20 FEB 2024

Fitch Rates Cambridge, MA's $180.1MM Series 2024 GO Bonds 'AAA'; Outlook Stable

Fitch Ratings - New York - 20 Feb 2024: Fitch Ratings has assigned a 'AAA' rating to the city of Cambridge, Massachusetts $180,100,000 general obligation (GO) municipal purpose loan of 2024 bonds.

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, 2024.

Fitch has also affirmed the rating for the city's outstanding GO bonds totaling approximately $523 million at 'AAA' and the city's Issuer Default Rating (IDR) at 'AAA'.

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

Cambridge's 'AAA' GO bond rating and IDR reflect Fitch's expectation for it 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, and a low long-term liability burden.

Economic Resource Base

Cambridge is located in Middlesex County across the Charles River from the city of Boston and has an estimated 2022 census population of 118,488, which is up approximately 13% since 2010 outpacing the state and nation over the same period.

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 and 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 7% of residents' personal income. Fitch anticipates Cambridge's long-term liability burden will remain below 10% of personal income levels (the high end of the range for an '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 healthy reserves over the past several years. 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.

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 long-term liabilities above 10% of personal income;

--A sustained increase in expenses outpacing changes in revenues leading to a decline in unrestricted reserves closer to or below 10% of spending and reducing overall financial flexibility.

CURRENT DEVELOPMENTS

Cambridge's financial profile remains very strong. General fund net operating results for fiscal 2023 reflect a $4.4 million net-operating surplus (0.5% of spending), increasing the city's unrestricted fund balance to $320 million from $317 million, or a healthy 38% of spending. Results include transfers out of $20 million for capital projects, following positive variances in both revenues and expenditures. Tax base values for fiscal 2023 were up 11% yoy 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 fiscal 2024 $884 million general fund budget is up $82.3 million or 10% over the fiscal 2023 adopted operating budget. A significant portion of the increase represents a shift of funding for the Affordable Housing Trust from the capital budget to the operating budget, excluding that shift, the city's operating budget increased approximately 7%. Other budget increases are attributable to employee salary and benefit costs, and a $2 million allocation to the OPEB liability trust fund. The tax levy is up 8.2%, reaching $575.4 million. In addition, the budget includes a $10 million appropriation from the debt stabilization fund, similar to fiscal 2023, and is being used to support debt service related to the elementary school reconstruction. This fund is reported as a committed fund in the general fund.

Fiscal 2024 total assessed values (TAV) continue to grow and are up 7% yoy. Commercial and industrial properties represent 45% of the city's fiscal 2024 TAV. Office vacancy rates were 12.5% for third quarter 2023 up from 8.7% for third quarter 2022 according to CB Richard Ellis (CBRE) reports. These rates compare less favorably to the 4% vacancy rate reported at the start of the pandemic, however they remain more favorable than national averages, which stood at 19% at the end of the fourth quarter 2023, CBRE reports. CBRE also reports an average gross asking rent of $76.28 per s.f. during third quarter 2023, a 10% decline YOY. Growth in TAV related to new development and higher valuations for other segments of properties has offset the slight declines in certain office properties.

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. YOY lab vacancy rates remain very low at 5% for the third quarter of 2023.

New development and construction activity for office, lab, residential and mixed use has not slowed down as evidenced by robust building permit activity in fiscal years 2021, 2022, and 2023. 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 (2.5% as of December 2023) 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 of $76 billion for fiscal 2024 on a per capita basis is a very high $640,000.

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 2028, which Fitch considers reasonable based on higher than usual office vacancy rates and 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 9% and 8%, respectively, for fiscal 2023. 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 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 is approximately $198.5 million, down slightly from $201 million in fiscal 2023, the highest historical level. This excess levy capacity totals approximately 23% of the fiscal 2024 operating budget and provides for high revenue raising flexibility if needed.

Expenditure Framework

Education is the city's largest expenditure, comprising 33% of fiscal 2023 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 2023 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.

Principal amortization rates are above average as management's policy limits 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, suggesting the actual burden on Cambridge's general government budget is somewhat lower.

Education will continue to be a driver of spending and management is planning higher 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 Fitch-adjusted NPLs are low at 7% of estimated personal income. Outstanding debt, net of self-supporting water and sewer debt, accounts for 75% 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 $731 million in additional debt (about 5% of current personal income) through 2028. Roughly 28.6% 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. Principal amortization of outstanding GO debt including sewer debt is rapid at 83% over the next 10 years (fiscal years 2024-2034).

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 85% as of Dec. 31, 2022 based on a 7.1% discount rate. Using Fitch's more conservative 6% investment rate of return, the estimated assets to liabilities ratio was 75%.

The city's net OPEB liability totaled $790 million as of June 30, 2023, based on GASB 74 reporting requirements, and represents 5.5% of personal income. The liability was determined using a blended 3.74% discount rate. City management created an OPEB trust fund in December 2009 and has made contributions since that time with a current value of $36.4 million. Management projects a $2 million annual contribution to the trust for each fiscal year 2024 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 with transfers out primarily used to support capital spending. The city has historically maintained 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 profile.

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

REFERENCES FOR SUBSTANTIALLY MATERIAL SOURCE CITED AS KEY DRIVER OF RATING

The principal sources of information used in the analysis are described in the Applicable Criteria.

ESG Considerations

The highest level of ESG credit relevance is a score of '3', unless otherwise disclosed in this section. A score of '3' 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. Fitch's ESG Relevance Scores are not inputs in the rating process; they are an observation on the relevance and materiality of ESG factors in the rating decision. For more information on Fitch's ESG Relevance Scores, visit https://www.fitchratings.com/topics/esg/products#esg-relevance-scores.

