The Commonwealth of Massachusetts - Unemployment Insurance Trust Fund

Issuer: The Commonwealth of Massachusetts		
Assigned	**Rating**	**Outlook**
Special Obligation Revenue Bonds (Unemployment Insurance Trust Fund) 2022 Series A (Federally Taxable) (Social Bonds)	AAA	Stable
Special Obligation Revenue Bonds (Unemployment Insurance Trust Fund) 2022 Series B (Federally Taxable) (Social Bonds)	AAA	Stable

Methodology:

U.S. Special Tax Revenue Bond Rating Methodology

ESG Global Rating Methodology

Analytical Contacts:

Michael Taylor, Senior Director
+1 (646) 731-3357
michael.taylor@kbra.com

Peter Scherer, Director
+1 (646) 731-2325
peter.scherer@kbra.com

Rating Summary: The Special Obligation Revenue Bonds are limited obligations of the Commonwealth, secured by a pledge of special bond contributions assessed on certain covered employers in the Commonwealth. Pledged funds are generated from a mandatory charge (the "COVID-19 Recovery Assessment" or "Assessment") on experience-rated private, contributory employers in Massachusetts[1], which represent a broad and diverse assessment base. The Assessment is collected in the same manner, and subject to the same penalties, as other employment-related assessments.

The bond ratings reflect the solid security structure and revenue pledge backed by employer payroll assessments that are re-set annually. Particular consideration was given in the rating assignment to the exceptionally strong nature and breadth of the special tax revenues, the Commonwealth's strong and growing underlying economy, and the generally growing trend of the underlying taxable wage base – as demonstrated by a 2.7% ten-year compound annual growth rate (CAGR) through 2021 and only three years of decline since 2006.

Bond proceeds will be used to (i) repay outstanding Federal Advances ("Advances") received by the Commonwealth under the federal unemployment insurance program, (ii) fund a deposit to the Commonwealth's account within the federal Unemployment Insurance Trust Fund (the "UITF") to pay unemployment compensation benefits to qualifying persons in the Commonwealth and (iii) pay the costs of issuance of the 2022 Bonds.

As a result of rising joblessness attributable to the COVID-19 pandemic, the Commonwealth fully utilized its $1.7 billion Unemployment Insurance Trust Fund ("UITF") balance, and subsequently borrowed from the federal government to continue to make benefit payments, as the State's unemployment fund resources proved insufficient to cover benefits during the pandemic. The Commonwealth began drawing Federal Advances in June 2020 and, by April 2021, had borrowed $2.268 billion. In April 2021, Massachusetts Governor Baker signed Chapter 9 of the Acts of 2021 (as amended, the "UI Improvement Act") into law, which authorized the issuance of up to $7 billion in special obligation revenue bonds to provide for the timely repayment of outstanding Federal Advances and avoid the need for future Advances. After utilizing $500 million of ARPA funds in March 2022 to repay a portion of the loan, at present $1.768 billion remains outstanding. Notably, the Commonwealth is incentivized to repay its outstanding amounts by November 10, 2022, as employers in the Commonwealth subject to the Federal Unemployment Insurance Tax would otherwise experience sharply increased rates.

The Federal Unemployment Tax Act of 1939 (FUTA) establishes a tax of 6.0% levied upon eligible employers on the current maximum $7,000 wage base of each covered employee (i.e., the first $7,000 earned each year) in order to pay administrative costs of administering each state's unemployment program, pay half of extended unemployment benefits, and to provide Federal UI program Advances. The other half of extended unemployment benefits are paid from proceeds collected under the Commonwealth's State Unemployment Tax Act (SUTA), tax rates for which are determined through rate schedules taking into account the funded status of the Commonwealth's Unemployment Trust Fund and the experience rating (i.e., status as a net contributor or recipient) of participating employers. The SUTA tax is levied upon eligible employers on a current maximum $15,000 wage base of each covered employee (a larger base than that of FUTA).

