Rating Report

McMaster University

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DBRS

Insight beyond the rating.

Ratings

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

Rating Update

On December 7, 2017, DBRS Limited (DBRS) upgraded McMaster University's (McMaster or the University) Issuer Rating and Senior Unsecured Debt rating to AA from AA (low). The trends on both ratings are Stable. While DBRS's usual practice is to have a Positive trend prior to an upgrade for a university, DBRS believes that McMaster's credit risk profile is now consistent with the AA rating. Since the time of the downgrade in 2010, the University's financial risk metrics have improved significantly, while the University's academic profile has modestly improved.

The University delivered an exceptionally strong operating result in 2016–17, reporting a surplus of $129.2 million (11.8% of revenue), which was largely the result of unusually strong investment earnings — a common trend in the sector in 2016–17. The University's core operating budget is structurally balanced, supported by strong student demand, the capacity to increase both domestic and international enrolment, a robust research profile and effective management practices. The University has consistently reported strong operating results over the last five years, which has contributed to robust growth in net assets. Net assets have risen by 65% over the last four years and reached $1.1 billion in 2016–17.

The operating outlook remains favourable. The University's 2017–18 budget projected a consolidated surplus of $57.4 million for the current year and similarly large surpluses in subsequent years. The University has yet to provide a mid-year financial update, but initial indications suggest that results are likely tracking to plan. Over the medium term, the University's strategic plan emphasizes modest ongoing enrolment growth and further research intensification, already among the strongest in the country. While some moderation in financial results may be expected, the outlook remains broadly positive and supportive of the higher rating.

The University's financial profile has improved in recent years and is expected to remain relatively stable over the medium term. The University's balance sheet is among the strongest of DBRS-rated universities, exhibiting a relatively low level of debt, ample expendable resources and a large endowment. DBRS expects debt to remain relatively stable, notwithstanding a modest increase in 2017–18, resulting from the introduction of a new provincial climate change-related program that will provide interest-free loans to Ontario universities. DBRS projects that McMaster's debt-per-full-time equivalent (FTE) ratio will rise to $9,100 in 2017–18 and then decline gradually over the medium term to about $8,700 per FTE in 2019–20. Interest coverage (currently 12.5 times (x)) and expendable resources-to-debt (currently 212%) are expected to remain elevated over the medium term.

DBRS expects the ratings to remain stable. A positive rating action could result from an upgrade of the provincial funder rating and an improvement in the government funding and tuition frameworks. A negative rating action could result from a deterioration in operating results and balance sheet flexibility.

Financial Information

	For the year ended April 30				
	2017	**2016**	**2015**	**2014**	**2013**
Consolidated operating result (DBRS-adjusted, $ millions)	129.2	29.1	78.6	86.6	60.7
Surplus-to-revenue (five-year average)	7.6%	5.5%	5.4%	4.1%	0.8%
Debt per FTE ($)	8,785	9,185	4,872	4,957	5,028
Interest coverage (times)	12.5	6.5	14.6	14.6	12.5
Expendable resources-to-debt (times)	212%	174%	235%	212%	178%

Issuer Description

McMaster was founded in 1887 through the merger of the Toronto Baptist College and Woodstock College. Located in Hamilton, Ontario, McMaster draws from a local population of 780,000 residents situated 60 kilometres from Toronto. The University is a comprehensive, research-intensive institution offering a broad range of undergraduate, graduate and continuing education programs. In 2016–17, the University's enrolment was 29,130 on an FTE basis.

Rating Considerations

Strengths

1. Strong academic profile
The University benefits from a strong academic profile, frequently placing high in national rankings and often appearing 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 stable institutions and a critical component of the public sector. They benefit from stable revenue sources, including significant funding from the provincial and federal governments, as well as the tuition revenue. These sources accounted for about two-thirds of McMaster's revenue in 2016–17. Enrolment continues to rise gradually at the University, which will support medium-term revenue growth.

3. Effective 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. Financial flexibility
The University has a strong balance sheet, the result of prudent management practices, a series of strong operating results and success in fundraising. DBRS estimates that McMaster's expendable resources were $541.7 million at April 30, 2017, which equates to 212.7% of debt.