Fitch Ratings Analysts

Arthur Tildesley III, CFA
Director
Primary Rating Analyst
+1 646 582 4749
Fitch Ratings, Inc. Hearst Tower 300 W. 57th Street New York, NY 10019

Kevin Dolan
Director

Secondary Rating Analyst
+1 212 908 0538

Eric Kim
Senior Director
Committee Chairperson
+1 212 908 0241

Media Contacts

Sandro Scenga
New York
+1 212 908 0278
sandro.scenga@thefitchgroup.com

Rating Actions

ENTITY/DEBT	RATING			RECOVERY	PRIOR
Cambridge (MA) [General Government]	LT IDR	AAA ⭘	Affirmed		AAA ⭘
• Cambridge (MA) /General Obligation - Limited Tax/ 1 LT	LT	AAA ⭘	Affirmed		AAA ⭘

RATINGS KEY	OUTLOOK	WATCH
POSITIVE	⊕	⬘
NEGATIVE	⊖	⬙
EVOLVING	⭘	◆
STABLE	⭘	

Applicable Criteria

U.S. Public Finance Tax-Supported Rating Criteria (pub.04 May 2021) (including rating assumption sensitivity)

Applicable Models

Numbers in parentheses accompanying applicable model(s) contain hyperlinks to criteria providing description of model(s).

FAST Econometric API - Fitch Analytical Stress Test Model, v3.0.0 (1)

Additional Disclosures

Solicitation Status

Endorsement Status

Cambridge (MA)	EU Endorsed, UK Endorsed

DISCLAIMER & DISCLOSURES

summary page for this issuer on the Fitch Ratings website.

In issuing and maintaining its ratings and in making other reports (including forecast information), 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 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. Fitch Ratings makes routine, commonly-accepted adjustments to reported financial data in accordance with the relevant criteria and/or industry standards to provide financial metric consistency for entities in the same sector or asset class.

The complete span of best- and worst-case scenario credit ratings for all rating categories ranges from 'AAA' to 'D'. Fitch also provides information on best-case rating upgrade scenarios and worst-case rating downgrade scenarios (defined as the 99th percentile of rating transitions, measured in each direction) for international credit ratings, based on historical performance. A simple average across asset classes presents best-case upgrades of 4 notches and worst-case downgrades of 8 notches at the 99th percentile. Sector-specific best- and worst-case scenario credit ratings are listed in more detail at https://www.fitchratings.com/site/re/10238496

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.

dv01, a Fitch Solutions company, and an affiliate of Fitch Ratings, may from time to time serve as loan data agent on certain structured finance transactions rated by Fitch Ratings.

Endorsement policy

Fitch's international credit ratings produced outside the EU or the UK, as the case may be, are endorsed for use by regulated entities within the EU or the UK, respectively, for regulatory purposes, pursuant to the terms of the EU CRA Regulation or the UK Credit Rating Agencies (Amendment etc.) (EU Exit) Regulations 2019, as the case may be. Fitch's approach to endorsement in the EU and the UK can be found on Fitch's Regulatory Affairs page on Fitch's website. The endorsement status of international credit ratings is provided within the entity summary page for each rated entity and in the transaction detail pages for structured finance transactions on the Fitch website. These disclosures are updated on a daily basis.

Moody's INVESTORS SERVICE

CREDIT OPINION
15 February 2024

Send Your Feedback

Contacts

Nicholas Lehman +1.781.672.1124
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

City of Cambridge, MA

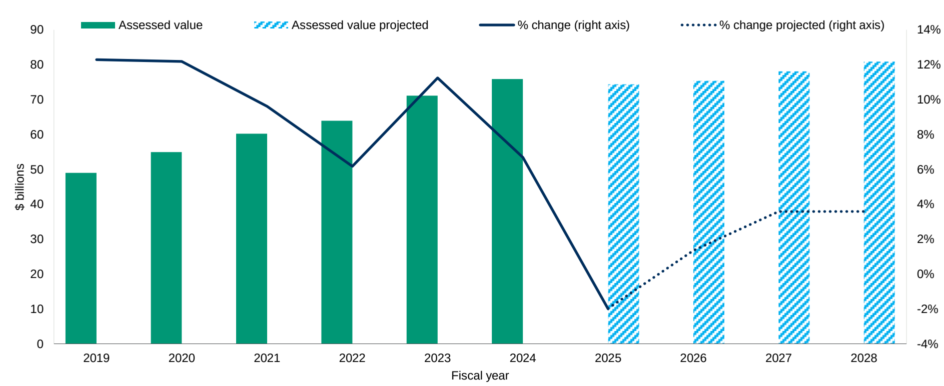
Update to credit analysis

Summary

Cambridge (Aaa stable) has a very strong credit profile and benefits from high resident income and full (equalized) value per capita as well as a strong economy that has outperformed the nation in GDP growth over the last five years. The economy is driven by the presence of world renowned higher education institutions and the impressive biotechnology and pharmaceutical sectors. The city's assessed value is projected to decline by 2% in 2025 due to the impact the work-from-home trend has had on commercial office space (see exhibit). The city's strong economy and resilient housing market is expected to maintain tax base stability beyond next year. The city's financial position is very healthy with large reserves and liquidity that are maintained by formal policies and conservative fiscal management. The city anticipates using a portion of its abundant unused levy capacity in the fiscal 2025 budget to help fund the increase in education costs due to the implementation of universal pre-kindergarten. The city's leverage as a percent of revenue and fixed costs ratio are expected to remain manageable and comparable with peers in the highest rating category.

