Cambridge, Massachusetts

New Issue Summary

Sale Date: March 1 via competitive sale.	
Series: $93,625,000 General Obligation Municipal Purpose Loan Bonds, Series 2023.	
Purpose: To finance various city, sewer and school related projects	
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.	

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 rating further reflects the city's robust resource base and future potential for continued tax base increases, along with manageable expenditure growth and demonstrated ability to reduce expenditures during economic downturns.

Fitch expects long-term liabilities to remain low when compared to the resource base based on the city's manageable capital needs, very rapid pace of 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 2021 census population of 117,090, which is up approximately 11% since 2010.

Key Rating Drivers

Revenue Framework: 'aaa': Revenues are derived primarily from property taxes, and total annual general fund revenue growth over the past 10 fiscal years has exceeded U.S. GDP rates, reflective of strong growth in Cambridge's economy and tax base. Prospects remain strong for future economic advancement. The city maintains significant excess levy capacity under the state's Proposition 2 1/2 law, providing for a high legal ability to raise revenues.

Expenditure Framework: 'aa': The natural pace of spending growth is expected by Fitch to be in line with or slower than natural revenue growth over time. Carrying costs for debt and retiree benefits claim a moderate proportion of governmental spending. Fitch expects carrying costs to remain moderate even with future debt issuances and budgeted annual increases in other-post employment benefit (OPEB) and 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 5% of residents' personal income. Fitch anticipates Cambridge's long-term liability burden will remain in line with the 'aaa' assessment based on expected growth in the city's population and personal income, future debt plans, and a rapid pace of principal amortization. OPEB liabilities compared to personal income are high when compared to debt and NPLs, but management is actively managing these costs.

Operating Performance: 'aaa': Careful expenditure management combined with moderate tax levy increases that have aligned with tax base changes and conservative financial forecasting have led to the maintenance of considerable reserves over the past decade. Fitch expects the city will continue to demonstrate a superior level of gap-closing capacity and maintain a high level of fundamental financial flexibility throughout future economic cycles.

FACT Tools

Ratings

Long Term Issuer Default Rating	AAA

New Issue

$93,625,000 General Obligation Municipal Purpose Loan Bonds, Series 2023	AAA

Outstanding Debt

General Obligation Bonds	AAA

Rating Outlook

Stable

Applicable Criteria

U.S. Public Finance Tax-Supported Rating Criteria (May 2021)

Related Research

Fitch Rates Cambridge, MA's $93MM Series 2023 GO Bonds 'AAA'; Outlook Stable (February 2023)

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Rating Sensitivities

Factors that could, individually or collectively, lead to positive rating action/upgrade:

- Not applicable given the 'AAA' ratings.

Factors that could, individually or collectively, lead to negative rating action/downgrade:

- A sustained increase in expenses outpacing revenues leading to a decline in unrestricted reserves and reducing overall financial flexibility.
- A significant decline in taxable assessed values leading to substantial diminishment of the city's excess banked levy capacity.

Current Developments

Cambridge's financial profile remains very strong as its economy rebounds from only moderate impacts due to the pandemic. Tax base values continue to grow due to new development and improved overall valuations, notwithstanding higher office vacancy rates compared to pre-pandemic levels, contributing to growth in property tax revenues, the city's largest revenue source at roughly two-thirds of revenues.

In addition, hotel, meals and parking related revenues have improved as pandemic-related impacts diminish. General fund net operating results for fiscal 2022 reflect a $23 million deficit (2.9% of spending) for planned capital spending, decreasing the city's unrestricted fund balance to $317 million from $342 million, or a still healthy 40% of spending. These results reflect $45 million in transfers out from the general fund for non-recurring capital related purposes, similar to the purposes of fund balance draws in recent years.

The city experienced moderate revenue declines compared to budget related to lower sewer usage fees and investment income; however, hotel, meals and excise taxes combined with other revenues significantly offset these negative variances. Most departments experienced positive expenditure savings compared to budget supporting the surplus operating results before transfer activity.

The fiscal 2023 $801 million general fund budget is up $49 million or 6.5% over the fiscal 2022 adjusted operating budget driven in large part by an increase in employee related salaries, health insurance and pension costs. The tax levy is up 7.5%; however, property tax rates are lower compared to fiscal 2022 due to 11% growth in taxable values. The budget includes a moderate increase in charges for services and state aid, primarily for education, and conservative assumptions for licenses and permits.

A $19 million appropriation of free cash was made to reduce the tax burden, and a slightly higher amount of debt stabilization and health claims trust funds compared to fiscal 2022 were included again in the budget to support these associated costs.

Management reports non-ad valorem revenues are trending better than budget to date and combined with employee vacancy savings should help offset the bulk of the fund balance appropriations.

