this category exceeds 10% of the bond portfolio.

3.6 Prior Permission Required

The following investments are permitted provided that the Investment Manager has obtained prior written permission from the Committee:

(a) Investment in any asset or security previously disqualified by the Committee by written notice to the Investment Manager;

(b) Direct investments in a Canadian resource property;

(c) Direct investments in mortgages;

(d) Direct investments in any one parcel of real property;

(e) Direct investments in venture capital financing; and,

(f) Investments in a pooled fund with objectives that conflict with this Policy;

3.7 Prohibited Investments

The Investment Managers shall not:

(a) Invest in companies for the purpose of managing them;

(b) Purchase securities on margin or engage in short sales, except in the case of a unleveraged synthetic index strategy where the manager will utilize futures contracts and short-term securities to attempt to create returns that match those of a specified index;

(c) Make any investment not specifically permitted by this Policy or the Investment Manager's investment mandate.

(d) Invest in any securities issued by McMaster or its affiliates; or

(e) Make any investment not specifically permitted by this Policy or Investment Manager's investment mandate.

3.8 Securities Lending

The investments of the Fund may be loaned for the purpose of generating revenue for the Fund, subject to the provisions of the Pension Benefits Act (Ontario), the Income Tax Act (Canada), and applicable regulations, and provided that appropriate controls are in place and there is an indemnity by the custodian against all losses as a result of the custodian's securities lending program.

Such loans must be secured by cash and/or readily marketable high quality bonds, treasury bills, and/or letters of credit, discount notes and bankers' acceptances of Canadian chartered banks. The amount of collateral taken for securities lending should reflect best practices in local markets, but should be a market value of at least 105% of the market value of the loaned securities under an enhanced indemnity agreement. The market value relationship between collateral and securities on loan must be calculated at least daily.

If the Fund is invested in a pooled fund, security lending will be governed by the terms and conditions of the pooled fund contract.

3.9 Borrowing

The Plan shall borrow money only for the purpose of covering a short-term contingency and the borrowing is for a period that does not exceed ninety days, subject to the Pension Benefits Act (Ontario), the Income Tax Act and the prior written permission of the Board of Governors, endorsed by the Committee.

3.10 Liquidity

The Plan shall maintain assets that are sufficiently liquid in order to make necessary payments to member when required and to enable other changes, as required.

The Investment Manager is expected to have sufficient liquid assets to enable payment of the Plan's promised benefits in a timely manner.

3.11 Environmental, Social and Governance

"ESG" refers to the environmental, social and governance factors, including government/public policy and disclosure concerns, relevant to an investment that may have a financial impact on that investment. The university has a fiduciary duty to act in the long-term interests of the beneficiaries of the Plan. The Plan's Investment Manager(s) determine the stock holding of the Fund. Where relevant and material to the assessment of investment value and mitigation of investment risk, ESG factors should be evaluated alongside other considerations by the Plan's Investment Managers in the exercise of their delegated duties. The university does not impose specific constraints on portfolio investments on the sole basis of ESG factors.

3.12 Conflicts Between the Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, 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. However, wherever such a conflict results in non- compliance with the Policy, the Investment Manager must report this conflict explicitly in its quarterly compliance report.

Section 4—Monitoring and Control

4.1 Performance Measurement

Evaluation of investment performance will be made by the Committee and will take place quarterly based on the results at March 31, June 30, September 30, and December 31.

(a) **Total Fund Benchmark**

The primary objective of the Fund is to earn a rate of return that exceeds the rate of return on the benchmark portfolio over rolling four-year time periods plus 0.75%. The benchmark consists of the following market index total returns weighted as indicated:

Benchmark	Weight (%)
S&P/TSX Composite Index	20
S&P 500 Index (Cdn.$)	18
MSCI EAFE Index (Cdn.$)	17
FTSE Canada Universe Bond Index	45
Total	100

A secondary objective of the Fund is to achieve, over a four (4) year period at least second quartile performance compared to a performance measurement service pension database.

Total rate of return is the time-weighted rate of return, before fees, based on the change of market value including realised and unrealised gains and losses and including income from all sources.

In addition to assessing performance relative to the Benchmark Portfolio, the Committee will examine risk factors and performance by asset class.

4.2 Compliance Reporting by the Investment Manager

The Investment Manager(s) must submit a compliance report on a semi-annual basisto the Committee. The compliance report should indicate whether or not the manager's portfolio was in compliance with this Policy during the previous six months.

In the event that the Investment Manager's portfolio is not in compliance with this Policy, the Investment Manager is required to detail the nature of the non-compliance in the quarterly compliance report as well as notify the Treasurer and to implement an appropriate course of action to remedy the situation, as soon as practical.

4.3 Standard of Professional Conduct

The Investment Manager(s) are expected to comply at all times and in all respects with the Code of Ethics and Standards of Professional Conduct as promulgated by the CFA Institute or to a standard that is the equivalent of, or higher than that of the CFA.

The Investment Manager(s) will manage the assets with the care, diligence and skill that an Investment Manager of ordinary prudence would use in dealing with pension plan assets. The Investment Manager(s) will also use all relevant knowledge and skill that they possess, or ought to possess, as prudent fund managers..

Section 5—Administration

5.1 Conflicts of Interest

(i) **Definition**

For the purpose of this Policy, a conflict of interest is defined as any event in which any employee or member of or consultant to:

(a) Board of Governors,

(b) Planning and Resources Committee,

(c) Audit Committee,

(d) The Committee,

(e) Actuary,

(f) Investment Manager(s),

(g) Custodian/Trustee, and/or

(h) Consultant,

or any directly related party may gain a financial or other advantage from knowledge of, or participation in, an investment decision of the Fund, or a circumstance that could reasonably be interpreted as impairing his/her ability to render unbiased and objective advice or to fulfil his/her fiduciary responsibilities to act in the best interest of the beneficiaries of the Plan.

It is not possible to anticipate in advance, in this Policy, the multitude of situations which can arise. All persons listed above must, therefore, be cognizant of the possibility that conflicts, or perceived conflicts, may arise and must make timely and full disclosure in accordance with generally accepted concepts of fiduciary responsibilities, and in accordance with the procedures set forth below:

(ii) **Responsibilities**

This standard applies to the persons named in Section 5.1(i) above in the execution of their responsibilities under the Pension Benefits Act (Ontario) (the "Affected Persons").

(iii) **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's assets.

Further, it is required 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 his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour, that is material, from a person with whom the Affected Person deals 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 in writing to the Chair of the Committee within three business days after the individual becomes aware of the conflict of interest. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of Plan business.

The Committee, 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 Committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the manner in which the conflict was resolved will be recorded in the minutes of the Committee.

5.2 Related Party Transactions

For the purpose of this section, a "related party", "administration", and a "transaction" in respect of the Plan have the meanings given to such terms in Schedule III of the Pension Benefits Standards Regulations (Canada), as amended from time to time. The following related party transactions are among those permitted for the Plan:

(a) Any transaction that is required 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) Any transaction, where 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 3% of the combined market value of the assets of the plan are considered nominal. Two or more transactions with the same related party shall be considered a single transaction.

5.3 Selecting Investment Managers

In the event that a new Investment Manager must be selected or additional Investment Manager(s) added to the set of existing Investment Manager(s), the Committee will undertake a

investment manager search with the assistance of a third-party investment consultant. The criteria used for selecting an investment manager will be consistent with the investment and risk philosophy set out in Section 1.5 (Investment Objectives, Beliefs and Risk Appetite).

5.4 Monitoring of Investment Managers

At least semi-annually, the Committee will monitor and review the:

(a) Assets and net cash flow of the Plan;

(b) Investment Manager's, staff turnover, consistency of style and record of service;

(c) Investment Manager's current economic outlook and investment strategies;

(d) Investment Manager's compliance with this Policy, where an Investment Manager is required to complete and sign a compliance report; and

(e) Investment performance of the Fund in relation to the rate of return expectations outlined in this Policy.

5.5 Dismissal of an Investment Manager

The Committee shall consider from time to time whether an Investment Manager's investment performance or any other circumstances may warrant the introduction of a probationary period or a change in Investment Manager(s). Such circumstances would include but not be limited to:

(a) Significant turnover in staff of Investment Manager(s);

(b) Change in ownership of Investment Manager(s);

(c) Failure of the Investment Manager(s) to satisfy all of the responsibilities set out in Section 3 of this Policy;

(d) Desire to diversify the management of the Fund or to add another Investment Manager(s);

(e) Unsatisfactory performance and/or compliance in relation to the performance standards specified in Sections 3 and 4 of this Policy.

5.6 Voting Rights

The Committee has delegated voting rights acquired through the investments held by the Plan to the custodian of the securities to be exercised in accordance with the Investment Manager's instructions. Investment Managers are expected to exercise all voting rights related to investments held by the Fund in the interests of the Plan Members. The Investment Manager(s) shall provide their proxy policies to the Treasurer.

At least annually, the Investment Manager(s) shall provide Treasury with a report of proxy voting actions and how ESG factored into the voting.

At least annually, a summary report of Investment Manager proxy voting action and how ESG factored into the voting shall be provided to the Planning and Resources Committee of the Board of Governors.

The Committee reserves the right to take-back voting rights of assets held in segregated portfolios for specific situations.

Further, the Investment Managers must maintain records documenting how they voted and will advise the Treasurer if they voted against its own share voting policy.

5.7 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 calendar quarter.

(b) **Bonds**
Same as for equities.

(c) **Mortgages**
Unless in arrears, the outstanding principal plus/minus the premium/discount resulting from the differential between the face rate and the currently available rate for a mortgage of similar quality and term, determined at least once every calendar quarter.

(d) **Real Estate**
A certified written appraisal from a qualified independent appraiser at least every two years.

(e) **Resource Properties and Venture Capital**
A written market value assessment prepared by party qualified to make such assessments, at least every two years.

5.8 Valuation of Investments

The trustees of the pooled funds shall value the pooled fund units.

5.9 Life Annuities

Nothing in the Policy shall preclude the Fund from purchasing life annuities to secure the pensions of the Members in whole or in part.

5.10 Policy Review

The Policy may be reviewed and revised at anytime, but it must be formally reviewed by the Committee at least annually.

PRC/BOG Summary of Approval Request

September 24, 2019

Statement of Investment Policies and Procedures

Recommendation

That the Planning and Resources Committee ("PRC") approve, for recommendation to the Board of Governors ("BOG"), the revised Salaried Pension Statement of Investment Policies and Procedures ("SIP&P").

Financial Implications: No immediate implications.

Description/Background: The Pension Trust Committee (PTC) completed an in depth review of the SIP&P with its investment consultant (Aon) following an asset/liability and investment strategy review of the investment portfolio. As an outcome of this review and PRC/BOG approval of revised Investment Strategy (May 10, 2019 meeting), the investment beliefs, risk related sections, target returns and asset mix have been updated. In addition, the document has been revised to reflect current regulatory requirements and industry practice. The attached summary memo from the PTC identifies these and other additional housekeeping changes and provides both a blackline and clean copy of the SIP&P, along with the new PTC approved risk tolerance guideline for internal monitoring use.

Alignment with University strategy: The policy updates are aligned with the asset/liability study and PRC/BOG investment strategy review and objectives.

Important considerations: The SIP&P changes, once approved, will facilitate the implementation of approved changes to the investment mix. The PTC have added the following next steps to the 2019/20 workplan:

- reviewing equity investment manager style offsets along with performance tracking errors,
- implementation of transition plan to increase real assets and a reduce the allocation to equities,
    - Infrastructure – Increased Allocation to approved managers
    - Real Estate – Increased Allocation to existing manager
    - Real Estate – Global Manager Search

Major risks: Underperformance and mis-alignment to the SIP&P. The risk is if the SIP&P remains unchanged the expected future returns will underperform expectations and underperform relative to peers due to a current underweight to real assets.

Mitigating factors identified: PTC will monitor investment performance relative to updated performance and plan objectives through the quarterly review process. Commencing in Q3- Investment monitoring will include the additional Investment Risk volatility monitoring and updated investment limits.

PTC will continue to draw on the expertise of its membership, peer performance comparisons, and review steps above conducted with the PTC third party investment consultant (Aon).

Prepared By: Financial Affairs

Reviewed by: AVP (Administration) & CFO

McMaster University

Steven Moore, MBA, CPA, CGA, CFA, CIPM, CTP
Treasurer

One James North, Rm 417
1 James Street North
Hamilton, Ontario, Canada
L8R 2K3

Phone: 905.525.9140, Ext. 24790
Fax: 905.529.3272
E-mail: moores11@mcmaster.ca

Date: September 12, 2019

To: Planning and Resources Committee

From: Pension Trust Committee

Subject: Statement of Investment Policies and Procedures – Salaried Pension Plans

Recommendation:
That the Planning and Resources Committee approve, for recommendation to the Board of Governors, the revised Statement of Investment Policies and Procedures for Contributory Pension Plans for Salaried Employees as shown in Appendix A.

The Pension Benefits Act requires that the pension plan's Statement of Investment Policy and Procedures (SIP&P) be reviewed each year. Aon Hewitt assisted in a detailed review of the existing policy. The proposed revisions update the policy to better align with the industry practices, reflect changes in legislative requirements, reflect the approved investment strategy recommendations, and to reflect several items of a housekeeping nature. Refer to Appendix A for the revised policy with blacklines and Appendix B for the Approved Investment Strategy Recommendations (May PRC).

The material changes to the policy are summarized in the table below:

Table 1. Summary of Proposed Policy Changes

Reference	Comments
a) Section 1.02,1.03 (c) (pg. 1) &Appendix A & B (pg. 26 & 27)	To align with best practice and regulatory requirements Section 1.02, 1.03 (c) and Appendix A and B have been removed from the Policy as they are not required in the SIP&P document. If included, these items generate requirements for more frequent SIP&P updates than necessary in order to maintain data in these sections.
b) Section 1.05 (pg. 3-5)	The risk section of the SIP&P has been updated to reflect the results of the asset/liability study and investment strategy review. The updated language reflects the Plans objectives and risk tolerance of the Pension Trust Committee. The target portfolio mix was derived as the best fit portfolio to manage the objectives of the Plan (Refer to Appendix B)
c) Section 1.06 (d),(e)&(g) (pg.7)	Investment Consultant and Management responsibilities have been updated to align with practice/process. The Actuary responsibilities have been updated.
d) Section 2.02 (pg. 8)	The investment risk monitoring for the pension has been enhanced to monitor the implementation of the strategic asset mix relative to the expectations and risk tolerance. Commencing in Q3, 2019, the Committee will monitor the actual volatility of the investment portfolio relative to target and maximum risk benchmark. The maximum risk represents the maximum allocation of assets into higher return seeking asset and the minimum allocation to risk reducing (fixed

	income) and diversifying (Real Assets) assets permitted by the asset mix ranges. (refer to Appendix C.)
e) Section 2.04 (a) (pg. 8&9) and (c) (pg. 11& 12)	Asset mix has been changed to reflect the updated investment strategy and the transition to Real Assets. Asset mix ranges are set wider to facilitate this transition. A new table has been added to meet the categorization requirements associated with the Pension Benefits Act (bottom of Pg. 9). Manager rebalancing guidelines and monitoring has been consolidated and simplified.
f) Section 3.09 (pg. 17)	Liquidity risk commentary has been included in the liquidity section.
g) Section 4.01 (a) (pg. 19)	Updated language relating to the Total Fund Benchmark has been included regarding the transition to Real Assets.
h) Section 5.07 (d) (pg. 24 &25)	Updated language relating to Real Assets and deletion of the valuation parameters for assets not contemplated.

The Pension Trust Committee has reviewed and approved the proposed changes to the Statement of Investment Policies and Procedures at the September 12, 2019 meeting.

Appendix A.

STATEMENT OF INVESTMENT POLICIES AND PROCEDURES

FOR

CONTRIBUTORY PENSION PLANS FOR SALARIED EMPLOYEES

Planning and Resources Committee– **FOR APPROVAL**
September 26, 2019

Policies, Procedures and Guidelines

Complete Policy Title:
Statement of Investment Policies and Procedures

The Master Trust for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College and the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000

Policy Number (if applicable):

Approved by:
Board of Governors

Date of Most Recent Approval:
TBD

Date of Original Approval(s):
June 13, 2002

Supersedes/Amends Policy dated:
~~June 8~~December 7, 2017

Responsible Executive:
Assistant Vice-President (Administration) and CFO

Enquiries:
University Secretariat

DISCLAIMER: If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails

Contents

Section 1—Overview

1.01 Purpose of Statement

This Statement of Investment Policies and Procedures (the 'Policy') is intended to set out the investment framework which shall apply at all times for the Contributory Pension Plan for Salaried Employees of McMaster University, including McMaster Divinity College and the Contributory Pension Plan for Salaried Employees of McMaster University, including McMaster Divinity College 2000 (collectively the 'Plans').

This Policy is based on the 'prudent person portfolio approach' to ensure the prudent investment and administration of the assets of the Plans (the 'Fund') within the parameters set out in the Pension Benefits Act (Ontario) and the regulations thereunder.

1.02 Background of the Plans

McMaster University was established in 1887 by the bequest of William McMaster and is a university incorporated under the laws of the Province of Ontario, which provides operating grants annually to the University.

The University sponsors defined benefit pension plans into which its contributions and the employees' contributions are deposited. These contributions are made ~~monthly~~bi-weekly and are remitted before the end of the following month to the Plans' trustee.

~~The University contracts with third parties to provide trustee, custodial, investment management, actuarial, and consulting services. The Plans' current trustee, custodian of its assets, fund manager(s), actuary, and consultant are identified in Appendix A to this Statement. This appendix also provides information on the number of the Plans' members and the value of the Plans' assets.~~

Retiree benefits are paid from the Plans. Also paid from the Plans are termination and death benefits, trustees' fees, audit fees, actuaries' fees, investment counsel fees, consultants' fees, filing fees and administrative and other related costs.

1.03 Plan Profiles

(a) Contributions

The Plans are contributory. Each member is required to contribute in accordance with the Plan Text and limited by specified maximums, as applicable.

(b) Benefits [1]

The amount of annual pension payable to most members will be:

(i) 1.4% of Best Average Salary up to the Average Year's Maximum Pensionable Earnings times years of pensionable service, plus

(ii) 2.0% of Best Average Salary in excess of the Average Year's Maximum Pensionable Earnings times years of pensionable service up to the maximum pension limits for an RPP as specified in the Income Tax Act.

[1] Unifor Unit 1 members who were hired on or after May 1, 2010 benefits are calculated using 1% and 1.6%.

~~of the most recent actuarial valuation dated July 1, 2014, the Going Concern Liabilities of the Plans were $ 1,627 million and the Actuarial Value of Assets was $1,375 million. Approximately 51% of the liability was attributable to active members and 49% of the liability was attributable to pensioners and deferred vested members.~~

1.04 Objective of the Plans

The objective of the Plans is to provide participants with defined pension benefits based on a best average salary and with indexation of retirement benefits, as defined in the Plan text for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College, Registration Number 0215400 ("Plan Text") and in the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000, Registration Number 1079920 ("Plan 2000 Text"). It is important to set up an appropriately diversified asset mix in order to ensure continued prudent and effective management of pension fund assets.

1.05 Investment Objective, Beliefs ~~and~~, Risk ~~Philosophy~~Appetite

Funding Objectives

The Plans' funding objectives are to:

(a) Focus on maintaining a going concern funded ratio between 90-110%,
(b) Manage the volatility of contributions, and
(c) Reduce the likelihood of material solvency payments and target to maintain the solvency funded ratio above 85% at all future actuarial valuation dates.

Investment Objectives

The investment objective of the Plans' investments is to earn a return sufficient to keep the Plans sustainable over the long term, while keeping benefit levels and contribution rates stable. This requires an appropriate balance between risk and return.

Risk Appetite

Based on the characteristics of the Plans ~~and analysis performed during the most recent asset liability study that was carried out for the Plans~~, the ~~Pension Trust~~ Committee ~~(the 'Committee') of McMaster University~~ has determined that the Plans have a ~~moderately high tolerance of investment risk. Therefore, a long-term asset mix strategy with a relatively high equity content has been adopted provided that the equity component is well diversified.~~
moderate risk appetite for investment risk as demonstrated by the approved
~~The University recognizes that, based on historical data and on forecast returns, the~~ asset classes ~~most likely to produce the greatest return in excess of inflation 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.~~, investment targets and limits within this policy.

Investment Beliefs

The Pension Trust Committee ("Committee") has, from time to time, reviewed and confirmed its investment beliefs which take into consideration the types of investments and associated risks that are aligned with investment objectives and risk appetite.

As part of a recent asset-liability study that was completed for the Plans in 2018, a risk diagnosis was conducted reviewing the impact of the current and alternative asset mixes on contributions, solvency funding and going concern funding.

Commensurate with the liability profile and funding position of the Plans, and long-term time horizon, the Committee has determined and confirmed that the Plans remain well positioned, and continue to have the ability to invest based on a long-term approach and accept a higher degree of investment risk.

The following were also used as inputs into this determination:

(a) A focus on the going concern liability position of the plan versus solvency liability position;

(b) The actuary's smoothed asset approach in valuing the plan's liability position;

(c) Diversifying return-seeking assets in order to position the Plans to earn additional investment income in a risk-monitored framework; and

(d) Managing the duration of the fixed income portfolio to reduce interest rate risk and the probability of solvency shortfall.

1.06 Delegation of Responsibility and Administration

The University is the legal administrator of the Plans and is therefore responsible for all matters relating to the administration, interpretation and application of the Plans, including developing, monitoring and amending this Policy. The Committee, a standing Committee of the University's Board of Governors, has been formed for the purpose of assisting the University with the administration of the Plans.

Overall responsibility for the Plans ultimately rests with the Board of Governors of the University. The Committee assists the Board in fulfilling its fiduciary responsibilities. As well, other suppliers assist the University as described below.

(a) **The Committee will**:

(i) Recommend to the Board of Governors general pension investment policy and annually review the Statement of Investment Policies and Procedures;

(ii) Monitor the performance of the Fund;

(iii) Monitor and review performance of Investment Consultants and Fund Managers:

1. Make recommendations to the Board of Governors with respect to situations of deviation or proposed deviation by Fund Managers from the Policy;

2. Make recommendations to the Board of Governors on the appointment of, mandates for and replacement of such Investment Consultants and Fund Managers.

(iv) Monitor the annual calculation of the "Net Interest on the Fund" and the "Annual Pension Increase";

(v) Discuss and promote awareness and understanding of the Plans by members of the Plans and persons receiving benefits under the Plans;

(vi) Comment and make recommendations to the Planning and Resources Committee on:

1. The performance and appointment of the Actuary; and

2. The actuarial methods and assumptions used in determining the financial condition of the Plans and the contributions to the Plans.

(vii) Comment and make recommendations to the ~~Finance~~Planning and Resources Committee on proposed changes to the Plans' ~~Text~~Texts, and propose changes to the Plans' ~~Text~~Texts; and

(viii) Monitor at least annually all fees and the administrative expenses paid from the Plans, and determine whether they are appropriate. Changes in the nature and structure of administrative expenses paid may be approved by the Board of Governors only if recommended by the Pension Trust Committee as a result of a ballot of all Committee members.

(b) The Fund Manager(s) will:

(i) Invest the assets of the Fund in accordance with this Policy;

(ii) Notify the Committee, in writing, of any significant changes in the Fund manager's philosophies and policies, personnel or organization and procedures; and

(iii) Meet with the Committee as required and provide written reports regarding their past performance, their future strategies and other issues requested by the Committee.

(c) The Custodian/Trustee will:

(i) Maintain safe custody over the assets of the Plans (i.e. both segregated and pooled mandates);

(ii) Execute the instructions of the University and the Fund Manager(s); and,

(iii) Record income and provide monthly financial statements to the University as required.

(d) The Actuary will:

(i) Perform actuarial valuations of the Plans as required or as directed by the Committee;

(ii) Advise the Committee on any matters relating to the Plans' design, membership and contributions; and,

(iii) Assist the Committee in any other way required.

(e) The Investment Consultant will:

(i) Assist in the development and implementation of this Policy;

(ii) Monitor the performance of the Fund and the Fund Managers on a quarterly basis, and advise the Committee on such performance;

~~(iii)~~ (iii) Monitor funding and performance objectives on a quarterly basis;

(iv) Monitor the Fund Managers' quarterly compliance reports;

(v) Support the Committee on matters relating to investment management and administration of the Fund; and,

(vi) Meet with the Committee as required.

(f) The Accountant will:

(i) Provide annual audited financial statements of the Plans.

(g) University Management will:

(i) Ensure compliance with legal and University requirements;

(ii) Execute decisions made by relevant governing bodies;

(iii) Work closely with consultants, custodian, actuary and the investment managers, as appropriate including documenting the investment managers' mandates;

(iv) Determine appropriate rebalancing strategy, as necessary, as outlined in Section 2.04 (d);

~~(iv)~~(v) Review the expenses of the Plans; and~~-~~

(vi) Maintain all documents and make them available upon request~~.~~

The Board of Governors has the authority to retain other consultants/suppliers, as it deems necessary from time to time.

Section 2—Asset Mix and Diversification Policy

2.01 Investment Objectives - Portfolio Return Expectations

The Fund will be managed on a going-concern basis. The primary objective is to ensure that the benefits defined in the Plans can be paid.

The secondary performance objective is to outperform a benchmark portfolio constructed from rates of return (including income) of the Standard & Poor's Toronto Stock Exchange Composite Index (S&P/TSX Composite Index), the Standard & Poor's 500 Index (S&P 500 Index), the Russell 1000 Hedged to C$ Index, the Morgan Stanley Capital International Europe, Australasia and Far East Index (MSCI EAFE Index), the FTSE TMX Universe Bond Index, the FTSE TMX Long Term Bond Index the FTSE TMX Real Return Bond Index and the Investment Property Databank (IPD) Canada Property Index, in proportion to the weights indicated in Section 4.01 (a) and calculated over rolling four-year time periods.

2.02 Investment Risk Tolerance - Expected Volatility

The expected volatility of investment returns for the Fund is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities ~~and Canadian bonds. In that regard,~~, Canadian bonds and Real Assets. Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined in Section 2.04. It is expected that the volatility of Fund returns should be similar to the volatility of the Total Combined Fund Benchmark Portfolio set out in Section 4.01.

It is reasonable to invest for a long-term horizon for the asset mix strategy, accept short-term market volatility and accept a moderately higher degree of liquidity risk due to the Plans' high ratio of active members versus inactive members.

The Committee will further monitor the volatility of the Fund and underlying Fund Managers on an ongoing basis.

2.03 Management Structure

To reduce the overall volatility of returns and to reduce the risk that active managers will underperform market index returns, a hybrid management structure has been adopted for the Fund consisting of a combination of active and passive specialist equity, bond and currency overlay managers, subject to Section 2.04 (a).

2.04 Asset Mix – Risk Limits

(a) Overall Asset Mix

The benchmark portfolio is representative of the long-term asset mix policy for the Fund as set out by the Board of Governors. Investment specific limits are set forth in Section 3. The Total Fund benchmark portfolio and asset mix guidelines (by market value) are set out below:

Total Fund Asset Mix

	Min	Target	Max
Equities and Real Assets	50	65	80
Total Fixed Income	20	35	50

		100	

Total Fund Benchmark Portfolio by Asset Class

Assets	Minimum (%)	Benchmark (%)	Maximum (%)
Canadian Equities	16	20	24
U.S. ~~Equities~~Equities[1]	17	~~22~~20	27
Non-North American ~~Equities~~Equities[1]	~~17~~12	~~22~~15	~~27~~24
Real ~~Assets~~Assets[2]	~~0~~5	~~1~~10	~~10~~15
Universe Bonds	~~8~~5	~~15~~10	20
Long Term Bonds	~~10~~15	~~15~~25	~~18~~30
~~Real Return Bonds~~	~~2~~	~~5~~	~~7~~
Cash and Short-term	0	0	10
		100	

[1]A total of 50% +/- 5% of the Total Fund's foreign currency exposure shall be hedged to the Canadian Dollar.
[2] The Real Assets minimum is expected to be achieved once signed commitments have been funded in the next 12-24 months.

The allocation to Real Assets will be built up over time ~~(with a~~.

It is recognized that due to the nature of investing in Real Assets (i.e. long investment queues), it will take some time to reach the benchmark allocation of 10%. Until such time that this is accomplished, the minimum and maximum ranges around benchmarks have been set wider to accommodate the transition to Real Assets.

Categorizations per Pension Benefits Act

The target ~~of 5% and a range of +/- 5%) and is to be considered~~asset mix for each category listed in subsection 76(12) of the Regulations to the Pension Benefit Act (Ontario) is as ~~part of the planned Asset Liability Study in 2018~~follows:

Category	Benchmark Portfolio (%)
1. Insured contracts	
2. Mutual or pooled funds or segregated funds	
3. Demand deposits and cash on hand	
4. Short-term notes and treasury bills	
5. Term deposits and guaranteed investment certificates	
6. Mortgage loans	
7. Real estate	5
8. Real estate debentures	
9. Resource properties	
10. Venture capital	
11. Corporations referred to in subsection 11(2) of schedule III to the federal investment regulations	
12. Employer issued securities	
13. Canadian stocks other than investments referred to in 1 to 12 above	20
14. Non-Canadian stocks other than investments referred to in 1 to 12 above	35
15. Canadian bonds and debentures other than investments referred to in 1 to 12 above	35
16. Non-Canadian bonds and debentures other than investments referred to in 1 to 12 above	
17. Investments other than investments referred to in 1 to 16 above	5

Note that the full allocation made to items 7 and 17, 26% of the allocation made to item 14 and 26% of the allocation made to item 15 are accessed via pooled funds. Investments referenced in item 17 are made to infrastructure.

(b) Manager Compliance

The Fund Managers shall comply with restrictions imposed by Federal or Provincial legislation and regulations, as well as with their respective Investment Mandates. Should a Fund Manager wish to deviate from the mandate established with the University, he/she must contact, in advance, the Treasurer**,** who will solicit approval from the Board of Governors. Should there be a sudden change in market conditions that causes the asset mix to be offside, the Fund Manager will immediately either seek the necessary approval to remain offside, or take corrective action and contact the Treasurer, who will inform the Board of Governors. The Treasurer will report all such occurrences and their resolution to the Committee.

(c) Manager Rebalancing Guidelines

~~The following table presents the allocation of assets between active Canadian Equities, U.S. Equities, Non-North American Equities, Canadian Bonds, Enhanced Index U.S. Equities, Passive Canadian Bonds and Real Assets, as well as the maximum and minimum exposures (all amounts are based on market values). Please refer to Appendix B for a summary of Fund Managers and allocations.~~

~~**Assets**~~	~~**Minimum (%)**~~	~~**Benchmark (%)**~~	~~**Maximum (%)**~~
~~Active Canadian Equities~~	~~16~~	~~20~~	~~24~~
~~Active U.S. Equities[1]~~	~~5~~	~~8~~	~~11~~
~~Active Canadian Bonds~~	~~4~~	~~9~~	~~12~~
~~Non-North American Equities[1]~~	~~17~~	~~22~~	~~27~~
~~Enhanced Index U.S. Equity[1]~~	~~11~~	~~14~~	~~17~~
~~Passive Universe Bond~~	~~4~~	~~6~~	~~8~~
~~Passive Long Term Bond~~	~~10~~	~~15~~	~~18~~
~~Passive Real Return Bond~~	~~2~~	~~5~~	~~7~~
~~Active Real Assets~~	~~0~~	~~1~~	~~10~~
~~Total Fund~~		~~**100**~~	

~~[1] A total of 50% +/- 5% of the Total Fund's foreign currency exposure shall be hedged to the Canadian dollar.~~

~~**(d) Monitoring and Rebalancing the Manager and Index Components**~~

~~In order to ensure that the Total Combined Fund operates within the guidelines stated in this Policy, the Treasurer shall monitor the asset and manager mix on a quarterly basis to determine if the asset commitments are within established guidelines. In the event of a deviation from policy occurring, the Treasurer, will determine an appropriate rebalancing strategy to be implemented within two quarters of the deviation from policy being identified (excluding the 5% real assets benchmark allocation). Any rebalancing activity in response to a deviation from policy will be reported to the Committee at its next regular meeting. The Treasurer shall use cash flows to move overweighted and underweighted asset classes towards their benchmark weights.~~

~~Rebalancing of the managers and index components may be achieved using either or both of the following when appropriate:~~

~~(i) Adjustment using net cash inflows/outflows to/from the Fund; and/or,~~

~~Transfers of cash or securities between portfolios.~~The asset classes of the Plans shall

be rebalanced to within the minimum and maximum ranges around benchmark (taking into consideration transaction costs, liquidity and transition to Real Assets) when, at the end of any quarter, any one of the asset classes outside of these ranges as indicated in Section 2.04 (a).

Section 3—Permitted and Prohibited Investments

3.01 General Guidelines

The investments of the Fund must comply with the requirements and restrictions imposed by the applicable legislation, including but not limited to the requirements of the Pension Benefits Act (Ontario), the Income Tax Act (Canada), and any relevant regulations.

3.02 Permitted Investments

In general, and subject to the restrictions noted below, the Fund may invest directly or via pooled funds in any of the asset classes and in any of the instruments listed below.

(a) Canadian and Foreign Equities

(i) Common and convertible preferred stock listed on a recognized exchange;

(ii) Debentures convertible into eligible common or convertible preferred stock;

(iii) Rights, warrants and special warrants for eligible common or convertible preferred stock;

(iv) Instalment receipts and American and Global Depository Receipts;

(v) Units of real estate investment trusts (REITs) listed on a recognized exchange;

(vi) Units of income trusts domiciled in jurisdictions that provide limited liability protection to unitholders;

(vii) Units of limited partnerships which are listed on a recognized exchange; and,

(viii) Private placements of equities, where the security will be eligible for trading on a recognized exchange within a reasonable and defined time frame and subject to Section 3.04.

(b) Bonds

(i) Bonds, debentures, notes, non-convertible preferred stock and other evidence of indebtedness of Canadian, foreign or supranational issuers whether denominated and payable in Canadian dollars or a foreign currency;

(ii) Mortgage-backed securities, guaranteed under the National Housing Act;

(iii) Term deposits and guaranteed investment certificates; and,

(iv) Private placements of bonds and asset backed securities subject to Section 3.04.

(c) Cash and Short Term Investments

(i) Cash on hand and demand deposits;

(ii) Treasury bills issued by the federal and provincial governments and their agencies;

(iii) Obligations of trust companies and Canadian and foreign banks chartered to operate in Canada, including bankers' acceptances;

(iv) Commercial paper and term deposits;

(v) Deposit accounts of the custodian can be used to invest surplus cash holdings; and,

(vi) Repurchase Agreement transactions for cash management purposes, with transactions limited to counterparties with a minimum BBB counterparty credit rating at the time of the transaction.

(d) Derivative Instruments

Derivatives are to be used primarily for defensive purposes, including currency hedging. The use of derivative instruments which would be contracted on a leveraged basis is prohibited. 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.

The following uses of derivative instruments for defensive purposes are permitted:

(i) Covered put and/or call options with respect to publicly traded securities that are held in the portfolio;

(ii) The Manager of an index portfolio may utilize fully backed (i.e. non-leveraged), derivative strategies designed to replicate the performance of specific market indices; and,

(iii) Currency futures contracts and forward contracts whose use is restricted to reducing risk as part of a currency hedging strategy. Within pooled funds, the Fund Managers' policy on derivatives will take precedence.

(e) Real Assets

(i) ~~Indirect~~Direct real ~~asset~~estate and direct infrastructure investment via independently managed pooled funds, limited partnerships or specialist corporate structures (i.e. LLCs). The mandate of each fund, partnership or corporate structure will vary with the long-term goal of assembling a diversified real estate portfolio.

(ii) Permitted and prohibited investments in real assets will be governed by the terms and conditions set out in the respective pooled fund contract, Offering Memorandum, Trust Agreement or similar document that is applicable to each Investment Manager.

3.03 Minimum Quality Requirements for Bonds

(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 a Recognised Bond Rating Agency, at the time of purchase.

(ii) The minimum weighted average rating of the overall bond portfolio must be 'A', or better.

(iii) The minimum quality standard for individual short term investments is 'R-1' or equivalent as rated by a Recognised Bond Rating Agency, at the time of purchase.

(b) Rating Agencies

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

(i) Dominion Bond Rating Agency;

(ii) Standard & Poor's;

(iii) Moody's Investors Services; and

(iv) Fitch Ratings (foreign issuers only).

Should the rating on a short-term or bond investment fall below the minimum standards outlined above, the Fund Manager must immediately notify the Treasurer and communicate the action that is to be taken. The Treasurer must report all such occurrences and action undertaken to remedy the situation to the Committee.

3.04 Maximum Quantity Restrictions

While specific restrictions are reflected in the individual manager mandates, the following restrictions are to be respected:

(a) Equities

(i) No one equity holding shall represent more than 10% of the market value of any one manager's equity portfolio;

(ii) No one equity holding shall represent more than 10% of the voting shares of a corporation;

(iii) No one equity holding shall represent more than 10% of the available public float of such equity security;

(iv) Private placements can be held to a maximum of 10% of the equity portfolio; and,

(v) No more than 15% of the market value of the equity manager's portfolio shall be invested in Royalty or Income Trusts.

(b) Bonds and Short-Term Securities

(i) Except for federal bonds and provincial bonds having at least an A credit rating, no more than 10% of a manager's bond portfolio may be invested in the bonds of a single issuer and its related companies;

(ii) Except for federal and provincial bonds, no one bond holding shall represent more than 10% of the market value of the total outstanding for that bond issue;

(iii) No more than 10% of the market value of a manager's bond portfolio shall be invested in bonds rated 'BBB' or equivalent and no bond rated 'BBB' or equivalent shall exceed 3% of the market value of the portfolio;

(iv) No more than 20% of the market value of a manager's bond portfolio shall be invested in bonds denominated in a currency other than Canadian dollars;

(v) No more than 20% of the market value of a manager's bond portfolio shall be invested in bonds of foreign issuers; and,

(vi) Private placements and asset-backed securities can be held to a maximum of 15% of the bond portfolio.

3.05 Prior Permission Required

Subject to applicable legislation and regulations, any other investments are permitted provided that the Fund Manager has obtained prior written permission from the Board of Governors upon recommendation of the Committee:

3.06 Prohibited Investments

The Fund Managers shall not:

(a) Invest in companies for the purpose of managing them;

(b) Purchase securities on margin or engage in short sales, except in the case of a unleveraged synthetic index strategy where the manager will utilize futures contracts and short-term securities to attempt to create returns that match those of a specified index;

(c) Invest in securities that would result in the imposition of a tax on the Fund under the Income Tax Act (Canada) unless they provide a prior written acknowledgement to the Committee that such investments will result in a tax and receive prior written permission for such investments from the Board of Governors;

(d) Invest in any securities issued by McMaster University or its affiliated entities; or

(e) Make any investment not specifically permitted by this Policy or the Fund Manager's investment mandate.

3.07 Securities Lending

Defined securities held by the Plans may be loaned by the Trustee under a properly approved contract with the University.

The investments of the Fund may be loaned for the purpose of generating revenue for the Fund, subject to the provisions of the Pension Benefits Act (Ontario), the Income Tax Act (Canada), and applicable regulations.

Such loans must be secured by cash and/or readily marketable government bonds, treasury bills and/or letters of credit, discount notes and banker's acceptances of Canadian chartered banks. The amount of collateral taken for securities lending should reflect best practices in local markets, but should be at least 105% under an enhanced indemnity arrangement. The market value relationship between collateral and securities on loan must be calculated at least daily. For equity loans, high quality, liquid equities may also be accepted as collateral.

If the Fund is invested in a pooled fund, security lending will be governed by the terms and conditions of the pooled fund contract.

3.08 Borrowing

The Plans shall borrow money only for the purpose of covering a short-term contingency and the borrowing is for a period that does not exceed ninety days, subject to the Pension Benefits Act (Ontario), the Income Tax Act (Canada) and the written permission of the Board of Governors.

3.09 Liquidity

The Plans shall maintain assets that are sufficiently liquid in order to make necessary payments to members when required and to enable other changes, as required.

Liquidity Risk

The Plans' liquidity requirements primarily relate to pension payments. The Plans have a high a ratio of active members versus inactive members, as such the Plans' cash payment requirements in the normal course of events remains low.

3.10 Environmental, Social and Governance

"ESG" refers to the environmental, social and governance factors, including government/public policy and disclosure concerns, relevant to an investment that may have a financial impact on that investment. The university has a fiduciary duty to act in the long-term interests of the beneficiaries of the Plans. The Plans' investment portfolio managers determine the stock holding of each fund. Where relevant and material to the assessment of investment value and mitigation of investment risk, ESG factors should be evaluated alongside other considerations by the Plan's' investment managers in the exercise of their delegated duties. The university does not impose specific constraints on portfolio investments on the sole basis of ESG factors.

3.11 Conflicts Between the Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, 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. However, wherever such a conflict results in non-compliance with the Policy, the Fund Manager must report this conflict explicitly in its quarterly compliance report.

Section 4—Monitoring and Control

4.01 Performance Measurement

Evaluation of investment performance will be made by the Committee and will take place semi-annually based on the results at June 30 and December 31.

(a) Total Fund Benchmark

The primary performance objective of the Fund is to earn a rate of return that exceeds the rate of return on a benchmark portfolio over a four (4) year period. The benchmark consists of the following market index total returns weighted as indicated:

Benchmark	Weight (%)
S&P/TSX Composite Index	20.0
S&P 500 Index (Cdn. $)	8.0
Russell 1000 Index (Hedged)	14.0
MSCI EAFE Index (Cdn. $)	15.0
MSCI EAFE Index (Hedged)	7.0
FTSE TMX Universe Bond Index	15.0
FTSE TMX Long Term Bond Index	15.0
FTSE TMX Real Return Bond Index	5.0
IPD Canada Property Index	1.0
Total	**100.0**

The ~~allocation~~Plans are currently undergoing a transition to ~~Real Assets~~its Total Fund Asset Mix as outlined in Section 2.04. The Total Fund Benchmark will be ~~built up over time (with a target of 5% and~~updated on a ~~range of +/- 5%) and is~~periodic basis to ~~be considered as part of~~reflect the ~~planned Asset Liability Study in 2018~~

~~For the interim period, the unallocated portion of the 5% allocation to real assets will remain in equities.~~

~~A secondary objective is to achieve, over a four (4) year period at least second quartile performance compared to a performance measurement service pension data base~~progress of this transition.

(b) Fund Managers

The primary objective of the active managers is to earn a rate of return that exceeds the total rate of return[2] on a benchmark portfolio over a four (4) year period or, in the case of passive managers, to earn a rate of return that approximates the returns earned on the relevant market indices, within agreed tracking variance ranges. A secondary objective is to achieve, over a four (4) year period at least second quartile performance compared to a performance measurement service pension data base.

[2] Total rate of return is the time-weighted rate of return based on the change of market value including realised and unrealised gains and losses and including income from all sources.

The managers' benchmarks and performance objectives are set out in more detail in their Investment Mandates. These may be amended, recognising that at all times the Fund must be managed in accordance with the asset mix guidelines and permitted and prohibited investments set out in Sections 2 and 3.

In addition to assessing performance relative to the Benchmark Portfolio, the Committee will examine risk factors and performance by asset class.

4.02 Compliance Reporting by the Fund Manager

Each Fund Manager must submit a compliance report each quarter to the Treasurer. The compliance report should indicate whether or not the manager's portfolio was in compliance with this policy during the quarter.

In the event that the Fund Manager's portfolio is not in compliance with this policy, the Fund Manager is required to detail the nature of the non-compliance and to recommend an appropriate course of action to remedy the situation, to the Treasurer, who will inform the Committee. Minor deviations from the policy that require immediate action can be approved by the Treasurer, who will inform the Committee.

4.03 Standard of Professional Conduct

The Fund Managers are expected to comply at all times and in all respects with the Code of Ethics and Standards of Professional Conduct as promulgated by the CFA Institute or to a standard that is the equivalent of, or higher than that of the CFA.

The Fund Managers will manage the assets with the care, diligence and skill that a fund manager of ordinary prudence would use in dealing with pension plan assets. The Fund Managers will also use all relevant knowledge and skill that they possess, or ought to possess, as prudent fund managers.

Section 5—Administration

5.01 Conflicts of Interest

(i) Definition

For the purpose of this statement a conflict of interest is defined as any event in which any employee of, or member of, or consultant to:

(a) Board of Governors,

(b) Planning and Resources Committee,

(c) Audit Committee,

(d) Pension Trust Committee,

(e) Actuary,

(f) Fund Manager(s),

(g) Custodian/Trustee, and/or

(h) Consultant

or any directly related party may gain a financial or other advantage from knowledge of, or participation in, an investment decision of the fund, or a circumstance that could reasonably be interpreted as impairing his/her ability to render unbiased and objective advice or to fulfil his/her fiduciary responsibilities to act in the best interest of the beneficiaries of the Plans.

It is not possible to anticipate in advance, in this statement, the multitude of situations which can arise. All persons listed above must, therefore, be cognizant of the possibility that conflicts, or perceived conflicts, may arise and must make timely and full disclosure in accordance with generally accepted concepts of fiduciary responsibilities and in accordance with the procedures set forth below:

(ii) Responsibilities

This standard applies to the persons named in Section 5.01(i) above in the execution of their responsibilities under the Pension Benefits Act (Ontario) (the "Affected Persons").

(iii) 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 Plans' assets.

Further, it is required 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 his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour that is material, from a person with whom the Affected Person deals in the course of performance of his or her duties and responsibilities for the Plans.

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 in writing to the Chair of the Committee within three business days after the individual becomes aware of the conflict of interest. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of Plans' business.

The Committee, 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 Committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the manner in which the conflict was resolved will be recorded in the minutes of the Committee.

5.02 Related Party Transactions

Related party transactions are permitted for the ~~Plan~~Plans, subject to the following conditions:

(a) Any transaction that is required for the operation or administration of the ~~Plan~~Plans under terms and conditions that are not less favourable to the ~~Plan~~Plans than market terms and conditions and such transaction does not involve the making of loans to, or investments in, the related party; or

(b) Any transaction, where the combined value of all transactions with the same related party is nominal or the transaction(s) is immaterial to the ~~Plan~~Plans.

For the purposes of this section, only the market value of the combined assets of the ~~Plan~~Plans shall be used as the criteria to determine whether a transaction is nominal or immaterial to the ~~Plan~~Plans. Transactions less than 3% of the combined market value of the assets of the ~~plan~~Plans are considered nominal. Two or more transactions with the same related party shall be considered a single transaction.

5.03 Selecting Fund Managers

In the event that a new Fund Manager must be selected or additional Fund Manager(s) added to the set of existing fund managers, the Committee will undertake a Fund Manager search with the assistance of a third-party investment consultant. The criteria used for recommending the selection of a Fund Manager to the Board of Governors will be consistent with the investment and risk philosophy set out in Section 1.05 (Investment and Risk Philosophy).