Exhibit 1

Cambridge's assessed value projected to decline by 2% in 2025 before recovering in 2026
Total assessed value by fiscal year



Source: City of Cambridge

Credit strengths

» Healthy economy anchored by institutional presence

» Ample operating flexibility given a large amount of unused levy capacity under the tax levy limit

» Strong reserves and liquidity

» Pension plan funding date is 2026

Credit challenges

» Taxpayer concentration in research and development

» Maintaining service levels in line with community expectations

Rating outlook

The stable outlook reflects the city's strong fiscal management and governance that is committed to maintaining a healthy financial position given conservative multi-year budget forecasting and adherence to formally adopted fiscal policies. The outlook also incorporates the significant institutional presence that is expected to help maintain a strong labor force, tax base stability and attract private investment in the city.

Factors that could lead to an upgrade

» Not applicable

Factors that could lead to a downgrade

» Material decline in available reserves

» Significant increase in leverage as a percent of revenue

» Sustained decline in economic metrics and tax base value

Key indicators

Exhibit 2

Cambridge (City of) MA

	2020	2021	2022	2023	Aaa Medians
Economy					
Resident income ratio (%)	147.1%	148.6%	144.5%	N/A	173.0%
Full Value ($000)	$49,449,366	$63,505,736	$63,505,736	$70,337,059	$8,668,233
Population	117,822	116,892	117,962	N/A	35,992
Full value per capita ($)	$419,696	$543,286	$538,358	N/A	$225,444
Annual Growth in Real GDP	-1.5%	7.0%	2.3%	N/A	N/A
Financial Performance					
Revenue ($000)	$799,551	$842,183	$887,598	$952,847	$101,177
Available fund balance ($000)	$445,492	$441,368	$435,189	$461,527	$58,570
Net unrestricted cash ($000)	$684,571	$755,692	$836,477	$867,098	$82,803
Available fund balance ratio (%)	55.7%	52.4%	49.0%	48.4%	61.7%
Liquidity ratio (%)	85.6%	89.7%	94.2%	91.0%	88.4%
Leverage					
Debt ($000)	$507,262	$526,962	$553,675	$575,045	$71,733
Adjusted net pension liabilities ($000)	$847,612	$994,266	$855,937	$572,427	$120,941
Adjusted net OPEB liabilities ($000)	$736,553	$853,904	$822,104	$642,836	$14,374
Other long-term liabilities ($000)	$42,710	$44,180	$46,840	$49,462	$3,750
Long-term liabilities ratio (%)	266.9%	287.3%	256.7%	193.1%	263.2%
Fixed costs					
Implied debt service ($000)	$35,942	$36,326	$36,961	$38,669	$4,989
Pension tread water contribution ($000)	$27,521	$22,235	$18,603	N/A	$3,389
OPEB contributions ($000)	$22,193	$23,460	$24,151	$26,418	$523
Implied cost of other long-term liabilities ($000)	$2,881	$3,059	$3,099	$3,271	$245
Fixed-costs ratio (%)	11.1%	10.1%	9.3%	9.1%	11.6%

For definitions of the metrics in the table above please refer to the US Cities and Counties Methodology or see the Glossary in the Appendix below. Metrics represented as N/A indicate the data were not available at the time of publication. The medians come from our most recently published US Cities and Counties Median Report.
The real GDP annual growth metric cited above is for the Boston-Cambridge-Newton, MA-NH Metropolitan Statistical Area [issuer specific] Metropolitan Statistical Area.
Sources: US Census Bureau, Cambridge (City of) MAâ€™s financial statements and Moodyâ€™s Investors Service, US Bureau of Economic Analysis

Profile

Cambridge is a large and diverse community that neighbors the City of Boston (Aaa stable) across the Charles River. The city's population was 117,822 (American Community Survey) and its economy is anchored by Harvard University (Aaa stable) and the Massachusetts Institute of Technology (MIT, Aaa stable). The city provides general governmental services including police and fire protection, public preK-12 education, parks and recreation, health and social services, libraries and culture, and maintenance of streets and highways.

Detailed credit considerations

Economy: significant institutional presence likely to continue to spur economic growth

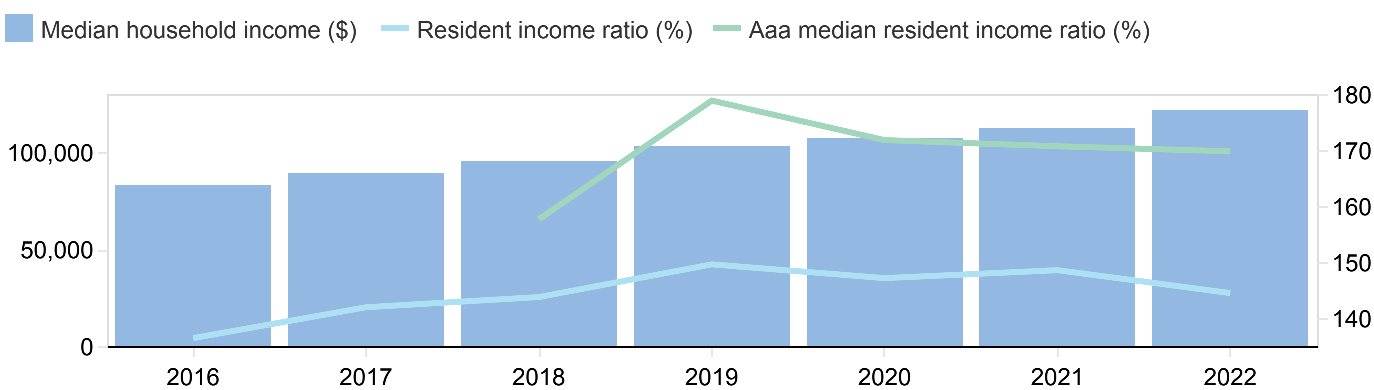
Cambridge's economy benefits from the presence of Harvard and MIT which together enroll around 33,000 students and provide employment to almost 22,000 full-time positions (roughly 16% of the city's workforce). The city's economic growth as measured by the Boston MSA's five year CAGR of real GDP compared to the US real GDP is a strong 0.7%. The city's largest industries are professional and business services and education and health services including the vibrant biotechnology and pharmaceutical sectors. The top 10 taxpayers are concentrated and represent 31.7% of 2024 total assessed value. Although, MIT with its significant taxable property is the largest taxpayer representing 11.5% of AV.