Challenges

1. Constrained provincial funding
The University derives two-thirds of its revenue from tuition fees and provincial operating grants. While these revenue sources are stable and largely predictable, they have been constrained by the policies of the Province of Ontario (the Province; rated AA (low) with a Stable trend by DBRS). Under the funding framework, operating grants will be stable over the next three years — unresponsive to inflationary cost pressures and modest enrolment changes, while the tuition fee framework limits tuition fee increases to 3.0%, on average, for domestic undergraduate students.

2. Labour costs
Salary and benefit costs are rising faster than government grants and will continue to put pressure on the University's finances. Salaries and benefits account for about 60% of total expense. Labour relations remain positive at this time.

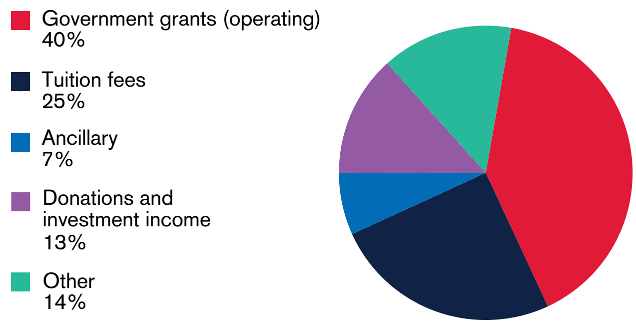
3. Large backlog of deferred maintenance
The University has a considerable amount of deferred maintenance (DM) needs, currently estimated at $310.1 million. Over the last four years, DM has fallen as the University increased budget allocations to DM. The facilities condition index has fallen consistently over the period and is now estimated to be 15.0%, down from 18.2% in 2012–13.

2016–17 Operating Performance

The University reported a surplus of $129.2 million for the year ended April 30, 2017, which significantly exceeded prior year results. On a relative basis, the surplus equates to 11.8% of total revenue. The exceptional result was primarily the result of unusually strong investment earnings during the year.

Total revenue rose substantially in 2016–17 (+14.5%), with all revenue categories experiencing varying degrees of growth. In addition to strong investment earnings, tuition revenue rose strongly (+11.6%) because of continued enrolment increases (+4.3%) and tuition fee increases. Government operating grants were largely unchanged (+2.1%), though research grants and contracts experienced a more pronounced increase (+5.2%) after a decline in the prior year. Other revenue sources generally experienced more modest gains.

Exhibit 1: 2016–17 Consolidated Revenue Sources
(Total: $1.1 billion)



Total expense rose moderately (+4.2%), which reflects inflationary pressures and general growth in the University's operations. In addition to the relatively strong enrolment growth, research activity also increased at the University following the decline in 2015–16. The major contributors to overall expense growth were labour costs (+6.4%) and other supplies and expenses (+5.4%).

Net assets rose sharply (+41.7%) during the year to reach $1.1 billion. The increase was driven by the positive operating result, strong growth in endowments resulting from strong investment earnings and endowed contributions and a large remeasurement gain for the University's pension plan.

Operating Outlook

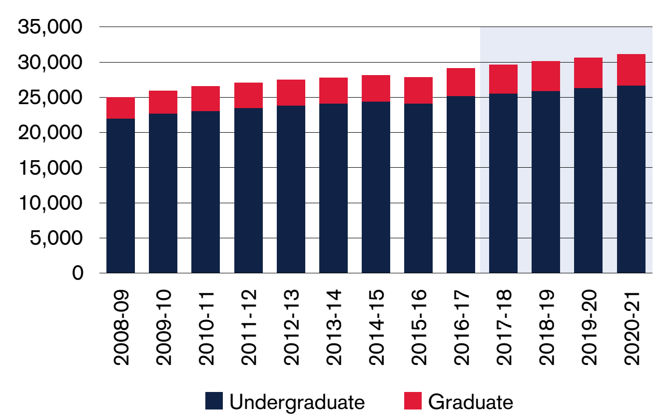
The University prepares a consolidated budget that includes the operating fund, capital fund, research fund, trusts and endowment fund and the specifically funded activities. The University is required by its Board of Directors to present a balanced budget on an annual basis. Like most universities in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

2017–18 Budget and Outlook

McMaster's budget projected a consolidated surplus of $57.3 million for the 2017–18 fiscal year.