5.04 Monitoring of Fund Managers

At least semi-annually, the Committee will monitor and review the:

(a) Assets and net cash flow of the Plans;

(b) Fund Manager's staff turnover, consistency of style and record of service;

(c) Fund Manager's current economic outlook and investment strategies;

(d) Fund Manager's compliance with this Policy and their Investment Mandate, where a Manager is required to complete and sign a compliance report; and

(e) Investment performance of the assets of the Plans in relation to the rate of return expectations outlined in this Policy.

5.05 Dismissal of a Fund Manager

The Committee shall consider from time to time whether a Fund Manager's investment performance or any other circumstances may warrant recommendation to the Board of Governors of the introduction of a probationary period or a change in Fund Manager(s). Such circumstances would include but not be limited to:

(a) Significant turnover in staff of Fund Manager(s);

(b) Change in ownership of Fund Manager(s);

(c) Failure of the Fund Manager(s) to satisfy all of the responsibilities set out in Section 3 of this Statement or set out in the Manager's Investment Mandate;

(d) Desire to diversify the management of the Pension Fund or to add another Fund Manager(s).

(e) Unsatisfactory performance and/or compliance in relation to the performance standards specified in Sections 3 and 4 of this Policy.

5.06 Voting Rights

The Board of Governors has delegated voting rights acquired through the investments held by the Plans to the custodian of the securities to be exercised in accordance with the Fund Managers' instructions. Fund Managers are expected to exercise all voting rights related to investments held by the Fund in the interests of the Plans' members. The Fund Managers shall provide their proxy voting policies to the Treasurer.

Further, the Fund Managers must maintain records documenting how they voted and whether ESG was factored into the proxy voting decision making process and must advise the Treasurer regarding their voting on any unusual items or items where they vote against management, at least on an annual basis.

At least annually, each ~~fund manager~~Fund Manager shall provide Treasury with a report of proxy voting actions and how ESG factored into the voting.

At least annually, a summary report of investment manager proxy voting action and how ESG factored into the voting shall be provided to the Planning and Resources Committee of the Board of Governors.

The Board of Governors reserves the right to take back voting rights of assets held in segregated portfolios for specific situations.

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 calendar quarter.

(b) Bonds
Same as for equities.

(c) Mortgages
Unless in arrears, the outstanding principal plus/minus the premium/discount resulting from the differential between the face rate and the currently available rate for a mortgage of similar quality and term, determined at least once every calendar quarter.

(d) Real ~~Estate~~Assets
A certified written appraisal from a qualified independent appraiser at least every two years.

~~**(e) Resource Properties and Venture Capital**~~
~~A written market value assessment prepared by party qualified to make such assessments, at least every two years.~~

5.08 Policy Review

The Policy may be reviewed and revised at any time, but it must be formally reviewed by the Committee, the ~~Finance~~Planning and Resources Committee and by the Board of Governors at least annually.

5.09 Asset-Liability Review

An Asset-Liability Study will be considered by the Committee every three to five years. A new Asset-Liability Study may be undertaken if any of the following events occur:

(a) The sponsor's risk posture changes significantly;

(b) There are significant changes to pension legislation or regulations that affect the key metrics used in making decisions in the Asset-Liability Study or should affect the asset allocation in the future;

(c) Capital market conditions change significantly such that the assumptions embedded in the Asset-Liability Study are no longer reasonable;

(d) There are changes in the Plan's benefits or liability structure; or

(e) New methodologies emerge that appear to improve the usefulness of Asset-Liability studies.

~~Appendix A~~

~~McMaster University has contracted with the following to provide services:~~

~~Fund Managers~~

~~(a) BlackRock Investment Management~~
~~(b) Bentall Kennedy~~
~~(c) Jarislowsky Fraser & Company Limited~~
~~(d) Grantham, Mayo, van Otterloo & Company~~
~~(e) Franklin Templeton Investments Corp.~~
~~(f) State Street Global Advisors Limited~~
~~(g) Walter Scott & Partners Limited~~
~~(h) Beutel Goodman & Company Ltd.~~

~~Actuary~~

~~Mercer Human Resource Consulting Ltd.~~

~~Custodian/Trustee~~

~~CIBC Mellon Trust Company~~

~~External Auditor~~

~~KPMG~~

~~Pension Investment Consulting and Monitoring~~

~~Aon Hewitt Associates~~

~~Plans' Status~~

~~As of July 1, 2014, the Plans had 3,622 Active Members, 1,935 Retired Members and Survivors, and 944 Former Members with Deferred Benefits and Assets at Market Value, of $1,546 million.~~

~~The going concern liabilities of the Plans were $1,627 million compared to the Actuarial Value of the Assets which was $1,375 million, resulting in a deficit of $252 million. Approximately 51% of the liability was attributable to Active Members and 49% of the liability was attributable to Pensioners and Deferred Vested Members.~~

~~On January 14, 2003, the Superintendent of the Financial Services Commission of Ontario approved the distribution of $150 million plus interest and expenses of excess surplus from the Contributory Pension Plan for Salaried Employees of McMaster University, including McMaster Divinity College 2000 to be shared evenly between the members and the University.~~

~~Appendix B~~

~~Asset Class Management by Type of Fund Manager~~

~~Asset Class~~	~~Tolerated Ranges (at Manager Level)~~	~~Manager Mandates~~	~~Index Objective~~
~~Canadian Equities~~	~~+/- 3%~~	~~10.0% Jarislowsky~~ ~~10.0% SSgA (formerly GEAM)~~	~~S&P/TSX~~
~~U.S. Equities~~	~~+/- 3%~~	~~8.0% Jarislowsky & T. Rowe Price~~ ~~14.0% Blackrock~~	~~S&P 500 (C$)~~ ~~Russell 1000 (Hedged)~~
~~Non-North American Equities~~	~~+/- 3%~~	~~8.0 % GMO~~ ~~7.0% Walter Scott~~ ~~7.0% Templeton~~ ~~(with SSgA currency overlay)~~	~~MSCI EAFE (C$)~~ ~~MSCI EAFE (C$)~~ ~~MSCI EAFE (C$)~~ ~~MSCI EAFE (Hedged)~~
~~Real Assets~~	~~+/- 1%~~	~~1.0% Bentall Kennedy~~	~~IPD Canada Property Index~~
~~Bonds~~	~~+3%/-5%~~ ~~+/- 2%~~ ~~+3%/-5%~~ ~~+ 2%/-3%~~	~~9.0% Beutel Goodman Universe~~ ~~6.0% BlackRock Universe~~ ~~15.0% BlackRock Long Term~~ ~~5.0% BlackRock RRB~~	~~FTSE TMX UBI~~ ~~FTSE TMX UBI~~ ~~FTSE TMX LT~~ ~~FTSE TMX RRB~~

~~Note: For proportion of Total Fund, please refer to 2.04 (a).~~

~~**Active Canadian Equity Managers:**~~

- ~~Jarislowsky Fraser~~
- ~~SSgA (formerly GE Asset Management)~~

~~**Active U.S. Equity Manager:**~~

- ~~Jarislowsky Fraser~~
- ~~T. Rowe Price~~

~~**Active Canadian Bond Manager:**~~

- ~~Beutel Goodman~~

~~**Enhanced Active U.S. Equity Index and Bond Index Manager:**~~

- ~~BlackRock Investment Management~~

~~**Active Non-North American Managers:**~~

- ~~Grantham, Mayo, van Otterloo & Company (GMO)~~
- ~~Franklin Templeton Investments Corp.~~
- ~~Walter Scott & Partners~~

~~**Currency Overlay Managers:**~~

- ~~State Street Global Advisors (SSgA)~~

~~**Real Asset Managers:**~~

- ~~Bentall Kennedy~~

Policies, Procedures and Guidelines

Complete Policy Title:
Statement of Investment Policies and Procedures

The Master Trust for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College and the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000

Policy Number (if applicable):

Approved by:
Board of Governors

Date of Most Recent Approval:
TBD

Date of Original Approval(s):
June 13, 2002

Supersedes/Amends Policy dated:
December 7, 2017

Responsible Executive:
Assistant Vice-President (Administration) and CFO

Enquiries:
University Secretariat

DISCLAIMER: If there is a Discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails

Contents

Section 1—Overview

1.01 Purpose of Statement

This Statement of Investment Policies and Procedures (the 'Policy') is intended to set out the investment framework which shall apply at all times for the Contributory Pension Plan for Salaried Employees of McMaster University, including McMaster Divinity College and the Contributory Pension Plan for Salaried Employees of McMaster University, including McMaster Divinity College 2000 (collectively the 'Plans').

This Policy is based on the 'prudent person portfolio approach' to ensure the prudent investment and administration of the assets of the Plans (the 'Fund') within the parameters set out in the Pension Benefits Act (Ontario) and the regulations thereunder.

1.02 Background of the Plans

McMaster University was established in 1887 by the bequest of William McMaster and is a university incorporated under the laws of the Province of Ontario, which provides operating grants annually to the University.

The University sponsors defined benefit pension plans into which its contributions and the employees' contributions are deposited. These contributions are made bi-weekly and are remitted before the end of the following month to the Plans' trustee.

Retiree benefits are paid from the Plans. Also paid from the Plans are termination and death benefits, trustees' fees, audit fees, actuaries' fees, investment counsel fees, consultants' fees, filing fees and administrative and other related costs.

1.03 Plan Profiles

(a) Contributions

The Plans are contributory. Each member is required to contribute in accordance with the Plan Text and limited by specified maximums, as applicable.

(b) Benefits [1]

The amount of annual pension payable to most members will be:

(i) 1.4% of Best Average Salary up to the Average Year's Maximum Pensionable Earnings times years of pensionable service, plus

(ii) 2.0% of Best Average Salary in excess of the Average Year's Maximum Pensionable Earnings times years of pensionable service up to the maximum pension limits for an RPP as specified in the Income Tax Act.

[1] Unifor Unit 1 members who were hired on or after May 1, 2010 benefits are calculated using 1% and 1.6%.

1.04 Objective of the Plans

The objective of the Plans is to provide participants with defined pension benefits based on a best average salary and with indexation of retirement benefits, as defined in the Plan text for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College, Registration Number 0215400 ("Plan Text") and in the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000, Registration Number 1079920 ("Plan 2000 Text"). It is important to set up an appropriately diversified asset mix in order to ensure continued prudent and effective management of pension fund assets.

1.05 Investment Objective, Beliefs, Risk Appetite

Funding Objectives

The Plans' funding objectives are to:

(a) Focus on maintaining a going concern funded ratio between 90-110%,
(b) Manage the volatility of contributions, and
(c) Reduce the likelihood of material solvency payments and target to maintain the solvency funded ratio above 85% at all future actuarial valuation dates.

Investment Objectives

The investment objective of the Plans' investments is to earn a return sufficient to keep the Plans sustainable over the long term, while keeping benefit levels and contribution rates stable. This requires an appropriate balance between risk and return.

Risk Appetite

Based on the characteristics of the Plans, the Committee has determined that the Plans have a moderate risk appetite for investment risk as demonstrated by the approved asset classes, investment targets and limits within this policy.

Investment Beliefs

The Pension Trust Committee ("Committee") has, from time to time, reviewed and confirmed its investment beliefs which take into consideration the types of investments and associated risks that are aligned with investment objectives and risk appetite.

As part of a recent asset-liability study that was completed for the Plans in 2018, a risk diagnosis was conducted reviewing the impact of the current and alternative asset mixes on contributions, solvency funding and going concern funding.

Commensurate with the liability profile and funding position of the Plans, and long-term time horizon, the Committee has determined and confirmed that the Plans remain well positioned, and continue to have the ability to invest based on a long-term approach and accept a higher degree of investment risk.

The following were also used as inputs into this determination:

(a) A focus on the going concern liability position of the plan versus solvency liability position;
(b) The actuary's smoothed asset approach in valuing the plan's liability position;
(c) Diversifying return-seeking assets in order to position the Plans to earn additional investment income in a risk-monitored framework; and
(d) Managing the duration of the fixed income portfolio to reduce interest rate risk and the probability of solvency shortfall.

1.06 Delegation of Responsibility and Administration

The University is the legal administrator of the Plans and is therefore responsible for all matters relating to the administration, interpretation and application of the Plans, including developing, monitoring and amending this Policy. The Committee, a standing Committee of the University's Board of Governors, has been formed for the purpose of assisting the University with the administration of the Plans.

Overall responsibility for the Plans ultimately rests with the Board of Governors of the University. The Committee assists the Board in fulfilling its fiduciary responsibilities. As well, other suppliers assist the University as described below.

(a) **The Committee will**:

(i) Recommend to the Board of Governors general pension investment policy and annually review the Statement of Investment Policies and Procedures;

(ii) Monitor the performance of the Fund;

(iii) Monitor and review performance of Investment Consultants and Fund Managers:

1. Make recommendations to the Board of Governors with respect to situations of deviation or proposed deviation by Fund Managers from the Policy;

2. Make recommendations to the Board of Governors on the appointment of, mandates for and replacement of such Investment Consultants and Fund Managers.

(iv) Monitor the annual calculation of the "Net Interest on the Fund" and the "Annual Pension Increase";

(v) Discuss and promote awareness and understanding of the Plans by members of the Plans and persons receiving benefits under the Plans;

(vi) Comment and make recommendations to the Planning and Resources Committee on:

1. The performance and appointment of the Actuary; and

2. The actuarial methods and assumptions used in determining the financial condition of the Plans and the contributions to the Plans.

(vii) Comment and make recommendations to the Planning and Resources Committee on proposed changes to the Plans' Texts, and propose changes to the Plans' Texts; and

(viii) Monitor at least annually all fees and the administrative expenses paid from the Plans, and determine whether they are appropriate. Changes in the nature and structure of administrative expenses paid may be approved by the Board of Governors only if recommended by the Pension Trust Committee as a result of a ballot of all Committee members.

(b) The Fund Manager(s) will:

(i) Invest the assets of the Fund in accordance with this Policy;

(ii) Notify the Committee, in writing, of any significant changes in the Fund manager's philosophies and policies, personnel or organization and procedures; and

(iii) Meet with the Committee as required and provide written reports regarding their past performance, their future strategies and other issues requested by the Committee.

(c) The Custodian/Trustee will:

(i) Maintain safe custody over the assets of the Plans (i.e. both segregated and pooled mandates);

(ii) Execute the instructions of the University and the Fund Manager(s); and,

(iii) Record income and provide monthly financial statements to the University as required.

(d) The Actuary will:

(i) Perform actuarial valuations of the Plans as required or as directed by the Committee;

(ii) Advise the Committee on any matters relating to the Plans' design, membership and contributions; and,

(iii) Assist the Committee in any other way required.

(e) The Investment Consultant will:

(i) Assist in the development and implementation of this Policy;

(ii) Monitor the performance of the Fund and the Fund Managers on a quarterly basis, and advise the Committee on such performance;

(iii) Monitor funding and performance objectives on a quarterly basis;

(iv) Monitor the Fund Managers' quarterly compliance reports;

(v) Support the Committee on matters relating to investment management and administration of the Fund; and,

(vi) Meet with the Committee as required.

(f) The Accountant will:

(i) Provide annual audited financial statements of the Plans.

(g) University Management will:

(i) Ensure compliance with legal and University requirements;

(ii) Execute decisions made by relevant governing bodies;

(iii) Work closely with consultants, custodian, actuary and the investment managers, as appropriate including documenting the investment managers' mandates;

(iv) Determine appropriate rebalancing strategy, as necessary, as outlined in Section 2.04 (d);

(v) Review the expenses of the Plans; and

(vi) Maintain all documents and make them available upon request

The Board of Governors has the authority to retain other consultants/suppliers, as it deems necessary from time to time.

Section 2—Asset Mix and Diversification Policy

2.01 Investment Objectives - Portfolio Return Expectations

The Fund will be managed on a going-concern basis. The primary objective is to ensure that the benefits defined in the Plans can be paid.

The secondary performance objective is to outperform a benchmark portfolio constructed from rates of return (including income) of the Standard & Poor's Toronto Stock Exchange Composite Index (S&P/TSX Composite Index), the Standard & Poor's 500 Index (S&P 500 Index), the Russell 1000 Hedged to C$ Index, the Morgan Stanley Capital International Europe, Australasia and Far East Index (MSCI EAFE Index), the FTSE TMX Universe Bond Index, the FTSE TMX Long Term Bond Index the FTSE TMX Real Return Bond Index and the Investment Property Databank (IPD) Canada Property Index, in proportion to the weights indicated in Section 4.01 (a) and calculated over rolling four-year time periods.

2.02 Investment Risk Tolerance - Expected Volatility

The expected volatility of investment returns for the Fund is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities, Canadian bonds and Real Assets. Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined in Section 2.04. It is expected that the volatility of Fund returns should be similar to the volatility of the Total Combined Fund Benchmark Portfolio set out in Section 4.01.

It is reasonable to invest for a long-term horizon for the asset mix strategy, accept short-term market volatility and accept a moderately higher degree of liquidity risk due to the Plans' high ratio of active members versus inactive members.

The Committee will further monitor the volatility of the Fund and underlying Fund Managers on an ongoing basis.

2.03 Management Structure

To reduce the overall volatility of returns and to reduce the risk that active managers will underperform market index returns, a hybrid management structure has been adopted for the Fund consisting of a combination of active and passive specialist equity, bond and currency overlay managers, subject to Section 2.04 (a).

2.04 Asset Mix – Risk Limits

(a) Overall Asset Mix

The benchmark portfolio is representative of the long-term asset mix policy for the Fund as set out by the Board of Governors. Investment specific limits are set forth in Section 3. The Total Fund benchmark portfolio and asset mix guidelines (by market value) are set out below:

Total Fund Asset Mix

	Min	Target	Max
Equities and Real Assets	50	65	80
Total Fixed Income	20	35	50
		100	

Total Fund Benchmark Portfolio by Asset Class

Assets	Minimum (%)	Benchmark (%)	Maximum (%)
Canadian Equities	16	20	24
U.S. Equities[1]	17	20	27
Non-North American Equities[1]	12	15	24
Real Assets[2]	5	10	15
Universe Bonds	5	10	20
Long Term Bonds	15	25	30
Cash and Short-term	0	0	10
		100	

[1]A total of 50% +/- 5% of the Total Fund's foreign currency exposure shall be hedged to the Canadian Dollar.
[2] The Real Assets minimum is expected to be achieved once signed commitments have been funded in the next 12-24 months.

The allocation to Real Assets will be built up over time.

It is recognized that due to the nature of investing in Real Assets (i.e. long investment queues), it will take some time to reach the benchmark allocation of 10%. Until such time that this is accomplished, the minimum and maximum ranges around benchmarks have been set wider to accommodate the transition to Real Assets.

Categorizations per Pension Benefits Act

The target asset mix for each category listed in subsection 76(12) of the Regulations to the Pension Benefit Act (Ontario) is as follows:

Category	Benchmark Portfolio (%)
1. Insured contracts	
2. Mutual or pooled funds or segregated funds	
3. Demand deposits and cash on hand	
4. Short-term notes and treasury bills	
5. Term deposits and guaranteed investment certificates	
6. Mortgage loans	
7. Real estate	5
8. Real estate debentures	
9. Resource properties	
10. Venture capital	
11. Corporations referred to in subsection 11(2) of schedule III to the federal investment regulations	
12. Employer issued securities	
13. Canadian stocks other than investments referred to in 1 to 12 above	20
14. Non-Canadian stocks other than investments referred to in 1 to 12 above	35
15. Canadian bonds and debentures other than investments referred to in 1 to 12 above	35
16. Non-Canadian bonds and debentures other than investments referred to in 1 to 12 above	
17. Investments other than investments referred to in 1 to 16 above	5

Note that the full allocation made to items 7 and 17, 26% of the allocation made to item 14 and 26% of the allocation made to item 15 are accessed via pooled funds. Investments referenced in item 17 are made to infrastructure.

(b) Manager Compliance

The Fund Managers shall comply with restrictions imposed by Federal or Provincial legislation and regulations, as well as with their respective Investment Mandates. Should a Fund Manager wish to deviate from the mandate established with the University, he/she must contact, in advance, the Treasurer**,** who will solicit approval from the Board of Governors. Should there be a sudden change in market conditions that causes the asset mix to be offside, the Fund Manager will immediately either seek the necessary approval to remain offside, or take corrective action and contact the Treasurer, who will inform the Board of Governors. The Treasurer will report all such occurrences and their resolution to the Committee.

(c) Manager Rebalancing Guidelines

The asset classes of the Plans shall be rebalanced to within the minimum and maximum ranges around benchmark (taking into consideration transaction costs, liquidity and transition to Real Assets) when, at the end of any quarter, any one of the asset classes outside of these ranges as indicated in Section 2.04 (a).

Section 3—Permitted and Prohibited Investments

3.01 General Guidelines

The investments of the Fund must comply with the requirements and restrictions imposed by the applicable legislation, including but not limited to the requirements of the Pension Benefits Act (Ontario), the Income Tax Act (Canada), and any relevant regulations.

3.02 Permitted Investments

In general, and subject to the restrictions noted below, the Fund may invest directly or via pooled funds in any of the asset classes and in any of the instruments listed below.

(a) Canadian and Foreign Equities

(i) Common and convertible preferred stock listed on a recognized exchange;

(ii) Debentures convertible into eligible common or convertible preferred stock;

(iii) Rights, warrants and special warrants for eligible common or convertible preferred stock;

(iv) Instalment receipts and American and Global Depository Receipts;

(v) Units of real estate investment trusts (REITs) listed on a recognized exchange;

(vi) Units of income trusts domiciled in jurisdictions that provide limited liability protection to unitholders;

(vii) Units of limited partnerships which are listed on a recognized exchange; and,

(viii) Private placements of equities, where the security will be eligible for trading on a recognized exchange within a reasonable and defined time frame and subject to Section 3.04.

(b) Bonds

(i) Bonds, debentures, notes, non-convertible preferred stock and other evidence of indebtedness of Canadian, foreign or supranational issuers whether denominated and payable in Canadian dollars or a foreign currency;

(ii) Mortgage-backed securities, guaranteed under the National Housing Act;

(iii) Term deposits and guaranteed investment certificates; and,

(iv) Private placements of bonds and asset backed securities subject to Section 3.04.

(c) Cash and Short Term Investments

(i) Cash on hand and demand deposits;

(ii) Treasury bills issued by the federal and provincial governments and their agencies;

(iii) Obligations of trust companies and Canadian and foreign banks chartered to operate in Canada, including bankers' acceptances;

(iv) Commercial paper and term deposits;

(v) Deposit accounts of the custodian can be used to invest surplus cash holdings; and,

(vi) Repurchase Agreement transactions for cash management purposes, with transactions limited to counterparties with a minimum BBB counterparty credit rating at the time of the transaction.

(d) Derivative Instruments

Derivatives are to be used primarily for defensive purposes, including currency hedging. The use of derivative instruments which would be contracted on a leveraged basis is prohibited. 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.

The following uses of derivative instruments for defensive purposes are permitted:

(i) Covered put and/or call options with respect to publicly traded securities that are held in the portfolio;

(ii) The Manager of an index portfolio may utilize fully backed (i.e. non-leveraged), derivative strategies designed to replicate the performance of specific market indices; and,

(iii) Currency futures contracts and forward contracts whose use is restricted to reducing risk as part of a currency hedging strategy. Within pooled funds, the Fund Managers' policy on derivatives will take precedence.

(e) Real Assets

(i) Direct real estate and direct infrastructure investment via independently managed pooled funds, limited partnerships or specialist corporate structures (i.e. LLCs). The mandate of each fund, partnership or corporate structure will vary with the long-term goal of assembling a diversified real estate portfolio.

(ii) Permitted and prohibited investments in real assets will be governed by the terms and conditions set out in the respective pooled fund contract, Offering Memorandum, Trust Agreement or similar document that is applicable to each Investment Manager.

3.03 Minimum Quality Requirements for Bonds

(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 a Recognised Bond Rating Agency, at the time of purchase.

(ii) The minimum weighted average rating of the overall bond portfolio must be 'A', or better.

(iii) The minimum quality standard for individual short term investments is 'R-1' or equivalent as rated by a Recognised Bond Rating Agency, at the time of purchase.

(b) Rating Agencies

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

(i) Dominion Bond Rating Agency;

(ii) Standard & Poor's;

(iii) Moody's Investors Services; and

(iv) Fitch Ratings (foreign issuers only).

Should the rating on a short-term or bond investment fall below the minimum standards outlined above, the Fund Manager must immediately notify the Treasurer and communicate the action that is to be taken. The Treasurer must report all such occurrences and action undertaken to remedy the situation to the Committee.

3.04 Maximum Quantity Restrictions

While specific restrictions are reflected in the individual manager mandates, the following restrictions are to be respected:

(a) Equities

(i) No one equity holding shall represent more than 10% of the market value of any one manager's equity portfolio;

(ii) No one equity holding shall represent more than 10% of the voting shares of a corporation;

(iii) No one equity holding shall represent more than 10% of the available public float of such equity security;

(iv) Private placements can be held to a maximum of 10% of the equity portfolio; and,

(v) No more than 15% of the market value of the equity manager's portfolio shall be invested in Royalty or Income Trusts.

(b) Bonds and Short-Term Securities

(i) Except for federal bonds and provincial bonds having at least an A credit rating, no more than 10% of a manager's bond portfolio may be invested in the bonds of a single issuer and its related companies;

(ii) Except for federal and provincial bonds, no one bond holding shall represent more than 10% of the market value of the total outstanding for that bond issue;

(iii) No more than 10% of the market value of a manager's bond portfolio shall be invested in bonds rated 'BBB' or equivalent and no bond rated 'BBB' or equivalent shall exceed 3% of the market value of the portfolio;

(iv) No more than 20% of the market value of a manager's bond portfolio shall be invested in bonds denominated in a currency other than Canadian dollars;

(v) No more than 20% of the market value of a manager's bond portfolio shall be invested in bonds of foreign issuers; and,

(vi) Private placements and asset-backed securities can be held to a maximum of 15% of the bond portfolio.

3.05 Prior Permission Required

Subject to applicable legislation and regulations, any other investments are permitted provided that the Fund Manager has obtained prior written permission from the Board of Governors upon recommendation of the Committee:

3.06 Prohibited Investments

The Fund Managers shall not:

(a) Invest in companies for the purpose of managing them;

(b) Purchase securities on margin or engage in short sales, except in the case of a unleveraged synthetic index strategy where the manager will utilize futures contracts and short-term securities to attempt to create returns that match those of a specified index;

(c) Invest in securities that would result in the imposition of a tax on the Fund under the Income Tax Act (Canada) unless they provide a prior written acknowledgement to the Committee that such investments will result in a tax and receive prior written permission for such investments from the Board of Governors;

(d) Invest in any securities issued by McMaster University or its affiliated entities; or

(e) Make any investment not specifically permitted by this Policy or the Fund Manager's investment mandate.

3.07 Securities Lending

Defined securities held by the Plans may be loaned by the Trustee under a properly approved contract with the University.

The investments of the Fund may be loaned for the purpose of generating revenue for the Fund, subject to the provisions of the Pension Benefits Act (Ontario), the Income Tax Act (Canada), and applicable regulations.

Such loans must be secured by cash and/or readily marketable government bonds, treasury bills and/or letters of credit, discount notes and banker's acceptances of Canadian chartered banks. The amount of collateral taken for securities lending should reflect best practices in local markets, but should be at least 105% under an enhanced indemnity arrangement. The market value relationship between collateral and securities on loan must be calculated at least daily. For equity loans, high quality, liquid equities may also be accepted as collateral.

If the Fund is invested in a pooled fund, security lending will be governed by the terms and conditions of the pooled fund contract.

3.08 Borrowing

The Plans shall borrow money only for the purpose of covering a short-term contingency and the borrowing is for a period that does not exceed ninety days, subject to the Pension Benefits Act (Ontario), the Income Tax Act (Canada) and the written permission of the Board of Governors.

3.09 Liquidity

The Plans shall maintain assets that are sufficiently liquid in order to make necessary payments to members when required and to enable other changes, as required.

Liquidity Risk

The Plans' liquidity requirements primarily relate to pension payments. The Plans have a high a ratio of active members versus inactive members, as such the Plans' cash payment requirements in the normal course of events remains low.

3.10 Environmental, Social and Governance

"ESG" refers to the environmental, social and governance factors, including government/public policy and disclosure concerns, relevant to an investment that may have a financial impact on that investment. The university has a fiduciary duty to act in the long-term interests of the beneficiaries of the Plans. The Plans' investment portfolio managers determine the stock holding of each fund. Where relevant and material to the assessment of investment value and mitigation of investment risk, ESG factors should be evaluated alongside other considerations by the Plans' investment managers in the exercise of their delegated duties. The university does not impose specific constraints on portfolio investments on the sole basis of ESG factors.

3.11 Conflicts Between the Policy and Pooled Fund Investment Policies

While the guidelines in this Policy are intended to guide the management of the Fund, it is recognized that, due to the use of pooled funds, 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. However, wherever such a conflict results in non-compliance with the Policy, the Fund Manager must report this conflict explicitly in its quarterly compliance report.

Section 4—Monitoring and Control

4.01 Performance Measurement

Evaluation of investment performance will be made by the Committee and will take place semi-annually based on the results at June 30 and December 31.

(a) Total Fund Benchmark

The primary performance objective of the Fund is to earn a rate of return that exceeds the rate of return on a benchmark portfolio over a four (4) year period. The benchmark consists of the following market index total returns weighted as indicated:

Benchmark	**Weight (%)**
S&P/TSX Composite Index	20.0
S&P 500 Index (Cdn. $)	8.0
Russell 1000 Index (Hedged)	14.0
MSCI EAFE Index (Cdn. $)	15.0
MSCI EAFE Index (Hedged)	7.0
FTSE TMX Universe Bond Index	15.0
FTSE TMX Long Term Bond Index	15.0
FTSE TMX Real Return Bond Index	5.0
IPD Canada Property Index	1.0
Total	**100.0**

The Plans are currently undergoing a transition to its Total Fund Asset Mix as outlined in Section 2.04. The Total Fund Benchmark will be updated on a periodic basis to reflect the progress of this transition.

(b) Fund Managers

The primary objective of the active managers is to earn a rate of return that exceeds the total rate of return[2] on a benchmark portfolio over a four (4) year period or, in the case of passive managers, to earn a rate of return that approximates the returns earned on the relevant market indices, within agreed tracking variance ranges. A secondary objective is to achieve, over a four (4) year period at least second quartile performance compared to a performance measurement service pension data base. The managers' benchmarks and performance objectives are set out in more detail in their Investment Mandates. These may be amended, recognising that at all times the Fund must be managed in accordance with the asset mix guidelines and permitted and prohibited investments set out in Sections 2 and 3.

In addition to assessing performance relative to the Benchmark Portfolio, the Committee will examine risk factors and performance by asset class.

[2] Total rate of return is the time-weighted rate of return based on the change of market value including realised and unrealised gains and losses and including income from all sources.

4.02 Compliance Reporting by the Fund Manager

Each Fund Manager must submit a compliance report each quarter to the Treasurer. The compliance report should indicate whether or not the manager's portfolio was in compliance with this policy during the quarter.

In the event that the Fund Manager's portfolio is not in compliance with this policy, the Fund Manager is required to detail the nature of the non-compliance and to recommend an appropriate course of action to remedy the situation, to the Treasurer, who will inform the Committee. Minor deviations from the policy that require immediate action can be approved by the Treasurer, who will inform the Committee.

4.03 Standard of Professional Conduct

The Fund Managers are expected to comply at all times and in all respects with the Code of Ethics and Standards of Professional Conduct as promulgated by the CFA Institute or to a standard that is the equivalent of, or higher than that of the CFA.

The Fund Managers will manage the assets with the care, diligence and skill that a fund manager of ordinary prudence would use in dealing with pension plan assets. The Fund Managers will also use all relevant knowledge and skill that they possess, or ought to possess, as prudent fund managers.

Section 5—Administration

5.01 Conflicts of Interest

(i) Definition

For the purpose of this statement a conflict of interest is defined as any event in which any employee of, or member of, or consultant to:

(a) Board of Governors,

(b) Planning and Resources Committee,

(c) Audit Committee,

(d) Pension Trust Committee,

(e) Actuary,

(f) Fund Manager(s),

(g) Custodian/Trustee, and/or

(h) Consultant

or any directly related party may gain a financial or other advantage from knowledge of, or participation in, an investment decision of the fund, or a circumstance that could reasonably be interpreted as impairing his/her ability to render unbiased and objective advice or to fulfil his/her fiduciary responsibilities to act in the best interest of the beneficiaries of the Plans.

It is not possible to anticipate in advance, in this statement, the multitude of situations which can arise. All persons listed above must, therefore, be cognizant of the possibility that conflicts, or perceived conflicts, may arise and must make timely and full disclosure in accordance with generally accepted concepts of fiduciary responsibilities and in accordance with the procedures set forth below:

(ii) Responsibilities

This standard applies to the persons named in Section 5.01(i) above in the execution of their responsibilities under the Pension Benefits Act (Ontario) (the “Affected Persons”).

(iii) 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 Plans' assets.

Further, it is required 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 his/her responsibilities are permitted if documented and approved by the University.

No Affected Person shall accept a gift or gratuity or other personal favour that is material, from a person with whom the Affected Person deals in the course of performance of his or her duties and responsibilities for the Plans.

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 in writing to the Chair of the Committee within three business days after the individual becomes aware of the conflict of interest. The disclosure should also be made orally if awareness of the conflict occurs during the discussion of Plans' business.

The Committee, 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 Committee.

Normally, the individual disclosing the conflict of interest shall withdraw from the meeting during discussion of and vote on the issue causing the conflict of interest. The individual may be permitted, at the Committee's request, to participate in the discussion but he/she shall not be present for the vote.

The disclosure of a conflict of interest, the name of the individual declaring the conflict and the manner in which the conflict was resolved will be recorded in the minutes of the Committee.

5.02 Related Party Transactions

Related party transactions are permitted for the Plans, subject to the following conditions:

(a) Any transaction that is required for the operation or administration of the Plans under terms and conditions that are not less favourable to the Plans than market terms and conditions and such transaction does not involve the making of loans to, or investments in, the related party; or

(b) Any transaction, where the combined value of all transactions with the same related party is nominal or the transaction(s) is immaterial to the Plans.

For the purposes of this section, only the market value of the combined assets of the Plans shall be used as the criteria to determine whether a transaction is nominal or immaterial to the Plans. Transactions less than 3% of the combined market value of the assets of the Plans are considered nominal. Two or more transactions with the same related party shall be considered a single transaction.

5.03 Selecting Fund Managers

In the event that a new Fund Manager must be selected or additional Fund Manager(s) added to the set of existing fund managers, the Committee will undertake a Fund Manager search with the assistance of a third-party investment consultant. The criteria used for recommending the selection of a Fund Manager to the Board of Governors will be consistent with the investment and risk philosophy set out in Section 1.05 (Investment and Risk Philosophy).

5.04 Monitoring of Fund Managers

At least semi-annually, the Committee will monitor and review the:

(a) Assets and net cash flow of the Plans;

(b) Fund Manager's staff turnover, consistency of style and record of service;

(c) Fund Manager's current economic outlook and investment strategies;

(d) Fund Manager's compliance with this Policy and their Investment Mandate, where a Manager is required to complete and sign a compliance report; and

(e) Investment performance of the assets of the Plans in relation to the rate of return expectations outlined in this Policy.

5.05 Dismissal of a Fund Manager

The Committee shall consider from time to time whether a Fund Manager's investment performance or any other circumstances may warrant recommendation to the Board of Governors of the introduction of a probationary period or a change in Fund Manager(s). Such circumstances would include but not be limited to:

(a) Significant turnover in staff of Fund Manager(s);

(b) Change in ownership of Fund Manager(s);

(c) Failure of the Fund Manager(s) to satisfy all of the responsibilities set out in Section 3 of this Statement or set out in the Manager's Investment Mandate;

(d) Desire to diversify the management of the Pension Fund or to add another Fund Manager(s).

(e) Unsatisfactory performance and/or compliance in relation to the performance standards specified in Sections 3 and 4 of this Policy.

5.06 Voting Rights

The Board of Governors has delegated voting rights acquired through the investments held by the Plans to the custodian of the securities to be exercised in accordance with the Fund Managers' instructions. Fund Managers are expected to exercise all voting rights related to investments held by the Fund in the interests of the Plans' members. The Fund Managers shall provide their proxy voting policies to the Treasurer.

Further, the Fund Managers must maintain records documenting how they voted and whether ESG was factored into the proxy voting decision making process and must advise the Treasurer regarding their voting on any unusual items or items where they vote against management, at least on an annual basis.

At least annually, each Fund Manager shall provide Treasury with a report of proxy voting actions and how ESG factored into the voting.

At least annually, a summary report of investment manager proxy voting action and how ESG factored into the voting shall be provided to the Planning and Resources Committee of the Board of Governors.

The Board of Governors reserves the right to take back voting rights of assets held in segregated portfolios for specific situations.

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 calendar quarter.

(b) Bonds
Same as for equities.

(c) Mortgages
Unless in arrears, the outstanding principal plus/minus the premium/discount resulting from the differential between the face rate and the currently available rate for a mortgage of similar quality and term, determined at least once every calendar quarter.

(d) Real Assets
A certified written appraisal from a qualified independent appraiser at least every two years.

5.08 Policy Review

The Policy may be reviewed and revised at any time, but it must be formally reviewed by the Committee, the Planning and Resources Committee and by the Board of Governors at least annually.

5.09 Asset-Liability Review

An Asset-Liability Study will be considered by the Committee every three to five years. A new Asset-Liability Study may be undertaken if any of the following events occur:

(a) The sponsor's risk posture changes significantly;

(b) There are significant changes to pension legislation or regulations that affect the key metrics used in making decisions in the Asset-Liability Study or should affect the asset allocation in the future;

(c) Capital market conditions change significantly such that the assumptions embedded in the Asset-Liability Study are no longer reasonable;

(d) There are changes in the Plan's benefits or liability structure; or

(e) New methodologies emerge that appear to improve the usefulness of Asset-Liability studies.

Appendix B.

ASSET/LIABILITY AND INVESTMENT STRATEGY REVIEW – RECOMMENDATIONS

Planning and Resources Committee– **FOR APPROVAL**
September 26, 2019

McMaster University TREASURY OPERATIONS

MAILING ADDRESS
OJN, Room 417
Treasury Operations
1280 Main Street West
Hamilton, ON
L8S 4L8

COURIER ADDRESS
OJN, Room 417
Treasury Operations
1 James Street North
Hamilton, ON
L8R 2K3

Tel: 905.525.9140 Ext.24790
Fax: 905.529.3272

http://www.mcmaster.ca/bms/BMS_Treasury.htm

May 10, 2019

To: Planning and Resources Committee

From: Pension Trust Committee

Subject: **Asset/Liability and Investment Strategy Review - Recommendations**

This memo summarizes the Salaried Pension Plan asset/liability study and Investment Strategy review and proffers recommendations to refine investment mix for the Salaried Pension Plan.

Recommendations:

That the Planning and Resources Committee approve, for recommendation to the Board of Governors, the changes to the long-term asset mix strategy as outlined below for the Contributory Pension Plan for Salaried Employees:

- Maintain the current allocation to return-seeking assets (65% of the portfolio) and risk reducing assets (35% of the portfolio.)
- Increase allocation to real estate and infrastructure with the intention of allocating to a target weight of 10% (currently 1%) portfolio allocation plus or minus 5%
- Extend the duration of the bond portfolio to provide better matching of assets with liabilities by increasing the allocation to long bonds from 15% to 25% by reducing allocations to Real Return bonds to 0% and Universe Bonds to 10%.
- Transition from the allocation to Active Universe Bonds to passive Long-term Bonds.

Any necessary revisions to the Statement of Investment Policies and Procedures will be tabled at a future Meeting, as the strategy is implemented.

Background

The Pension Trust Committee ("Committee") met on five occasions to review a series of detailed reports prepared by Aon related to the asset-liability study and investment strategy review. In addition, detailed training sessions regarding asset/liability methodology, real assets and fixed income investment alternatives were made available to Committee members (refer to Appendix 3 for schedule of meetings). The Committee reviewed all recommendations, which are summarized in the attached Executive Summary from Aon's Investment Strategy Review (refer to Appendix 1).

The analysis included traditional asset classes plus real estate and infrastructure and incorporated liabilities and the impact of different asset mixes on pension contributions and the funded ratios. These asset classes were selected after a wide range of options was presented by Aon.

The Investment Strategy Review objectives were set by management and the Committee. These included:

- a focus on the going concern funded position of the Plan;
- a desire to limit the risk of the Plan's funding position falling below 85% and triggering solvency deficit payments; and
- a focus on reducing risk (measured by increases in contributions) and maintain return (measured by average expected contributions).

The analysis was developed using Aon's stochastic asset liability model and primary inputs included projected economic factors such as inflation, interest rates, salary increases and asset class returns. The model produced a distribution of results for the key measurements (i.e. contributions and funded ratios) for the current asset mix policy along with alternative portfolios from the efficient frontier analysis.

Analysis and Observations

The objective of the analysis was to identify opportunities to improve risk associated with funded ratios and contributions over the 10 year projection period, while maintaining contribution rates (i.e. expected average return) at a similar level as the current strategic asset mix.

Key observations:

- The current asset mix has 65% in return seeking assets and 35% in fixed income (risk reducing) assets.
- Based on the characteristics of this plan (open – with a long-term horizon) increasing fixed income beyond 35% did not offer significantly better risk and return results.
- Increasing return seeking assets beyond 65% improved return but increased risk to extremely negative outcomes (i.e. outcomes whereby the 85% solvency funded ratio would be more likely to be breached)
- Retaining the existing mix of return seeking assets at 65% and risk reducing assets at 35% aligns best with balancing return and risk.
- Transition to long-term bonds and private debt, combined with refining the mix of return seeking assets to increase allocation to Real Asset from 1% to 25% funded by reducing equities from 64% to 40% provided the same expected return of the existing portfolio, while reducing risk to both the solvency ratio and contributions.

The Committee deliberated over the long-term strategy mix and acknowledged that a change would be beneficial, given the potential improvement in risk profile through better asset/liability matching. Refer to Appendix 2 for a summary of both the current asset mix and the proposed asset mix policies.

Transition Plan

Aon presented a transition plan which transitioned to the longer-term strategic asset mix over a period of up to 10 years. Key aspects are:

- Long bond transition completed by December 2020.
- Real asset transition (initial phase) achieve 10% real asset allocation by 2021
- Real asset transition Phase 2: long term target of 25% by 2028.

The Committee reviewed the Aon proposal and agreed to proceed with the long bond transition and the Real Asset transition. It was agreed that the private debt allocation of 10% be deferred to a future date to be determined based on Committee priorities. In the meantime, this allocation would remain in passive Universe Bonds. The second phase of the Real Asset transition is scheduled to be reviewed in 2021.

The recommended changes to the current asset mix will necessitate a number of amendments to the Statement of Investment Policies and Procedures. These revisions will be made over time as the recommended changes to the asset mix are implemented. Copies of the reports examined by the Pension Trust Committee are available for review by contacting the Treasurer by email or phone (moores11@mcmaster.ca or 905-525-9140 Ext. 24790).

Appendix 1 – Aon – Executive Summary – Asset/Liability and Investment Strategy Review

Executive Summary

Asset Allocation of Optimal Portfolios

	Recommended (FI35)	Current SIPP
FTSE TMX Canada - Universe	0.0%	15.0%
FTSE TMX Canada - Long-Term	25.0%	15.0%
FTSE TMX Canada - RRB	0.0%	5.0%
Private Debt	10.0%	0.0%
Real Assets	25.0%	1.0%
Canadian Equities	15.0%	20.0%
U.S. Equities	15.0%	22.0%
Int'l Equities	10.0%	22.0%
Fixed Income Assets	**35.0%**	**35.0%**
Return-Seeking Assets	**65.0%**	**65.0%**
Alternative Assets	**25.0%**	**1.0%**
Total Equities	**40.0%**	**64.0%**

Risk-Reward Relationship

	Recommended (FI35)	Current SIPP
Fixed Income Percentage	35.0%	35.0%
Average Compound Return	5.2%	5.2%
Average Standard Deviation	8.2%	9.7%
Average CTE	-12.8%	-15.0%

	Current SIPP	FI35
Worst-case[1] Cumulative Contributions	$1,319.2m	$1,194.8m
Worst-case[1] Solvency Funded Ratio	63.3%	67.8%
Annual Average Contributions	$75.3m	$72.9m

- Re-structuring the portfolio while maintaining the current Fixed Income allocation of 35% can improve contribution requirements in worst-case by as much as 9%
- Changes recommended include:
  - Increased allocation to Real Assets
  - Revision of fixed income assets to a combination of Long Term Bonds and Private Debt

[1] Conditional Tail Expectation – Average of the worst 5% of results

Appendix 2. Current and Proposed Interim & Long-Term Asset Mix

	Current Asset Mix	Proposed Interim Asset Mix Target by 2022	Proposed Long-Term Asset Mix Target by 2028
Risk Reducing			
Fixed Income	35%	35%	35%
▪ Long-term Bonds	15%	25%	25%
▪ Universe Bonds	15%	10%	0%
▪ Real Return Bonds	5%	0%	0%
▪ Investment Grade Private Debt	0%	0%	10%*
Total Risk Reducing	**35%**	**35%**	**35%**
Return Seeking			
Equities	64%	55%	40%
▪ Canadian Equities	20%	20%	15%
▪ US Equities	22%	20%	15%
▪ Non-North American Equities	22%	15%	10%
Real Assets	1%	10%	25%*
Total Return Seeking	**65%**	**65%**	**65%**

*Subject to Pension Trust Committee review.

Appendix 3 – PTC Asset/Liability Study and Investment Strategy Review Meetings

Meeting Date	Agenda Item
17-Jan-18	Fixed Income Opportunity Set Education
08-Mar-18	ALS: Planning Meeting (with PTC)
10-May-18	ALS: Risk Diagnosis (with PTC)
05-Sep-18	Asset Liability Study Education Session with PTC
13-Sep-18	ALS: Asset Optimization and Recommendations (meeting with PTC)
08-Nov-18	Transition Plan presented to PTC
22-Jan-19	Real Assets Education Session with PTC
28-Feb-19	Infrastructure Manager Search presentation to PTC

Appendix C.

INVESTMENT RISK MONITORING GUIDELINE – SALARIED PENSION PLANS

Planning and Resources Committee– **FOR APPROVAL**
September 26, 2019

McMaster University

Guideline - Investment Risk Monitoring – Salaried Pension Plans

Date:	September 12, 2019
Approved:	Pension Trust Committee ("PTC")
Responsible Executive:	Treasurer

Background

This guideline outlines the investment risk monitoring associated with the Salaried Pension Plans' investments. This Guideline is aligned with the Statement of Investment Policies and Procedures for the Master Trust for the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College and the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 ("SIP&P").

