MOODY'S
INVESTORS SERVICE

Rating Action: Moody's assigns Aaa to Cambridge, MA's GO's; outlook stable

25 Feb 2019

New York, February 25, 2019 -- Moody's Investors Service has assigned a Aaa rating to the City of Cambridge, Massachusetts' $90.6 million General Obligation Municipal Purpose Loan of 2019 Bonds. We maintain a Aaa rating on the city's outstanding general obligation unlimited tax and general obligation limited tax bonds (GOLT). The outlook is stable.

The outstanding general obligation unlimited tax bonds are considered unlimited tax because the entire amount of debt service has been voted excluded from restrictions under Massachusetts law on the city's ability to increase property taxes to pay debt service, referred to as Proposition 2 1/2. We consider the pledge supporting the outstanding limited tax bonds and the current issue to be general obligation limited tax because not all of the debt service has been excluded under Proposition 2 1/2.

RATINGS RATIONALE

The Aaa rating reflects the city's strong financial position including significant liquidity and reserves. The rating also incorporates the sizeable, growing and diverse tax base that is anchored by world renowned higher education institutions and a substantial research and development sector, a below average debt burden and manageable pension and OPEB liabilities.

The absence of distinction between the GOLT rating and the general obligation unlimited tax rating reflects the city's ability to override the property tax cap and its pledge of its full faith and credit.

RATING OUTLOOK

The stable outlook reflects the strong fiscal management team that we expect to maintain a healthy financial position given conservative multi-year budget forecasting and adherence to formally adopted fiscal policies. The outlook also incorporates the stabilizing presence of Harvard University (Aaa stable) and Massachusetts Institute of Technology (Aaa stable) as well as the long historical trend of positive valuation growth in the tax base.

FACTORS THAT COULD LEAD TO AN UPGRADE

- Not applicable

FACTORS THAT COULD LEAD TO A DOWNGRADE

- Material growth in the debt burden or pension liability

- Deterioration in the tax base or weakening of the local economy

- Trend of operating deficits that lead to significant reduction in cash and reserves

LEGAL SECURITY

The bonds are secured by the city's general obligation unlimited tax pledge as not all debt service has been voted excluded from the levy limits of Proposition 2 1/2.

USE OF PROCEEDS

Proceeds will fund various capital projects in the city.

PROFILE

Cambridge is a sizeable community in Massachusetts (Aa1 stable) adjacent to the City of Boston (Aaa stable) with approximately 110,893 (2017 ACS). The city's economy and tax base are anchored by two world renowned higher education institutions.

METHODOLOGY

The principal methodology used in this rating was US Local Government General Obligation Debt published in December 2016. Please see the Rating Methodologies page on www.moodys.com for a copy of this methodology.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the credit rating action on the support provider and in relation to each particular credit rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

Please see www.moodys.com for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on www.moodys.com for additional regulatory disclosures for each credit rating.

Nicholas Lehman
Lead Analyst
Regional PFG Northeast
Moody's Investors Service, Inc.
One International Place
100 Oliver St Suite 1400
Boston 02110
US
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

Leonard Jones
MANAGING DIRECTOR
Regional PFG Northeast
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

Releasing Office:
Moody's Investors Service, Inc.
250 Greenwich Street
New York, NY 10007
U.S.A
JOURNALISTS: 1 212 553 0376
Client Service: 1 212 553 1653

MOODY'S
INVESTORS SERVICE

person or entity, including but not limited to by any negligence (but excluding fraud, willful misconduct or any other type of liability that, for the avoidance of doubt, by law cannot be excluded) on the part of, or any contingency within or beyond the control of, MOODY'S or any of its directors, officers, employees, agents, representatives, licensors or suppliers, arising from or in connection with the information contained herein or the use of or inability to use any such information.

NO WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY CREDIT RATING OR OTHER OPINION OR INFORMATION IS GIVEN OR MADE BY MOODY'S IN ANY FORM OR MANNER WHATSOEVER.

Moody's Investors Service, Inc., a wholly-owned credit rating agency subsidiary of Moody's Corporation ("MCO"), hereby discloses that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by Moody's Investors Service, Inc. have, prior to assignment of any rating, agreed to pay to Moody's Investors Service, Inc. for ratings opinions and services rendered by it fees ranging from $1,000 to approximately $2,700,000. MCO and MIS also maintain policies and procedures to address the independence of MIS's ratings and rating processes. Information regarding certain affiliations that may exist between directors of MCO and rated entities, and between entities who hold ratings from MIS and have also publicly reported to the SEC an ownership interest in MCO of more than 5%, is posted annually at www.moodys.com under the heading "Investor Relations — Corporate Governance — Director and Shareholder Affiliation Policy."

Additional terms for Australia only: Any publication into Australia of this document is pursuant to the Australian Financial Services License of MOODY'S affiliate, Moody's Investors Service Pty Limited ABN 61 003 399 657AFSL 336969 and/or Moody's Analytics Australia Pty Ltd ABN 94 105 136 972 AFSL 383569 (as applicable). This document is intended to be provided only to "wholesale clients" within the meaning of section 761G of the Corporations Act 2001. By continuing to access this document from within Australia, you represent to MOODY'S that you are, or are accessing the document as a representative of, a "wholesale client" and that neither you nor the entity you represent will directly or indirectly disseminate this document or its contents to "retail clients" within the meaning of section 761G of the Corporations Act 2001. MOODY'S credit rating is an opinion as to the creditworthiness of a debt obligation of the issuer, not on the equity securities of the issuer or any form of security that is available to retail investors.

Additional terms for Japan only: Moody's Japan K.K. ("MJKK") is a wholly-owned credit rating agency subsidiary of Moody's Group Japan G.K., which is wholly-owned by Moody's Overseas Holdings Inc., a wholly-owned subsidiary of MCO. Moody's SF Japan K.K. ("MSFJ") is a wholly-owned credit rating agency subsidiary of MJKK. MSFJ is not a Nationally Recognized Statistical Rating Organization ("NRSRO"). Therefore, credit ratings assigned by MSFJ are Non-NRSRO Credit Ratings. Non-NRSRO Credit Ratings are assigned by an entity that is not a NRSRO and, consequently, the rated obligation will not qualify for certain types of treatment under U.S. laws. MJKK and MSFJ are credit rating agencies registered with the Japan Financial Services Agency and their registration numbers are FSA Commissioner (Ratings) No. 2 and 3 respectively.

MJKK or MSFJ (as applicable) hereby disclose that most issuers of debt securities (including corporate and municipal bonds, debentures, notes and commercial paper) and preferred stock rated by MJKK or MSFJ (as applicable) have, prior to assignment of any rating, agreed to pay to MJKK or MSFJ (as applicable) for ratings opinions and services rendered by it fees ranging from JPY125,000 to approximately JPY250,000,000.

MJKK and MSFJ also maintain policies and procedures to address Japanese regulatory requirements.

7 World Trade Center
250 Greenwich Street
New York 10007
www.moodys.com

February 25, 2019

Mr. David Kale
City of Cambridge, MA
795 Massachusetts Ave., 1st Floor
Cambridge, MA 02139

Dear Mr. Kale:

We wish to inform you that on February 25, 2019, Moody's Investors Service reviewed and assigned a rating of **Aaa** to City of Cambridge, MA, General Obligation Municipal Pupose Loan of 2019 Bonds.

Credit ratings issued by Moody's Investors Service, Inc. and its affiliates ("Moody's") are Moody's current opinions of the relative future credit risk of entities, credit commitments, or debt or debt-like securities and are not statements of current or historical fact. Moody's credit ratings address credit risk only and do not address any other risk, including but not limited to: liquidity risk, market value risk, or price volatility.

This letter uses capitalized terms and rating symbols that are defined or referenced either in *Moody's Definitions and Symbols Guide* or *MIS Code of Professional Conduct* as of the date of this letter, both published on www.moodys.com. The Credit Ratings will be publicly disseminated by Moody's through normal print and electronic media as well as in response to verbal requests to Moody's Rating Desk. Moody's related research and analyses will also be published on www.moodys.com and may be further distributed as otherwise agreed in writing with us.

Moody's Credit Ratings or any corresponding outlook, if assigned, will be subject to revision, suspension or withdrawal, or may be placed on review, by Moody's at any time, without notice, in the sole discretion of Moody's. For the most current Credit Rating, please visit www.moodys.com.

Moody's has not consented and will not consent to being named as an expert under applicable securities laws, such as section 7 of the Securities Act of 1933. The assignment of a rating does not create a fiduciary relationship between Moody's and you or between Moody's and other recipients of a Credit Rating. Moody's Credit Ratings are not and do not provide investment advice or recommendations to purchase, sell or hold particular securities. Moody's issues Credit Ratings with the expectation and understanding that each investor will make its own evaluation of each security that is under consideration for purchase, sale or holding.

Moody's adopts all necessary measures so that the information it uses in assigning a Credit Rating is of sufficient quality and from sources Moody's considers to be reliable including, when appropriate, independent third-party sources. However, Moody's is not an auditor and cannot in every instance independently validate or verify information received in the rating process. Moody's expects and is relying upon you possessing all legal rights and required consents to disclose the information to Moody's, and that such information is not subject to any restrictions that would prevent use by Moody's for its ratings process. In assigning the Credit Ratings, Moody's has relied upon the truth, accuracy, and completeness of the information supplied by you or on your behalf to Moody's. Moody's expects that you will, and is relying upon you to, on an ongoing basis, promptly provide

February 25, 2019

Mr. David Kale
City of Cambridge, MA
795 Massachusetts Ave., 1st Floor
Cambridge, MA 02139

Moody's with all information necessary in order for Moody's to accurately and timely monitor the Credit Ratings, including current financial and statistical information.