The 2017–18 budget is aligned with the University's strategic goals (*2016–17 Brighter World*) and is largely consistent with the previous two budgets. The University remains focused on improving the student experience, strengthening its research profile and enhancing its relationships with the communities it serves. The budget allocated some incremental funding toward these initiatives.

Exhibit 2: Total Enrolment (FTEs)



The University's budget projected moderate growth in operating revenue, driven largely by increased enrolment and tuition fees. Tuition revenue was projected to rise 8.2%. The budget anticipated enrolment growth of 608 students (+2.1%) on an FTE basis, with the majority of the increase coming from domestic undergraduate students (+471 FTE). Tuition fees were increased by 3.0%, on average, for domestic students and 6.0%, on average, for international students. The provincial operating grant was projected to remain relatively stable.

The budget projected increases in several expense categories, with the overall operating expense set to rise by $27.5 million (+4.4%). The vast majority of this increase is attributable to salaries, wages and benefits, which are projected to rise by $19.1 million (+4.5%). Other areas of expenses are expected to rise as well as the University continues to expand and modernize.

Operating Outlook (CONTINUED)

The University has yet to provide a mid-year financial update, but initial indications suggest that results are likely to track budget expectations. Enrolment is tracking close to budget expectations.

Medium-Term Outlook

The operating environment has been difficult for Ontario universities in recent years because of constrained funding, a weaker demographic outlook and provincial policy uncertainty. DBRS believes that the outlook for the sector has improved since the time of the last rating action.

The Province has provided Ontario universities with clarity regarding provincial operating grants and the tuition framework. Broadly, provincial operating grants are expected to remain stable over the next three years and universities are being provided with modest flexibility to raise domestic tuition fees. Under this model, revenue will remain constrained, but the downside risk resulting from weakening domestic demographics has been mitigated for some universities.

At the same time, the implications of the shrinking university-aged population in Canada are less severe than first thought. Many universities rated by DBRS have planned for pronounced declines that have yet to fully materialize. While the outlook remains challenging for some universities, McMaster is largely unaffected by these trends as it is one of Canada's leading post-secondary institutions and consistently experiences strong student demand. The University plans for moderate annual enrolment increases of about 400 FTEs to 500 FTEs over the medium term.

While the University continues to plan for enrolment growth, the outlook for enrolment has shifted somewhat with the new Strategic Mandate Agreements (SMA2) and the changes to the university funding model. The previous funding model provided an incentive for domestic undergraduate enrolment growth (accessibility), but the new model emphasizes funding stability (for more information see *DBRS Comments on Ontario's New University Funding Model*, March 9, 2017). The Province is seeking to improve accessibility through reforms to student aid. With provincial funding for domestic undergraduate students unresponsive to enrolment growth, universities are indicating that they intend to rely more heavily on international enrolment to drive revenue growth. McMaster, like other institutions, is now projecting for modest growth in domestic enrolment and faster growth in international enrolment. The University projects that international students will account for up to 15.0% of enrolment within three years, up from 9.8% in 2016–17.

The Province is now finalizing the second iteration of the SMAs with Ontario universities. The first iteration of SMAs (2014) set out institution-specific priorities for each university within the context of the Province's objective for greater differentiation and specialization by universities. The SMAs were broad in nature, and subsequent rounds are expected to be more targeted. The SMA2s will also include some outcome-oriented funding for which universities will be expected to meet negotiated performance objectives. DBRS expects the outcome-oriented funding will be easily achievable in the near term. DBRS understands that McMaster's performance targets will be focused on the student experience, research intensification and commercialization activities, consistent with the University's broader strategic objectives.