Investment Risk Tolerance – Expected Volatility

The expected volatility of investment returns for the Fund is directly related to the asset mix strategy; specifically, the balance between Canadian equities, foreign equities, Canadian bonds and real assets. Volatility is inherent in investing and will be managed according to the minimum and maximum asset mix ranges as outlined in Section 2.04 of the SIP&P. It is expected that the volatility of Fund returns should be similar to the volatility of the Total Combined Fund Benchmark Portfolio set out in Section 4.01 of the SIP&P.

In addition to monitoring the asset mix and investment limits stipulated in the SIP&P, the Committee will further monitor the volatility of the Fund and underlying Fund Managers on an ongoing basis.

Investment Risk Monitoring and Metrics

For the purposes of this Guideline, Investment Risk is defined as the volatility of total return measured on a rolling 10 year basis. The PTC will monitor the Investment Risk of investments on quarterly basis. The investment risk metric, target and maximum risk budget is defined in table 1 below.

If the Investment Portfolio volatility (measured at least annually) exceeds the volatility of the maximum risk budget, the Treasurer supported by the investment consultant will investigate and recommend a course of action, if appropriate.

Table 1 - Investment Risk Metric and Risk Budget

Item	Description
Investment Risk Metric	Volatility of Total Return of Actual Investment Portfolio
Risk Target	Volatility of Total Return Target Asset Mix Portfolio
Risk Budget/Limit	Volatility of Total Return Maximum Risk Portfolio

Definition: Maximum Risk Portfolio – Represents the hypothetical passive investment portfolio comprised of the maximum allocation to equities (return seeking) and the minimum allocation to fixed income and real assets (risk reducing and diversifying assets). Refer to Appendix 1 for the asset mix associated with the target and maximum risk portfolios.

Appendix 1- Target and Maximum Risk Portfolio Asset Mix

Target Asset Mix*

	Strategic Allocation	Transition Allocation
Return Seeking Assets		
Equities	55%	64%
Real Assets	10%	1%
Total Return Seeking Assets	**65%**	**65%**
Risk Reducing		
Bonds	**35%**	**35%**
Total	**100%**	**100%**

Maximum Risk Benchmark Portfolio*

	Strategic Allocation	Transition Allocation
Return Seeking Assets		
Equities (A= 100% - (B+C))	75%	79%
Real Assets (B)	5%	1%
Total Return Seeking Assets (maximum)	**80%**	**80%**
Risk Reducing		
Bonds (C) (minimum)	**20%**	**20%**
Total (D)	**100%**	**100%**

Maximum Risk = Volatility of Maximum Risk Benchmark Portfolio

*Note: During the transition to real assets the transition mix and limits will be used.

Attachment IV

McMaster University

Human Resources Services

1280 Main Street West
Hamilton, Ontario Canada
L8S 4L8

Phone 905.525.9140
Fax 905.528.6132
www.workingatmcmaster.ca

Date: September 26, 2019

To: Planning and Resources Committee

From: Program Manager, Benefits and Retirement Plans

Subject: **Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 ("Plan 2000")**

- **Amendment #2**
  - **Increase in MUALA employee pension contribution rates**

At the September 12, 2019 meeting of the Pension Trust Committee, the Committee reviewed and approved for recommendation to the Planning and Resources Committee Amendment #2.

Amendment #2 to Plan 2000 (see Attachment 1) has been drafted to reflect the increase in employee pension contribution rates for the McMaster University Academic Librarians' Association ("MUALA"), which was negotiated under their collective bargaining agreement. Effective October 6, 2019, the rates will increase as follows:

		Employee Contribution Rate on Regular Annual Salary	
		Up to YMPE*	**In Excess of YMPE**
1.	**Current**	7.00 % of Regular Annual Salary	10.00 % of Regular Annual Salary
2.	**Effective October 6, 2019**	8.00 % of Regular Annual Salary	11.00 % of Regular Annual Salary

* "YMPE" – Yearly Maximum Pensionable Earnings

<u>Recommendation:</u>

That the Planning and Resources Committee approve, for recommendation to the Board of Governors, Amendment #2 to the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000, as contained in the attached.

RESOLUTION OF THE BOARD OF GOVERNORS OF McMASTER UNIVERSITY

WHEREAS McMaster University ("University") established and maintains the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 as amended and restated effective January 1, 2019 ("Plan 2000");

AND WHEREAS pursuant to Section 15.01 of Plan 2000, the University may, by resolution of the Board of Governors, modify Plan 2000 at any time;

AND WHEREAS an increase in employee contribution rates effective October 6, 2019 for certain Members of Plan 2000 has been negotiated under a collective bargaining agreement between the University and The McMaster University Academic Librarians' Association ("MUALA");

AND WHEREAS the University wishes to amend Plan 2000 to increase employee contribution rates for MUALA Members to reflect the provisions of the collective bargaining agreement with MUALA;

NOW THEREFORE the text of Plan 2000 (as amended and restated effective January 1, 2019 and incorporating the amendment approved on April 18, 2019) is amended effective October 6, 2019 as follows:

1. The row in the table that appears in Section 7.01(a)(i)(A) that sets out the member contribution rate for "Class H" (MUALA Members) is deleted in its entirety and replaced with the following:

Class of Member	**Period**	**Employee Contribution Rate on Regular Annual Salary**	
		Up To YMPE	**In Excess of YMPE**
…	…	…	…
H. MUALA Members	October 6, 2019 onwards	8.00%	11.00%

2. The row in the table that appears in Appendix 1 (Historical Member Contribution Rates) that sets out the historical member contribution rates for "Class H" (MUALA Members) is deleted in its entirety and replaced with the following:

Class of Member	**Period**	**Employee Contribution Rate on Regular Annual Salary**	
		Up To YMPE	**In Excess of YMPE**
…	…	…	…
H. MUALA Members	March 16, 2010 to July 5, 2010	5.00%	6.50%
	July 6, 2010 to January 8, 2011	5.50%	7.25%
	January 9, 2011 to January 7, 2012	6.00%	8.00%
	January 8, 2012 to June 30, 2016	6.50%	8.75%
	July 1, 2016 to October 5, 2019	7.00%	10.00%

CERTIFIED to be a true and correct copy of a Resolution of the Board of Governors of McMaster University passed at a meeting held on the _____ day of _____ , 2019.

McMASTER UNIVERSITY

_____
Andrea Thyret-Kidd
University Secretary

CUPE 3906 / Canadian Union of Public Employees

16 October, 2019

Dear McMaster Board of Governors Members,

RE: An open letter to McMaster's Board of Governors Members to Bargain a Fair Agreement with Academic Workers

We are writing today to urge you to mandate your negotiating committees to bargain according to current legislation in the ongoing CUPE 3906 Unit 1 and Unit 3 collective bargaining negotiations.

As you are aware, the Ford government presented Bill 124, "An Act to implement moderation measures in respect of Ontario's public sector", for first reading on June 5th, 2019. On that day, our Unit 3 Postdoctoral Fellow Bargaining Committee was meeting with the Employer's negotiating team, when the Employer suddenly pulled their monetary pass at the table. The Employer required more time to understand the implications of the Bill.

Over the course of the summer, we have come to understand that the Employer believes that the Bill's implementation is inevitable. Citing direction from the Board of Governors, the Employer's Bargaining Team refuses to negotiate above what they perceive to be the Bill's limitations on increases to compensation and to the Collective Agreement beyond 1% per year for a 3-year "moderation period." This is in spite of the fact that the Bill is not law, and that the Employer has an obligation to bargain according to current law. It is also in spite of the fact that the Bill proposes law that infringes on both the Union and the Employer's rights to free collective bargaining.

McMaster University enjoys a reputation as a top global research institution. This reputation is thanks to the hard work of its front line research, teaching, and support staff. By failing to stand up to the Conservative Government's repressive and constitutionally dubious Bill, McMaster will find it difficult to uphold its global reputation as top researchers and academic workers will choose other institutions that bargain according to the law, and according to what the academy's workers deserve.

Since June 5th, we have invited the Employer to work with us to stand up against Bill 124's incursions on free collective bargaining rights. We believe that the Employer agrees with us when we say that Bill 124 prevents the Employer from bargaining contracts that McMaster workers deserve. That invitation still stands. We simply cannot believe or accept that McMaster University would chose to accept legislation that allows the University to nickel and dime its workers at the expense of free collective bargaining. If we are correct in our assumption, we urge you to meet with us to discuss how we can work together to fight this proposed legislation, and to mandate your bargaining team to negotiate a deal that your workers deserve.

We return to the Bargaining Table on October 21st for our Postdoctoral Fellow (Unit 3) Collective Agreement, and on November 5th for our Teaching Assistant and Research Assistant (in Lieu) (Unit 1) Collective Agreement. Our 87% affirmative strike vote held with record-breaking Unit 1 participation conducted at the end of September, 2019, demonstrates that your workers are ready to hold your leadership accountable for the Employer's response to Bill 124. We therefore urge you to mandate the Employer's bargaining team to negotiate according to current law and what your workers deserve.

Sincerely,

Nathan Todd
President, CUPE Local 3906

CANADIAN UNION OF PUBLIC EMPLOYEES, LOCAL 3906
Kenneth Taylor Hall B111, McMaster University
1280 Main Street West, Hamilton, Ontario, Canada L8S 4M4
www.cupe3906.org

PRESIDENT'S REPORT TO
McMASTER UNIVERSITY'S BOARD OF GOVERNORS
OCTOBER 24, 2019

Looking Forward: Challenges and Priorities for the 2019/20 Year

As I highlighted at the Board Retreat in September, this academic year is a highly unusual one. In addition to being a year of transition for the entire University as we search for McMaster's next President, we have a number of individuals who are either new to their roles or in acting positions. My appointment as Acting President necessitated the appointment of an Acting Provost and Vice-President (Academic), and we are fortunate to have Susan Searls Giroux serving in that capacity. Kim Dej is serving as Acting Vice-Provost (Faculty) to support Susan in the Provost's office. In the Research portfolio, we are very pleased to welcome back Karen Mossman, who is currently serving as Acting Vice-President (Research) and Jim Dunn, who is supporting her as Acting Associate Vice-President (Research). We have also recently welcomed Santee Smith as our new Chancellor, Bradley Merkel as our new Board Chair, and Andrea Thyret-Kidd as our University Secretary. Despite all this change, I am confident that we have an excellent team in place, and the right combination of people and skills to lead us through this challenging year.

My key priority as Acting President is to navigate the University successfully through this period of transition and support my colleagues who are in acting positions, or new to their roles. Our collective goal is to ensure that, as an institution, we are as well-prepared as possible for the arrival of our new President, once the ongoing selection process is concluded.

Beyond that, as I outlined at the Board Retreat, we have a number of key areas of focus, as well as a variety of challenges to address, over the course of the coming year.

Brighter World Research Initiative (BWRI)/Revenue for Research

As Board Members know, the *Brighter World Research Initiative* builds upon the successful and ongoing Brighter World branding and marketing campaign and focuses on the University's goal of attracting and developing partnerships and funding opportunities, with the intention of increasing research revenue into the University from a variety of sources. This additional investment in support of research is both necessary and critical if McMaster is to retain its current standing as a globally-recognized research-intensive institution over the longer-term. The leadership team, working in partnership with University Advancement and a highly-experiened external consultant, is currently developing key priorities and areas of focus with a view to formally launching BWRI once the new President has been appointed.

Research Commercialization and Entrepreneurship

A core component of our revenue generation strategy relates to the commercialization of research and the development of spin-off companies and commercial entities. McMaster Innovation Park (MIP) represents a huge opportunity for the University in this regard. MIP is currently developing a strategic plan intended to animate the innovation eco-system, diversify the Park, and generate capital. This strategic plan is expected to come forward to the Board at the next meeting in December and will, I hope, generate a range of interesting opportunities for the University and for our researchers and students. Alongside this we are working on opportunities

for our students to engage in entrepreneurial activities, through extra-curricular initiatives such as *The Forge*, as well as through dedicated programming relating to commercialization and knowledge translation.

Internationalization
As the University's international reputation grows, so too do the numbers of applications from international students, as well as the range of opportunities to engage in international partnerships with peer institutions. The University has a values-based strategy for Global Engagement, which outlines key principles and a number of areas of focus. We now have the opportunity to build on this to develop a dedicated strategy drawing together enrolment planning, strategic partnerships, key research collaborations, and enhanced opportunities for exchanges and international experiences for our students and faculty. As our numbers of international students grow, it is also critically important that we are thoughtful about the additional supports and services that might be required and ensure that we have the necessary components in place to enable the success of all our students.

Negotiation of SMA3
This Fall sees the beginning of negotiations with the Ministry of Training, Colleges and Universities for our third Strategic Mandate Agreement (SMA3). Running from 2020-2025, this document is essentially the funding contract that the provincial government will enter into with each University and College. The document outlines agreed areas of program focus and includes a range of metrics by which institutions will be measured. SMA3 is different to previous iterations of the SMA process in that it is much more focused on performance and outcomes, and includes significant adverse funding consequences for institutions that do not meet the agreed performance metrics.

The performance metrics focus on two key areas: Skills and Job Outcomes, which includes graduation rates, experiential learning, skills and competencies, and graduate employment and earnings; and Community and Economic Impact, which includes local community impact, economic impact, federal tri-council research funding, and research revenue from private sources. The agreement also covers the University's enrolment profile and planning, and other reporting metrics (which are not tied to funding) related to faculty workload and compensation.

We have our first meeting with the Ministry at the end of October and will then have a clearer sense of our notional performance/outcomes-based funding allocation, the impact of the performance targets and metrics established by the government, and the appropriate weightings assigned to each of these metrics. The government has indicated that the process will be complete by March 31, 2020, and I will keep Board Members updated as it unfolds.

HR Review
As we discussed at the Retreat, the recent HR Review, the latest in a series of administrative reviews, has highlighted a range of issues associated with payroll and other HR-related functions that we are now focused on addressing. We have developed an action plan to address the various recommendations, and the process of hiring a consultant to support the implementation of this plan is well underway. We are also searching for a dedicated senior Payroll Director and will finalize that appointment as soon as we are able to. The important work to review administrative areas of the University is supported by our work with Uniforum and the opportunity to

benchmark against our peers with regard to a detailed range of key administrative services and supports.

Next Steps
Over the coming months, I will be working with the senior team on all of these areas to ensure that we are well-prepared for the arrival of our new President and are ready to develop strategies to advance and support their key priorities.

CAMPUS UPDATE

Rankings Update
The University was ranked 72nd in the world in the internationally respected 2020 Times Higher Education rankings, released in September. The university advanced five places over last year, and is one of only four Canadian universities in the world's top 75. McMaster was also ranked fourth in Canada in Maclean's magazine's annual ranking – the second consecutive year the University has held this position. Among Medical/Doctoral universities, McMaster was ranked first in student services, second in total research dollars and third in library acquisitions.

Awards and Accolades
Royal Society of Canada's College of New Scholars, Artists and Scientists
Chandrima Chakraborty, Professor of English and Cultural Studies, and James MacKillop, the Peter Boris Chair in Addictions Research, have both been admitted to the College of New Scholars, Artists and Scientists, the country's first national system to recognize multidisciplinary work in emerging intellectual leaders.
Order of Canada
Former Chancellor Suzanne Labarge has been named a Member of the Order of Canada for her "exceptional business leadership and for her volunteerism and generous philanthropy." Her brother, Paul Labarge, was also named to the Order.
Canadian Academy of Health Sciences
Five professors in the Faculty of Health Sciences have ben elected fellows of the Canadian Academy of Health Sciences, considered one of the highest honours for members of the country's health sciences community. Sonia Anand, Hertzel Gerstein, John Lavis, Mark Loeb and Parminder Raina have all been recognized for their demonstrated leadership, creativity, distinctive competencies and commitment to advancing academic health sciences.
Hamilton Gallery of Distinction
Of six outstanding Hamilton citizens named to the Hamilton Gallery of Distinction this year, four have ties to McMaster: Gordon Carruth earned distinction as an educator and a respected theatre director, writer and composer; Gordon Guyatt helped pioneer evidence-based medicine, which the British Medical Journal ranked as one of the most influential advancements in modern medical history; Bertha Skye is an Indigenous leader in both education and culinary arts; and Pat Saunders has contributed more than 60 years' service and leadership to the Hamilton community.

Research Funding
David Braley, whose gifts to the University include a $50-million investment in McMaster teaching, learning and health-care research and delivery, has allocated $7 million from that 2007

gift towards the new David Braley Centre for Antibiotic Discovery, dedicated specifically to tackling the growing threat of antimicrobial resistance.

The federal government recently announced the opening of the Centre of Excellence on Chronic Pain at McMaster. The Centre will receive $20.1 million in federal funding for its first five years, with $5 million per year after that, and will focus on finding ways to address the challenges faced by more than four in 10 Canadian veterans who deal with chronic pain. The Centre will be located in the Michael DeGroote Centre for Learning and Discovery.

McMaster researcher Randy Jackson and his research partner, Renee Masching from the Canadian Aboriginal AIDS Network, have been awarded a $4.8 million CIHR grant for a multidisciplinary Canadian project that will respond to the growing problem of sexually transmitted and blood-borne infections among Indigenous populations.

Student Success

Integrated Business and Humanities student Julia Zakoor has won a prestigious Killam Scholarship, which will enable her to complete a semester on exchange at American University in Washington, DC, studying political science.

Erica Dao, a PhD student in McMaster's Radiation Sciences program, is the only Canadian entry among 18 other international competitors in the Universitas 21 Three-Minute Thesis competition. This is an international competition designed to encourage student researchers to communicate the significance of their work to a non-specialist audience in just three minutes.

McMaster's Experimental Reduced Gravity Team (MERGE) recently won the Overall Excellence First Place Prize at the 2019 Canadian Reduced Gravity Experiment Design Challenge. The team studied the effects of sloshing during satellite fuelling. The slat screen system they developed dampened and evenly dispersed incoming fluid, which minimized dynamic forces that could create instabilities in the satellite.

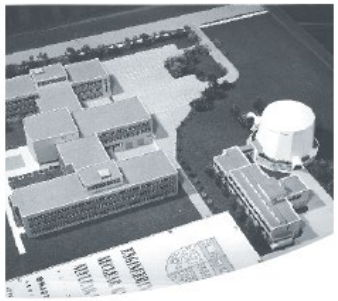
McMaster is the first Canadian university to be accepted into the Grand Challenges Scholars Program, which brings together interdisciplinary teams of students from across the University to seek local solutions to challenging societal issues. While the American version of the program focuses students on very specific goals, the McMaster version encourages students to look for problems that address the UN Sustainable Development goals, which range from eradicating poverty to climate action to improving water quality.

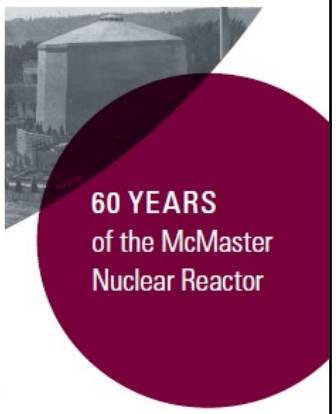
Fiftieth Anniversary Celebrations

Both the Michael G. DeGroote School of Medicine and the Faculty of Science's Kinesiology program are celebrating their golden anniversaries. Kinesiology hosted a day-long event in partnership with McMaster's alumni office during September. The Medical School will be holding a series of events at the end of October, including a film screening, lectures on medical education and medical research, and a gala banquet

Annual Financial Report

2018-2019





Contents

McMaster University

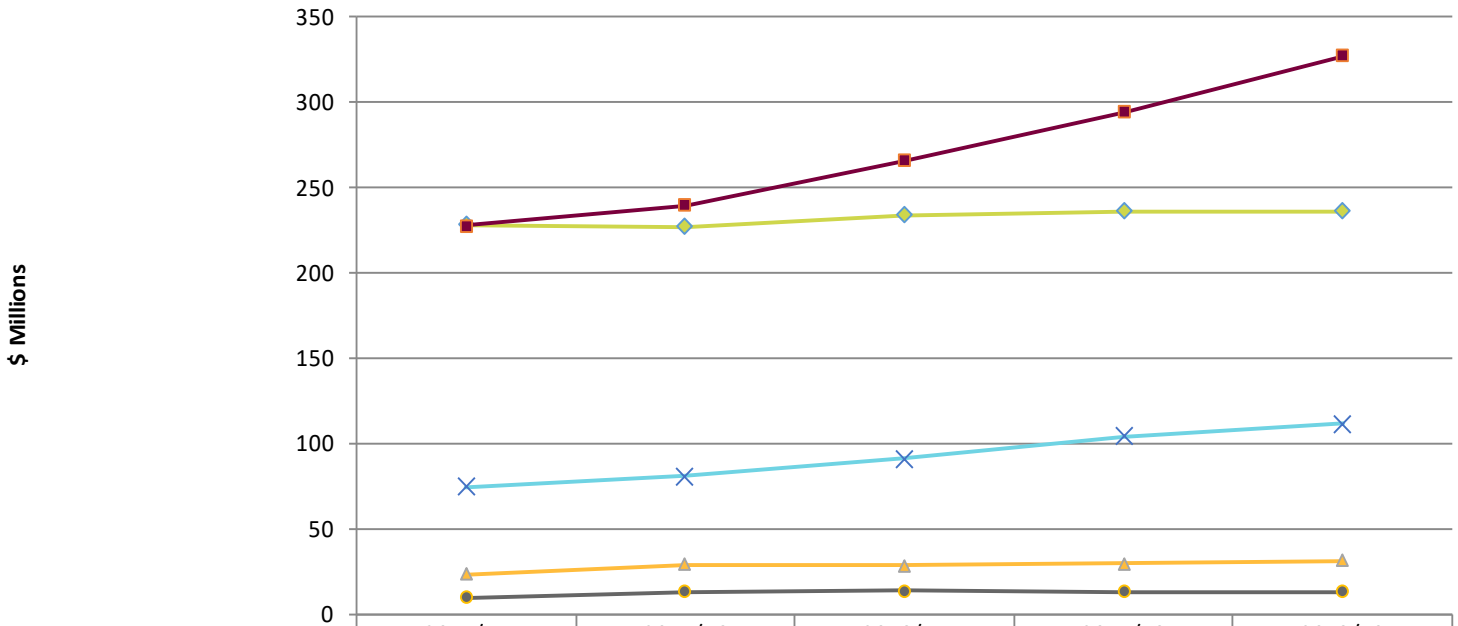
2018/19 Consolidated Results

	Total	Change	Trend
Consolidated Surplus	$157.0 million	+48.5%	
Total Revenue	$1,193.0 million	+8.2%	
Tuition Revenue	$341.6 million	+11.9%	
Operating Grants	$273.6 million	+0.0%	
Research Grants	$178.0 million	+4.9%	
Investment Income, net	$70.8 million	+35.5%	
Total Expenses	$1,036.0 million	+4.0%	
Salaries and Wages	$521.2 million	+4.1%	
Employee Benefits	$120.6 million	+1.3%	
All Other Expenses	$394.2 million	+4.6%	

Operating Fund Results vs. Budget & Projection

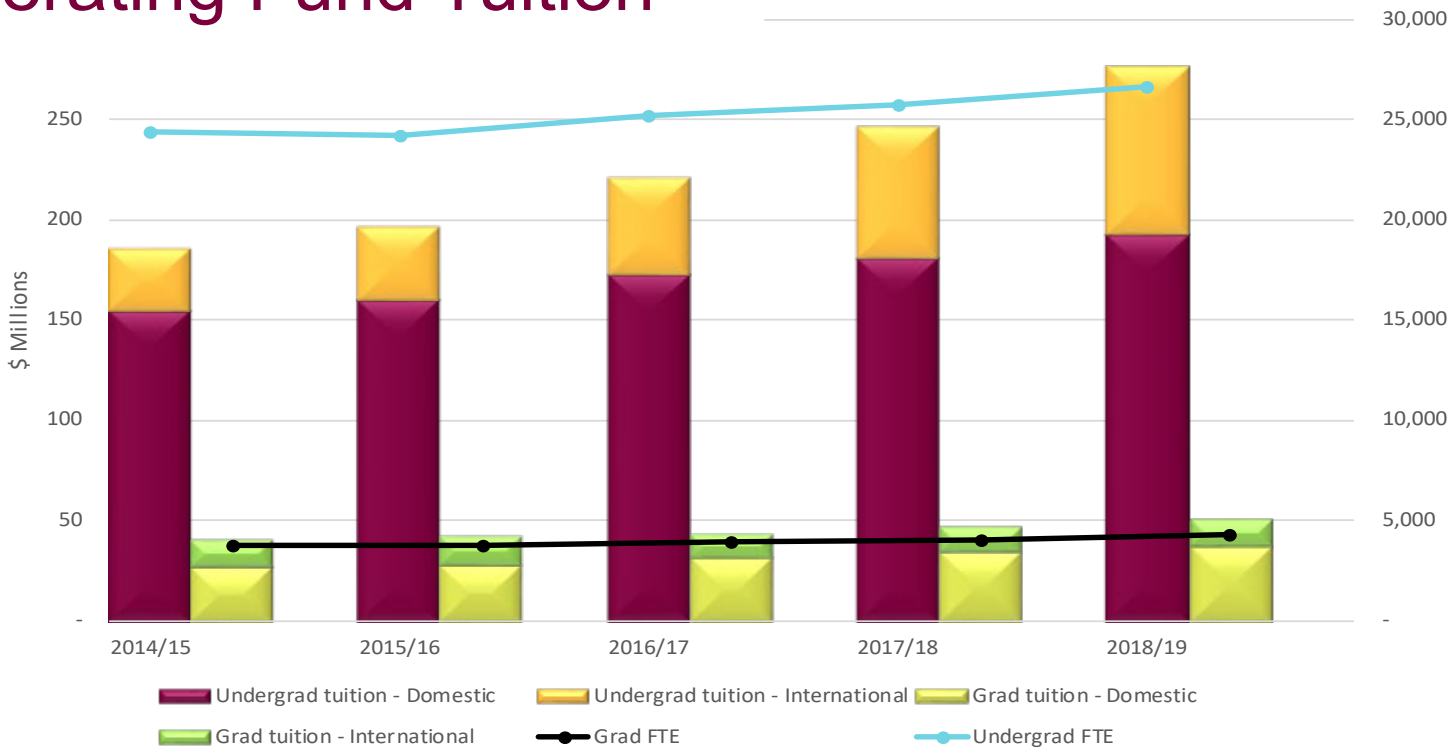
($ thousands)				Variance			
	2018/19 Budget	2018/19 Projection	2018/19 Actual	Actual vs. Budget		Actual vs. Projection	
Operating Fund 20							
Revenues							
Provincial grants	235,368	235,016	235,983	615	0%	967	0%
Tuition	334,153	327,272	327,060	(7,093) (1)	-2%	(212)	0%
Research Overhead income	25,904	28,933	31,045	5,141	20%	2,113	7%
Investment income	12,901	12,901	12,901	(0)	0%	0	0%
Other income	93,990	104,386	111,568	17,578 (2)	19%	7,182	7%
Total revenues	**702,316**	**708,508**	**718,556**	**16,240**	**2%**	**10,049**	**1%**
Expenses							
Salaries, wages and benefits	476,153	473,605	465,014	11,139 (3)	2%	8,592	2%
Utilities and maintenance	38,749	35,465	37,164	1,585	4%	(1,699)	-5%
Equipment and renovations	50,392	58,247	65,972	(15,580) (4)	-31%	(7,725)	-13%
Scholarships, bursaries, and work study	37,252	39,303	36,870	383	1%	2,433	6%
Library acquisitions	12,829	12,650	13,327	(497)	-4%	(676)	-5%
Debt and financing charges	18,423	22,623	22,377	(3,954) (5)	-21%	246	1%
All other expenses	64,773	64,144	52,874	11,899 (6)	18%	11,269	18%
Total expenses	**698,571**	**706,038**	**693,597**	**4,974**	**1%**	**12,440**	**2%**
Excess of revenues over expenses	**3,745**	**2,470**	**24,959**	**21,214**	**566%**	**22,489**	**911%**
Fund balance, beginning of year	110,679	142,698	142,698	32,019	29%	0	0%
Fund balance, end of year	**114,423**	**145,168**	**167,657**	**53,233**	**47%**	**22,489**	**15%**

Operating Fund Revenues



	2014/15 Actual	2015/16 Actual	2016/17 Actual	2017/18 Actual	2018/19 Actual
Provincial Grants	$228.4	$226.9	$233.8	$235.9	$236.0
Tuition	$227.6	$239.6	$265.6	$294.3	$327.1
Research Overhead Income	$23.0	$29.1	$28.6	$29.7	$31.0
Investment Income	$9.4	$12.9	$13.4	$13.2	$12.9
Other Income	$74.8	$80.6	$91.3	$104.0	$111.6

Operating Fund Tuition



- Total enrolment grew 4.1% in 2018/19
- International tuition is 29.9% of total tuition (19.9% in 2014/15) due to both enrolment increases and tuition rate changes

Consolidated Results Accrual Basis

($ thousands)	2018/19 Budget	2018/19 Projection	2018/19 Actual	
Excess of Operating Fund revenues over expenses	3,745	2,458	24,958	
+ Capital expenditures net of amortization	92,016	73,398	91,283	
+ Investment income on internal endowments	3,638	1,604	4,633	
± Pension and non-pension benefit adjustments	3,287	(7,600)	26,105	(1)
± Change in other reserves; specific purpose reserve, capital projects reserve and University benefits reserve	(15,128)	38,605	10,013	
Total accrual adjustment	83,813	106,007	132,034	
Excess of revenues over expenses	**87,558**	**108,465**	**156,992**	(2)

(1) Function of year-end interest rates, last pension filing date rules, and non-pension current rules

(2) 13.16% of consolidated revenues [target ~10%, trend range 7-13%]

- Better consolidated surplus due to Operating Fund surplus, favourable pension/non-pension benefit adjustments, and increase in reserves

Understanding Reserves

Provincial Deficit = Need to find Savings

Treasury Board reviewed Ontario Universities 2017/18 Reserves

Universities that stood out
(based on Primary Reserve Ratio (days):

Carlton (293)
Western (273)
Toronto (228)
Queen's (211)
McMaster (207)

Resulted in a Toronto newspaper article
Shortly thereafter the -10% Tuition Cut was announced

Understanding Reserves

2017/18 Statement of Financial Position

Net assets:	
Unrestricted	9,781
Internally restricted (note 11):	
Employee future benefits	(168,688)
Specific purpose	402,839
Equity in capital assets (note 12)	336,021
Endowments (note 13):	
Internal	145,777
External	483,335
	1,209,065

2018/19 Statement of Financial Position

Net assets:	
Unrestricted	10,755
Internally restricted (note 11)	159,426
Equity in capital assets (note 12)	399,463
Endowments (note 13):	
Internal	150,410
External	500,819
	1,220,873

According to Treasury Board, McMaster has:

2017/18 $558.4M & **2018/19: $10.7M + 150.4M + 446.5M = 607.6M**

to spend on current operations

Key Issues with the Government Reserve View

Unrestricted	10,755
Internally restricted (note 11)	159,426
Equity in capital assets (note 12)	399,463
Endowments (note 13):	
Internal	150,410
External	500,819
	1,220,873

Internally Restricted Note 11 Details:

(thousands of dollars)	2019
Pensions (a)	$ (106,244)
Other retirement and post employment benefit plans (net) (b)	(180,865)
Employee future benefits	(287,109)
Unexpended departmental carryforwards (c)	167,657
Research (d)	44,271
Employee benefit (e)	11,630
Ancillaries (f)	9,642
Specific purpose (g)	101,902
Other (h)	14,491
Sinking funds (i)	34,733
Internally financed capital projects (j)	(69,860)
Capital reserves (k)	112,444
Facilities services projects (l)	19,625
Other internal reserves	446,535
	$ 159,426

Issues on Expendable Cash View:

(1) Unrestricted is non-cash

(2) Internal Endowed is invested funds:

- Hooker Bequest
- 2003 Pension (Employer Potion)

(3) **Ignores Pension obligations**

(4) Suggests liquidation of the list of specific purpose funds for units, scholarships, renovations, capital, and debt repayment.

Liquidation or spend down of reserves = Credit Rating Downgrade

Credit Rating Downgrade = Higher Cost of future debt/capital

Pension & Non-Pension Benefit Plans Funded Status

$ millions	2014/15	2015/16	2016/17	2017/18	2018/19
Funded status, opening balance	(165.9)	(63.3)	(169.3)	(3.5)	19.1
Current service and finance cost	(42.6)	(36.3)	(43.3)	(33.3)	(32.4)
Remeasurement	95.8	(134.4)	143.8	(10.6)	(131.6)
University contributions	49.4	64.7	65.3	66.5	62.2
Funded status, closing balance	(63.3)	(169.3)	(3.5)	19.1	(82.6)

Change in Funded Status of Non-Pension Benefit Plans

$ millions	2014/15	2015/16	2016/17	2017/18	2018/19
Funded status, opening balance	(206.8)	(217.2)	(208.0)	(220.3)	(247.7)
Current service and finance cost	(19.0)	(19.9)	(19.7)	(20.4)	(21.4)
Remeasurement	1.9	22.3	0.2	(14.9)	(12.9)
University contributions	6.7	6.8	7.2	7.9	7.3
	(217.2)	(208.0)	(220.3)	(247.7)	(274.6)
Internally restricted reserve	51.3	60.4	73.6	83.2	93.8
Funded status, closing balance net	(165.9)	(147.6)	(146.7)	(164.5)	(180.8)

MTCUs' Financial Health Metrics

Table 8: FINANCIAL HEALTH AND SUSTAINABILITY METRICS

Key Ratios	2014/15	2015/16	2016/17	2017/18	2018/19
Expendable Net Assets ($ millions):	322.09	447.42	528.89	558.40	607.70
Net Income/Loss: A performance measure that calculates the net income or loss as a percent of total revenues	7.93%	3.05%	10.42%	9.59%	13.16%
Net Operating Revenues: A performance measure that calculates cash flow from operating activities as a percent of revenues	14.75%	7.08%	14.28%	12.01%	15.74%
Primary Reserve (days): A liquidity measure that calculates the number of days university reserves can cover operating expenses	129	176	200	205	214
Interest Burden: A leverage measure that calculates interest expense as a percent of total expenses net of amortization	1.01%	1.29%	1.50%	1.44%	1.38%
Viability: A leverage measure that calculates the number of times that long-term debt could be settled using unrestricted assets	2.2x	1.7x	2.0x	2.1x	2.3x

Goals:

- Explain to MTCU concerns with Expendible Net Assets and Primary Reserve Ratio view
- Explain target to have annual surplus to fund future cost obligations (target 10%, trend ~8%)
- Identify targets for the Ontario sector, by small, medium, large and outliers (for CSAO, Exec Heads)

Questions?

Details of Faculty/Unit Reserves

($ thousands)

	Appropriations May 1, 2018	Net Surplus (Deficit)	Appropriations April 30, 2019
Faculties and Academic Programs			
Business	3,534	(79)	3,455
Engineering	21,318	2,930	24,248
Health Sciences	40,418	826	41,243
Humanities	(1,104)	3,682	2,578
Science	13,295	7,068	20,363
Medical Radiation - Mohawk share	1	(0)	1
Social Sciences	1,164	5,113	6,276
Arts & Science	2,502	(938)	1,564
Sub-total	81,127	18,601	99,728
Academic Priorities	44,736	(848)	43,887
Academic Support	14,040	(1,749)	12,291
Research Support	1,372	2,293	3,665
Student Support	7,391	2,469	9,860
Facilities Support	7,078	(3,130)	3,948
Institutional Support	10,891	3,167	14,058
Institutional Priorities	(23,936)	4,156	(19,780)
Total Operating Fund	142,698	24,959	167,657

- All Faculties are in a surplus position
- Approved internal funding for the Mosaic project is on schedule to be repaid in 2023/24

Statement of Financial Position
Net Departmental Reserves

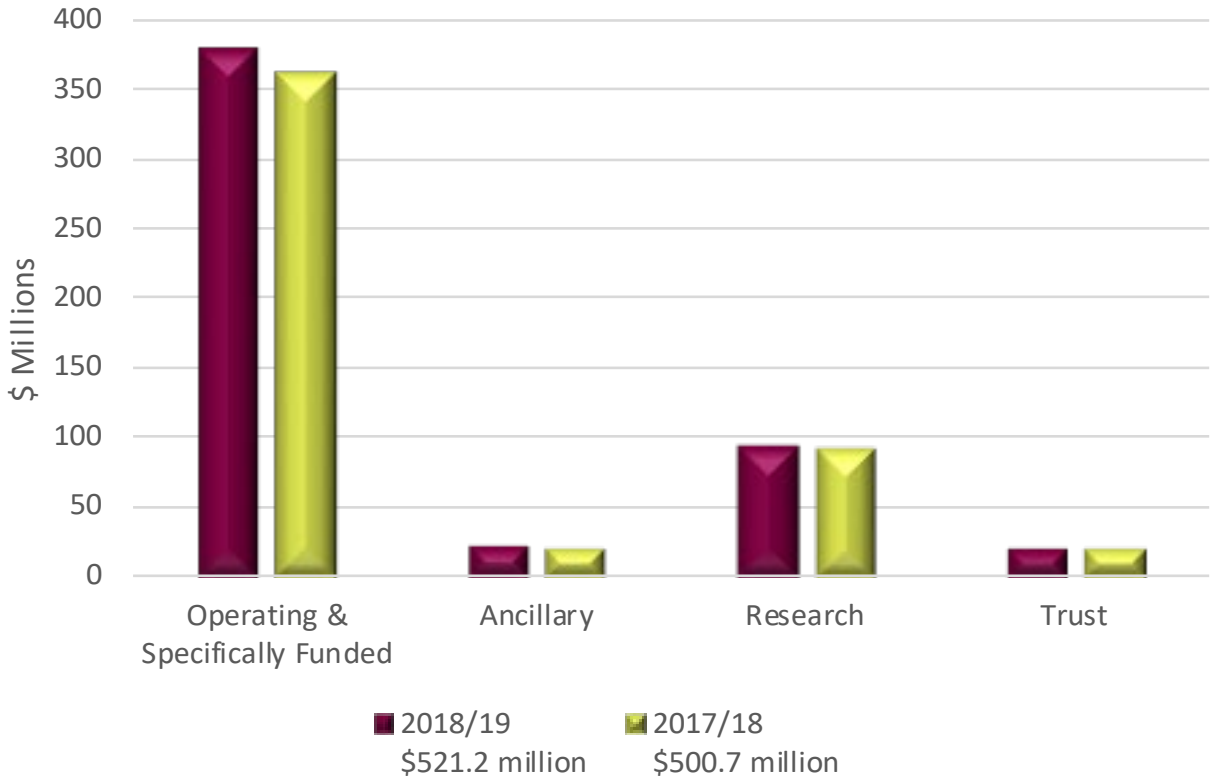
$ millions	2018/19			2017/18		
	Faculties	Support/ ancillary units	Total	Faculties	Support/ ancillary units	Total
Departmental reserves	99.7	77.6	177.3	81.1	72.6	153.7
Pensions	(85.4)	(20.8)	(106.2)	(3.4)	(0.8)	(4.2)
Other post-employment benefits	(136.6)	(44.3)	(180.9)	(124.3)	(40.2)	(164.5)
Employee benefit reserve	6.5	5.1	11.6	6.2	5.3	11.5
Net departmental reserves	(115.8)	17.6	(98.2)	(40.4)	36.9	(3.5)

- Only employees' current service costs are charged to departments
- Allocation of reserves for past service costs would reduce funding available to departments for operations

2018/19 Consolidated Balance Sheet Highlights

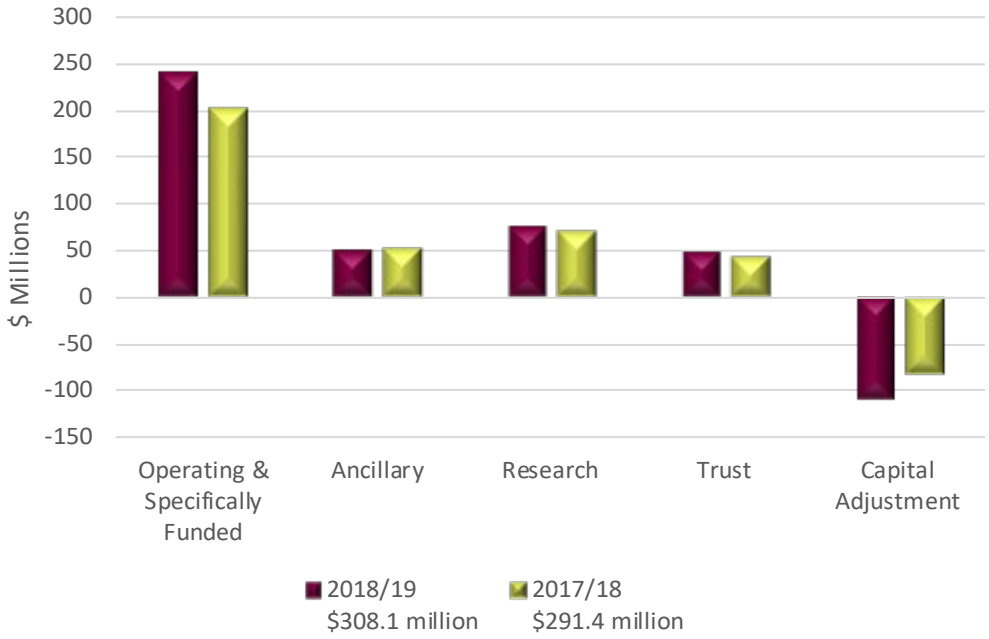
	Total	Change	Trend
Total Assets	$2,896.6 million	+6.3%	
Total Liabilities	$1,675.7 million	+9.3%	
Long-Term Debt	$254.7 million	-0.2%	
Accrued Employee Future Benefits	$357.3 million	+56.3%	
Net Assets	$1,220.9 million	+2.5%	
Equity in Capital Assets	$399.5 million	+25.7%	
Endowments/Deferred Contributions	$757.7 million	+4.2%	
Available Expendable Resources	$607.7 million	+8.8%	

Breakdown of Salaries and Wages by Fund



McMaster University

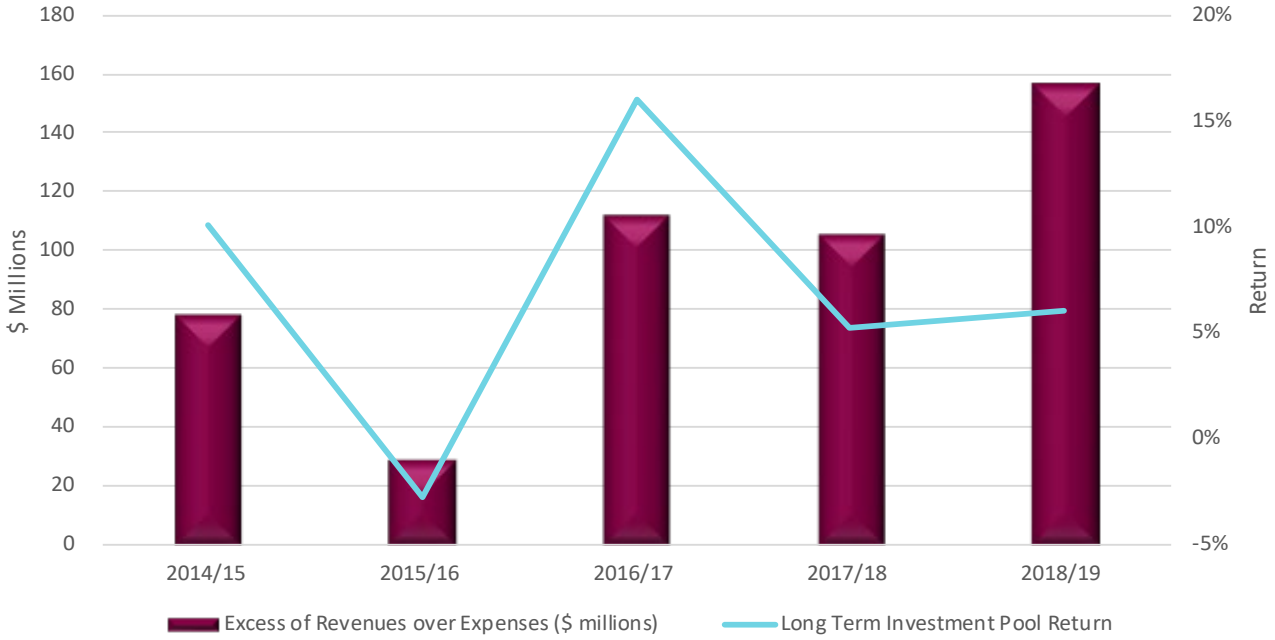
Breakdown of Supplies and Services by Fund



- Increase in Operating Fund expenses was partly due to additional transfers for capital projects, which are assets on the balance sheet

McMaster University

Statement of Operations
Five Year History – Returns vs. Income



- Total income typically varies with investment returns, however in 2018/19 and 2017/18 net income was higher primarily due to increased tuition and other income

McMaster University

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140, Ext.24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

REPORT TO THE BOARD OF GOVERNORS
from the
AUDIT AND RISK COMMITTEE

i. Annual Financial Report 2018-2019

The Annual Financial Report 2018-2019 consists of detailed Financial Analysis and the Audited Financial Statements for the year ended April 30, 2019, together with supplemental information relating to the Operating Fund and Operating Budget. The Planning and Resources Committee reviewed the documents on September 26, 2019. The Audit and Risk Committee approved the Annual Financial Report Including the Audited Financial Statements for the year ended April 30, 2019, at its meeting on October 10, 2019.

The Audit Committee now recommends,

that the Board of Governors approve the Annual Financial Report 2018-2019, which includes the Audited Financial Statements for the year ended April 30, 2019.

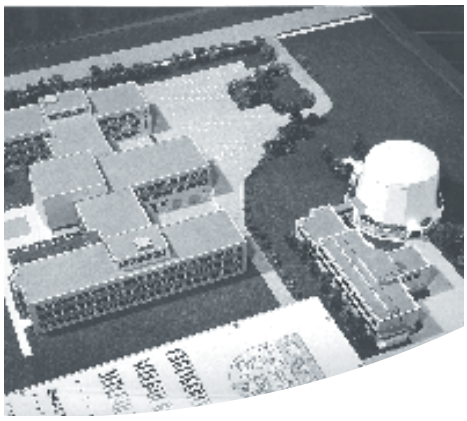
ii. Appointment of External Auditor for 2019-2020

At its meeting on October 10, 2019, the Audit and Risk Committee reviewed and approved the re-appointment of KPMG LLP as the external auditors for McMaster University for 2019-2020.

