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

TO: Business Board

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DATE: January 25, 2023 for February 1, 2023

AGENDA ITEM: 4

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 1, 2023)

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 February 2, 2022.

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, 2022, the 5% debt burden ratio resulted in a total debt policy limit of $2,096.7 million. The associated viability ratio with this debt policy limit was 1.7, higher (which is better) than the desired lower threshold of 0.8. Of the $2,096.7million, $962.7 million is set to be issued from internal sources with the remaining $1,134 million to be obtained from external debt. Actual outstanding debt at December 31, 2022 was $877.2 million, of which $167.2 million was internal and $710 million was external. At December 31, 2022, $1,689.2 million of borrowing room has been allocated to capital projects and other requirements that have been reviewed by the Business Board, leaving $407.5 million ($2,096.7 million less $1,689.2 million) for future debt to finance projects under active consideration but not yet brought forward to the Business Board for approval.

Future capital projects under consideration will require approximately $765.4 million of borrowing room, which is $357.9 million above what is currently available for allocation in 2022-23. 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 grow by an additional $374.3 million over the next five years to April 30, 2028, sufficient to meet the projected borrowing needs.

Although our analysis based on the current estimated timing of capital projects shows that the debt policy limit would deliver enough debt to support the University's capital needs, there is significant pressure on the remaining available debt capacity for allocation in future years. Sensitivity analysis shows that further increases in interest rates or slower growth in University expenditures would negatively affect this projection and would lower the debt limit. There also remains significant uncertainty given construction cost inflation in the GTA.

In view of the rising interest rate environment, we have assumed a 6.0% borrowing rate (up from the 5.5% rate assumed last year) for future debt. The 6.0% assumption is 100 bps higher than borrowing rates of recent debt issued by some Canadian universities, building in a margin for future rate increases. It should be noted that an increase in the borrowing rate to 7.0% would lower the debt policy limit at April 30, 2028 from $2,471 million to $2,366 million (a reduction of $105 million). If borrowing rates remain at current levels, a 5.0% cost of future debt would increase the debt policy limit at April 30, 2028 to $2,551 million (an increase of $80 million). In addition, for each $10 million reduction in total expenditures, the debt policy limit would decline by $8 million on average annually over the next 5-year period.

To assess the prudence of the debt policy, the University benchmarks 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. Compared to selected Canadian universities at April 2022, U of T had lower debt service costs and higher expendable resource ratios than most of its peers. Compared to U.S. universities at April 2021, U of T had lower debt service cost and higher spendable cash and investments to debt than the median of universities with our same credit rating.

The current debt strategy has been in place for over ten 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 capacity that will be sufficient to meet the borrowing needs for the highest priority capital projects that are currently

under active consideration. Nevertheless, there is pressure on the remaining debt available for allocation in future years.

It should be noted that in recent years, the University, as well as other institutions in the higher education sector, have explored other innovative financing structures for acquiring capital assets (or the use of capital assets), beyond using traditional external or internal debt due to pressures caused by changes in the funding environment, but also as a result of the desire to leverage the expertise that other industries can bring to the partnership.

As the University moves forward in its development strategy for on-campus housing and other key services, many of these new projects will require long-term debt and may involve a partner who either shares in the University's debt exposure or carries additional debt related to their ownership stake in the project. The current debt strategy will need to take into account the impact of these arrangements. Although this debt may not be recorded on the University's balance sheet, due to the University's association with the project, the University may be exposed to reputational and financial risks.

In view of the above, and due to the potential pressure on available debt capacity for allocation in future years, the University is currently in the process of developing an amendment to the debt strategy. The review will address off balance sheet debt generated through such partnerships and their collective impact on the University's financial health. This work is expected to be completed later this year.

FINANCIAL IMPLICATIONS:

None

RECOMMENDATION:

For information.

DOCUMENTATION PROVIDED:

- *Debt Strategy Annual Review December 31, 2022*

Debt Strategy Review 2022-23

December 31, 2022
University of Toronto Financial Services

UNIVERSITY OF
TORONTO

University of Toronto
Borrowing at a Glance to December 31, 2022

Financial Ratios in accordance with Policy	Total	External Component	Internal Component
Debt burden ratios:			
Debt policy limit at April 30, 2022	5.0%		
Actual debt outstanding at December 31, 2022*	2.2%	1.7%	0.5%
Viability ratios:			
Debt policy limit at April 30, 2022	1.7		
Actual debt outstanding at December 31, 2022*	4.0	4.9	20.8

*Calculated using the Total expenditures or Total expendable resources at April 30, 2022

Debt Policy Limit April 30, 2022	Total in Millions	External Component	Internal Component
Debt Policy Limit	2,096.7	1,134.0	962.7

Allocations	Total in Millions	External Component	Internal Component
Opening balance at October 31, 2022	1,690.6	837.3	853.3
Change of allocation on previously approved projects	(1.4)	-	(1.4)
Closing balance at December 31, 2022	1,689.2	837.3	851.9
Unallocated	407.5	296.7	110.8

Actual Debt Outstanding	Total in Millions	External Component	Internal Component
Opening balance at October 31, 2022			
Debentures due 2031 to 2051	710.0	710.0	
Internal debt	168.8	-	168.8
	878.8	710.0	168.8
Changes	(1.6)	-	(1.6)
Closing balance at December 31, 2022	877.2	710.0	167.2

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

The University of Toronto's debt programme is as an integral component of the University's overall financial strategy. It is a primary mechanism by which the University can leverage resources to enable capacity growth and quality enhancements of physical facilities in support of the academic mission. 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. The revised strategy takes into account the need for debt financing, the University's appetite for carrying debt, and the availability of funds for internal borrowing. It sets appropriate financial parameters to assess debt capacity and monitor overall affordability of the debt programme.