The University's strategic outlook remains largely unchanged. The President, Patrick Deane, is now in his seventh year in the role and remains committed to the vision he outlined to become a "research-focused student-centred" institution that was laid out in his *Forward with Integrity* mandate letter in 2011. In recent years, the senior administration of the University has been relatively stable, though DBRS notes that the University recently appointed David Farrar as Provost. He has previously held senior roles at the University of British Columbia (UBC) and the University of Toronto. DBRS understands the new Provost undertook efforts to increase internationalization at UBC and that he has a strong understanding on post-secondary financial management.

With revenue predictability and a strong enrolment and research outlook, the University's financial profile is expected to remain stable over the medium term. There remains some uncertainty in the outlook, though nothing that cannot be mitigated or accommodated within the existing budget plan.

- **Pension funding requirements.** The Province has introduced legislation that will change defined benefit pension plan funding requirements. The broad outline of the requirements are contained in the legislation, but many of the key details are to be provided in regulation. At present, the changes do not appear to have a material impact on the University's funding requirements or credit profile.
- **Pay legislation.** The Province has introduced legislation that will require equal pay for equal work and increase the minimum wage. The changes will have a moderate impact on the University's expense base. The University has indicated that the legislation is unlikely to have a material impact on bottom line results. The University will adjust work functions to mitigate some of the impact and will be able to pass along some cost increases in the form of higher prices for ancillary services.

Capital Plan

McMaster's capital outlook is guided by its Facility Services' Five-Year Capital Plan and the Energy Management and Asset Management Plans. The Five-Year Capital Plan aims to guide the growth of physical assets at the University through 2018–19. McMaster has four campuses located in Hamilton (main campus), Halton, Niagara and Kitchener. The University's Hamilton campus is where the majority of McMaster's developable land and deferred maintenance needs lie. This campus has roughly 484 acres of land with 88,000 net assignable square metres of developable land. Surveys conducted on the campus over the past year estimate the replacement value of the University's assets to be $2.06 billion.

Capital investment has varied in recent years typically in the range of $100 million to $130 million, as the University undertakes projects to modernize facilities, address deferred maintenance 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 needs. The more significant and transformative projects include:

- **Peter George Centre for Living and Learning** ($122.3 million) — A multi-purpose building that includes a 500-bed residence, classroom and learning facilities as well as space for ancillary operations and administrative functions.
- **Arthur Bourns Building renovation, retrofit, addition and associated projects** ($56.2 million) — The renovation and retrofit will modernize science and engineering research facilities and improve energy conservation. The project received $37.5 million from the federal government under the Strategic Infrastructure Fund and $5.5 million from the Province.

The University is also pursuing new residences, though these tend to use 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 impact on the balance sheet for ancillary facilities/infrastructure.

- Graduate Residence — The University issued a request for proposals for the design, build, finance and management of a graduate, off-campus residence with up to 500 beds.
- Traymore Residence — The University is evaluating a third-party proposal to construct a 955-bed off-campus, undergraduate residence. Under the proposal, the University would provide an upfront equity injection, which would be recouped over time along with an annual levy.

The University has a number of other projects for the medium and longer term under consideration. These include an expansion to the DeGroote School of Business, the construction of a new academic building to replace T13 and renovations and expansions of the University's library system. These projects will also be considered only when external funding is available.

In addition to these projects, a major transit hub will be constructed on the southwest edge of the Hamilton campus. The hub will incorporate stops for GO Transit, Hamilton Street Railway and Light Rapid Transit, thus increasing the accessibility of the campus. The transit hub will cost $70 million, though McMaster will not be required to provide a financial contribution to the project.

McMaster's deferred maintenance requirements are estimated to be $310.1 million, down from $314.0 million the year prior. The University's deferred maintenance requirements, though elevated, have steadily fallen in recent years as the University has allocated more funding to address high-priority needs. Operating allocations to address the backlog amounted to $10.2 million in 2016–17, which is in addition to provincial deferred maintenance funding of $2.7 million. The University's facilities condition index fell to 15.0% in 2016–17, down from 18.2% in 2012–13.

