

RATING REPORT

McMaster University

Ratings

Debt	Rating Action	Rating	Trend
Issuer Rating	Confirmed	AA	Stable
Senior Unsecured Debt	Confirmed	AA	Stable

Rating Update

On December 13, 2019, DBRS Limited (DBRS Morningstar) confirmed McMaster University's (McMaster or the University) Issuer Rating and Senior Unsecured Debt rating at AA. All trends remain Stable. The ratings are supported by McMaster's strong academic profile, steady enrolment growth, track record of strong financial management, and considerable financial flexibility, though the current provincial policy environment adds an element of uncertainty to the medium-term operating outlook.

The University reported a consolidated surplus of \$157.0 million, or 13.2% of revenues for the year ended April 30, 2019. This was an improvement over the prior-year surplus of \$105.7 million, and one of the strongest results among DBRS Morningstar-rated universities. The strong performance was largely driven by a combination of higher tuition revenue, increased research-oriented funds, and stronger investment performance.

McMaster is projecting consolidated budget surpluses for the next three years, supported by ongoing demand from international students. Following the provincially mandated domestic tuition-fee reduction and tuition freeze in the subsequent year, DBRS Morningstar expects growth in domestic funding and tuition to remain constrained. As a result, the University plans to change the student mix as a greater number of programs (including health, business and science) seek higher and more diversified international enrolment. This is expected to drive modest growth in enrolment over the medium-term outlook, with McMaster pursuing faster growth in international enrolment and fees than previously envisioned. Some cost pressures may arise as the University adds additional faculty to keep pace with rising enrolment.

The University's debt totalled \$254.7 million as at April 30, 2019. In its 2019 Debt Strategy, McMaster indicated that it may issue additional debt within the next 12 months. Incorporated within the existing ratings is DBRS Morningstar's assumption that debt per full-time equivalent (FTE) remains below \$12,000.

On December 12, 2019, McMaster named Dr. David Farrar as the University's new President. Dr. Farrar currently serves as McMaster's acting President, having joined the University in 2017 as Provost and Vice-President, Academic. DBRS Morningstar expects continuity and stability in the University's strategic direction following this appointment.

Over the medium term, an increase in debt-per-FTE ratio to over \$12,000 could result in downward pressure on the rating. A negative rating action could also arise from a sustained deterioration in operating performance. A positive rating action, though unlikely, could result from an upgrade of the provincial funder rating and an improvement in the government funding and tuition frameworks.

Financial Information

	For the year ended April 30				
	2019	2018	2017	2016	2015
Consolidated operating result (DBRS Morningstar-adjusted, \$ millions)	157.0	105.7	112.1	29.1	78.6
Surplus-to-revenue (five-year average)	8.8%	8.0%	7.4%	5.5%	5.4%
Debt per FTE (\$)	8,218	8,580	8,785	9,200	4,872
Interest coverage (times)	14.1	9.7	11.2	6.5	14.6
Expendable resources-to-debt (times)	239%	219%	207%	174%	235%

Issuer Description

McMaster was founded in 1887 through the merger of the Toronto Baptist College and Woodstock College. The University is a comprehensive, research-intensive institution located in Hamilton, Ontario, and offers a broad range of undergraduate, graduate, and continuing education programs to over 30,000 FTE students.

Rating Considerations

Strengths

1. Academic profile

The University benefits from a strong academic profile; it frequently places high in international rankings and often appears among the top 100 universities globally. McMaster offers a diverse range of programs in all high-demand academic areas (except law) and is one of the most research-intensive universities in the country.

2. Stable revenue base

Universities are a critical component of the public sector, Access to high-quality post-secondary education remains a priority for the Province of Ontario (the Province or Ontario; rated AA (low) with a Stable trend by DBRS Morningstar). As such, universities in Ontario and across Canada benefit from stable and consistent revenue sources. Government grants and tuition fees accounted for about 66% of revenue for McMaster, which is slightly lower than other DBRS Morningstar-rated universities.

3. Disciplined financial management

McMaster has an established history of proactive and effective financial management. It has been responsive to operating challenges that have emerged and has implemented systems and processes to improve resource allocation and cost control. In recent years, the University has identified opportunities to generate new revenue and contain costs, implemented changes to improve the sustainability and affordability of the pension plan and introduced a new budget model to improve allocative efficiency.

4. Considerable financial resources and flexibility

The University has a strong balance sheet, which is the result of prudent management practices, a series of strong operating results, and success in fundraising. The University's expendable resources-to-debt ratio has been rising steadily over the last four years. DBRS Morningstar estimates that McMaster's expendable resources were \$607.7 million at April 30, 2019, which equates to 238.6% of debt.

