FOR INFORMATION **PUBLIC** **OPEN SESSION**

TO: Business Board

SPONSOR: Sheila Brown, Chief Financial Officer
CONTACT INFO: 416-978-2065, sheila.brown@utoronto.ca

PRESENTER: Sheila Brown, Chief Financial Officer
CONTACT INFO: 416-978-2065, sheila.brown@utoronto.ca

DATE: January 18, 2019 for February 4, 2019

AGENDA ITEM: 7(a)

ITEM IDENTIFICATION:

Debt Strategy - Annual Review

JURISDICTIONAL INFORMATION:

Pursuant to Section 5 (1.) (b.) of the Business Board *Terms of Reference*, the Business Board has responsibility for reviewing regular reports on matters affecting the finances of the University and on financial programs and transactions.

GOVERNANCE PATH:

1. **Business Board [for information] (February 4, 2019)**

PREVIOUS ACTION TAKEN:

The borrowing strategy was initially approved by Governing Council in June 2004. A revision of this debt strategy was approved in November 2012. The latest annual review was presented on January 29, 2018.

HIGHLIGHTS:

The debt strategy approved by Business Board in November 2012 established a single debt policy limit including both internal and external debt, with fungibility between them. The debt policy limit is calculated annually using the 5% debt burden ratio (debt service cost divided by total expenditures) as a key determinant, and the 0.8 viability ratio (total expendable resources divided by total debt) be taken into consideration in setting that debt policy limit. The purpose of this report is to assess the continued prudence and effectiveness of this debt strategy.

At April 30, 2018, the 5% debt burden ratio resulted in a total debt policy limit of $1,571 million. The associated viability ratio with this debt policy limit was 1.3, higher (which is better) than the desired lower threshold of 0.8. Of the $1,571 million, $350 million is set to be issued from internal sources with the remaining $1,221 million to be obtained from external debt. Actual outstanding debt at January 31, 2019 was $1,039.2 million, of which $327.2 million was internal and $712 million was external. At January 31, 2019, $1,245.1 million of borrowing room has been allocated to capital projects and other requirements, leaving $325.9 million ($1,571 million less $1,245.1 million) for future initiatives. Future capital projects under active consideration will require approximately $615 million, which is $289.1 million above what is currently available for allocation.

Based on projected financial factors such as total expenditures and expendable resources, the debt policy limit, determined using a 5% debt burden ratio, is projected to increase by an additional $366 million to $1.937 billion by April 30, 2024. This increase in debt limit would provide a total unallocated debt of $691.9 million by 2024. Based on the current estimated timing of the debt requirement for capital projects under active consideration, the debt policy limit would deliver enough debt to support the University's capital needs.

Sensitivity analysis shows that material increases in interest rates and slower growth in expenditures would negatively impact this projection and would lower the debt limit. For our projections, a 5.5% borrowing rate was used for future debt. It is about 2% higher than borrowing rates of recent debt issued by some Canadian universities. Therefore, the 5.5% already builds in a margin for future rate increases. It should be noted that an increase of 1% in the interest rate (from 5.5% to 6.5%) would lower the debt policy limit at April 30, 2024 to $1,839 million, rather than $1,937 million (a reduction of $98 million). A 2% increase in the interest rate (from 5.5% to 7.5%) would lower the debt policy limit at April 30, 2024 to $1,759 million rather than $1,937 million (a reduction of $178 million). In terms of total expenditures, for each $10 million reduction of total expenditures, the debt policy limit would decline by $6.2 million.

To assess the prudence of the debt policy, the University benchmarked actual and planned external debt and key financial ratios to those of selected Canadian universities and to Moody's U.S. Public College and University Medians (Fiscal 2017). In summary, compared to selected Canadian universities, at April 2018, U of T had similar debt service costs to total expenditures to most Canadian universities. In terms of expendable resources to pay outstanding debt, U of T had a slightly higher than average expendable resources to debt ratios. Compared to U.S. universities, U of T has a lower debt service cost than the median of universities with our same credit rating (Aa2), and higher spendable cash and investments to debt than the median of universities with our same credit rating. Canadian universities had not traditionally relied on debt-financing to the same extent as U.S. universities. However, as reflected in the 2018 comparisons, some Canadian universities have increased their usage of debt for capital infrastructure needs.

The current debt strategy has been in place for just over six years. This report on the functioning of the strategy demonstrates that, provided interest rates remain relatively stable and provided the University grows as expected, it will deliver steady increases of debt policy limit that would likely be sufficient to meet the borrowing needs for capital projects that are currently under active consideration.

FINANCIAL IMPLICATIONS:

None

RECOMMENDATION:

For information.

DOCUMENTATION PROVIDED:

- Debt Strategy review January 31, 2019

UNIVERSITY OF TORONTO

Debt Strategy Review

January 31, 2019

University of Toronto
Borrowing at a Glance to January 31, 2019

University of Toronto
Status Report on Debt to January 31, 2019

Financial Ratios in accordance with Policy	Total	Internal Component Pension Debt	Internal Component Other Debt	External Component
Debt burden ratios:				
Debt policy limit at April 30, 2018	**5.0%**			
Actual debt outstanding at January 31, 2019	**3.5%**	0.4%	1.0%	2.1%
Viability ratios:				
Debt policy limit at April 30, 2018	**1.3**			
Actual debt outstanding at January 31, 2019	**1.9**	18.5	9.0	2.8
Monitoring ratio				
Actual debt outstanding at January 31, 2019 plus special pension payments as % of total expenditures	**6.9%**			

*Calculated using the Total expenditures or Total expendable resources at April 30, 2018 and special pension payments for the year ended April 30, 2018

Debt Policy Limit April 30, 2018	Total in Millions	Internal Component Pension Debt	Internal Component Other Debt	External Component
Debt Policy Limit	**1,571.0**	150.0	200.0	1,221.0

Allocations	Total in Millions	Internal Component Pension Debt	Internal Component Other Debt	External Component
Opening balance at October 31, 2018	**1,230.4**	150.0	200.0	880.4
Opening balance at October 31, 2018-UTSC (R-Wing) *	**15.0**			15.0
Approved by Business Board on November 26, 2018	**-**	-	-	-
Change of allocation on previously approved projects	**(0.3)**	-	-	(0.3)
Closing balance at January 31, 2019	**1,245.1**	150.0	200.0	895.1
Unallocated	**325.9**	-	-	325.9

Actual Debt Outstanding	Total in Millions	Internal Component Pension Debt	Internal Component Other Debt	External Component
Opening balance at October 31, 2018				
Debentures due 2031 to 2051	**710.0**			710.0
Other external debt	**2.0**			2.0
Internal debt	**318.7**	108.8	209.9	-
	1,030.7	108.8	209.9	712.0
Changes	**8.5**	(1.4)	9.9	-
Closing balance at January 31, 2019	**1,039.2**	107.4	219.8	712.0

* Actual loan issued for $15M in December 2018, same as the amount approved by Business Board

Definitions:

Debt includes all long-term external and internal borrowed funds obtained by any means (e.g. debentures, bank loans) and excludes letters and lines of credit and all short-term and medium term internal financing for purposes such as construction financing and fund deficits.

Debt burden ratio, key determinant of debt policy limit, equals interest plus principal divided by total expenditures.

Debt policy limit is the maximum debt that can be taken on based on a debt burden ratio of 5%.

Viability ratio, to be taken into consideration in setting debt policy limit, equals expendable resources divided by debt. The debt strategy has set a preference of a viability ratio of 0.8 or greater.

Allocations include borrowing approved by Business Board, plus contingency for donations targets and pledges.

Actual debt outstanding is the sum of internal loans issued from internal debt plus actual external debt issuance.