The city's assessed value is projected to flatten over the next couple years including a 2% decline in total assessed value that is projected in 2025. The decline in total AV is driven by a projected 7% decline in commercial value in 2025 and projected 2% decline in 2026. The declines are driven primarily by the challenges in the commercial office space sub-sector as a result of work-from-home options that have taken hold in many companies and industries in the city and across the nation. The residential sector is projected to see no change in 2025 values followed by a projected 2% increase annually beginning in 2026 through 2028. The city believes the projections are conservative and help to insulate the city from tax abatements while also reflecting a conservative impact on the property tax levy and revenues.

New construction growth remains healthy and will also help to absorb the potential for valuation decline over the near term. The city remains very competitive in attracting businesses to Cambridge given very low residential and commercial tax rates of $5.92 per $1,000 AV and $10.46 for fiscal 2024, respectively. The city compares favorably to the state average residential and commercial rates of $12.58 and $15.64, respectively, as well as to cities like Boston and Waltham's (Aa2) tax rates that are roughly double that of Cambridge.

The city's resident income and wealth are strong with a median household income adjusted for regional price parity of 144.5% of the US median (see exhibit). The city's wealth as measured by a 2023 $596,269 full value per capita is very strong.

Exhibit 3
Resident Income



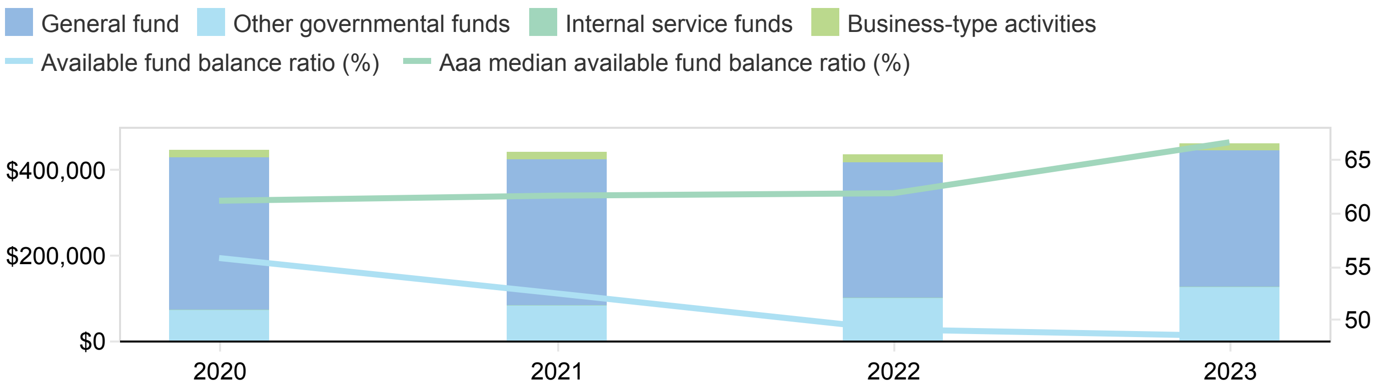
Source: Moody's Investors Service

Financial operations: city will rely on ample unused levy capacity to maintain healthy financial position

Cambridge's financial position is likely to remain strong over the next few years although some reserves and unused tax levy capacity is expected to be used to balance operations and maintain the city's capital plan. The largest expense driver is the launch of universal pre-K for all four year olds in the city. The city projects the cost of the program will add approximately $20 million to the fiscal 2025 operating budget. In prior years the city set aside $10 million in a stabilization reserve to help offset the property tax impact. This program along with maintaining core services, recent collective bargaining agreements, and capital needs will likely result in the use of excess tax levy capacity over the next five years.

The city's excess levy capacity is $199 million as of fiscal 2024, equal to 21% of fiscal 2023 revenue, and represents the most financial flexibility under the tax levy limit that any other Massachusetts municipality. The city projects it could use $26 million in excess capacity in fiscal 2025 and continue to rely on the excess through fiscal 2028 reducing the unused levy amount to $108 million, a still healthy amount of flexibility. The result of using that much excess levy capacity on top of the allowable 2.5% increase plus new growth each is a projected tax levy increase of over 10% in fiscal 2025 and 2026.