The Audit Committee now recommends,

that the Board of Governors approve the re-appointment of KPMG LLP Chartered Accountants as the Auditors for McMaster University for the 2019-2020 fiscal year.

Board of Governors: FOR APPROVAL
October 24, 2019



DRAFT

60 YEARS
of the McMaster
Nuclear Reactor

Annual Financial Report

2018-2019

BRIGHTER WORLD | mcmaster.ca

McMaster University

Attachment I

McMaster Nuclear Reactor by the Numbers

six
Emerging medical technologies

25
Universities supported

22,070
Days since MNR first "went critical" (i.e. began operating), making it Canada's longest serving nuclear research reactor

600
Hours of continuing education for MNR staff

60,000
Patients treated

100,000
Aircraft parts qualified

134
Nuclear energy workers based in the reactor building

2,500
Training hours to become a licensed reactor operator

2,500 visitors

16,000
Mining assays

10,438
Megawatt-hours (energy output)

1,024
Shipments of iodine-125

18
Different radioisotopes shipped from MNR to researchers & customers

seven thousand
Research hours

20,000,000
Safety checks

1,126
In-core irradiations

60 YEARS OF MNR
Clockwise from top left: Nuclear Research Building and Reactor Building today; Dr. Thode with a scale model of the McMaster Nuclear Reactor, designed as a multi-purpose, multi-user research facility; Prime Minister John Diefenbaker speaks at the opening of the McMaster Nuclear Reactor in 1959; The McMaster Nuclear Reactor at end of construction in 1959; Scale model of the newly designed McMaster Nuclear Reactor and JHE buildings; Photograph of H.G. Thode (by Tom Bochsler, courtesy of Andrew Colgoni and Rebecca, Thode Library)

Annual Financial Report

2018-2019

McMaster Nuclear Reactor and former McMaster University President, Harry Thode

The 2018/19 Annual Financial Report is dedicated to highlighting McMaster's Nuclear Reactor (MNR), which celebrated its 60th anniversary in April 2019.

Through the vision of a past President Harry Thode, McMaster was able to capitalize on the strength of its academy and garner government support to build Canada's only university campus nuclear reactor. McMaster's Nuclear Reactor Building was an initial step, however Thode's vision was for "a research reactor on campus, where we could produce our own radioisotopes and provide beams of neutrons on a grand scale for producing nuclear reactions." Thode further speculated "McMaster was ideally suited in regard to industry. Although it was too early to predict what industrial uses would pay off, it was a certainty there would be industrial uses of neutrons and gamma rays on a large scale."

Credit quotes to: Harry Thode, excerpted from Manual Zack, Lawrence Martin, and Alvin A. Lee, *Harry Thode, Scientist and Builder at McMaster University,* McMaster University Press, 2003, p. 69.

BUILDING A SUSTAINABLE RESOURCE

Clockwise from left: Original reactor core showing a "fuel assembly" being inserted into the grid plate at the bottom of the pool to make the "core" of the reactor (the grouping of fuel assemblies); Single fuel assembly. Because the reactor core is essentially modular, fuel elements can be replaced one at a time, as needed, rather than having to replace the entire core at one time, which would be prohibitively expensive; "Reactor On" sign. Smaller (but ongoing) fuel costs are part of the reason MNR has been able to operate for so long.

Year in Review

2018/19 Financial Analysis and Commentary

The 2018/19 financial year marks McMaster University's 60th anniversary year for its Nuclear Reactor, the only Canadian university campus to operate a nuclear reactor for academic, research and commercial uses. The theme of the annual report is focused on the Nuclear Reactor's history, which for 2018/19 also marks the initiation of academic and market reviews to examine the future strategic directions of the reactor. Included in these considerations are balancing academic and research objectives with commercial or market demands, while also examining additional capacity. The reviews underway are expected to be completed sometime in the 2019/20 fiscal period.

McMaster's consolidated revenues exceed $1 billion per year across its operating, capital, research, trusts, and ancillary funds. Annual expenditures primarily relate to faculty and staff who advance, sustain, and support McMaster's academic and research mission. In addition, expenditures include pension and other non-pension costs. Each year, McMaster also aims to reserve funds, by having an excess of revenues over current expenditures, for other future obligations or commitments, such as the cost of decommissioning the Nuclear Reactor, and bond repayments. McMaster regularly estimates and reports the status of future obligations, and has established a number of funding reserve strategies to settle these obligations without adversely impacting the core academic and research mission of the University.

The 2018/19 excess revenues over expenditures was $157.0 million compared to $105.7 million in the previous year. This figure includes a $25.0 million surplus in the Operating Fund, with total appropriations predominantly held by the Faculties or within the Provost's academic priorities envelope for strategic mandate initiatives, and/or capital renovations or infrastructure needs. Excess revenues over expenditures are a result of McMaster's prudent approach to budgeting and financial planning for the University. As such, McMaster has maintained strong and stable credit ratings of AA from both Standard and Poors and DBRS.

Revenue growth predominantly relates to increased enrolment in both undergraduate and graduate programs and associated tuition income, as well as revenues from specially funded programs, non-regulated fees, other enrolment-related support service revenues, and increased recoveries for energy production sales to the affiliated hospital on campus.

The Operating Fund grant remained materially fixed at the 2016/17 level of $236.0 million determined by the Ministry's corridor funding model. It is unclear how long the corridor funding model will remain in place, however it is clear that the Ministry is adopting a performance-based model for the next Strategic Mandate Agreement beginning in 2021. The traditional largely enrolment-based methodology for flowing operating grants, albeit frozen, will transition by decreasing enrolment funding flows with offsetting increased funding flows linked to differentiation targets and specific purpose grants. McMaster has managed through the frozen operating grant for domestic capped enrolment by increasing international enrolment over the last several years. As the province changes its funding regime McMaster will examine its strategies.

McMaster's tuition revenues grew slightly less than enrolment management planning targets, but was attributed mostly to international student growth, and reflected rate increases within the legislative caps and other non-regulated fee increases. International enrolment targets have been adjusted for future years to account for a segment of students requiring additional English language skills learning before first year course loads, resulting in up to a year delay in planned enrolment for a percentage of this segment.

Investments earned a 6.0% return (2017/18 – 5.2%) after management fees, with income of $70.8 million (2017/18 – $52.3 million) in addition to $7.3 million (2017/18 – $2.7 million) attributed directly to external endowments. The Investment Pool continued to make progress on a number of recommendations related to the *President's Advisory Committee on Fossil Fuel Divestment*, including the addition of a $5.0 million Social Responsibility fund, carbon footprint measurements, carbon reduction strategies, and further planning toward signing the *United Nations Principles for Responsible Investing*.

Research income of $178.0 million recognized in the year is a reflection of current year research expenditures, which were slightly higher than prior year by $8.3 million. Research overall remained relatively steady and stable while McMaster was a

key pilot institution for the Tri-Agency changes to its expense monitoring guidelines, focused more on cost reasonability, principal investigator responsibility, and risk-based sample checking. Changes to practices occurred in 2018/19 resulting in time saved policing expenditures, which can be, for example, redeployed either to a new billing system to support research or support training for a new detailed research financial reporting tool.

Other income growth is a key focus of the University, particularly at a time of frozen grant funding and deflationary tuition frameworks for 2019/20, with a reduction of 10% in the tuition rate for domestic enrolment and 0% increase thereafter in 2020/21. Other income grew over the prior year primarily related to increased energy production sales to the affiliated hospital on campus, as well as increases to non-regulated fees.

As noted earlier, personnel costs are the University's greatest expenditure, reflecting over 61.9% of total expenses or $641.8 million, up 3.6% over the previous year (2017/18 – $619.7 million). Salaries and wages grew 4.1% due to the addition of 156 faculty members and permanent staff, as well as negotiated pay increases. In an effort to ensure personnel growth represents the most efficient use of University resources, McMaster continues to be involved in several functional reviews and University-wide benchmarking initiatives with collaborating universities from around the world to better understand cost structures and further potential service opportunities.

University demand remains high and growing in parallel to recognition in global rankings, including most recently McMaster being recognized as second in the world for its impact in activities associated with the United Nations Sustainable Development Goals. As demand has increased, growth in international participation has been attained due to caps on domestic enrolment. Growth across the student bodies, the academy and support staff has resulted in additional infrastructure planning beyond the delivery of Wilson Hall in 2017/18. Major classroom space additions have been under development in the Peter George Centre for Living and Learning, along with other amenities and residence accommodations. In addition, a number of additional projects were completed or are underway to ensure McMaster's campus remains an attractive and technologically suitable place to study, such as a retrofit and expansion of the Arthur N. Bourns Building and new research commercialization spaces.

The information contained in this Annual Financial Report is intended to provide the reader with financial information for the fiscal year ended April 30, 2019. While the focus of this document is the consolidated operations of all funds on an accrual basis, extended variance analysis information regarding the Operating Fund results, which operates on a modified cash basis for budgeting and accounting purposes, has been included on page 25.

Other documents to which the reader can refer to provide a more in-depth discussion of the University include:

Strategic Mandate Agreement
https://www.mcmaster.ca/vpacademic/documents/SMA_FINAL_2017-2020.pdf

Forward with Integrity
https://president.mcmaster.ca/guiding-strategy/

McMaster Goals and Priorities Report 2017-2018
https://op.mcmaster.ca/wp-content/uploads/2018/09/Fact-Book-Goals-and-Priorities-2018_FINAL-1.pdf

Consolidated Budget – June 2019
https://financial-affairs.mcmaster.ca/app/uploads/2018/07/2019-20-Consolidated-Budget-FINAL.pdf

University Fact Book
https://www.mcmaster.ca/vpacademic/documents/FactBook2017-2018.pdf

By the Numbers

$607,700,000

Available expendable resources vs. $558,400,000 last year

$148,000,000

Capital spending vs. $145,600,000 last year

$1,193,000,000

Total revenue vs. $1,102,200,000 last year

$157,000,000

Excess of revenues over expenses vs. $105,700,000 last year

$24,451

Endowment per FTE students vs. $24,443 last year

$1,036,000,000

Total expenses vs. $996,500,000 last year

$38,497

Revenue per FTE students vs. $37,038 last year

$(274,700,000)

Non-pension employee future benefit unfunded obligation vs. $(247,700,000) last year

$(82,600,000)

Pension employee future benefit unfunded obligation vs. $19,100,000 last year

$25,000,000

Excess of revenues over expenses operating fund only vs. $44,200,000 last year

$1,220,900,000

Total net assets vs. $1,190,900,000 last year

30,990

Enrolment (full time equivalent (FTE)) vs. 29,758 last year

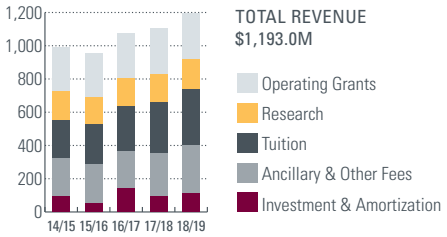
7,772

Staff and Faculty head count vs. 7,616 last year

Financial Analysis

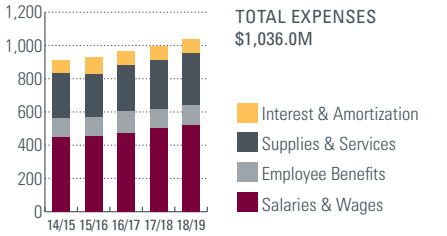
TOTAL REVENUE

- Revenues increased 8.2% to $1,193.0 million from $1,102.2 million.
- Tuition income increased by $36.4 million (11.9%) related to increased international undergraduate and graduate enrolments, rate changes for domestic students within the legislated cap and new programs.
- Enrolment-based operating grants remained frozen at 2016/17 levels, with increases in graduate expansion funding mostly offset by deductions for the International Student Recovery ($750 per student levy to the province).



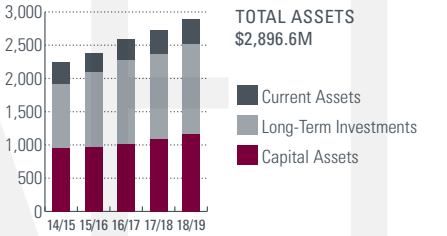
TOTAL EXPENSES

- Expenses increased 4.0% to $1,036.0 million from $996.5 million.
- Salaries and wages increased by $20.5 million (4.1%) due to the addition of faculty members and permanent staff, negotiated pay increases, and adjustments as set out in Bill-148.
- Employee benefits expense increased by $1.6 million (1.3%) as a result of the associated increase in salary and wages.
- Supplies and services increased by $16.7 million (5.7%) primarily due to additional spending in the operating, research and trust funds to support increased enrolment.



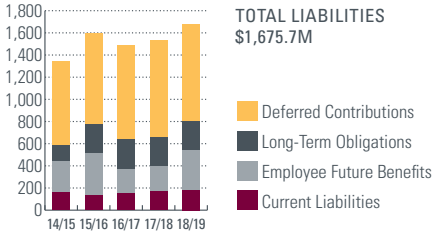
TOTAL ASSETS

- Assets increased 6.3% to $2,896.6 million from $2,724.3 million primarily related to capital asset additions and increased investments.
- Total investment holdings increased by $86.9 million (6.0%) primarily due to the 6.0% return on investments.
- Capital assets increased by $75.2 million (6.9%) related to $148.0 million in capital additions for new buildings and equipment less $72.8 million in amortization.



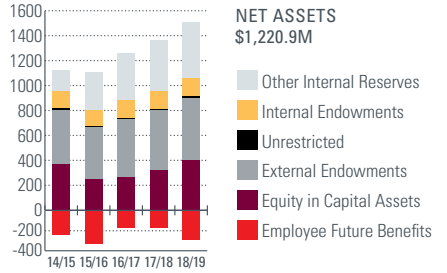
TOTAL LIABILITIES

- Liabilities increased 9.3% to $1,675.7 million from $1,533.4 million.
- Employee future benefit liabilities increased by $128.7 million (56.3%) primarily due to the introduction of the new Pension Benefits Act, involving a Provision for Adverse Deviation, interest rate and other demographic adjustments.
- Current liabilities increased by $15.4 million (9.2%) primarily related to an increase in accounts payable and accrued liabilities.
- Deferred contributions and long-term obligations remained relatively flat year over year with additions and deductions resulting in small balance changes.



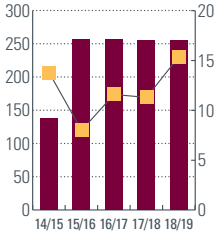
NET ASSETS

- Net assets increased 2.5% to $1,220.9 million from $1,190.9 million primarily due to increases in equity in capital assets and external endowments, offset by negative remeasurement adjustments totalling $144.5 million associated with actuarial losses in the pension and non-pension employee future benefit liabilities.
- Equity in capital assets increased by $81.6 million (25.7%) due to capital asset expenditures.
- Other internal reserves increased by $43.7 million (10.8%) as a result of increases in departmental carry-forwards and specific purpose reserves required to settle future obligations or invest in infrastructure.



LONG-TERM DEBT

- Long-term debt primarily relates to two $120 million bonds maturing in 2052 and 2065 respectively, two sinking funds (reserves), currently valued at $34.7 million, exist to repay these debts upon maturity.
- The debt service coverage ratio improved to 15.4 from 11.3 due to the increase in net income.
- Total long-term debt decreased due to the $0.6 million principal repayment on the bank loan maturing in May 2033.

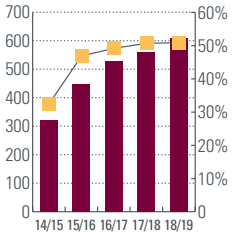


LONG-TERM DEBT
$254.7M

Long-Term Debt
Debt Service Coverage Ratio

AVAILABLE EXPENDABLE RESOURCES (AER)

- AER represents funds held that are not externally committed, such as unrestricted net assets, specific purpose reserves, faculty and department appropriations, and internally restricted endowments.
- AER increased 8.8% to $607.7 million from $558.4 million due mainly to an increase in faculty and specific purpose reserves.

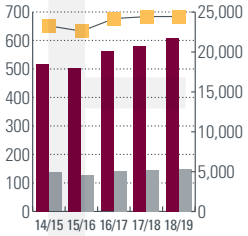


AVAILABLE EXPENDABLE RESOURCES
$607.7M

Available Expendable Resources
AER as a % of Revenue

TRUSTS AND ENDOWMENTS

- McMaster's internal and external trusts and endowments increased 4.2% to $757.7 million from $727.4 million as a result of donations received and the investment return of 6.0% for the long-term investment pool.
- Endowment funds per student remained relatively flat even with an increase in student enrolment.

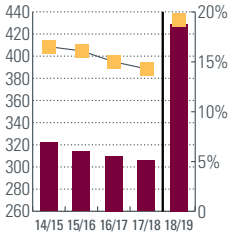


TRUSTS AND ENDOWMENTS
$757.7M

Externally Restricted
Internally Restricted
Endowment Per FTE

DEFERRED MAINTENANCE

- McMaster has been addressing its deferred maintenance backlog with funding from multiple sources.
- In 2019, a new measurement approach has been adopted to consider the functions within the building and reflect actual project costs, as opposed to the former model which applied a cost per square meter.
- The new approach is now considered more accurate across the Ontario higher education sector, but it is not comparable to prior years' assessments. The adequacy of the current annual provision to address the backlog is being reviewed.



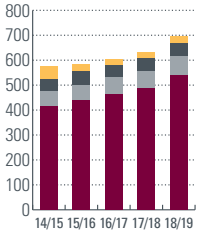
DEFERRED MAINTENANCE ($429.2M)
FACILITIES CONDITION INDEX (19.2%)

Deferred Maintenance Backlog
Facilities Condition Index

Note: new methodology in 2019, prior years not comparable

OPERATING FUND – NET EXPENDITURES BY ENVELOPE

- Operating Fund net expenditures increased 9.6% to $693.6 million from $632.9 million.
- Academic and Student Support increased 10.6% as a result of support for increased enrolment, as well as faculty renewal in growth areas.
- Facilities Support increased 13.9% related to payments made on an energy loan (from savings on energy costs), and higher capital expenditures in addition to increases in salaries and operating expenses.
- Institutional Support increased 0.2%, primarily due to increased salaries and benefits expense.
- Institutional Priorities decreased 2.7% due to decreased supplemental pension plan costs, partially offset by branding initiative expenses.



OPERATING FUND – NET EXPENDITURES BY ENVELOPE $693.6M

Institutional Priorities
Institutional Support
Facilities Support
Academic & Student Support

MNR is the world's largest producer of the therapeutic radioisotope I-125, and provides cancer treatment for more than 200 patients every day.

ADVANCING HUMAN HEALTH

Left: Iodine-125 is a radioactive isotope that is used to treat cancer. Each vial is placed in a lead pot, within a specially designed and tested shipping box, and shipped to customers around the world. Right: Microspheres for cancer treatment being loaded into tube for neutron bombardment. When exposed to neutrons, the holmium within the microspheres becomes the radioactive isotope holmium-166, which is used. The microspheres plug the small blood vessels that feed the tumour, while also firing high energy beta particles at it from decay of the holmium-166.

Revenues

MNR primarily sells iodine-125 to brachytherapy seed manufacturers, who incorporate it into these tiny titanium cylinders that are then shipped to hospitals. Radiation oncologists implant the "I-125 seeds" in solid tumours (especially prostate cancer); the radiation given off by the iodine-125 kills the cancerous tissue.

Total revenue increased by $90.8 million (8.2%) to $1,193.0 million (2017/18 - $1,102.2 million) reflecting revenue per student of $38,497 (2017/18 - $37,038). Revenue increases relate to a $36.5 million increase in tuition fees, a $20.2 million increase in donations and other grants, and an $18.5 million increase in net investment income. McMaster continues to focus on new revenue generation opportunities across all areas while actively managing existing revenue streams to optimize investments in the student experience, academic and research mission.

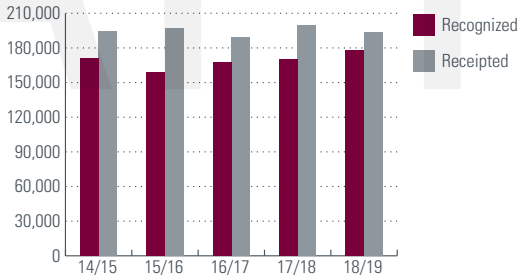
OPERATING GRANTS INCOME

Operating grants from the Ministry of Training, Colleges and Universities (MTCU) remained relatively flat. Operating grants for domestic undergraduate enrolment are frozen at 2016/17 levels under MTCU's corridor funding model.

RESEARCH GRANTS AND CONTRACTS

Research revenue is recognized as income in the year related expenditures occur. Unspent research funding and funds spent on capital are reflected as deferred contributions. McMaster's research revenue does not include research funding received and administered by affiliated hospitals or funding directed to Network Centres of Excellence, such as the Centre for Probe Development and Commercialization hosted at McMaster. Research funding receipted in the year decreased slightly by $5.8 million (2.9%) to $193.7 million (2017/18 – $199.5 million) as shown in Figure 1. Research expenditures increased by $8.3 million (4.9%), resulting in $178.0 million in research revenue recognized (2017/18 – $169.7 million).

Figure 1. RESEARCH REVENUE:
RECEIPTED VS RECOGNIZED IN INCOME – $ THOUSANDS



RESEARCH OVERHEAD GRANTS

Research overhead grants increased by $1.4 million (9.6%) to $15.4 million (2017/18 – $14.0 million) related to more overhead-eligible awards received as well as new Incremental Project Grant funding from the federal government. Overhead grants assist the University in defraying indirect costs associated with hosting research activities. The federal and provincial governments contribute indirect costs based upon a portion of the total direct federal research grants and eligible provincial research programs.

TUITION FEES

Revenue from tuition fees increased by $36.4 million (11.9%) to $341.6 million (2017/18 – $305.2 million) due to increases in international undergraduate and graduate enrolment and tuition fee increases allowable by legislation. In 2018/19, the University adjusted fees within the allowable cap for each regulated program and remained within an overall increase cap of 3.0% for domestic students. Contributing to improved tuition revenue are increases in other fees not subject to the legislative cap. These include non-government funded programs and international student fees. International students pay fees that are higher than domestic tuition rates since there is no domestic operating grant to support these students, and account for approximately 13.2% (2017/18 – 12.9%) of the total student population.

ANCILLARY OPERATIONS

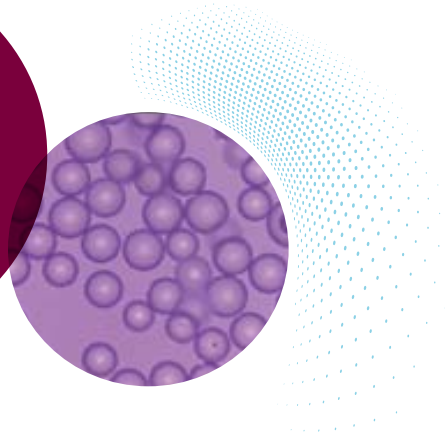
Ancillary operations provide essential academic and student support services across the University, such as housing, food services, parking, campus stores, and media/print production. Ancillary units are responsible for providing efficient and affordable services while covering all related operating and capital expenditures. Ancillaries contribute approximately 4.5% on sales toward direct student support and the Operating Fund.

A breakdown of ancillary sales is shown in Table 1. Net ancillary sales revenue increased by $1.1 million (1.4%) to $78.2 million (2017/18 – $77.1 million). Housing and Conference Services was the largest contributor to the revenue growth, increasing sales by 2.1% despite the decline in event income (primarily due to the one-time revenue from the North American Indigenous Games in the prior year). Hospitality Services sales dropped 1.4% mainly due to the renovation of the IAHS Café and lower sales from conferences. Parking Services sales increased 6.9% due to higher parking voucher demand and increased visitor and student sales. Campus Store sales declined 5.8% due to drop in revenue from technology products and course materials. Media Production Services increased total sales 3.3% largely due to increased internal sales and demand for web, print and other application development.

Table 1: SALES BY ANCILLARY OPERATIONS — $ thousands

	2014/15	2015/16	2016/17	2017/18	2018/19
Housing and Conference Services	24,188	24,849	26,110	27,231	27,792
Hospitality Services	21,753	23,764	25,303	27,641	27,240
Campus Store	15,622	15,552	16,364	15,897	14,978
Continuing Education	6,708	6,740	7,006	7,183	7,759
Parking	5,314	5,016	5,252	5,821	6,222
Media Production Services	3,896	3,958	3,742	4,190	4,330
	77,481	79,879	83,777	87,963	88,321
Less internal sales	(8,848)	(9,573)	(9,504)	(10,851)	(10,120)
	68,633	**70,306**	**74,273**	**77,112**	**78,201**

MNR is the only North American supplier of holmium-166 microspheres, radioactive particles that are used to treat liver cancer.



INVESTMENT INCOME

The long-term investment pool (Investment Pool) rate of return (net of investment manager fees approximating 0.3%) was 6.0% (2017/18 – 5.2%). The Investment Pool achieved a rate of return of 6.3% (2017/18 – 5.5%) compared to the fund benchmark return of 7.3% (2017/18 – 3.7%). The two-year annualized return for the Investment Pool was 5.9% as compared to the fund benchmark return of 5.5% for the period ended April 30, 2019.

Ongoing uncertainty regarding global trade and global economic growth has continued to contribute to market volatility. Market volatility and low interest rates remain key management concerns; as such, broad geographic and asset class diversification within the long-term investment pool helps to mitigate volatility and protect capital. The Investment Pool is managed by external investment managers in accordance with the Statement of Investment Policy and Guidelines, which incorporates environmental, social and government considerations into its hiring and review practices. The Investment Pool is overseen by the Investment Pool Committee, a sub-committee of the Board of Governors, and involves an investment consultant and a number of investment managers noted in Table 2.

Table 2: **INVESTMENT POOL CONSULTANT AND INVESTMENT MANAGERS** as at April 30, 2019

INVESTMENT CONSULTANT:
Russell Investments Canada Limited

INVESTMENT MANAGERS:
Bentall Kennedy, Beutel Goodman & Company Ltd., BlackRock Asset Management Canada Limited, Brookfield Investment Management, Foyston, Gordon & Payne Inc., Harris Associates L.P, Integrated Asset Management Corp., Mesirow Financial, Morgan Stanley Investment Management Inc., PCJ Investment Counsel Ltd., and Russell Investments Canada Limited.

During the year, investment strategy reviews were completed for both the Investment Pool and the pension plans, examining asset allocations and alternative investments relative to objectives and risk tolerances. Implementation of refinements to investment strategy is in progress, with recommendations, updates to policies, and results to begin to take effect commencing in 2019/20.

In the year, McMaster completed a $5.0 million investment into a Social Responsibility Investment (SRI) fund (ESG[1] Global Equity Fund) in the Investment Pool which is aligned with the recommendation by the President's Advisory Committee on Fossil Fuels Divestment (PACFFD) to establish investment in a new socially responsible investment fund. In addition, in alignment with PACFFD recommendations, McMaster has completed a third-party measurement of its carbon footprint[2] relative to its policy benchmark. The Investment Pool carbon footprint was 142 tCO2e/$1 million invested (2017/18 – 126 tCO2e/$1 million invested) relative to the fund policy benchmark of 179 tCO2e/$1 million invested (2017/18 – 153 tCo2e/$1 million invested), both measured as at April 30, 2018. Finally, work continues toward the University's multi-year plan to become a signatory to the United Nations Principles for Responsible Investing.

Sensitivity analysis is performed to highlight the significance of possible variances in investment income associated with market fluctuations. The endowment funds are invested based on a benchmark asset mix of 60.0% equities and 40.0% fixed income, real estate, and infrastructure. Total investment earnings are allocated as either income in the Statement of Operations or direct increases to endowment balances as preservation of capital adjustments in the Statement of Changes in Net Assets (Table 3). The amounts posted directly to external endowments are a function of net annual returns, whereas the amounts posted to income are a function of both net returns and revenue recognition associated with required annual spending on some of the trust funds.

Investment returns for endowed funds are used for purposes set out by donors or by the Board of Governors, where gifts are for discretionary purposes. Annual endowment spending is 4.0%, along with a 1.0% allowance for trust administration costs, monitored using a five-year average rate of return. Any returns in excess of spending and other expenses go toward capital preservation. Approximately $26.1 million (2017/18 – $23.4 million) of expenses were funded from the external endowment of which a significant portion is directed towards student scholarships, bursaries and funding of Chairs and Professorships.

Table 3: **ALLOCATION OF INVESTMENT INCOME EARNED** $ thousands

	2014/15	2015/16	2016/17	2017/18	2018/19
Recognized in income	56,332	12,855	98,432	52,275	70,820
Amount posted directly to external endowments	24,400	(31,467)	44,799	2,718	7,266
Total earned	**80,732**	**(18,612)**	**143,231**	**54,993**	**78,086**

[1] ESG - Environmental Social and Governance refers to the three central factors in measuring the sustainability and ethical impact of an investment in a company or business. These criteria help to better determine the future financial performance of companies (return and risk).
[2] Carbon Measurement of Investment Pool Public Equity and Public Infrastructure Investments (excludes investments in Bonds and Real Estate).

MNR is the only facility in Canada that does on-demand production of non-standard radioisotopes. These radioisotopes are shipped across Canada and around the world to support research.

SUPPORTING RESEARCH: MADE-TO-ORDER RADIOISOTOPES
Clockwise from bottom left: A reactor operator inspects a "capsule" before loading in a sample for neutron bombardment; The reactor operator seals a sample inside the capsule prior to leak-testing it and inserting it into the reactor core; A reactor operator uses a long pole to insert the capsule into the reactor core.

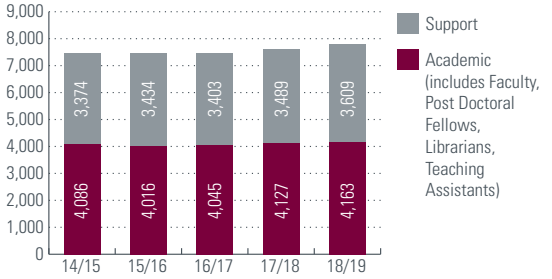
Compensation and Benefits

McMaster University provides compensation and various benefit plans for faculty and staff for both career and retirement phases of life. McMaster manages both current and future costs associated with total compensation plans to ensure long-term financial sustainability. Salary and wage expenses are shown together in the Statement of Operations, with related employee benefit costs identified separately. The employee benefit expenses include statutory benefit costs, other current benefit costs, and accruals for pension and other non-pension benefits (primarily medical benefits and dental care) that are earned in relation to service in the current year. Additional information related to the current year expenses, pension and non-pension liabilities and unfunded deficits are included in this section.

EXPENSE

Total compensation (salary and wages along with benefit costs) accounts for 62.0% of total expenditures (2017/18 – 62.2%). Figure 2 shows the count of 7,772 permanent faculty and staff members at October 2018 (October 2017 – 7,616).

Figure 2. **FACULTY MEMBERS AND PERMANENT STAFF AS OF OCTOBER 2018**



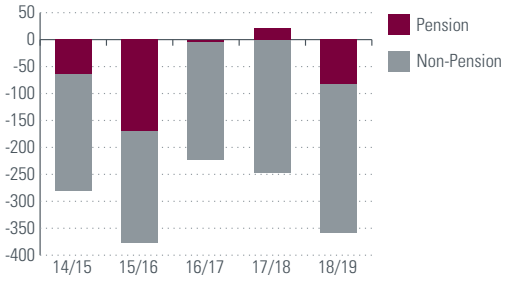
Salary and wage expenses increased 4.1% due to the addition of faculty members and permanent staff, negotiated pay increases, and adjustments as set out in Bill-148. Accordingly, benefit expenses increased 1.3%. Total compensation expenses of $641.8 million are up 3.6% (2017/18 – $619.7 million) representing a net 1.5% increase on a per employee basis.

EMPLOYEE FUTURE BENEFIT COSTS

Included in total compensation expenses are defined benefit pension, group RRSP and non-pension benefit costs. The non-pension benefit costs include extended health, dental and life insurance for most employees of the University. Under the Canadian accounting standards for not-for-profit organizations, annual remeasurements, investment gains and losses, and other items specifically related to employee future benefits are recorded directly in the Statement of Changes in Net Assets. Only current year benefit costs are expensed in the Statement of Operations.

The pension and non-pension plan obligations continue to be a significant draw on University resources (Figure 3). Over the last few years, several cost-balancing measures have been taken including plan design changes and increased employee contributions. The benefit costs could be eased in future years by interest rate improvements. However, changing mortality tables used to measure the liability, resulting from individuals living longer, are a permanent and ongoing increase to future benefit obligations. The pension and non-pension obligations continue to receive ongoing management monitoring and long-term strategic financial planning. McMaster continues to deploy a cost-smoothing approach to charging benefit expenses to faculties and departments. Benefits are charged at an average rate of approximately 30.0% of salaries each year, although annual benefit cash outflows can vary year over year.

Figure 3. **POST RETIREMENT (UNFUNDED OBLIGATIONS)/ SURPLUS** (includes Pension and Non-Pension Benefits) **($357.3M) – NET**



PENSION PLANS

Steps taken over the last few years to manage the pension liability have included revised eligibility rules for some groups, increased employee contributions, and the introduction of a group RRSP plan for new employees in some groups. The group RRSP now includes 388 full time employees (2017/18 – 361).

McMaster filed an updated valuation for the Salaried Pension Plan as of July 1, 2018 under new pension rules which resulted in a negative remeasurement adjustment in the 2018/19 financial statements. The valuation includes a new requirement for a Provision for Adverse Deviation (PfAD), which is based on the plan's open or closed status and its asset mix. The initial regulations identified the University's large salaried plan as closed. Since filing, the definition of a closed plan has changed and the large salaried plan is now under the open plan definition for the PfAD calculation methodology, which will reduce the University's PfAD liability during the next valuation (July 2021).

Management continues to monitor the plan's solvency funded status and future PfAD payments, which are incorporated into a long-term smoothed benefit rate charged to faculties and departments. Management's current benefit rate funding strategy continues to be effective despite the negative remeasurement adjustment. All plans qualified for Stage 3 solvency funding relief, whereby interest only payments are made on solvency deficiencies. The salaried plans have been refiled adopting more recent Pension Benefit Act rules, which result in both salaried plans qualifying for no solvency payments, however both plans are now funding the PfAD. The hourly plan continues to benefit from the Stage 3 solvency funding relief.

In addition to the above, new pension rules for all public and private sector Ontario defined benefit plans, the province has also passed enabling legislation for a jointly sponsored pension plan to be developed for the higher-education sector. The University Pension Plan Ontario (UPP) has achieved the required consent threshold for each of the five existing pension plans in three universities, and the conversion to the UPP is expected to proceed for these universities. The UPP, as designed, is more expensive than McMaster's current plans, however management is monitoring UPP design and transition planning.

The change in the funded status of the defined benefit pension plans is summarized in Table 4.

A $131.6 million negative pension remeasurement adjustment was made in the Statement of Net Assets (2017/18 – -$10.6 million) primarily related to the PfAD adjustment required under the definition of a closed plan. It is expected that a significant portion of this adjustment will be reversed after the next funding valuation. Since remeasurements are adjusted directly in reserves, the PfAD adjustment has had no impact on 2018/19 expenses.

Table 4: CHANGE IN FUNDED STATUS OF PENSION BENEFIT PLANS — $ millions

	2014/15	2015/16	2016/17	2017/18	2018/19
Funded status, opening balance	**(165.9)**	**(63.3)**	**(169.3)**	**(3.5)**	**19.1**
Current service and finance cost	(42.6)	(36.3)	(43.3)	(33.3)	(32.3)
Remeasurements	95.8	(134.4)	143.8	(10.6)	(131.6)
University contributions	49.4	64.7	65.3	66.5	62.2
Funded status, closing balance, net	**(63.3)**	**(169.3)**	**(3.5)**	**19.1**	**(82.6)**

NON-PENSION POST-RETIREMENT AND POST-EMPLOYMENT BENEFIT PLANS

These plans provide extended health benefits to retirees and to employees on long-term disability leave. The deficit status of the plans increased by $27.0 million (10.9%) to $274.7 million (2017/18 – $247.7 million). Management continues to actively work with eligible employee groups to reduce the deficit and ongoing liability. A long-term funding strategy for these obligations includes annual contributions to an internally restricted reserve monitored annually and reassessed by actuaries on a tri-annual basis.

In 2018/19, non-pension employee benefit expenses increased by $1.0 million (4.9%) to $21.4 million (2017/18 – $20.4 million) primarily due to an increased current service cost and interest on the liabilities (Table 5). Payments by the University for claims from the plans totaled $7.3 million.

Table 5: CHANGE IN FUNDED STATUS OF NON-PENSION BENEFIT PLANS — $ millions

	2014/15	2015/16	2016/17	2017/18	2018/19
Funded status, opening balance	**(206.8)**	**(217.2)**	**(208.0)**	**(220.3)**	**(247.7)**
Current service and finance cost	(19.0)	(19.9)	(19.7)	(20.4)	(21.4)
Remeasurements	1.9	22.3	0.2	(14.9)	(12.9)
University contributions	6.7	6.8	7.2	7.9	7.3
	(217.2)	(208.0)	(220.3)	(247.7)	(274.7)
Internally restricted reserve	51.3	60.4	73.6	83.2	93.8
Funded status, closing balance, net	**(165.9)**	**(147.6)**	**(146.7)**	**(164.5)**	**(180.9)**

EMPLOYEE FUTURE BENEFITS IN INTERNALLY RESTRICTED NET ASSETS

In order to promote innovation and accountability in departments, it is McMaster's policy to allow unspent surpluses to be carried forward from year to year, segregated as part of internally restricted net assets. In 2013, there was recognition that charging departments for the full cost of benefits (both current service costs and any unfunded past service costs) was constraining efforts to achieve strategic priorities and reducing McMaster's competitiveness for research funding. As a result, McMaster implemented charging only current service costs to departments, and funds past service costs separately. Under this practice, fluctuations in the reserve for past employee future benefit costs do not impact the funding available to departments, but are also tracked separately within McMaster's internally restricted net assets.

In order to obtain a complete picture of the net operating department reserves, which includes all related employee future benefits, the reserves for employee future benefits must be netted against the total departmental funds carried forward. Table 6 demonstrates the true net position of McMaster's department reserves after all employee benefit costs are applied.

Table 6: NET OPERATING FUND DEPARTMENTAL RESERVES — $ millions

	2018/19			2017/18		
	Faculties	Support/Ancillary	Total	Faculties	Support/Ancillary	Total
Departmental reserves	99.7	77.6	177.3	81.1	72.6	153.7
Pensions	(85.4)	(20.8)	(106.2)	(3.4)	(0.8)	(4.2)
Other post-employment benefits	(136.6)	(44.3)	(180.9)	(124.3)	(40.2)	(164.5)
Employee benefit reserve	6.5	5.1	11.6	6.2	5.3	11.5
Net departmental reserves	**(115.8)**	**17.6**	**(98.2)**	**(40.4)**	**36.9**	**(3.5)**

MNR: A RESEARCH-INTENSIVE FACILITY

Clockwise from left: Reactor core today. MNR can support dozens of experiments at any time, with six different instruments on its neutron beamports, more than a dozen in-core neutron irradiation sites, and several automated sample irradiation facilities; Original reactor core. The MNR core was designed with gaps within the grouping of fuel assemblies, so that research samples can be inserted into the core and exposed to neutrons. The designers also included six large "beam tubes" to carry neutrons away from the core to experiment stations; Experiment stations outside reactor pool, 1959. Scientists use neutrons coming out of the beam tubes for a variety of applications.

Capital Projects and Financing

McMaster University is committed to building purpose-focused technology-enabled spaces while also renewing existing infrastructure to ensure its research-focused, student-centered identity is maintained to support an environment of excellence.

The McMaster Campus Plan and annual Capital Plan provide a comprehensive framework guiding campus capital development. The University's capital objectives are to preserve and enhance a high-quality campus while meeting McMaster's changing needs.

CAPITAL PROJECTS

Construction of the Peter George Centre for Living and Learning (PGCLL), a 518-bed undergraduate residence on campus adjacent to the Ron Joyce Stadium, continued development during 2018/19. The PGCLL also includes teaching and learning spaces, expanded study and collaborative student spaces, a new home for both the Student Wellness Centre, the McMaster Child Care Centre, underground parking, and new hospitality services. This multi-purpose building maximizes the use of campus lands.

Other capital projects underway in 2018/19 included the retrofit and expansion of the Arthur N. Bourns Building (ABB) and infrastructure projects that support research commercialization.

In addition to these capital building projects, the University spent approximately $27.3 million on equipment, software and furnishings. This represents a decrease of $6.0 million (18.1%) over last year primarily due to the acquisition of additional utilities infrastructure related to the Cogen project in 2017/18.

The University's total capital expenditures totalled $148.0 million (2017/18 – $145.6 million) and are summarized in Table 7. Building and Construction in Process expenditures have increased largely due to spending for PGCLL and ABB.

MNR containment building today. The MNR design team chose to incorporate large hollow pipes in the exterior walls of the reactor containment building that line up with the beamports on the outside of the pool wall.

Table 7: **CAPITAL ASSET ADDITIONS** $ thousands

	2014/15	2015/16	2016/17	2017/18	2018/19
Land, Completed Building Projects & Construction in Process	73,698	44,631	76,317	102,446	110,835
Computers, Software, Furniture and Other Equipment	56,696	31,502	27,673	33,367	27,342
Library Materials	5,482	18,264	9,497	9,778	9,833
	135,876	**94,397**	**113,487**	**145,591**	**148,010**

CAPITAL FINANCING

Completed building projects with long-term funding sources such as user fees, parking levies and future fundraising continued to be financed through internal central bank loans. In 2018/19, all scheduled loan repayments were received. The internal central bank capital loans decreased to $69.9 million in 2018/19 from $78.6 million last year. The loans have varying repayment terms and interest rates, which reflect the date of issue and the project's income stream.

The University's Debt Policy ratios provide a framework for monitoring the ability to undertake additional external or internal debt to carry out strategic investments. The University has two long-term bonds outstanding, each for $120 million, one maturing in 2052 at 6.15% and the other maturing in 2065 at 4.105%. McMaster holds two sinking funds accumulating the required repayment of each bond. Debt is considered a perpetual component of the University's capital financing structure; as such, additional debt is contemplated annually in conjunction with the Capital Plan updates and other strategic projects within the multi-year financial projections. McMaster's weighted average cost of capital used for internal loans is 5.75%, including administration costs.

FINANCIAL HEALTH AND SUSTAINABILITY METRICS

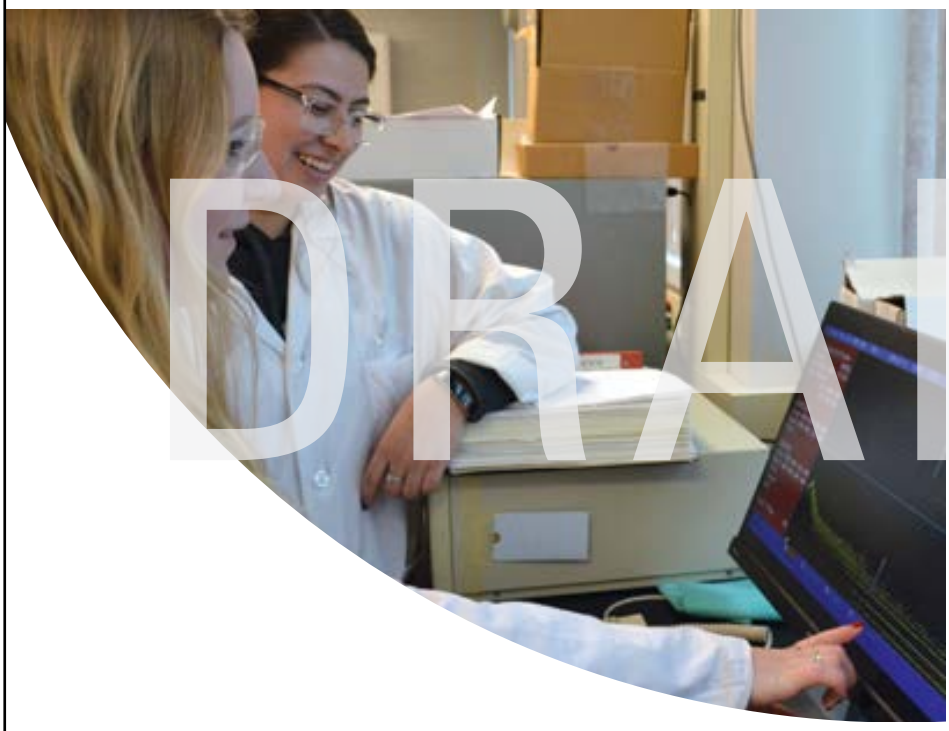
MTCU has now incorporated financial health metrics into the Strategic Mandate Agreement and its annual reporting requirements. The inclusion of financial health metrics recognizes that financial health and sustainability are critical to achieving institutional mandates. McMaster's strong financial health, as indicated also by its strong credit rating, is supported by the MTCU metrics outlined in Table 8.

Table 8: FINANCIAL HEALTH AND SUSTAINABILITY METRICS

Key Ratios	2014/15	2015/16	2016/17	2017/18	2018/19
Expendable Net Assets ($ millions):	322.09	447.42	528.89	558.40	607.70
Net Income/Loss: A performance measure that calculates the net income or loss as a percent of total revenues	7.93%	3.05%	10.42%	9.59%	13.16%
Net Operating Revenues: A performance measure that calculates cash flow from operating activities as a percent of revenues	14.75%	7.08%	14.28%	12.01%	15.74%
Primary Reserve (days): A liquidity measure that calculates the number of days university reserves can cover operating expenses	129	176	200	205	214
Interest Burden: A leverage measure that calculates interest expense as a percent of total expenses net of amortization	1.01%	1.29%	1.50%	1.44%	1.38%
Viability: A leverage measure that calculates the number of times that long-term debt could be settled using unrestricted assets	2.2x	1.7x	2.0x	2.1x	2.3x

MNR BEAMPORTS

Top: Chris Heysel and Bruce Gaulin at the official opening of the new underground "guidehall". The guidehall was built in 2018 in between the reactor containment building and the Nuclear Research Building to enable researchers to use MNR's neutrons in a spacious and controlled environment. The guidehall houses scientific equipment such as a Small Angle Neutron Scattering instrument for materials science research; Bottom: Director Chris Heysel points out the location of a beamport in the guidehall.



NON-DESTRUCTIVE ELEMENTAL ANALYSIS

A technique called Neutron Activation Analysis (NAA) uses neutrons from MNR to determine the elemental composition of soils, environmental samples, steel, and much more. Clockwise from top left: NAA samples are sealed inside small plastic cylinders, then sent into the reactor core using an automated pneumatic system. When they are exposed to neutrons, some of the atoms become radioactive, and give off distinct radiation signatures; Researcher placing an NAA sample on detector. The pneumatic system can send samples automatically to a detector, or return them to an operator who then places them on a detector: Researchers examining the radiation signature of an NAA sample. The detector records the radiation signature, which enables the system operator to determine what chemical elements are present and in what quantities.