Commercial and industrial properties represent 44% of the city's fiscal 2023 total assessed value (TAV). Office vacancy rates were 10.6% for fourth quarter 2022 up from 5.2% for fourth quarter 2021, and 7.8% at the end of fourth quarter 2020 according to CB Richard Ellis (CBRE) reports. These rates compare somewhat less favorably to the 4% vacancy rate reported at the start of the pandemic. CBRE also reports office lease rates declined 3.9% compared to third quarter 2022 as sublease space has escalated.

While Cambridge is not immune to changes in the office market, these vacancy rates will be influenced by the level of new office space coming into the market, particularly higher tier properties; and, as demand for lab space remains very active, class B office space has been undergoing conversions to lab space. Year-over-year lab vacancy rates remain very low at 2.1% for the fourth quarter of 2022.

Rating History (IDR and GO Bonds)

Rating	Action	Outlook/ Watch	Date
AAA	Affirmed	Stable	2/14/23
AAA	Affirmed	Stable	1/9/03
AAA	Assigned		10/7/99

New development and construction activity for office, lab, residential and mixed use has not slowed down as evidenced by robust building permit revenues in fiscal years 2021 and 2022. Fitch expects long-term demand to be sound due to Cambridge's central location near the city of Boston, Cambridge's importance as a research center for life and sciences companies, and the presence of the country's leading institutions of higher education, Harvard and MIT.

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 and other major employers include the city itself, Mt. Auburn Hospital and a number of biotechnology companies including Takeda Pharmaceuticals, Biogen, Novartis, and Sanofi.

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 term. Wealth levels are above state and national averages and the unemployment rate (2.0% as of December 2021) is consistently below them.

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, and Facebook.

While space for new development is somewhat limited in Cambridge, new construction or rehabilitation of existing properties is underway in various areas of the city and should provide support for demand. TAV performance reflects this activity as well as growth in residential values. TAV grew by 11% for fiscal 2022 to $71 billion following growth of 6% and 10% in fiscal 2022 and 2021, respectively. TAV per capita is very high at approximately $606,000.

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 more moderate increases in TAV through 2027, which Fitch considers reasonable based on new commercial and residential construction underway and proposed.

Revenue Framework

Property taxes account generally for two-thirds of general fund revenues. Intergovernmental revenues, primarily for education, and sewer use charges, accounted for another 10% and 8%, respectively, for fiscal 2022. Excise taxes on hotel, meals and motor vehicles and payment in lieu of taxes provide 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 $201 million in fiscal 2023 from $197 million in fiscal 2022, the highest historical level. This excess levy capacity totals approximately 25% of the fiscal 2023 operating budget and provides for high revenue raising flexibility if needed.

Expenditure Framework

Education is the city's largest expenditure, comprising 33% of fiscal 2022 general fund expenses. Public safety followed at 22% of expenditures.

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 to be driven by an increase in population and services but remain aligned with or slightly below revenues going forward.

Carrying costs for debt service, pensions and OPEB contributions were moderate at 16% of fiscal 2022 total 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. Debt service costs will trend upward based on plans for additional debt to finance various schools, sewer and other city projects.

However, principal amortization rates are above average as management's policy is to limit the term of school-related debt to 20 years and all other debt to 10 years. The carrying cost metric 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 four years as part of its commitment to the overall improvement of its school system.

A majority 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 to bargain within the arbitration process.

Long-Term Liability Burden

Long-term liabilities for net overall debt plus the Fitch-adjusted NPL are low at 5% of estimated personal income. Outstanding debt, net of self-supporting water and sewer debt, accounts for 70% of the liability metric, with the city's NPL making up the remainder. Fitch expects the burden to remain low as a percentage of personal income 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 $836 million in additional debt (about 6% of current personal income) through 2027. Roughly 23% of this debt is expected to be supported from user fees, which Fitch considers self-supporting. The new debt will be partially offset by the principal repayment of bonds and notes outstanding. Approximately $304 million of outstanding and pro-forma principal from the 2023 bonds is scheduled to mature in the next five fiscal years (2023–2027). Principal amortization of outstanding GO debt including sewer debt is rapid at 81% over the next ten years (fiscal years 2023–2032).

The city is one of four employers participating in the Cambridge Retirement System. The city consistently funds at least its full actuarially determined contribution and the current actuarial schedule for pension funding has the city reaching full funding of its net pension liabilities by 2026. The fiduciary net position to total pension liabilities for the system was reported at 99.8% as of Dec. 31, 2021 based on a 7.10% discount rate. Using Fitch's more conservative 6% investment rate of return, the estimated assets to liabilities ratio was 88.5%. The system's assets benefitted from the strong market performance during 2022.