Debt and Liquidity

The University's long-term debt fell slightly to $255.9 million (-0.24%) in 2016–17. On an FTE basis, debt fell to $8,785 in 2016–17 from $9,185 the year prior with moderate growth in enrolment. Interest coverage remained elevated at 12.5x.

The University's debt comprises long-dated debentures due in 2052 and 2065 ($240 million) and some amortizing bank debt ($15.3 million).

The University has established sinking funds for the debentures. At April 30, 2017, the sinking funds totalled $28.4 million. With moderate long-term investment returns, the funds are expected to be sufficient to retire the debentures in 2052 and 2065.

The University has among the strongest balance sheets among DBRS-rated universities and it exhibits considerable flexibility. While the overall net asset balance does exhibit volatility from year to year, much of this is attributable to remeasurement gains and losses on the University's pension plan. In 2017, net assets increased to $1.1 billion (+41.7%) as the University posted a remeasurement gain of $144.0 million.

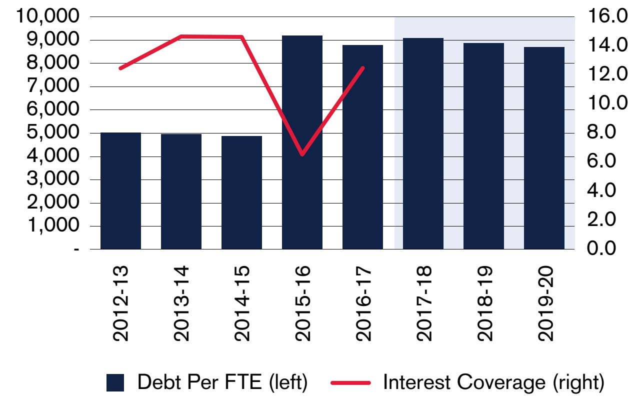
To better understand the level and change in the University's financial flexibility, DBRS estimates universities' expendable resources as a subset of net assets, which includes unrestricted net assets, internally restricted endowments and some of the internally restricted net assets. In 2017, DBRS estimates that McMaster's expendable resources total $541.7 million, equivalent to 2.1x long-term debt. This is among the strongest of DBRS-rated universities.

McMaster's internal and external endowments grew strongly in 2017, with total endowments increasing to $610.3 billion (+12.8%), attributable to strong investment earnings and contributions. On a per FTE basis, this equates to $20,951, which is high relative to most DBRS-rated institutions.

McMaster has significant employee future benefit liabilities associated with its three defined benefit pension plans and non-pension 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. The funding status of the pension plans, on a financial statement basis, has improved in recent years with strong investment returns. At April 30, 2017, the unfunded pension liability for the plans amounted to $3.5 million, an improvement from $169.3 million the year prior.

The most recent actuarial valuation for the pension plan was in 2014 and indicated that the pension plan had a going-concern deficit of $253 million and a solvency deficit of $197 million. The University is now in the process of finalizing a July 2017 valuation, which the University expects to show an improvement in the going-concern funding status and a deterioration in the solvency funding status.

Exhibit 3: Debt and Interest Coverage



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

The Province introduced temporary solvency relief measures in the wake of the financial crisis and has since extended and amended relief provisions. The current iteration of the funding regulations requires the University to make payments to liquidate 25% of the solvency deficits over a seven-year period and fund the interest costs on the remaining 75% of the liability. However, the Province has announced that broader, permanent changes to pension funding requirements for defined benefit pension plans are forthcoming. These changes appear unlikely to significantly reduce funding requirements but will provide greater long-term certainty with respect to those requirements. The elements of new framework are as follows:

- Universities will only be required to make special solvency payments if the solvency funding status is less than 85%;
- The amortization period for amortizing the going-concern deficit will be reduced to ten years from 15 years and universities will be required to establish a reserve (Provision for Adverse Deviation); and
- The Province will increase the *Pension Benefits Guarantee Fund* monthly guarantee, which will likely require higher premiums.