Challenges

1. Constrained provincial funding

Canadian universities have limited control over their main revenue sources: tuition fees and government grants. The Province imposed a 10% reduction on tuition fees for domestic students in regulated programs for 2019-20 while effectively limiting domestic enrolment growth and freezing operating grants. The changes to the tuition-fee framework are estimated to have adversely affected the University's revenue by \$22.3 million in 2019-20.

2. Cost pressures

Underlying cost pressures are somewhat detached from the University's revenue drivers. Canadian universities' expense bases are largely fixed and growing in the form of tenured faculty, unionized support staff, externally mandated student aid requirements, and large infrastructure footprints. In recent years, inherent cost pressures such as negotiated wage settlements, competitive salaries for top researchers, and increasing benefit costs have outpaced provincially controlled revenue growth for many DBRS Morningstar-rated universities. As with other Universities, these factors have compelled McMaster to constrain spending growth, pursue international enrolment more aggressively, and continue raising international student fees.

3. Significant deferred maintenance

The University has considerable deferred maintenance needs, currently estimated at \$429.2 million. The University continues to allocate roughly \$13.0 million in its budget projections. The facilities condition index (FCI) has fallen consistently over the period 2012-13 to 2017-18 to 14.3% from 18.2%. In 2018-19, the FCI increased to 19.2% as a result of a new measurement methodology that has been adopted across the Ontario higher education sector. McMaster is currently reviewing the adequacy of its annual deferred maintenance budget allocation.

Operating Performance

2018-19 Results

The University reported a consolidated surplus of \$157.0 million, or 13.2% of revenues, for the year ended April 30, 2019. This was an improvement over a surplus of \$105.7 million, or 9.6% of revenues in the prior year, led by continued strength in fiscal management.

Total revenues grew by 8.2%, largely driven by higher tuition revenue (+11.9%), higher donations and other grants (+42.3%), and increased investment income (+35.5%). Higher enrolment (+4.1% to 30,990 FTEs), in conjunction with fee increases, boosted tuition revenues. Government operating grants were stable and in line with the provincial corridor funding model that emphasizes stable domestic enrolment. Research grants and contracts improved during the year (5.2%). Investment income improved as the University's externally managed investment pool generated a higher return of 6%, compared with 5.2% in the prior year, though market volatility and low interest rates remain a concern.

Expenses increased by 4.0% during 2018-19. Salaries and benefits remain the primary cost driver for most DBRS Morningstarrated universities and account for roughly 60% of total spending at McMaster. Salaries, wages, and related benefits increased by 3.6%, largely owing to the addition of some faculty and staff members and negotiated wage increases. Student aid costs (+3.6%) and spending toward other supplies and expenses (+9.7%) increased during the year, which offset the lower cost of goods sold and utilities expense.

The University's net asset position improved to \$1.2 billion, up 2.5% from the prior year. The increase reflected McMaster's improving operating performance in recent years. The University also reported a \$122.7 million negative registered pension plan remeasurement adjustment related to actuarial losses mainly arising from the new provincial pension requirement for a Provision for Adverse Deviation (PfAD). The 2018–19 expenses were not affected by the PfAD adjustment, and management expects a substantial portion of the remeasurement charge to be reversed after the next funding valuation in July 2021.

Consolidated results for 2018-19 outperformed budget projections. Revenues were 2.6% higher than estimates, primarily led by higher-than-anticipated research grants and contracts and a healthy investment income. Expenses were slightly higher (1.7%) than forecast.

2019-20 Budget

The University prepares a consolidated budget that includes the operating fund (66% of consolidated budget), capital fund, research fund, trusts and endowment fund, and the specifically funded activities. The University is required by its Board of Directors to present a balanced budget on an annual basis. Like most universities in Ontario, McMaster uses an activity-based budget model. There were no significant changes to the budgetary practices over the last year.

The University remains focused on key priorities as outlined in its guiding strategy, "Forward with Integrity", and reaffirmed in its Strategic Mandate Agreement (SMA), which are strengthening its research profile, improving the student experience, and enhancing its relationships with the communities it serves. The 2019-20 budget includes funding allocations for several strategic initiatives, including student support, program additions, addressing deferred maintenance needs, technological upgrades, and continued investment in libraries, along with other initiatives.

On a consolidated basis, the budget projects surpluses of \$60.5 million, \$68.8 million and \$59.2 million over the next three years, respectively, and factors in the 10% tuition fee reduction for domestic students and planned strategic investments.