Exhibit 4
Fund Balance



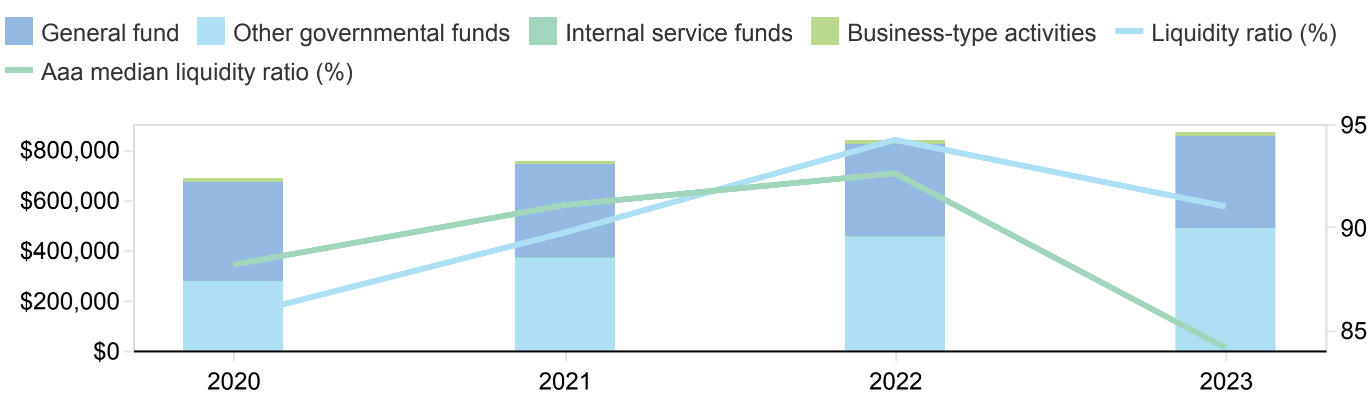
Source: Moody's Investors Service

The current 2024 fiscal year budget increased by 10% or $82.3 million over the prior year budget. A large factor in the increase is a shift in funding the affordable housing trust from the capital budget to the operating budget. Excluding that shift, the operating budget was up 7.2%. Other budget drivers were 2.5% salary increases, 6.2% increase in health insurance and 12.1% increase in pension contributions. The budget was balanced with an 8.3% increase in the tax levy.

Cambridge's governmental activities provide 98% of the city's revenue base with property taxes representing 57% of fiscal 2023 governmental revenue. The city's water fund is the only enterprise fund providing the remaining revenue source. The largest expenditures are education and public safety representing 28% and 17% respectively, of total governmental costs.

Liquidity
Cambridge's net unrestricted cash and investments at the end of fiscal 2023 was $867.1 million representing a high 91% of revenue.

Exhibit 5
Cash

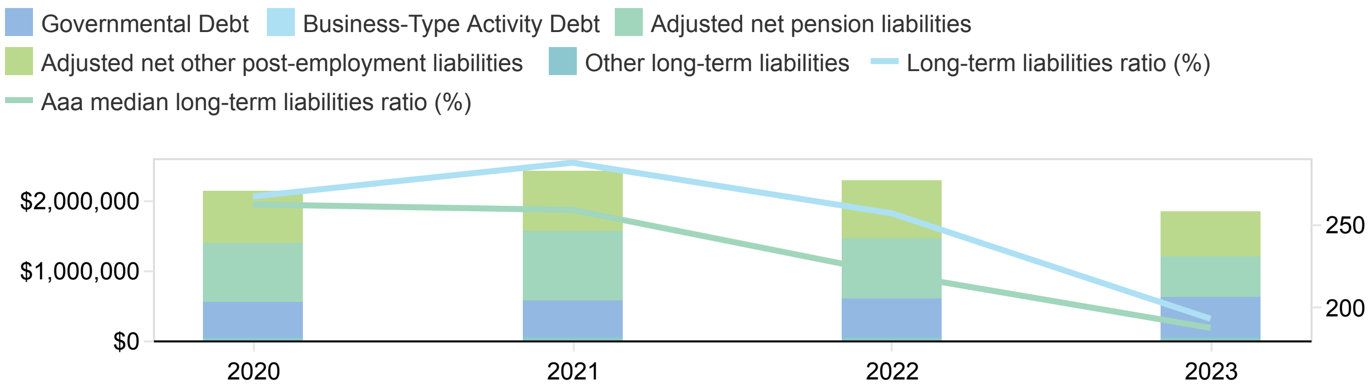


Source: Moody's Investors Service

Leverage: large capital plans will continue to drive leverage while pension funding date approaches

The city's leverage is average for the highest rating category and will likely remain relatively unchanged over the next few years given a large capital plan while continuing to aggressively fund the pension plan and make annual deposits into the OPEB trust. The city ended fiscal 2023 with a long-term liabilities ratio of 193.1% of revenue (see exhibit). The city's debt accounts for 31% of the total leverage ratio while adjusted net pension liability and adjusted net OPEB liability represent another 31% and 35%, respectively. The leverage ratio increases to 212% of revenue when adding the current 2024 bond issue.

Exhibit 6
Total Primary Government - Long Term Liabilities



Source: Moody's Investors Service

The city's fiscal 2024-28 public investment program's total capital spending equals $697.6 million reflecting an increase of $88.2 million over the prior year's plan. Bond proceeds of $386.1 million is projected to be the largest funding source plus another $215.2 million in sewer bond proceeds. Given the city's strong amortization of debt as well as the level of pension contributions, the capital plan will likely increase leverage marginally.

Legal security
The bonds are backed by the city's full faith and credit general obligation limited tax pledge given that debt service has not been voted by the city as excluded from the Proposition 2 ½ tax levy limitations.

Debt structure
The entire debt portfolio of $703.5 million is fixed rate with 82.7% of principal retired in 10 years. Final maturity on the city's debt is 2044.

Debt-related derivatives
Cambridge is not party to debt-related derivatives.

Pensions and OPEB
Cambridge's pension and OPEB liabilities are larger than its debt burden and though manageable at this time, represent a potential future credit challenge. The city participates in the Cambridge Retirement Plan, a multi-employer defined benefit plan and makes annual required contributions. The latest actuarial report assumes a 7.1% discount rate and maintains a funded date of 2026 on a reported basis. Annual pension contributions are scheduled to increase by 12.1% annually until 2026. The city's teachers participate in the Massachusetts Teachers Retirement System in which the city receives on-behalf payments toward that liability that is covered by the Commonwealth.

The city also funds its OPEB liability on a pay-go basis plus annual budgeted deposits into an OPEB trust based on its funding policy. The OPEB plan fiduciary net position is 4.3% of the total OPEB liability as of the end of fiscal 2023.