Under no circumstances shall Moody's have any liability (whether in contract, tort or otherwise) to any person or entity for any loss, injury or damage or cost caused by, resulting from, or relating to, in whole or in part, directly or indirectly, any action or error (negligent or otherwise) on the part of, or other circumstance or contingency within or outside the control of, Moody's or any of its or its affiliates' directors, officers, employees or agents in connection with the Credit Ratings. **ALL INFORMATION, INCLUDING THE CREDIT RATING, ANY FEEDBACK OR OTHER COMMUNICATION RELATING THERETO IS PROVIDED "AS IS" WITHOUT REPRESENTATION OR WARRANTY OF ANY KIND. MOODY'S MAKES NO REPRESENTATION OR WARRANTY, EXPRESS OR IMPLIED, AS TO THE ACCURACY, TIMELINESS, COMPLETENESS, MERCHANTABILITY OR FITNESS FOR ANY PARTICULAR PURPOSE OF ANY SUCH INFORMATION.**

Any non-public information discussed with or revealed to you must be kept confidential and only disclosed either (i) to your legal counsel acting in their capacity as such; (ii) to your other authorized agents acting in their capacity as such with a need to know that have entered into non-disclosure agreements with Moody's in the form provided by Moody's and (iii) as required by applicable law or regulation. You agree to cause your employees, affiliates, agents and advisors to keep non-public information confidential.

If there is a conflict between the terms of this rating letter and any related Moody's rating application, the terms of the executed rating application will govern and supercede this rating letter.

Should you have any questions regarding the above, please do not hesitate to contact me or the analyst assigned to this transaction, Nicholas Lehman at 617-535-7694.

Sincerely,

Moody's Investors Service Inc.

Moody's Investors Service Inc.

cc:

Mr. John Krause
Government Finance Group, Inc.
1601 N. Kent Street
Suite 800
Arlington, VA 22209

MOODY'S INVESTORS SERVICE

CREDIT OPINION
25 February 2019

Rate this Research

Contacts

Nicholas Lehman +1.617.535.7694
VP-Senior Analyst
nicholas.lehman@moodys.com

Thomas Jacobs +1.212.553.0131
Senior Vice President/Manager
thomas.jacobs@moodys.com

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

Cambridge (City of) MA

Update to credit analysis

Summary

Cambridge, Massachusetts (Aaa stable) benefits from a sizeable and diverse tax base that continues to grow significantly year over year. The city's economy is driven largely by the presence of Harvard University (Aaa stable) and Massachusetts Institute of Technology (MIT, Aaa stable) and the impressive research and development sector. The city's financial position is strong with very healthy liquidity and reserves that are maintained by strong fiscal management. Both the debt burden and long term liabilities for pension and OPEB are conservatively managed and will remain manageable over the near term.

Credit strengths

» Large and diverse tax base anchored by institutional presences and robust commercial

» sector

» Healthy financial position guided by formal policies

» Strong fiscal management

» Ample operating flexibility with excess levy capacity under Proposition 2½

» Expected to fully fund pension liability by 2026

Credit challenges

» High regional cost of living and cost of business

» Taxpayer concentration in research and development

Rating outlook

The stable outlook reflects the strong fiscal management team that we expect to maintain a healthy financial position based on conservative multi-year budget forecasting and adherence to formally adopted fiscal policies. The outlook also incorporates the stabilizing presence of Harvard University (Aaa stable) and Massachusetts Institute of Technology (Aaa stable) as well as the long historical trend of tax base expansion.

Factors that could lead to an upgrade

» Not applicable

Factors that could lead to a downgrade

» Material growth in the debt burden or unfunded pension liability

» Deterioration in the tax base or weakening of the local economy

» Trend of operating deficits that lead to significant reduction in cash and reserves

Key indicators

Exhibit 1

Cambridge (City of) MA	2014	2015	2016	2017	2018
Economy/Tax Base					
Total Full Value ($000)	$26,640,125	$29,733,818	$29,733,818	$39,570,829	$39,570,829
Population	106,844	107,916	108,757	110,893	110,893
Full Value Per Capita	$249,337	$275,527	$273,397	$376,284	$376,284
Median Family Income (% of US Median)	151.9%	158.2%	159.0%	159.0%	159.0%
Finances					
Operating Revenue ($000)	$520,910	$541,899	$560,698	$594,597	$632,640
Fund Balance ($000)	$225,692	$273,670	$299,408	$330,342	$366,134
Cash Balance ($000)	$260,517	$306,259	$333,793	$363,415	$401,145
Fund Balance as a % of Revenues	43.3%	50.5%	53.4%	55.6%	57.9%
Cash Balance as a % of Revenues	50.0%	56.5%	59.5%	61.1%	63.4%
Debt/Pensions					
Net Direct Debt ($000)	$351,692	$399,159	$405,399	$417,765	$457,347
3-Year Average of Moody's ANPL ($000)	$829,503	$815,568	$832,179	$853,029	$837,254
Net Direct Debt / Full Value (%)	1.3%	1.3%	1.4%	1.1%	1.2%
Net Direct Debt / Operating Revenues (x)	0.7x	0.7x	0.7x	0.7x	0.7x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	3.1%	2.7%	2.8%	2.2%	2.1%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	1.6x	1.5x	1.5x	1.4x	1.3x

As of June 30 fiscal year end; Full value = equalized value; Net Direct Debt is net of self-supporting water fund debt
Sources: Moody's Investors Service and Cambridge's audited financial statements

Profile

Cambridge is a sizeable community in Massachusetts (Aa1 stable) with approximately 110,893 (2017 ACS) residents adjacent to the City of Boston (Aaa stable). The city's economy and tax base are anchored by two world renowned higher education institutions.

Detailed credit considerations

Economy and tax base: Strong economy and tax base anchored by world renowned institutions

Cambridge's economy will continue to benefit from the presence of Harvard and MIT which together enroll 33,000 students and provide employment equivalent to around 22,000 full-time positions (roughly 18% of the city's workforce). In addition, the city is home to a vibrant commercial sector including biotechnology and pharmaceutical industries, which together employ an additional 26,000 people.

Together the universities and mentioned industries comprise just under 60% of the jobs provided by the top 25 employers. The strong economy is further reflected in very low vacancy rates of 1.2% for lab space and 3.8% for office space as of the third quarter of 2018 according to CB Richard Ellis. Rents have also risen in the last year with average rents of $82.2 per square foot for office space, more than $15 per square foot more than in some areas of Boston. The top ten taxpayers represent a slightly concentrated 22% of 2019 assessed value. MIT, with its significant taxable property, is the largest taxpayer, accounting for 9% of the city's base.

The $49.4 billion tax base (2019-20 equalized value) is large and will likely continue to grow over the next several years given strong housing demand and the strength of the overall economy. The 2019-20 equalized value growth of 25% since the 2017-18 certification is one of the largest in Massachusetts and brings the six year compound annual growth rate to an impressive 11%. Given the redevelopment success of Kendall Square, new development in other parts of the city will continue to contribute to tax base growth with projects that include the MBTA green line extension, the long term development of the Volpe center and focus on the neighborhoods of Porter Square, Central Square, Cambridgeport, Cambridge Crossing and Alewife.

Resident incomes remain above average relative to the commonwealth and national medians, despite the large student population with median family income equal to 120% and 159% of the commonwealth and national medians, respectively. Also, the unemployment rate of 1.6% as of December 2018 remains below Massachusetts' and the nation's rates of 2.7% and 3.7%.

Financial operations and reserves: Strong financial position is expected to continue through conservative fiscal management

The city's financial position will remain healthy over the near term given ample liquidity and reserves that are maintained by conservative fiscal management. The fiscal 2018 audited financials reflect an operating surplus of $35.8 million due to positive variance in revenues mostly from property taxes and excise taxes (hotel/meals) as well as conservative budgeting for expenditures. The surplus, the city's seventh in a row, increased available general fund balance (assigned, unassigned and committed) to $366 million representing a very healthy 55.9% of revenues. As a percentage of revenues the city's reserves are the strongest of any Massachusetts Aaa rated municipality. Property taxes are the city's largest revenue source accounting for 60% of fiscal 2018 general fund revenues while education at 34% of expenditures and public safety at 21% were the largest expenses.

The fiscal 2019 operating budget increased 4.2% over last year's adjusted operating budget driven by salaries, benefits and pension contributions. The city also added 25 full time employees. The budget included a 5.3% increase in the tax levy and $9 million of free cash for operations. Free cash appropriations year to date total $32 million mostly funding reserves and capital needs. Six months through the year, recurring revenues and expenses are on budget. Although, the city has planned for an increase in transfers out of general fund reserves into capital and other funds. A small year end general fund decline in reserves is possible, depending on the positive variance in recurring revenues and expenditures that could replenish the reserve use and transfers.

The city's fiscal 2020-2023 budget projections indicate balanced annual operations based on conservative assumptions. The expenditure projections include a 2.5% annual increase in salaries, 5.9% growth in pension contributions and school department cost increase tied to a 7% increase in property taxes. The revenue projections include level funding of state aid while real and personal property taxes increase by an average 7.7% annually.

As of fiscal 2019, the city also maintains $189 million in unused levy capacity, equal to just under 30% of revenues. This provides significant operating flexibility under Proposition 2½ that is not available to most municipalities in Massachusetts given the need to levy to the tax levy limit each year.

LIQUIDITY

Cash and investments at the end of fiscal 2018 totaled $401.1 million representing an ample, 61.2% of general fund revenues.