The 2019–20 budget projects modest growth in revenue (+1.8%), supported by improvements across most revenue categories and stable operating grants. Taken together, these are expected to offset a projected decline of 2.1% in tuition fees. As a result of constrained funding for domestic enrolment, international enrolment is expected to remain the primary growth driver (+980 FTEs). International tuition rates are not regulated by the government and are set to increase by 8.0% for first-year students and 4.0% for students in Year 2 and above.

McMaster projects consolidated spending to rise by 5.9% in 2019-20, driven by increased salary and benefit costs. The addition of new faculty, a change in the employer contribution rate, and negotiated salary increases will result in higher compensation costs to the University. Other areas will see more modest growth, reflecting general inflationary pressures.

On a narrower operating fund basis, the University forecasts a deficit position in the operating fund over the medium term, as McMaster deals with tuition constraints, cancellation of certain expansion grants, and the use of appropriations to support strategic initiatives.

Medium-Term Outlook

The Progressive Conservative government, elected in 2018, started a significant multiyear deficit-reduction exercise and began implementing its policy priorities for the sector.

• In the latest iteration of the tuition-fee framework, the Province reduced domestic tuition fees by 10% for 2019-20 followed by a tuition freeze for 2020-21. McMaster estimates that the new tuition-fee framework for domestic students will result in a revenue loss of \$22.3 million in 2019-20. The Province has yet to provide any guidance beyond 2020-21. However, most universities expect the Province to provide modest flexibility thereafter.

Operating Performance (CONTINUED)

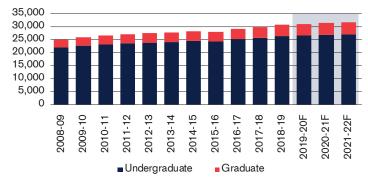
- The Province did not reduce operating grants in its 2019–20 budget but has not provided any guidance for future years. The Province's multiyear deficit reduction effort suggests that operating funding for the post-secondary sector will remain constrained through the medium term.
- The Province announced changes to make some ancillary fees optional. Few fees are optional.

The Province has also begun to consult with the University on the next iteration of SMA3, which is expected to cover the five-year period beginning with the 2020-21 academic year. SMA3 will include a set of 10 performance metrics, with funding consequences for not meeting the negotiated performance targets. The Province will gradually increase the proportion of performance-based funding from the current 8% to 60% by 2024-25. The University has signaled that six of these factors will be linked to skills and job outcomes, and the rest will be based on economic and community impact. At this time, it is not clear how the targets will be set or how the metrics will be weighted. The University does not intend to review the budget model until the funding transition is complete.

Absent any policy direction from the Province, McMaster has assumed the status quo for operating grants and the tuition fee framework for its medium-term projections. The University continues to plan for modest enrolment growth through the medium term, driven by international students, although capacity constraints may become a binding constraint for overall enrolment over the longer term.

Further, volatility in investment income presents a key risk to McMaster's budget outlook. In addition to conservative budgeting, the University also contributes to an investment reserve to ensure coverage for a minimum of two years in a severe financial market correction. McMaster estimates that a 1% variance in investment returns will result in an impact of \$5.9 million on the University's total revenue.

Exhibit 1: Total Enrolment (FTEs)



DBRS Morningstar notes that McMaster possesses greater resilience to potential funding changes compared with several university peers, given the University's considerable balance sheet flexibility, strong student demand, and proactive financial management. The University continues to strengthen its research profile, increase international diversification, and develop additional revenue sources, such as summer programs, blockchain, and micro-credentials. Some cost pressures may arise as the University manages capacity constraints and adds additional faculty to keep pace with rising enrolment.

The University recently settled a collective agreement with teaching assistants, consistent with the recently passed provincial legislation aimed at slowing growth in public sector compensation (Protecting a Sustainable Public Sector for Future Generations Act, 2019). The University will be entering a series of collective bargaining discussions with several smaller unions in 2020 and expects the outcomes to be largely in line with provincial mandates.

On December 12, 2019, McMaster named Dr. David Farrar as the University's new President. Dr. Farrar currently serves as McMaster's acting President, having joined the University in 2017 as Provost and Vice-President, Academic. DBRS Morningstar expects continuity and stability in the University's strategic direction following this appointment.

Capital Plan

McMaster prepares a rolling comprehensive Five-Year Capital Plan that guides capital development based on the University's strategic priorities. The master plan includes a Facilities Capital Plan, an Energy Management Plan and an Asset Management Plan which are updated annually. McMaster is currently reviewing its capital plan which will provide estimates for the next iteration (2019–23). In addition, the University presents multiyear financial projections that span over a horizon of 10 years and will likely be completed early next year.