The effective FUTA tax rate is normally offset by credits of 5.4% for a net rate of 0.6%, assuming the U.S. Department of Labor certifies that the state's UI Program meets federal requirements, and no Advances remain outstanding beyond two years. As noted above, were balances to remain outstanding on the Commonwealth's aforementioned federal advance beyond November 10, 2022, the Commonwealth would be designated a Credit Reduction State, triggering application of higher net FUTA rates for eligible employers. The currently offered bonds will allow the Commonwealth to avoid formula-driven FUTA rate spikes for participating employers, and instead refinance the federal advance and repay it over a longer timeline with more level annual assessments.

[1] Comprised by private employers with more than four employees and three or more years of participation in the Commonwealth's unemployment insurance program.

The COVID-19 Recovery Assessment is a separate levy, authorized by the Commonwealth legislature solely for the purpose of repaying the bonds, and charged to experience-rated private contributory Massachusetts employers at the same time and in the same manner as the state's other, longstanding unemployment assessments – including SUTA. The Assessment year begins on January 1, while the Bond Year begins on January 16th. Assessments are collected quarterly on approximately 184,144 employers within the Commonwealth and commenced collection in 2021. For 2021 and 2022, the COVID-19 Recovery Assessment was set at $150 million. However, for 2023 and until no bonds remain outstanding, the Trust Agreement provides that the Commonwealth shall assess employers a COVID-19 Recovery Assessment that generates Pledged Funds of not less than the Minimum Annual Assessment, which must be at least one hundred twenty-five percent (125%) of the annual Adjusted Bond Debt Service Requirement and Bond Administrative Expenses.

The Stable Outlook reflects KBRA's expectation that assessment mechanics will provide for timely collection of pledged funds backing principal and interest repayment, and that the Commonwealth's strong and diverse employment base will continue to benefit from a phased reopening. We believe that pledged revenues are resilient and unlikely to decline significantly enough to impair coverage of debt service, even in very adverse economic conditions given the ability to re-set rates annually.

Key Credit Considerations

The rating was assigned because of the following key credit considerations:

Credit Positives

- Broad pledge derived from a sizable and diverse wage base, with an unlimited rate re-set annually while bonds are outstanding to provide at least 1.25x debt service in the following year, plus administrative charges.
- Strong legal framework and collection processes supporting solid collection rates.
- A structure that allows for the early retirement of debt, thus reducing the overall burden and potentially shortening the maturity of the obligations.

Credit Challenges

- The pledged revenue base is subject to economic volatility, with collections directly tied to Commonwealth-wide employment levels, as evidenced by instances of YoY revenue declines realized in three of the past 15 years.
- The on-time collection rate for unemployment taxes is also somewhat cyclically sensitive within the year contributing to uncertainty in determination of the COVID-19 Recovery Assessment rate each year needed to generate covenanted debt service coverage.

Rating Sensitivities

▪ Not applicable for the current rating level.	+
▪ A reduction in debt service coverage to levels no longer commensurate with the current rating. ▪ A material spike in Commonwealth unemployment levels and associated benefit filings.	-

Key Ratios	
COVID-19 Recovery Assessment	
Applicable To:	Experience-rated, private employers currently accounting for 71.4% of all employees in the state and 77.1% of total wages.
Tax Base, 2021	$45.6 billion
10-Yr CAGR	2.7%
Largest Annual Decline Since 1996 (2009)	6.2%
Federal Advances	
Outstanding	
Dec 31, 2019	-
Dec 31, 2020	$2.20 billion
Dec 31, 2021	$2.27 billion
May 31, 2022	$1.77 billion

Rating Determinants (RD)	
1. Legal Framework	AA-
2. Nature of Special Tax Revenues	AAA
3. Economic Base and Demographics	AAA
4. Revenue Analysis	AAA
5. Coverage and Bond Structure	AA-

RD 1: Legal Framework

In April 2021, Massachusetts Governor Baker signed Chapter 9 of the Acts of 2021 (the "UI Improvement Act") into law, which Authorized the issuance of up to $7 billion in special obligation revenue bonds to provide for the timely repayment of outstanding Federal Advances and avoid the need for future Federal Advances.

Defined Pledge

The 2022 Bonds are special limited obligations of the Commonwealth and are payable solely from the sources specified in the Trust Agreement. Pledged Funds include COVID-19 Recovery Assessments, meaning those fees, rates and charges assessed against certain employers within the Commonwealth pursuant to Section 20(b)(2) of the UI Improvement Act.