Nevertheless, the outlook for the pension plan is improving. The University adopted a number of measures to address the longer-term sustainability of the plan and incremental cash flows that could be required under the new funding requirements are unlikely to have a material impact on the budget or credit profile as the University's solvency funding status is likely to exceed 85.0%.

Debt and Liquidity (CONTINUED)

Outlook

The University's debt burden may increase modestly in 2017–18 or 2018–19. The Province has announced it will provide the University sector with interest-free loans as part of the Province's broader cap-and-trade initiative. McMaster's allocation under the program would be about $9.0 million. The University does not envision any other near-term borrowing. DBRS projects the University's debt burden will rise to about $9,100 per FTE in 2017–18 and then decline modestly over the medium term to about $8,700 per FTE in 2019–20 with gradual growth in enrolment.

University Funding in Ontario

Canadian universities generally have three key sources of revenue for their core teaching and research activities: (1) government grants, (2) student fees and (3) donation and investment income. These accounted for about 80% of McMaster's revenue in 2016–17.

Government Funding (Provincial and Federal, 40%): This includes operating grants, research grants and contracts as well as capital grants, of which operating grants are the most important and stable revenue source.

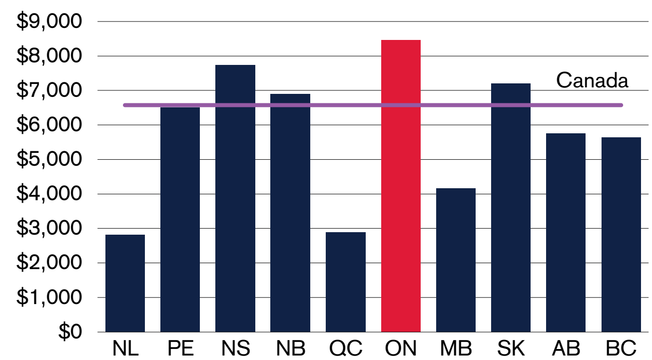
The Province introduced a new funding model for Ontario universities in 2017–18. Broadly, the model is largely similar to the previous funding model with a large share of funding being enrolment based. The new model, however, will seek to reduce some of the financial incentives to increase enrolment and will provide those universities facing enrolment declines with downside protection. Ultimately, funding is expected to be relatively stable for all Ontario universities over the next three years. For more information about Ontario's new funding model, see the DBRS commentary, *DBRS Comments on Ontario's New University Funding Model* (March 9, 2017).

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; however, the Province's emphasis on spending restraint to address its own budgetary challenges in recent years suggests limited flexibility for funding increases, which makes cost containment at universities that much more crucial.

Student fees (25%): The current tuition fee framework was introduced by the Province in 2013–14. The framework caps annual undergraduate tuition fee increases to 3.0% for most programs and 5.0% for most graduate and professional programs. The overall institutional average increase may not exceed 3.0%. The Province has not provided any guidance for the tuition fee framework beyond 2018–19.

Student fees for international students are not regulated by the Province. International student fees are set to recover the full costs of international student enrolment.

Exhibit 4: 2017–18 Average Undergraduate Tuition Fees



Source: Statistics Canada.

Donation and Investment Income (13%): 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 base, that includes many members of lucrative professional categories, such as business and medicine, McMaster has seen consistent success in its fundraising efforts over the past several years. The University has set its annual fundraising goal at $20.0 million in recent years and has consistently exceeded this. During the 2016 calendar year, new pledges and gifts totalled $40.0 million. These included large gifts of $5.0 million from the Paul R. MacPherson Institute for Leadership, Innovation & excellence in Teaching, and $2.0 million from Chancellor Emeritus Lynton "Red" Wilson for liberal arts development and the Socrates Project. The University will launch a small, research-oriented fundraising campaign in the 2018–19 academic year and is expected to launch a larger campaign in 2021–22.