Debt and pensions: Debt burden and long term liabilities will remain manageable over near term

Incorporating planned 2019 issuance, the net direct debt burden of 1.1% of equalized value and 0.9 times general fund revenues is average and will likely remain manageable over the near term despite the heavy reliance on bond issuance to fund the capital plan. Of the $548 million of net direct debt based on our definition, 26% of outstanding debt is supported by sewer, water and other user fees. The fiscal 2019 capital budget totals $105 million, down from $125 million last year. Major projects include schools, sewer, water and stormwater projects and the River street construction. The 2019-23 public investment program totals $539.2 million, an increase of $31.7 million from last years plan. Bond proceeds continue to be the primary source of funds at $434.4 million or almost 81% of the program. After the 2019 issuance the city has $97.3 million of authorized unissued debt.

DEBT STRUCTURE

The entire debt portfolio is fixed rate with over 80% of principal retired within ten years. Fiscal 2018 debt service totaled $61.8 million representing 10% of general fund expenditures.

DEBT-RELATED DERIVATIVES

The city is not party to any interest rate swaps or other derivative agreements.

PENSIONS AND OPEB

City employees, other than teachers, participate in the City of Cambridge Retirement System, a multi-employer defined benefit pension plan. Teachers participate in the Massachusetts Teachers Retirement System (TRS) employee contributions to which are covered through on behalf payments made by the commonwealth. Based on the valuation report dated January 1, 2016 as disclosed in the fiscal 2018 audit, the city's proportional share of its retirement system's net pension liability is $138 million based on a 7.5% discount rate and an expected funding date of 2026. The 2018 three-year average Moody's Adjusted Net Pension Liability, under Moody's methodology for adjusting reported pension data, was $837.3 million, which is 2.1% of equalized value and 1.3 times general fund revenue. The city's latest valuation report dated January 1, 2018 includes a reduced discount rate of 7.5% with a 87.7% funded ratio and requires pension contributions increase 5.9% annually for two years and then remain level until the 2026 funding date.

The city's annual contribution to the plan was $30.5 million in 2018, representing 4.9% of general fund expenditures. For 2018, the city's total pension contribution was 109% of the 'tread water' benchmark, the contribution amount needed to cover the year's newly accrued service costs and implied interest on the reported net pension liability, resulting in no increase in unfunded liability.

The city funds OPEB on a pay-as-you-go basis and makes annual planned deposits into an OPEB trust fund. The city's 2018 contribution was $22.3 million. The city's net OPEB liability was $622.3 million with a 2% funded ratio based on the June 30, 2017 valuation date and using a 3.9% discount rate.

Total fixed costs for 2018 including debt service, required pension contributions and retiree healthcare payments totaled $114.6 million representing a modest 18.5% of general fund expenditures.

Management and governance: Strong management is apparent in all credit factors

The city's proactive and conservative management are apparent in the fiscal policies that include formal metrics to maintain its financial position, debt burden and capital planning. The city also annually updates its multi-year budget forecast and capital plan. The city's efforts in economic development and commitment to not providing any commercial tax incentives is also a material strength given the new development throughout the city over the last decade.

Massachusetts cities have an Institutional Framework score of Aa, which is high compared to the nation. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures. Massachusetts cities major revenue source, property taxes, are subject to the Proposition 2 1/2 cap which can be overriden with voter approval only. However, the cap of 2.5% still allows for moderate revenue-raising ability. Unpredictable revenue fluctuations tend to be minor, or under 5% annually. Across the sector, fixed and mandated costs are generally greater than 25% of expenditures. However, Massachusetts has public sector unions, which can limit the ability to cut expenditures. Unpredictable expenditure fluctuations tend to be minor, under 5% annually.

REPORT NUMBER 1163313

CLIENT SERVICES

Americas	1-212-553-1653
Asia Pacific	852-3551-3077
Japan	81-3-5408-4100
EMEA	44-20-7772-5454

FitchRatings

Fitch Rates Cambridge, MA's $91MM Series 2019 GO Bonds 'AAA'; Outlook Stable

Fitch Ratings-New York-25 February 2019: Fitch Ratings has assigned an 'AAA' rating to the following city of Cambridge, MA general obligation (GO) bonds:

--$90,620,000 GO municipal purpose loan bonds, series 2019.

Proceeds of the bonds will be used to finance various city, sewer and school related projects. The bonds are scheduled to sell competitively on March 6.

In addition, Fitch affirms the 'AAA' rating for the city's outstanding GO bonds totaling approximately $428 million as well as the city's Issuer Default Rating (IDR).

The Rating Outlook is Stable.

SECURITY
The bonds are a general obligation of the city and are backed by its full faith and credit and a property tax levy that is limited by state statute.

ANALYTICAL CONCLUSION

The city's 'AAA' GO bond rating and IDR reflect Fitch's expectation for Cambridge to maintain a high level of financial flexibility through economic cycles, consistent with a history of strong operating performance and budget controls. The ratings further reflect the city's wealthy and growing property tax base, moderate expenditure growth and its demonstrated ability to reduce expenditures during economic downturns. Fitch expects long-term liabilities to remain low based on the city's manageable capital needs, rapid principal amortization, continued growth in economic resources, and a practice of fully funding actuarially determined pension contributions.

Economic Resource Base
Cambridge is located in Middlesex County across the Charles River from the city of Boston and has an estimated 2017 census population of 113,630, which is up 8% since 2010.

KEY RATING DRIVERS

Revenue Framework: 'aaa'
Revenues are derived primarily from property taxes. Total general fund revenue growth of roughly 5% annually over the past 10 fiscal years has exceeded both U.S. GDP and CPI for the same period reflective of strong growth in Cambridge's economy and tax base. The city maintains significant excess levy capacity under the state's Proposition 2 1/2 law and Fitch expects revenue growth to remain strong.

Expenditure Framework: 'aa'
The natural pace of spending growth is expected by Fitch to be in line with to below natural revenue growth over time. Carrying costs for long-term liabilities (debt and retiree benefits) claim a moderate proportion of governmental spending. Fitch expects carrying costs to remain moderate even with future debt issuances and annual increases in pension contributions. The city maintains strong legal control over headcount and other key employment terms as provided by state statute.

Long-Term Liability Burden: 'aaa'
Cambridge's direct debt, net of water and sewer debt paid from user charges, and Fitch-adjusted net pension liabilities (NPL) are low at approximately 7% of residents' personal income. Fitch anticipates Cambridge's long-term liability burden to remain in line with the 'aaa' assessment based on expected growth in the city's population and personal income, future debt plans, a rapid pace of principal amortization and a record of actuarially-based pension funding.

Operating Performance: 'aaa'
Careful expenditure management combined with moderate tax levy increases and conservative financial forecasting has led to the maintenance of considerable reserves over the past decade. Fitch expects the city will continue to demonstrate a high level of financial resilience and gap-closing ability throughout economic cycles.

RATING SENSITIVITIES
Financial Management Practices: Fitch expects management to continue to manage growth in expenditures in line with future revenue growth while maintaining its financial flexibility.

CREDIT PROFILE

The city is an important economic component of the Boston metropolitan area and Massachusetts as a whole and benefits from the presence of both Harvard University and Massachusetts Institute of Technology. These institutions are the city's top two employers. Other major employers include the city, Mt. Auburn Hospital, and a number of biotechnology companies including Biogen, Novartis, Sanofi and Takeda Pharmaceutical.

Cambridge continues to strengthen its position as a national leader in the life sciences and high tech sectors. Expansion in these sectors has contributed to notable tax base, employment and resident income growth over the past several years and is projected by the city to continue for at least the near future.

Cambridge also continues to attract research and development companies, ranging from startups to international companies. Several major software and internet companies have established research and development operations in Cambridge, including Microsoft, Google, Amazon, Facebook and EMC/VMware.

Taxable assessed value (TAV) performance reflects this activity, as well as growth in residential values. TAV grew another 12% in fiscal 2019 to nearly $49 billion following growth of 10% in fiscal 2018. TAV per capita is very high at approximately $430,000. Economic development districts located in the city continue to provide opportunities for current and future economic expansion and new housing opportunities. The city is projecting moderate increases in TAV in fiscal years 2019 through 2023, which Fitch considers conservative based on new commercial and residential construction underway and proposed. Wealth levels are above state and national averages and the unemployment rate is consistently below them.

Revenue Framework
Property taxes make up approximately 62% of fiscal 2018 general fund revenues on a GAAP basis. Sewer use charges and intergovernmental revenues, primarily for education, accounted for 8% and 11%, respectively. Excise taxes on hotel, meals and motor vehicles and payment in lieu of taxes account for an additional

moderate source of general fund revenues.

Fitch expects revenue growth to continue to be strong based on the city's solid underlying economic fundamentals and expectations for future tax base growth from new commercial and residential projects.

Pursuant to state law, Proposition 2 1/2 limits the city's ability to levy property taxes by: 1) a 'levy ceiling', an absolute cap on the level of property taxation, set at 2.5% of the overall property tax valuation (primary limit); and 2) a levy limit which restricts the annual growth in taxation to 2.5% over the previous year's levy plus the value of new growth (secondary limit). Taxation in excess of the levy limit (plus any new growth) requires voter approval.

Management has typically levied below the ceiling each year. Any excess in levy capacity is carried forward and available for use at any time. The city's excess tax levy limit increased to $189 million in fiscal 2019 from $181 million for fiscal 2018. This excess levy capacity totals approximately 30% of the fiscal 2019 operating budget and provides for substantial revenue raising flexibility if needed.

Expenditure Framework
Education is the city's largest expenditure, comprising 35% of fiscal 2018 general fund expenses. Public safety follows at 22%.

General fund expenditure growth has historically been in line with or below the pace of revenue growth and the city has solid flexibility to reduce expenditures if necessary. Fitch expects expenditure growth driven by an increase in population and services to remain aligned with revenues going forward.