Capital investment has increased in recent years; McMaster invested roughly \$148.0 million over the past year as the University continued to modernize facilities, address deferred costs and increase capacity. Like most universities, many of the projects are relatively modest in scope and relate to the renewal or upgrading of facilities, acquisition of IT resources and other equipment, energy conservation and deferred maintenance. The University completed the construction of the 14-storey Peter George Centre for Living and Learning, which includes a 518-bed residence, classrooms and learning facilities, and space for ancillary operations and administrative functions.

Capital Plan (CONTINUED)

Some of the major projects currently underway include:

- DeGroote School of Business Expansion (\$79.9 million): The facility will provide additional academic/administrative space and add a new nine-storey facility that is being designed by Sweeny &Co Architects. Included in this expansion is the McLean Centre for Collaborative Discovery (\$50.0 million): The renovation project is to be funded primarily by the McLean family, combined with donations and the University's
- · David Braley Athletic Centre Expansion: The expansion includes fitness studios, study space, and other recreation facilities funded through the student union, with some contribution from the University (\$10.0 million).

In addition, the University is working to further expand its residence offering, as it is one of only two Ontario universities that cannot guarantee a residence space to all first-year students as a result of lack of space. These projects are focused on the use of alternative ownership or financing structures. As is becoming increasingly common, Canadian universities are seeking to use their balance sheet to develop facilities that are core to their academic missions (learning, research, etc.) and using other structures with less of an impact on the balance sheet for ancillary facilities. These projects include the following:

• Graduate residence and parking garage (downtown Hamilton): The University is developing the project in collaboration with a third-party partner for the design, build, finance, and management of an off-campus graduate residence (over 600 beds) and approximately 264 parking spaces expected to be completed by May 2023. The graduate residence will be structured as a limited partnership on land that McMaster has leased for 99 years (effective October 1, 2019).

• Main Street West residence: Functioning as an extension to the main campus, this project will add roughly 1,400 beds. Though financed through limited partnership with a private developer, the residence will be managed, operated, and used by the University in accordance with its priorities. The project is expected to be completed in the summer of 2023.

The University has a number of other projects under consideration for the medium and longer term. These include renovations to the existing Life Sciences Building (\$65 million) and an Integrated Research Centre in downtown Hamilton (\$100 million). Although yet to be approved, these projects are expected to be funded through a combination of internal financing and fundraising.

McMaster has four campuses located in Hamilton (main campus), Halton, Niagara, and Kitchener. The University's Hamilton campus is home to the majority of McMaster's developable land and deferred maintenance needs.

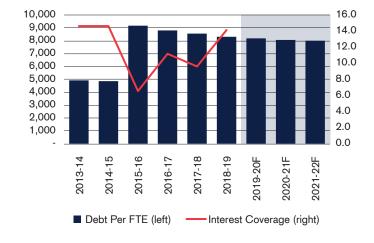
Following a sector-wide methodology change in the assessment of building condition, McMaster's deferred maintenance requirements are estimated at \$429.2 million, up from a previously estimated \$259.6 million. The University continues to focus on critical priorities and expects to maintain annual maintenance spending of close to \$13.0 million from various sources, including the University's own reserves and provincial funding. As a result of infrastructure renewal efforts and new construction, the University's FCI improved to 14.3% in 2017–18, down from 18.2% in 2012–13. As a result of a new measurement methodology, the index has risen to 19.2% in 2018-19.

Debt and Liquidity

McMaster's debt burden continues to decline moderately and is considered manageable for the assigned ratings. As at April 30, 2019, McMaster's long-term debt totalled \$254.7 million, down 0.2% from the previous year. The University's debt is composed of long-dated debentures due in 2052 (\$120 million) and 2065 (\$120 million) and a small amount of amortizing bank debt (\$14.7 million). Moderate enrolment growth, accompanied by a gradually amortizing bank term loan, led to a modest decline in the debt-per-FTE ratio of \$8,218 (from \$8,580 in 2017-18). Interest coverage remained exceptionally strong at 14.1 times.

The University has established voluntary sinking funds for the debentures. At April 30, 2019, the sinking funds totalled \$34.7 million. With ongoing contributions and investment returns, the funds are expected to be sufficient to retire the debentures in 2052 and 2065.

Exhibit 2: Debt and Interest Coverage



Debt and Liquidity (CONTINUED)

DBRS Morningstar estimates universities' expendable resources as a subset of net assets, which includes unrestricted net assets, internally restricted endowments, and some of the internally restricted net assets. For 2018-19, DBRS Morningstar estimated that McMaster's expendable resources totalled \$607.7 million, equivalent to 238.6% of long-term debt. This is among the strongest of DBRS Morningstar-rated universities and reflects McMaster's considerable balance sheet flexibility.

