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

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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

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.

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)

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.

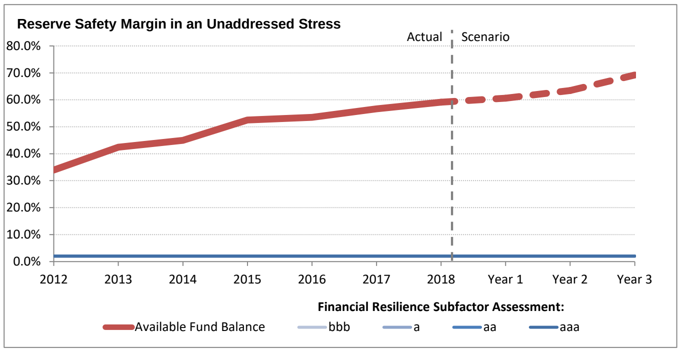
During times of economic weakness management has controlled spending and staffing levels to offset reductions in revenues. The city's strong budget monitoring practices and financial planning bolster the city's operating environment.

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.