Enterprise Risk Management

The Enterprise-wide Risk Management program continued its focus on collaboration and dialogue regarding the University's opportunities and risks in support of the University's strategic and operational objectives. Detailed review sessions led by identified risk leaders continued in 2018/19. Sessions were held with the President and Vice Presidents (PVP) group and the Audit Committee focused on Financial Risk and Government Policy Risk.

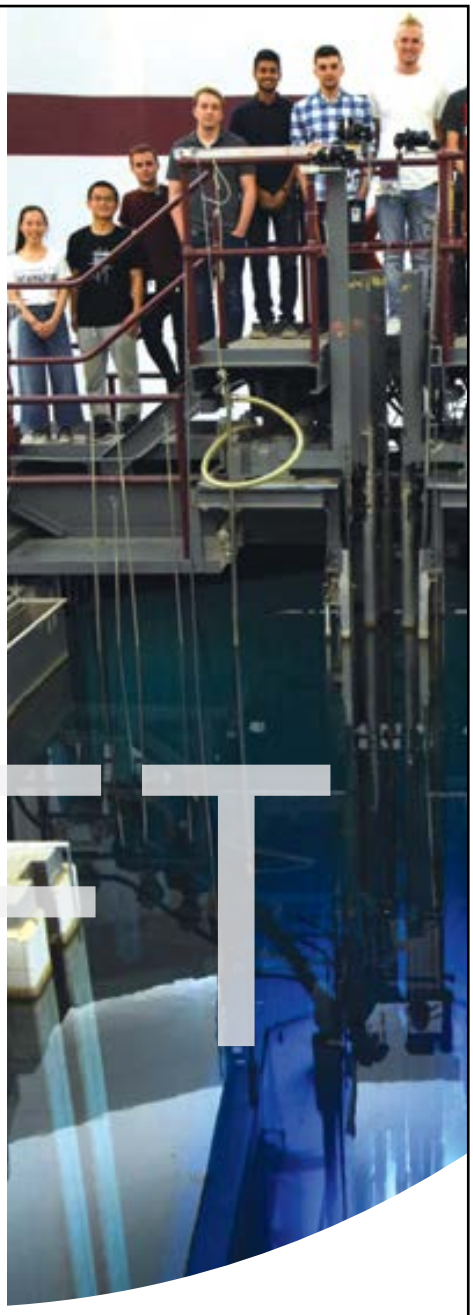
The annual Opportunities and Risks Review and Assessment session was held by the Enterprise Risk Steering Committee (PVP) in March 2019. As well as the review, discussion and update of the University's Opportunity and Risk Registers, the Committee reviewed documentation including key opportunity and key risk maps from the 2018 assessments and the key risk mitigation strategies summary authored by key risk leaders.

The Risks Review and Assessment resulted in eighteen key risks being identified and assessed based on residual (net) risk levels (Table 9). Key risks from 2018 were retained, and geopolitical risk was added. Several modifications were made to various key risk rankings for 2019 as a result of factors including current government initiatives and priorities as well as in recognition of the impact that various risk mitigation strategies and other strategic and operational initiatives underway have had on the University.

In keeping with the principles of continuous improvement, a review process was initiated to identify and develop program content and process enhancements that will align with the revised Audit and Risk Committee Terms of Reference, available on the University's Secretariat website.

Table 9: **2019 KEY RISKS**

Attract Graduate Students	Information Availability & Quality	Reputation and Brand
Change Readiness	Information Security	Research
Financial	Leadership	Research Infrastructure
Geopolitical	Mental Wellness	Student Experience, Retention & Satisfaction
Government Policy	Partnership	Technology
Human Capital	Physical Infrastructure	Undergraduate Student Enrolment



EXPERIENTIAL LEARNING

Nuclear Operations & Facilities (NO&F) provides summer jobs, co-op work placements, and thesis project supervision for over a dozen undergraduate students every year. Students get hands-on experience in radioisotope research, medical isotope production, radioanalytical chemistry, design and fabrication of nuclear components, reactor operations, and more.
Clockwise from top left: Students with staff scientist in a radioisotope research and development laboratory; Summer students by the reactor pool; Engineering intern working in the NO&F test laboratory, verifying the integrity of medical isotope production equipment before it is put into service.

Supplemental Information

Operating Fund Variances in relation to Strategic Mandate Agreement objectives

The audited financial statements are prepared as required by statute in accordance with accounting standards for not-for-profit organizations as prescribed by the Chartered Professional Accountants of Canada using the deferral method of accounting and consolidation of all activity. For external reporting under the deferral method, all funds are consolidated in a single column on the Statement of Operations.

McMaster University's daily finances are managed pursuant to the concepts of fund accounting. Under this method, budgets are established for each fund, which is comprised of assets, liabilities, revenues and expenses. Fund accounting enhances accountability over resources ensuring restricted grants and contributions are spent only for the purposes intended. McMaster uses the following segregated funds: Operating, Specifically Funded, Research, Capital, Externally Restricted Trusts and Endowments, Internally Restricted Endowments, and Ancillary Operations. The University budget model focuses on the allocation of resources within the Operating Fund, however the consolidated Statement of Operations and Statement of Financial Position represents the results of all funds combined.

The 2018/19 Operating Fund financial results compared to the approved budget on a modified cash basis are presented in this section as well as a comparison to the consolidated results on a full accrual basis.

OPERATING FUND SUMMARY STATEMENT OF OPERATIONS

The Operating Fund represents approximately 66% of the consolidated budget and includes all revenue and expenses for faculties and support departments, such as offices of the President and Provost, student affairs, libraries, finance, human resources, facilities, and information technology. The 2018/19 Operating Fund budget included a number of strategic funding priorities, such as student accessibility services, inflationary journal costs for libraries, business intelligence project staffing, and community engagement. Overall, the budget supported McMaster's Strategic Mandate Agreement objectives, including key differentiation goals, enrolment targets, and other targeted program outcomes. The Operating Fund ended 2018/19 in a more favourable position compared to the budget and projection due to both greater funding and lower expenditures (Table 10).

McMaster is the only university in Canada where students can get a summer job operating a nuclear reactor.

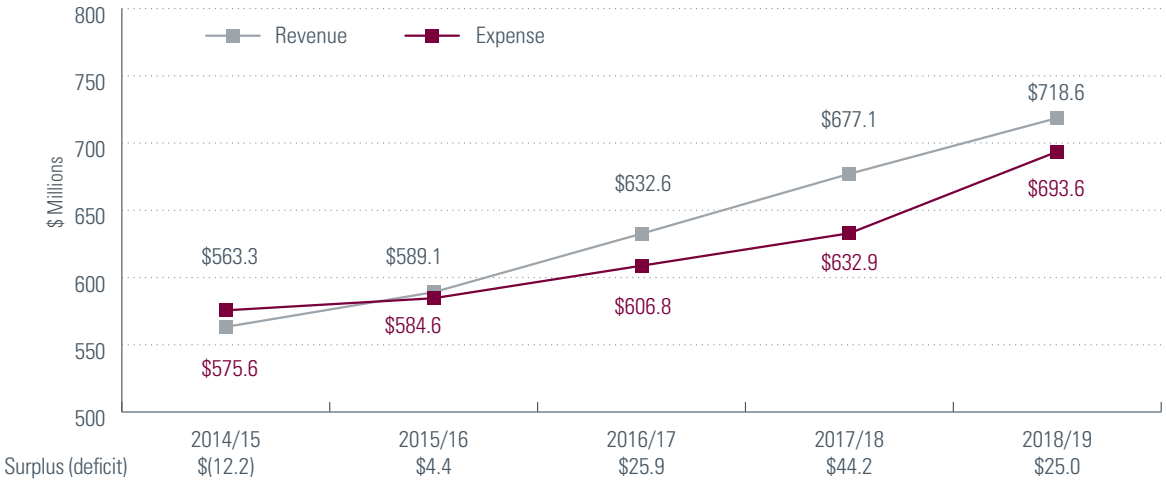
Table 10: **OPERATING FUND SUMMARY**

$ thousands

OPERATING FUND	2018/19 Budget	2018/19 Projection	2018/19 Actual	Variance: Actual vs. Budget		Variance: Actual vs. Projection	
Revenues							
Provincial grants	235,368	235,016	235,983	615	0.3%	967	0.4%
Tuition	334,153	327,272	327,060	(7,093)	-2.1%	(212)	-0.1%
Research Overhead income	25,904	28,933	31,045	5,141	19.8%	2,113	7.3%
Investment income	12,901	12,901	12,901	(0)	0.0%	0	0.0%
Other income	93,990	104,461	111,568	17,578	18.7%	7,107	6.8%
Total revenues	**702,316**	**708,583**	**718,556**	**16,240**	**2.3%**	**9,974**	**1.4%**
Expenses							
Salaries, wages and benefits	476,153	473,605	465,014	11,139	2.3%	8,592	1.8%
Utilities and maintenance	38,749	35,469	37,164	1,585	4.1%	(1,695)	-4.8%
Equipment and renovations	50,392	58,286	65,972	(15,580)	-30.9%	(7,687)	-13.2%
Scholarships, bursaries, and work study	37,252	39,303	36,870	383	1.0%	2,433	6.2%
Library acquisitions	12,829	12,650	13,327	(497)	-3.9%	(676)	-5.3%
Debt and financing charges	18,423	22,623	22,377	(3,954)	-21.5%	246	1.1%
All other expenses	64,773	64,189	52,874	11,899	18.4%	11,314	17.6%
Total expenses	**698,571**	**706,125**	**693,597**	**4,974**	**0.7%**	**12,527**	**1.8%**
Excess of revenues over expenses	**3,745**	**2,458**	**24,959**	**21,214**	**566.5%**	**22,501**	**915.4%**
Fund balance, beginning of year	110,679	142,698	142,698	32,019	28.9%	0	0.0%
Fund balance, end of year	**114,423**	**145,156**	**167,657**	**53,233**	**46.5%**	**22,501**	**15.5%**

The Operating Fund surplus highlights McMaster's continuing strong academic reputation as well as enrolment growth, as the focus remains on key priorities (Figure 4).

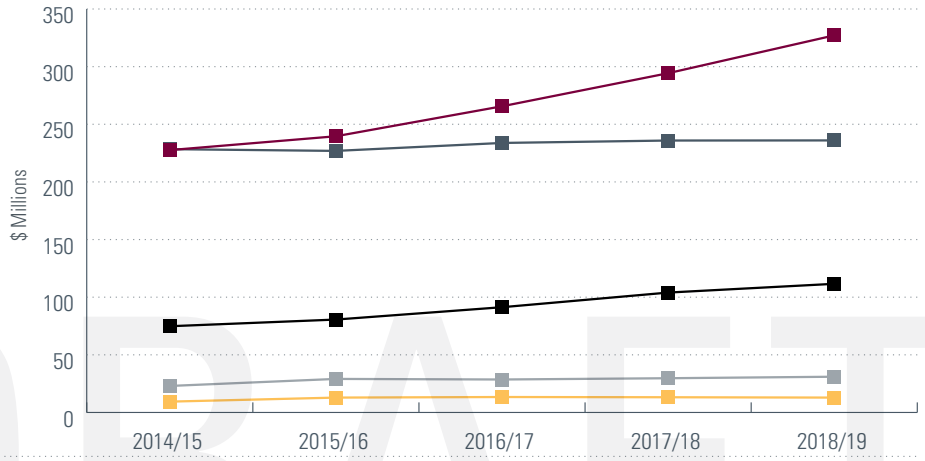
Figure 4: **OPERATING FUND (ONLY) REVENUE AND EXPENSES TREND**



SOURCES OF FUNDING

Total Operating Fund revenues were $718.6 million as compared to the budgeted funding of $702.3 million or to the projected funding of $708.6 million. Growth in overall revenue continues to come from tuition through both increased enrolment and rate increases within the provincial framework, and other revenue related to English language programs for international students, while other sources of revenue remain relatively flat (Figure 5).

Figure 5: OPERATING FUND (ONLY) REVENUE TREND BY TYPE



	2014/15	2015/16	2016/17	2017/18	2018/19
Provincial Grants	$228.4	$226.9	$233.8	$235.9	$236.0
Tuition	$227.6	$239.6	$265.6	$294.3	$327.1
Research Overhead Income	$23.0	$29.1	$28.6	$29.7	$31.0
Investment Income	$9.4	$12.9	$13.4	$13.2	$12.9
Other Income	$74.8	$80.6	$91.3	$104.0	$111.6

PROVINCIAL GRANTS

In 2017/18, MTCU introduced a corridor funding model, which limits enrolment-based funding to the 2016/17 grant level, while allowing universities to be plus or minus 3.0% (corridor) of the funding mid-point. MTCU funding is now flowed to universities via funding envelopes defined as follows:

- Enrolment Envelope: enrolment-based funding that is based on a revised weighted grant unit (WGU) value;
- Differentiation Envelope: funding based on performance and/or achievement of priorities as set out in the Strategic Management Agreement; and
- Special Purpose Envelope: grants based on government priorities such as improving access for Indigenous learners and students with disabilities.

Additionally, a Graduate Expansion Grant funded growth in graduate students over the 2016/17 level (Table 11). Despite the removal of the one-time Undergraduate Enrolment Transition Grant which was awarded in 2017/18 to support the transition of students admitted during the period of recent growth into upper years of study, total provincial grant funding was slightly favourable to projection by $1.0 million (0.4%) due to a higher than expected Graduate Expansion Grant. The International Student Reduction, a $750 decrease in grant funding per student, continues to grow with increased international enrolment.

Table 11: PROVINCIAL GRANTS

$ thousands

	2018/19 Budget	2018/19 Projection	2018/19 Actual
Enrolment Envelope			
Core Operating Grant	215,885	215,371	215,374
Graduate Expansion Grant	1,970	2,229	3,099
	217,855	217,600	218,473
Differentiation Envelope			
Performance/Student Success Grant	19,461	19,169	19,168
Graduate Expansion – Performance	178	201	279
	19,639	19,370	19,448
Special Purpose Envelope			
Grant for Clinical Programs	429	429	458
International Student Recovery	(2,555)	(2,383)	(2,395)
Total Provincial Grants	**235,368**	**235,016**	**235,983**

TUITION

Actual tuition decreased compared to budget due to lower international enrolment than budgeted (Table 12).

Table 12: UNDERGRADUATE AND GRADUATE ENROLMENT

				Variance			
	2018/19 Budget	2018/19 Projection	2018/19 Actual	Actual vs. Budget		Actual vs. Projection	
Undergraduate FFTEs – Domestic	23,419	23,645	23,834	415	1.8%	189	0.8%
Undergraduate FFTEs – International	3,062	2,800	2,837	(225)	-7.3%	37	1.3%
Total	**26,481**	**26,445**	**26,671**	**190**	**0.7%**	**226**	**0.9%**
Graduate FTEs – Domestic	3,056	3,081	3,080	24	0.8%	(1)	0.0%
Graduate FTEs – International	1,140	1,238	1,238	98	8.6%	0	0.0%
Total	**4,196**	**4,319**	**4,319**	**123**	**2.9%**	**(0)**	**0.0%**
Total UG & G Combined – Domestic	26,475	26,726	26,914	439	1.7%	188	0.7%
Total UG & G Combined – International	4,202	4,038	4,075	(127)	-3.0%	37	0.9%
Total	**30,677**	**30,764**	**30,990**	**313**	**1.0%**	**226**	**0.7%**

Overall enrolment increased in accordance with the Strategic Mandate Agreement and the enrolment management targets (Figure 6 and Table 13), enabled by the completion of Wilson Hall in 2016/17. Demand for McMaster's undergraduate programs remains greater than the number of spaces available. Many applicants whose academic record suggests that they could be successful at McMaster must be turned away. Enrolment increases are expected to be maintained and managed through a combination of admitting eligible domestic applicants up to the corridor midpoint and allowing increased international participation rates due to MTCU limitations on domestic new entrants.

Figure 6: TUITION AND FTE ENROLMENT

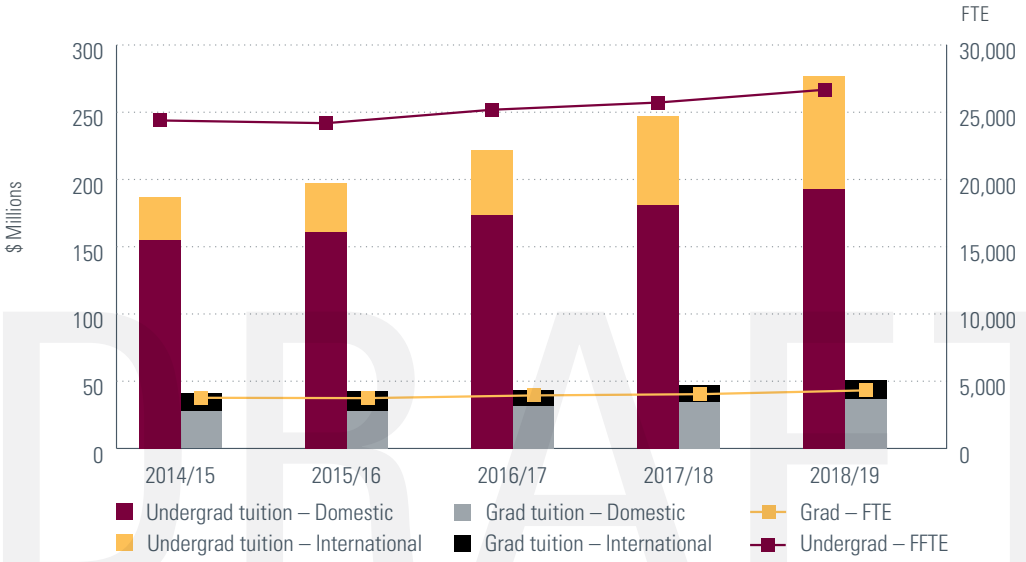


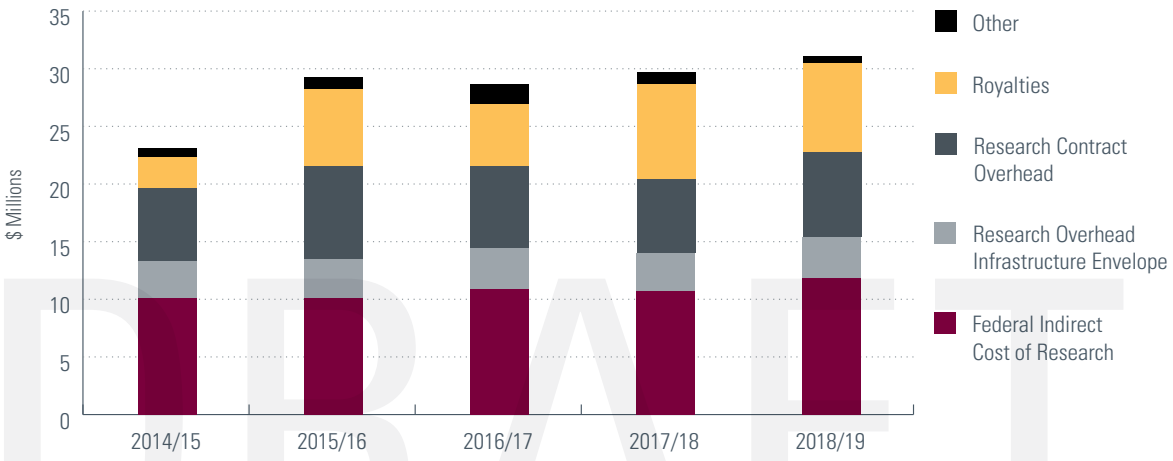
Table 13: TUITION AND FTE ENROLMENT

	Tuition ($ millions)					FTE Enrolment				
	2014/15	2015/16	2016/17	2017/18	2018/19	2014/15	2015/16	2016/17	2017/18	2018/19
Undergraduate – Domestic	154.7	160.9	173.4	181.2	192.6	22,842	22,639	23,327	23,306	23,834
Undergraduate – International	32.0	36.5	48.6	65.9	84.1	1,547	1,548	1,859	2,417	2,837
Total	**186.8**	**197.4**	**222.1**	**247.1**	**276.7**	**24,389**	**24,187**	**25,186**	**25,722**	**26,671**
Graduate – Domestic	27.5	27.9	31.8	34.6	36.6	2,881	2,904	2,980	2,928	3,080
Graduate – International	13.4	14.4	11.7	12.6	13.8	887	838	964	1,108	1,239
Total	**40.9**	**42.3**	**43.5**	**47.3**	**50.3**	**3,767**	**3,742**	**3,944**	**4,036**	**4,319**
Total UG & G – Domestic	182.3	188.7	205.2	215.8	229.1	25,723	25,543	26,307	26,234	26,914
Total UG & G – International	45.4	50.9	60.4	78.5	97.9	2,434	2,386	2,823	3,525	4,076
Total	**227.7**	**239.6**	**265.6**	**294.3**	**327.1**	**28,156**	**27,929**	**29,130**	**29,758**	**30,990**

RESEARCH OVERHEAD

Research overhead income was $5.1 million (19.8%) favourable to budget and $2.1 million (7.3%) favourable to projection, primarily due to the conservative budgeting of royalties and research contract overheads. Overhead is levied as a percentage of research grants and contracts where allowed, with the objective of recovering the full amount of indirect costs. Royalty income is payment for commercial use of intellectual property owned by McMaster as a result of research discoveries. Both contract overhead and royalties fluctuate depending on activity (Figure 7).

Figure 7: RESEARCH OVERHEAD INCOME



INVESTMENT INCOME

The investment income attributed to the Operating Fund is predominantly fixed. Any differences between the budget and actual returns are absorbed in the University's specific purpose reserve. The specific purpose reserve is used to ensure the Operating Fund receives investment income each year regardless of returns in the year. The annual fixed transfer is $9.5 million, which beginning in 2015/16 is increased by five one-time $3.0 million per year transfers. This additional funding assists in balancing the Operating Fund during years following the policy lever implementation, which resulted in a permanent $3.4 million funding cut, and transition to the corridor model whereby the operating grant is fixed at the 2016/17 level.

OTHER INCOME

Higher student enrolment contributed more than expected to other income. The favourable variance of $17.6 million (18.7%) compared to budget was primarily due to:

- increased service fees;
- higher fees from non-degree programs; and
- higher recoveries for utilities from external affiliates due to increased usage.

EXPENDITURES

Total Operating Fund expenditures were $693.6 million (Figure 8 and Figure 9) compared to budget and projected expenditures of $698.6 million and $706.1 million, respectively. The favourable variances are small as a percentage of both the original budget (0.7%) and projection (1.8%), caused by conservative budgeting.

Under the current budget model, faculties (activity units) are allocated all central revenue net of support unit costs. Early finalization of support unit projections in the fall allows for more certain inputs to activity unit budgets, which are prepared in the spring. However, this means that there is greater chance that support unit plans will change during the remainder of the year. This greater variability is not considered a significant risk to planning and will continue for 2019/20 and beyond.

Figure 8: **2018/19 TOTAL OPERATING FUND ACTUAL EXPENSE BY TYPE** $ Millions

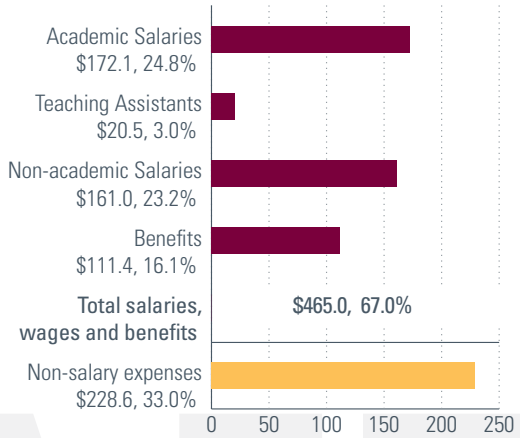
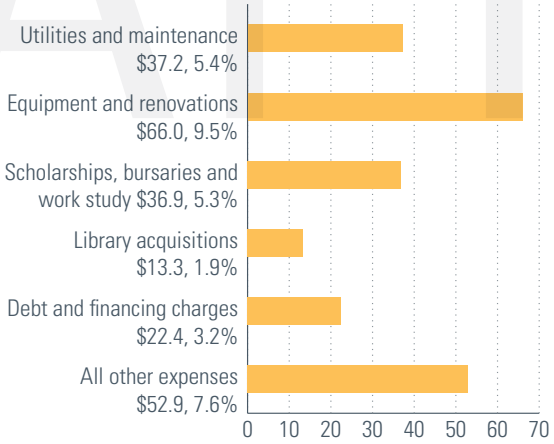


Figure 9: **2018/19 OPERATING FUND ACTUAL NON-SALARY EXPENSE BY TYPE** $ Millions



Total expenses were favourable by $5.0 million (0.7%) compared to budget:

- Salaries, wages and benefits were favourable by $11.1 million (2.3%) primarily due to unfilled staff vacancies.
- Utilities and maintenance were favourable by $1.6 million (4.1%) due to lower utility rates.
- Equipment and renovations were unfavourable by $15.6 million (30.9%) due to higher investment in capital projects such as the DeGroote School of Business expansion, the David Braley Athletic Centre expansion, and Energy Management Plan approved projects.
- Library acquisitions were unfavourable by $0.5 million (3.9%) due to journal cost inflation.
- Debt and financing charges were unfavourable by $4.0 million (21.5%) due to use of savings in utilities toward additional payments on the energy loan.
- All other expenses were favourable by $11.9 million (18.4%) primarily due to savings or delayed spending in expenses such as materials and supplies, special projects, and travel.
- Variances were insignificant in scholarships, bursaries and work study.

Total expenses were favourable by $12.5 million (1.8%) compared to projection:

- Salaries, wages and benefits were favourable by $8.6 million (1.8%) primarily due to unfilled staff vacancies.
- Utilities and maintenance were unfavourable by $1.7 million (4.8%) due to an accounting adjustment for a rebate in the projection, this is partially offset by lower utility rates and greater external recoveries.
- Equipment and renovations were unfavourable by $7.7 million (13.2%) due to higher investment in capital projects as noted above.
- Scholarships, bursaries and work study were favourable by $2.4 million (6.2%) due to Student Access Guarantee (SAG) requirements lower than projected.
- Library acquisitions were unfavourable by $0.7 million (5.3%) due to journal cost inflation.
- All other expenses were favourable by $11.3 million (17.6%) primarily due to savings or delayed spending in expenses such as materials and supplies, special projects, and travel.
- Variances were insignificant in debt and financing charges.

APPROPRIATIONS

The favourable results increase the Operating Fund appropriations balance by $25.0 million (17.5%) to $167.7 million (Figure 10), which represents an improvement of $21.2 million on budget and $22.5 million on projection. Appropriations are carried forward for expenditure in 2019/20 and future years by activity or support units. Appropriation balances are used for capital renovations and/or Strategic Mandate Agreement initiatives. Of the $167.7 million held in appropriations, $99.7 million is held by faculties and another $43.9 million is held for academic priorities (Table 14).

Figure 10: OPERATING FUND APPROPRIATIONS

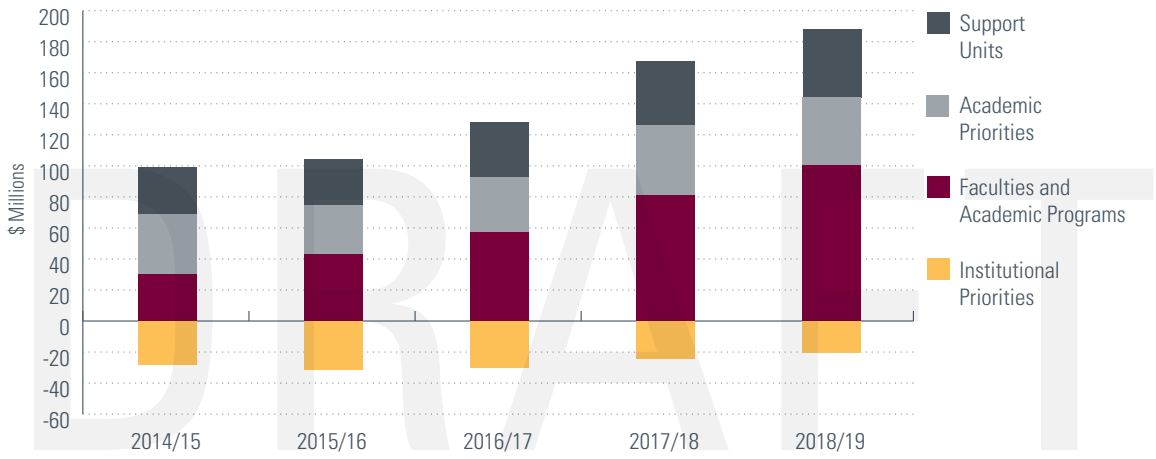


Table 14: **APPROPRIATION/ENVELOPE ANALYSIS, YEAR ENDED APRIL 30, 2019** $ thousands

	Appropriations May 1, 2018	Net Surplus (Deficit)	Appropriations April 30, 2019	Net Surplus (Deficit) Variance
Faculties and Academic Programs				
Business	3,534	(79)	3,455	(244)
Engineering	21,318	2,930	24,248	1,587
Health Sciences	40,418	826	41,243	(1,425)
Humanities	(1,104)	3,682	2,578	931
Science	13,295	7,068	20,363	1,621
Medical Radiation – Mohawk share	1	(0)	1	1
Social Sciences	1,164	5,113	6,276	1,686
Arts & Science	2,502	(938)	1,564	48
Sub-total	81,127	18,601	99,728	4,204
Academic Priorities	44,736	(848)	43,887	323
Academic Support	14,040	(1,749)	12,291	1,479
Research Support	1,372	2,293	3,665	3,370
Student Support	7,391	2,469	9,860	4,755
Facilities Support	7,078	(3,130)	3,948	758
Institutional Support	10,891	3,167	14,058	7,200
Institutional Priorities*	(23,936)	4,156	(19,780)	400
Total Operating Fund	**142,698**	**24,959**	**167,657**	**22,489**

*Includes the approved internal funding for the Mosaic project, which will be repaid by 2023/24.

COMPARISON TO CONSOLIDATED RESULTS – FULL ACCRUAL BASIS

The consolidated financial statements are prepared on the accrual accounting basis for accounting standards compliance and auditing purposes. Adjustments from McMaster's modified cash basis budgeting approach to accrual accounting involve the following key changes (Table 15):

- Net capital expenditures within fund units or departments are reversed and only one year of asset use is amortized. Asset lives vary between 1 and 40 years.
- Share of investment income earned/lost on internal endowments and not already assigned to the Operating Fund and earned/lost on non-operating funds is booked to revenue.
- Non-cash adjustments for pension and non-pension employee accrued future benefit costs measured at April 30 are recorded.
- Adjustments eliminating internal revenue and expense transactions between funds occur.

Table 15: RECONCILIATION OF OPERATING FUND SURPLUS TO CONSOLIDATED STATEMENT OF OPERATIONS — $ thousands

	2018/19 Budget	2018/19 Projection	2018/19 Actual
Excess of Operating Fund revenues over expenses	**3,745**	**2,458**	**24,958**
+ Capital expenditures net of amortization	92,016	73,398	91,283
+ Investment income on internal endowments	3,638	1,604	4,633
± Pension & non-pension adjustments	3,287	(7,600)	26,105
± Change in other reserves; specific purpose reserve, capital projects reserve, and University benefits reserve	(15,128)	38,605	10,013
Total accrual adjustment	83,813	106,007	132,034
Excess of revenues over expenses	**87,558**	**108,465**	**156,992**

The total 2018/19 accrual adjustment of $132.0 million compared to $106.0 million projected results in a $26.0 million favourable variance related to:

- Larger adjustment for capital expenditures due to higher than projected capital spending with internal funding;
- Larger positive accrual adjustment for pension and non-pension employee future benefits; and
- Smaller increases in specific reserves than projected; and smaller than expected increase in the capital projects reserve due to lower internal capital loans than projected.

Annual Financial Report

2018-2019

Financial Statements

McMaster University

McMaster University

Statement of Management Responsibility

Management of the University is responsible for the preparation of the financial statements, the notes thereto and all other financial information contained in this Annual Financial Report.

Management has prepared the financial statements in accordance with Canadian accounting standards for not-for-profit organizations. Management believes the financial statements present fairly the University's financial position as at April 30, 2019 and the results of its operations, changes in net assets and its cash flows for the year ended April 30, 2019. In order to achieve the objective of fair presentation in all material respects, the use of reasonable estimates and judgements were employed. Additionally, management has ensured that financial information presented elsewhere in this Annual Financial Report has been prepared in a manner consistent with that in the financial statements.

In fulfilling its responsibilities and recognizing the limits inherent in all systems, management has developed and maintains a system of internal controls designed to provide reasonable assurance that University assets are safeguarded from loss and that the accounting records are a reliable basis for the preparation of financial statements.

Mercer (Canada) Limited has been retained by the University in order to provide an estimate of the University's current year position for pension and other employee future benefits. Management has provided the valuation actuary with the information necessary for the completion of the University's report and retains ultimate responsibility for the determination and estimation of the pension and other employee future benefits liabilities reported.

The Board of Governors carries out its responsibility for review of the financial statements and this Annual Financial Report principally through the Planning and Resources Committee and its Audit Committee. No members of the Audit Committee are officers or employees of the University. The Audit Committee meets regularly with management, as well as the internal auditors and the external auditors, to discuss the results of the audit examinations and financial reporting matters, and to satisfy itself that each party is properly discharging its responsibilities. The auditors have full access to the Audit Committee with and without the presence of management.

The financial statements for the year ended April 30, 2019 have been reported on by KPMG LLP, Chartered Professional Accountants, the auditors appointed by the Board of Governors. The Independent Auditors' Report outlines the scope of their audit and their opinion on the presentation of the information included in the financial statements.

Vice-President, Administration | Acting President & Vice-Chancellor | AVP (Administration) & CFO
October 24, 2019

KPMG LLP
Commerce Place
21 King Street West, Suite 700
Hamilton Ontario L8P 4W7
Canada
Telephone (905) 523-8200
Fax (905) 523-2222

INDEPENDENT AUDITORS' REPORT

To the Board of Governors of McMaster University

Opinion

We have audited the accompanying financial statements of McMaster University (the "University"), which comprise:

- the statement of financial position as at end of April 30, 2019
- the statement of operations for the year then ended
- the statement of changes in net assets for the year then ended
- the statement of cash flows for the year then ended
- and notes to the financial statements, including a summary of significant accounting policies

(Hereinafter referred to as the "financial statements").

In our opinion, the accompanying financial statements present fairly, in all material respects, the financial position of the University as at end of April 30, 2019, and its results of operations, its changes in net assets and its cash flows for the year then ended in accordance with Canadian accounting standards for not-for-profit organizations.

Basis for Opinion

We conducted our audit in accordance with Canadian generally accepted auditing standards. Our responsibilities under those standards are further described in the *"Auditors' Responsibilities for the Audit of the Financial Statements*" section of our auditors' report.

We are independent of the University in accordance with the ethical requirements that are relevant to our audit of the financial statements in Canada and we have fulfilled our other responsibilities in accordance with these requirements.

We believe that the audit evidence we have obtained is sufficient and appropriate to provide a basis for our opinion.

Emphasis of Matter – Comparative Information

We draw attention to Note 21 to the financial statements ("Note 21"), which explains that certain comparative information presented for the year ended April 30, 2019 has been restated.

Note 21 explains the reason for the restatement and also explains the adjustments that were applied to restate certain comparative information.

Our opinion is not modified in respect of this matter.

Other Information

Management is responsible for the other information. Other information comprises:

- the information, other than the financial statements and the auditors' report thereon, included in the Annual Financial Report document.

Our opinion on the financial statements does not cover the other information and we do not and will not express any form of assurance conclusion thereon.

In connection with our audit of the financial statements, our responsibility is to read the other information identified above and, in doing so, consider whether the other information is materially inconsistent with the financial statements or our knowledge obtained in the audit and remain alert for indications that the other information appears to be materially misstated.

We obtained the information, other than the financial statements and the auditors' report thereon, included in Annual Financial Report document as at the date of this auditors' report.

If, based on the work we have performed on this other information, we conclude that there is a material misstatement of this other information, we are required to report that fact in the auditors' report.

We have nothing to report in this regard.

Responsibilities of Management and Those Charged with Governance for the Financial Statements

Management is responsible for the preparation and fair presentation of the financial statements in accordance with Canadian accounting standards for not-for-profit organizations and for such internal control as management determines is necessary to enable the preparation of financial statements that are free from material misstatement, whether due to fraud or error.

In preparing the financial statements, management is responsible for assessing the University's ability to continue as a going concern, disclosing as applicable, matters related to going concern and using the going concern basis of accounting unless management either intends to liquidate the University or to cease operations, or has no realistic alternative but to do so.

Those charged with governance are responsible for overseeing the University's financial reporting process.

Auditors' Responsibilities for the Audit of the Financial Statements

Our objectives are to obtain reasonable assurance about whether the financial statements as a whole are free from material misstatement, whether due to fraud or error, and to issue an auditors' report that includes our opinion.

Reasonable assurance is a high level of assurance, but is not a guarantee that an audit conducted in accordance with Canadian generally accepted auditing standards will always detect a material misstatement when it exists.

Misstatements can arise from fraud or error and are considered material if, individually or in the aggregate, they could reasonably be expected to influence the economic decisions of users taken on the basis of the financial statements.

As part of an audit in accordance with Canadian generally accepted auditing standards, we exercise professional judgment and maintain professional skepticism throughout the audit.

We also:

- Identify and assess the risks of material misstatement of the financial statements, whether due to fraud or error, design and perform audit procedures responsive to those risks, and obtain audit evidence that is sufficient and appropriate to provide a basis for our opinion.

  The risk of not detecting a material misstatement resulting from fraud is higher than for one resulting from error, as fraud may involve collusion, forgery, intentional omissions, misrepresentations, or the override of internal control.

- Obtain an understanding of internal control relevant to the audit in order to design audit procedures that are appropriate in the circumstances, but not for the purpose of expressing an opinion on the effectiveness of the University's internal control.

- Evaluate the appropriateness of accounting policies used and the reasonableness of accounting estimates and related disclosures made by management.

- Conclude on the appropriateness of management's use of the going concern basis of accounting and, based on the audit evidence obtained, whether a material uncertainty exists related to events or conditions that may cast significant doubt on the University's ability to continue as a going concern. If we conclude that a material uncertainty exists, we are required to draw attention in our auditors' report to the related disclosures in the financial statements or, if such disclosures are inadequate, to modify our opinion. Our conclusions are based on the audit evidence obtained up to the date of our auditors' report. However, future events or conditions may cause the University to cease to continue as a going concern.

- Evaluate the overall presentation, structure and content of the financial statements, including the disclosures, and whether the financial statements represent the underlying transactions and events in a manner that achieves fair presentation.
- Communicate with those charged with governance regarding, among other matters, the planned scope and timing of the audit and significant audit findings, including any significant deficiencies in internal control that we identify during our audit.

KPMG LLP

Chartered Professional Accountants, Licensed Public Accountants

Hamilton, Canada
October 24, 2019

McMASTER UNIVERSITY
Statement of Financial Position
April 30, 2019, with comparative figures for 2018
(thousands of dollars)

	2019	2018 (restated - note 21)
Assets		
Current assets:		
Cash	$ 21,944	$ 18,636
Short-term investments (note 2)	203,902	189,606
Government grants and other accounts receivable (note 3)	34,107	37,748
Research grants receivable	104,083	98,207
Inventories	5,571	5,080
Prepaid expenses and deposits	13,781	10,253
	383,388	359,530
Investments (note 2)	1,329,541	1,256,897
Other investments (note 4)	24,111	23,138
Other assets (note 5)	752	1,230
Capital assets (note 6)	1,158,793	1,083,552
	$ 2,896,585	$ 2,724,347
Liabilities, Deferred Contributions and Net Assets		
Current liabilities:		
Accounts payable and accrued liabilities (note 7)	$ 156,548	$ 140,958
Deferred revenue	24,709	24,960
Current portion of long-term obligations (note 8)	665	624
	181,922	166,542
Accrued employee future benefits (note 9)	357,290	228,579
Long-term obligations (note 8)	267,741	267,810
Deferred contributions (note 10):		
Deferred for future expenses	363,168	359,191
Deferred capital contributions	505,591	511,302
	868,759	870,493
Net assets:		
Unrestricted	10,755	9,781
Internally restricted (note 11)	159,426	234,151
Equity in capital assets (note 12)	399,463	317,879
Endowments (note 13):		
Internal	150,410	145,777
External	500,819	483,335
	1,220,873	1,190,923
Commitments and contingencies (note 14)		
	$ 2,896,585	$ 2,724,347

On behalf of the Board of Governors:

_____ Chair, Board of Governors

_____ Chair, Audit Committee

McMASTER UNIVERSITY
Statement of Operations
Year ended April 30, 2019, with comparative figures for 2018
(thousands of dollars)

	2019	2018 (restated - note 21)
Revenues:		
Operating grants	$ 273,587	$ 273,493
Research grants and contracts	178,022	169,725
Tuition fees	341,629	305,171
Other (note 15)	128,619	122,533
Ancillary sales and services	78,202	77,112
Investment income, net	70,820	52,275
Donations and other grants	67,906	47,714
Research overhead grants	15,390	14,043
Amortization of deferred capital contributions	38,835	40,112
	1,193,010	1,102,178
Expenses:		
Salaries and wages	521,219	500,690
Employee benefits	120,623	119,033
Supplies and services	308,107	291,433
Interest on long-term obligations	13,300	13,340
Amortization of capital assets	72,769	71,995
	1,036,018	996,491
Excess of revenues over expenses	$ 156,992	$ 105,687

McMASTER UNIVERSITY
Statement of Changes in Net Assets
Year ended April 30, 2019, with comparative figures for 2018
(thousands of dollars)

	Unrestricted	Internally restricted	Equity in capital assets	Endowments Internal	Endowments External	2019 Total	2018 Total
							(restated - note 21)
Net assets, beginning of year as previously reported	$ 9,781	$ 234,151	$ 336,021	$ 145,777	$ 483,335	$ 1,209,065	$ 1,094,211
Restatement (note 21)	-	-	(18,142)	-	-	(18,142)	-
Net assets, as restated	$ 9,781	$ 234,151	$ 317,879	$ 145,777	$ 483,335	$ 1,190,923	$ 1,094,211
Excess (deficiency) of revenues over expenses	190,926	-	(33,934)	-	-	156,992	105,687
External endowment contributions:							
Contributions (note 13)	-	-	-	-	10,218	10,218	13,739
Protection of capital (note 13)	-	-	-	-	7,266	7,266	2,718
Transfers and adjustments:							
Transfers for specific purposes	(69,801)	69,801	-	-	-	-	-
Capital transactions from operating (note 12)	(115,518)	-	115,518	-	-	-	-
Transfer to internal endowments (note 13)	(4,633)	-	-	4,633	-	-	-
Remeasurements and other items (note 9)	-	(144,526)	-	-	-	(144,526)	(25,432)
	974	(74,725)	81,584	4,633	17,484	29,950	96,712
Net assets, end of year	$ 10,755	$ 159,426	$ 399,463	$ 150,410	$ 500,819	$ 1,220,873	$ 1,190,923

See accompanying notes to financial statements

McMASTER UNIVERSITY
Statement of Cash Flows
Year ended April 30, 2019, with comparative figures for 2018
(thousands of dollars)

	2019	2018 (restated - note 21)
Cash provided by (used in):		
Operating activities:		
Excess of revenues over expenses	$ 156,992	$ 105,687
Adjustments for non-cash items:		
Amortization of deferred capital contributions	(38,835)	(40,112)
Amortization of capital assets	72,769	71,995
Employee future benefits	(15,815)	(20,658)
Equity earnings of other investments	(973)	(1,980)
Increase in decommissioning obligation	596	516
	174,734	115,448
Net change in contributions deferred for future expenses	3,977	1,156
Net change in other non-cash working capital	9,085	15,795
	187,796	132,399
Financing and investing activities:		
Purchase of capital assets	(148,010)	(145,591)
Net change in investments	(86,940)	(72,267)
Net change in other assets	478	(547)
Net change in external endowments	17,484	16,457
Deferred capital contributions	33,124	60,586
Principal repayments on long-term obligations	(624)	(586)
	(184,488)	(141,948)
Net increase (decrease) in cash	3,308	(9,549)
Cash, beginning of year	18,636	28,185
Cash, end of year	$ 21,944	$ 18,636

McMaster University (the "University"), which operates by authority of The McMaster University Act, 1976, is governed by a Board of Governors (the "Board") and Senate, the powers and responsibility of which are set out in the Act. The University is a comprehensive research institution offering a broad range of undergraduate, graduate and continuing education programs and degrees. The University is exempt from income taxes.

1. Significant accounting policies:

The financial statements have been prepared by management in accordance with Canadian accounting standards for not-for-profit organizations in Part III of the CPA Canada Handbook.

(a) Basis of presentation:

These financial statements include the accounts, transactions and operations for which the University has jurisdiction. They do not include the accounts, transactions and operations of the following entities which are independently governed and managed, and certain other related entities which carry out fundraising and other activities and are not material to these financial statements:

Independent entities:
- McMaster Divinity College
- McMaster Students Union, Inc.
- McMaster University Centre Incorporated
- McMaster Children's Centre, Inc.
- McMaster Association of Part-Time Students (MAPS)
- Graduate Students Association (GSA)

Other entities:
- The McMaster University Trust
- The McMaster University Hong Kong Foundation
- Friends of McMaster Incorporated

McMaster Innovation Park:

The investment in the related entity, McMaster Innovation Park ("Park") is accounted for by the equity method (note 4). Since the Trusts which form the Park have fiscal year ends of December 31st, the University records its share of the operating results effective on that date.

The following joint ventures are accounted for by using the equity method of accounting:

- Adiga Life Sciences Inc. ("ALS"):

  These financial statements include the University's 50% interest in ALS (note 4). ALS is a joint venture with an unrelated pharmaceutical research company to commercialize intellectual property. ALS has a fiscal year end of August 31st and the University records its share of the operating results on that date.

- Halton McMaster Family Health Centre:

  These financial statements include the University's 50% contribution to the Halton McMaster Family Health Centre (note 4). This joint venture is a project with Joseph Brant Hospital involving the construction and establishment of a family health centre and hospital clinical and administration building. The joint venture is in the process of registering the constructed building as a leasehold condominium corporation.

OSCAR EMR:

OSCAR EMR ("OSCAR") is a not-for-profit technology/software company incorporated under the Ontario Corporations Act, controlled by McMaster University. OSCAR has a fiscal year end of December 31st. Financial information is disclosed in note 4. OSCAR has not been consolidated in the University's financial statements.