McMaster's internal and external endowment funds continue to grow at a moderate pace. Total endowments rose by 3.5% in 2018-19 to \$651.2 million, supported by an investment return of 6.0% (net of management fees). On a per-FTE basis, this equates to \$21,014, which is the third-highest among DBRS Morningstarrated institutions.

Employee Future Benefits

McMaster has significant employee future benefit liabilities associated with its three defined benefit pension plans and nonpension post-retirement benefits. Only one of the defined benefit pension plans remains open to new members. The University also has a group RRSP for some employees.

In recent years, the University has taken several measures to manage its significant pension liability, including revised eligibility rules for certain groups, increased employee contributions, and the introduction of a group RRSP plan for new employees in some groups.

The University filed an early valuation on July 1, 2018, for the salaried plans, which transitioned McMaster to new provincial pension funding requirements that shorten the going-concern deficit amortization period to 10 years (from 15 years), mandate the implementation of a 10% reserve factor (PfAD) to accrued plan liabilities and current service costs, and impose higher premiums for the Pension Benefits Guarantee Fund monthly guarantee.

Under the new regulation, one of the University's salaried plans was initially categorized as a closed plan, thus requiring higher contributions than open plans to fund the PfAD. As a result, the overall going surplus deficit as at the valuation date of July 1, 2018, for the salaried plans stood at \$143.4 million relative

to a much smaller deficit of \$30.8 million as of July 1, 2017. After further consultations, the Province and the University have concluded that it is more appropriate to treat McMaster's plan as an open plan. As a result, a substantial portion of the \$122.7 million negative remeasurement adjustment in the University's financial statements will be reversed after the next valuation (July 1, 2021). The solvency deficit was reported at \$197.2 million as at July 1, 2018. For the hourly plans, the latest valuation was filed as of July 1, 2016, and reported a going-concern surplus of \$1.6 million and a solvency deficit of \$16.0 million. Work is underway on the July 1, 2019, funding valuation for this plan.

The Province's new pension funding regime also eliminates solvency funding requirements for those plans that have a funded ratio of at least 85%. A solvency ratio of 91% for McMaster's salaried pension plans allow the University to avoid making special payments until the next valuation date (July 1, 2021).

Like other Canadian universities, McMaster is an enduring institution, which makes the sudden wind-up of a pension plan unlikely. DBRS Morningstar places less emphasis on the solvency valuation, though a large solvency deficit does place pressure on the credit profile because of provincial regulations that require universities to make special payments to liquidate the goingconcern and solvency deficits.

Non-pension post-employment benefit liabilities totalled \$274.7 million at April 30, 2019, up 10.9% from the previous year. These mainly comprise health, dental, and life insurance benefits to retirees. Although not mandated, the University continues to set aside funds in an internally restricted reserve, which totalled \$93.8 million as at April 30, 2019.

Outlook

In the absence of any new debt issuance, DBRS Morningstar expects a decline in the debt per FTE ratio to \$8,203 in 2019-20, and gradually falling below \$8,000 by 2021-22. Incorporated within the existing ratings is DBRS Morningstar's assumption that debt-per-FTE remains below \$12,000. The University indicated in its 2019 Debt Strategy that it may issue additional debt to fund potential capital initiatives within the next 12 months. Over the medium term, an increase in debt per FTE beyond \$12,000 could result in a downward pressure on the rating.

University Funding in Ontario

Canadian universities in the Province generally have three key sources of revenue for their core teaching and research activities: (1) government grants, (2) student fees, and (3) donations and investment income. For McMaster, these accounted for approximately 78% of total revenues in 2018-19.

Provincial government funding remains one of the primary sources of revenue for universities across the country, although its relative importance remains under pressure in most provinces because of strained finances and competing priorities. Over time, this has led to a gradual shift in the relative shares of revenue provided by operating grants, which have declined, and tuition fees, which have increased.

University Funding in Ontario (CONTINUED)

Government Funding (Provincial and Federal, 37%)

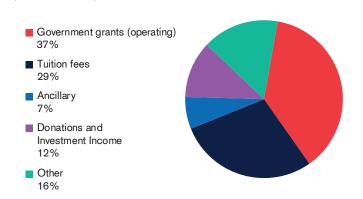
Government funding includes operating grants, research grants and contracts, and capital grants. Operating grants are the most important and stable revenue source.