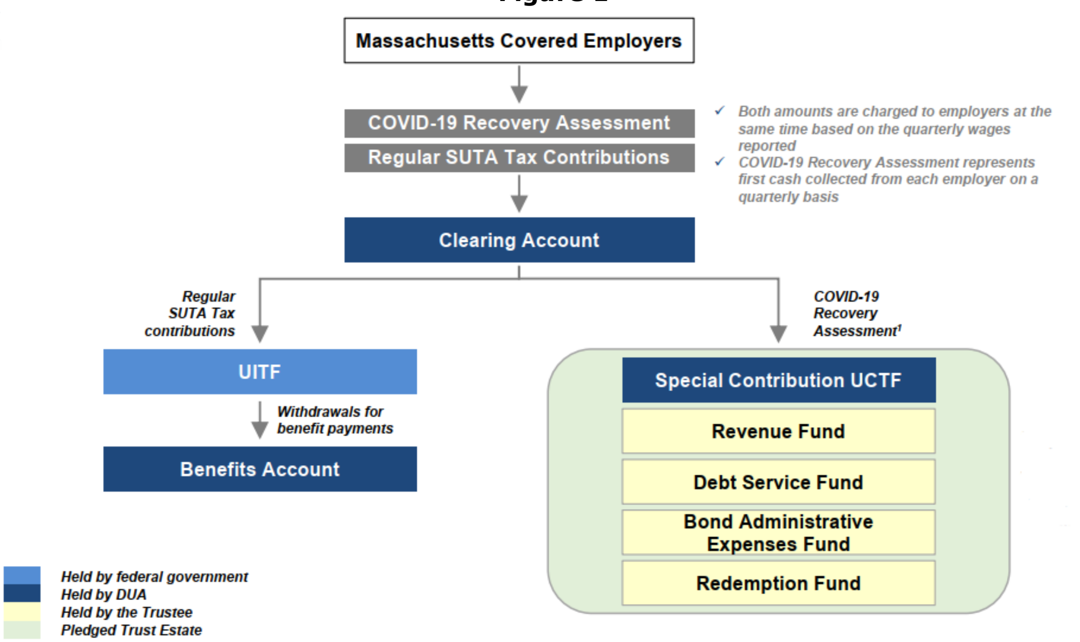
The special obligation revenue bonds will be repaid by Pledged Funds generated from a mandatory charge (the "COVID-19 Recovery Assessment") on experience-rated private, contributory employers in Massachusetts, which represents a broad and diverse assessment base.

Timing of Deposits

The Financing Agreement (which is one of the 2022 Bond documents) provides that the Commonwealth's Treasurer shall deliver to the Commonwealth's Department of Unemployment Assistance ("DUA"), the Commonwealth's Secretary of Administration and Finance, and the Commonwealth's Secretary of Labor ("Secretary of Labor") no later than five business days after each December 1, commencing December 8, 2022, a written notice specifying (i) the final amount that the Treasurer estimates will be required to pay the Adjusted Bond Debt Service Requirements and Bond Administrative Expenses due during the next Bond Year, and (ii) the Minimum Annual Assessment for the following Assessment Year (at least 1.25x of the annual adjusted debt service requirement). So long as any Bonds are outstanding, on or before March 1st, commencing March 1, 2023, DUA shall assess employers a COVID-19 Recovery Assessment for such Assessment Year in accordance with the Act, which is, in the aggregate, no less than the Minimum Annual Assessment.

Flow of Funds

Figure 1



Note: Excludes amounts paid by employers for the FUTA Tax, as well as the Emergency Medical Assistance Contribution and the Workforce Training Fund Program, which are further discussed on page 12 and do not flow to the UITF or Special Contribution UCTF; the COVID-19 Recovery Assessment is charged to experience-rated private, contributory employers only, whereas all private, contributory employers pay the SUTA Tax
[1] With the exception of certain amounts collected in 2021 and 2022, which flowed to the UITF (prior to the Special Contribution UCTF and Trust Agreement being in place)