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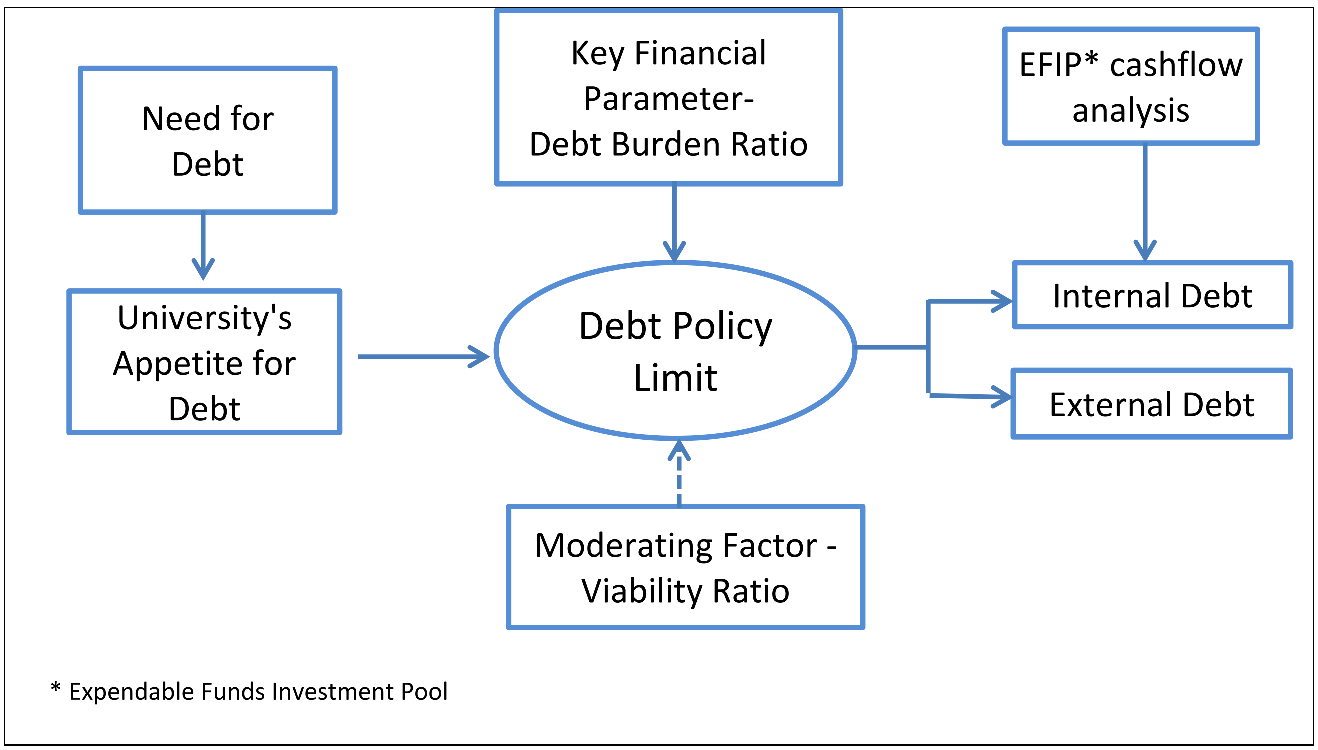
INTRODUCTION AND PURPOSE OF REPORT

The University of Toronto's debt programme acts as an integral component of the University's overall strategy to accomplish its academic mission by leveraging resources available to enable needed capacity growth and to provide quality enhancements of physical facilities.

Debt is strategically managed as a scarce resource that must be carefully utilized to support revenue generating assets to the greatest extent possible.

In November 2012, a revised debt strategy was approved by the Business Board, replacing the strategy in place since 2004. It takes into account the need for debt and the University's appetite for debt and the financial parameters appropriate for the University of Toronto.



In summary, it was approved that **the debt policy limit be calculated annually using the 5% debt burden ratio as a key determinant, and the 0.8 viability ratio be taken into consideration in setting that debt policy limit.** All other elements of the debt strategy, its associated processes and procedures, and the Business Board approvals that were in place remained unchanged. The purpose of this report is to assess the continued prudence and effectiveness of this debt strategy.

ELEMENTS OF THE CURRENT DEBT STRATEGY

The current debt strategy establishes a single debt policy limit including both internal and external debt, with fungibility between them. This debt policy limit is determined on the basis of debt affordability (measured using the debt burden ratio) and moderated when necessary and appropriate by debt capacity (measured using the viability ratio). The key elements of the current strategy are:

- **Debt** includes all long-term external and internal borrowed funds obtained by any means (e.g. debenture, bank loan), and excludes letters and lines of credit and all short-term and medium term internal financing for purposes such as construction financing and fund deficits. External debt includes all funds borrowed from third party lenders while internal debt includes funds borrowed by the University from its Expendable Funds Investment Pool (EFIP).
- **The total maximum debt limit** is calculated annually using the debt burden ratio (principal plus interest divided by total adjusted expenditures) of 5%.
- **Consideration is given to moderate the debt policy limit** if the viability ratio (expendable resources divided by debt) associated with that maximum debt limit is below 0.8.
- **The internal debt component** is currently set at $350 million. This amount can be increased or decreased based on borrowing needs and cash flow availability. An upper limit of 40% of EFIP has been established to recognize the need for liquidity and to provide for any possible future changes in cash flow patterns.
- **The monitoring ratio** is an additional metric calculated to monitor the combined impact of debt service on borrowed funds plus special pension payments, given the obligation to fund the large pension deficit[1].
- **Credit ratings are** excluded from policy determination.
- **A self-imposed internal sinking fund** accumulates funds to repay debentures at maturity.
- **The borrowing method** (e.g. private placement or other method) is determined by the senior officer responsible for financial matters.
- **The internal borrowing programme** is determined, managed and operated by the University's administration. The senior officer responsible for financial matters is authorized to issue internal loans from either internal or external debt for projects where borrowing has been authorized by the Business Board.

[1] Pension contribution strategy approved by Business Board in May 2012.

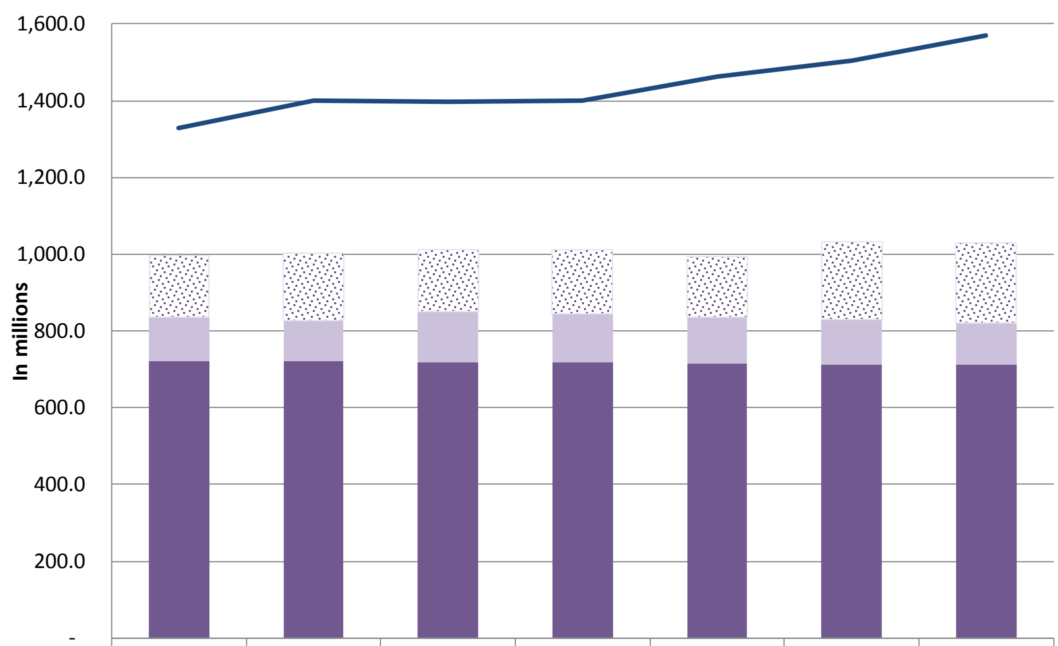
CURRENT STATUS

Debt Policy Limit:

The debt policy limit is updated annually at April 30 and is used in the following fiscal year as the maximum amount of debt available for future projects. At April 30, 2018, the 5% debt burden ratio resulted in a total debt policy limit of $1,571 million[2]. The viability ratio associated with the debt policy limit was 1.3, which is higher (better) than the desired lower threshold of 0.8; and therefore, no adjustment was made to the $1,571 million debt limit.

Internal debt is currently set at $350 million, which is below the 40% upper limit for EFIP. $150 million of the $350 million has been allocated for pensions and the remaining amount is allocated for other projects. This leaves an external debt component of $1,221 million ($1,571 million minus $350 million).

Actual Debt Policy Limit compared to Actual Debt
(at April 30)



	2012	2013	2014	2015	2016	2017	2018
Actual internal debt - other	162.3	174.1	162.7	168.2	155.0	202.6	209.9
Actual internal debt - pension	112.6	106.7	130.8	126.4	121.7	116.8	108.8
Actual external debt	722.6	721.0	719.4	717.6	715.8	713.9	712.0
Policy - total debt limit	1,329.6	1,400.0	1,396.5	1,401.1	1,461.2	1,502.9	1,571.0

Excludes accounting adjustments

[2] The calculation uses a borrowing rate of 5.5% for future debt, which is about 2% higher than borrowing rates of recent debt issued by some Canadian universities. It therefore builds in a margin for future interest rate increases. Please refer to page 3 of appendix II of this link http://www.governingcouncil.lamp4.utoronto.ca/wp-content/uploads/2018/06/a0619-4i-0217-2018bb.pdf for detailed calculation.

Allocations[3] to capital projects and other requirements:

At January 31, 2019, the Business Board has allocated $1,245.1 million to capital projects and other requirements. With the $1,571 million debt limit set as at April 30, 2018, this leaves $325.9 million to be allocated to future capital projects.

Actual outstanding internal and external debt:

At January 31, 2019, there was $1,039.2 million of total outstanding debt (all carrying fixed rates): $712.0 million (excluding accounting adjustments) in external long-term debt and $327.2 million in internal debt, as follows:

	Internal Debt for Capital and Other	Internal Debt for Pensions	Total Internal Debt	External Debt	Total
Policy Limit	200.0	150.0	350.0	1,221.0	1,571.0
Allocations	200.0	150.0	350.0	895.1	1,245.1
	-	-	-	325.9	325.9
Actual outstanding debt:					
Series A debenture*				160.0	160.0
Series B debenture*				200.0	200.0
Series C debenture*				75.0	75.0
Series D debenture*				75.0	75.0
Series E debenture*				200.0	200.0
Other external and internal debt	219.8	107.4	327.2	2.0	329.2
Total outstanding	219.8	107.4	327.2	712.0	1,039.2

* These debentures are unsecured with principal to be repaid on maturity dates ranging from 2031(A) to 2051(E).