McMaster University

Statement of Financial Position (DBRS-Adjusted)

($ thousands)	As at April 30				
Assets	**2017**	**2016**	**2015**	**2014**	**2013**
Cash and short-term investments	161,823	143,723	162,624	172,294	156,914
Receivables	135,588	135,022	123,762	155,205	158,553
Inventories and prepaid expenses	15,416	13,512	10,581	11,597	11,412
Deferred pension asset 1	-	-	-	-	197,356
Long-term investments	1,240,598	1,094,130	967,009	844,242	740,359
Other investments	21,158	24,938	18,787	15,738	14,888
Capital assets	1,009,956	967,709	959,316	888,337	854,422
Total Assets	**2,584,539**	**2,379,034**	**2,242,079**	**2,087,413**	**2,133,904**
Liabilities and Net Assets					
Liabilities and Deferred Contributions					
Payables and other current liabilities	149,156	132,713	155,801	149,096	156,975
Employee future benefits 1	223,805	377,255	280,492	372,702	280,894
Deferred contributions — endowment	94,373	90,606	80,477	75,559	72,617
Other deferred contributions	250,837	263,317	228,481	238,791	232,951
Deferred capital contributions	486,496	462,144	455,778	420,293	399,105
Long-term debt	255,898	256,520	137,175	137,792	138,371
Decommissioning obligation	12,606	12,029	11,206	9,610	9,155
Total liabilities	**1,473,171**	**1,594,584**	**1,349,410**	**1,403,843**	**1,290,068**
Net Assets					
Unrestricted	7,846	10,081	9,262	8,188	8,125
Internally restricted	224,782	-16,627	-59,194	-190,599	35,978
Equity in capital assets	268,440	249,943	367,568	332,569	319,261
Endowment — internally restricted	143,422	127,872	136,609	127,746	115,733
Endowment — externally restricted	466,878	413,181	438,424	405,666	364,739
Net Assets	**1,111,368**	**784,450**	**892,669**	**683,570**	**843,836**
Total Liabilities and Net Assets	**2,584,539**	**2,379,034**	**2,242,079**	**2,087,413**	**2,133,904**
Contingencies and Commitments					
Capital commitments	167,900	223,800	221,200	240,700	208,187
Legal claims	-	-	31,000	31,000	31,000
Total	**167,900**	**223,800**	**252,200**	**271,700**	**239,187**

1 As of May 1, 2014, the University adopted accounting standards for not-for-profit organizations, moving to an immediate recognition approach for employee future benefits, with annual actuarial gains and losses flowing through the Statement of Net Assets and the full funded status of plans reported on the Statement of Financial Position.

McMaster University

Statement of Operations (DBRS-Adjusted)

($ thousands)

	For the year ended April 30				
Revenue	**2017**	**2016**	**2015**	**2014**	**2013**
Tuition fees	274,788	246,275	233,343	215,691	200,140
Government operating grants	270,333	264,645	265,214	267,881	259,485
Research grants and contracts	181,730	172,432	183,823	167,450	186,536
Ancillary operations	74,273	70,307	68,635	67,161	68,123
Investment income	98,432	12,855	56,332	63,353	47,103
Donations and other grants	47,464	44,193	49,171	58,000	44,789
Earned capital contributions	40,065	39,340	37,897	37,604	35,779
Other revenue	106,070	104,362	96,416	95,763	96,874
Total Revenue	**1,093,155**	**954,409**	**990,831**	**972,903**	**938,829**
Expense					
Salaries and benefits	602,005	566,052	561,344	558,048	558,420
Student aid	49,618	43,266	47,893	42,519	48,236
Cost of goods sold	12,065	11,627	10,942	14,298	14,365
Utilities	22,905	23,805	25,931	27,272	25,290
Other supplies and expenses	193,684	183,754	188,751	168,961	159,866
Amortization	70,262	86,004	68,844	66,659	63,317
Interest	13,377	10,805	8,537	8,575	8,620
Total Expense	**963,916**	**925,313**	**912,242**	**886,332**	**878,114**
Consolidated operating result	**129,239**	**29,096**	**78,589**	**86,571**	**60,715**
Gross Capital Expenditures	113,487	94,397	135,876	100,574	127,759

McMaster University

Calculation of Free Cash Flow

($ thousands)