Source: Commonwealth of Massachusetts

Debt Service Reserve Fund

While the Trust Agreement outlines the mechanics of a Debt Service Reserve Fund ("DSRF"), such fund was not established under an applicable Supplemental Trust Agreement. However, in lieu of a DSRF, the Commonwealth has established and will maintain two revenue funds:

- *Intra-year Retained Revenues.* On each June Calculation Date, the Commonwealth shall retain 10% of the Bond Debt Service Requirement for the next January 15 Debt Service Payment Date in the Revenue Fund in lieu of transferring such amounts to the Redemption Fund as Excess Pledged Funds. If on the June Calculation Date the Commonwealth does not expect that Projected COVID-19 Recovery Assessments will exceed the Required Coverage Amount, Additional Intra-year Retained Revenues shall also be retained in the Revenue Fund in lieu of being transferred to the Redemption Fund as Excess Pledged Funds.

- *December Retained Revenues.* On the December Calculation Date in 2022, the Commonwealth anticipates deeming all remaining amounts in the Revenue Fund as December Retained Revenues (and thus retaining such amounts in the Revenue Fund instead of releasing them as Excess Pledged Funds). The projected debt service schedule does not assume amounts are deemed as December Retained Revenues in subsequent years, although the Treasurer retains the discretion to deem any amounts as December Retained Revenues under the Trust Agreement.

Additional Bonds Test

The 2022 Bonds will be the first issue of bonds under the UI Improvement Act, which currently authorizes the issuance of up to $7 billion of bonds subject to certain conditions. Additional bonds ("Additional Bonds") may be issued on a parity basis with the 2022 Bonds under the conditions and in the manner provided in the Trust Agreement.

Bankruptcy and Legal Assessment

KBRA has consulted outside counsel, and the following represents KBRA's understanding of the statutory and other legal matters that affect the 2022 Bonds.

Bankruptcy

The United States Bankruptcy Code is not applicable to states. Because the Commonwealth is a state, it is thus not eligible for relief under the U.S. Bankruptcy Code. Accordingly, the obligations to pay the 2022 Bonds cannot be affected by a Commonwealth bankruptcy proceeding.

Background

The U.S. Social Security Act ("SSA") permits the Federal government to provide loans ("Federal Advances") to states whose unemployment trust funds become insolvent. If a state's unemployment trust fund projects a shortfall, the Governor of such state may request authorization for an advance from the Federal government to ensure no gap in the timely payment of unemployment claims. KBRA understands that Federal Advances have been used by a number of States during periods of economic recession and, in particular, following the onset of the COVID-19 pandemic.

KBRA is informed that, as a result of the rapid increase in the unemployment rate and in unemployment claims, and after depleting its existing Unemployment Insurance Trust Fund (the "UITF") balance during the COVID-19 Pandemic, the Commonwealth applied for Federal Advances, in order to assure payment of all benefits due. The Commonwealth initially borrowed Federal Advances in 2020 and continued to borrow through April 2021, ultimately borrowing a total of $2.268 billion in Federal Advances. On March 25, 2022, $500 million American Rescue Plan Act of 2021 ("ARPA") funds were applied to repay a portion of Federal Advances, and $1.768 billion of Federal Advances remain outstanding as of May 31, 2022, which will be repaid with a portion of proceeds of the 2022 Bonds.

Pledged Funds

KBRA understands that the Massachusetts UI Improvement Act (the "Act") requires employers to pay "unemployment obligation assessments" to the Commonwealth in any year that the 2022 Bonds are outstanding or other amounts due under the Trust Agreement remain unpaid (the "COVID-19 Recovery Assessments").

The Financing Agreement (which is one of the 2022 Bond documents) provides that the Commonwealth's Treasurer shall deliver to the Commonwealth's Department of Unemployment Assistance ("DUA"), the Commonwealth's Secretary of Administration and Finance, and the Commonwealth's Secretary of Labor ("Secretary of Labor") no later than five business days after each December 1, commencing December 8, 2022, a written notice specifying (i) the final amount that the Treasurer estimates will be required to pay the Adjusted Bond Debt Service Requirements and Bond Administrative Expenses due during the next Bond Year, and (ii) the Minimum Annual Assessment for the following Assessment Year. So long as any Bonds are outstanding, on or before March 1stst of each Assessment Year, commencing March 1, 2023, DUA shall assess employers a COVID-19 Recovery Assessment for such Assessment Year in accordance with the Act, which is, in the aggregate, no less than the Minimum Annual Assessment.