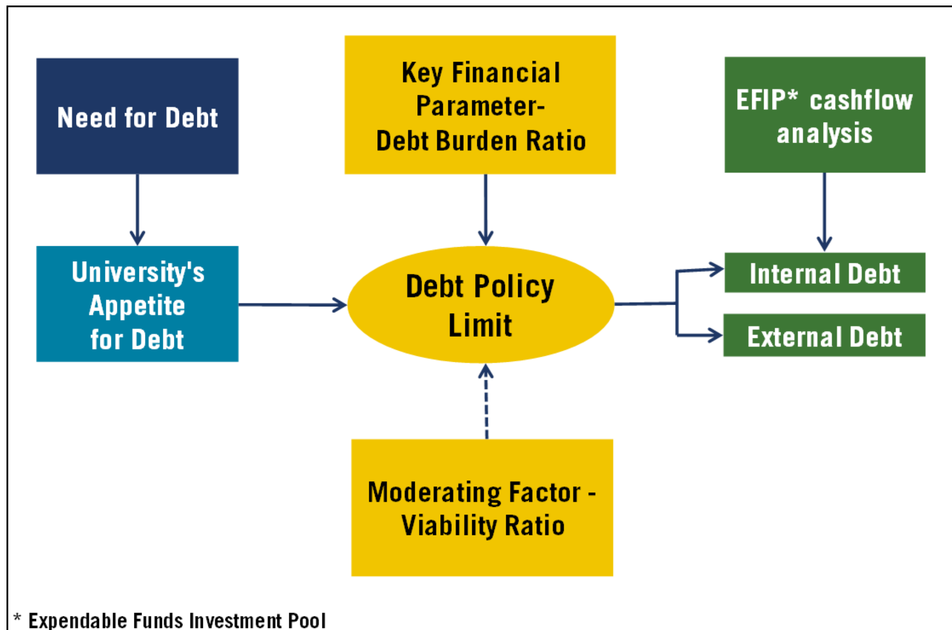
The debt strategy establishes a single debt policy limit including both internal and external debt, with fungibility between them. **This debt policy limit is determined primarily on the basis of debt affordability (measured using a debt burden ratio of 5%) and moderated when necessary and appropriate by an assessment of overall debt capacity (measured using a viability ratio of 0.8).**

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 long-term 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.
- **An internal debt** limit of 40% of the EFIP balance has been established in the debt strategy to recognize the need for liquidity and to provide for any possible future changes in cash flow patterns. The current plan assumes use of no more than 25% of the EFIP balance for internal borrowing, equal to $962.7 million on April 30, 2022.
- **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 pension deficit.
- **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.

All other elements of the debt strategy, its associated processes and procedures, and the Business Board approvals that were in place since 2004 remained unchanged. The purpose of this report is to assess the continued prudence and effectiveness of this debt strategy.



In recent years, the University, as well as other institutions in the higher education sector, have explored innovative financing structures for acquiring capital assets beyond using traditional external or internal debt due to pressures caused by changes in the funding environment, but also as a result of the desire to leverage the expertise that other industries can bring to the partnership. The University launched "Four Corners", a development strategy to deliver housing and other key services to the University community, while also creating an alternative source of revenue to help fund the University's academic mission. Many of these new projects will require long-term debt and may involve a partner who either shares in the University's debt exposure or carries additional debt related to their ownership stake in the project. The University may not be liable for this debt and it may not be recorded in the University's balance sheet. However, due to the University's association with the project, the University may be exposed to reputational and financial risks. The University is currently in the process of developing an amendment to the debt strategy to recognize and monitor risk associated with off balance sheet debt generated through these partnerships.

1. 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, 2022, the 5% debt burden ratio

resulted in a total debt policy limit of $2,096.7 million[1]. The viability ratio associated with the debt policy limit was 1.7, which is higher (better) than the desired lower threshold of 0.8; and therefore, no adjustment was made to the $2,096.7 million debt limit.

The internal debt limit is set at $962.7 million for 2022-23 (25% of the EFIP balance at April 30, 2022), which is below the 40% policy limit for EFIP. The final payment of $6.2 million toward the previous pension loan was made in May 2022, and the $150 million allocation for pensions was therefore eliminated. There are no remaining allocations of internal debt for pension purposes. Hence, this leaves an external debt component of $1,134.0 million ($2,096.7 million total debt limit minus $962.7 million internal debt limit).

Allocations to capital projects and other requirements

At December 31, 2022, the Business Board has allocated[2] $1,689.2 million to capital projects and other requirements. With the $2,096.7 million debt limit set as at April 30, 2022, this leaves $407.5 million to be allocated to future capital projects.

Actual outstanding internal and external debt

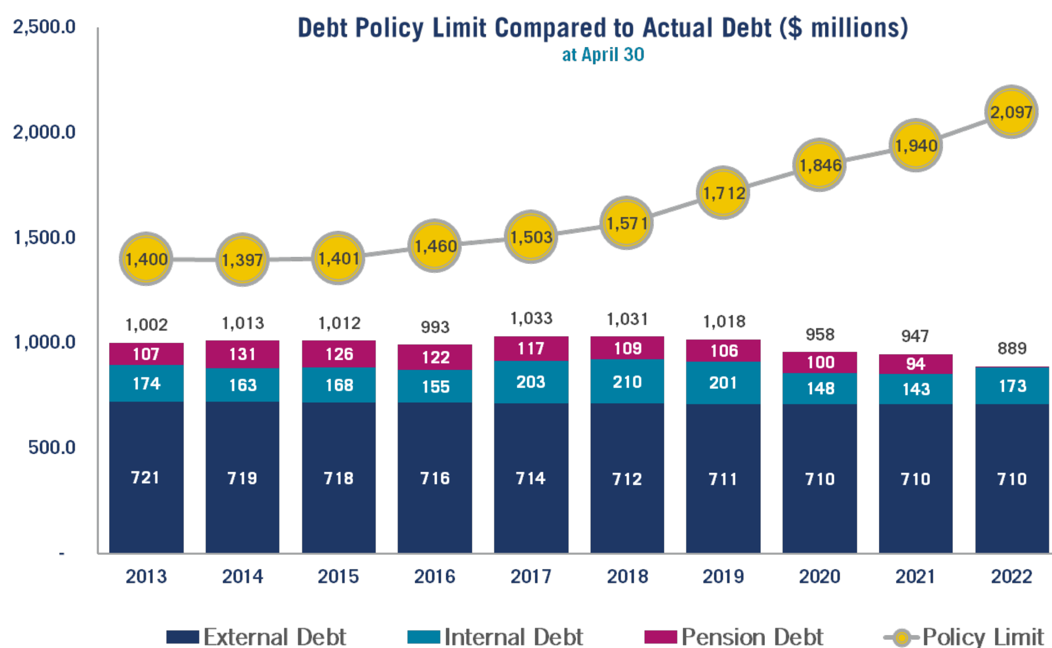
At December 31, 2022, there was $877.2 million of total outstanding debt, all carrying fixed rates: $710.0 million (excluding accounting adjustments) in external long-term debt and $167.2 million in internal debt, as follows:

	Internal Debt	External Debt	Total
Policy Limit	962.7	1,134.0	2,096.7
Allocations	851.9	837.3	1,689.2
Unallocated	110.8	296.7	407.5
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
Internal debt	167.2	-	167.2
Total outstanding	167.2	710.0	877.2

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

[1] Please refer to page 3 of appendix II of this link: https://governingcouncil.utoronto.ca/system/files/2022-06/20220621_BB_08.pdf for detailed calculation.

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



At December 31, 2022, the debt burden ratio for the total outstanding debt is 2.2% – well below the maximum debt burden of 5%. The associated viability ratio is 4.0, which is above the minimum requirement of 0.8. Both ratios indicate that the University's debt burden is prudently managed and demonstrates a financially healthy position.

2. FUTURE DEBT REQUIREMENTS

Projecting Debt Needs

The University's debt strategy primarily supports its capital expansion program. In assessing the appropriateness of a debt strategy, we consider the need for debt together with the need to remain affordable, and for debt servicing to continue to be financially responsible and prudent.

Over the next several years to April 30, 2028, we estimate that approximately $765.4 million of additional debt will be needed for new capital projects that are under active consideration but not yet approved by the Business Board. 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 makes up no more than 20% of the total project cost.

Over the next five years, academic divisions have plans for several major capital projects, including a new multi-use parking structure at UTSC; a new interdisciplinary building at UTM's Site F2; renovations in several Arts & Science buildings at the St. George Campus; development of the James and Louise Temerty Building on the site of the current MSB west wing; and a new Data Sciences Centre. Furthermore, the University is committed to become climate positive and has embarked on a bold initiative called Project LEAP (the Low Emissions Accelerator Project) that will eliminate half of the

current scope 1 and scope 2 carbon emissions on the St. George campus. This project will be funded by new external debt financing from the Canada Infrastructure Bank and a senior private lender in July 2023.

The University is also planning major capital investments under the Four Corners strategy, with the dual goals of developing amenities that support the academic mission and increasing revenues for the University's operating budget. Projects under consideration include faculty and student housing development on all three campuses, the Site 1 Gateway Project at Bloor and Spadina, and the second phase of the Schwartz Reisman Innovation Centre (SRIC). 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
2022-23	51.7	
2023-24	138.0	
2024-25	323.5	51.7
2025-26	133.6	138.0
2026-27	99.0	323.5
2027-28	19.6	133.6
2028-29		99.0
Total to 2029	765.4	745.8

During the construction period, construction financing, short-term letters of credit and guarantees are absorbed by EFIP as short-term bridge financing and are not included as debt.

Projecting Debt Capacity

Up to December 31, 2022, the Business Board has approved $1,689.2 million of debt for capital and other projects, leaving $407.5 million for future projects. To meet the estimated future debt requirements of $765.4 million, an additional debt capacity of $357.9 million would be needed by 2027-28. The table below shows the projected increases of debt available for allocation by fiscal year to meet the needs of future projects and assumes an estimated borrowing interest rate of 6.0%[3]. The University has retired the remaining balance of the pension loan in May 2022. This has freed up $150 million of debt capacity that can be re-allocated to other priorities.

The recent rise in interest rates has increased the long-term borrowing costs for Canadian universities by 150 to 200 basis points. The long-term borrowing rate for Canadian universities, including the University of Toronto, is approximately 5.0% per annum as of December 2022. Therefore, the University has opted in this report to increase the base interest rate assumption for future debt issuance to 6.0% from the

[3] The 6.0% interest rate includes a 1% margin for future interest rate increases. Secondary market yields for outstanding long-term debentures of some Canadian universities:

- University of Toronto 5.00%
- York University, Queens, MacMaster, McGill, Ottawa, TMU 5.10% – 5.50%

5.5% assumption used in last year's report. At 6.0%, there is a one percentage point (1%) interest rate margin built in for future rate increases against the prevailing long-term external financing rate of 5.0%. In addition, the University has provided two sensitivity analyses of the debt limit based on a potential increase to 7% and a decrease to 5% external financing cost in future years.