Carrying costs for debt service, pensions and other post-employment benefit (OPEB) contributions were a moderate 15% of fiscal 2018 governmental spending and Fitch expects such costs to remain moderate going forward. Employee salary and benefit costs as well as moderate annual increases in debt service continue to drive annual expenditure increases.

Management has negotiated increases in health care contributions from certain employee groups, which should help control growth in these costs. Debt service costs will trend upward based on plans for additional debt to finance various schools, sewer and other city projects. The carrying cost metric above includes debt service costs for GO sewer debt for which the city levies user charges.

Education will continue to be a driver of spending and management is planning moderate annual increases in education spending over the next five years as part of its commitment to the overall improvement of its school system and to accommodate projected enrollment growth.

Approximately three-quarters of the city's employees belong to a union or collective bargaining group. Management has the ability to impose employee layoffs and furloughs if necessary. Public safety contracts are subject to arbitration, although city council has the ability to vote down an award. In such a case, both parties continue bargaining within the arbitration process.

Long-Term Liability Burden
Long-term liabilities for net overall debt and Fitch-adjusted NPLs are low at roughly 7% of estimated personal income. Fitch does not expect the burden to materially change based on pension funding practices, future debt plans and expectations for future growth in population and residents' personal income. Management is projecting the issuance of an additional $422 million in additional debt (about 4% of current personal income) through 2023. Roughly 27% of this debt is expected to be supported from user fees. Furthermore, the expected debt issuances will be partially offset by the principal amortization rate for bonds and notes outstanding - approximately $265 million or 48% of outstanding principal is scheduled to mature in the next five fiscal years

(2019-2023). Outstanding debt, net of self-supporting water and sewer debt, accounts for about half of the liability metric, with the city's NPL making up the remainder.

The city is one of four employers participating in the Cambridge Retirement System. The city consistently funds its full actuarially determined contribution. The fiduciary net position to total pension liabilities for the system was reported at 88% as of Dec. 31, 2017 based on a 7.5% discount rate. Using Fitch's more conservative 6% investment rate of return, the estimated funded ratio was 75%.

The city's net OPEB liability totaled $622 million as of June 30, 2017, based on GASB 75 reporting requirements, and represents 6% of personal income. The liability was determined using a 3.65% discount rate. City management created an OPEB trust fund in December 2009 and has made contributions totaling $15 million since that time with a current value of $17 million. Management projects a $2 million annual contribution to the trust for each of the next four fiscal years, based on the city's current financial forecast.

Operating Performance
Fitch expects the city to maintain a high level of financial resilience throughout an economic cycle given its historically strong revenue performance, conservative budgeting practices and superior degree of inherent budget flexibility. The city's steady growth in revenues has supported surplus operations over the past several fiscal years and a buildup of reserves to high levels.

During times of economic weakness management has controlled spending and staffing levels to offset reductions in revenues. The city's strong budget monitoring practices and financial planning bolster the city's operating environment.

The general fund had a fiscal 2018 net operating surplus of almost $36 million (nearly 6% of spending on a GAAP basis) due in part to positive variances in property and excise taxes, and license and permit fees. Conservative expenditure assumptions resulted in savings in most categories. The unrestricted general fund balance improved to $366 million or a very high 59% of spending.

The fiscal 2019 operating budget of $636 million was up 4% over the adjusted fiscal 2018 budget. Increases in spending were associated in part with higher salary and benefit costs and increases in debt service. Management is projecting positive fiscal year-end results based on estimated expenditure savings compared to budget and higher than anticipated hotel, meals and motor vehicle excise taxes and building permit fees due to conservative assumptions. Fitch expects the city to continue to manage its budget in a way that supports an exceptionally strong financial position throughout the economic cycle.

Contact:

Primary Analyst
Kevin Dolan
Director
+1-212-908-0538
Fitch Ratings, Inc.
33 Whitehall Street
New York, NY 10004

Secondary Analyst
Andrew Hoffman
Director
+1-212-908-0527

Committee Chairperson
Michael Rinaldi
Senior Director
+1-212-908-0833

In addition to the sources of information identified in Fitch's applicable criteria specified below, this action was informed by information from Lumesis.

Media Relations: Elizabeth Fogerty, New York, Tel: +1 212 908 0526, Email: elizabeth.fogerty@thefitchgroup.com

Additional information is available on www.fitchratings.com
Applicable Criteria
U.S. Public Finance Tax-Supported Rating Criteria (pub. 03 Apr 2018)

Additional Disclosures
Dodd-Frank Rating Information Disclosure Form
Solicitation Status
Endorsement Policy

ratings and reports should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating or a report will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings and its reports, Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings and forecasts of financial and other information are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings and forecasts can be affected by future events or conditions that were not anticipated at the time a rating or forecast was issued or affirmed.

The information in this report is provided "as is" without any representation or warranty of any kind, and Fitch does not represent or warrant that the report or any of its contents will meet any of the requirements of a recipient of the report. A Fitch rating is an opinion as to the creditworthiness of a security. This opinion and reports made by Fitch are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings and reports are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating or a report. The rating does not address the risk of loss due to risks other than credit risk, unless such risk is specifically mentioned. Fitch is not engaged in the offer or sale of any security. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only. A report providing a Fitch rating 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. Ratings may be changed or withdrawn at any time for any reason in the sole discretion of Fitch. Fitch does not provide investment advice of any sort. Ratings are not a recommendation to buy, sell, or hold any security. Ratings do not comment on the adequacy of market price, the suitability of any security for a particular investor, or the tax-exempt nature or taxability of payments made in respect to any security. Fitch receives fees from issuers, insurers, guarantors, other obligors, and underwriters for rating securities. Such fees generally vary from US$1,000 to US$750,000 (or the applicable currency equivalent) per issue. In certain cases, Fitch will rate all or a number of issues issued by a particular issuer, or insured or guaranteed by a particular insurer or guarantor, for a single annual fee. Such fees are expected to vary from US$10,000 to US$1,500,000 (or the applicable currency equivalent). The assignment, publication, or dissemination of a rating by Fitch shall not constitute a consent by Fitch to use its name as an expert in connection with any registration statement filed under the United States securities laws, the Financial Services and Markets Act of 2000 of the United Kingdom, or the securities laws of any particular jurisdiction. Due to the relative efficiency of electronic publishing and distribution, Fitch research may be available to electronic subscribers up to three days earlier than to print subscribers.

For Australia, New Zealand, Taiwan and South Korea only: Fitch Australia Pty Ltd holds an Australian financial services license (AFS license no. 337123) which authorizes it to provide credit ratings to wholesale clients only. Credit ratings information published by Fitch is not intended to be used by persons who are retail clients within the meaning of the Corporations Act 2001

Fitch Ratings, Inc. is registered with the U.S. Securities and Exchange Commission as a Nationally Recognized Statistical Rating Organization (the "NRSRO"). While certain of the NRSRO's credit rating subsidiaries are listed on Item 3 of Form NRSRO and as such are authorized to issue credit ratings on behalf of the NRSRO (see https://www.fitchratings.com/site/regulatory), other credit rating subsidiaries are not listed on Form NRSRO (the "non-NRSROs") and therefore credit ratings issued by those subsidiaries are not issued on behalf of the NRSRO. However, non-NRSRO personnel may participate in determining credit ratings issued by or on behalf of the NRSRO.

SOLICITATION STATUS

The ratings above were solicited and assigned or maintained at the request of the rated entity/issuer or a related third party. Any exceptions follow below.

Endorsement Policy

Fitch's approach to ratings endorsement so that ratings produced outside the EU may be used by regulated entities within the EU for regulatory purposes, pursuant to the terms of the EU Regulation with respect to credit rating agencies, can be found on the EU Regulatory Disclosures page. The endorsement status of all International ratings is provided within the entity summary page for each rated entity and in the transaction detail pages for all structured finance transactions on the Fitch website. These disclosures are updated on a daily basis.

Fitch Ratings
33 Whitehall Street
New York, NY 10004
T 212 908 0500 / 800 75 FITCH
www.fitchratings.com

February 25, 2019

Mr. Louis A. DePasquale
City Manager
Cambridge
795 Massachusetts Avenue
Cambridge, MA 02139

Dear Mr. DePasquale:

Fitch Ratings has assigned one or more ratings and/or otherwise taken rating action(s), as detailed in the attached Notice of Rating Action.

In issuing and maintaining its ratings, Fitch relies on factual information it receives from issuers and underwriters and from other sources Fitch believes to be credible. Fitch conducts a reasonable investigation of the factual information relied upon by it in accordance with its ratings methodology, and obtains reasonable verification of that information from independent sources, to the extent such sources are available for a given security or in a given jurisdiction.

The manner of Fitch's factual investigation and the scope of the third-party verification it obtains will vary depending on the nature of the rated security and its issuer, the requirements and practices in the jurisdiction in which the rated security is offered and sold and/or the issuer is located, the availability and nature of relevant public information, access to the management of the issuer and its advisers, the availability of pre-existing third-party verifications such as audit reports, agreed-upon procedures letters, appraisals, actuarial reports, engineering reports, legal opinions and other reports provided by third parties, the availability of independent and competent third-party verification sources with respect to the particular security or in the particular jurisdiction of the issuer, and a variety of other factors.

Users of Fitch's ratings should understand that neither an enhanced factual investigation nor any third-party verification can ensure that all of the information Fitch relies on in connection with a rating will be accurate and complete. Ultimately, the issuer and its advisers are responsible for the accuracy of the information they provide to Fitch and to the market in offering documents and other reports. In issuing its ratings Fitch must rely on the work of experts, including independent auditors with respect to financial statements and attorneys with respect to legal and tax matters. Further, ratings are inherently forward-looking and embody assumptions and predictions about future events that by their nature cannot be verified as facts. As a result, despite any verification of current facts, ratings can be affected by future events or conditions that were not anticipated at the time a rating was issued or affirmed.