The primary sources of the "Pledged Funds" under the Trust Agreement for the 2022 Bonds are the COVID-19 Recovery Assessments. "Minimum Annual Assessment" means, with respect to any Assessment Year, an aggregate COVID-19 Recovery Assessment that is expected to generate Pledged Funds at least equal to one hundred twenty-five percent (125%) of the sum of (i) the annual adjusted bond debt service requirement and (ii) the bond administrative expenses, in each case, for the succeeding bond year, as determined by the Treasurer and set forth in notification provided pursuant to the Financing Agreement.

Employers must pay the COVID-19 Recovery Assessments to the Commonwealth no less than quarterly and in the same manner as such employers must pay their unemployment contributions to the Commonwealth. KBRA understands that there is no limit on the rate that DUA may charge applicable employers in order to collect the Minimum Annual Assessment.

Non-Diversion and Non-Impairment Covenants
The 2022 Bonds are special limited obligations of the Commonwealth and are payable solely from the sources specified in the Trust Agreement. The 2022 Bonds are not general obligations of the Commonwealth, are not secured by the full faith and credit of the Commonwealth and are not payable out of any funds of the Commonwealth other than the Pledged Funds, and moneys otherwise available for the benefit of the owners of the 2022 Bonds pursuant to the Trust Agreement.

The Secretary of Labor has agreed in the Trust Agreement to hold and disburse COVID-19 Recovery Assessments in the Special Contribution Unemployment Compensation Trust Fund ("Special Contribution UCTF") in compliance with the Trust Agreement and the Financing Agreement. Further, the Secretary of Labor has agreed to disburse on a daily basis to the Trustee, for deposit in the Revenue Fund established under the Trust Agreement, all amounts in the Special Contribution UCTF constituting Pledged Funds. Payments of debt service on the 2022 Bonds are to be made from Pledged Funds held by the Trustee in the Revenue Fund. Further, payment of Debt Service on the Bonds from amounts on deposit in the Special Contribution UCTF are not subject to appropriation by the Massachusetts Legislature.

KBRA understands that there are particular Commonwealth covenants that benefit bondholders:

1. The Commonwealth has covenanted in the Trust Agreement that, so long as any Bonds are outstanding, or other amounts due under the Trust Agreement remain unpaid or payment is not provided for, the COVID-19 Recovery Assessments shall not be diverted from the Special Contribution UCTF, except to be transferred to the Revenue Fund as provided in the Trust Agreement.

2. Any future amendments of the UI Improvement Act and any other such statutes are subject to the covenant of the Commonwealth that it will not limit or alter the rights vested in the Commonwealth to collect the Pledged Funds and to deposit such amounts as provided in the Trust Agreement and will not impair the rights and remedies of the Trustee and Bondholders under the Trust Agreement or under the Act with respect to the Pledged Funds. Under the Trust Agreement, the Commonwealth has further covenanted that it will assess employers at least the Minimum Annual Assessment.

Waiver of State Sovereign Immunity, and Lien
Although (KBRA is informed) the property of the Commonwealth is generally not subject to attachment or levy to pay a judgment, and the satisfaction of any judgment generally requires legislative appropriation, in accordance with the Act the Commonwealth has granted a lien on Pledged Funds for the benefit of the owners of the 2022 Bonds. The Act provides that the lien of the Trust Agreement on the Pledged Funds will be perfected by filing the Trust Agreement in the records of the Treasurer, which is to occur on the issuance of the 2022 Bonds.

Unless consent is given, to KBRA's understanding a State as sovereign is immune from suit. Here, KBRA is informed, the Commonwealth has waived its sovereign immunity and consented to be sued on contractual obligations, including the 2022 Bonds and all claims with respect to them, and thus the Trustee should be able to bring a mandamus or other appropriate enforcement action, including to enforce the lien, if the Commonwealth fails to abide by its obligations with respect to the 2022 Bonds.