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

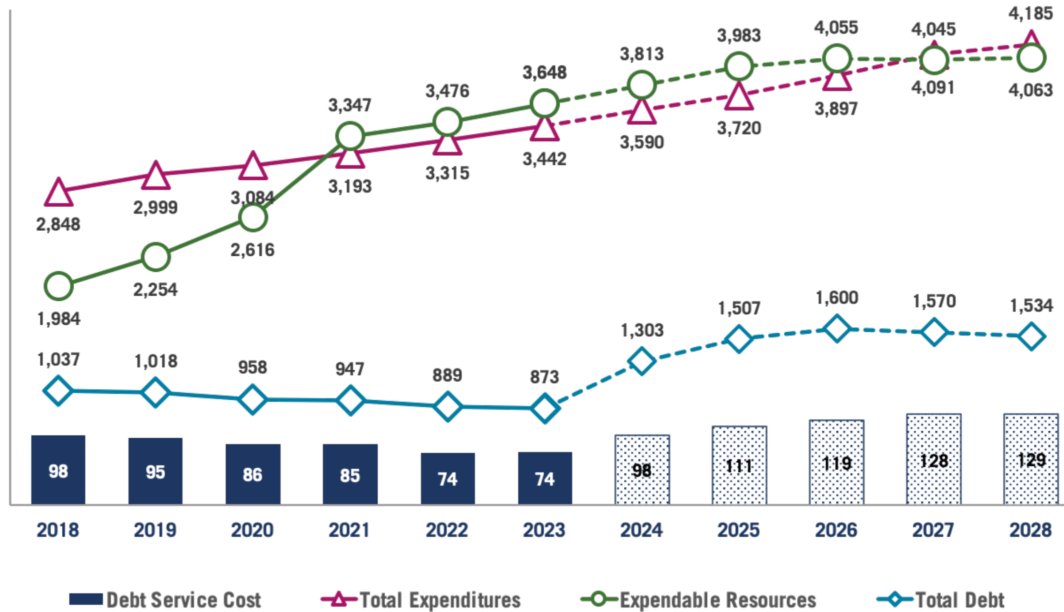
Fiscal Year	Debt Policy Limit available during the Fiscal Year	Adjustment for 2022-23 Rate Increase assumption	Annual Debt Limit Increase	Opening Unallocated Debt Available	Debt Required for Projects under Consideration but Not Yet Approved (based on approval date)	Release of Allocated Debt that will be Retired	Remaining Debt Available for Allocation
2022-23	2,096.7			407.5**	(51.7)		355.8
2023-24	2,106.3	(58.6)	68.2	355.8	(138.0)		227.4
2024-25	2,209.0		102.6	227.4	(323.5)		6.5
2025-26	2,314.4		105.5	6.5	(133.6)	22.0	0.4
2026-27	2,429.8		115.4	0.4	(99.0)		16.8
2027-28	2,446.7		16.9	16.8	(19.6)		14.1
2028-29	2,471.0		24.3	14.1			38.4

* Sensitivity: Note that an increase of 1% in borrowing interest rate to 7.0% would reduce the debt policy limit by $113 million in 2023 (2023: from $2,106.3 million to $1,993.3 million) and $105 million in 2028 (2028: from $2,471.0 million to $2,336.0 million). A 1% decrease to 5.0% in the interest rate would increase the debt policy limit by $127 million in 2023 (2023: from $2,106.3 million to $2,233.3 million) and $80 million by 2028 (2028: from $2,471.0 million to $2,551.0 million). In addition, at the borrowing rate of 6%, for each $10 million reduction in total expenditures, the debt policy limit would decline by $8 million on average annually over the next 5-year period. See page 11 for further details.

** At December 31, 2022

The debt policy limit is projected to increase steadily over the next few years due to the projected growth of the university's operations and expenditures. This growth, together with the borrowing capacity freed up following retirement of the $150 million pension loan delivers sufficient borrowing capacity to support the University's capital projects that are under active consideration. As indicated above, some of these projects may not materialize or may be deferred depending on other available funding sources.

The forecasted growth in debt capacity is based on a projection of the key financial factors that impact the debt policy limit. The following graph shows the projected increase in total expenditures and expendable resources to April 30, 2028, as well as the projected debt and annual debt service costs.

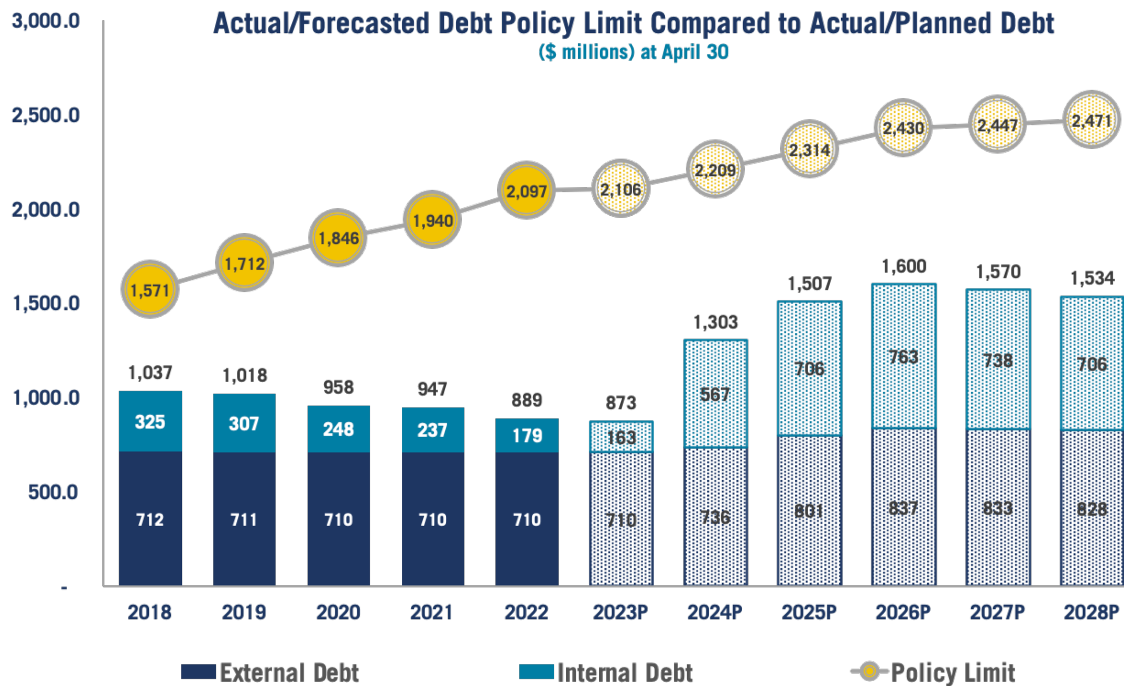


These projections reflect the following assumptions:

- The most recent operating expense and revenue growth projections as reflected in the 2022-23 financial forecast and 2022-23 long-range operating budget;
- Preliminary long range budget assumptions for ancillary operations 2023 to 2028;
- Projected growth in divisional reserves based on planned allocations from the operating budget towards capital projects under consideration and donation matching programs;
- Estimated spending on capital construction based on projects that have been approved by Business Board and those that are in the early planning stages. We have also incorporated the impacts of bridge financing of donations and future debt issuance, including an external debt arrangement with the Canada Infrastructure Bank and a senior private lender to support the University's Climate Positive Project LEAP;
- Investment return on endowments and other long-term funds beyond 2023 using target returns;
- Ongoing receipt of expendable donations aligned with Defy Gravity campaign goals. The impact on expendable resources is assumed to be more moderate than the large increases observed in 2020-21 and 2021-22. These donations are expected to be used over the forecast period.
- Any 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 6.0%. Debt service costs for new internal loans consist of principal and interest repayment of amortizing loans over 25 years with an interest rate of 6.0%. Debt service cost for interest only loans to bridge finance donations consist of interest on outstanding debt calculated using a rate of 6.0%.
- Continuation of the pension risk contingency strategy recommended in the 2022-23 long-range budget guidelines. With the elimination of the going concern deficit in the University's Registered Pension Plan and transfer to the University Pension Plan in July 2021, there is

currently no requirement for pension special payments. However, the University will continue to set aside funds from the operating budget to build a pension risk reserve of $416.5 million by April 30, 2028.

Based on these assumptions, 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 limit is mainly attributed to the planned growth in the operating expense budget.

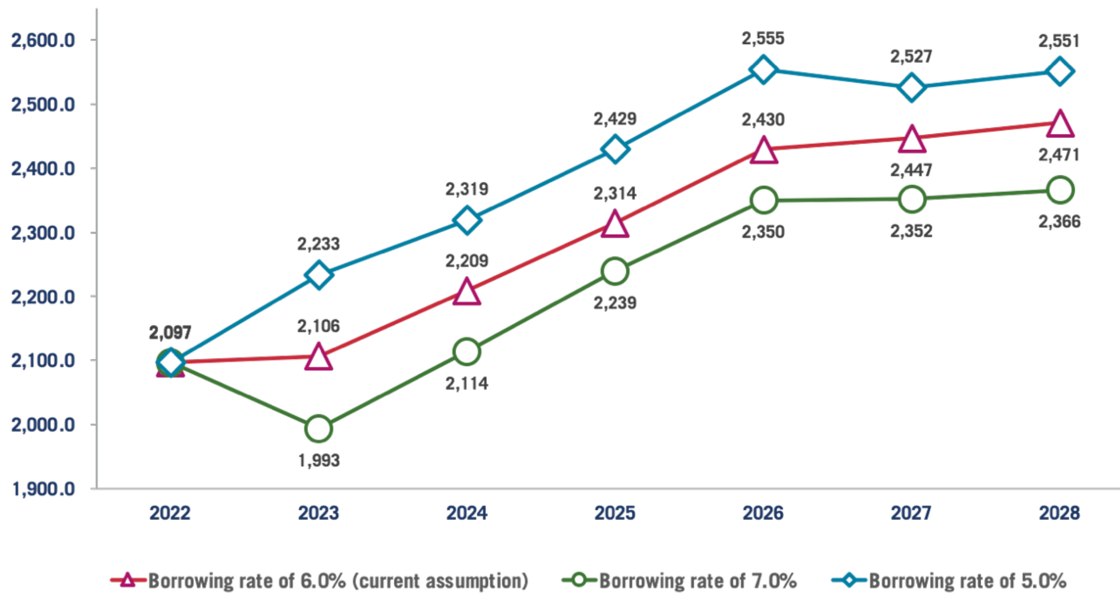


The current projection provides slightly lower debt policy limits than last year's debt strategy review. With the increase in the assumption of future borrowing rates by 50 basis points from 5.5% to 6.0%, the debt limit has decreased by approximately $60 million per year. However, overall expenditures are projected to increase, creating additional borrowing capacity and largely offsetting the impact of higher borrowing rates. The net effect is a small decrease in debt capacity for the next 2 years.

Expendable resources are expected to grow modestly as operating margins tighten. With increasing inflationary pressure and ongoing capital expenditures, we forecast a decelerating growth in expendable resources, particularly in 2026 onwards. Nevertheless, viability ratios are expected to remain above the desired minimum of 0.8 and we do not expect the need to modify the debt limit.

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 assumed a future borrowing rate of 6.0% (with a margin of 1.0% for future rate increases) to project the debt policy limits. A sensitivity analysis of the debt policy limit using interest rates of 5.0% and 7.0% is shown in the graph below.



An increase in the cost of borrowing to 7.0% would result in a debt policy limit reduction of $113 million in 2023 (2023: from $2,106 million to $1,993 million) and $105 million in 2028 (2028: from $2,471 million to $2,366 million). A decrease in the cost of borrowing to 5.0% would result in a debt policy limit increase of $127 million (2023: from $2,106 million to $2,233 million) and $80 million in 2028 (2028: from $2,471 million to $2,551 million).

The projected debt policy limit is also dependent on the rate of growth in the University's expenditures and expendable resources. If these were to grow at a slower rate than assumed in this analysis, the debt policy limits would also be lower than projected. At the borrowing rate of 6.0%, for each $10 million reduction of total expenditures, the debt policy limit would decline by $8 million on average annually over the next 5-year period.

Our analysis suggests that the debt policy limit for future years will continue to provide sufficient financing for the highest priority projects under active consideration. However, inflation in the construction market and rising interest rates will put considerable pressure on available borrowing capacity in the outer years of the plan. There may be demand for additional debt capacity to support development and renewal of research and teaching space, as well as projects through the Four Corners and the Climate Positive strategies. To ensure sufficient debt capacity, and to address new arrangements for off balance sheet debt, an amendment to the debt policy is being developed and will be brought forward later this year.