The city's net OPEB liability totaled $760 million as of June 30, 2022, based on GASB 74 reporting requirements, and represents 5.9% of personal income. The liability was determined using a blended 3.62% discount rate. City management created an OPEB trust fund in December 2009 and has made contributions since that time with a current value of $29 million. Management projects a $2 million annual contribution to the trust for each fiscal year 2023 through 2026 and plans to ramp up contribution in fiscal 2027 after reaching full pension funding status in fiscal 2026.

Operating Performance

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

During times of economic weakness, management has controlled spending and staffing levels to offset reductions in revenues and Fitch expects management will continue this practice during future downturns. The city's strong budget monitoring practices and financial planning bolster the city's operating environment.

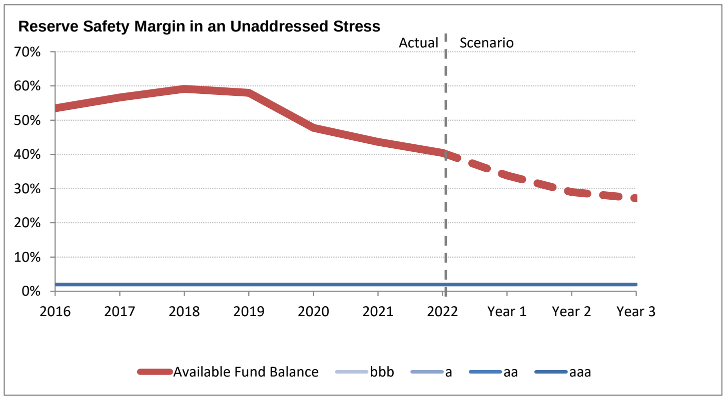
ESG Considerations

Unless otherwise disclosed in this section, the highest level of ESG credit relevance is a score of '3'. This means ESG issues are credit-neutral or have only a minimal credit impact on the entity, either due to their nature or the way in which they are being managed by the entity. For more information on Fitch's ESG Relevance Scores, visit www.fitchratings.com/esg.

Cambridge (MA)

Scenario Analysis

Ver 48



Analyst Interpretation of Scenario Results

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

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)	*Min Y1 Stress:* **-1%**	*Case Used:* **Moderate**	(1.0%)	3.7%	5.2%
Inherent Budget Flexibility				Superior	

Revenues, Expenditures, and Fund Balance	Actuals							Scenario Output		
	2016	2017	2018	2019	2020	2021	2022	Year 1	Year 2	Year 3
Total Revenues	560,698	592,598	632,640	658,347	698,158	738,834	741,159	733,747	761,202	800,524
% Change in Revenues	-	5.7%	6.8%	4.1%	6.0%	5.8%	0.3%	(1.0%)	3.7%	5.2%
Total Expenditures	531,111	562,893	596,882	625,530	659,533	726,594	734,253	748,938	763,917	779,195
% Change in Expenditures	-	6.0%	6.0%	4.8%	5.4%	10.2%	1.1%	2.0%	2.0%	2.0%
Transfers In and Other Sources	24,420	44,132	22,480	23,330	25,649	45,952	20,661	20,454	21,219	22,316
Transfers Out and Other Uses	28,810	41,972	22,407	37,056	87,941	77,878	50,676	51,689	52,723	53,777
Net Transfers	(4,391)	2,160	73	(13,726)	(62,291)	(31,926)	(30,015)	(31,235)	(31,503)	(31,462)
Bond Proceeds and Other One-Time Uses	-	21,692	-	-	-	21,456	-	-	-	-
Net Operating Surplus/(Deficit) After Transfers	25,197	31,864	35,831	19,092	(23,666)	(19,686)	(23,109)	(46,426)	(34,218)	(10,133)
Net Operating Surplus/(Deficit) (% of Expend. and Transfers Out)	4.5%	5.5%	5.8%	2.9%	(3.2%)	(2.5%)	(2.9%)	(5.8%)	(4.2%)	(1.2%)
Unrestricted/Unreserved Fund Balance (General Fund)	299,408	330,342	366,134	384,406	356,931	341,633	317,212	270,786	236,568	226,435
Other Available Funds (GF + Non-GF)	-	-	-	-	-	-	-	-	-	-
Combined Available Funds Balance (GF + Other Available Funds)	299,408	330,342	366,134	384,406	356,931	341,633	317,212	270,786	236,568	226,435
Combined Available Fund Bal. (% of Expend. and Transfers Out)	53.5%	56.6%	59.1%	58.0%	47.8%	43.6%	40.4%	33.8%	29.0%	27.2%

Reserve Safety Margins	Inherent Budget Flexibility				
Moderate	**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 scenario analysis assumes the GDP and expenditure growth sequence shown in the 'Scenario Parameters' section. 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.

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