	For the year ended April 30				
	2017	**2016**	**2015**	**2014**	**2013**
Operating balance before fund contributions	129,239	29,096	78,589	86,571	60,715
Amortization	70,262	86,004	68,844	66,659	63,317
Other non-cash adjustments	-46,021	-55,257	-31,119	-36,204	-25,167
Cash Flow from Operations	**153,480**	**59,843**	**116,314**	**117,026**	**98,865**
Change in working capital	5,039	7,699	29,825	4,956	-28,026
Operating Cash Flow after Working Capital	**158,519**	**67,542**	**146,139**	**121,982**	**70,839**
Net capital expenditures 1	-47,292	-48,691	-62,494	-41,782	-55,464
Free Cash Flow	**111,227**	**18,851**	**83,645**	**80,200**	**15,375**

1 Gross capital expenditures less contributions restricted for capital purposes.

McMaster University

Summary Statistics (DBRS-Adjusted)	For the year ended April 30				
	2017	**2016**	**2015**	**2014**	**2013**
Total Enrolment (FTE) 1	**29,130**	**27,929**	**28,157**	**27,796**	**27,518**
Undergraduate	86%	87%	87%	87%	87%
Graduate	14%	13%	13%	13%	13%
Total annual change	4.3%	-0.8%	1.3%	1.0%	1.8%
Enrolment (Headcount)	**31,265**	**29,865**	**30,117**	**29,765**	**29,411**
Domestic	28,223	27,319	27,544	27,347	27,205
International	3,042	2,546	2,573	2,418	2,206
Total Employees 2	**5,251**	**5,286**	**5,220**	**5,171**	**5,120**
Full-time faculty	1,437	1,438	1,432	1,425	1,394
Operating Results					
Surplus (deficit) ($ millions)	129.2	29.1	78.6	86.6	60.7
As a share of revenue	11.8%	3.0%	7.9%	8.9%	6.5%
Revenue Mix					
Government funding (federal and provincial)	40%	45%	45%	44%	46%
Tuition fees	25%	26%	24%	22%	21%
Ancillary	7%	7%	7%	7%	7%
Donations and investment income	13%	6%	11%	12%	10%
Other	14%	16%	14%	31%	34%
Debt and Liquidity					
Total long-term debt ($ millions)	255.9	256.5	137.2	137.8	138.4
Per FTE student ($)	8,785	9,185	4,872	4,957	5,028
Long-term debt, contingencies & commitments ($ millions)	647.6	857.6	669.9	782.2	658.5
Per FTE student ($)	22,231	30,706	23,790	28,141	23,928
Cash and cash equivalents ($ millions)	161.8	143.7	162.6	172.3	156.9
As a share of total expenditures	17%	16%	18%	19%	18%
As a share of current liabilities	108%	108%	104%	116%	100%
Expendable Resources	541.7	447.4	322.1	291.8	246.6
As a share of total debt	212%	174%	235%	212%	178%
Interest costs as share of total expenditures	1.4%	1.2%	0.9%	1.0%	1.0%
Interest coverage ratio (times)	12.5	6.5	14.6	14.6	12.5
Endowment Funds					
Total market value ($ millions)	610.3	541.1	575.0	533.4	480.5
Per FTE student ($)	20,951	19,372	20,422	19,190	17,460
Annual change	12.8%	(5.9%)	7.8%	11.0%	7.9%
Payout ratio (% of three-year average market value)	-196.0%	-96.0%	4.0%	4.0%	4.0%

1 FTE, excluding continuing education. 2 Headcount; excludes teaching assistants and sessional lecturers.

Rating History

	Current	2016	2015	2014	2013	2012
Issuer Rating	AA	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)
Senior Unsecured Debt	AA	AA (low)	AA (low)	AA (low)	AA (low)	AA (low)

Related Research

- *Rating Public Universities,* May 26, 2017.
- *DBRS Gives Ontario's Changes to Student Financial Assistance a Passing Grade,* September 6, 2017.
- *DBRS Comments on Ontario's New University Funding Model,* March 9, 2017.

Previous Report

- McMaster University, Rating Report, November 2, 2016.

Notes:
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.

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