RD 2: Nature of Special Tax Revenues
Massachusetts's taxable base is sizable and diverse, with the special assessments being levied on approximately 184,144 eligible employers. Commonwealth population totaled 6.98 million in 2021, according to the US Census Bureau, making it the 16th most populous state.

Breadth of Tax Base
The COVID-19 Recovery Assessment is an unemployment tax generated from a contribution rate levied against a taxable wage base derived from experience-rated private, contributory employers in Massachusetts, which represents a broad and diverse assessment base. As of May 24, 2022, approximately 73.3% (or, nominally, 184,144 employers) of all Commonwealth employers are considered experience-rated private, contributory employers and are subject to the COVID-19 Recovery Assessment. Since 2006, taxable wages have increased at a compound annual growth rate ("CAGR") of 1.6%, and in 2021 the Commonwealth taxable wage base measured $45.6 billion. Total wages in Massachusetts were $234.5 billion as of 2021 (the most recent year available).

Geographic Area of Tax Base

The geographic area of the taxing base is coterminous with that of the Commonwealth, the 16th most populous US state. Massachusetts' economy is broad and diverse, and its employment base lacks any material concentration in any one given sector or employer.

RD 3: Economic Base and Demographics

The Commonwealth's economic base is broad, wealthy, demonstrably resilient, and diverse.

Population Trend

The Commonwealth's population increased 6.3% between 2010 and 2021, a pace of growth faster than that of New England (+4.3%) but slower than the U.S. overall (+7.3%).

Figure 2

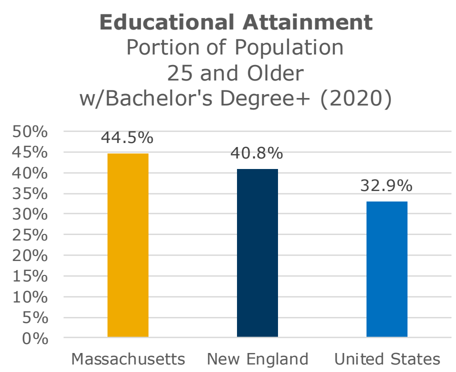
Population							
	1980	1990	2000	2010	2021	Growth 2010 to 2021	CAGR 2010 to 2021
Massachusetts	5,746,075	6,022,639	6,361,104	6,569,537	6,984,723	6.3%	0.56%
New England	12,371,656	13,229,502	13,949,721	14,476,185	15,092,739	4.3%	0.38%
United States	227,224,719	249,622,814	282,162,411	309,378,433	331,893,745	7.3%	0.64%

Source: U.S. Census

Income Per Capita, Poverty, and Educational Attainment

The Commonwealth is characterized by strong education attainment, low poverty, and elevated income per capita incomes measuring 149% of the U.S. average.

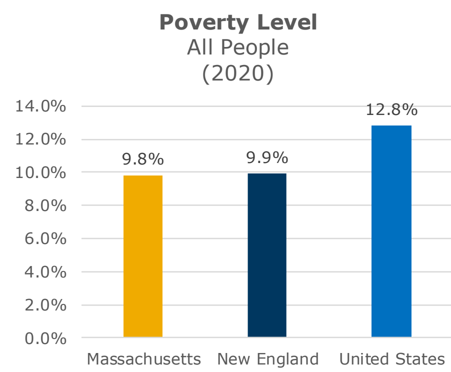
Figure 3



	2010	2020	Δ 2010 to 2020
Massachusetts	38.3%	44.5%	+6.2%
New England	35.1%	40.8%	+5.7%
United States	27.9%	32.9%	+5.0%

Source: U.S. Census

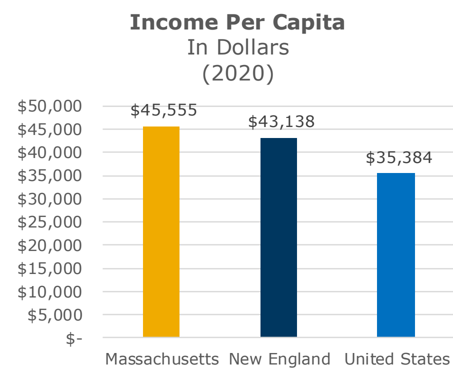
Figure 4



	2010	2020	Δ 2010 to 2020
Massachusetts	10.5%	9.8%	-0.7
New England	11.2%	9.9%	-1.3
United States	13.8%	12.8%	-1.0