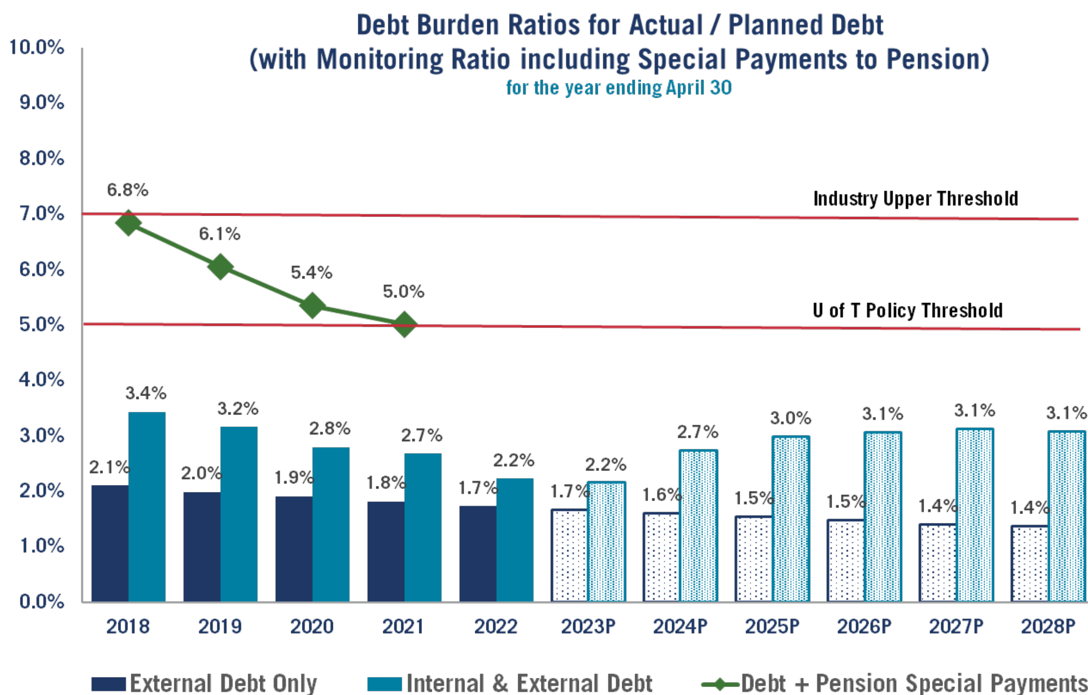
3. FINANCIAL MONITORING

Debt affordability is the primary financial parameter that determines the debt policy limit. Debt capacity is a secondary financial parameter that is taken into consideration to moderate the debt policy limit when necessary.

Debt Affordability

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%, which is comfortably below the recommended upper limit of 7% for higher education institutions (see Prager, Sealy & Co LLC, KPMG LLP; and Attain LLC; Strategic Financial Analysis in Higher Education – Seventh edition (2010), p.117).

At the time the debt strategy was approved in 2012, an additional metric was developed to capture the impact of the pension deficit and the resulting need for pension-related contributions by the University at that time. The monitoring ratio was defined as special pension payments[4] (under the pension contribution strategy) plus debt service costs, divided by total expenditures. This monitoring ratio was not used to determine the debt policy limit but served only for additional information purposes. Although pension special payments are not currently required, this ratio may be re-introduced in future years if such payments are needed.



The graph above shows the actual debt burden ratios for external debt alone and the actual debt burden ratios for both external and internal debt up to 2022. The forecasted debt burden ratios include debt that has already been approved by Business Board. It also shows the monitoring ratio (that includes pension special payments) to 2021.

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[4] Pension Contribution Strategy and Pension Special Payment Budget recommended in the 2022-27 long-range budget. With the elimination of the significant going concern deficit in the University's Registered Pension Plan due to the 2020-21 returns and the transfer to the University Pension Plan in July 2021, there is currently no requirement for additional payments. However, budgets will be set aside internally to build a pension risk reserve of $416.5 million by April 30, 2028.

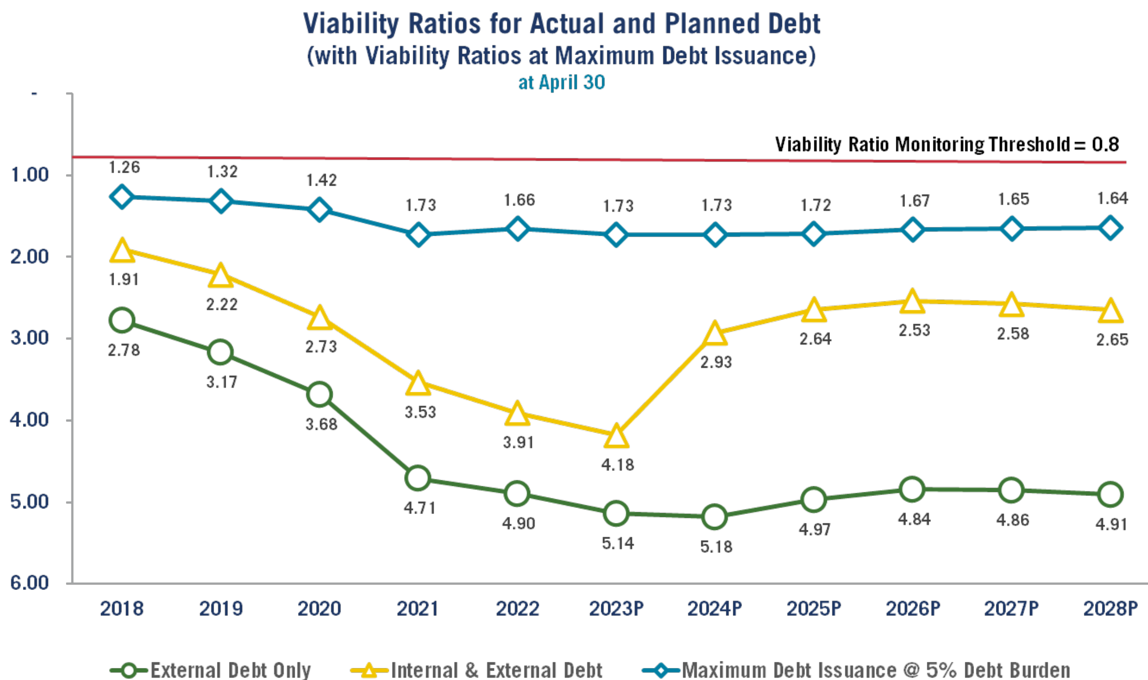
Based on the projected expenditures and the debt service costs for actual and approved projects, the debt burden ratios for the future years will increase to 3.1% but will remain well below the 5% policy limit.