The previous Liberal provincial government introduced a new funding model for Ontario universities in 2017-18. The model is similar to the previous funding model with a large enrolmentbased share of funding; however, the new model seeks to reduce the financial incentive to increase domestic undergraduate enrolment and will provide universities facing enrolment declines with downside protection. Under the model, funding was expected to be relatively stable for all Ontario universities over a three-year period (2017-18 to 2019-20). However, the recent change in government has created some uncertainty. The current Progressive Conservative provincial government indicated that it will not make any changes to the funding formula at this time, but the medium-term outlook is uncertain. The direction of fiscal policy under the current government is one of constraint.

Government grants for research and capital projects are also an important source of funding. The federal government typically provides 65% to 75% of all public research funding, whereas the Province provides the bulk of capital funding.

Research revenue is recognized as deferred contributions on the Statement of Financial Position until spent on research or related capital, at which time it is recognized as income. The federal government's Incremental Project Grant funding is aimed to support research-associated indirect costs at Canadian universities. Under this program, McMaster may receive a \$1.0 million notional grant in 2019-20 through the federal government's Research Support Fund.

Exhibit 3: 2018-19 Consolidated Revenue Sources (Total: \$1.2 billion)



Student Fees (29%)

On January 17, 2019, the Province announced a revised tuition fee framework for regulated domestic programs at Ontario universities and colleges. Ontario universities are required to reduce tuition fees for domestic funding (eligible programs by 10% in 2019-20) and to maintain domestic-funding-eligible program tuition fees at this level for the 2020-21 academic year. For most DBRS Morningstar-rated universities, the tuition-fee reduction results in a total revenue loss of between 3% and 5%. Institutions are expected to absorb revenue losses within their budgets and are required to comply with the policy or risk losing core operating funding.

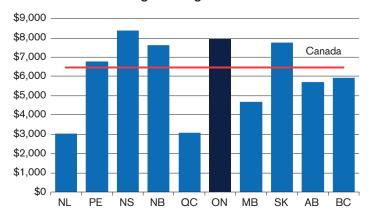
International student fees are not regulated by the Province and are generally set to recover the full costs of international student enrolment.

Donation and Investment Income (12%)

Unrestricted donations and investment income, recognized on the statement of operations, typically represent about 10% of the University's revenue. Endowed contributions and investment income earned by the restricted endowments are recognized as changes in net assets and are not captured on the statement of operations until they are spent, at which point they are recorded as revenue.

With an extensive alumni, friends, and current donor base that includes many professionals, McMaster has seen consistent success in its fundraising efforts over the past several years. The University exceeded its annual fundraising goal of \$55.0 million and raised \$76.2 million (\$29.0 million in new pledges and gifts) in 2018. The University also launched a multiyear research-oriented revenue-generating initiative, the Brighter World Research Initiative, that aims to build and capitalize on McMaster's position as Canada's most research-intensive university.

Exhibit 4: 2019–20 Average Undergraduate Tuition Fees



Source: Statistics Canada

McMaster University

Statement of Financial Position (DBRS Morningstar-adjus

(\$ thousands)	As at April 30				
Assets	2019	2018	2017	2016	2015
Cash and short-term investments	225,846	208,242	161,823	143,723	162,624
Receivables	138,942	136,383	135,588	135,022	123,762
Inventories and prepaid expenses	19,352	15,333	15,416	13,512	10,581
Long-term investments	1,329,541	1,256,897	1,240,598	1,094,130	967,009
Other investments and intangible assets	24,111	23,940	21,158	24,938	18,787
Capital assets	1,158,793	1,083,552	1,009,956	967,709	959,316
Total Assets	2,896,585	2,724,347	2,584,539	2,379,034	2,242,079
Liabilities and Net Assets					
Liabilities and Deferred Contribtions					
Payables and other current liabilities	181,257	165,918	149,156	132,713	155,801
Employee future benefits	357,290	228,579	223,805	377,255	280,492
Deferred contributions - endowment	106,505	98,265	94,373	90,606	80,477
Other deferred contributions	256,663	260,926	263,662	263,317	228,481
Deferred capital contributions	505,591	511,302	490,828	462,144	455,778
Long-term debt	254,688	255,312	255,898	256,520	137,175
Decommissioning obligation	13,718	13,122	12,606	12,029	11,206
Total liabilities	1,675,712	1,533,424	1,490,328	1,594,584	1,349,410
Net Assets					
Unrestricted	10,755	9,781	7,846	10,081	9,262
Internally restricted	159,426	234,151	211,957	(16,627)	(59,194)
Equity in capital assets	399,463	317,879	264,108	249,943	367,568
Endowment - internally restricted	150,410	145,777	143,422	127,872	136,609
Endowment - externally restricted	500,819	483,335	466,878	413,181	438,424
Net Assets	1,220,873	1,190,923	1,094,211	784,450	892,669
Total Liabilities and Net Assets	2,896,585	2,724,347	2,584,539	2,379,034	2,242,079
Contingencies and Commitments					
Capital commitments	276,300	204,500	167,900	223,800	221,200
Legal claims	-	-	-	-	31,000