1. Significant accounting policies (continued):

(b) Revenue recognition:

The University follows the deferral method of accounting for contributions which include donations and government grants. The principles under this method are summarized as follows:

- Unrestricted contributions are recognized as revenue when received or receivable if the amount to be received can be reasonably estimated and collection is reasonably assured.
- Contributions externally restricted for purposes other than endowment and capital assets are deferred and recognized as revenue in the year in which the related expenses are recognized.
- Contributions externally restricted for capital asset purchases are deferred and amortized to operations on the same basis as the related capital asset.
- External endowment contributions and income preserved under the endowment capital protection policy (note 1(m)) are recognized as a direct increase in endowment net assets. Income earned from the investment thereof, to the extent it is allocated, is recorded as deferred contributions and recorded as revenue in the periods in which the related expenses are incurred.

Tuition fees which relate to academic terms or parts thereof occurring after April 30th are recorded as deferred revenue. Gifts-in-kind are recorded at their fair market value on receipt, or at nominal value when fair market value cannot be reasonably determined. Pledges from fundraising and other donations are recorded in the period in which they are collected. Ancillary sales and services revenue is recognized at point of sale or when the service has been provided.

(c) Financial instruments:

Financial instruments are recorded at fair value on initial recognition. Freestanding derivative instruments that are not in a qualifying hedging relationship and equity instruments that are quoted in an active market are subsequently measured at fair value. All other financial instruments are subsequently recorded at cost or amortized cost, unless management has elected to carry the instruments at fair value. The University has elected to carry investments in equity instruments, fixed income and other securities at fair value.

Transaction costs incurred on the acquisition of financial instruments measured subsequently at fair value are expensed as incurred. All other financial instruments are adjusted by transaction costs incurred on acquisition and financing costs, which are amortized using the straight-line method.

Financial assets are assessed for impairment on an annual basis at the end of the fiscal year if there are indicators of impairment. If there is an indicator of impairment, the University determines if there is a significant adverse change in the expected amount or timing of future cash flows from the financial asset. If there is a significant adverse change in the expected cash flows, the carrying value of the financial asset is reduced to the highest of the present value of the expected cash flows, the amount that could be realized from selling the financial asset or the amount the University expects to realize by exercising its right to any collateral. If events and circumstances reverse in a future period, an impairment loss will be reversed to the extent of the improvement, not exceeding the initial impairment charge.

(d) Derivative financial instruments:

The University is party to an interest rate swap agreement which is used to manage the exposure to fluctuations in interest rates. The University uses the accrual basis of accounting for hedges. Gains or losses realized on the settlement of the hedging item are deferred until the settlement of the hedged item.

At the inception of the hedging relationship, the University designates that hedge accounting will be applied. The University formally documents the hedging relationship between the hedging instruments and hedged item. At the inception of the hedge and throughout its term, the terms of the hedging item and hedged item are the same.

Hedge accounting is used only when the notional amount of the swap matches the principal amount of the hedged item, the fair value of the swap at the inception is $nil, the fixed rate is the same throughout the swap and the variable rate is based on the same index and includes the same or no adjustment and the debt instrument cannot be settled before maturity and the swap matures within two weeks of the maturity date of the debt.

1. Significant accounting policies (continued):

(e) Investments:

Short-term investments are investments with a remaining term to maturity of one year or less and are intended to be converted to cash within one year. Short-term investments recorded at cost plus accrued income which together approximates fair value. Short-term investments includes cash and short-term investments held within pooled fund investments.

Long-term investments are carried at fair values. Changes in fair values are included in investment income.

Externally restricted investment income to the extent it is allocated is included with deferred contributions and recognized as revenue when the related expenses are incurred.

Unrestricted investment income is recognized as revenue during the period in which it is earned. Investment income from internal endowments is recorded as unrestricted revenue and transferred to internal endowments.

(f) Inventories:

Campus stores, scientific stores, and the nuclear reactor inventories are recorded at the lower of cost and net realizable value. Other inventories are recorded at cost which is a reasonable estimate of net realizable value.

(g) Capital assets:

Capital assets are recorded at cost, or if donated, at fair value on the date of receipt. Amortization is recorded on the straight-line basis at the following annual rates:

Buildings	2.5% to 10%
Decommissioning retirement costs	4%
Site improvements	5%
Library materials	20%
Computing systems	5% to 10%
Equipment, furnishings and vehicles	20%
Computing equipment	33.3%
Leasehold improvements	term of lease

Capital assets in progress are carried at cost, with no amortization recorded until such time as the assets are available for their intended use.

(h) Collections and works of art:

The McMaster Museum of Art has significant collections of works of art and coins. Donations of works of art amounted to $170,000 (2018 - $328,000) and are recorded in operations in the year of acquisition.

(i) Contributed services:

The University acknowledges the receipt of donated services. Because of the difficulty of determining their fair value, donated services are not recognized in the financial statements.

1. Significant accounting policies (continued):

(j) Ancillary enterprises:

Ancillary enterprises are self-sustaining operations which fund their own replacements and renovations of equipment and facilities. Substantially all of the net operating results are transferred annually from unrestricted net assets to internally restricted net assets.

(k) Employee future benefits:

The University maintains defined benefit registered and non-registered pension plans, a retirement incentive program and group registered retirement savings plans. Non-pension post-retirement and post-employment benefits plans are also provided. Financial information is disclosed in note 9.

- The University accrues its obligations for the defined benefit plans as the employees render the services necessary to earn the benefits. The current service cost and the finance cost for the year are charged to excess of revenues over expenses. The actuarial method of determining the accrued benefit obligations for the defined benefit plans uses the funding valuation method, which reflects the long-term nature of the plan and reflects management's estimates of investment yields, salary inflation, benefit cost trends and other factors.
- The University has elected to accrue its obligations and related costs for unfunded plans on a basis consistent with funded plans.
- Remeasurement and other items are recognized as a direct increase (decrease) to net assets and are not reclassified to the statement of operations in subsequent periods. Remeasurement and other items comprise the aggregate of: the difference between the actual return on plan assets and the return calculated using the discount rate used to determine the defined benefit obligation; the actuarial gains and losses; the effect of any valuation allowance in the case of a net defined benefit asset; past service costs; and any gains and losses arising from settlements and curtailments.

The University also makes regular contributions to its Group Registered Retirement Savings Plan ("RRSP"), administered by a third party, on behalf of each eligible employee. Group RRSP contributions are expensed in the year made.

(l) Net assets:

Net assets are classified as follows:

Unrestricted: accounting surplus, including equity adjustments for related entities, without specific restrictions.

Internally restricted:

- Employee future benefits: unfunded portion of pension and other non-pension retirement and post-employment benefits, net of funds set aside to meet estimated future obligations.
- Other internal reserves: as approved by the Board, amounts include unexpended departmental carry forward amounts for future expenditures or amounts set aside to settle future oriented obligations.

Equity in capital assets: funds invested in capital assets, exclusive of capital assets financed through long-term obligations or deferred capital contributions.

Internal endowments: unrestricted contributions including unspent investment income which have been restricted by action of the Board.

External endowments: external contributions, the principal of which is non-expendable pursuant to the restrictions by the donor, and income retained under the endowment capital protection policy.

1. Significant accounting policies (continued):

(m) Endowment capital protection policy:

In order to protect the capital value of endowment investments, an endowment capital protection policy limits the amount of investment income allocated for spending to 4%, plus 1% administration spending, and requires the reinvestment of excess income earned (interest, dividends, realized and unrealized capital gains, net of investment expenses).

Should endowment spending commitments exceed allocated income, amounts will be drawn from accumulated net investment income balances to fund deficiencies.

For endowments without sufficient accumulated investment income, temporary encroachment on capital is permitted. The encroached amounts will be recovered from future investment returns.

(n) Decommissioning obligation:

The fair value of a future asset retirement obligation is recognized when a legal obligation for the retirement of tangible long-lived assets is incurred and a reasonable estimate thereof can be determined. Concurrently, the associated decommissioning costs are capitalized as a part of the carrying amount of the asset and amortized over its remaining useful life. The liability and the related asset may be adjusted periodically due to changes in estimates until settlement of the obligation.

(o) Foreign currency translation:

The University accounts for transactions in foreign currencies at the exchange rates in effect at the time of the transactions. At year end, monetary assets and liabilities in foreign currencies are translated at year end exchange rates. Foreign exchange gains and losses on investments have been included in investment income.

(p) Use of estimates:

The preparation of the financial statements requires management to make estimates and assumptions that affect the reported amounts of assets and liabilities and disclosure of contingent assets and liabilities at the date of the financial statements and the reported amounts of revenues and expenses during the year. Significant items subject to the use of management estimates and assumptions include the valuation of financial instruments, the carrying amount of capital assets, the valuation allowance for receivables, the valuation of pension and other employee future benefits, provisions for contingencies, and the decommissioning obligation. Actual results could differ from those estimates.

2. Investments:

Details of investments are as follows:

(thousands of dollars)	2019		2018	
	Fair value	Cost	Fair value	Cost
Equities:				
Canadian	$ 179,581	$ 155,460	$ 213,691	$ 178,688
United States	280,600	138,720	250,291	121,839
Non-North American	221,138	176,507	243,617	192,461
	681,319	470,687	707,599	492,988
Fixed income	589,816	587,009	496,981	506,833
Other	58,406	45,408	52,317	44,648
	1,329,541	1,103,104	1,256,897	1,044,469
Short-term investments	203,902	203,892	189,606	189,599
	$ 1,533,443	$ 1,306,996	$ 1,446,503	$ 1,234,068

Investments are exposed to foreign currency risk, interest rate risk, and market volatility. The University manages these risks through policies and procedures in place governing asset mix, equity and fixed income allocations, and diversification among and within categories.

3. Government grants and other accounts receivable:

(thousands of dollars)	2019	2018
Government grants	$ 6,975	$ 7,130
Other	32,548	36,051
	39,523	43,181
Less allowance for doubtful accounts	5,416	5,433
Balance, end of year	$ 34,107	$ 37,748

4. Other investments:

Details of other investments are as follows:

(thousands of dollars)	2019	2018
McMaster Innovation Park (a)	$ 19,271	$ 17,234
Adiga Life Sciences Inc. (b)	120	1,184
Halton McMaster Family Health Centre (c)	4,720	4,720
	$ 24,111	$ 23,138

4. Other investments (continued):

(a) McMaster Innovation Park:

The First Longwood Innovation Trust and The Gore District Land Trust ("Park") were created by the University in 2006 to develop an entity for research, education, training, innovation and commercialization.

Details of the investment are as follows:

(thousands of dollars)	2019	2018
Balance, beginning of year	$ 17,234	$ 15,427
Equity earnings	2,037	1,807
Balance, end of year	$ 19,271	$ 17,234

The University is party to a Debt Service Deficiency Agreement as disclosed in note 14(c). As part of the agreement, the University receives a fee of 0.5% on the monthly outstanding balance. For the year ended April 30, 2019, $103,192 (2018 - $107,506) in income was recorded by the University.

Included in rent expense for the University for the year ended April 30, 2019 is $2,966,570 (2018 - $3,490,872). Included in accounts receivable at April 30, 2019 is $648,020 (2018 - $1,085,390) receivable from the Park. Included in note 14(f) are $11,445,021 (2018 - $6,701,822) in operating lease commitments with the Park.

During the year the University provided payroll services at a fee which amounted to $13,200 (2018 - $13,200).

Included in Other assets in note 5 is a loan receivable from McMaster Innovation Park in the amount of $500,000 at April 30, 2019 (2018- $nil).

Pertinent information from the Park's combined financial statements are as follows:

(thousands of dollars)	December 31, 2018	December 31, 2017
Total assets	$ 111,091	$ 108,533
Total liabilities	$ 89,244	$ 87,645
Total deferred capital grants	2,606	3,684
Total trusts' equity	19,241	17,204
	$ 111,091	$ 108,533
Results of operations:		
Total revenues	$ 12,900	$ 12,279
Total expenses	10,863	10,472
Net earnings	$ 2,037	$ 1,807
Cash flows:		
Provided by (used in) operating activities	$ 429	$ (1,177)
(Used in) provided by financing and investing activities	(241)	209
Increase (decrease) in cash	$ 188	$ (968)

4. Other investments (continued):

(b) Adiga Life Sciences Inc.:

The University's share of dividends from Adiga Life Sciences Inc.'s during the year ended April 30, 2019 amounted to $883,000 (2018 - $nil).

Financial information from Adiga Life Sciences Inc.'s financial statements are as follows:

(thousands of dollars)	August 31, 2018	August 31, 2017
Total assets	$ 246	$ 2,374
Total liabilities	$ 6	$ 7
Total equity	240	2,367
	$ 246	$ 2,374
Results of operations:		
Total revenue	$ 10	$ 1,382
Total expenses	370	1,036
Net (loss) earnings	$ (360)	$ 346

(c) Halton McMaster Family Health Centre:

The investment in the Halton McMaster Family Health Centre represents the University's contribution of the base costs to construct the building.

(d) OSCAR EMR:

Financial information from OSCAR EMR's financial statements are as follows:

(thousands of dollars)	December 31, 2018	December 31, 2017
Total assets	$ 294	$ 194
Total liabilities	$ 1,766	$ 1,754
Net deficiency	(1,472)	(1,560)
	$ 294	$ 194
Results of operations:		
Total revenue	$ 682	$ 624
Total expenses	594	418
Net earnings	$ 88	$ 206

5. Other assets:

Details of other assets are as follows:

(thousands of dollars)	2019	2018
Loans receivable (a)	$ 752	$ 428
Intangible assets (b)	-	802
	$ 752	$ 1,230

(a) Loans receivable:

The University has a loan receivable from a lessee in the amount of $251,754 for lease fit out costs as at April 30, 2019 (2018 - $291,667). The loan bears interest at a rate of 0% per annum and is payable over 10 years beginning in February 2016.

During the year, the University provided a loan to McMaster Innovation Park in the amount of $500,000 (2018 - $nil). The loan bears interest at a fixed rate of 5.75% and is repayable in monthly payments of $4,113 over 15 years, beginning in May 2019.

The loan receivable from the Graduate Students' Association was paid in full during the year (2018 - $136,324).

(b) Intangible assets:

In the prior year, emissions allowances of $802,000 were included in intangible assets, resulting from the Climate Change Mitigation and Low-carbon Economy Act, 2016 (the “Cap and Trade program”), which set out a framework for the reduction in greenhouse gas (“GHG”) emissions for the province of Ontario. The University recorded the emissions allowances as intangible assets and deferred contributions at fair market value.

The Cap and Trade Cancellation Act, 2018 repealed the previous act and resulted in the wind down of the Cap and Trade program during the year ended April 30, 2019. At April 30, 2018, $650,000 was included in Accounts payable and accrued liabilities and $152,000 was included in Deferred contributions. Under the new act, the University will not receive any compensation for existing emission allowances, and has written off all related intangible assets, accounts payable and accrued liabilities and deferred contributions.

6. Capital assets:

(thousands of dollars)	Cost	Accumulated amortization	2019 Net
Land	$ 84,389	$ -	$ 84,389
Buildings	1,336,490	456,823	879,667
Decommissioning retirement costs	3,188	858	2,330
Site improvements	29,166	14,434	14,732
Leasehold improvements	59,691	16,530	43,161
Library materials	189,618	165,609	24,009
Equipment, furnishings and vehicles	409,650	356,876	52,774
Computing systems and computing equipment	143,236	85,505	57,731
	$ 2,255,428	$ 1,096,635	$ 1,158,793

6. Capital assets (continued):

(thousands of dollars)	Cost	Accumulated amortization	2018 Net (restated - note 21)
Land	$ 80,790	$ -	$ 80,790
Buildings	1,231,263	430,792	800,471
Decommissioning retirement costs	3,200	748	2,452
Site improvements	28,957	13,262	15,695
Leasehold improvements	57,893	12,677	45,216
Library materials	186,310	163,309	23,001
Equipment, furnishings and vehicles	420,742	364,186	56,556
Computing systems and computing equipment	141,062	81,691	59,371
	$ 2,150,217	$ 1,066,665	$ 1,083,552

Included in buildings is $152,125,000 (2018 - $87,980,000) representing buildings currently under construction and not available for use or subject to amortization. Included in computing systems and computing equipment is $1,770,000 (2018 - $843,000) representing software currently under development and not available for use or subject to amortization.

7. Accounts payable and accrued liabilities:

Included in accounts payable and accrued liabilities are government remittances payable, which includes amounts payable for payroll related taxes of $4,415,000 (2018 - $4,845,000).

8. Long-term obligations:

Details of long-term obligations are as follows:

(thousands of dollars)	Maturity	Interest rate	Current portion	Non-current portion	2019 Total outstanding	2018 Total outstanding
Long term debt:						
Bank term loan (a)	May 2033	floating	665	14,023	14,688	15,312
Debentures (b)	Oct 2052	6.15%	-	120,000	120,000	120,000
Debentures (c)	Nov 2065	4.105%	-	120,000	120,000	120,000
			665	254,023	254,688	255,312
Decommissioning obligations (d)			-	13,718	13,718	13,122
			$ 665	$ 267,741	$ 268,406	$ 268,434

8. Long-term obligations (continued):

Principal payments due in each of the following five years are as follows (in thousands of dollars):

2020	$ 665
2021	709
2022	756
2023	805
2024	858

(a) The bank term loan is unsecured and is being amortized over 30 years. The outstanding loan amount is subject to a 30 year interest rate swap agreement on an original notional principal of $20,954,441 with the banker whereby the University receives a floating interest rate while paying a fixed (10 year) rate of 6.384%.

(b) The debentures, which are unsecured, bear interest at 6.15% payable semi-annually in April and October. The proceeds of the issue are being used to finance various capital projects.

A voluntary sinking fund in internally restricted net assets, under other internal reserves (note 11(i)), has been established to provide funds to repay the debenture principal upon maturity. An annual increase to the sinking fund is charged to operations and other annual increases represent interest income of the fund. The value of the fund at April 30, 2019 amounted to $22,021,000 (2018 - $17,893,000).

(c) The debentures, which are unsecured, bear interest at 4.105% payable semi-annually in May and November. The proceeds of the issue are being used to finance various capital projects.

A voluntary sinking fund in internally restricted net assets, under other internal reserves (note 11(i)), has been established to provide funds to repay the debenture principal upon maturity. An annual increase to the sinking fund is charged to operations and other annual increases represent interest income of the fund. The value of the fund at April 30, 2019 amounted to $12,712,000 (2018 - $11,981,000).

(d) It is expected that the nuclear reactor will be decommissioned at some undeterminable future date. Under an agreement with the Canadian Nuclear Safety Commission (CNSC), a trust fund has been established which requires annual funding contributions to provide for the decommissioning costs. As at April 30, 2019, the fair value of the trust funds amounted to $11,697,000 (2018 - $13,330,000). The net present value of the estimated cost for decommissioning at April 30, 2019 is $12,955,000 (2018 - $12,347,000) using risk free rates ranging between 4.0% and 5.1%.

During fiscal 2015, an additional decommissioning obligation related to non-reactor radioactive materials was recognized. The obligation was recognized based on an estimated useful life of 25 years and using a risk free rate of 4.0%. At April 30, 2019, the amount of the obligation was $763,000 (2018 - $775,000), a decrease of $12,000 to reflect changes in the number of non-reactor radioactive materials in service. The CNSC does not require that a trust fund be established to satisfy this obligation, however, an internal reserve to offset this obligation is included in Other internal reserves.

8. Long-term obligations (continued):

(e) The University has in place an interest rate swap agreement for 30 years which expires in 2033. Under the terms of the agreement, the University agrees to receive a floating interest rate on the loan (note 8(a)) while paying a fixed rate of 6.384%. The use of the agreement effectively enables the University to convert the floating rate interest obligation of the loan into a fixed rate obligation and thus manage its exposure to interest rate risk.

The notional and fair values of the interest rate swap agreement is as follows:

(thousands of dollars)	2019		2018	
	Notional value	Fair value	Notional value	Fair value
30-year interest rate swap	$ 14,688	$ (4,609)	$ 15,312	$ (4,441)

The change in fair value of the swap for the year ended April 30, 2019 is ($168,000) (2018 - $1,828,000).

9. Employee future benefits:

The University maintains three contributory defined benefit registered pension plans, one for full-time hourly employees and two for salaried employees. The plan for hourly employees was closed to new members on March 15, 2010, one of the salaried plans was closed to new members on January 14, 2003 and the other salaried plan remains open to new members. The defined benefit registered pension plans provide a pension for life based on the best average earnings of the member and years of pensionable service in the plan. The University also maintains both contributory defined contribution and non-contributory defined benefit supplementary non-registered pension plans, a retirement incentive program and a group RRSP.

The University additionally maintains a non-pension post-retirement benefit plan which provides health, dental and life insurance benefits to retirees, a post-employment benefit plan which provides health benefits to employees on long-term disability and a special retirement arrangement for some senior administrators.

The accrued benefit obligations as determined by independent actuaries and the fair values of the plans' assets are recorded as at April 30th.

(a) Information on the accrued benefit liability is as follows:

(thousands of dollars)	2019			
	Pension			
	Registered	Supplemental	Other	Total
Accrued benefit obligation	$ 2,242,188	$ 67,609	$ 274,681	$ 2,584,478
Fair value of plan assets	2,227,188	-	-	2,227,188
Funded status - deficiency	$ (15,000)	$ (67,609)	$ (274,681)	$ (357,290)

(thousands of dollars)	2018			
	Pension			
	Registered	Supplemental	Other	Total
Accrued benefit obligation	$ 2,002,233	$ 61,537	$ 247,721	$ 2,311,491
Fair value of plan assets	2,082,912	-	-	2,082,912
Funded status - surplus (deficiency)	$ 80,679	$ (61,537)	$ (247,721)	$ (228,579)

9. Employee future benefits (continued):

(b) Information on the benefit expense is as follows:

(thousands of dollars)	2019			
	Pension			
	Registered	Supplemental	Other	Total
Current service cost	$ 33,373	$ 37	$ 7,631	$ 41,041
Interest (income) cost, net	(4,493)	3,458	13,769	12,734
	$ 28,880	$ 3,495	$ 21,400	$ 53,775

(thousands of dollars)	2018			
	Pension			
	Registered	Supplemental	Other	Total
Current service cost	$ 33,047	$ 41	$ 7,361	$ 40,449
Interest (income) cost, net	(3,807)	4,012	13,050	13,255
	$ 29,240	$ 4,053	$ 20,411	$ 53,704

(c) Information on remeasurements and other items is as follows:

(thousands of dollars)	2019			
	Pension			
	Registered	Supplemental	Other	Total
Investment gain	$ 44,427	$ -	$ -	$ 44,427
Actuarial loss on accrued benefit obligation	(167,128)	(8,918)	(12,907)	(188,953)
	$ (122,701)	$ (8,918)	$ (12,907)	$ (144,526)

(thousands of dollars)	2018			
	Pension			
	Registered	Supplemental	Other	Total
Investment loss	$ (16,699)	$ -	$ -	$ (16,699)
Actuarial (loss) gain on accrued benefit obligation	1,741	4,373	(14,847)	(8,733)
	$ (14,958)	$ 4,373	$ (14,847)	$ (25,432)

(d) Information on the pension plan assets includes the following:

	Percentage of fair value of total plan	Target allocation percentage
Equity securities	65.0%	64.0%
Debt securities	34.0%	35.0%
Other	1.0%	1.0%

9. Employee future benefits (continued):

(e) The significant actuarial assumptions adopted in measuring the accrued benefit obligations are as follows:

	Pension	Other
Discount rate	5.60%	5.60%
Rate of compensation increase	4.00%	-

(f) The significant actuarial assumptions adopted in measuring the net benefit expense are as follows:

	Pension	Other
Discount rate	5.60%	5.60%
Rate of compensation increase	4.00%	-

(g) Details of annual contributions and benefits paid are as follows:

(thousands of dollars)	2019		2018	
	Pension	Other	Pension	Other
Employer contributions	$ 62,243	$ 7,347	$ 66,499	$ 7,863
Employee contributions	27,580	-	25,021	-
Benefits paid	106,380	7,347	89,677	7,863

(h) For measurement purposes, a 5.25% annual rate of increase in per capita medical cost was assumed for 2016, grading down to 4.0% per annum in and after 2030. For per capita dental costs, an annual rate of increase of 4.0% per annum was assumed.

(i) Details of actuarial valuation completion for funding purposes and filing dates of the respective plans are as follows:

- hourly rated employee pensions: completed as at July, 2016, the next required filing date is July, 2019.
- salaried employees' pensions (Plan 2000): completed as at July, 2018, the next required filing date is July, 2021.
- other (post-retirement benefit): completed as at March 31, 2019; the next valuation date is March 31, 2022.
- other (post-employment and retirement allowance): completed as at April 30, 2019.

The results of valuations not completed as of April 2019, have been extrapolated to April 30, 2019, which is the measurement date used to determine the accrued benefit obligation for all employee future benefit plans.

The July 1, 2018 salaried plan (Plan 2000) valuation was completed using the Pension Benefit Act definition of closed plan. The definition of open plan was amended under the Act in 2019 such that Plan 2000 will be filed as an open plan at July 1, 2021. The change to an open plan definition will favourably affect the going concern measurements and the funding requirements for the Provision for Adverse Deviation.

(j) In 2008, the University created a group RRSP for certain types of new employees. University and employees' contributions in 2019 amounted to $3,356,000 (2018 - $2,870,000).

(k) The University has internal reserves set aside in the amount of $93,816,000 (2018 - $83,202,000) for the accrued benefit obligation of the non-pension post-retirement benefit plan included in note 11(b).

10. Deferred contributions:

(a) Deferred for future expenses:

Deferred contributions represent external contributions restricted for research and trust expenses to be incurred in subsequent fiscal years. Details of the change in deferred contributions are as follows:

(thousands of dollars)	2019	2018 (restated - note 21)
Balance, beginning of year	$ 359,191	$ 358,035
Deferred and capital contributions received	345,175	339,265
	704,366	697,300
Less:		
Amounts recognized as revenue	(308,074)	(277,523)
Deferred capital contributions transfer	(33,124)	(60,586)
Balance, end of year	$ 363,168	$ 359,191

Deferred contributions consist of the following:

(thousands of dollars)	2019	2018
Research grants and contracts	$ 226,036	$ 222,354
Donations, other grants and investment income	106,505	98,265
Capital grants and donations	7,911	13,708
Other restricted funds	22,716	24,864
	$ 363,168	$ 359,191

(b) Deferred capital contributions:

Deferred capital contributions represent the unamortized amount of donations and grants received for the purchase of capital assets. Unspent deferred capital contributions are included in deferred contributions for future expenses until such time as capital expenditures are incurred. Details of the change in the unamortized deferred capital contributions are as follows:

(thousands of dollars)	2019	2018 (restated - note 21)
Balance, beginning of year	$ 511,302	$ 490,828
Add: contribution transfers	33,124	60,586
Less: amount amortized to revenue	(38,835)	(40,112)
Balance, end of year	$ 505,591	$ 511,302

11. Internally restricted net assets:

Details of internally restricted net assets are as follows:

(thousands of dollars)	2019	2018
Pensions (a)	$ (106,244)	$ (4,170)
Other retirement and post employment benefit plans (net) (b)	(180,865)	(164,518)
Employee future benefits	(287,109)	(168,688)
Unexpended departmental carryforwards (c)	167,657	142,699
Research (d)	44,271	35,129
Employee benefit (e)	11,630	11,463
Ancillaries (f)	9,642	10,971
Specific purpose (g)	101,902	82,767
Other (h)	14,491	15,199
Sinking funds (i)	34,733	29,873
Internally financed capital projects (j)	(69,860)	(78,559)
Capital reserves (k)	112,444	113,246
Facilities services projects (l)	19,625	40,051
Other internal reserves	446,535	402,839
	$ 159,426	$ 234,151

(a) Pensions: the net unfunded pension liabilities, determined by a third party actuary, using the funding methodology.

(b) Other retirement and post employment benefit plans (net): unfunded portion of health, dental and life insurance benefits for retirees and employees on long term disability of $274,681,000 (2018 - $247,720,000), net of internal reserves of $93,816,000 (2018 - $83,202,000) for the accrued benefit obligation of the non-pension post-retirement benefit plan (note 9(k)).

(c) Unexpended departmental carryforwards: departmental operating reserves available for spending by faculties to protect against possible adverse circumstances such as changes in student enrolment (tuition fee impacts) and/or operating grant reductions.

Departmental and ancillary carryforwards in (c) and (f) do not reflect the share of future obligations to the related employees for settlement of pensions and other post-employment benefits costs as outlined in items (a) and (b). Allocation of these obligations to the related carryforward would reduce the available balances as follows:

(thousands of dollars)	2019	2018
Unexpended departmental carryforwards (c)	$ 167,657	$ 142,699
Ancillaries (f)	9,642	10,971
Employee benefit (e)	11,630	11,463
Pensions (a)	(106,244)	(4,170)
Other retirement and post employment benefit plans (b)	(180,865)	(164,518)
	$ (98,180)	$ (3,555)

(d) Research: represent research residual funds and other research contributions specifically to fund research operations, facilities and projects.

(e) Employee benefit: funds collected from departments toward benefit related pension and non-pension payments not yet due in the fiscal period.

(f) Ancillaries: funds accumulated to maintain existing infrastructure and/or invest in new infrastructure or projects associated with ancillary operations.

11. Internally restricted net assets (continued):

(g) Specific purpose: funds to mitigate the risks associated primarily with volatility in income from equity investments, representing accumulated realized and unrealized investment earnings (losses) after commitments to the operating fund. The primary use of this reserve is to supplement endowment funding to support student bursaries, scholarships, and other expenditures when investment income is insufficient. It may also be used to fund other strategic reserves such as the post-retirement benefits and capital reserves.

(h) Other: Non-cash reserve which primarily represents timing differences between cash accounting and accrual accounting.

(i) Sinking funds: funds set aside to settle debt bullet repayments of $120 million due in each of 2052 and 2065.

(j) Internally financed capital projects: long term loans for capital projects which have been internally financed by capital reserves as outlined in note 11(k).

Details of the internally financed capital projects which have various recovery terms and periods are as follows:

(thousands of dollars) Project	Funding source	April 30, 2019 balance
Stadium and Parking Project	Parking fees, pledges, fundraising	$ (14,046)
Ron Joyce Centre - Burlington	Fundraising, Region of Halton, City of Burlington	(145)
Les Prince Residence	Ancillary operations	(13,416)
David Braley Athletic Centre	Student levies, pledges, fundraising	(4,781)
LR Wilson Parking Garage	Parking fees	(944)
McMaster Automotive Resource Centre (MARC)	Various	(6,112)
McMaster University Medical Centre (MUMC)	Various	(3,437)
Comprehensive Energy Reduction Program	Various	(25,051)
Biomedical Engineering and Advanced Manufacturing (BEAM)	Various	(1,089)
Equipment Loan	Various	(69)
Halton McMaster Family Medicine	Various	(770)
		$ (69,860)

(thousands of dollars) Project	Funding source	April 30, 2018 balance
Stadium and Parking Project	Parking fees, pledges, fundraising	$ (16,047)
Ron Joyce Centre - Burlington	Fundraising, Region of Halton, City of Burlington	(1,527)
Les Prince Residence	Ancillary operations	(14,150)
David Braley Athletic Centre	Student levies, pledges, fundraising	(6,021)
LR Wilson Parking Garage	Parking fees	(1,843)
McMaster Automotive Resource Centre (MARC)	Various	(7,593)
McMaster University Medical Centre (MUMC)	Various	(3,938)
Comprehensive Energy Reduction Program	Various	(25,549)
Biomedical Engineering and Advanced Manufacturing (BEAM)	Various	(1,089)
Equipment Loan	Various	(32)
Halton McMaster Family Medicine	Various	(770)
		$ (78,559)

(k) Capital reserves: funds for planned capital projects committed and confirmed by governance approvals, as outlined in note 14(d).

(l) Facilities services projects: holding accounts for temporarily unspent funds for construction projects in progress.

12. Equity in capital assets:

The equity in capital assets is calculated as follows:

(thousands of dollars)	2019	2018) (restated - note 21)
Capital assets	$ 1,158,793	$ 1,083,552
Less amounts financed by:		
Net long-term obligations	(253,739)	(254,371)
Unamortized deferred capital contributions	(505,591)	(511,302)
	$ 399,463	$ 317,879

Details of the transfer for capital transactions are as follows:

(thousands of dollars)	2019	2018 (restated - note 21)
Repayment of long-term debt	$ 624	$ 586
Capital asset purchases from operating, net of disposals	114,894	85,067
	$ 115,518	$ 85,653

13. Endowments:

(a) Internal:

Details of the change in internally restricted endowments are as follows:

(thousands of dollars)	2019	2018
Balance, beginning of year	$ 145,777	$ 143,422
Donations	142	-
Investment income	8,029	6,925
Net transfers and expenses	(3,538)	(4,570)
Balance, end of year	$ 150,410	$ 145,777

Included in internal endowments is an amount of $68,977,000 (2018 - $67,854,000) reflecting the legacy of Dr. H. L. Hooker and $64,141,000 (2018 - $62,219,000) related to the Salaried Pension Plan surplus withdrawal from 2003. A portion of annual investment income generated from this capital is used to fund programs that enrich the academic achievements of the University as approved annually by the Board.

13. Endowments (continued):

(b) External:

Details of the change in externally restricted endowments are as follows:

(thousands of dollars)	2019	2018
Balance, beginning of year	$ 483,335	$ 466,878
External contributions	10,218	13,739
Income retained - capital protection policy	7,266	2,718
Balance, end of year	$ 500,819	$ 483,335

Investment income on external endowments amounted to $24,240,000 (2018 - $19,035,000). In accordance with the endowment capital protection policy, this income less the amount made available for spending of $17,680,000 (2018 $16,550,000), plus net transfers of $706,000 (2018 - $233,000) were added to endowment net assets. The amount made available for spending is recorded as investment income in the statement of operations.

14. Commitments and contingencies:

(a) Canadian Universities Reciprocal Insurance Exchange:

The University is a member of the Canadian Universities Reciprocal Insurance Exchange "CURIE", a self-insurance cooperative comprised of approximately sixty Canadian universities and colleges. CURIE insures property damage, general liability and errors and omissions risks. If premiums collected are insufficient to cover expenses and claims, the University may be requested to pay additional amounts.

(b) Legal claims:

The University is involved in certain legal matters and litigation in the normal course of operations, the outcomes of which are not presently determinable. The loss, if any, from these contingencies will be accounted for in the periods in which the matters are determined. Management is of the opinion that these matters are mitigated by adequate insurance coverage.

(c) Debt Service Deficiency Agreement:

The University has guaranteed the scheduled principal and interest payments, up to $23 million of long-term debt extended to The First Longwood Innovation Trust, in the event of default. The total amount of debt outstanding and subject to the Debt Service Deficiency Agreement at April 30, 2019 was $20.3 million (2018 - $21.0 million). Since the agreement may expire without being drawn upon, it does not necessarily represent future cash requirements. As of April 30, 2019, no obligation exists under the agreement and as a result, no amount has been recognized as a liability on the statement of financial position.

(d) Capital commitments:

The estimated cost to complete approved major capital and system projects amounted to $276.3 million at April 30, 2019 (2018 - $204.5 million). The major commitments are as follows: DeGroote School of Business expansion ($72.3 million), Athletics and Recreation expansion ($60.9 million), Commercialization of Research ($40.8 million), and The Peter George Centre for Living and Learning ($32.2 million).

14. Commitments and contingencies (continued):

(e) Energy Retrofit Agreement:

In 2007, the University signed a multi-year agreement with Hamilton Health Sciences Corporation ("HHSC") when HHSC undertook a significant energy retrofit project at the McMaster University Medical Centre. Under the terms of the agreement, the University is required to pay approximately 40% of the related costs of the retrofit project. At April 30, 2019, the University's remaining share of the costs are estimated to be $9.5 million (2018 - $10.4 million). Payments to HHSC will take place up to 2029.

(f) Leases:

The University has entered into operating lease agreements for office equipment and buildings. The total annual minimum lease payments in each of the next five years are approximately as follows:

(thousands of dollars)	
2020	$ 4,227
2021	4,023
2022	2,695
2023	2,661
2024	2,770

(g) David Braley Health Sciences Centre (formerly McMaster Health Campus):

The University entered into a Conditional Financial Contribution Agreement with the City of Hamilton which requires the University to meet certain milestones in order to receive grant installments totaling $20 million by 2020, of which $19 million has been received.

(h) McMaster Main Street Student Residence:

The University is working with a private developer to provide an approximately 1,400 bed undergraduate residence that includes learning, research and additional ancillary university spaces along Main Street West on lands McMaster owns. The project land once developed will be an extension of main campus. At April 30, 2019, $16.3 million (2018 - $14.2 million) is recorded in land. The project is expected to be completed by 2023/24. The residence will be managed, operated and used by the University to support its mission.

(i) Grad Residence and Parking Garage:

The University is working with a private developer to provide a new graduate residence with approximately 660 beds and a 270 space parking garage in downtown Hamilton. The residence project is designed to be a public-private partnership project, for which the University is in ongoing negotiations. The project is expected to be completed by 2022/23. To support this project the University has entered into a 99 year land lease effective October 1, 2019, with four 25 year renewal options.

(j) Research Commercialization:

In June 2017 the Board approved an investment of up to $25 million in facilities at MIP, including up to $5 million in in-kind rental space and rent subsidies over the next five years in exchange for leases and other financial arrangements, which may include equity interest in one or more of the entities renting the space. In June 2018 the Board approved an additional investment of up to $25 million. These facilities investments are in support of research commercialization opportunities for early stage commercialization and established businesses. Construction on this space has begun and third party tenants will begin to move into the space in 2020. $4.3 million of the total $50 million approved investment has been spent as of April 30, 2019.

15. Other income:

Details of other income are as follows:

(thousands of dollars)	Major Sources	2019	2018
Faculty of Health Sciences	Non-degree educational fees, specifically funded programs, international postgraduates stipends, space/equipment rentals, other student fees	$ 58,963	$ 56,269
Other Faculties	Non-degree educational fees, international postgraduate stipends, space/equipment rentals, other student fees	10,542	10,848
Academic Services	Contracts and patent royalties, registrar administration fees	14,098	13,842
Student Services	Athletics and Recreation memberships and user fees	21,533	21,020
Miscellaneous	Nuclear reactor sales, application fees, late payment fees, sales of utilities and other departmental sales	22,510	18,574
Other Investment Income	Adiga Life Sciences Inc., and McMaster Innovation Park	973	1,980
		$ 128,619	$ 122,533

16. Related party transactions:

In addition to certain transactions and balances disclosed in note 4, the University received funds of approximately $1,199,000 (2018 - $217,000) during the year from fundraising entities.

17. Financial risks and concentration of credit risk:

(a) Liquidity risk:

Liquidity risk is the risk that the University will be unable to fulfill its obligations on a timely basis or at a reasonable cost. In managing liquidity risk, the University focuses on liquid resources available for operations. The University's objective is to have sufficient liquid resources to continue operating even if adverse financial events were to occur and to provide it with the flexibility to take advantage of opportunities that will advance its mission. The need for sufficient liquid resources is considered in the preparation of its annual and capital budgets and by monitoring and forecasting of cash flows. The University amended its line of credit agreement to increase the limit to $75 million from $15 million. The line of credit facility can be used for general corporate purposes including shorter term funding in the event of a short-term deficiency in cash flow. The line of credit was not used in 2019. In addition, the University could issue unsecured debentures or enter into other long term debt to assist in the financing of capital projects. There has been no material change to the risk exposure from 2018.

(b) Credit risk:

Credit risk refers to the risk that a counterparty may default on its contractual obligations resulting in a financial loss. The University is exposed to credit risk with respect to accounts receivable. The University assesses, on a continuous basis, accounts receivable and provides for any amounts that are not collectible in the allowance for doubtful accounts (note 3).

(c) Interest rate risk:

The University is exposed to interest rate risk on its fixed interest rate financial instruments. Further details about the fixed rate investments are included in note 2 and the long-term obligations are included in note 8.

(d) Currency risk:

Investments denominated in foreign currency are exposed to currency risk as the price in local terms in foreign markets is converted to Canadian dollars to determine fair value. The University's overall currency positions are monitored on a daily basis by the portfolio manager. There has been no material change to the risk exposure from 2019.

18. Ontario student opportunity trust fund:

External endowments include grants for funding student aid provided by the Government of Ontario's Student Opportunity Trust Fund matching program. Under the program, the Province has matched qualifying external endowment donations received with equal contributions.

(a) Ontario Student Opportunity Trust Fund - Phase I

The following schedule represents the changes for the years ended April 30th, in the first phase of the Ontario Student Opportunity Trust Fund (OSOTF I) balance:

(thousands of dollars)	2019	2018
Endowment balance, beginning of year	$ 32,147	$ 32,736
Investment income (used from) retained for protection of capital	333	(270)
Investment income transferred to expendable income	(317)	(319)
Endowment balance, end of year	32,163	32,147
Funds available for awards, beginning of year	-	-
Investment income	1,546	1,467
Bursaries awarded (2019 - 1,775 awards; 2018 - 1,288 awards)	(1,863)	(1,786)
Investment income transferred from endowment balance	317	319
Funds available for awards, end of year	-	-
Total funds at book value	$ 32,163	$ 32,147

The market value of the endowment as at April 30, 2019 was $39,727,000 (2018 - $38,971,000).

(b) Ontario Student Opportunity Trust Fund - Phase II

The Ontario government requires separate reporting of balances as at April 30th, and details of the changes in the balances for the period then ended with respect to the second phase of the Ontario Student Opportunity Trust Fund (OSOTF II) of McMaster University including Divinity College.

The following is the schedule of changes for the years ended April 30th:

(thousands of dollars)	2019	2018
Endowment balance, beginning of year	$ 6,143	$ 6,126
Investment income retained for protection of capital	35	17
Endowment balance, end of year	6,178	6,143
Funds available for awards, beginning of year	69	58
Investment income for expenditures	279	265
Bursaries awarded (2019 - 353 awards; 2018 - 231 awards)	(276)	(254)
Funds available for awards, end of year	72	69
Total funds at book value	$ 6,250	$ 6,212

The market value of the endowment as at April 30, 2019 was $7,398,000 (2018 - $7,308,000).

19. Ontario trust for student support:

External endowments include grants for funding student aid provided by the Government of Ontario's Ontario Trust for Student Support (OTSS) matching program. Under the program, the Province will provide an equivalent matching contribution for external endowment contributions made to a specified ceiling.

The following is the schedule of changes in the endowment and expendable balances for the years ended April 30th:

(thousands of dollars)	2019	2018
Endowment balance, beginning of year	$ 39,539	$ 39,312
Investment income retained for protection of capital	376	227
Endowment balance, end of year	39,915	39,539
Funds available for awards, beginning of year	1,056	1,185
Investment income for expenditures	1,644	1,555
Bursaries awarded (2019 - 732 awards; 2018 - 521 awards)	(1,765)	(1,684)
Funds available for awards, end of year	935	1,056
Total funds at book value	$ 40,850	$ 40,595

The market value of the endowment as at April 30, 2019 was $53,051,000 (2018 - $51,903,000).

20. Pledges:

Outstanding but unrecorded pledges for donations and other fund raising amounted to approximately $79,000,000 (2018 - $85,000,000).

21. Prior period adjustment:

In the prior year, expenditures in capital assets were overstated by $10,909,000. Correction of this error resulted in a decrease in net capital assets of $10,772,000, an increase in supplies and services of $10,909,000 and a decrease in amortization of capital assets of $137,000. In addition, for the year ended April 30, 2018, a project initially classified as internally funded was externally funded. This resulted in a decrease in donations and other grants of $7,280,000 due to the reallocation of funding sources between internally funded and externally funded, an increase in deferred capital contributions of $7,370,000, and a decrease in amortization of deferred capital contributions of $90,000. Correction of these errors resulted in an overall decrease in excess of revenues over expenses of $18,142,000 and a decrease in equity in capital assets of $18,142,000 as at April 30, 2018.

22. Comparative figures:

Certain comparative figures for 2018 have been reclassified to conform with the financial statement presentation adopted in the current year.

Financial Affairs
1280 Main Street West
Hamilton, ON L8N 1E9

The Office of Financial Affairs supports and promotes sustainability. To download a pdf version of this report please visit mcmaster.ca/bms

Designed and produced by Media Production Services

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140, Ext.24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

REPORT TO THE BOARD OF GOVERNORS
from the
EXECUTIVE AND GOVERNANCE COMMITTEE

i. Revisions to Board By-Laws

a. Request for Observer Status

On October 22, 2019, the Executive and Governance Committee reviewed and approved, for recommendation to the Board of Governors, a request to add the position of Assistant Vice-President (Communications and Public Affairs) to the list of observers outlined in By-Law 12. (1). Details of the rationale for the request are contained in the attached report.

It is now recommended,

that the Board of Governors approve in principle, the attached revision to By-Law 12. (1) within the Board of Governors By-Laws, as circulated.

b. Appendix E - Execution of Instruments

On October 22, 2019, the Executive and Governance Committee reviewed and approved, for recommendation to the Board of Governors, updates to Appendix E - Resolution Respecting the Execution of Instruments. The proposed revision aims to remedy an oversight which left the Vice-President (Administration) off the list of approvers within charts A.3 and A.4

It is now recommended,

that the Board of Governors approve in principle, the attached revisions to Appendix E - Resolution Respecting the Execution of Instruments By McMaster University, as circulated.

Board of Governors: NOTICE OF MOTION
October 24, 2019

Attachment I

McMaster University

President and
Vice-Chancellor

1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140
Ext. 24340
Fax: 905.522.3391
E-mail: presdnt@mcmaster.ca
http://www.mcmaster.ca

October 21, 2019

TO: Members of the Executive and Governance Committee, Board of Governors

FROM: David Farrar, Acting President and Vice-Chancellor

RE: **REQUEST FOR OBSERVER STATUS, BOARD OF GOVERNORS**

In addition to the thirty-seven members of the Board of Governors, the Board has accorded Observer status to a number of key individuals within the University, including the Vice-Presidents, the Chief Internal Auditor, and representatives of certain student and employee associations. As specified in section 12, By-law No. 1 of the Board By-laws, Observers receive notices and other materials distributed to members of the Board and are invited to attend meetings of the Board. Although Observers attend the closed session portion of Board meetings, they are not entitled to attend "Members Only" discussions, unless specifically invited.

Having reviewed the current list of Observers, I would like to recommend that the Assistant Vice-President (Communications and Public Affairs), be added as an Observer. This position plays a critically important role in managing the communication of decisions made by the University and the Board, providing advice and overseeing the management of issues and relationships, and supporting the University's positive external profile and broader communications. The position is held by Ms. Andrea Farquhar; currently Ms. Farquhar attends the majority of Board meetings and is frequently invited to stay for closed session. According Observer status would formalize this arrangement and also allow for the provision of Board materials to Ms. Farquhar in advance of meetings.