The 2023 fixed costs ratio of 9.1% is very favorable and will likely remain low. Additionally, the city's annual pension contributions for the last five years have been significantly higher than the Moody's tread water indicator, which is the amount required to keep the unfunded liability from increasing if all actuarial assumptions are realized, a reflection of the commitment to meet the 2026 pension funding date.

ESG considerations

Credit Impact Score

Cambridge's ESG Credit Impact Score is a 2, driven by elevated environmental risk associated with physical climate challenges. Although the score also incorporates positive social considerations given healthy demographics and high educational attainment.

Governance considerations also positively influence the CIS and reflect strong revenue raising flexibility and a history of proactive budget management and capital planning.

Environmental

The city's E issuer profile score is E-3, reflecting Cambridge's exposure to physical climate risks associated with sea level rise and extreme weather events including hurricanes and nor-easters. Other environmental risks associated with carbon transition, natural capital and water and pollution are modest and in line with sector peers.

Social

The city's S issuer profile score is S-1, reflecting strong educational attainment, a favorable labor force and positive health and safety. City residents also have access to basic services and the city benefits from stable demographics. Housing affordability is in line with sector peers but is a growing challenge.

Governance

The city's G issuer profile score is G-1, reflecting favorable institutional structure, transparency and disclosure. The city consistently approves and releases its budgets and audited financial statements in a timely manner. Cambridge's budget management and policy credibility and effectiveness are strong and is reflected in its adherence to formal policies and the maintenance of its healthy financial position and trend of balanced operations.

Rating methodology and scorecard factors

The US Cities and Counties Rating Methodology includes a scorecard, which summarizes the rating factors generally most important to city and county credit profiles. Because the scorecard is a summary, and may not include every consideration in the credit analysis for a specific issuer, a scorecard-indicated outcome may or may not map closely to the actual rating assigned.

Exhibit 7

Cambridge (City of) MA

	Measure	Weight	Score
Economy			
Resident income ratio	144.5%	10.0%	Aaa
Full value per capita	596,269	10.0%	Aaa
Economic growth metric	0.9%	10.0%	Aaa
Financial Performance			
Available fund balance ratio	48.4%	20.0%	Aaa
Liquidity ratio	91.0%	10.0%	Aaa
Institutional Framework			
Institutional Framework	Aa	10.0%	Aa
Leverage			
Long-term liabilities ratio	193.1%	20.0%	Aa
Fixed-costs ratio	9.1%	10.0%	Aaa
Notching factors			
Additional Strength in Local Resources	0.5		
Scorecard-Indicated Outcome			Aaa
Assigned Rating			**Aaa**

The Economic Growth metric cited above compares the five-year CAGR of real GDP for Boston-Cambridge-Newton, MA-NH Metropolitan Statistical Area [issuer specific] Metropolitan Statistical Area to the five-year CAGR of real GDP for the US

Sources: US Census Bureau, Cambridge (City of) MAâ€™s financial statements and Moodyâ€™s Investors Service

Appendix

Exhibit 8
Key Indicators Glossary

	Definition	Typical Source*
Economy		
Resident income ratio	Median Household Income (MHI) for the city or county, adjusted for Regional Price Parity (RPP), as a % of the US MHI	MHI: US Census Bureau - American Community Survey 5-Year Estimates RPP: US Bureau of Economic Analysis
Full value	Estimated market value of taxable property in the city or county	State repositories; audited financial statements; continuing disclosures
Population	Population of the city or county	US Census Bureau - American Community Survey 5-Year Estimates
Full value per capita	Full value / population	
Economic growth metric	Five year CAGR of real GDP for Metropolitan Statistical Area or county minus the five-year CAGR of real GDP for the US	Real GDP: US Bureau of Economic Analysis
Financial performance		
Revenue	Sum of revenue from total governmental funds, operating and non-operating revenue from total business-type activities, and non-operating revenue from internal services funds, excluding transfers and one-time revenue, e.g., bond proceeds or capital contributions	Audited financial statements
Available fund balance	Sum of all fund balances that are classified as unassigned, assigned or committed in the total governmental funds, plus unrestricted current assets minus current liabilities from the city's or county's business-type activities and internal services funds	Audited financial statements
Net unrestricted cash	Sum of unrestricted cash in governmental activities, business type activities and internal services fund, net of short-term debt	Audited financial statements
Available fund balance ratio	Available fund balance (including net current assets from business-type activities and internal services funds) / Revenue	
Liquidity ratio	Net unrestricted cash / Revenue	
Leverage		
Debt	Outstanding long-term bonds and all other forms of long-term debt across the governmental and business-type activities, including debt of another entity for which it has provided a guarantee disclosed in its financial statements	Audited financial statements; official statements
Adjusted net pension liabilities (ANPL)	Total primary government's pension liabilities adjusted by Moody's to standardize the discount rate used to compute the present value of accrued benefits	Audited financial statements; Moody's Investors Service
Adjusted net OPEB liabilities (ANOL)	Total primary government's net other post-employment benefit (OPEB) liabilities adjusted by Moody's to standardize the discount rate used to compute the present value of accrued benefits	Audited financial statements; Moody's Investors Service
Other long-term liabilities (OLTL)	Miscellaneous long-term liabilities reported under the governmental and business-type activities entries	Audited financial statements
Long-term liabilities ratio	Debt + ANPL + ANOL + OLTL / Revenue	
Fixed costs		
Implied debt service	Annual cost to amortize city or county's long-term debt over 20 years with level payments	Audited financial statements; official statements; Moody's Investors Service
Pension tread water contribution	Pension contribution necessary to prevent reported unfunded pension liabilities from growing, year over year, in nominal dollars, if all actuarial assumptions are met	Audited financial statements; Moody's Investors Service
OPEB contribution	City or county's actual contribution in a given period	Audited financial statements
Implied cost of OLTL	Annual cost to amortize city or county's other long-term liabilities over 20 years with level payments	Audited financial statements; Moody's Investors Service
Fixed-costs ratio	Implied debt service + Pension tread water + OPEB contributions + Implied cost of OLTL / Revenue	