McMaster University

Statement	of O	perations	(DBRS	Morningstar-adjusted)
-----------	------	-----------	-------	-----------------------

(\$ thousands)		For the year ended April 30				
Revenue	2019	2018	2017	2016	2015	
Tuition fees	341,629	305,171	274,788	246,275	233,343	
Government operating grants	273,587	273,493	270,333	264,645	265,214	
Research grants and contracts	193,412	183,768	181,730	172,432	183,823	
Ancillary operations	78,202	77,112	74,273	70,307	68,635	
nvestment income	70,820	52,275	98,432	12,855	56,332	
Donations and other grants	67,906	47,714	29,819	44,193	49,171	
Amortization of deferred capital contributions	38,835	40,112	40,553	39,340	37,897	
Other revenue	128,619	122,533	106,070	104,362	96,416	
Total Revenue	1,193,010	1,102,178	1,075,998	954,409	990,831	
Expense						
Salaries and benefits	641,842	619,723	602,005	566,052	561,344	
Other supplies and expenses	308,107	291,433	193,684	183,754	188,751	
Amortization	72,769	71,995	70,262	86,004	68,844	
nterest	13,300	13,340	13,377	10,805	8,537	
otal Expense	1,036,018	996,491	963,916	925,313	912,242	
Consolidated operating result	156,992	105,687	112,082	29,096	78,589	
Gross Capital Expenditures	148,010	145,591	113,487	94,397	135,876	
Calculation of Free Cash Flow						
\$ thousands)			As at April 30			
	2019	2018	2017	2016	2015	
Operating balance before fund contributions	156,992	105,687	112,082	29,096	78,589	
Amortization	72,769	71,995	70,262	86,004	68,844	
Other non-cash adjustments	(55,027)	(62,234)	(46,509)	(55,257)	(31,119)	
Cash flow from operations	174,734	115,448	135,835	59,843	116,314	
Change in working capital	13,062	16,951	17,864	7,699	29,825	
Operating cash flow after working capital	187,796	132,399	153,699	67,542	146,139	
Net capital expenditures ¹	(114,886)	(85,005)	(42,472)	(48,691)	(62,494)	
Free cash flow	72,910	47,394	111,227	18,851	83,645	

^{1.} Gross capital expenditures less contributions restricted for capital purposes.

McMaster University

Summary Statistics (DBRS Morningstar-adjusted)

	For the year ended April 30				
	2019	2018	2017	2016	2015
Total Enrolment (FTE) ¹	30,990	29,758	29,130	27,884	28,157
Undergraduate	86%	86%	86%	87%	87%
Graduate	14%	14%	14%	13%	13%
Total annual change	4.1%	2.2%	4.5%	(1.0%)	1.3%
Enrolment (Headcount)	33,147	31,843	31,265	29,865	30,117
Domestic	28,747	28,125	28,223	27,319	27,544
International	4,400	3,718	3,042	2,546	2,573
Total Employees ²	5,589	5,418	5,251	5,286	5,220
Full-time faculty	1,503	1,476	1,437	1,438	1,432
Over the Booking					
Operating Results	455.0	405.5	4101	00.4	50.
Surplus (deficit) (\$ millions)	157.0	105.7	112.1	29.1	78.6
As a share of revenue	13.2%	9.6%	10.4%	3.0%	7.9%
Revenue Mix					
Government funding (federal and provincial)	37%	40%	41%	45%	45%
Tuition fees	29%	28%	26%	26%	24%
Ancillary	7%	7%	7%	7%	7%
Donations and Investment Income	12%	9%	12%	6%	11%
Other	16%	16%	15%	16%	14%
Debt and Liquidity					
Total long-term debt (\$ millions)	254.7	255.3	255.9	256.5	137.2
Per FTE student (\$)	8,218	8,580	8,785	9,200	4,872
l and town dalat and in consist of actions of	000.0	600.4	647.6	057.6	660.0
Long-term debt, contingencies & commitments (\$ millions)	888.3	688.4		857.6	669.9
Per FTE student (\$)	28,663	23,133	22,231	30,755	23,790
Expendable Resources	607.7	558.4	528.9	447.4	322.1
As a share of total debt	238.6%	218.7%	206.7%	174.4%	234.8%
laterest seets as shown of total survey district	1.00/	1.00/	1 40/	1.00/	0.00/
Interest costs as share of total expenditures	1.3%	1.3%	1.4%	1.2%	0.9%
Interest coverage ratio (times)	14.1	9.7	11.2	6.5	14.6
Endowment Funds					
Total market value (\$ millions)	651.2	629.1	610.3	541.1	575.0
Per FTE student (\$)	21,014	21,141	20,951	19,404	20,422
Payout ratio (% of five-year average market value)	4.0%	4.0%	4.0%	4.0%	4.0%
1. FTE, excluding continuing education.					