I would ask that the Committee consider this recommendation and I look forward to discussing it at our meeting on October 22.

Thank you.

Memo_Executive and Governance Committee_Observer Status_21Oct19.doc

service to the Board over an extended period of time. A list of Honorary Governors shall be included under this heading together with any list of Board members. Honorary Governors shall be accorded all the rights and privileges extended to Observers of the Board.

Observers

12. (1) An individual shall be an Observer if she or he (a) is not a member of the Board; (b) holds one of the following offices; and (c) assumes the role of an Observer by notifying the Secretary of the Board in advance:

The Vice-Presidents
Assistant Vice-President (Communications and Public Affairs)
Chief Internal Auditor
The Senior Advisor to the President
The Chair of any Standing Committee of the Board who is not a member of the Board, provided that the Chair of that Standing Committee may recommend that the Chair of the Board appoint another member of that Standing Committee as her or his designate

The President or designate of:

Graduate Students Association
McMaster Association of Part-time Students
McMaster Students Union
McMaster University Faculty Association
McMaster University Retirees Association
UNIFOR, Local 5555

(2) Observers shall be invited to attend meetings of the Board and shall receive such notices and other materials as are distributed to members of the Board in advance of such meetings. An Observer shall withdraw from a meeting of the Board in any of the following circumstances:

(a) if he or she would, if a member of the Board, be required to withdraw from such meeting because of the requirements of subsection 16 of Section 8 of the 1976 Act; or

(b) if the meeting is a Closed Session where matters of a personal nature concerning an individual may be discussed and that individual so requests; or

(c) if the Chair so directs.

(3) Observers shall not vote but may be permitted to address the Board, when invited by the Chair to do so, in order to respond to questions or provide information to members regarding items under discussion.

(4) By receiving confidential Board materials or by attending any Closed Session, each Observer agrees to preserve in confidence any matters treated as confidential to the University and any matters of a personal nature

Appendix E

RESOLUTION RESPECTING THE EXECUTION OF INSTRUMENTS BY McMASTER UNIVERSITY

I JURISDICTION AND PURPOSE

1. The 1976 Act, Section 9, vests in the Board the government, conduct, management, and control of the University and of its property, revenues, business and affairs. In Board By-law No. 5, the Board has authorised officers of the University to sign deeds, transfers, assignments, contracts and obligations on behalf of the University.

2. The purpose of this resolution is to designate clearly which persons are authorised to sign deeds, transfers, assignments, contracts, obligations, agreements or documents on behalf of the University when such documents have been approved by the appropriate body or official of the University. These include all documents related to the University receiving money, to the purchase or lease of goods and services and to agreements having no financial commitment.

3. All dollar amounts cited in this document are exclusive of duties, taxes and shipping charges. Contracts that span over a period of greater than one (1) year should not be broken down into annual amounts when assessing the appropriate level of contract execution.

4. This resolution shall not apply to the signing on behalf of the University of the certificates and other academic documents arising from the actions of the Senate in accordance with the 1976 Act, Section 13.

II RESPONSIBILITIES AND CONFLICT OF INTEREST

1. Persons with signing authority have the responsibility to exercise their authority in the manner of a prudent University administrator. Where the commitment involves Real Estate, the Vice-President (Administration) shall review the documents. Depending upon the nature and complexity of the agreement to be signed, the responsibility of persons with signing authority shall include an assessment of some or all of the following:

a) the ability of the University to meet any financial obligations resulting from the agreement;

b) the ability of the other party(ies) to meet its (their) obligations;

c) compliance with labour legislation, employee collective agreements, sponsor guidelines, tax legislation, other legislative and regulatory requirements, and applicable University policies;

d) whether all approvals required by any applicable policy or practice have been obtained for the contract;

e) whether terms and conditions of the contract should be reviewed by Strategic Procurement;

f) in association with the Vice-President (Administration), whether legal advice is needed;

g) the financial and other benefits that are expected to flow to the University as a result of the contract;

h) whether the overhead rate, if any, included in the contract is consistent with University guidelines;

i) the provisions regarding intellectual property requirements, physical, bodily injury and personal injury indemnities, and environmental liabilities.

2. Persons designated or appointed under this resolution shall not exercise their signing authority in circumstances where conflicts of interest exist or could be seen to exist; in addition, such persons shall inform their immediate supervisor when such circumstances exist. [Persons designated or appointed under this resolution are referred to "Conflict of Interest Policy for Employees" (2012), the "Statement on Conflict of Interest in Research" (2009) and "Statement of Ethics for Senior Executive Officers" (1990).]

3. One of the original signed contracts (if retained by the University) must be deposited with the Vice-President (Administration) or be maintained in a location approved by the Vice-President (Administration).

4. Vice Presidents must ensure a register of contractual documents pertaining to their portfolio is maintained, excluding documents for the purchase of goods and services which are maintained by Strategic Procurement.

That register is to include:

a) a list of contractual documents signed by the appropriate individuals and the corresponding execution date;

b) the name of any other party or parties signing the documents and their respective execution dates;

c) a brief description of the subject matter contained in the documents;

d) the effective start and termination date and the actual or estimated amount of each contractual obligation.

III RESOLUTION

The Board hereby resolves:

1. That each of the following University officers be and is hereby authorised, where required, to affix the corporate name and seal of the University on all deeds, transfers, assignments, contracts, obligations or documents on behalf of the University, provided that the agreement has been signed in accordance with the provisions of this policy: the Chair of the Board, the Vice-Chair(s) of the Board, the Chair of the Planning and Resources Committee, the Secretary of the Board, the President, the Provost, the Vice-President (Administration), the Dean and Vice-President (Health Sciences), the Vice-President (Research) and the Vice-President (University Advancement).

2. Notwithstanding provisions found elsewhere in this resolution, any contract or agreement to which the corporate seal is to be affixed must include the signature of an officer authorised by the Board of Governors to affix to seal.

3. The personnel authorised to execute contracts and agreements relating to the operation and development of the University and to bind the University to the terms thereof shall depend on the dollar amount of such contracts and agreements, the subject matter of such contracts and agreements as set out below and whether or not the University is receiving or paying out money under the contract or agreement. For agreements that span over a period of greater than one (1) year, dollar amounts, including annual maintenance fees, should be aggregated across all years and should not be broken down into per annum amounts when assessing the proper authorisation required.

Authority Matrices

Contracts

Signing authority for contracts and agreements above $100,000, and to bind the University to the terms thereof, must be executed by a minimum of two approvers from the charts below, one of whom must be from the highest level.

No contract over $10,000 for the purchase of goods or services may be released until approved through the University's enterprise electronic system using the charts below.

Where a purchase represents a renewal the thresholds below apply to the total cost of the previous term(s) and new term.

Purchase requisitions related to the purchase or lease by the University of Goods and Services and/or Real Estate will be approved in the electronic system by the authorities given in the charts below.

A.1 All Funds: excluding the Research Fund (see A.2) and Capital Fund (see A.3 and A.4)

	Department and/or Project Holder **(Account Holder)**	**Only for Technology –Chief Technology Officer** **(Hardware or software related goods or services)**	**One of area: AVP^, Dean, VP**	**Following Planning and Resources Committee Approval:** **One of: AVP(Administration) and Chief Financial Officer, VP(Administration), Provost, President**	**Following Board of Governors Approval: One of:** **VP(Administration), Provost, President, Board Secretary, Board Chair**
< $100,000	X				
$100,000 up to $ $1,999,999	X	X	X		
$2,000,000 up to $9,999,999	X	X		X	
Over $10,000,000	X	X			X
			Additional Signature must be at least one level up from 1st	The individual approving signs to confirm Board/Committee approval.	

AVP^ signing officers include: Assistant Vice-President, Associate Vice-President, Vice-Provost, Registrar, University Librarian, Treasurer, Director of Faculty Administration, Director of Research Finance Administration, Associate Dean of Education Services (Faculty of Health Sciences), and Controller.

A.2 Research Fund

	Project Holder (Account Holder)	Secondary Research Office (Central/ FHS-HRS)	Only for Technology – Chief Technology Officer (Hardware or software related goods or services)	One of: AVP*, VP	Following Planning and Resources Committee Approval: One of: AVP(Administration) and Chief Financial Officer, Area VP, VP(Administration), Provost, President	Following Board of Governors Approval: One of: VP(Administration), Provost, President, Board Secretary, Board Chair
< $100,000	X	X				
$100,000 up to $1,999,999	X	X	X	X		
$2,000,000 up to $9,999,999	X	X	X		X	
Over $10,000,000	X	X	X			X
				Additional Signature must be at least one level up from 1st		
					The individual approving signs to confirm Board/Committee approval.	

AVP* signing officers include: Associate Vice-President (Research), Assistant Vice-President, Research Administration, Associate Dean, Health Sciences (Research), Director of Research Finance Administration, Assistant Vice-President (Faculty of Health Sciences), and Assistant Dean, Research Infrastructure.

A.3 Capital Fund *(Project Approval)*

	One of, Director of Design and Construction, Director of Maintenance	**AVP (Facilities Services) or Director, Design and Construction**	**VP (Administration) or AVP (Administration) and Chief Financial Officer**	**Following Planning and Resources Committee Approval:** **One of: AVP(Administration) and Chief Financial Officer, VP (Administration) Provost, or President.**	**Following Board of Governors Approval:** **One of: Provost, President, Board Secretary, Board Chair**
< $100,000	X				
$100,000 up to $499,999	X	X			
$500,000 up to $1,999,999	X	X	X		
$2,000,000 up to $9,999,999	X	X		X	
Over $10,000,000	X	X			X
Cumulative cost overruns exceeding the lesser of (i) 25% of the original approved overall project budget, or (ii) $500,000, require re-approval by the highest original approver. *		Additional Signature must be at least one level up from 1st		The individual approving signs to confirm Board/Committee approval.	
*N.B. If cost overruns result in a total revised value that coincides with a higher approval threshold, then the approval of the higher level approver must also be obtained. *Cost overruns on Board or Planning and Resources Committee approved projects will be reported to the Planning and Resources Committee at its next meeting.					

A.4 **Capital Fund** ***(Award of Purchase Orders/Contracts) including Professional Consultants****

	One of, Director of Design and Construction, or, Director of Maintenance	**AVP (Facilities Services) or Director, Design and Construction**	**VP (Administration) or AVP (Administration) and Chief Financial Officer**	**Following Planning and Resources Committee Approval:** **One of: AVP(Administration) and Chief Financial Officer, VP (Administration) Provost, or President.**	**Following Board of Governors Approval:** **One of: Provost, President, Board Secretary, Board Chair**
< $100,000	X				
$100,000 up to $499,999	X	X			
$500,000 up to $1,999,999	X	X	X		
$2,000,000 up to $9,999,999	X	X		X	
Over $10,000,000	X	X			X
Change Orders to existing Contracts/Purchase Orders which do not increase the approved Overall Project Budget require approval in accordance with the thresholds and roles noted above. If change orders, alone or cumulatively, result in an increase to the overall project budget, approval for the increased overall project budget must be sought subject to cost overrun approval limits.					
* Includes Architects, Engineers, Design Consultants and Construction Managers.					

In no case may a signing officer sign as first approver and highest approver. The minimum two signatures must be different individuals.

All purchases of goods and services and leases must be executed using the duly authorised processes developed and supported by the department of Strategic Procurement.

All Investments must be executed by the Treasurer, using the duly authorized processes of the appropriate committees of the Board of Governors.

B. Human Resources

1. Employment related contracts will follow collective agreement provisions as ratified by the Board of Governors, or defined salary policies or guidelines, such as the applicable policies governing compensation discussions for members of the McMaster University Faculty Association, and the terms of reference of the Human Resources Committee of the Board of Governors.

2. This policy does not restrict remittance to the Receiver General as required by law for Payroll. This includes remittances such as Canada Pension Plan, Employment Insurance premiums, Income Tax, Employer Health Tax or other contributions as may be required by Federal or Provincial legislation.

3. This policy does not restrict remittance for monthly or quarterly payments to approved employee benefit and insurance providers (such as Health, Dental, Group RRSP, Group Life Insurance, Pension, Post-Retirement benefits, and liability insurance plans) for delivery of contracted services. Approval of benefit, benefit administration, and insurance contracts awarded through the Request for Proposal process will follow the charts in this policy.

C. For All Non-Competitive Consulting Services (as defined by the Broader Public Sector Procurement Directive)

i. Up to $999,999

Shall be executed by the Approvers identified in the appropriate chart in Section A above and the President,

ii. $1,000,000 and Over

Shall be executed by the approvers identified in the appropriate chart in Section A above after approval has been given by the Board of Governors or by its Executive and Governance Committee.

D. For All Agreements where the University is Receiving Donations, Bequests or Gifts (see Gift Acceptance Policy (2011))

i. Over $1,000,000,

Shall be executed by the President and the Vice-President, University Advancement.

ii. Less than $1,000,000,

Shall be executed by the Vice-President, University Advancement.

iii. Acceptance of any gift that involves a proposal to name is conditional upon final approval of the naming by the Board of Governors.

E. For All other Agreements, not involving Research and Intellectual Property, where the University is Receiving Money, or where the Agreement Does Not Deal with the Payment by Either Party of Money

i. Under $2,000,000.00 or where the agreement does not deal with the payment by either party of money

Shall be executed by two (2) of the officers as identified in the charts in Section A, one of whom must be an identified Dean, AVP^ or Vice President of the University, and the second must be a Vice-President or the President.

ii. Over $2,000,000 and less than $10,000,000

Shall be executed by one of the officers identified in the charts in Section A, after approval has been given by the Planning and Resources Committee of the Board of Governors.

iii. $10,000,000 and over

Shall be executed by one (1) of the officers designated in section III.1, after approval has been given by the Board of Governors or by its Executive and Governance Committee.

F. Research And Intellectual Property: For All Agreements, Involving Research And Intellectual Property, Or Resulting From A Peer Or Merit Review Process Where

- **The University Is Receiving Money;**
- **The University Is Transferring Funds To A Collaborating Partner Institution; or**
- **The Agreement Does Not Deal With The Payment By Either Party Of Money**

i. Under $2,000,000, including where the agreement does not deal with the payment by either party of money

only one signature is required, from the chart F.1. below.

ii. $2,000,000 and over

In the case of agreements involving research funding that result from a peer or merit review process, authority is delegated to two (2) of the officers designated in section III.1.

In the case of where receipt of research funds requires the expenditure of incremental McMaster cash specific to the proposed research, approval for this incremental cash contribution will follow the charts in Section A.

F.1.

	One of AVP`, VP	Two (2) of the signing officers designated in Section III.1
Under $2,000,000	X	
$2,000,000 and over		X

AVP` signing officers include: Executive Director of the McMaster Industry Liaison Office, Associate Vice-President (Research), Associate Dean Health Sciences (Research), Director, Health Research Services, Director, Research Office for Administration, Development and Support, and Assistant Vice-President, Research Administration.

IV COMMENCEMENT

1. This resolution shall take effect on 18th day of April, 2019 and from that date shall supersede a Board of Governors' resolution that took effect on the 7th day of June, 2018.

Related Policies

Strategic Procurement
http://www.mcmaster.ca/bms/policy/purchase/SP-01.pdf

Internal Audit Department Policy Statement
http://www.mcmaster.ca/policy/General/BusOp/IntAuditPolicy.pdf

Construction And Maintenance Projects Policy
http://www.mcmaster.ca/policy/General/BusOp/ApprovalAuthoritiesConstructionMaintenance.pdf

Statement of Ethics for Senior Executive Officers
http://www.mcmaster.ca/policy/Governance/Other/Ethics%20Statement%20for%20Senior%20Executives.pdf

Statement on Conflict of Interest in Research
http://www.mcmaster.ca/policy/faculty/Research/StatementOnConflictOfInterestInResearch.pdf

Conflict of Interest Policy for Employees
http://www.mcmaster.ca/policy/Employee/Conflict_of_Interest_Policy.pdf

Gift Acceptance Policy
http://www.mcmaster.ca/policy/advancement/GiftAcceptancePolicy.pdf

Intellectual Property Policy
http://milo.mcmaster.ca/policies/ip-policy

Board of Governors Meeting Dates
http://www.mcmaster.ca/univsec/bog/schedules.cfm

Board of Governors
~~April 18, 2019~~December 12, 2019

McMaster University

UNIVERSITY SECRETARIAT
- Board of Governors
- Senate

Gilmour Hall, Room 210
1280 Main Street West
Hamilton, Ontario, Canada
L8S 4L8

Phone: 905.525.9140, Ext.24337
Fax: 905.526.9884
E-mail: univsec@mcmaster.ca
http://www.mcmaster.ca/univsec

REPORT TO THE BOARD OF GOVERNORS
from the
REMUNERATIONS COMMITTEE

i. Total Compensation Plan Redesign Recommendations for The Management Group (TMG)

At its meeting on October 15, 2019, the Remunerations Committee reviewed and approved the proposed total compensation plan redesign recommendations for The Management Group (TMG). The recommendations contain a number of policy and related documents that were developed in response to recommendations which resulted from the initiative to review and redesign the total compensation program for TMG. Details of the proposed recommendations are contained in Attachment I of the circulated report.

The Remunerations Committee now recommends,

that the Board of Governors approve the total compensation plan redesign recommendations for The Management Group (TMG), as contained in the circulated report.

Board of Governors: FOR APPROVAL
October 24, 2019

Attachment I

McMaster University

Human Resources Services

1280 Main Street West
Hamilton, Ontario Canada
L8S 4L8

Phone 905.525.9140
Fax 905.540.9085
www.workingatmcmaster.ca

Date: October 15, 2019

To: Members of the Board of Governors

From: Wanda McKenna, Assistant Vice-President and Chief Human Resources Officer

Re: **Total Compensation Plan Redesign for TMG - Recommendations for Approval and Information**

- **Total Rewards Philosophy for TMG**
- **Total Rewards Policy for Employees in TMG**
- **Guidelines for Cash Compensation Administration for Employees in TMG**
- **Performance Excellence Program for TMG in Bands F Through M**
- **Variable Pay Plan for TMG in Bands N Through Q**

Purpose:

At its October 15, 2019 meeting, the Remunerations Committee of the Board of Governors approved, for recommendation to the Board of Governors, the policy and related documents that were developed in response to recommendations which resulted from the initiative to review and redesign the total compensation program for The Management Group (TMG). The University is now seeking the approval of the Board of Governors.

Background:

In June 2014, the University announced a plan to review and revitalise the compensation program for TMG in a way that would strengthen the University's ability to attract, develop, retain and engage high calibre leaders. As members of TMG have important leadership roles throughout McMaster's academic, administrative and research areas, this initiative was viewed as important to the University's continued success and was intended to strengthen McMaster's reputation as both a premier educational institution and a top employer in Hamilton. A TMG Total Compensation Redesign Sub-Committee was established to review the existing program and develop recommendations aligned with best practice that would rejuvenate the design of the compensation program for TMG and would meet the needs of the University and members of TMG for years to come.

In May 2016, the preliminary report of the recommendations was presented to the Remunerations Committee for directional approval. The report contained 30 recommendations with a planned 3-year phased implementation. In each of 2017, 2018 and 2019, subsets of the 30 recommendations were presented to the Remunerations Committee and Board of Governors for approval. The attached policy

and related documents were developed in response to the recommendations related to phase 3 of the implementation and require your consideration and approval.

Items Presented for Approval:

The attached items are presented for information and/or approval of the Board of Governors, as noted:

Description	Attachment	Note
Total Rewards Philosophy for TMG	1	For Approval
Total Rewards Policy for Employees in TMG	2	For Approval
Guidelines for Cash Compensation Administration for Employees in TMG	3	For Approval
Performance Excellence Program for TMG in Bands F Through M	4	For Information *
Variable Pay Plan for TMG in Bands N Through Q	5	For Information *

* The Performance Excellence Program for TMG in Bands F Through M and the Variable Pay Plan for TMG in Bands N Through Q were approved by the Remunerations Committee and Board of Governors in April 2019. The full program details are provided at this time for information.

The Total Rewards Philosophy for TMG and the Total Rewards Policy for Employees in TMG help reinforce our long-standing pay for performance philosophy and our pay philosophy of having salary ranges targeted at the 60th percentile of the defined market, both of which were discussed and approved by the Remunerations Committee and the Board of Governors.

A summary of the 30 recommendations and the status of their implementation is provided for reference in Appendix A.

Subject to approvals being received, these items are targeted for implementation in November 2019.

The review of the total compensation program presented a significant opportunity to refine the design of the Total Compensation program. The recommendations and resulting program enhancements developed have resulted in improvements in communication and availability of information to TMG and their managers and are designed to appropriately reward and meet the needs of the University and members of TMG.

Total Rewards Philosophy for TMG

Introduction

Members of The Management Group (TMG) play critical roles throughout McMaster's academic, administrative and research areas and are vital to the University's ability to achieve its mission and vision. Members of TMG enable and support McMaster's commitment to creativity, innovation and excellence. The Total Rewards Program for TMG is designed to ensure the ability to attract, develop, engage and retain high calibre leaders who are critical to the University's continued success and will strengthen McMaster's reputation as both a premier educational institution and a top employer in Canada. The Total Rewards philosophy underpins the policies, programs, and practices that are used to compensate and reward our employees in TMG and serves as the foundation from which pay decisions are made.

Note: All elements of Total Rewards presented in this document are subject to ongoing review and approval by PVP, the Remunerations Committee and the Board of Governors, and may be periodically updated or changed at the sole discretion of the University. Furthermore, Bill 124, *Protecting a Sustainable Public Sector for Future Generations Act, 2019*, is currently before the Ontario legislature, and is being closely monitored. To the extent that Bill 124 or other compensation restraint legislation gives rise to new regulatory requirements that impact this document, it will be amended to ensure compliance.

Total Rewards Philosophy Statement for TMG

The Total Rewards program for TMG is designed to be competitive and to recognize and reward individual performance. In keeping with this philosophy, the Total Rewards program for TMG provides salary ranges targeted at the 60th percentile[1] of the defined market, pay for performance, competitive benefits, performance and recognition programs, promotes internal equity, supports the maintenance of pay equity, and operates in a financially responsible and sustainable manner.

The two key foundational elements that underpin the Total Rewards program design are:

- Pay for performance; and
- Salary ranges targeted at the 60th percentile of the defined market.

Guiding Principles

The Total Rewards Philosophy for TMG is inspired by the following ideals and guiding principles:

Guiding Principle	McMaster University …
Create and support a performance culture	▪ promotes an innovative and collaborative leadership culture and cultivates the potential of all our employees to enable University and personal success ▪ articulates and integrates performance and behavior expectations to support a culture of high performance ▪ adopts programs and processes that can be applied University-wide

[1] Throughout this document, references to cash compensation target at the 60th percentile of the defined market reflect the current practice. The cash compensation target is subject to review and change at the sole discretion of the University.

Guiding Principle	McMaster University …
Reward performance	▪ endorses and promotes pay for performance and encourages its application through the design of the total rewards policy, cash compensation administration guidelines and practices, and performance achievement programs ▪ promotes and aligns desired leadership capabilities and performance with rewards
Support inclusive excellence	▪ advances McMaster's equity, diversity and inclusion goals by ensuring that the qualifications for positions and criteria for assessing merit will be established in a fair, equitable and transparent manner ▪ establishes policies, programs and practices that enable the attraction of qualified candidates ▪ actively reviews programs and acts to remove barriers in the workplace
Support employee development and career progression	▪ offers professional growth and development opportunities along with programs which support employees' efforts while holding employees accountable for their own careers
Understandable, transparent and enable consistent application across TMG	▪ believes that education and ongoing communication with members of TMG and those that supervise TMG is vital to the effectiveness and consistent application of the total rewards program ▪ develops practices that promote simplicity of implementation and ease of administration
Fair and equitable	▪ through consistent application of the total rewards policy and cash compensation administration guidelines and practices, cash compensation will be allocated to each member of TMG based on: ▫ McMaster's relativity to the defined market ▫ the internal value of the job, as determined through McMaster University's job evaluation program for TMG ▫ the individual's skills, abilities, experience ▫ performance achievement results
Internal equity	▪ provides total rewards policy and cash compensation administration guidelines and practices that ensure similar jobs are valued equitably across the organization and promote consistency in application of salary and program administration practices
Competitive with the external market	▪ defines the external market in which we compete for talent ▪ determines the appropriate level at which we will compare to market ▪ ensures the ability to attract, develop, engage and retain high calibre leaders vital to the University's ability to achieve its mission ▪ reviews survey data on a regular basis to ensure the University remains competitive
Financially responsible	▪ while being competitive with market, must operate within its budget and be both fiscally responsible and sustainable in the long term.

Guiding Principle	McMaster University …
Flexibility	▪ recognizes the diverse, decentralized operation and develops programs which accommodate real differences ▪ provides for managerial discretion to actively manage the compensation of TMG
Compliant with applicable legislation or other relevant requirements	▪ operates in accordance with applicable legislation, regulation and regulatory policy

Elements of Total Rewards

McMaster utilizes a total rewards approach, providing a competitive salary and benefits package along with programs that support work life, development and career opportunities, and performance and recognition to employees incumbent in TMG positions.

1. **Cash Compensation:**
   To provide competitive pay, base salary will be targeted to the defined market at a level which is determined by the University.

   McMaster has a Pay for Performance philosophy for TMG. As such, increase provisions in the annual salary review will, unless legislated to the contrary, be merit-based to align with this philosophy.

   In keeping with the Pay for Performance philosophy for TMG, McMaster provides incentive-based compensation programs including the Performance Excellence Program for TMG in Bands F Through M and the Variable Pay Plan for TMG in Bands N through Q which are designed to reward truly exceptional performers.

2. **Benefits:**
   McMaster University provides a comprehensive and competitive benefits program for employees in TMG. Benefits, as defined in the Total Rewards Program for TMG, include health-related benefits as well as retirement income provisions.

3. **Work Life:**
   McMaster promotes a healthy work-life blend and provides a number of programs that support employees in TMG. These include paid and unpaid time off programs, including TMG Management Days, vacation program, holiday closure, programs that support employee health and wellness, and community engagement.

4. **Development and Career Opportunities:**
   McMaster encourages personal and professional growth and provides a number of programs in support of professional development. Employees in TMG are eligible for a Management Professional Development Allowance (MPDA), Tuition Assistance, Tuition Bursary (in accordance with the provisions of the respective policies), and to participate in a variety of professional development and leadership development programs, conferences, and career focused programs and opportunities.

McMaster promotes and encourages a community of leaders at McMaster and supports activities such as TMG Forums, Professional Development Days, Day of Service.

5. **Performance and Recognition:**
   Employees in TMG participate in the University's performance achievement program and recognition programs, as may be appropriate and subject to program rules.

Total Rewards Program Approvals

The Total Rewards program for TMG is subject to regular review and update, which may require approvals up to and including that of the McMaster University Board of Governors.

This Total Rewards Philosophy for TMG was approved by the Board of Governors on (date to be added).

Total Rewards Policy for Employees in TMG

Complete Policy Title: **Total Rewards Policy for Employees in The Management Group**	Policy Number:
Approved by: **Board of Governors**	Date of Most Recent Approval: **TBD 2019**
Date of Original Approval: **TBD 2019**	Supersedes/Amends Policy dated:
Responsible Executive: **Assistant Vice-President and CHRO**	Enquiries: **Human Resources Services**
Related Guidelines and Policies: • **Annual Salary Review Guides and Instructions** • **Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 ("Salaried Pension Plan")** • **Definition of Retirement for Determination of Eligibility for Other Benefits for Retirees of McMaster University** • **Group Registered Retirement Savings Plan (RRSP)** • **Guidelines for Cash Compensation Administration for Employees in TMG** • **Job Evaluation Guide for TMG** • **Management Professional Development Allowance (MPDA) for Members of TMG** • **Parental and Pregnancy Leave for TMG** • **Performance Excellence Program for TMG in Bands F through M** • **TMG Achievement Program - Annual Performance Review for TMG** • **TMG Management Days Policy** • **TMG Time and Leave Provisions Guideline** • **TMG Vacation Entitlement** • **Total Rewards Philosophy for TMG** • **Tuition Assistance and Tuition Bursary Policies** • **Variable Pay Plan for TMG in Bands N through Q**	
DISCLAIMER: *If there is a discrepancy between this electronic policy and the written copy held by the policy owner, the written copy prevails.*	

Introduction

McMaster University provides a comprehensive Total Rewards program for employees in The Management Group (TMG) that is designed to attract, develop, engage and retain high calibre leaders who are critical to the University's continued success. The information in this Policy is intended to align with the Total Rewards Philosophy for TMG. An excerpt of the Total Rewards Philosophy Statement for TMG follows:

The Total Rewards program for TMG is designed to be competitive and to recognize and reward individual performance. In keeping with this philosophy, the Total Rewards program for TMG provides salary ranges

targeted at the 60th percentile[2] of the defined market, pay relative to performance, competitive benefits, performance and recognition programs, promotes internal equity, supports the maintenance of pay equity, and operates in a financially responsible manner (now and in the future). The two key foundational elements that underpin the Total Rewards program design are:

- *Pay for performance; and*
- *Salary ranges targeted at the 60th percentile of the defined market.*

McMaster University is committed to maintaining the Total Rewards program and ensuring that it operates in compliance with all applicable laws and regulations and that related practices promote internal equity and ease of administration. The University reserves the right to amend this Policy and related guidelines from time to time.

Purpose

This Policy defines and outlines the Total Rewards program provisions for employees in TMG who are covered by this Policy.

Definitions

Definitions of key terms can be found in Appendix A.

Scope

This Policy governs the total rewards provisions for all employees who are entering, or are currently in, TMG.

Total Rewards Program Approvals

The Total Rewards program for TMG is subject to regular review and update, which may require approvals up to and including that of the McMaster University Board of Governors.

Policy

1. Designation of a Position as TMG

Human Resources is responsible for determining whether a position is classified as TMG or included in another employee group. The job description is the primary basis of this determination.

2. Job Descriptions for Positions in TMG

All positions in TMG must have a job description that clearly outlines the job purpose, accountabilities, qualifications, dimensions and working conditions.

3. Job Evaluation and Determination of Band

All job descriptions for positions confirmed in TMG must be evaluated to determine the Band of the position. Each Band has an associated salary range within which compensation is administered.

[2] Throughout this document, references to cash compensation target at the 60th percentile of the defined market reflect the current practice. The cash compensation target is subject to review and change at the sole discretion of the University.

4. Market Competitiveness

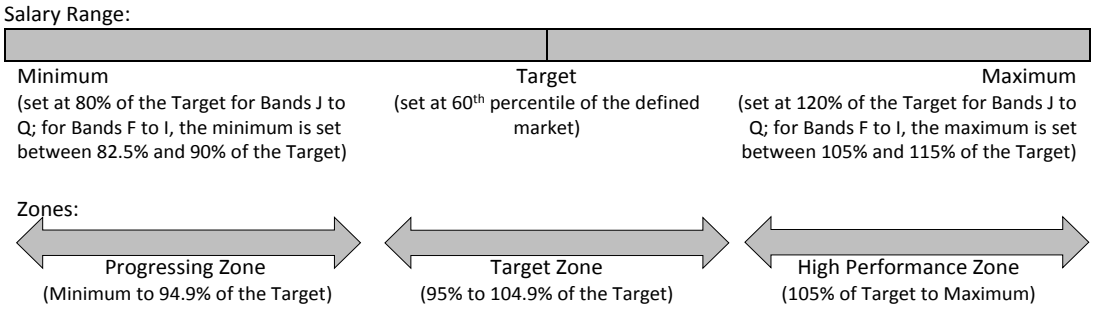
Salary ranges are targeted to the 60th percentile of the defined market. The defined market for TMG is:

Bands F – I:	Local Market (Hamilton, Burlington and surrounding area)
Bands J – M:	Regional Market (Hamilton, Toronto, South Western Ontario)
Bands N – Q:	National Market (All Canada)

The market competitiveness target is subject to review and update, normally annually, at the sole discretion of the University.

5. Salary Ranges and Structure

Each Band has a salary range within which employees' salaries are administered. The salary range will consist of a Minimum, a Target, and a Maximum. The Target is currently set to the 60th percentile of the defined market. The salary range is further divided into zones which reflect the design of the salary range structure, as per the following illustration:



a. Progressing Zone

The Progressing Zone is between the Minimum of the salary range and 94.9% of the Target and is the Normal Range for Hiring. Employees progress towards the Target Zone through performance-based increases that are determined in the annual performance and salary review processes.

b. Target Zone

The Target Zone is the portion of the range that is between 95% and 104.9% of the Target.

Employees' salaries are administered within the salary range for the applicable band. Over time, dependent on individual performance and through application of the annual performance and salary review processes, the majority of employees can expect to be compensated in the Target Zone of the salary range for the position they hold.

c. High Performance Zone

The High Performance Zone is the portion of the range that is between 105% of the Target and the Maximum of the salary range.

The High Performance Zone is intended for employees who have achieved and demonstrated consistent and ongoing outstanding performance.

6. Annual Adjustment to Salary Ranges

Salary ranges are adjusted on an annual basis to maintain the University's desired relationship to the defined market.

The effective date of salary range changes is normally the first day of the first full pay period following July 1st. Adjustments to the salary ranges require approvals up to and including that of the Board of Governors.

7. Administration of Employee Salaries

Employees will be paid in accordance with the approved Band and the corresponding salary range for the position they hold. For those TMG who work less than full-time, the salary range for the position they hold will be pro-rated accordingly.

8. Responsibility of Management for Individual Salaries

Managers are responsible to manage staff salary levels in accordance with performance within this policy and other relevant policies and guidelines.

Managers are encouraged to periodically review the employee's compa-ratio in consideration of performance, time in the job, and internal equity to determine whether any adjustments are required. Anomaly increases are permitted for this purpose.

9. Establishing Salaries for New Hires, Job Transfer, Re-evaluation or Anomaly Adjustment

a. New Hires, Including Internal Transfers from Other Employee Groups

Salaries for new hires, including internal transfers from other employee groups, will be established in consideration of the candidate's relevant skills and experience and internal equity. Managers are expected to follow the norms outlined in the Guidelines for Cash Compensation Administration for Employees in TMG.

b. Job Transfer within TMG

A salary increase may be awarded in the following circumstances:

Type of Change	Description	Salary Increase Indicated
Promotion	Increase of 1 or more Bands	Yes
Lateral	No change in Band	Possible Increases are not normally given in the case of a lateral job transfer. An increase may be considered where the job transfer is a developmental move. In such situations, consultation with Human Resources Services and appropriate approvals are required.

Type of Change	Description	Salary Increase Indicated
Demotion	Decrease of 1 or more Bands	No If the job change is at the employee's request, a decrease in salary may be appropriate. In no circumstance can the employee's salary be above the Maximum of the new position. If the job change is due to a reorganization, time-limited salary protection, which may include red-circling, will apply.

Managers are expected to follow the norms outlined in the Guidelines for Cash Compensation Administration for Employees in TMG.

c. Re-evaluation of a TMG Job

A salary increase may be awarded in the following circumstances:

Type of Change	Salary Increase Indicated
Increase of 1 or more Bands	Yes
No change in Band	No
Decrease of 1 or more Bands	No If the job has been redesigned due to a broader reorganization, time-limited salary protection, which may include red-circling, will apply.

Managers are expected to follow the norms outlined in the Guidelines for Cash Compensation Administration for Employees in TMG.

d. Anomaly Adjustments

Anomaly adjustments will be permitted where an employee's base salary no longer reflects performance or market. Managers are expected to follow the norms for anomaly adjustments outlined in the Guidelines for Cash Compensation Administration for Employees in TMG.

10. Controls and Approvals Required for Establishing Salaries

Appropriate controls and approval levels will be maintained to ensure equity prevails.

The establishment and ongoing administration of salaries for new hires, on job transfer or re-evaluation, or anomaly adjustments are subject to the controls and approvals that follow. Refer to the Guidelines for Cash Compensation Administration for Employees in TMG for the practices to be followed for the establishment of salaries at initial hire and the ongoing administration of salaries for employees in TMG.

Base Salary as a % of the Target	Approvals Required **The approvals required apply to the following:** • **New Hires (Including Internal Transfers from Other Employee Groups** • **Job Transfer within TMG** • **Re-evaluation** • **Anomaly Adjustments**
Between Minimum and 94.9%	Approval of the Department Head is required.
Between 95.0% and 104.9%	Approval of the Dean or AVP is required.
Between 105% and Maximum	Approval of the Budget Envelope Manager is required in advance. Consultation with Human Resources Services is required. Exception: Increases which adhere to the norms outlined in the Guidelines for Cash Compensation Administration for Employees in TMG: • Job Transfer: In the case of a job transfer which is a promotional change and an increase in salary of 5% is to be applied, approval of the Dean or AVP is required. • Re-evaluations: In the case of a re-evaluation which results in an increase of 1 Band or more and a salary increase of 5% is to be applied, approval of the Dean or AVP is required.
Over Maximum	Written request endorsed by the Vice-President. Written approval from the President and Vice-Chancellor, in consultation with the Chief Human Resources Officer, is required in advance.

11. Annual Salary Review

In keeping with the University's pay for performance philosophy, increases awarded in the annual salary review will be in the form of merit that is allocated based on a merit matrix which factors in assessment of employee performance and position in the salary range (compa-ratio). Completion of a performance review is required to be eligible for an annual merit increase.

12. Variable Pay Programs

TMG, subject to program eligibility, assessment criteria and application, may receive variable pay payments through either the Performance Excellence Program for TMG in Bands F through M or the Variable Pay Plan for TMG in Bands N through Q. Any payouts from these programs will be in the form of one-time, lump sum payments, subject to applicable deductions, and do not impact benefit or retirement income programs.

Refer to the respective policies for program details and eligibility criteria.

13. Benefits While Actively Employed

Competitive benefits programs will be maintained. The provisions may change from time to time at the sole discretion of the University.

Subject to eligibility requirements, persons hired into TMG positions will be eligible for participation in the University's health, emergency travel assistance, dental, life insurance, salary continuance, LTD and AD&D benefits plans, while actively employed.

14. Benefits On Retirement

Employees in TMG who were hired by the University prior to June 16, 2006 into a position that was eligible for post-retirement benefits retain eligibility for post-retirement benefits upon retirement from a TMG position. (TMG retiree benefit plan terms and provisions apply.)

Employees in TMG who were newly hired by the University on or after June 16, 2006 are not eligible for post-retirement benefits. The University provides an exception for employees who were hired into a Unifor post-retirement benefit eligible position on or after June 16, 2006 and subsequently transfer to a TMG position after their date of hire and before May 1, 2022. These individuals have been grandparented and retain eligibility for post-retirement benefits upon retirement from a TMG position. (TMG retiree benefit plan terms and provisions apply to the those who have been grandparented.)

Post-retirement benefits are restricted to those TMG who meet plan eligibility definitions. Benefits on Retirement provisions may change from time to time at the sole discretion of the University.

15. Retirement Income Programs

Competitive retirement income programs will be maintained. The provisions may change from time to time at the discretion of the University.

Persons hired into TMG positions will be eligible for participation in the University's Group RRSP or Salaried Pension Plan, as per plan eligibility definitions. For clarity, individuals newly hired to McMaster into a TMG position on or after June 16, 2009 will participate in the University Group RRSP. Employees in TMG who were hired prior to June 16, 2009 will continue to participate in the University's Defined Benefit Pension Plan.

16. Programs that Support Work Life Blend and Development

As part of its Total Rewards program, McMaster provides a number of offerings that support work-life blend (e.g., Management Days and vacation) and development of employees in TMG (e.g., Management Professional Development Allowance, Tuition Assistance, Tuition Bursaries). Refer to the applicable policy and leave provisions guideline for details.

17. Responsibility of Managers of TMG

Managers of TMG are required to:

- understand and adhere to this Policy and obtain appropriate approvals for salary adjustments, as defined in this Policy and any related Guidelines including the annual performance review and merit program;
- create and maintain job descriptions for TMG in accordance with Job Evaluation Guide for TMG;
- actively engage with TMG in setting and evaluating performance goals in accordance with the TMG Achievement Program which is the University's Annual Objectives and Development Goals program for TMG;
- provide feedback and coaching; engage in career development planning;

- actively manage the salaries of TMG employees in accordance with the applicable policies, guidelines and program provisions;
- as required, consult with Human Resources Services on matters related to compensation for TMG; and
- adhere to and operate within existing budget and approval processes.

18. Responsibility of Human Resources Services

Human Resources Services is responsible for:

- policy maintenance;
- policy interpretation;
- administration of the Total Rewards program, including compensation, benefits and retirement income plans;
- providing guidance and advice to departments;
- periodic audit;
- maintaining a current perspective on compensation and reviewing of compensation trends and changes in relevant markets; and
- adherence to legislative requirements and reporting.

19. Related Procedures and Documents

This Policy is to be read in conjunction with all applicable statutes and University policies and practices. The following is not a comprehensive list:

- Annual Salary Review Guides and Instructions
- Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000 ("Salaried Pension Plan")
- Definition of Retirement for Determination of Eligibility for Other Benefits for Retirees of McMaster University
- Group Registered Retirement Savings Plan (Group RRSP)
- Guidelines for Cash Compensation Administration for Employees in TMG
- Job Evaluation Guide for TMG
- Management Professional Development Allowance Policy
- Performance Excellence Program for TMG in Bands F through M
- Total Rewards Philosophy for TMG
- Treatment of Employees on a Temporary Growth and Development Appointment
- TMG Achievement Program – Annual Performance Review for TMG
- TMG Management Days Policy
- TMG Vacation Entitlement
- Tuition Assistance and Tuition Bursary Policies
- Variable Pay Plan for TMG in Bands N through Q

Any question of the interpretation or application of this Policy or related policies and guidelines shall be determined by the Assistant Vice-President and CHRO.

Appendix A: Definitions

Band:
Jobs in TMG are administered in Bands. The Band of a job is determined through application of the University's job evaluation process which uses a gender neutral comparison system to evaluate jobs based on the skill, effort, responsibility and working conditions. Each Band has a corresponding salary range within which incumbents of jobs are administered.

Base Salary:
The compensation paid to an employee for performing specific job responsibilities. Base salary is reflective of: a) the expected contribution of the job to the University based upon current job requirements; b) competitive base salary information for similar jobs at peer organizations; c) individual knowledge, skills and competencies that relate to success on the job; d) individual performance in the role.

Cash compensation:
Cash provided by an employer to an employee for services rendered. Compensation comprises the elements of pay (e.g., base pay, one-time lump-sum payments, stipends, etc.) that are offered to an employee in return for their services.

Calibration:
The calibration process is designed to encourage greater consistency across the University in the application of the TMG Achievement Program ratings in the annual performance review and related merit allocation in the annual salary review.

Compa-ratio:
Compa-ratio is used to describe an employee's position in the salary range and is calculated by dividing the employee's salary by the Target of the salary range and multiplying the result by 100.

High Performance Zone of the Salary Range:
The portion of the salary range between 105% of the Target and the Maximum. The High Performance Zone is intended for employees who have demonstrated consistent and ongoing outstanding performance.

Job:
For purposes of this document, a job is the collection of duties and responsibilities assigned and as described in a job description.

Merit:
A program in which salary increase decisions are made contingent upon performance and position in the salary range (compa-ratio). Commonly called pay-for-performance.

Merit Matrix:
A merit matrix provides the maximum amount of merit that may be allocated during the annual salary review. The merit matrix considers performance and position in the salary range.

Normal Range for Hiring:
The Normal Range for Hiring new employees is between the Minimum and 94.9% of the Target of the salary range. Placement within the Normal Range for Hiring is determined based on the individual skills and experience of the candidate and in consideration of internal equity within the hiring department and area.

Performance Excellence Program:
The Performance Excellence Program rewards members of TMG deemed truly exceptional performers who are clearly leaders among their peers and have noticeably excelled in their performance over and above what would normally be expected in their role and have been identified as high potential and/or high performing employees. TMG in Bands F through M with a performance rating of Outstanding are eligible.

Position:
For purposes of this document, a position refers to a job in a specific department.

Progressing Zone of the Salary Range:
The portion of the salary range between the Minimum and 94.9% of the Target.

Red-circling:
Protection provided to an employee whose salary is above the established salary range maximum assigned to the job they hold. The employee is not

eligible for further base salary increases until the range maximum surpasses the individual's salary.

Salaried Pension Plan:
Refers to the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000.

Salary Range:
The range of pay that is allowed for a job. The evaluation outcome of a job determines the Band which has a corresponding salary range. Salaries of incumbents of the job are administered within the salary range in accordance with applicable policies, guidelines and administrative practices.

Target of the Salary Range:
As at the date of approval of this Policy, the Target is set to the 60th percentile of the defined market.

Target Zone of the Salary Range:
The portion of the salary range between 95.0% of the Target and 104.9% of the Target. It is expected that salaries of employees in TMG will progress to the Target Zone over time. The time required to reach the Target Zone varies and is dependent on skills, experience, performance, salary increase provisions for TMG, and market conditions.

TMG:
TMG refers to The Management Group which is a heterogeneous group consisting of managers with responsibility for making effective recommendations that impact the terms and conditions of employment of others and employees without managerial responsibility but who are exempt from unionized employee groups due to the scope of recognition clauses or the confidential labour relations nature of the work performed. TMG includes employees who are exempt from Unifor because they work outside of the province of Ontario.

TMG Achievement Program:
The TMG Achievement Program is the performance review and development planning program. The Program recognizes three levels of achievement: achieving, successful and outstanding. A rating reflective of overall achievement in consideration of work objectives, leadership capabilities and individual development is assigned.

Total Rewards:
The monetary and non-monetary returns provided to employees in exchange for their time, talents, efforts and results. Total rewards involve the deliberate integration of five key elements of compensation, benefits, work life, development and career opportunities, and performance and recognition, that effectively attract, develop, engage and retain the talent required to achieve desired business results.

Variable Pay:
The Variable Pay Plan program provides a framework that enables rewarding truly exceptional performers who, through their involvement in activities within or beyond the scope of their position, directly advance the University's strategic priorities. TMG in bands N through Q are eligible.

Guidelines for Cash Compensation Administration for Employees in TMG

Complete Title: **Guidelines for Cash Compensation Administration for Employees in The Management Group**	Policy Number: **N/A**
Approved by: **President and Vice-Presidents**	Date of Most Recent Approval: **TBD 2019**
Date of Original Approval: **July 1, 2002**	Supersedes/Amends: Protocols and Guidelines for Salary Administration for The Management Group (TMG) - Establishing Salaries – November 2007
Responsible Executive: **Assistant Vice-President and CHRO**	Enquiries: **Human Resources Services**
Related Guidelines and Policies: • **Total Rewards Philosophy for TMG** • **Total Rewards Policy for Employees in TMG** • **Job Evaluation Guide for TMG** • **Annual Performance Review for TMG** • **Annual Salary Review Guides and Instructions** • **Parental and Pregnancy Leave Policy** • **Performance Excellence Program for TMG in Bands F through M** • **Variable Pay Plan for TMG in Bands N through Q** • **TMG Management Days Policy** • **TMG Time and Leave Provisions Guideline** • **TMG Vacation Entitlement** • **Tuition Assistance and Tuition Bursary Policies**	

Purpose

The purpose of these guidelines is to assist leaders to determine reasonable and appropriate compensation adjustments for TMG. These guidelines are to be read in conjunction with the Total Rewards Policy for Employees in TMG ("the Policy").