Fitch seeks to continuously improve its ratings criteria and methodologies, and periodically updates the descriptions on its website of its criteria and methodologies for securities of a given type. The criteria and methodology used to determine a rating action are those in effect at the time the rating action is taken, which for public ratings is the date of the related rating action commentary. Each rating action commentary provides information about the criteria and methodology used to arrive at the stated rating, which may differ from the general criteria and methodology for the applicable security type posted on the website at a given time. For this reason, you should always consult the applicable rating action commentary for the most accurate information on the basis of any given public rating.

Ratings are based on established criteria and methodologies that Fitch is continuously evaluating and updating. Therefore, ratings are the collective work product of Fitch and no individual, or group of individuals, is solely responsible for a rating. All Fitch reports have shared authorship. Individuals identified in a Fitch report were involved in, but are not solely responsible for, the opinions stated therein. The individuals are named for contact purposes only.

Ratings are not a recommendation or suggestion, directly or indirectly, to you or any other person, to buy, sell, make or hold any investment, loan or security or to undertake any investment strategy with respect to any investment, loan or security or any issuer. Ratings do not comment on the adequacy of market price, the suitability of any investment, loan or security for a particular investor (including without limitation, any accounting and/or regulatory treatment), or the tax-exempt nature or taxability of payments made in respect of any investment, loan or security. Fitch is not your advisor, nor is Fitch providing to you or any other party any financial advice, or any legal, auditing, accounting, appraisal, valuation or actuarial services. A rating should not be viewed as a replacement for such advice or services.

The assignment of a rating by Fitch does not constitute consent by Fitch to the use of its name as an expert in connection with any registration statement or other filings under US, UK or any other relevant securities laws. Fitch does not consent to the inclusion of its ratings in any offering document in any instance in which US, UK or any other relevant securities laws requires such consent. Fitch does not consent to the inclusion of any written letter communicating its rating action in any offering document. You understand that Fitch has not consented to, and will not consent to, being named as an "expert" in connection with any registration statement or other filings under US, UK or any other relevant securities laws, including but not limited to Section 7 of the U.S. Securities Act of 1933. Fitch is not an "underwriter" or "seller" as those terms are defined under applicable securities laws or other regulatory guidance, rules or recommendations, including without limitation Sections 11 and 12(a)(2) of the U.S. Securities Act of 1933, nor has Fitch performed the roles or tasks associated with an "underwriter" or "seller" under this engagement.

Fitch will continue to monitor the credit quality of and maintain ratings on the Issuer/Securities. It is important that you promptly provide us with all information that may be material to the ratings so that our ratings continue to be appropriate. Ratings may be raised, lowered, withdrawn, or placed on Rating Watch due to changes in, additions to, accuracy of or the inadequacy of information or for any other reason Fitch deems sufficient.

Nothing in this letter is intended to or should be construed as creating a fiduciary relationship between Fitch and you or between us and any user of the ratings.

In this letter, "Fitch" means Fitch Ratings, Inc. and any successor in interest.

Public ratings will be valid and effective only upon publication of the ratings on Fitch’s website.

We are pleased to have had the opportunity to be of service to you. If we can be of further assistance, please feel free to contact us at any time.

Daniel Champeau
Managing Director
U.S. Public Finance

DCC/em

Enc: Notice of Rating Action
(Doc ID:211904 Rev 0)

Notice of Rating Action

Bond Description	Rating Type	Rating Action	Rating	Outlook/ Watch	Eff Date	Notes
Cambridge (MA) GO municipal purpose ln bonds ser 2019	Long Term Rating	New Rating	AAA	RO:Sta	25-Feb-2019	
Cambridge (MA) GO municipal purpose ln bonds ser 2019	Unenhanced Long Term Rating	New Rating	AAA	RO:Sta	25-Feb-2019	

Key: RO: Rating Outlook, RW: Rating Watch, Pos: Positive, Neg: Negative, Sta: Stable, Evo: Evolving

Cambridge, Massachusetts

New Issue Report

Ratings

Long Term Issuer Default Rating	AAA

New Issue

$90,620,000 General Obligation Municipal Purpose Loan Bonds, Series 2019	AAA

Outstanding Debt

General Obligation Bonds	AAA

Rating Outlook

Stable

Analysts
Kevin Dolan
+1 212 908-0538
kevin.dolan@fitchratings.com

Andrew Hoffman
+1 212 908-0527
andrew.hoffman@fitchratings.com

New Issue Summary

Sale Date: March 6 via competitive sale.

Series: $90,620,000 General Obligation (GO) municipal purpose loan bonds, series 2019.

Purpose: To finance various city, sewer and school-related projects.

Security: The bonds are a general obligation of the city of Cambridge and are backed by its full faith and credit and a property tax levy that is limited by state statute.

Analytical Conclusion

The city's 'AAA' GO bond rating and Issuer Default Rating (IDR) reflect Fitch Ratings' expectation for Cambridge to maintain a high level of financial flexibility through economic cycles, consistent with a history of strong operating performance and budget controls. The ratings further reflect the city's wealthy and growing property tax base, moderate expenditure growth and its demonstrated ability to reduce expenditures during economic downturns.

Fitch expects long-term liabilities to remain low based on the city's manageable capital needs, rapid principal amortization, continued growth in economic resources and a practice of fully funding actuarially determined pension contributions.

Economic Resource Base: Cambridge is located in Middlesex County, across the Charles River from the city of Boston, and has an estimated 2017 census population of 113,630, which is up by 8% since 2010.

Key Rating Drivers

Revenue Framework: 'aaa'
Revenues are derived primarily from property taxes. Total general fund revenue growth of roughly 5% annually over the past 10 fiscal years has exceeded both U.S. GDP and CPI, reflecting strong growth in Cambridge's economy and tax base. The city maintains significant excess levy capacity under the state's Proposition 2 1/2 law, and Fitch expects revenue growth to remain strong.

Expenditure Framework: 'aa'
The natural pace of spending growth is expected by Fitch to be in line with to below natural revenue growth over time. Carrying costs for long-term liabilities (debt and retiree benefits) claim a moderate proportion of governmental spending. Fitch expects carrying costs to remain moderate even with future debt issuances and annual increases in pension contributions. The city maintains strong legal control over headcount and other key employment terms as provided by state statute.

Long-Term Liability Burden: 'aaa'
Cambridge's direct debt, net of water and sewer debt paid from user charges, and Fitch-adjusted net pension liabilities (NPL) are low at approximately 7% of residents' personal income. Fitch anticipates Cambridge's long-term liability burden to remain in line with the 'aaa' assessment based on expected growth in the city's population and personal income, future debt plans, a rapid pace of principal amortization and a record of actuarially based pension funding.

Rating History (IDR)

Rating	Action	Outlook/ Watch	Date
AAA	Affirmed	Stable	2/25/19
AAA	Affirmed	Stable	1/09/03
AAA	Assigned	—	10/07/99

Related Research

Fitch Rates Cambridge, MA's $91MM Series 2019 GO Bonds 'AAA'; Outlook Stable (February 2019)

Related Criteria

U.S. Public Finance Tax-Supported Rating Criteria (April 2018)

Operating Performance: 'aaa'

Careful expenditure management, combined with moderate tax levy increases and conservative financial forecasting, has led to the maintenance of considerable reserves over the past decade. Fitch expects the city will continue to demonstrate a high level of financial resilience and gap-closing ability throughout economic cycles.

Rating Sensitivities

Financial Management Practices: Fitch expects management to continue to manage growth in expenditures in line with future revenue growth while maintaining its financial flexibility.

Credit Profile

The city is an important economic component of the Boston metropolitan area and Massachusetts as a whole and benefits from the presence of both Harvard University and Massachusetts Institute of Technology. These institutions are the city's top two employers. Other major employers include the city, Mt. Auburn Hospital and a number of biotechnology companies, including Biogen, Novartis, Sanofi and Takeda.

Cambridge continues to strengthen its position as a national leader in the life sciences and high-tech sectors. Expansion in these sectors has contributed to notable tax base, employment and resident income growth over the past several years and is projected by the city to continue for at least the near future.

Cambridge also continues to attract research and development companies ranging from startups to international companies. Several major software and internet companies have established research and development operations in Cambridge, including Microsoft, Google, Amazon, Facebook and EMC/VMware.

Taxable assessed value (TAV) performance reflects this activity, as well as growth in residential values. TAV grew another 12% in fiscal 2019 to nearly $49 billion, following growth of 10% in fiscal 2018. TAV per capita is very high, at approximately $430,000. Economic development districts located in the city continue to provide opportunities for current and future economic expansion and new housing opportunities. The city is projecting moderate increases in TAV in fiscal years 2019 through 2023, which Fitch considers conservative based on new commercial and residential construction underway and proposed. Wealth levels are above state and national averages and the unemployment rate is consistently below them.

Revenue Framework

Property taxes made up approximately 62% of fiscal 2018 general fund revenues on a GAAP basis. Sewer use charges and intergovernmental revenues, primarily for education, accounted for 8% and 11%, respectively. Hotel, meals and motor vehicle excise taxes and payment in lieu of taxes account for an additional moderate source of general fund revenues.

Fitch expects revenue growth to continue to be strong based on the city's solid underlying economic fundamentals and expectations for future tax base growth from new commercial and residential projects.

Pursuant to state law, Proposition 2 1/2 limits the city's ability to levy property taxes by: 1) a “levy ceiling,” an absolute cap on the level of property taxation, set at 2.5% of the overall property tax valuation (primary limit); and 2) a “levy limit” that restricts the annual growth in taxation to 2.5% over the previous year's levy plus the value of new growth (secondary limit). Taxation in excess of the levy limit (plus any new growth) requires voter approval.