At January 31, 2019, the debt burden ratio for the total outstanding debt is 3.5% and the associated viability ratio is 1.9. The ratio for debt burden plus pension special payments is 6.9%.

[3] Allocations include borrowing approved by Business Board, plus contingency for donations targets and pledges.

ASSESSING DEBT POLICY LIMIT TO DEBT NEEDS

Debt primarily supports capital projects and pensions. In assessing the appropriateness of a debt strategy, we considered the need for debt together with the need to remain affordable, and for debt servicing to continue to be financially responsible.

Over the next several years to April 30, 2024, we estimate that approximately $615 million of additional debt will be needed for new capital projects not yet approved by the Business Board, but that are under active consideration. Included in this estimate are projects that are in the very early stages of planning, which may not materialize or may be deferred depending on other available funding sources. It is unlikely they will all be completed within the six-year time frame. Debt is allocated to academic divisions based on the general principle that long-term borrowing make up no more than 20% of the total project cost.

Projects under consideration over the next few years include a second Instructional Centre at UTSC; renovations in several Arts & Science buildings at the St. George Campus; the Site 12 Academic Tower (100 Devonshire); the Landmark project; redevelopment of the University of Toronto Schools site; the Centre for Civilizations and Cultures building at the McLaughlin Planetarium site on Queen's Park; and the Partners in Innovation & Entrepreneurship Complex (currently Banting & Best). As the planning process advances each year in response to divisional and institutional priorities, changes may be made to the envelope of planned projects. The table below shows the estimated timing of new debt needed for these projects.

Need for Debt (Projects not yet Approved)

(in Millions of Dollars)		
	Tentative Approval Date	Tentative Loan Date
2018-19	230.0	
2019-20	93.0	
2020-21	96.0	
2021-22	125.0	230.0
2022-23	50.0	93.0
2023-24	21.0	96.0
2024-25		125.0
Total to 2025	615.0	544.0

During the construction period, financing is absorbed by EFIP as short-term bridge financing and is not included as debt.

Up to January 31, 2019, the Business Board has approved $1,245.1 million of debt for capital and other projects, leaving $325.9 million for future projects. To meet the estimated future debt requirements of $615 million, an additional debt capacity of $289.1 million would be needed by 2024. The table below shows the projected increases of debt available for allocation by fiscal year based on an estimated borrowing interest rate of 5.5%[4].

Projected Debt Available for Allocation by Fiscal Year*
(in millions)

Fiscal Year	Debt Policy Limit available during the Fiscal Year	Annual Debt Limit Increase	Opening Unallocated Debt Available	Debt Required for Not Yet Approved Projects under Consideration (based on approval date)	Remaining Debt Available for Allocation
2018-19	1,571.0		325.9**	(230.0)	95.9
2019-20	1,689.3	118.4	95.9	(93.0)	121.3
2020-21	1,743.3	54.0	121.3	(96.0)	79.2
2021-22	1,799.0	55.7	79.2	(125.0)	9.9
2022-23	1,859.0	60.0	9.9	(50.0)	19.9
2023-24	1,903.7	44.7	19.9	(21.0)	43.7
2024-25	1,937.0	33.3	43.7		76.9

***Sensitivity: Please note that an increase of 1% in the borrowing interest rate would reduce the debt policy limit by $98 million (from $1,937 million to $1,839 million) by 2023-24. A 2% increase in the interest rate would reduce the debt policy limit by $178 million (from $1,937 million to $1,759 million) by 2023-24. In addition, at the borrowing rate of 5.5%, for each $10 million reduction in total expenditures, the debt policy limit would decline by $6.2 million. See pages 12 and 13 for further details.**

**** At January 31, 2019**

Based on the table above, debt available is projected to increase steadily over the next few years due to the projected growth of the university's operations and expenditures, and would deliver debt policy limits needed to support the University's capital needs that are currently under active consideration. As indicated above, some of these projects may not materialize or may be deferred depending on other available funding sources.

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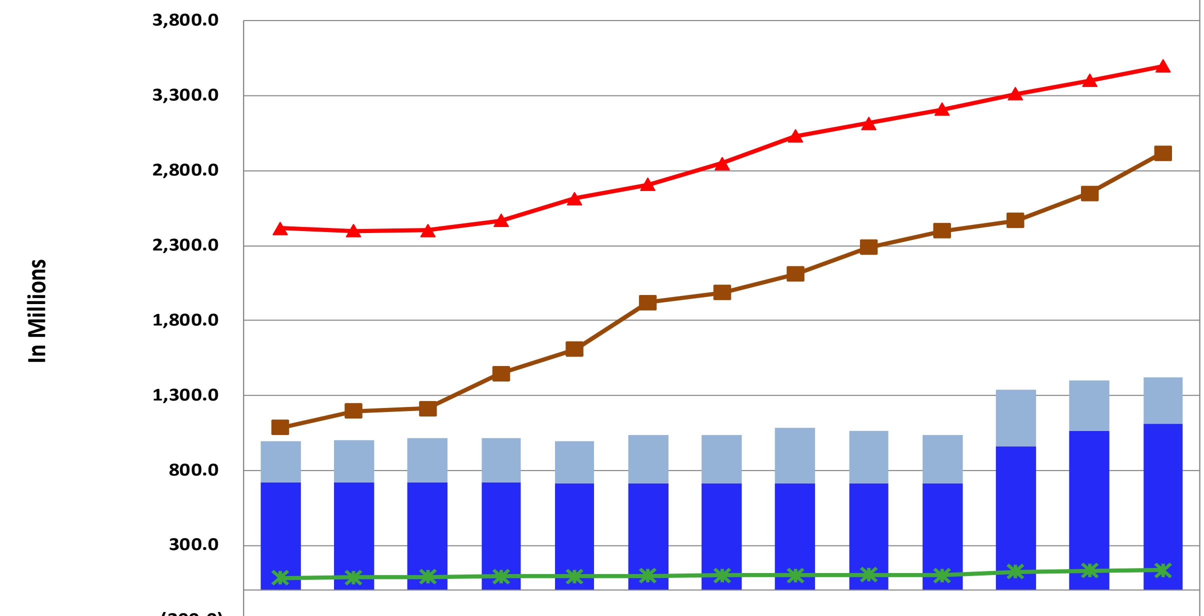
[4] The 5.5% interest rate includes a margin for future interest rate increases. York University and University of Ottawa issued debentures of $100 million and $200 million in May and October 2016 at 3.58% and 3.256%. More recently, Ryerson University and University of Western Ontario issued debentures of $130 million and $100 million in October and December 2017 at 3.768% and 3.39%.

To project the growth of the debt policy limit, we have projected the key financial factors that impact the debt policy limit. The following graph shows a steady increase in total expenditures, as well as increases of expendable resources to April 30, 2024.

Financial Factors that Impact Debt Policy Limit



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Internal debt - actual & planned	274.9	280.8	293.5	294.6	276.6	319.4	324.5	371.7	355.3	327.2	377.4	342.0	311.5
External debt - actual & planned	722.6	721.0	719.4	717.6	715.8	713.9	712.0	710.6	710.0	710.0	960.0	1,060.0	1,110.0
Total expenditures (adjusted)	2,416.7	2,396.8	2,400.1	2,467.7	2,614.2	2,707.4	2,847.6	3,031.3	3,114.7	3,209.6	3,312.0	3,399.8	3,498.2
Expendable resources	1,085.9	1,195.7	1,211.1	1,444.6	1,608.9	1,919.5	1,984.6	2,109.7	2,286.6	2,397.5	2,466.6	2,647.3	2,917.8
Debt Service Cost -actual & planned total debt	81.1	87.1	89.8	91.2	92.1	95.9	97.8	100.2	102.6	100.7	122.8	131.3	134.9