Debt Capacity

Debt capacity, which is considered a moderating factor, is defined as the amount that can be borrowed based on the funds that are available to repay outstanding debt as of the balance sheet date. It is measured via the viability 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 capital expansion 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%.

The graph below shows the viability ratios based on actual debt up to 2022 and the forecasted viability ratios based on actual and approved projects to 2028. 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 shows that the viability ratios for the actual and planned debt are expected to be better than the threshold of 0.8 for all the years being forecasted. In addition, the viability ratios based on the assumption of issuing debt equal to the debt policy limit are expected to be also above 0.8 for the years 2023 to 2028. 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 a small percentage, 5% of total expenditures,

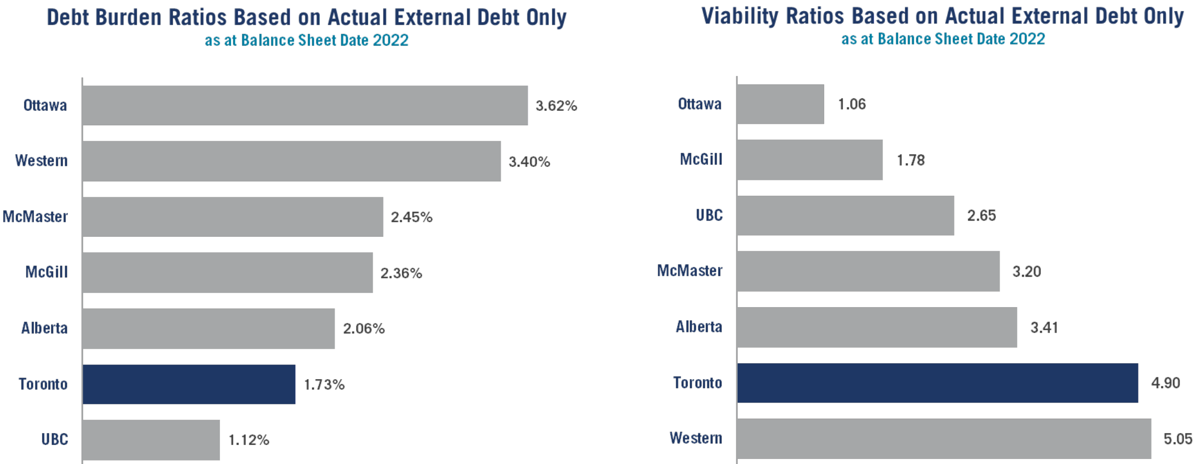
helps the University balance what is spent ***on*** the classroom with what is spent ***in*** the classroom. Using an additional parameter to monitor the University's debt adds to the University's caution in setting the debt policy limit.

As noted at the beginning of the report, the University is actively exploring other innovative financing structures for acquiring capital assets beyond using traditional external or internal debt. With the launch of "Four Corners", many new projects may include development partners who incur long-term debt that does not appear on the University's balance sheet. However, the University may still be exposed to reputational and financial risks. Therefore, the University is developing an amendment to the current debt strategy so that off balance sheet debt generated through partnerships is incorporated in the policy and their impact on the University's financial health is monitored and managed to ensure the University's future financial sustainability. This work is expected to be completed before the end of the governance year.

In addition, the provincial Ministry of Colleges and Universities (MCU) has announced a set of eight new financial health indicators, including debt-related metrics, to be implemented in April 2023 for all universities in the Province. Specific definitions and data sources are not yet available, but we are working with the Ministry to define these ratios and assess the implications of these indicators for the University. We will provide updates to the Business Board when details are available.

Benchmarking

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

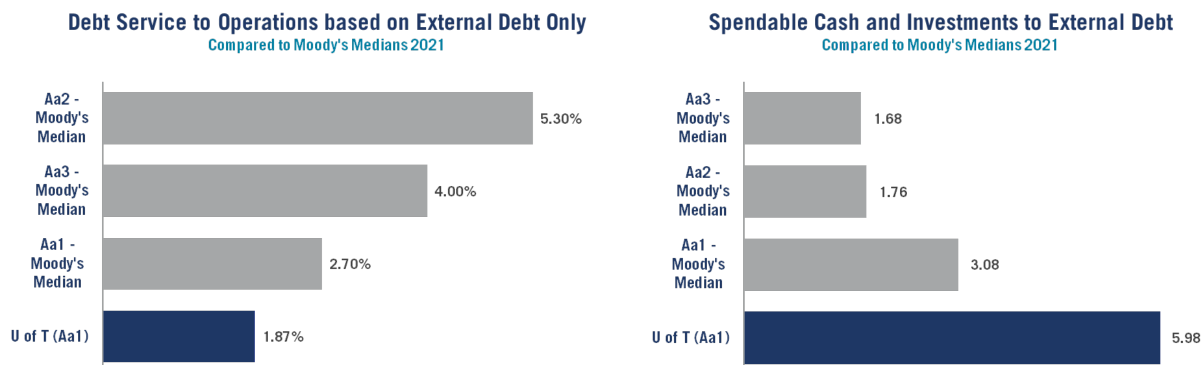


For the benchmarking against Canadian universities, we have used the University's debt burden and viability ratios and compared them to the debt burden and viability ratios that we have calculated for Canadian university peers. We have obtained the data from published financial statements and made some minor necessary adjustments to make their financial data 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 graphs above show the debt burden ratios and viability ratios of select Canadian peers.

At April 2022, U of T's debt burden ratio on actual external debt was below all the selected peer universities, except for UBC. In recent years, other Canadian universities have increased their reliance on debt financing, while the University has not issued any external debt since 2011, which is reflected in these ratios. In terms of the viability ratio, U of T had consistently higher expendable resources to external debt than all the Canadian universities used for benchmarking, except for Western University in 2022.