Management has typically levied below the ceiling each year. Any excess in levy capacity is carried forward and available for use at any time. The city's excess tax levy limit increased to $189 million in fiscal 2019 from $181 million in fiscal 2018. This excess levy capacity totals approximately 30% of the fiscal 2019 operating budget and provides for substantial revenue-raising flexibility if needed.

Expenditure Framework

Education is the city's largest expenditure, representing 35% of fiscal 2018 general fund expenses. Public safety follows at 22%.

General fund expenditure growth has historically been in line with or below the pace of revenue growth and the city has solid flexibility to reduce expenditures if necessary. Fitch expects expenditure growth driven by an increase in population and services to remain aligned with revenues going forward.

Carrying costs for debt service, pensions and other post-employment benefit (OPEB) contributions were a moderate 15% of fiscal 2018 governmental spending. Fitch expects such costs to remain moderate going forward. Employee salary and benefit costs as well as moderate annual increases in debt service continue to drive annual expenditure increases.

Management has negotiated increases in healthcare contributions from certain employee groups, which should help control growth in these costs. Debt service costs will trend upward, based on plans for additional debt to finance various schools, sewer and other city projects. The carrying cost metric above includes debt service costs for GO sewer debt for which the city levies user charges.

Education will continue to be a driver of spending and management is planning moderate annual increases in education spending over the next five years as part of its commitment to the overall improvement of its school system and to accommodate projected enrollment growth.

Approximately three-quarters of the city's employees belong to a union or collective bargaining group. Management has the ability to impose employee layoffs and furloughs if necessary. Public safety contracts are subject to arbitration, although the city council has the ability to vote down an award. In such a case, both parties continue bargaining within the arbitration process.

Long-Term Liability Burden

Long-term liabilities for net overall debt and Fitch-adjusted NPLs are low, at roughly 7% of estimated residents' personal income. Fitch does not expect the burden to materially change based on pension funding practices, future debt plans and expectations for future growth in population and residents' personal income.

Management is projecting the issuance of an additional $422 million in additional debt (about 4% of current residents' personal income) through 2023. Roughly 27% of this debt is expected to be supported by user fees. Furthermore, the expected debt issuances will be partially offset by the principal amortization rate for bonds and notes outstanding — approximately $265 million, or 48% of outstanding principal, is scheduled to mature during the next five fiscal years (2019–2023). Outstanding debt, net of self-supporting water and sewer debt, accounts for about half of the liability metric, with the city's Fitch-adjusted NPL making up the remainder.

The city is one of four employers participating in the Cambridge Retirement System. The city consistently funds its full actuarially determined contribution. The fiduciary net position to total pension liabilities for the system was reported at 88% as of Dec. 31, 2017, based on a 7.5%

discount rate. Using Fitch's more conservative 6% investment rate of return, the estimated funded ratio was 75%.

The city's net OPEB liability totaled $622 million as of June 30, 2017, based on GASB 75 reporting requirements, representing 6% of residents' personal income. The liability was determined using a 3.65% discount rate. City management created an OPEB trust fund in December 2009 and has since that time made contributions totaling $15 million, with a current value of $17 million. Management projects a $2 million annual contribution to the trust for each of the next four fiscal years, based on the city's current financial forecast.

Operating Performance

Fitch expects the city to maintain a high level of financial resilience throughout an economic cycle given its historically strong revenue performance, conservative budgeting practices and superior degree of inherent budget flexibility. For details, see Scenario Analysis, page 5.

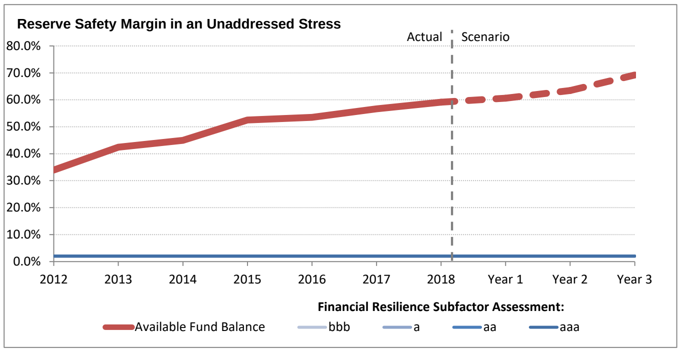
During times of economic weakness management has controlled spending and staffing levels to offset reductions in revenues. The city's strong budget monitoring practices and financial planning bolster the city's operating environment.

The general fund had a fiscal 2018 net operating surplus of almost $36 million (nearly 6% of spending on a GAAP basis) due in part to positive variances in property and excise taxes, as well as license and permit fees. Conservative expenditure assumptions resulted in savings in most categories. The unrestricted general fund balance improved to $366 million, or a very high 59% of spending.

The fiscal 2019 operating budget of $636 million was up 4% over the adjusted fiscal 2018 budget. Increases in spending were associated in part with higher salary and benefit costs and increases in debt service. Management is projecting positive results for fiscal year-end 2019 based on estimated expenditure savings compared to budget and higher-than-anticipated hotel, meals and motor vehicle excise taxes and building permit fees due to conservative assumptions. Fitch expects the city to continue to manage its budget in a way that supports an exceptionally strong financial position throughout the economic cycle.

Cambridge (MA)

Scenario Analysis



Analyst Interpretation of Scenario Results:

Fitch expects the city to maintain a high level of financial resilience throughout an economic cycle given its historically strong revenue performance, conservative budgeting practices and superior degree of inherent budget flexibility. The city's steady growth in revenues has supported surplus operations over the past several fiscal years and a buildup of reserves to high levels.

Scenario Parameters:	Year 1	Year 2	Year 3
GDP Assumption (% Change)	(1.0%)	0.5%	2.0%
Expenditure Assumption (% Change)	2.0%	2.0%	2.0%
Revenue Output (% Change)	(1.0%)	3.3%	4.9%
Inherent Budget Flexibility		Superior	

Revenues, Expenditures, and Fund Balance	Actuals							Scenario Output		
	2012	2013	2014	2015	2016	2017	2018	Year 1	Year 2	Year 3
Total Revenues	443,457	464,220	509,290	524,355	560,698	592,598	632,640	626,314	647,195	678,856
% Change in Revenues	-	4.7%	9.7%	3.0%	6.9%	5.7%	6.8%	(1.0%)	3.3%	4.9%
Total Expenditures	440,941	450,026	493,496	501,646	531,111	562,893	596,882	608,820	620,996	633,416
% Change in Expenditures	-	2.1%	9.7%	1.7%	5.9%	6.0%	6.0%	2.0%	2.0%	2.0%
Transfers In and Other Sources	50,180	24,840	24,395	44,805	24,420	44,132	22,480	22,255	22,997	24,122
Transfers Out and Other Uses	32,956	6,223	8,672	19,264	28,810	41,972	22,407	22,855	23,312	23,779
Net Transfers	17,224	18,617	15,723	25,541	(4,391)	2,160	73	(600)	(315)	343
Bond Proceeds and Other One-Time Uses	-	-	-	-	-	21,692	-	-	-	-
Net Operating Surplus(+)/Deficit(-) After Transfers	19,740	32,811	31,517	48,250	25,197	31,864	35,831	16,894	25,884	45,783
Net Operating Surplus(+)/Deficit(-) (% of Expend. and Transfers Out)	4.2%	7.2%	6.3%	9.3%	4.5%	5.5%	5.8%	2.7%	4.0%	7.0%
Unrestricted/Unreserved Fund Balance (General Fund)	160,984	193,702	225,692	273,670	299,408	330,342	366,134	383,028	408,911	454,694
Other Available Funds (GF + Non-GF)	-	-	-	-	-	-	-	-	-	-
Combined Available Funds Balance (GF + Other Available Funds)	160,984	193,702	225,692	273,670	299,408	330,342	366,134	383,028	408,911	454,694
Combined Available Fund Bal. (% of Expend. and Transfers Out)	34.0%	42.5%	44.9%	52.5%	53.5%	56.6%	59.1%	60.6%	63.5%	69.2%

Reserve Safety Margins	Inherent Budget Flexibility				
	Minimal	Limited	Midrange	High	Superior
Reserve Safety Margin (aaa)	16.0%	8.0%	5.0%	3.0%	2.0%
Reserve Safety Margin (aa)	12.0%	6.0%	4.0%	2.5%	2.0%
Reserve Safety Margin (a)	8.0%	4.0%	2.5%	2.0%	2.0%
Reserve Safety Margin (bbb)	3.0%	2.0%	2.0%	2.0%	2.0%

Notes: Scenario analysis represents an unaddressed stress on issuer finances. Fitch's downturn scenario assumes a -1.0% GDP decline in the first year, followed by 0.5% and 2.0% GDP growth in Years 2 and 3, respectively. Expenditures are assumed to grow at a 2.0% rate of inflation. Inherent budget flexibility is the analyst's assessment of the issuer's ability to deal with fiscal stress through tax and spending policy choices, and determines the multiples used to calculate the reserve safety margin. For further details, please see Fitch's US Tax-Supported Rating Criteria.

The ratings above were solicited and assigned or maintained at the request of the rated entity/Issuer or a related third party. Any exceptions follow below.

S&P Global Ratings

225 Franklin Street, 15th Floor
Boston, MA 02110-2804
tel 617 530-8338
reference no.: 1560206

February 26, 2019

Cambridge
795 Massachusetts Ave
Cambridge, MA 02139
Attention: Mr. David Kale, Finance Director

Re: ***US$90,620,000 Cambridge, Massachusetts, General Obligation Municipal Purpose Loan Of 2019 Bonds, dated: Date of delivery, due: February 15, 2039***

Dear Mr. Kale:

Pursuant to your request for an S&P Global Ratings rating on the above-referenced obligations, S&P Global Ratings has assigned a rating of "AAA" . S&P Global Ratings views the outlook for this rating as stable. A copy of the rationale supporting the rating is enclosed.