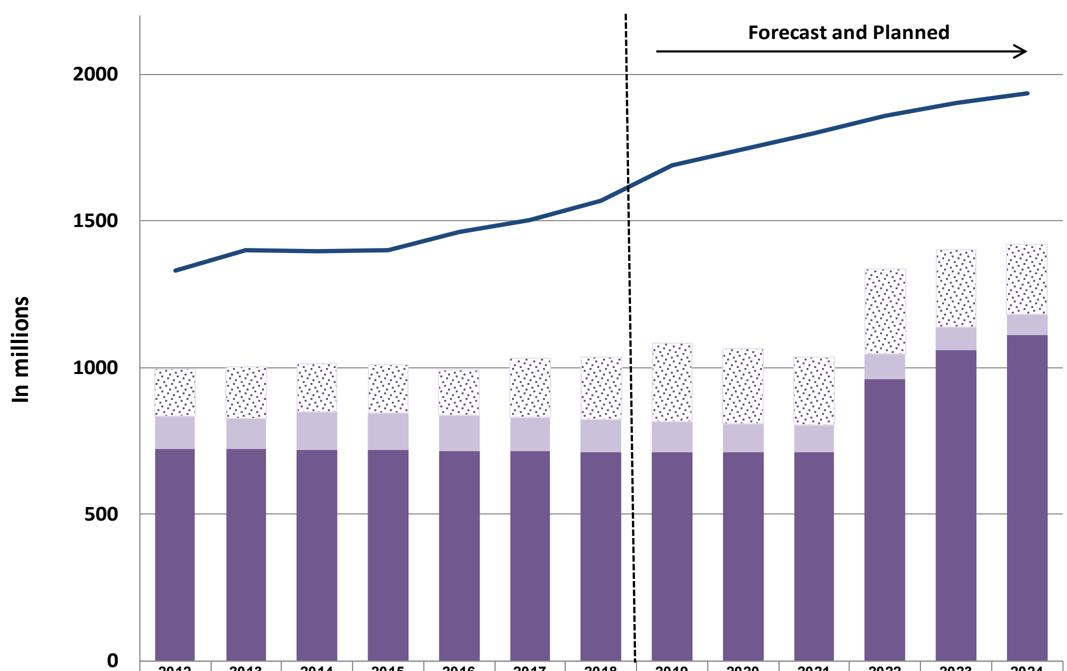
These projections reflect the following assumptions:

- 2019 financial forecast and 2018-19 long-range operating budgets with particular focus on the anticipated growth rates of both the operating expense and revenue budgets.
- Preliminary ancillary budgets 2019 to 2024.
- Divisional reserves to increase, with annual allocations from operating fund towards capital projects under consideration and matching programs.
- We have incorporated capital construction costs for projects that have been approved by Business Board. For the outer years, we have also attempted to model future capital construction costs for projects currently under consideration, which have not yet approved. Furthermore, we have incorporated the effect of potential bridge financing of donations and future debt issuance.
- Investment return on endowments and other long-term funds beyond 2019 is forecasted using target return rates.
- We have built in modest growth in internally designated endowments and deferred contributions.

- New external debt is assumed to be issued in the form of debentures to be paid in 40 years. Debt service costs for new external debt consist of debt divided by 40 years plus interest at a rate of 5.5%[5]. Debt service costs for new internal loans consist of principal and interest repayment of amortizing loans over 25 years with an interest rate of 5.5%. Debt service cost for interest only loans to bridge finance donations consist of interest of outstanding debt calculated using a rate of 4.5%.
- Increases in pension funding to address going concern in accordance with the Pension Contribution Strategy approved by Business Board in May 2012. Furthermore, it builds in the actual going concern special payments to 2020 and enhanced special payments thereafter.

Based on the assumptions above, the following graph shows the forecasted total debt policy limit (calculated with a debt burden ratio of 5%) compared to actual and planned debt. The increase in the debt policy limits is mainly attributed to the planned growth in the operating expense budget.

Actual/Forecasted Debt Policy Limit compared to Actual/Planned Debt



	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Actual/planned internal debt - other	162.3	174.1	162.7	168.2	155.0	202.6	213.0	265.7	255.3	233.4	290.2	261.9	239.0
Actual/planned internal debt - pension	112.6	106.7	130.8	126.4	121.7	116.8	111.5	106.0	100.0	93.8	87.2	80.1	72.5
Actual/planned external Debt	722.6	721.0	719.4	717.6	715.8	713.9	712.0	710.6	710.0	710.0	960.0	1,060.0	1,110.0
Policy - total debt limit	1,329.6	1,400.0	1,396.5	1,401.1	1,461.2	1,502.9	1,571.0	1,689.3	1,743.3	1,799.0	1,859.0	1,903.7	1,937.0

Excludes accounting adjustments

[5] The 5.5% interest rate includes a margin for future interest rate increases. York University and University of Ottawa issued debentures of $100 million and $200 million in May and October 2016 at 3.58% and 3.256%. More recently, Ryerson University and University of Western Ontario issued debentures of $130 million and $100 million in October and December 2017 at 3.768% and 3.39%.

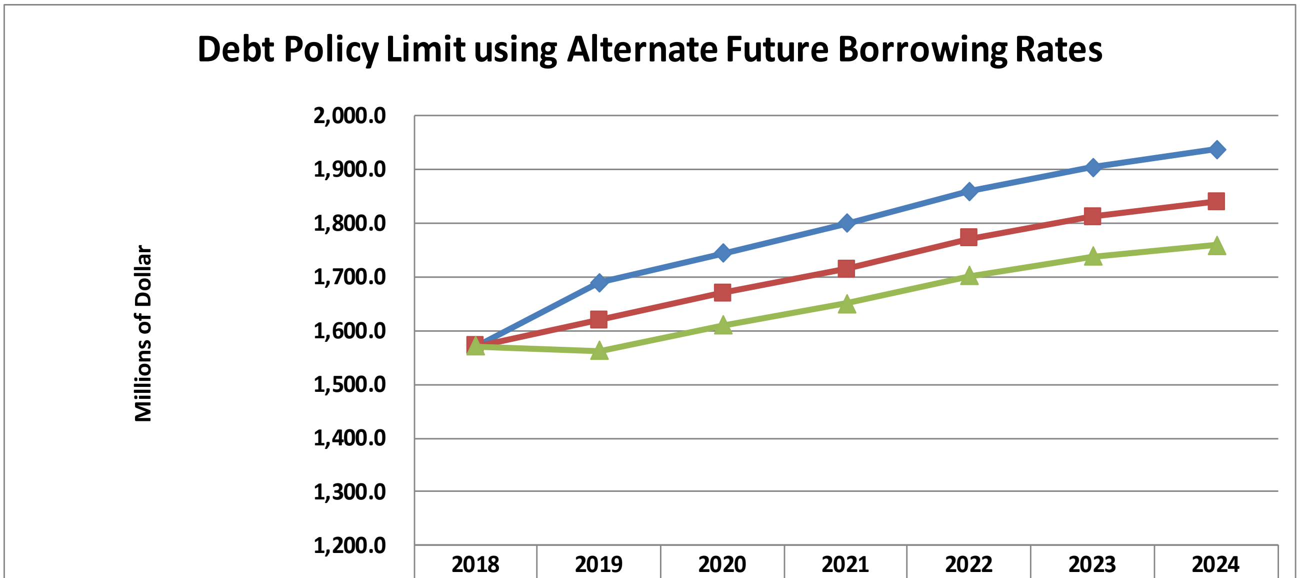
Compared to last year's debt strategy review, the current projection estimates higher debt policy limits than last year's projection. Projections of future expenditures that impacts the calculation of the debt burden ratio have been increased slightly based on last year's results and current year's forecast. We anticipate larger capital expenditures in the next few years, which do not impact the debt burden ratio.

Based on the above projections, the debt policy limits for future years will provide sufficient financing needed for the projects under active consideration.

Expendable resources are expected to grow since revenues are expected to grow modestly at higher rates than expenses. The excess of revenues over expenses are partially used towards capital expenditures. Based on the forecasted expendable resources, viability ratios are expected to be above the desired minimum of 0.8, so we do not expect the need to adjust the debt limit by this secondary parameter.

Sensitivity Analysis

Material increases in interest rates would negatively impact this projection as they would increase the cost of new debt, increasing the debt burden ratio, and thus reducing the debt policy limit. As stated above, we have used a future borrowing rate of 5.5% (with a margin of almost 2% for future rate increases) to project the debt policy limits. A sensitivity analysis of the debt policy limit was calculated using interest rates of 6.5% and 7.5% as shown in the graph below.



	2018	2019	2020	2021	2022	2023	2024
Borrowing rate of 5.5% (current assumption)	1,571.0	1,689.3	1,743.3	1,799.0	1,859.0	1,903.7	1,937.0
Borrowing rate of 6.5%	1,571.0	1,619.3	1,669.3	1,715.0	1,772.0	1,811.7	1,839.0
Borrowing rate of 7.5%	1,571.0	1,562.3	1,610.3	1,650.0	1,702.0	1,737.7	1,759.0

The above graph shows that an increase of 1% in the interest rate for borrowing would result in a debt policy limit reduction between $70 million (2019: from $1,689.3 million to $1,619.3 million) and $98 million (2024: from $1,937.0 million to $1,839.0 million). A 2% increase in the interest rate would result in a debt policy limit reduction between $127 million (2019: from $1,689.3 million to $1,562.3 million) and $178 million (2024: from $1,937.0 million to $1,759.0 million).

In addition, the projected debt policy limit is also dependent on the projected growth of the University's expenditures and expendable resources. If these were to grow at a lower rate than those projected in this analysis, the debt policy limits would also be lower than projected. At the borrowing rate of 5.5%, for each $10 million reduction of total expenditures, the debt policy limit would decline by $6.2 million.

FINANCIAL PARAMETERS

Debt affordability is the financial parameter that determines the debt policy limit. Debt capacity is the secondary financial parameter that is taken into consideration when setting the debt policy limit each year.