*Note: If typical data source is not available then alternative sources or proxy data may be considered. For more detailed definitions of the metrics listed above please refer to the US City and Counties Methodology .
Source: Moody's Investors Service

REPORT NUMBER 1397933

CLIENT SERVICES

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

S&P Global Ratings

RatingsDirect®

Summary:

Cambridge, Massachusetts; General Obligation

Primary Credit Analyst:
Tyler Fitman, Boston (1) 617-530-8021; tyler.fitman@spglobal.com

Secondary Contact:
Melissa Stoloff, Boston (1) 617-530-8030; melissa.stoloff@spglobal.com

Table Of Contents

Summary:

Cambridge, Massachusetts; General Obligation

Credit Profile		
US$180.1 mil GO mun purp loan of 2024 bnds due 02/15/2044		
Long Term Rating	AAA/Stable	New
Cambridge GO		
Long Term Rating	AAA/Stable	Affirmed

Credit Highlights

- S&P Global Ratings assigned its 'AAA' rating to Cambridge, Mass.' roughly $180.1 million series 2024 general obligation (GO) municipal-purpose loan bonds.
- At the same time, S&P Global Ratings affirmed its 'AAA' rating on the city's existing GO debt.
- The outlook is stable.

Security

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 that officials intend to use series 2024 bond proceeds to fund various citywide capital projects.

Credit overview

Cambridge is an affluent community adjacent to Boston with many leading science and technology companies and major universities that provide stability to the city. The city's management team operates with established and well-embedded policies and procedures with a focus on forward-looking planning that allows for key city priorities to be addressed while sustaining financial stability and flexibility.

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

- High wealth and income metrics, with residential and commercial tax base growth partially supported by the presence of large educational institutions and corporate investment;
- Very strong management, with strong financial-management policies, practices under our Financial Management Assessment (FMA) methodology, including well-embedded financial policies with forward-looking planning, and a strong Institutional Framework score;
- Stable revenue and expenditures, with property taxes accounting for a majority of revenues, allowing the city to sustain very strong reserves; and
- Stable debt profile, with continuous debt issuance to support capital priorities expected to continue, and a large other postemployment benefits (OPEB) obligation.

Environmental, social, and governance

We consider Cambridge vulnerable to physical risks, including rising water levels from climate change that could directly affect taxable properties due to its location along the Charles River. The city has been proactively addressing challenges and maintains long-term environmental resiliency plans. We have analyzed Cambridge's social and governance risks relative to its economy, management, financial measures, and debt-and-liability profile; we view both as neutral in our credit-rating analysis.

Outlook

The stable outlook reflects S&P Global Ratings' opinion of Cambridge's economic profile and very strong management environment, which allows the city to manage financial performance to include the maintenance of high reserves that offset elevated pension and OPEB liabilities.

Downside scenario

We could lower the rating if reserves were to decrease significantly without a plan for restoration or if debt service and retirement costs were to pressure the city's finances.

Credit Opinion

Knowledge-based economy with institutional presence supports very strong wealth and income metrics

Cambridge is an integral part of the broad and diverse Boston metropolitan statistical area (MSA). Two subway lines, multiple highways, and a commuter rail connect the city directly to downtown Boston. Harvard University and Massachusetts Institute of Technology (MIT), its two leading employers and two of the leading taxpayers, serve as knowledge centers and origins of startups, research centers, and life-science and high-technology companies that promote economic activity. Microsoft, Google, Amazon, Apple, Facebook, Pfizer, and IBM are among companies with offices or labs in the city.

The tax base is about 52% residential and 46% commercial and industrial properties. The city's reliance on lab space and activity associated with large universities has provided stability to the real estate and job markets. While office vacancy rates have risen, the city has seen a wave of office-to-lab conversions and an increase in smaller firms subletting office space. Additional residential development has remained steady and management is focused on growing the housing supply. The city has completed a rezoning effort in the Alewife area to allow for mixed-use development and expects that the mixed-use development led by MIT at the current Department of Transportation Volpe complex will affect the tax base starting in fiscal 2027 following the relocation of federal facilities. We expect development will likely continue in each of the city's economic development districts, leading to steady tax base growth and helping to generate activity to support an overall very strong economy and high incomes.

Very strong financial management with an emphasis on forward-looking planning

The budget-development process supports Cambridge's goals, including investments in education, housing, transportation, environment, and other quality-of-life issues, while maintaining financial balance. Ongoing monitoring of spending ensures adherence to the adopted budget. Management makes quarterly budget-to-actual and investment-management reports to finance and investment committees, respectively, and uses historical trend analysis to develop departmental expenditure and revenue assumptions.

As part of the annual budget process, the city develops five-year financial and capital-investment plans, outlining immediate fiscal challenges and prioritizing capital needs. The city invests in the state-run Massachusetts Municipal Depository Trust and bank deposits. Its formal debt-management policy goes beyond debt limits prescribed by commonwealth statute and includes informal targets for debt service-to-budget limits and net-present-value-savings thresholds for refunding transactions. City policy calls for maintaining an unassigned fund balance of more than 15% of the ensuing fiscal year's operating revenue as well as a total general fund balance of at least 25% of the following fiscal year's operating revenue.

Strong property tax revenues support budget growth to advance key goals

Cambridge's revenue-and-expenditure profile is predictable, with local property taxes accounting for about 65% of fiscal 2023 operating revenue. Departmental revenue was about 12% and intergovernmental aid was 9%, and revenues that had been negatively affected by COVID-19 have recovered to pre-pandemic levels, with investment income and hotel and meals taxes exhibiting strength during the year.