This letter constitutes S&P Global Ratings' permission for you to disseminate the above-assigned ratings to interested parties in accordance with applicable laws and regulations. However, permission for such dissemination (other than to professional advisors bound by appropriate confidentiality arrangements or to allow the Issuer to comply with its regulatory obligations) will become effective only after we have released the ratings on standardandpoors.com. Any dissemination on any Website by you or your agents shall include the full analysis for the rating, including any updates, where applicable. Any such dissemination shall not be done in a manner that would serve as a substitute for any products and services containing S&P Global Ratings' intellectual property for which a fee is charged.

To maintain the rating, S&P Global Ratings must receive all relevant financial and other information, including notice of material changes to financial and other information provided to us and in relevant documents, as soon as such information is available. Relevant financial and other information includes, but is not limited to, information about direct bank loans and debt and debt-like instruments issued to, or entered into with, financial institutions, insurance companies and/or other entities, whether or not disclosure of such information would be required under S.E.C. Rule 15c2-12. You understand that S&P Global Ratings relies on you and your agents and advisors for the accuracy, timeliness and completeness of the information submitted in connection with the rating and the continued flow of material information as part of the surveillance process. Please send all information via electronic delivery to: pubfin_statelocalgovt@spglobal.com. If SEC rule 17g-5 is applicable, you may post such information on the appropriate website. For any information not available in electronic format or posted on the applicable website,

Please send hard copies to:

S&P Global Ratings
Public Finance Department
55 Water Street
New York, NY 10041-0003

The rating is subject to the Terms and Conditions, if any, attached to the Engagement Letter applicable to the rating. In the absence of such Engagement Letter and Terms and Conditions, the rating is subject to the attached Terms and Conditions. The applicable Terms and Conditions are incorporated herein by reference.

S&P Global Ratings is pleased to have the opportunity to provide its rating opinion. For more information please visit our website at www.standardandpoors.com. If you have any questions, please contact us. Thank you for choosing S&P Global Ratings.

Sincerely yours,

S&P Global Ratings
a division of Standard & Poor's Financial Services LLC

jg
enclosures

cc: ***Mr. John L. Krause, President***
Government Finance Group

S&P Global Ratings

S&P Global Ratings
Terms and Conditions Applicable To Public Finance Credit Ratings

General. The credit ratings and other views of S&P Global Ratings are statements of opinion and not statements of fact. Credit ratings and other views of S&P Global Ratings are not recommendations to purchase, hold, or sell any securities and do not comment on market price, marketability, investor preference or suitability of any security. While S&P Global Ratings bases its credit ratings and other views on information provided by issuers and their agents and advisors, and other information from sources it believes to be reliable, S&P Global Ratings does not perform an audit, and undertakes no duty of due diligence or independent verification, of any information it receives. Such information and S&P Global Ratings' opinions should not be relied upon in making any investment decision. S&P Global Ratings does not act as a "fiduciary" or an investment advisor. S&P Global Ratings neither recommends nor will recommend how an issuer can or should achieve a particular credit rating outcome nor provides or will provide consulting, advisory, financial or structuring advice. Unless otherwise indicated, the term "issuer" means both the issuer and the obligor if the obligor is not the issuer.

All Credit Rating Actions in S&P Global Ratings' Sole Discretion. S&P Global Ratings may assign, raise, lower, suspend, place on CreditWatch, or withdraw a credit rating, and assign or revise an Outlook, at any time, in S&P Global Ratings' sole discretion. S&P Global Ratings may take any of the foregoing actions notwithstanding any request for a confidential or private credit rating or a withdrawal of a credit rating, or termination of a credit rating engagement. S&P Global Ratings will not convert a public credit rating to a confidential or private credit rating, or a private credit rating to a confidential credit rating.

Publication. S&P Global Ratings reserves the right to use, publish, disseminate, or license others to use, publish or disseminate a credit rating and any related analytical reports, including the rationale for the credit rating, unless the issuer specifically requests in connection with the initial credit rating that the credit rating be assigned and maintained on a confidential or private basis. If, however, a confidential or private credit rating or the existence of a confidential or private credit rating subsequently becomes public through disclosure other than by an act of S&P Global Ratings or its affiliates, S&P Global Ratings reserves the right to treat the credit rating as a public credit rating, including, without limitation, publishing the credit rating and any related analytical reports. Any analytical reports published by S&P Global Ratings are not issued by or on behalf of the issuer or at the issuer's request. S&P Global Ratings reserves the right to use, publish, disseminate or license others to use, publish or disseminate analytical reports with respect to public credit ratings that have been withdrawn, regardless of the reason for such withdrawal. S&P Global Ratings may publish explanations of S&P Global Ratings' credit ratings criteria from time to time and S&P Global Ratings may modify or refine its credit ratings criteria at any time as S&P Global Ratings deems appropriate.

Reliance on Information. S&P Global Ratings relies on issuers and their agents and advisors for the accuracy and completeness of the information submitted in connection with credit ratings and the surveillance of credit ratings including, without limitation, information on material changes to information previously provided by issuers, their agents or advisors. Credit ratings, and the maintenance of credit ratings, may be affected by S&P Global Ratings' opinion of the information received from issuers, their agents or advisors.

Confidential Information. S&P Global Ratings has established policies and procedures to maintain the confidentiality of certain non-public information received from issuers, their agents or advisors. For these purposes, "Confidential Information" shall mean verbal or written information that the issuer or its agents or advisors have provided to S&P Global Ratings and, in a specific and particularized manner, have marked or otherwise indicated in writing (either prior to or promptly following such disclosure) that such information is "Confidential."

S&P Global Ratings Not an Expert, Underwriter or Seller under Securities Laws. S&P Global Ratings has not consented to and will not consent to being named an "expert" or any similar designation under any applicable securities laws or other regulatory guidance, rules or recommendations, including without limitation, Section 7 of the U.S. Securities Act of 1933. S&P Global Ratings has not performed and will not perform the role or tasks associated with an "underwriter" or "seller" under the United States federal securities laws or other regulatory guidance, rules or recommendations in connection with a credit rating engagement.

Disclaimer of Liability. S&P Global Ratings does not and cannot guarantee the accuracy, completeness, or timeliness of the information relied on in connection with a credit rating or the results obtained from the use of such information. S&P GLOBAL RATINGS GIVES NO EXPRESS OR IMPLIED WARRANTIES, INCLUDING, BUT NOT LIMITED TO, ANY WARRANTIES OF MERCHANTABILITY OR FITNESS FOR A PARTICULAR PURPOSE OR USE. S&P Global Ratings, its affiliates or third party providers, or any of their officers, directors, shareholders, employees or agents shall not be liable to any person for any inaccuracies, errors, or omissions, in each case regardless of cause, actions, damages (consequential, special, indirect, incidental, punitive, compensatory, exemplary or otherwise), claims, liabilities, costs, expenses, legal fees or losses (including, without limitation, lost income or lost profits and opportunity costs) in any way arising out of or relating to a credit rating or the related analytic services even if advised of the possibility of such damages or other amounts.

No Third Party Beneficiaries. Nothing in any credit rating engagement, or a credit rating when issued, is intended or should be construed as creating any rights on behalf of any third parties, including, without limitation, any recipient of a credit rating. No person is intended as a third party beneficiary of any credit rating engagement or of a credit rating when issued.

S&P Global
Ratings

RatingsDirect®

Summary:

Cambridge, Massachusetts; General Obligation

Primary Credit Analyst:
Steven E Waldeck, Boston (1) 617-530-8128; steven.waldeck@spglobal.com

Secondary Contact:
Christian Richards, Boston (1) 617-530-8325; christian.richards@spglobal.com

Table Of Contents

Rationale

Outlook

Related Research

Summary:

Cambridge, Massachusetts; General Obligation

Credit Profile		
US$90.62 mil GO mun purp loan of 2019 bnds due 02/15/2039		
Long Term Rating	AAA/Stable	New
Cambridge GO		
Long Term Rating	AAA/Stable	Affirmed
Cambridge GO rfdg bnds ser 2017 due 02/15/2029		
Long Term Rating	AAA/Stable	Affirmed

Rationale

S&P Global Ratings assigned its 'AAA' rating and stable outlook to Cambridge, Mass.' series 2019 general obligation (GO) municipal-purpose loan bonds and affirmed its 'AAA' rating, with a stable outlook, on the city's existing GO debt.

Under our criteria, titled "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions," published Nov. 19, 2013, on RatingsDirect, we rate Cambridge higher than the sovereign because we believe the city can maintain better credit characteristics than the nation in a stress scenario based on its predominantly locally derived revenue base and our view that pledged revenue supporting bond debt service is at limited risk of negative sovereign intervention. In 2018, local property taxes generated 64% of revenue, which demonstrated a lack of dependence on central government revenue.

The city's full-faith-and-credit pledge, subject to Proposition 2 1/2 limitations, secures the GO debt. Despite commonwealth levy-limit laws, we did not make a rating distinction between Cambridge's limited-tax GO pledge and general creditworthiness because our analysis of its financial and economic conditions already includes the tax limitation imposed on its revenue-raising ability.

We understand officials intend to use series 2019 bond proceeds, totaling approximately $90 million, to fund various citywide projects, including school renovations and sewer improvements.

The rating reflects our opinion of Cambridge's extremely strong property tax base that continues to grow within the Boston metropolitan statistical area (MSA), supporting continued positive budgetary performance that has led to improved reserves. The city has a favorable debt profile with the ability to absorb additional debt plans.