Debt affordability is defined as the amount that can be made available to pay interest and repay outstanding debt, both external and internal. It is measured via income statement ratios and is impacted by the interest rate at which the debt is financed and the time period over which principal payments are made on the debt. The debt strategy sets the acceptable debt burden ratio (principal plus interest/total expenditures) at 5%, well within a recommended upper limit of 7% (Strategic Financial Analysis in Higher Education – Seventh edition).

In addition to the debt burden ratio, as a general provision for future adverse events due to the size of the pension deficit and the resulting need for pension related contributions over many years by the University, an additional metric was developed to capture this impact. The monitoring ratio, which adds the special pension payments[6] (under the pension contribution strategy) to principal plus interest on actual and planned internal and external debt, and continues to be divided by total expenditures, will serve only for additional information purposes.

The following graph shows the actual debt burden ratios for external debt alone and the actual debt burden ratios for both external and internal debt up to 2018. The forecasted debt burden ratios include debt that has already been approved by Business Board plus additional debt for projects that are being planned for future years, which have not been submitted to the Business Board for approval. It also shows the monitoring ratio (that includes pension special payments) to 2018 and the forecasted ratios to 2024 has been included in the graph.

It should be noted that using the debt service cost of a loan equivalent to the pension liability instead of the pension special payments would have resulted in a lower monitoring ratio. The pension liability at April 30, 2018 was $319 million and using the debt service cost of a loan would have reduced the monitoring ratio at January 31, 2019 from 6.9% to 4.4%.

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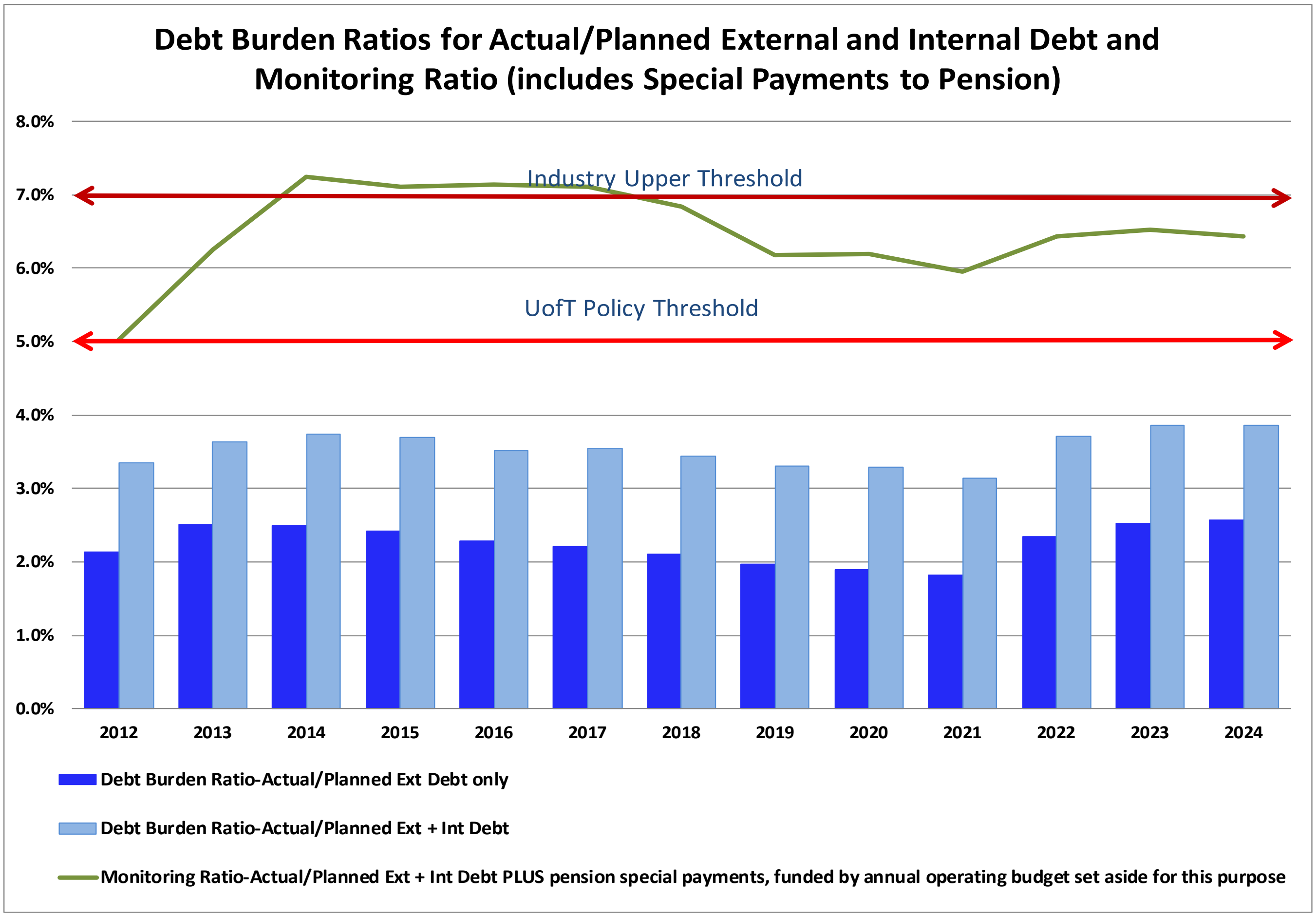
[6] The budget allocation for special payments was $112.2 million in 2018-19 and it is planned to increase by $5.0 million in each of the next five years. However, from 2018-19 to 2019-20, the special budgeted contributions exceed the University's required minimum contribution for going concern and solvency; and therefore, we have included in this additional ratio, only the minimum required contribution amounts instead of the budgeted contributions.



Based on the projected expenditures and the projected debt service costs for actual and planned debt (both for approved projects and those not yet approved), the debt burden ratios for the future years will increase slightly, but will remain below the 5% maximum policy limit. The additional monitoring ratio, which adds special pension payments[7] (funded from operating budget) to debt burden ratio, is expected to be neighboring the 7% industry upper threshold.

Debt capacity which is considered a moderating factor is defined as the amount that can be borrowed based on funds on hand that could be used to repay the outstanding debt as of the balance sheet date. It is measured via a balance sheet ratio (expendable resources/debt). The debt strategy identifies a viability ratio of 0.8 as the appropriate lower threshold for our institution that balances our financial, operating and programmatic objectives. This is an additional ratio that is taken into consideration once the debt policy limit is calculated using the debt burden ratio of 5%.

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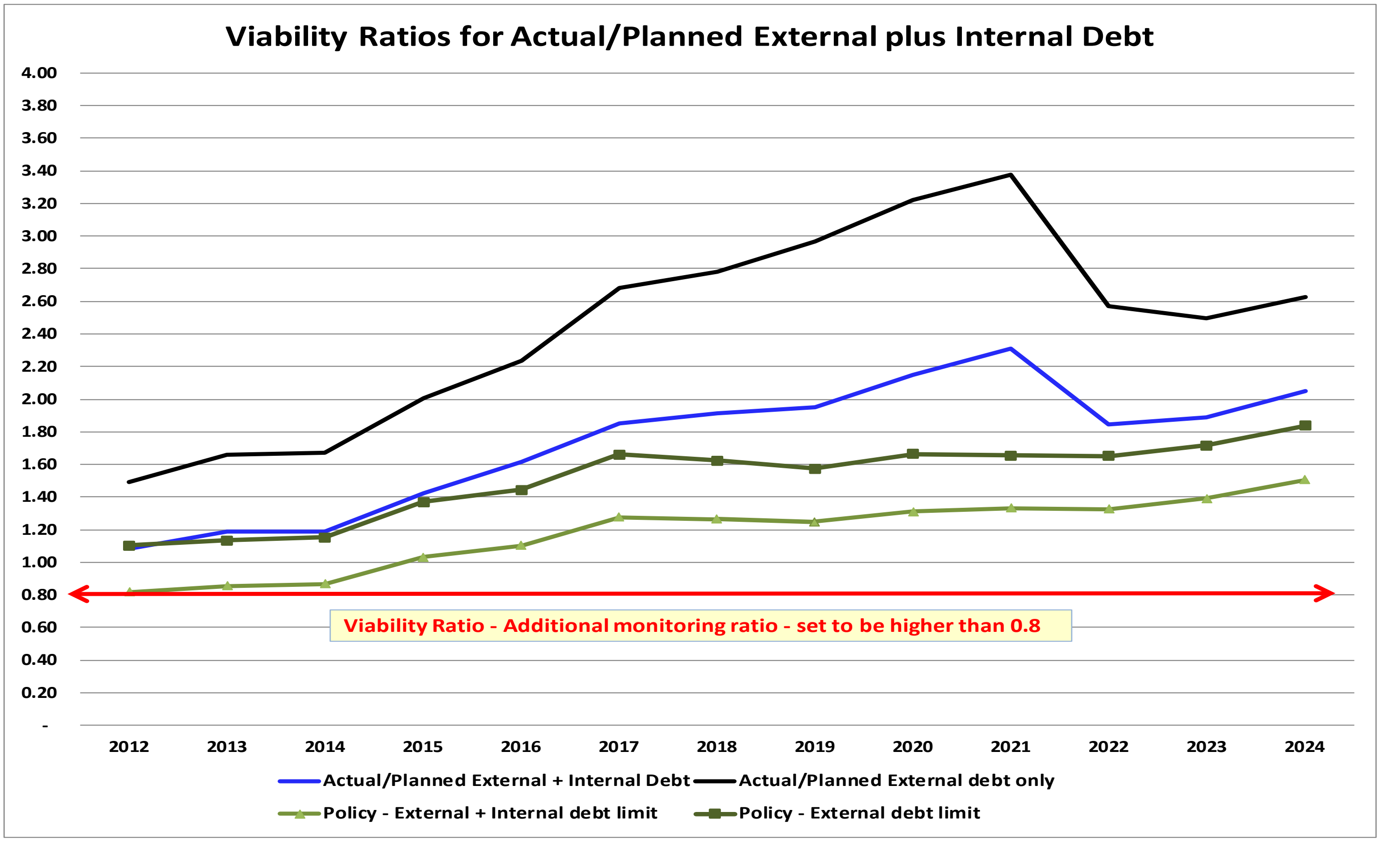
[7] The budget allocation for special payments was $112.2 million in 2018-19 and it is planned to increase by $5.0 million in each of the next five years. However, from 2018-19 to 2019-20, the special budgeted contributions exceed the University's required minimum contribution for going concern and solvency; and therefore, we have included in this additional ratio, only the minimum required contribution amounts instead of the budgeted contributions.