Cambridge has continued to use reserves to support capital initiatives while controlling tax rate growth, including a budgeted use of reserves in fiscal 2023 of about $34.3 million after a mid-year adjustment from the original $19 million. In fiscal 2023, the transfer into the capital fund was about $47.9 million. The fiscal 2024 budget totals $883 million, a 10% increase over fiscal 2023, and includes the shift of affordable housing trust operations out of the capital budget to the operating budget. Most of the increase in the budget is attributed to an increase in compensation, benefits, and retirement liability costs, and management reports no significant variances to date.

We expect available fund balance will likely remain more than 30% of expenditures, including the budget-stabilization fund, which the city accounts for in committed general fund reserves. The overall reserve profile and $198 million in unused levy capacity, about 22% of fiscal 2024 budgeted operating expenditures, provide budgetary flexibility and stability.

The city is developing the fiscal 2025 budget, aiming to sustain all services and address demands from wages and new positions. The budget incorporates a $1 million increase for new positions, with additional anticipated increases for insurance and retirement costs. One of the city's major initiatives is expanded early childhood education and management has invested in administration and capital needs for the program. The city expects the 2025 budget to include $20 million in funding for the program, while the city created a $10 million stabilization fund in fiscal 2023 to lessen the impact in the upcoming year.

Stable debt profile with additional borrowing plans

Cambridge has about $709 million of total direct debt outstanding, about $115 million of which we consider self-supporting sewer debt. Approximately $23 million of the current issuance is sewer debt, which we expect to be self-supporting. Current debt outstanding is just below our 60% debt-to-revenue threshold and is likely to grow in excess of the threshold during the next two years. The city's capital plan calls for issuance of debt in the near team that will outpace the rate at which outstanding principal is paid. The city projects that debt issuance may exceed key ratios outlined in the debt management policy under conservative assumptions within the next five years and expects to manage this through an assessment of priorities for debt issuance. We do not believe there is likely to be a significant change in our view of the city's debt profile.

Manageable retirement costs despite a large unfunded liability and expected cost growth

Cambridge's large pension and OPEB obligation is a credit weakness, in our opinion. We believe some assumptions used to build the required pension contribution are permissive, which could lead to fluctuating costs. In addition, the adopted funding schedule relies on significant cost escalation to meet a rapid-amortization goal. Cambridge contributes $2 million annually above the OPEB pay-as-you-go cost, and its plan to address these costs relies on full pension plan funding. In the interim, we expect costs will likely continue to increase.

As of June 30, 2023, the city participated in:

- Cambridge Retirement System, which is 84.6% funded, with a $222 million proportionate share of the net pension liability; and
- Cambridge's single-employer, defined-benefit OPEB plan, which is 4.3% funded, with a $756 million net OPEB liability.

The pension system's discount is 7.1%, above the 6% discount rate we view as likely to mitigate contribution volatility. The system's funding schedule calls for full funding by 2026. We believe management plans for these costs as part of its long-term financial planning; the high funding ratio could mitigate potential cost volatility.

If the city meets its 2026 funding target, it expects to shift a portion of the annual pension payment above the normal cost to fund the OPEB liability. While the OPEB liability decreased during the past year, we expect costs will likely continue to increase; the liability will remain large.

Ratings above the sovereign

Cambridge's GO bonds are eligible to be rated above the sovereign because we believe the city can maintain better credit characteristics than the nation in a stress scenario. The city has a predominately locally derived revenue source, with 65% of governmental activity revenue from property taxes and with independent taxing authority and treasury management from the federal government. (For further information, see "Ratings Above The Sovereign: Corporate And Government Ratings—Methodology And Assumptions," published Nov. 19, 2013, on RatingsDirect.)

Cambridge, Massachusetts--Key credit metrics

	Most recent	Historical information		
		2023	2022	2021
Very strong economy				
Projected per capita EBI % of U.S.	183			
Market value per capita ($)	650,050			
Population			116,735	114,906
County unemployment rate (%)			3.1	
Market value ($000)	75,883,595	71,139,913	63,952,954	
Ten largest taxpayers % of taxable value	28.0			

Cambridge, Massachusetts--Key credit metrics (cont.)				
	Most recent	**Historical information**		
		2023	**2022**	**2021**
Strong budgetary performance				
Operating fund result % of expenditures		0.5	(3.0)	(2.6)
Total governmental fund result % of expenditures		4.5	(0.3)	0.3
Very strong budgetary flexibility				
Available reserves % of operating expenditures		33.6	35.7	39.0
Total available reserves ($000)		281,626	280,445	305,164
Very strong liquidity				
Total government cash % of governmental fund expenditures		42.7	51.4	50.3
Total government cash % of governmental fund debt service		440.2	549.4	526.5
Very strong management				
Financial Management Assessment	Strong			
Adequate debt & long-term liabilities				
Debt service % of governmental fund expenditures		9.7	9.3	9.5
Net direct debt % of governmental fund revenue	59.6			
Overall net debt % of market value	1.0			
Direct debt 10-year amortization (%)	78.8			
Required pension contribution % of governmental fund expenditures		5.1		
OPEB actual contribution % of governmental fund expenditures		2.9		
Strong institutional framework				
EBI--Effective buying income. OPEB--Other postemployment benefits.				

Data points and ratios may reflect analytical adjustments.

Related Research

Through The ESG Lens 3.0: The Intersection Of ESG Credit Factors And U.S. Public Finance Credit Factors, March 2, 2022

Ratings Detail (As Of February 15, 2024)		
Cambridge GO		
Long Term Rating	AAA/Stable	Affirmed