The rating also reflects our opinion of the city's:

- Very strong economy, with access to a broad and diverse MSA;
- Very strong management, with strong financial policies and practices under our Financial Management Assessment (FMA) methodology;
- Strong budgetary performance, with operating surpluses in the general fund and at the total governmental-fund level

in fiscal 2018;

- Very strong budgetary flexibility, with available fund balance in fiscal 2018 of 54% of operating expenditures, coupled with the flexibility to raise additional revenue despite commonwealthwide tax caps;
- Very strong liquidity, with total government available cash at 71.2% of total governmental-fund expenditures and 7.6x governmental debt service, and access to external liquidity we consider strong;
- Adequate debt-and-contingent-liability position, with debt service carrying charges at 9.3% of expenditures and net direct debt that is 58.6% of total governmental-fund revenue, as well as low overall net debt at less than 3% of market value and rapid amortization, with 79.7% of debt scheduled to be retired within 10 years, but significant medium-term debt plans and a large pension and other-postemployment-benefit (OPEB) obligation; and
- Strong institutional framework score.

Very strong economy

We consider Cambridge's economy very strong. The city, with an estimated population of 113,081, is in Middlesex County in the Boston-Cambridge-Newton MSA, which we consider broad and diverse. The city has a projected per capita effective buying income of 165% of the national level and per capita market value of $433,116. Overall, market value has grown by 12.3% during the past year to $49 billion in fiscal 2019. County unemployment was 3% in 2017.

Directly north of Boston, two subway lines, multiple highways, and a commuter rail connect Cambridge directly to the area economy. Harvard University and Massachusetts Institute of Technology (MIT), its two leading employers, anchor the local economy and serve as knowledge centers and focal points for dozens of start-ups, research centers, and life-science and high-technology companies. Other leading employers include Novartis Institutes for Biomedical Research; Mount Auburn Hospital; and Biogen, each of which employ upward of 2,000. Microsoft, Google, Amazon, Apple, Facebook, Kayak, Baxalta, Pfizer, Sanofi/Genzyme, and Takeda/Millennium have offices in the city.

Economic expansion continues, particularly in the biotechnology and technology sectors; this has contributed to sustained tax base growth. During the previous three years, the city has averaged 12.2% growth. The tax base is about 60% residential and 37% commercial and industrial. The 10 leading taxpayers account for 22% of the tax base, indicating moderate taxpayer concentration. Officials report a number of developments they expect will have a positive effect on the tax base, including the addition of almost 2,400 housing units throughout Cambridge and the construction of more than 1.8 million square feet of commercial and residential space.

MIT has agreed to purchase the former Volpe Transportation Research Center from the U.S. General Services Administration. It will develop this site into commercial space totaling 1.7 million square feet and residential space totaling 1.1 million square feet. During the long term, while we do not expect the Volpe center to greatly affect the city's property tax revenue, we believe it will likely aid continued economic growth.

DivcoWest Real Estate has plans to develop, renovate, and rebrand the 45-acre North Point district into Cambridge Crossing. The area's revitalization will include a green-line expansion for public transportation; 2.1 million square feet of technology and office space; and up to 1,900 condominiums and apartments, as well as the 700 residences already in the project. Construction has begun, and will continue to increase, as projects progress. Therefore, we expect that Cambridge's economy will continue to improve and that it will be a desirable location for employee and residents.

Very strong management

We view the city's management as very strong, with strong financial policies and practices under our FMA methodology, indicating financial practices are strong, well embedded, and likely sustainable.

Key factors include management's:

- Conservative revenue and expenditure assumptions during the budgeting process that focus on five years of historical information;
- Quarterly reports on budget-to-actual results and investments to the city's finance and investment committees, respectively;
- Long-term financial plan with credible assumptions;
- Five-year capital plan with identified funding sources, which it is expanding to include a municipal-facilities-improvement plan;
- Robust debt and investment policy it reviews at least annually to demonstrate adherence; and
- Reserve policy that requires maintaining a minimum 15% of expenditures.

Strong budgetary performance

Cambridge's budgetary performance is strong, in our opinion. The city had operating surpluses of 5.8% of expenditures in the general fund and 9.5% of expenditures across all governmental funds in fiscal 2018. Our assessment accounts for the fact that we expect budgetary results could deteriorate somewhat from fiscal 2018 results during the next few fiscal years. General fund operating results have been stable during the past three fiscal years, with 5.4% of expenditures in fiscal 2017 and 3.9% in fiscal 2016.

The city has reported seven consecutive surpluses, including fiscal 2018. We adjusted the data for recurring transfers and bond-proceed spending. Property taxes generated 64% of total general fund revenue in fiscal 2018. The fiscal 2019 operating budget has increased by 4.22% since fiscal 2018 to $636 million due largely to a 2.5% increase in salary costs, a 5.4% increase in health insurance, and a 6.6% increase in employee pension costs. The city used $9 million in surplus cash to lower the property tax increase, which it expects to make up through better-than-budgeted results in fiscal 2019. According to city officials, revenue and expenditures are on budget.

We think rising debt-service costs and increasing health insurance, with cost increases as high as 7% in fiscal 2021, could add pressure to the budget. However, we expect astute management, with regular oversight and planning, will likely shield the budget from cost pressure. Therefore, we expect our assessment of budgetary performance will likely remain strong.

Very strong budgetary flexibility

Cambridge's budgetary flexibility is very strong, in our view, with available fund balance in fiscal 2018 of 54% of operating expenditures, or $334.6 million. We expect available fund balance to remain above 30% of expenditures for the current and next fiscal years, which we view as a positive credit factor. In addition, the city has the flexibility to raise additional revenue despite commonwealthwide tax caps, which we view as a positive credit factor.

Budgetary flexibility remains very strong with no plans to spend down reserves materially. We include the budget-stabilization fund in our calculations; this fund has grown during each of the past three fiscal years, and it currently has a balance of $67.7 million. In addition, Cambridge's excess levy capacity, which increased by 4.2% year over year to $189 million in fiscal 2019, which represents approximately 30% of adjusted revenue, provides additional flexibility.

Very strong liquidity

In our opinion, Cambridge's liquidity is very strong, with total government available cash at 71.2% of total governmental-fund expenditures and 7.6x governmental debt service in fiscal 2018. In our view, the city has strong access to external liquidity if necessary.

Cambridge is a regular market participant that has issued GO bonds frequently during the past several years. We understand the city has not entered into any bank loans, direct-purchase debt, or contingent-liquidity risks from financial instruments with payment provisions that change upon the occurrence of certain events. It has consistently had very strong liquidity; we do not expect these ratios to change, which is consistent with our view of the city's strong budgetary performance.

Adequate debt-and-contingent-liability profile

In our view, Cambridge's debt-and-contingent-liability profile is adequate. Total governmental-fund debt service is 9.3% of total governmental-fund expenditures, and net direct debt is 58.6% of total governmental-fund revenue. Overall net debt is low at 1.2% of market value and approximately 79.7% of direct debt is scheduled to be repaid within 10 years, which are, in our view, positive credit factors. Negatively affecting our view of the city's debt profile is its significant medium-term debt plans.

Cambridge has $550 million of total direct debt outstanding, $125 million of which is self-supporting water and sewer debt. During the next four fiscal years, the city currently expects to issue $421.6 million, $186.8 million of which it will issue within our two-year outlook period. The majority of debt will fund school reconstruction and sewer improvements.

In our opinion, Cambridge's large pension and OPEB obligation is a credit weakness. Cambridge's combined required pension and actual OPEB contribution totaled 8% of total governmental-fund expenditures in fiscal 2018: 4.6% for contributions to pension obligations and 3.4% for OPEB payments. The city made its full annual required pension contribution in fiscal 2018. The largest pension plan's funded ratio is 88%.

Cambridge is part of Cambridge Retirement System, which is a member of Massachusetts Contributory System. The city has always contributed 100% of the actuarial determined contribution, which was $30.7 million in fiscal 2018. Using updated reporting standards in accordance with Governmental Accounting Standards Board Statement Nos. 67 and 68, the city's net pension liability was about $187.6 million with 88% funded at Jan. 1, 2018, based on an assumed rate of return of 7.5%. Pension costs are expected to continue to increase through fiscal 2022 and then level off with officials expecting to fully fund the pension liability by fiscal 2026.

At June 30, 2018, Cambridge reported an OPEB unfunded actuarially accrued liability of $622.3 million. In 2015, the city established an irrevocable trust fund, which has a current balance of $17 million; officials expect to add $2 million to the trust annually between fiscal years 2020 and 2022. We consider prefunding the OPEB liability a positive, and the city's large and growing OPEB liabilities will remain manageable as the budget continues to grow while pension payments level off and the plan becomes fully funded.

Strong institutional framework

The institutional framework score for Massachusetts municipalities is strong.

Outlook

The stable outlook reflects S&P Global Ratings' opinion of Cambridge's healthy and growing economy, which has aided in continued strong financial performance, supported by very strong management. While we understand Cambridge expects to issue a significate amount of debt during the next few years, we, however, do not expect financial performance to deteriorate. Therefore, we do not expect to change the rating within the next two years because we believe Cambridge will likely sustain current financial performance and comparably high reserves.

While unlikely, we could lower the rating if fund balance were to deteriorate significantly or debt were to weaken substantially.

Related Research

- S&P Public Finance Local GO Criteria: How We Adjust Data For Analytic Consistency, Sept. 12, 2013
- Incorporating GASB 67 And 68: Evaluating Pension/OPEB Obligations Under Standard & Poor's U.S. Local Government GO Criteria, Sept. 2, 2015
- 2018 Update Of Institutional Framework For U.S. Local Governments