The graph below shows the viability ratios based on actual debt (external only and both internal plus external debt) up to 2018 and the forecasted viability ratios based on actual and planned debt for approved and not yet approved projects to 2024. It also shows the actual and forecasted viability ratios based on the assumption of issuing debt equal to the debt policy limit, both external plus internal, and then for external debt alone.



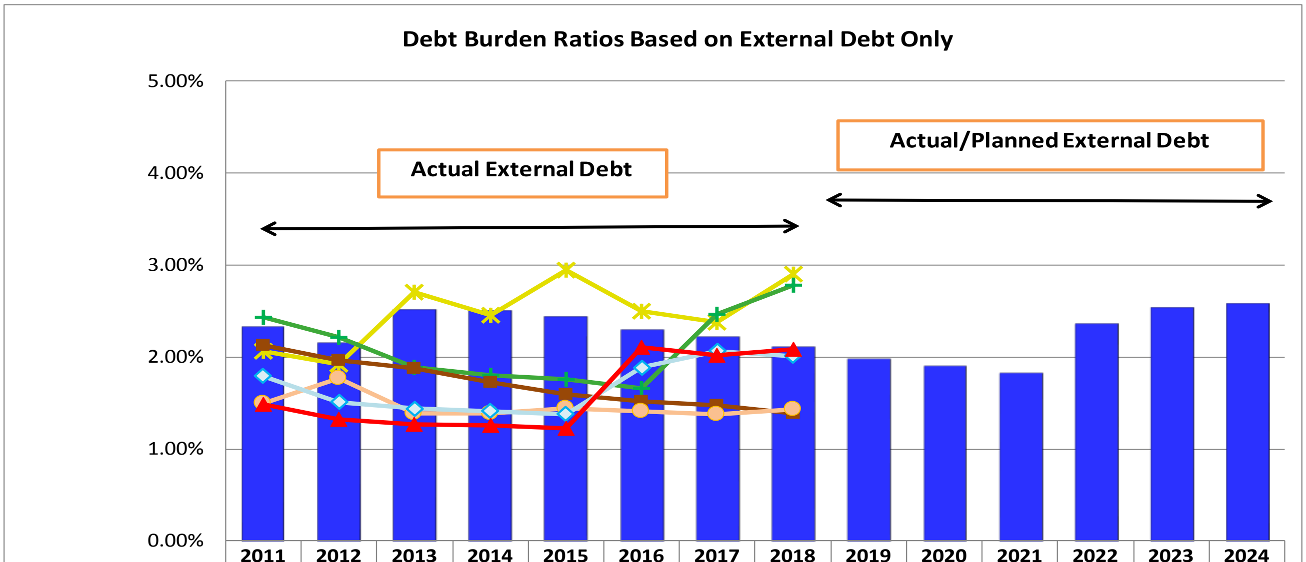
The graph above shows that the viability ratios for the actual and planned debt are expected to be above the lower threshold of 0.8 for all the years being forecasted. In addition, the viability ratios associated with the forecasted debt policy limits are expected to be also above 0.8 for the years 2019 to 2024. Therefore, we don't expect to adjust the debt limit by this secondary parameter.

A number of years have passed since the current debt strategy was approved in November 2012. We continue to believe that using the debt burden ratio to assess the University's ability to service debt and using the viability ratio as a secondary ratio to monitor the University's capacity to repay debt are financially prudent. Limiting the cost of servicing debt to quite a small percentage, 5% of total expenditures, helps the University balance what is spent ON the classroom with what is spent IN the classroom. Using an additional parameter to monitor the University's debt adds to the University's caution in setting the debt policy limit.

BENCHMARKING

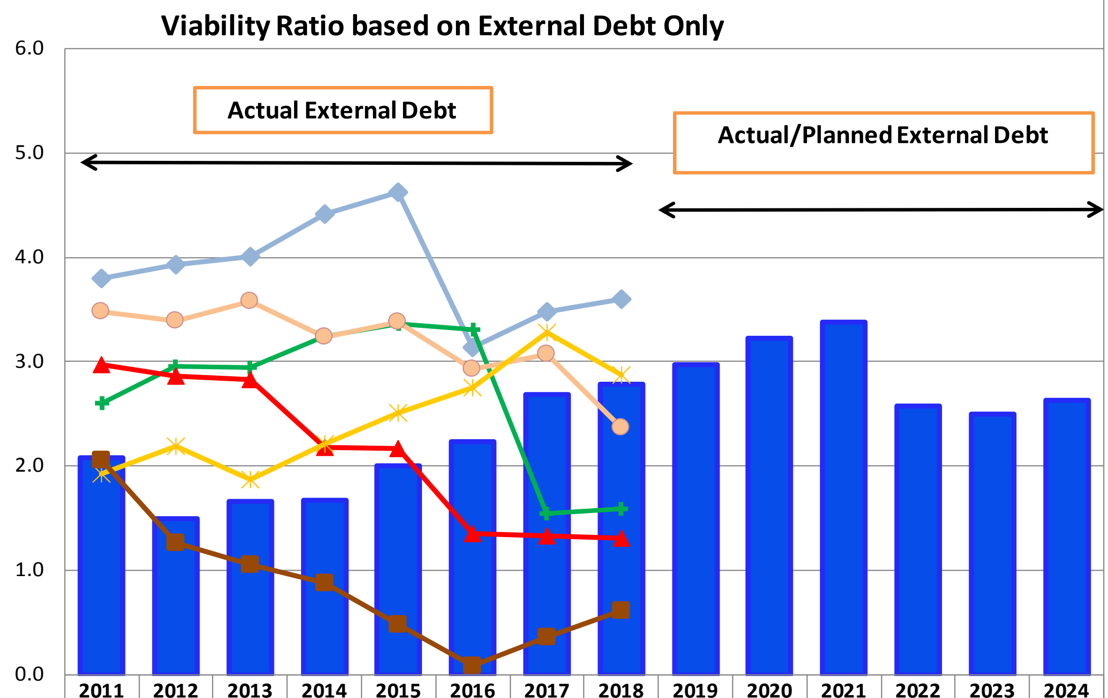
To assess the current debt strategy, we are also comparing the University's debt ratios to those of selected Canadian and U.S. universities.

For the benchmarking against Canadian universities, we have used the University's actual and forecasted debt burden and viability ratios and compared them to the debt burden and viability ratios that we have calculated for these other Canadian universities. Since these two ratios are not readily available, we have obtained the data from their published financial statements and have made some minor necessary adjustments to their financial data to make them comparable to the data used to calculate the University of Toronto ratios. For example, in calculating the ratios for McGill University, we have excluded the debt, debt service cost and interest expense related to the debt that is secured by the Government of Quebec. For universities that have issued debentures, like U of T, we have used the same approach to calculate the annual debt service cost for the principal component by dividing the debt by the number of years from the issue date to the maturity date. Finally, since information on internal debt is not disclosed in the financial statements and is not readily available, we have calculated the ratios based only on external debt. The two graphs below show the debt burden ratios and viability ratios.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
U of T Actual/Planned	2.3%	2.1%	2.5%	2.5%	2.4%	2.3%	2.2%	2.1%	2.0%	1.9%	1.8%	2.3%	2.5%	2.6%
Western	2.1%	1.9%	2.7%	2.5%	2.9%	2.5%	2.4%	2.9%						
Ottawa	2.4%	2.2%	1.9%	1.8%	1.8%	1.7%	2.5%	2.8%						
UBC	2.1%	2.0%	1.9%	1.7%	1.6%	1.5%	1.5%	1.4%						
Alberta	1.5%	1.8%	1.4%	1.4%	1.4%	1.4%	1.4%	1.4%						
McMaster	1.8%	1.5%	1.4%	1.4%	1.4%	1.9%	2.1%	2.0%						
McGill	1.5%	1.3%	1.3%	1.3%	1.2%	2.1%	2.0%	2.1%						

At April 2018, U of T's debt burden ratio on actual external debt was below Western and Ottawa, almost the same as McGill and McMaster, but above UBC and Alberta. U of T had in the past led the way and built its debt programme to a greater extent than other Canadian universities; but more recently, other Canadian universities have increased their reliance on debt-financing and this is reflected in the ratios.