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 2021) which provided comparison data for selected U.S. universities. The University of Toronto is not included in this report. There are 13 universities at the Aa1 rating level, 23 universities at the Aa2 level, and 40 universities at the Aa3 level. At each rating level, the median university ratio is displayed. Only external debt is considered.

Moody's implemented changes a few years ago 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 Operations (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 with 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 below has been adjusted for that difference and is slightly better than the debt burden ratio displayed in the other charts.

The 2021 ratios for US universities at the three rating levels range from 2.7% to 5.3%. The 2021 U of T ratio was 1.87%, which is comfortably below median of 2.70% for comparable US universities with the same rating of Aa1.

The second chart above provides the debt capacity comparison, using Moody's ratio of 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 funds that can be accessed over time or for a specific purpose. The 2021 ratios for US universities at the three rating levels range from 1.68 to 3.08. The 2021 U of T ratio was 5.98, is higher than the 2021 ratios at all rating levels.

In summary, compared to selected Canadian universities, at April 2022, U of T had lower debt service costs to total expenditures than almost all the other universities. In terms of expendable resources to pay outstanding debt, U of T had higher expendable resources to debt ratios than all the other universities. Compared to U.S. universities, U of T has a lower debt service cost than the median of universities with our same credit rating and higher spendable cash and investments to 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 contracts with two agencies – Moody's Investors Service and Standard and Poor's Global – to provide credit ratings. In addition, Dominion Bond Rating Service Morningstar issues a credit rating for the University on an unsolicited basis. The following table shows the credit rating definitions and the ratings assigned to U of T and our U.S. and Canadian peers.

Credit Rating Defintions
Moody's Investors Service, Standard & Poor's Global, DBRS Morningstar

Rating Definitions	Moody's Investors Service	Standard & Poor's Global	Dominion Bond Rating Service Morningstar
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

Credit Rating Comparison
University of Toronto with US and Canadian Peers at November 2022

University	Moody's Investors Service	Standard & Poor's Global	Dominion Bond Rating Service Morningstar
PROVINCE OF ONTARIO	**Aa3**	**A+**	**AA(low)**
University of Michigan	Aaa	AAA	
University of Texas system	Aaa		
University of Washington	Aaa	AA+	
University of Toronto	**Aa1**	**AA+**	**AA**
University of British Columbia	Aa1	AA+	
University of Pittsburgh	Aa1	AA+	
Queen's University		AA+	AA
University of Minnesota	Aa1	AA	
Ohio State University	Aa1	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	Aa3	A+	

Source: Credit rating agencies' websites and reports.

As the above chart illustrates, the University of Toronto continues to maintain excellent credit ratings in comparison to our peers. U of T is rated 2 grades above the Province of Ontario by Moody's and 3 grades above the Province of Ontario by Standard & Poor's Global.

4. SOURCES OF DEBT

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. Based on a review of EFIP historical and projected cashflows, the University decided two years ago to set the allocation of EFIP for internal loans to 25% of the EFIP balance at April 30 each year. For fiscal 2022-23 (based on the EFIP balance of April 30, 2022) the amount set for internal loans was $962.7million. This allocation is still well below the 40% upper limit for EFIP. The annual amount to be allocated to internal loans will be reset each year based on the April 30 balance of EFIP.

External debt and debenture repayment

At April 30, 2022, the University's external debt programme consists entirely 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	Amount
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, 2022, a total of $536 million has been accumulated in the LTBP towards repayment of the debentures. Departmental repayments from internal loans are currently invested in LTCAP. Withdrawals to repay debenture principal are planned to start between 5 to 10 years before each debenture maturity. The spreading of the withdrawals is intended to spread the risk of fluctuations in the LTCAP returns. Once the funds are withdrawn, they are expected to be placed in a new investment vehicle that is suitable to the timing of the maturity of these debentures.

SUMMARY

The current debt strategy has been in place for over ten years. This tenth annual report on the functioning of the strategy demonstrates that despite the rapid rise in interest rates in 2022, and provided the University grows as projected, it would deliver sufficient debt capacity 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 6.0%. Sensitivity analysis shows that increases in interest rates and slower growth in expenditures would negatively affect this projection and would lower the debt limit. However, reduction of interest rates would positively affect this projection. It should be noted that an increase of 1% in the interest rate used in the calculation (from 6.0% to 7.0%) would lower the debt policy limit at April 30, 2028 to $2,366 million, rather than $2,471 million (a reduction of $105 million). A 1% reduction in the interest rate used in the calculation (from 6.0% to 5.0%) would increase the debt policy limit at April 30, 2028 to $2,551

million rather than $2,471 million (an increase of $80 million). In terms of total expenditures, for each $10 million reduction of total expenditures, the debt policy limit would decline by $8 million annually over the next 5 years.

The debt policy limit established under this program allows for similar debt that is currently being taken on by selected Canadian comparators; however, it reflects less debt than the amounts taken on by U.S. comparators in the same strong investment credit rating grade that Moody's assigned to U of T. Compared to the median of U.S. Universities with same rating, U of T also has lower debt service cost and higher affordability to pay external debt.

As noted in this report, 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.

Our analysis suggests that the debt policy limit for future years will continue to provide sufficient financing for the highest priority projects under active consideration. However, inflation in the construction market and rising interest rates will put considerable pressure on available borrowing capacity in the outer years of the plan. There may be demand for additional debt capacity to support development and renewal of research and teaching space, as well as projects through the Four Corners and the Climate Positive strategies. To ensure sufficient debt capacity, and to address new arrangements for off balance sheet debt, a review of the debt policy is underway and will be brought forward later this year.

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, 2022
The annual update on debt to April 30, 2022, 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:
https://governingcouncil.utoronto.ca/system/files/2022-06/20220621_BB_08.pdf

Credit Reports from Rating Agencies
The latest credit report from **Standard and Poor's Global** (November 2022) may be found at the following link:
https://www.utoronto.ca/sites/default/files/UofT_Published%20Report.PDF

The latest credit report from **Moody's Investors Service** (October 2022) may be found at the following link:
https://www.utoronto.ca/sites/default/files/Credit%20Opinion-University-of-Toronto-Canada-U-19Oct2022.pdf