FTE, excluding continuing education.
Headcount; excludes teaching assistants and sessional lecturers.

Rating History

	Current	2018	2017	2016	2015	2014
Issuer Rating	AA	AA	AA	AA (low)	AA (low)	AA (low)
Senior Unsecured Debentures	AA	AA	AA	AA (low)	AA (low)	AA (low)

Related Research

• Rating Public Universities (May 2019).

Previous Report

• McMaster University: Rating Report, December 24, 2019.

All figures are in Canadian dollars unless otherwise noted.

For the definition of Issuer Rating, please refer to Rating Definitions under Rating Policy on www.dbrs.com.

Generally, Issuer Ratings apply to all senior unsecured obligations of an applicable issuer, except when an issuer has a significant or unique level of secured debt.

The DBRS group of companies consists of DBRS, Inc. (Delaware, U.S.) (NRSRO, DRO affiliate); DBRS Limited (Ontario, Canada) (DRO, NRSRO affiliate); DBRS Ratings GmbH (Frankfurt, Germany)(CRA, NRSRO affiliate, DRO affiliate); and DBRS Ratings Limited (England and Wales)(CRA, NRSRO affiliate, DRO affiliate). Morningstar Credit Ratings, LLC is a separately registered NRSRO and NRSRO affiliate of DBRS, Inc.

For more information on regulatory registrations, recognitions and approvals of DBRS group of companies and Morningstar Credit Ratings, LLC, please see: http://www.dbrs.com/research/ highlights.pdf.

The DBRS group and Morningstar Credit Ratings, LLC are wholly-owned subsidiaries of Morningstar, Inc.

© 2019 Morningstar. All rights reserved. The information upon which DBRS ratings and other types of credit opinions and reports are based is obtained by DBRS from sources DBRS believes to be reliable. DBRS does not audit the information it receives in connection with the analytical process, and it does not and cannot independently verify that information in every instance. The extent of any factual investigation or independent verification depends on facts and circumstances. DBRS ratings, other types of credit opinions, reports and any other information provided by DBRS are provided "as is" and without representation or warranty of any kind. DBRS hereby disclaims any representation or warranty, express or implied, as to the accuracy, timeliness, completeness, merchantability, fitness for any particular purpose or non-infringement of any of such information. In no event shall DBRS or its directors, officers, employees, independent contractors, agents and representatives (collectively, DBRS Representatives) be liable (1) for any inaccuracy, delay, loss of data, interruption in service, error or omission or for any damages resulting therefrom, or (2) for any direct, indirect, incidental, special, compensatory or consequential damages arising from any use of ratings and rating reports or arising from any error (negligent or otherwise) or other circumstance or contingency within or outside the control of DBRS or any DBRS Representative, in connection with or related to obtaining, collecting, compiling, analyzing, interpreting, communicating, publishing or delivering any such information. No DBRS entity is an investment advisor. DBRS does not provide investment, financial or other advice. Ratings, other types of credit opinions, other analysis and research issued or published by DBRS are, and must be construed solely as, statements of opinion and not statements of fact as to credit worthiness, investment, financial or other advice or recommendations to purchase, sell or hold any securities. A report with respect to a DBRS rating or other credit opinion is neither a prospectus nor a substitute for the information assembled, verified and presented to investors by the issuer and its agents in connection with the sale of the securities. DBRS may receive compensation for its ratings and other credit opinions from, among others, issuers, insurers, guarantors and/or underwriters of debt securities. DBRS is not responsible for the content or operation of third party websites accessed through hypertext or other computer links and DBRS shall have no liability to any person or entity for the use of such third party websites. This publication may not be reproduced, retransmitted or distributed in any form without the prior written consent of DBRS. ALL DBRS RATINGS AND OTHER TYPES OF CREDIT OPINIONS ARE SUBJECT TO DISCLAIMERS AND CERTAIN LIMITATIONS. PLEASE READ THESE DISCLAIMERS AND LIMITATIONS AT http://www.dbrs.com/about/disclaimer. ADDITIONAL INFORMATION REGARDING DBRS RATINGS AND OTHER TYPES OF CREDIT OPINIONS, INCLUDING DEFINITIONS, POLICIES AND METHODOLOGIES, ARE AVAILABLE ON http://www.dbrs.com.