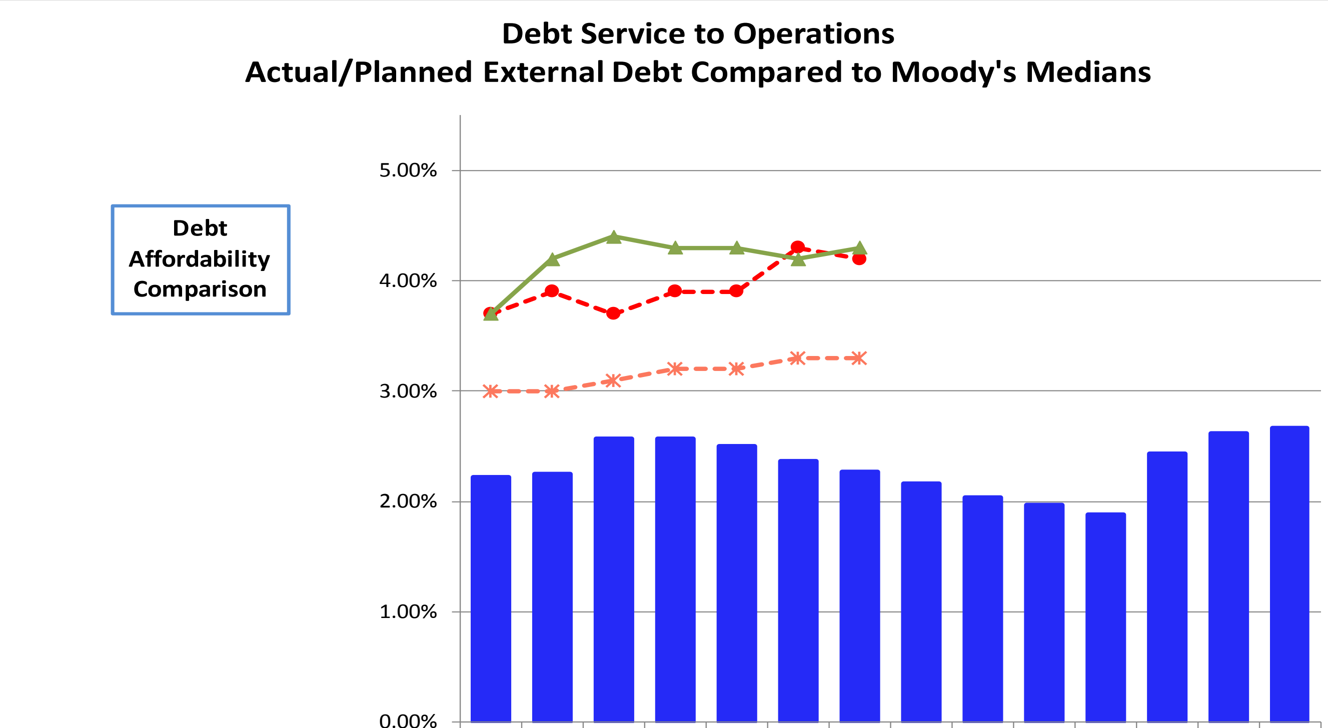
	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
Toronto Actual/Planned	2.08	1.49	1.66	1.67	2.00	2.24	2.68	2.78	2.96	3.22	3.38	2.57	2.50	2.63
McMaster	3.80	3.93	4.01	4.42	4.62	3.13	3.47	3.60						
Ottawa	2.60	2.95	2.95	3.24	3.36	3.30	1.54	1.59						
Alberta	3.48	3.39	3.57	3.23	3.38	2.93	3.07	2.37						
McGill	2.97	2.87	2.82	2.18	2.16	1.35	1.33	1.31						
Western	1.93	2.18	1.87	2.21	2.50	2.75	3.28	2.87						
UBC	2.06	1.26	1.05	0.87	0.48	0.09	0.36	0.61						

When comparing U of T to U.S. universities, we see that U of T's debt burden ratio is lower than universities with similar investment grade rating categories.

For benchmarking against U.S. universities, we used the Moody's U.S. Public College and University Medians (fiscal 2017) which provided comparison data for selected U.S. universities. The University of Toronto is not included in this report. There are 14 universities at the Aa1 rating level, 31 universities at the Aa2 level, and 41 universities at the Aa3 level. At each rating level, the median university ratio is displayed. Only external debt is considered.

Moody’s implemented changes in recent years in their rating methodology for colleges and universities globally. This change resulted in “adjustments to certain ratios calculations to ensure global comparability, including moving to cash-based wealth metrics from net-asset based metrics”. For debt affordability, Moody’s has continued to use Debt Service to Operation (which we had used in the past) as the appropriate metric. Therefore, no change is required for debt affordability benchmarking. However, for debt capacity, Moody’s has replaced the viability ratio (Expendable Resources to External Debt) with the Spendable Cash and Investment (defined as cash, short-term investments and investments less externally restricted endowments) to External Debt ratio.

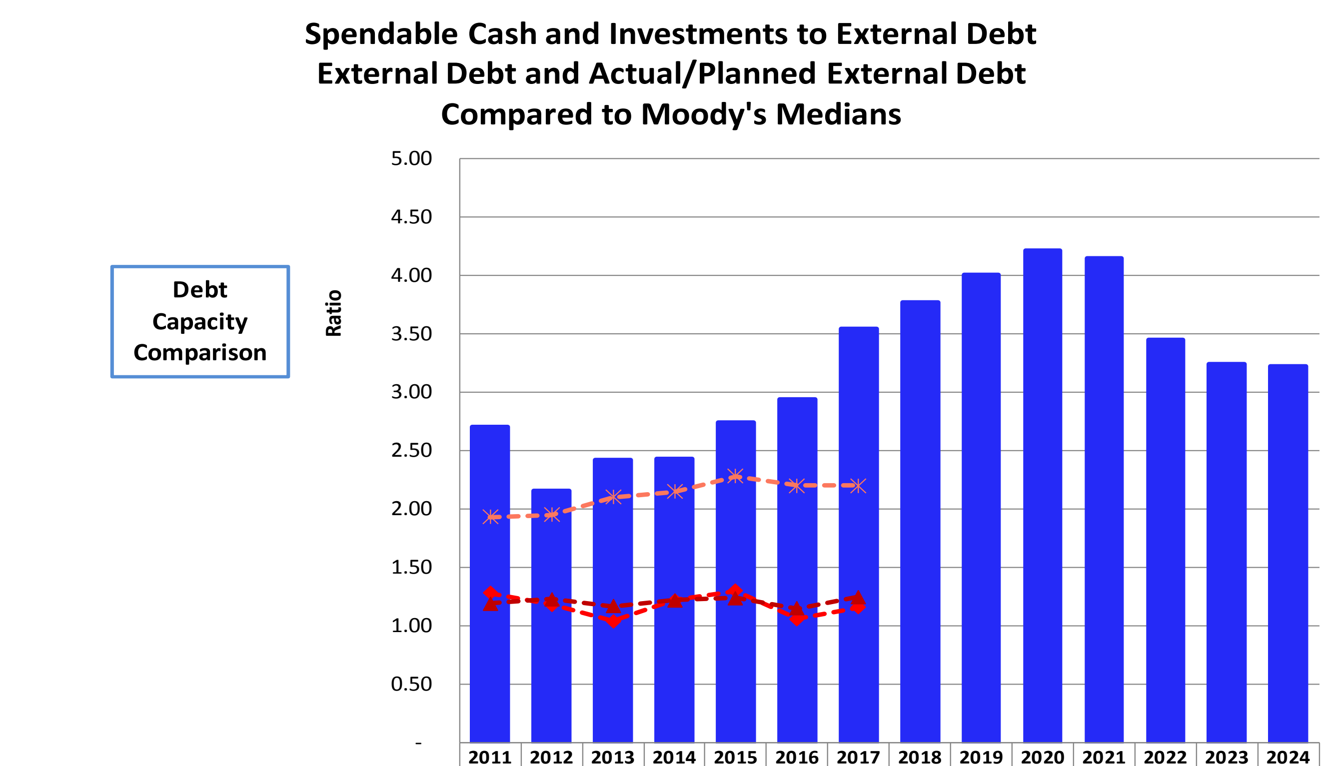
As a debt affordability comparison, we selected the ratio of debt service to operations. This ratio is very similar to the debt burden ratio, but has one difference. Scholarships, fellowships and bursaries are deducted from total expenditures since Moody’s considers this category to represent tuition discounting. The U of T ratio reflected here has been adjusted for that difference and is slightly better than the debt burden ratio displayed in the other charts.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
UofT Actual/Planned External Debt only	2.22%	2.25%	2.56%	2.57%	2.50%	2.36%	2.27%	2.16%	2.04%	1.96%	1.88%	2.43%	2.62%	2.66%
Aa1 - Moody's Median	3.00%	3.00%	3.10%	3.20%	3.20%	3.30%	3.30%							
Aa2 - Moody's Median	3.70%	3.90%	3.70%	3.90%	3.90%	4.30%	4.20%							
Aa3 - Moody's Median	3.70%	4.20%	4.40%	4.30%	4.30%	4.20%	4.30%							

As you can see from the chart above, the 2017 ratios for the three rating levels range from 3.3% to 4.3%. The 2017 U of T ratio was 2.3%.