Managers are responsible to monitor, review and make recommendations regarding salary of reporting employees. Decisions regarding salary adjustments are the responsibility of the Department Head and, where necessary, are to be made in consultation with Human Resources Services. Managers are responsible to ensure they obtain all necessary approvals in accordance with the Total Rewards Policy for Employees in TMG.

Definitions

Definitions of key terms can be found in Appendix A.

Scope

These Guidelines address:

1. Establishing salaries in relation to:
   a. Initial hire to TMG
   b. Internal transfer within TMG

c. Re-evaluation
d. Anomaly salary adjustment
e. Underfill arrangement

2. Temporary salary adjustments
   a. Additional duties for a temporary time-limited period
   b. Temporary growth and development appointments within TMG
   c. Individual development appointments

3. Supervisor differential

4. Annual review of salaries

5. Performance Excellence Program

6. Variable Pay Program

1. Establishing Salaries

The base salary of individuals appointed to a position covered by the Total Rewards Policy for Employees in TMG will be determined at the time of hiring as a matter of consultation between the hiring manager and Human Resources Services.

Considerations in the determination of individual base salary include:

- qualifications and experience of the candidate relative to the job requirements;
- internal equity;
- type of change (i.e., promotion, lateral or demotion (if internal transfer);
- change in Band (if re-evaluation);
- current salary (if internal transfer or re-evaluation); and
- performance (if internal candidate).

a) Establishing Salaries for New Hires, Including Internal Transfers from Other Employee Groups

For external hires or internal hires from other employee groups (excluding those already in TMG), the Normal Range for Hiring is between the Minimum and 94.9% of the Target of the salary range. Placement within the Normal Range for Hiring is determined based on the individual skills and experience of the candidate relative to the job requirements and in consideration of internal equity within the hiring department and area. It is expected that the majority of employees will be hired within the Normal Range for Hiring.

Establishing a salary for an initial hire to TMG above the Normal Range for Hiring is not common and requires approvals in accordance with the Total Rewards Policy for Employees in TMG.

b) Establishing Salaries for Job Transfer within TMG

Existing employees in TMG who transfer to another position in TMG result in one of the following:

i) Promotional Change: Defined as an increase of one or more Bands. A promotional increase of 5% is normally indicated (not 5% per band). The revised salary must not be lower than the Minimum of the salary range. It is expected that the majority of promotional increases will be 5%.

ii) Lateral Change: Defined as no change in Band. A salary increase is not normally indicated. In some circumstances and, subject to consultation with Human Resources Services and appropriate approvals, an increase of between 3% and 5% may be considered for lateral changes that are job transfers which represent a developmental move which will provide an area of growth and expanded experience for the incumbent.

iii) Demotional Change: Defined as a decrease of one or more Bands. In the case of a voluntary job change made at the employee's request, a decrease in salary of up to 5% may be indicated. In no circumstance may the resulting salary exceed the Maximum of the new salary range.

Salary adjustments for internal transfer will be effective the date the incumbent moves to the new role and will not be retroactive.

c) Establishing Salaries for Re-evaluation of a TMG Job

Existing employees in TMG who have their current position re-evaluated, result in one of the following:

i) Increase of 1 or more Bands:

An increase of 5% is indicated (not 5% per band). The revised salary must not be lower than the Minimum of the salary range. It is expected that the majority of increases will be 5%. In some circumstances (particularly if the increase is more than 1 Band) and, subject to consultation with Human Resources Services, a larger increase may be considered.

ii) No change in Band: A salary increase is not indicated. No increase is to be applied in the case of re-evaluations that result in no change in band.

iii) Decrease of 1 or more Bands:

In situations where a re-evaluation results in a decrease of 1 or more Bands, salary protection, which may include red-circling for a defined period, is appropriate. Base salary increases are permitted if the employee's salary is below the Maximum of the salary range. In cases of red-circling where the employee's salary is above the Maximum of the salary range, following the defined period of red-circling, the employee's salary will be decreased by up to 5% or to the Maximum of the salary range (if greater than 5%). Upon completion of the

defined period of red-circling, in no circumstance may the resulting salary exceed the Maximum of the new salary range.

Salary adjustments resulting from the re-evaluation of an existing job will be effective the date the job description is received in Human Resources. In accordance with the Job Evaluation Guidelines for TMG, if there are extenuating circumstances which caused a delay in the submission of the job description, back-dating of the results may be applied to a maximum of three (3) months.

d) Anomaly Salary Adjustments

Salaries for existing employees in TMG are normally adjusted at job change or through the annual salary review process. In exceptional circumstances, anomaly salary adjustments are permitted off-cycle of the annual salary review process. Situations where anomaly salary adjustments may be appropriate include:

- to adjust for measured exceptional performance;
- to allow for a staged transition to a higher salary within a stated time period, subject to the achievement of measured performance indicators;
- to adjust for proven market conditions and within approved Bands; and
- to remedy internal equity issues within the department.

Managers of TMG considering an off-cycle increase for an employee in TMG are to consult with Human Resources Services. The amount of the anomaly salary adjustment is to be determined in consultation with Human Resources Services and appropriate approvals as outlined in the Total Rewards Policy for Employees in TMG must be obtained prior to implementation.

Anomaly salary adjustments are not to be considered concurrently with the Annual Salary Review and are not to be applied retroactively.

e) Underfill Appointment

In certain circumstances, it may be possible to offer a position to an employee who does not meet the minimum requirements of the job. Underfilling is an option that may be used in a situation where there are no successful candidates for a vacancy or where the progression is part of a defined training program to develop internal candidates. Underfilling is used when the candidate was assessed as not meeting all of the requirements of the job accountabilities to be performed at the full level of the job, but who was assessed as having the potential to meet all of the requirements of the full level of the job if provided with training and development. In an underfill situation, the candidate may be hired below the Minimum of the salary range and a training program established to assist the candidate in acquiring all the necessary skills and experience. Periodic assessments of skills attained along with periodic increases to salary to move towards the Minimum of the salary range are required. These may occur quarterly or semi-annually against documented progress. Underfill appointments do not normally extend beyond one year. Managers of TMG considering an underfill appointment should first consult with Human Resources Services.

2. Temporary Salary Adjustments

There are a number of situations where it may be appropriate to provide a temporary salary adjustment. These include: additional duties for a temporary, time-limited period; temporary growth and development appointments within TMG; individual development appointments. In all cases, temporary salary adjustments will be considered when the work to be performed is of a higher level and different nature than that of the incumbent's regular position. Temporary salary adjustments will not normally exceed 12 months' duration.

a) Additional Duties for a Temporary, Time-Limited Period

Additional payment may be given when additional duties are assigned for a temporary period. An additional duties payment is appropriate when the nature of the added work is at a higher level from a job evaluation perspective than the incumbent's current role. Human Resources should be consulted in advance of the assignment of the temporary duties to determine whether the work is of a higher level and an additional payment is warranted. Depending on the nature of the duties, a payment, in addition to the existing base salary, may be provided to the employee. The additional duties payments will typically be 3 to 5% for the duration of the assignment. Note that for the duration of the assignment, all associated benefits, pension and/or Group RRSP provisions will be applied on the basis of the existing base salary related to the home position. Adjustments will not normally be provided for addition of temporary duties for less than one months' duration. Additional duties payments will not be applied retroactively.

b) Temporary Growth and Development Appointments within TMG

Employees in TMG who transfer to another job in TMG on a temporary, time-limited basis may be eligible for a temporary increase in compensation. The temporary job may be in the same or other department in the University. Determination of whether a temporary increase in compensation is indicated will be based on whether the change in job reflects a promotional, lateral or demotional move. If a temporary increase is indicated, the employee will receive a temporary payment, in addition to their existing base salary, for the duration of the temporary growth and development appointment. Note that for the duration of the assignment, all associated benefits, pension and/or Group RRSP provisions will be applied on the basis of the existing base salary related to the home position. Managers of TMG will seek the advice of Human Resources Services before offering any payment related to a temporary growth and development appointment.

c) Individual Development Appointments

In certain situations, an employee in TMG may be given a personalized developmental opportunity to take on a time-limited, higher level job. Individual Development Appointments are typically created specific to an employee and are intended for personal development in the context of succession planning. For the duration of the Individual Development Appointment, the employee will be provided with a temporary payment, in addition to their existing base salary. Note that for the duration of the assignment, all associated benefits, pension and/or Group RRSP provisions will be applied on the basis of the existing base salary related to the home position. In situations where an Individual Development Appointment is being considered,

Human Resources Services must be consulted in advance and the approval of the Budget Envelope Manager's Supervisor is required.

3. Supervisor Differential

In order to maintain an appropriate and equitable relationship between pay of the supervisor and reporting employees, it is expected that the base salary of supervisors will normally exceed the base pay of directly reporting employees by at least 5%. In situations where this differential in base salaries is not maintained, an increase to the supervisor's base salary may be indicated. In order to qualify as direct supervisor under the Supervisor Differential provision, it must be demonstrated in the job description and in practice that the supervision is both functional and administrative in nature and that the supervisor possesses the necessary qualifications, training and background to successfully and independently establish goals and expected outcomes, assess performance, supervise, determine, guide and assess the accuracy of the work of the reporting employee(s). The supervisor differential is not applicable in situations where the supervision is only administrative in nature. Departments heads are to consult with Human Resources Services where they believe a supervisor differential may be required for a supervisor in their faculty, department, or area. The supervisor differential is considered and applied to continuing supervisory positions and is not applied in situations where the supervisor has been appointed on an acting, time-limited basis, or where supervisory responsibilities have been assigned on a temporary additional duties basis.

4. Annual Review of Salaries

Salaries of employees in TMG are reviewed and subject to adjustment during the Annual Salary Review for TMG. This Review normally occurs in June of each year with any increases taking effect the first day of the first full pay period in July. Timing of the review is subject to change. Provisions for the Annual Salary Review require approvals up to and including that of the Board of Governors.

In keeping with McMaster's Pay for Performance Philosophy for TMG, increases in the Annual Salary Review will be merit-based, unless regulated to the contrary, and will be allocated using a Merit Matrix that factors in performance and position in the salary range (compa-ratio). Instructions and guidelines for the Annual Salary Review are circulated to department heads in advance of each year's review. A precursor to the Annual Salary Review is the Annual Performance Review which is part of the TMG Achievement Program. The assessment of performance and resulting performance rating will be used in the Annual Salary Review.

Managers of TMG are expected to follow all applicable instructions, guidelines and practices in place for TMG including the TMG Achievement Program, the Annual Salary Review and associated Calibration processes.

5. Performance Excellence Program for TMG in Bands F Through M

The Performance Excellence Program for TMG in Bands F Through M rewards members of TMG deemed truly exceptional performers who are clearly leaders among their peers and have noticeably excelled in their performance over and above what would normally be expected in their role and have been identified as high potential employees. TMG in Bands F through M with a performance rating of Outstanding are eligible. Refer to the Performance Excellence Program for TMG in Bands F Through M guide for more information.

6. Variable Pay Program for TMG in Bands N through Q

The Variable Pay Program for TMG in Bands N Through Q provides a framework that enables rewarding truly exceptional performers who, through their involvement in activities within or beyond the scope of their position, directly advance the University's strategic priorities. Individuals awarded variable pay program payouts will be limited to those who led or co-led strategic institution-wide initiatives that are aimed at delivering revenue growth, administrative efficiency, exceptional improvements to service levels, or advancing leadership and equity, diversity and inclusion. TMG in bands N through Q are eligible. Refer to the Variable Pay Program for TMG in Bands N Through Q guide for more information.

Appendix A: Definitions

Band:
Jobs in TMG are administered in Bands. The Band of a job is determined through application of the University's job evaluation process which uses a gender neutral comparison system to evaluate jobs based on the skill, effort, responsibility and working conditions. Each Band has a corresponding salary range within which incumbents of jobs are administered.

Base Salary:
The compensation paid to an employee for performing specific job responsibilities. Base salary is reflective of: a) the expected contribution of the job to the University based upon current job requirements; b) competitive base salary information for similar jobs at peer organizations; c) individual knowledge, skills and competencies that relate to success on the job; d) individual performance in the role.

Cash compensation:
Cash provided by an employer to an employee for services rendered. Compensation comprises the elements of pay (e.g., base pay, one-time lump-sum payments, stipends, etc.) that are offered to an employee in return for their services.

Calibration:
The calibration process is designed to encourage greater consistency across the University in the application of the TMG Achievement Program ratings in the annual performance review and related merit allocation in the annual salary review.

Compa-ratio:
Compa-ratio is used to describe an employee's position in the salary range and is calculated by dividing the employee's salary by the Target of the salary range and multiplying the result by 100.

High Performance Zone of the Salary Range:
The portion of the salary range between 105% of the Target and the Maximum. The High Performance Zone is intended for employees who have demonstrated consistent and ongoing outstanding performance.

Job:
For purposes of this document, a job is the collection of duties and responsibilities assigned and as described in a job description.

Merit:
A program in which salary increase decisions are made contingent upon performance and position in the salary range (compa-ratio). Commonly called pay-for-performance.

Merit Matrix:
A merit matrix provides the maximum amount of merit that may be allocated during the annual salary review. The merit matrix considers performance and position in the salary range.

Normal Range for Hiring:
The Normal Range for Hiring new employees is between the Minimum and 94.9% of the Target of the salary range. Placement within the Normal Range for Hiring is determined based on the individual skills and experience of the candidate and in consideration of internal equity within the hiring department and area.

Performance Excellence Program:
The Performance Excellence Program rewards members of TMG deemed truly exceptional performers who are clearly leaders among their peers and have noticeably excelled in their performance over and above what would normally be expected in their role and have been identified as high potential and/or high performing employees. TMG in Bands F through M with a performance rating of Outstanding are eligible.

Position:
For purposes of this document, a position refers to a job in a specific department.

Progressing Zone of the Salary Range:
The portion of the salary range between the Minimum and 94.9% of the Target.

Red-circling:
Protection provided to an employee whose salary is above the established salary range maximum

assigned to the job they hold. The employee is not eligible for further base salary increases until the range maximum surpasses the individual's salary.

Salaried Pension Plan:
Refers to the Contributory Pension Plan for Salaried Employees of McMaster University Including McMaster Divinity College 2000.

Salary Range:
The range of pay that is allowed for a job. The evaluation outcome of a job determines the Band which has a corresponding salary range. Salaries of incumbents of the job are administered within the salary range in accordance with applicable policies, guidelines and administrative practices.

Target of the Salary Range:
As at the date of approval of this Policy, the Target is set to the 60th percentile of the defined market.

Target Zone of the Salary Range:
The portion of the salary range between 95.0% of the Target and 104.9% of the Target. It is expected that salaries of employees in TMG will progress to the Target Zone over time. The time required to reach the Target Zone varies and is dependent on skills, experience, performance, salary increase provisions for TMG, and market conditions.

TMG:
TMG refers to The Management Group which is a heterogeneous group consisting of managers with responsibility for making effective recommendations that impact the terms and conditions of employment of others and employees without managerial responsibility but who are exempt from unionized employee groups due to the scope of recognition clauses or the confidential labour relations nature of the work performed. TMG includes employees who are exempt from Unifor because they work outside of the province of Ontario.

TMG Achievement Program:
The TMG Achievement Program is the performance review and development planning program. The Program recognizes three levels of achievement: achieving, successful and outstanding. A rating reflective of overall achievement in consideration of work objectives, leadership capabilities and individual development is assigned.

Total Rewards:
The monetary and non-monetary returns provided to employees in exchange for their time, talents, efforts and results. Total rewards involve the deliberate integration of five key elements of compensation, benefits, work life, development and career opportunities, and performance and recognition, that effectively attract, develop, engage and retain the talent required to achieve desired business results.

Variable Pay:
The Variable Pay Plan program provides a framework that enables rewarding truly exceptional performers who, through their involvement in activities within or beyond the scope of their position, directly advance the University's strategic priorities. TMG in bands N through Q are eligible.

Performance Excellence Program for TMG in Bands F Through M

The Performance Excellence Program for TMG in Bands F through M is a new pilot program that is being introduced in July 2019 with first assessment for potential payment in July 2020.

Purpose:
The Performance Excellence Program for TMG in Bands F through M is intended to reward truly exceptional performers who are clearly leaders among their peers and have noticeably excelled in their performance over and above what would normally be expected in their role. It is intended that high potential employees would be included.

High potential employees consistently and significantly outperform their peer groups in a variety of settings and circumstances. While achieving these superior levels of performance, they exhibit behaviors that reflect the university's culture and values in an exemplary manner. Moreover, they show a strong capacity to grow and succeed throughout their careers within an organization – more quickly and effectively than their peers may.[1]

Please note that Bill 124, *Protecting a Sustainable Public Sector for Future Generations Act, 2019*, is currently before the Ontario legislature, and is being closely monitored. To the extent that Bill 124 or other compensation restraint legislation gives rise to new regulatory requirements that impact this document, it will be amended to ensure compliance.

Eligibility:
- The Performance Excellence Program applies to members of TMG who are incumbent in positions that have been evaluated in Bands F through M. (Note that employees in University Advancement who participate in similar variable pay plans are not eligible to participate in this program).
- To be eligible for a payment from the Performance Excellence Program, the recipient must be in their role for the full performance cycle from July to June.
- Recipients must be actively employed by the University on the date of payment.
- Nominees must have a completed Annual Performance Review and received a rating of Outstanding.

Assessment Criteria:
Eligible members are to be assessed based on the following criteria:
- Delivers exceptional results by building trust and credibility among stakeholders
- Initiates or actively participates in broader strategic initiatives that have delivered results which contribute to the advancement of McMaster's strategic goals;
- Actively participates in University project initiatives and/or committees which are external to the TMG member's normal role and which address University goals. Participates at a level that clearly demonstrates potential above and beyond the scope of the TMG member's normal role;
- Grows and demonstrates leadership capabilities that are at an exceptional level and which facilitate University objectives;
- Builds positive relationships, promotes and encourages others while engaging in collaborative projects and University activities;

[1] Adapted from the Article: "Are You a High Potential" in the June 2010 Harvard Business Review

- Seeks out opportunities to engage in community initiatives that are complex in nature and are in support of University goals.

Program Features:

- The Performance Excellence Program Pool is estimated to be $50,000 for July 2020.
- The Performance Excellence Program pool will be distributed to each of the President and the Vice-Presidents on a pro-rata basis reflective of employee salaries.
- The President and Vice-Presidents will be responsible for allocating their portion of the Performance Excellence Program pool based on submissions to them using the assessment criteria noted above.
- The Performance Excellence Program Award may provide up to a maximum of $1,500 for employees in Bands F through I or up to a maximum of $2,000 for employees in Bands J through M. This will be paid as a one-time, lump sum payment, subject to applicable taxes and deductions. Performance Excellence Program award payments are not eligible for pension, Group RRSP or benefit purposes.
- The Program recognizes exceptional performance results; only those meeting the criteria will be considered. Not all members of TMG will be eligible or receive a payment.
- Individuals may be awarded a payment in some years and not in others and payment amounts will vary based on specific contributions and degree of success in a given year. Receipt of a Performance Excellence Program Award in any given year is not a predictor of receipt of subsequent awards.
- The value of individual awards should reflect the level of achievement relative to the above eligibility criteria.

Program Administration:

- Assessment of the Performance Excellence Program is conducted concurrently with the salary review process for TMG.
- The Department Head identifies eligible employees based on the program purpose, eligibility and assessment criteria and completes and submits the Performance Excellence Program Payment Recommendation form which documents the achievements in support of the recommended payment to the Dean or AVP.
- The Dean or AVP reviews the submissions, determines which recommendations will move forward in the process and submits those Performance Excellence Program Payment Recommendation forms to the President or Vice-President, as determined by the reporting structure for the area.
- The President or Vice-President reviews all submissions for their reporting area and has responsibility to approve, amend, or decline recommendations.
- Approved payments may not exceed their Performance Excellence Program Allocation.
- If the full allocation is not utilized in a given year, it does not carry forward.
- Approved Performance Excellence Program payment recommendations are to be forwarded to Human Resources Services for payment.
- Departments are required to self-fund Performance Excellence Program Award payments.
- Self-nominations are not permitted.

Notes:

- The Performance Excellence Program amount and maximum payment amounts are subject to review and change.
- The Performance Excellence Program is being introduced as a pilot program and may be amended or cancelled at the discretion of the University.
- Following the first review cycle, the Performance Excellence Program will be reviewed to assess and, where possible, improve the associated administrative process.

Performance Excellence Program Payment Recommendation

Additional details can be found in the Performance Excellence Program guide (link to be added).

Employee Nominee Information:

Name	
Position Title and Band	
Department	

Assessment Criteria (Check all that apply):

- ☐ Delivers exceptional results by building trust and credibility among stakeholders
- ☐ Initiates or actively participates in broader strategic initiatives that have delivered results which contribute to the advancement of McMaster's strategic goals
- ☐ Actively participates in University project initiatives and/or committees which are external to the TMG member's normal role and which address University goals. Participates at a level that clearly demonstrates potential above and beyond the scope of the TMG member's normal role
- ☐ Grows and demonstrates effective leadership capabilities that are at an exceptional level and which facilitate University objectives
- ☐ Builds positive relationships, promotes and encourages others while engaging in collaborative projects and University activities
- ☐ Seeks out opportunities to engage in community initiatives that are complex in nature and are in support of University goals

Description of the employee's exceptional contributions:

Recommended one-time, lump-sum payment: $_____; _____% of salary as at May 1st

Chartfield: _____

Awards may not exceed $1,500 (Bands F through I) or $2,000 (Bands J through M) and are subject to applicable taxes and deductions. Payments are not eligible for pension, Group RRSP or benefit purposes. The Performance Excellence Program pool is capped at 0.1% of base salaries of TMG in bands F through M per year. The Program is administered at the President and Vice-Presidents level. Departments are responsible for funding the cost and must provide the chartfield above.

Approvals:

Dean or AVP	Name	
	Title	
	Signature	
	Date	
President or Vice-President	Name	
	Title	
	Signature	
	Date	

Performance Excellence Program for TMG (Bands F through M)

Process Map

1

- Concurrent with the annual salary review for TMG, the Department Head reviews the Performance Excellence Program overview and identifies eligibile employees who qualify based on the program purpose, eligibility and assessment criteria. The Department Head completes the Performance Excellence Program Payment Recommendation Form and submits it to the Dean or AVP for consideration.

2

- The Dean or AVP reviews the Performance Excellence Program Payment Recommendations with the Department Head. The Dean or AVP may accept, amend or reject recommendations received.

3

- The Dean or AVP will sign those recommendations that they are approving for futher consideration by the President or Vice-President and submits the recommendations to Human Resources Services (Total Rewards).

4

- Human Resources reviews the Performance Excellence Program Payment Recommendation Form submissions to confirm that overall payment recommendations do not exceed the amount allocated to the President or Vice-President and forwards the recommendations and information about overall payment amounts to the President or Vice-Preisdent, as applicable.

5

- The President or Vice-President reviews all recommendations submitted for their area. The President or Vice-President may approve, decline or adjust any payment recommendations. The President or Vice-President will forward the recommendations to Human Resources Services (Total Rewards) for payment.

6

- Human Resources will provide copies of approved Performance Excellence Program Payment Recommendation Forms to the Dean or AVP, will arrange for payment of approved recommendations and will confirm the Performance Excellence Program Award payment to the employee (cc to the Dean or AVP).

Variable Pay Plan for TMG in Bands N Through Q

The Variable Pay Plan for TMG in Bands N through Q is a new pilot program that is being introduced in July 2019 with first assessment for potential payment in July 2020.

Purpose:
The Variable Pay Program for TMG in Bands N through Q is intended to reward truly exceptional performers who, through their involvement in activities within or beyond the scope of their position, directly advance the University's strategic priorities.

Please note that Bill 124, *Protecting a Sustainable Public Sector for Future Generations Act, 2019*, is currently before the Ontario legislature, and is being closely monitored. To the extent that Bill 124 or other compensation restraint legislation gives rise to new regulatory requirements that impact this document, it will be amended to ensure compliance.

Eligibility:
- Applies to members of TMG who are incumbent in positions that have been evaluated in bands N through Q. (Note that employees in University Advancement who participate in similar variable pay plans are not eligible to participate in this program.
- To be eligible for a payment from the Variable Pay Plan, the employee must be in the role for the full performance cycle from July to June.
- Recipients must be actively employed by the University on the date of payment.
- Recipients must have a completed Annual Performance Review and have received a rating of Outstanding.

Assessment Criteria:
Eligible members are to be assessed based on the following criteria:
- Delivers exceptional results by building trust and credibility among stakeholders;
- Advances the University's strategic priorities;
- Leads or co-leads strategic, institution-wide projects or initiatives that are aimed at delivering:
  - Advancement of the academic and research missions of the University
  - Revenue growth
  - Administrative efficiencies which have a broad, cross-University impact
  - Exceptional improvements to service levels
- Advances leadership and equity, diversity and inclusion;
- Provides exceptional leadership and expertise to design, develop and implement transformative change;
- Promotes and actively facilitates collaboration and partnership with colleagues in cross-university teams that are delivering University objectives that are outside the scope of the incumbent's role.

Plan Features:
- The maximum Variable Pay Plan pool for TMG is $150,000 per year.
- The Variable Pay Plan pool will be distributed to each of the President and the Vice-Presidents on a pro-rata basis reflective of employee salaries.

- The President and Vice-Presidents will be responsible for allocating their portion of the Variable Pay Plan pool based on the assessment criteria noted above.
- The Variable Pay Plan Award may provide up to a maximum of 3.0% of base salary to be paid as a one-time, lump-sum payment, subject to applicable taxes and deductions. Variable Pay Plan Award payments are not eligible for pension, Group RRSP or benefit purposes.
- The Plan recognizes exceptional performance results; only those meeting this criterion will be considered. Not all members of TMG will be eligible or receive a payment.
- Employees may be awarded a payment in some years and not in others and payment amounts will vary based on specific project leadership, contributions and degree of success in a given year. Receipt of a Variable Pay Plan Award in any given year is not a predictor of receipt of subsequent awards.

Program Administration:

- Assessment of the Variable Pay Plan is conducted concurrently with the salary review process for TMG.
- The Department Head identifies eligible employees based on the program purpose, eligibility and assessment criteria and completes and submits the Variable Pay Plan Payment Recommendation form which documents the achievements in support of the recommended payment to the Dean or AVP.
- The Dean or AVP reviews the submissions, determines which recommendations will move forward in the process and submits those Variable Pay Plan Payment Recommendation forms to the President or Vice-President, as determined by the reporting structure for the area.
- The President or Vice-President reviews all submissions for their reporting area and has responsibility to approve, amend, or decline recommendations. Approved payments may not exceed their Variable Pay Plan Pool Allocation.
- The Variable Pay Plan Payment Recommendations that have been approved are to be forwarded to Human Resources Services for payment.
- Departments are required to self-fund Variable Pay Plan Award payments.
- Self-nominations are not permitted.

Notes:

- The Variable Pay Plan pool amount and maximum Variable Pay Plan awards are subject to review and change.
- The Variable Pay Plan is being introduced as a pilot program and may be amended or cancelled at the discretion of the University.
- Following the first review cycle, the Variable Pay Program will be reviewed to assess and, where possible, improve the associated administrative process.

Variable Pay Plan Payment Recommendation

Additional details can be found in the Variable Pay Plan Program Overview (link to be added).

Employee Nominee Information:

Name	
Position Title and Band	
Department	

Assessment Criteria (Check all that apply):

- ☐ Delivers exceptional results by building trust and credibility among stakeholders
- ☐ Advances the University's strategic priorities
- ☐ Performs strongly in financial; operational service; leadership and community goals
- ☐ Leads or co-leads strategic, institution-wide initiatives that are aimed at delivering:
  - ☐ Advancement of the academic and research missions of the University
  - ☐ Revenue growth
  - ☐ Administrative efficiencies which have a broad, cross-University impact
  - ☐ Exceptional improvements to service levels
- ☐ Advances leadership and equity, diversity and inclusion
- ☐ Provides exceptional leadership and expertise to design, develop and implement transformative change
- ☐ Promotes and actively facilitates collaboration and partnership with colleagues in cross-university teams that are delivering University objectives that are outside the scope of the incumbent's role

Description of project or special assignment achievements and employee's outstanding contributions:

Recommended one-time, lump-sum payment: $_____; _____% of salary as at May 1st

Chartfield: _____

Payments are limited to a maximum of 3.0% of base salary and are subject to applicable taxes and deductions. Recommended amounts may be changed by the President or Vice-President. Payments are not eligible for pension, Group RRSP or benefit purposes. The Variable Pay Plan pool is capped at $150,000 per year and will be allocated by employee count and administered at the President and Vice-Presidents level. Departments are responsible for funding the cost and must provide the chartfield above.

Approvals:

Dean or AVP	Name	
	Title	
	Signature	
	Date	
President or Vice-President	Name	
	Title	
	Signature	
	Date	

Variable Pay Plan for TMG (Bands N through Q)

Process Map

1. Concurrent with the annual salary review for TMG, the Department Head reviews the Variable Pay Plan Program overview and identifies eligibile employees who qualify based on the program purpose, eligibility and assessment criteria and completes the Variable Pay Plan Payment Recommendation Form and submits it to the Dean or AVP for consideration.

2. The Dean or AVP reviews the Variable Pay Plan Payment Recommendations with the Department Head. The Dean or AVP may accept, amend or reject recommendations received.

3. The Dean or AVP will sign those recommendations that they are approving for further consideration by the President or Vice-President and submits the recommendations to Human Resources Services (Total Rewards).

4. Human Resources reviews the Variable Pay Plan Payment Recommendation Form submissions to confirm that overall payment recommendations do not exceed the amount allocated to the President or Vice-President and forwards the recommendations and information about overall payment amounts to the President or Vice-President.

5. The President or Vice-President reviews all recommendations submitted for their area. The President or Vice-President may approve, decline or adjust any payment recommendations. The President or Vice-President will forward the recommendations to Human Resources Services (Total Rewards) for payment.

6. Human Resources Services (Total Rewards) will provide copies of approved Variable Pay Plan Payment Recommendation Forms to the Dean or AVP, will arrange for payment of approved recommendations and will confirm the Variable Pay Plan Award payment to the employee in a letter (cc to the Dean or AVP).

McMaster University

The TMG Total Compensation Plan Redesign Recommendations

Implementation Status Update: October 2019

Legend:
Pending
Requires approval
Completed

Total Compensation			
Description		**Target Implementation Timeline**	**Status and Notes**
1	Total Rewards philosophy for TMG	Fall 2019	Completed Submitted for approvals of PVP, Remunerations Committee and Board of Governors in October 2019
2	Reduce the number of bands from 15 to 12 by eliminating bands C, D and E and create three main groupings of remaining bands: ▪ F to I ▪ J to M ▪ N to Q	July 2017	Completed
3	Revise the salary range structure by redefining the components of the range and also by narrowing the salary ranges for bands F through I	Narrowing of the salary ranges will be completed using a phased approach ▪ Phase 1: July 2017 ▪ Phase 2: July 2018 ▪ Phase 3: July 2019	Completed
4	Introduce a new TMG Achievement Program to replace the current performance management program for TMG	Communicated in October 2016 First used for the annual review in Spring 2017	Completed First introduced in October 2016 for all TMG
5	Change the annual salary review process by introducing a merit matrix that better connects performance achievement level and position in the salary range to the merit awarded, while maintaining flexibility for managers	July 2017	Completed First introduced as part of the 2017 annual salary review
6	Introduce groupings of departments to better manage the merit pools	July 2016 salary review	Completed First introduced as part of the annual review in July 2016
7	Introduce a calibration process to promote consistency in application of the performance assessment and the allocation of rewards in the annual salary review	To be used for both the performance management and salary review processes	Completed Introduced as part of the July 2017 annual review
8	Introduce a new Performance Excellence Program for Bands F through M	Implementation targeted for July 2019 with first assessment in summer 2020	Completed Program approved in July 2019; program details submitted for approvals by PVP, Remunerations Committee and Board of Governors in October 2019
9	Introduce a Variable Pay Plan program for TMG in Bands N through Q	Implementation targeted for July 2019 with first assessment in summer 2020	Completed Program approved in July 2019; program details submitted for approvals by PVP, Remunerations Committee and Board of Governors in October 2019
10	Update the approach to maintain P60 relationship to market by amending the definition of comparable organizations ▪ Bands F-I: Local (Hamilton, Burlington and surrounding area) ▪ Bands J-M: Regional (Hamilton, Toronto, South Western Ontario) ▪ Bands N-Q: National (All Canada)	July 2017	Completed
11	Introduce a Compensation Policy and revise the Salary Administration Guidelines	Fall 2019	Completed Submitted for approvals by PVP, Remunerations Committee and Board of Governors in October 2019
12	Introduce a Pre-retirement Vacation Exchange Program for TMG	July 2018	Completed First introduced in June 2018
13	Introduce Career Frameworks	Fall 2019	Partially completed My Career resources, Career Stories and link to Current Opportunities are completed Development of Career Pathways is in progress

Total Compensation			
Description		**Target Implementation Timeline**	**Status and Notes**
14	Refine the recognition program by introducing elements specific to TMG	February 2018	Completed Peer to Peer Recognition Program first announced in March 2018
15	Explore with Sun Life the ability to provide employees in TMG who are not eligible for post-retirement benefits the option to purchase at retirement an individual benefit plan at preferred rates	Fall 2019	In progress Exploring alternative options Research completed Further Committee discussion required

Job Evaluation			
Description		**Target Implementation Timeline**	**Status and Notes**
16	Adopt the standard Hay Guide Charts for Job Evaluation and Expanded Definitions	July 2016	Completed Implemented September 2016 Tool for the Job Evaluation Committee
17	Define job families for TMG	July 2016	Completed Released October 2016
18	Review and update the selection of benchmark jobs	July 2016 and ongoing (collection of current job information will be underway)	In progress Selection of benchmarks completed Update of benchmark jobs in progress
19	Create job profiles by family which will serve as the backbone of evaluation system	July 2016 and ongoing	Completed Tool for the Job Evaluation Committee
20	Introduce a revised job description and related job posting	July 2016	Completed Released October 2016
21	Utilize generic job descriptions and posting information	Ongoing beginning in Summer 2017	Pending Development of generic job descriptions and postings to begin
22	Introduce band descriptions	Fall 2019	In progress
23	Introduce title guidelines	Fall 2019	In progress
24	Create a job evaluation manual for members of TMG and their managers	July 2016	Completed Released October 2016

Communication and Education			
Description		**Target Implementation Timeline**	**Status and Notes**
25	Improve communications to members of TMG and their supervisors ▪ Create a highlight summary of the total rewards package ▪ Improve how we explain value by introducing Total Rewards Statements	Fall 2017 (highlights summary) Fall 2019 (Total Rewards Statements) – subject to capability within Mosaic and BI	Completed Highlight summary of total rewards package to be posted on web in October 2019 Total Rewards statements to be released in mid-October
26	Create materials targeted to managers of TMG to promote better understanding and consistency of application of the TMG Total Rewards program elements	July 2016 and ongoing	Completed Ongoing initiative
27	Review and audit of implementation and application of program changes	July 2017 and ongoing	In progress
28	Amend letters to employees regarding their annual salary increase to reflect all increase adjustments	July 2016 July 2017 (additional updates)	Completed Further updates may be made in future

Other Considerations			
Description		**Target Implementation Timeline**	**Status and Notes**
29	Flexible benefits programs: The Sub-Committee agreed that the introduction of a Health Care Spending Account would be positively viewed by TMG and recommend that this be brought forward for future consideration	Not scheduled	Completed Decision made to maintain current traditional benefits program Future consideration
30	Program design elements are intended to integrate with other related programs for TMG	Ongoing	Completed Integration with other related programs is a constant consideration

Revised: October 2019

Health, Safety and Risk Management Report to the Board of Governors

Report 2019-4 for the period May 10, 2019 – September 20, 2019

The Health, Safety and Risk Management (HSRM) unit of Human Resources Services incorporates Environmental and Occupational Health Support Services (EOHSS), Employee Health Services (EHS) and works in cooperation with the Organizational Development unit. Together, we strive to promote the health, safety, wellness and engagement of all McMaster employees.

Executive Summary

- Phase two of the lab safety recommendations is now concluded with the completion of a central campus chemical inventory.
- There was one critical injury during the reporting period, however, it did not lead to a Ministry of Labour visit. The MOL did attend campus once on a separate issue although no orders were received.
- Lost time days increased by 57% in 2019 over 2018, primarily due to one claim that resulted in 138 days of lost time to date.
- The upcoming WSIB Reform has changed the way premiums are collected from employers, with 2019 being the final year for a NEER surcharge/rebate. This revision is expected to be positive for McMaster in 2020 as the premium rate has been reduced from 0.29 cents to 0.24 cents. The rate will again be re-evaluated for 2021 based on claim costs and performance.

1. Training and Loss Prevention Initiatives

- Phase two of the lab safety recommendations has been completed through the inventory of all on-hand chemicals held by central campus users entered into the HECHMET system. As noted in past reports, in 2015 a Faculty Lab Safety Committee identified a series of recommendations to enhance laboratory safety and emergency preparedness. In Spring 2018, EOHSS began the phased implementation of a new chemical inventory system, namely Higher Education Cooperative for Hazardous Materials and Equipment Tracking (HECHMET). The system, also utilized by 16 other Canadian Universities, is operated out of the University of Ottawa.

    - One-point of entry for chemicals is now in place with the receiving and logging of chemicals handled by Facility Services. Chemicals are then delivered directly to the end-user lab and removed from the inventory stream at the point of waste pick-up.

    - Over 40,000 chemicals have been entered into the system from 1,377 lab locations. Feedback from principal investigators has been positive to date.

- The next phase of the chemical inventory system implementation currently involves discussions with the Faculty of Health Sciences.

- EOHSS and Security Services created the new role of Fire Safety Emergency

Preparedness Specialist and Kyle Wood started with the team in September 2019. This role will identify opportunities to expand fire safety programming as well as facilitate a number of emergency preparedness exercises.

- EOHSS is preparing for a celebration of fire wardens during Fire Prevention Week in Ontario. During the week of October 8th, 2019 several events will be held, including joint sessions with the Hamilton Fire Department, to assist employees and students increase their fire safety awareness.

- The September edition of the Workplace Wellbeing Newsletter was released containing articles on Health and Safety Training online modules; job hazard analysis; remotely piloted aircraft system regulations and a new Risk Management Manual (RMM) procedure; golf cart safety; travel safety; safety toolbox talk information; slips, trips and fall prevention; as well as employee mental health resources and training opportunities.

- In addition to the newsletter, EOHSS provides safety messages through email, on library computer screens, as well as the EOHSS twitter account: Safety at McMaster.

2. Government Relations and External Inspections/Audits

- A Ministry of Labour (MOL) Inspector, along with the MOL Hygienist, visited campus in June as a follow-up to a previous visit in 2018. They requested a copy of an asbestos assessment conducted on elevator shafts. The copy was provided, and no further action was required.

- MOL was contacted as a result of an employee fracturing their foot while using the stairwell. The investigation indicated no workplace contributing factors and that the worker may have been distracted while talking on the phone at the time of the accident. There was no follow-up visit by MOL and no further action was required.

- Three WSIB claims for occupational illness due to noise-induced hearing loss were filed by two former employees and one current employee within a period of one month. The claims were all in Facilities Services areas dating back to 1978. In accordance with the Act, the MOL needs to be notified upon any claim filed under WSIB regardless of approval status. The University maintains a noise control and hearing protection program which includes sound level testing in high noise areas, as well as employee training and instruction. MOL has previously reviewed our noise program and had no concerns, as such, no follow up visit was required.
https://hr.mcmaster.ca/app/uploads/2019/01/RMM-403-Noise-Control-and-Hearing-Program.pdf

3. Employee Health Services Summary

3.1 Critical Injuries

There was one critical injury during this period as noted above.

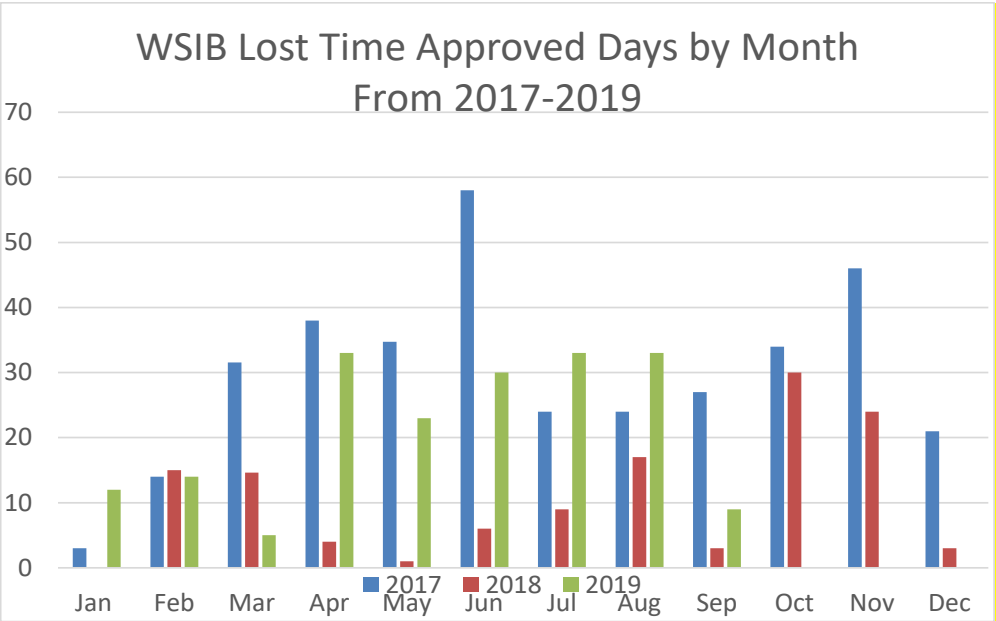
3.2 Lost Time Update

The Employee Health Team (EHS) actively manages WSIB as well as salary continuance, sick leave, employee accommodation requests and long-term disability claims. EHS collaborates on a regular basis with departments and faculties to develop and maintain proactive strategies with the goal of helping employees stay at work and reduce lost time.

The chart below illustrates the number of incidents, the number of WSIB-approved claims for health care and lost time days, for the past three years.

	2017	2018	YTD 2019
Total # of Incidents	356	409	370
# approved Healthcare	48	44	44
# approved Lost Time Claims	18	20	19
# of approved Lost time Days	355	127 days	200 days
# of approved Lost time Days carried over from 2017	0	310 Days, 2 claims	170 Days, 2 claims

- The number of lost time days increased from 2019 to 2018 as a result of two complex claims that accounted for 76% of the lost time.
- In 2018, two claims accounted for 56% of the lost time.
- In 2019, one claim has accounted for 56% of the lost time



- The graph above shows that year-over-year there are consistent significant lost time days throughout the entire year.

- Throughout late 2018 and early 2019, HSRM facilitated safety culture programming for Facility Services and Hospitality Services, with the goal of increasing a positive health and safety culture in the workplace, and to ultimately help decrease lost time injuries.

- The last New Experimental Experience Rating (NEER) Status report for 2019 from the Workplace Safety and Insurance Board (WSIB) is expected in November 2019. This report assesses McMaster University's performance based on our lost time and healthcare claim costs from 2018, 2017, 2016, and 2015. This program will be reformed effective January 1, 2020.

- We predict that McMaster will receive a small surcharge as the NEER costs for the previous four years have not exceeded the expected costs. More information on the exact amount of the surcharge will be provided in our next submission once the upcoming NEER report from WSIB is received.

- WSIB claims are proactively managed by McMaster's Employee Health Services Consultants and our Occupational Health Nurses. EHS is in regular communication with WSIB case managers and department Supervisors to encourage an early and

safe return to work.

3.3 WSIB Regulatory Changes

WSIB has announced changes to its Rate Framework which will fundamentally change the way the WSIB classifies Schedule 1 employers and sets its premium rates. This reform is effective January 2020. The new model will use a two-step approach to set and adjust premium rates for businesses.

- Step one involves setting an average rate for each industry class based on their risk profile and share of responsibility to maintain the insurance fund.
- Step two looks at how the individual claim history compares to the rest of the businesses in the class. This means that the overall rate under the new model will reflect our individual claims experience and risk.

Factors that determine premium rates under the new model include insurable earnings, number of claims and claim costs. A rolling six-year period is used to calculate the premium rate, e.g. in 2019, the years 2013-2018 determine the 2020 premium rate.

WSIB will be using insurable earnings, claims costs and the number of allowed claims over a six-year period to set premium rates. Our current premium rate for 2019 is 0.29 cents. Our premium rate for 2020 will be 0.24 cents.

Workplace Wellness Initiatives

McMaster offers a number of initiatives aimed to support the mental health of our employees and to promote the 13 psychosocial factors related to the National Standard of Canada for Psychological Health and Safety in the Workplace. To this end, McMaster has:

- Developed a new website for supporting staff and faculty in distress using our Recognize, Respond, Refer (3Rs) model.
- Offered Mental Health First Aid (MHFA) since September 2015. MHFA training continues to be a valued resource throughout the McMaster community. To date, a total of 444 faculty and staff have received MHFA training.
- Developed additional online Mental Health Awareness training available through McMaster Online Resource Essentials (MORE), in order to meet the varied needs of faculty and staff.
- Provides an Employee and Family Assistance program to employees and their dependents through Homewood Health. Homewood partners with McMaster to deliver a variety of workshops to employees throughout the year.

In addition to the above mental health-related programming, McMaster offers a range of programs aimed at promoting health and wellbeing.

- Human Resources provides customized wellness-related teambuilding retreats and sessions for multiple teams and departments across the University.
- Through the Healthy Workplace Committee, we offer:
    - A month-long **ParticipACTION Community Better Challenge** including classes such as Karate lessons from Kanata Village, Salsa lessons, a library fitness

circuit, and a Herioc Minds event – focusing on individuals who have overcome life-altering challenges.
    - A Summer **Lunch@Mac** program encouraging employees to take their break, network, and go outside.
    - A Fall newsletter highlighting unique spaces on McMaster campuses where meetings can be held or relaxation breaks can be taken.
- Co-hosted the **Canadian Post-Secondary Wellness Community of Practice Forum** in partnership with Waterloo and Laurier Universities.
- Organized and hosted the annual **TMG Day of Service,** providing an opportunity for McMaster leaders to learn about health and social issues affecting our community.