The next chart provides the debt capacity comparison, using Moody's new Spendable Cash and Investments to External Debt that effectively incorporates U of T's self-imposed sinking fund in the calculation. This ratio measures the university's ability to repay bondholders from wealth that can be accessed over time or for a specific purpose.



	2011	2012	2013	2014	2015	2016	2017	2018	2019	2020	2021	2022	2023	2024
UofT Actual/Planned External Debt only	2.70	2.15	2.42	2.43	2.74	2.94	3.55	3.77	4.01	4.21	4.15	3.45	3.24	3.22
Aa1 - Moody's Median	1.93	1.95	2.10	2.15	2.28	2.20	2.20							
Aa2 - Moody's Median	1.28	1.18	1.04	1.22	1.30	1.06	1.16							
Aa3 - Moody's Median	1.19	1.23	1.17	1.22	1.24	1.15	1.25							

As you can see from the chart above, the 2017 ratios for the three rating levels range from 1.16 to 2.2. The 2017 U of T ratio was 3.55 and the lowest projected ratio will be 3.22 by 2024, which is still higher than the 2017 ratios for the three rating levels range.

In summary, compared to selected Canadian universities, U of T has a similar proportion of debt service costs to total expenditures. In terms of expendable resources to pay outstanding debt, U of T has a slightly higher than the average expendable resources to debt ratios. Compared to U.S. universities, U of T has a lower debt service cost than the median of universities with our same credit rating (Aa2), and higher wealth that can be accessed to pay external debt than the median of universities with our same credit rating.

CREDIT RATINGS

Credit ratings give lenders an assessment of a borrower's ability to repay debt. The credit rating also influences the interest rate paid by the borrower, reflecting how much the lender wants to be compensated for assuming the risk related to repayment of the debt and the covenants placed on the borrower by the lenders.

The University has three credit ratings – from Moody's Investors Service, from Standard and Poor's and from Dominion Bond Rating Service. The following table shows the credit rating definitions and the ratings assigned to our U.S. and Canadian peers.

Credit Rating Comparison
University of Toronto with US and Canadian Peers at June 2018

Rating Definitions	Moody's Investors Service	Standard & Poor's	Dominion Bond Rating Service
Best quality	Aaa	AAA	AAA
Next highest quality	Aa1	AA+	AA(high)
and so on, declining	Aa2	AA	AA
	Aa3	AA-	AA(low)
	A1	A+	A(high)
	A2	A	A
	and so on	and so on	and so on

University	Moody's Investors Service	Standard & Poor's	Dominion Bond Rating Service
PROVINCE OF ONTARIO	**Aa2**	**A+**	**AA(low)**
University of Michigan	Aaa	AAA	
University of Texas system	Aaa	AAA	
University of Washington	Aaa	AA+	
University of British Columbia	Aa1	AA+	
University of Pittsburgh	Aa1	AA+	
University of Minnesota	Aa1	AA	
Ohio State University	Aa1	AA	
University of Toronto	**Aa2**	**AA+**	**AA**
Queen's University		AA+	AA
University of Western Ontario		AA	
McMaster University		AA	AA
University of California	Aa2	AA	
University of Ottawa	Aa2		AA(low)
McGill University	Aa2	AA-	
University of Arizona	Aa2	AA-	
University of Illinois	A1	A-	

Source: Credit rating agencies' websites and reports.

As the above chart illustrates, the University of Toronto continues to maintain excellent credit ratings, absolutely and in comparison to our peers and is rated above the Province of Ontario by two rating agencies.

INTERNAL DEBT

The current debt strategy sets a single limit to include both internal and external debt, with the split between internal and external debt to be determined by expendable cash flows deemed to be available for long-term investment.

Although internal and external debt are considered to be fungible within the overall debt strategy, the maximum internal debt component has been set at 40% of expendable cash to recognize the need for liquidity and to provide for possible future changes to cash flow patterns. The current target of $350 million (including $150 million debt for Pension funding) is below the 40% upper limit for EFIP.

Based on cash flow projections, the $350 million allocated to internal debt will continue to be below the 40% of EFIP limit established by the current strategy throughout the period of study.

EXTERNAL DEBT AND PLANNED REPAYMENT OF DEBENTURES

At April 30, 2018, the University's external debt programme consists almost entirely (99.7%) of unsecured debentures. A master trust indenture sets out the terms and conditions under which the debentures have been issued, and how they must be repaid.

A total amount of $710 million fixed rate debentures have been issued for 30-year and 40-year terms, with interest payable on a semi-annual basis, and with the principal repayment at various maturity dates, ranging from 2031 to 2051 as follows:

Series A	July 18, 2031	$160 million
Series B	December 15, 2043	$200 million
Series C	November 16, 2045	$ 75 million
Series D	December 13, 2046	$ 75 million
Series E	December 7, 2051	$200 million

A self-imposed (that is, not specified by the master trust indenture) sinking fund, entitled the Long-Term Borrowing Pool (LTBP) has been established by the University to accumulate funds for the repayment of the debentures. The source of the funds being accumulated in the LTBP is the principal portion of blended principal and interest payment being made by internal borrowers (faculties, divisions and central departments) on loans that they have taken out under the University's internal borrowing programme that are supported by external debt.

At April 30, 2018, a total of $344.4 million has been accumulated in the LTBP towards repayment of the debentures.

The other external debt, totaling $2.0 million, represents several small loans, most of which date from before the commencement of the debenture programme in 2001. Each one has its own agreement and repayment program. All of these individual loans will be fully paid by April 30, 2021.

CONCLUSION

The current debt strategy has been in place for just over six years. This sixth annual report on the functioning of the strategy demonstrates that, provided interest rates remain relatively stable and provided the University grows as projected; it would deliver debt levels needed to support the University's capital needs that are currently under active consideration.

Projections for new external and internal long-term debt are calculated using a borrowing rate of 5.5%[8]. Sensitivity analysis shows that material increases in interest rates and slower growth in expenditures would negatively impact this projection and would lower the debt limit. It should be noted that an increase of 1% in the interest rate used in the calculation (from 5.5% to 6.5%) would lower the debt policy limit at April 30, 2024 to $1,839 million, rather than $1,937 million (a reduction of $98 million). A 2% increase in the interest rate used in the calculation (from 5.5% to 7.5%) would lower the debt policy limit at April 30, 2024 to $1,759 million rather than $1,937 million (a reduction of $178 million). In terms of total expenditures, for each $10 million reduction of total expenditures, the debt policy limit would decline by $6.2 million.

The debt policy limit established under this program allows for more debt that is currently being taken on by selected Canadian comparators; however, it reflects less debt that is taken on by U.S. comparators in the same (Moody's Aa2) strong investment credit rating grade as that assigned to U of T.

As noted before, the debt policy limit encompasses both an internal debt component and an external debt component. The analysis shows that the internal debt component, which represents a long-term investment by the University's expendable funds investment pool, is expected to continue to be available for this purpose throughout the projection period. The report also describes the external debt and shows that progress is being made to accumulate funds needed to repay the debentures, which repayment is required over the period from 2031 to 2051.

[8] The 5.5% interest rate includes a margin for future interest rate increases. York University and University of Ottawa issued debentures of $100 million and $200 million in May and October 2016 at 3.58% and 3.256%. More recently, Ryerson University and University of Western Ontario issued debentures of $130 million and 100 million in October and December 2017 at 3.768% and 3.39%.

APPENDIX - LINKS TO RELATED DOCUMENTS

Debt Strategy Policy

The Debt Strategy Policy approved by the Business Board on November 5, 2012 may be found at the following link:

http://www.governingcouncil.utoronto.ca/AssetFactory.aspx?did=9085

Debt Policy Limit, Debt Allocations, Outstanding Debt Issue and Status of the Long Term Borrowing Pool to April 30, 2018

The annual update on debt to April 30, 2018, which includes the calculation of the debt burden ratio and viability ratios and maximum debt policy limit at 5% debt burden ratio may be found at the following link:

http://www.governingcouncil.lamp4.utoronto.ca/wp-content/uploads/2018/06/a0619-4i-0217-2018bb.pdf

Credit Reports from Rating Agencies

The latest credit report from **Dominion Bond Rating Service** (August 2018) may be found at the following link:

https://www.utoronto.ca/sites/default/files/University%20of%20Toronto%20Rating%20Report_3.pdf

The latest credit report from **Standard and Poor's** (March 2018) may be found at the following link:

https://www.utoronto.ca/sites/default/files/S%20%26%20P%202018.pdf

The latest credit report from **Moody's Investors Service** (April 2018) may be found at the following link:

https://www.utoronto.ca/sites/default/files/University%20of%20Toronto%20Credit%20Opinion%20-%20Apr%2023%202018.pdf