Source: U.S. Census

Figure 5



	2010	2020	Δ 2010 to 2020
Massachusetts	$33,966	$45,555	34.1%
New England	$32,964	$43,138	30.9%
United States	$27,334	$35,384	29.5%

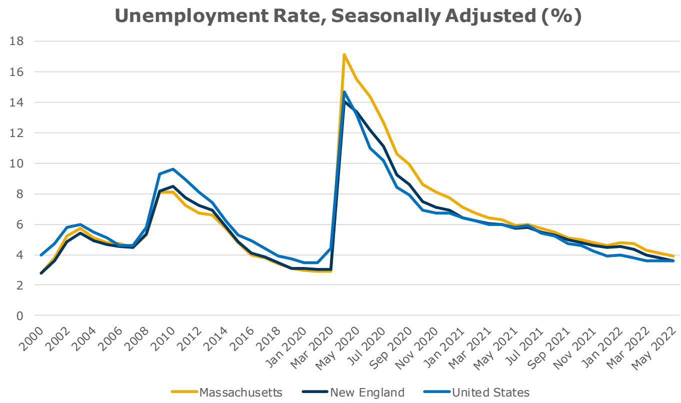
Source: U.S. Census

Employment

Commonwealth employment levels have not yet recovered to the 2019 pre-pandemic level. According to U.S. Bureau of Labor Statistics, the total number of jobs remains 2.3% below the 2019 average level as of May 2022. Employment however has grown faster than that of New England and the U.S. through the last economic cycle. As of May 2022, total employment in Massachusetts is 16.5% higher than the annualized trough recorded during the Global Financial Crisis versus New England and U.S. growth of 11.8% and 13.3%, respectively, over the same period.

The Commonwealth's unemployment rate continues to trend downward from the early months of the pandemic but remains slightly higher than the region and nation. The seasonally adjusted unemployment rate was 3.9% in May 2022, higher than both the New England region and U.S. at 3.6%.

Figure 6



	Massachusett	New England	Untied States
May 2022	3.9	3.6	3.6
April 2022	4.1	3.8	3.6
Great Recession Annualized Peak	8.1	8.5	9.6
Point Δ Since Great Recession Annualized Peak	4.2	4.9	6.0

Source: U.S. Bureau of Labor Statistics

Figure 7

Total Employment (Seasonally Adjusted) (in shouands)	Massachusetts	Δ(%)	New England	Δ(%)	United States	Δ(%)
2000	3,246		7,138		136,891	
2001	3,258	0.4%	7,120	-0.3%	136,933	0.0%
2002	3,258	0.0%	7,125	0.1%	136,485	-0.3%
2003	3,223	-1.1%	7,100	-0.4%	137,736	0.9%
2004	3,227	0.1%	7,118	0.2%	139,252	1.1%
2005	3,223	-0.1%	7,164	0.6%	141,730	1.8%
2006	3,251	0.9%	7,260	1.3%	144,427	1.9%
2007	3,278	0.8%	7,311	0.7%	146,047	1.1%
2008	3,282	0.1%	7,297	-0.2%	145,362	-0.5%
2009	3,190	-2.8%	7,097	-2.7%	139,877	-3.8%
2010	3,199	0.3%	7,102	0.1%	139,064	-0.6%
2011	3,232	1.1%	7,154	0.7%	139,869	0.6%
2012	3,271	1.2%	7,192	0.5%	142,469	1.9%
2013	3,283	0.4%	7,204	0.2%	143,929	1.0%
2014	3,365	2.5%	7,348	2.0%	146,305	1.7%
2015	3,417	1.6%	7,437	1.2%	148,834	1.7%
2016	3,472	1.6%	7,532	1.3%	151,436	1.7%
2017	3,582	3.2%	7,726	2.6%	153,337	1.3%
2018	3,678	2.7%	7,858	1.7%	155,761	1.6%
2019	3,715	1.0%	7,934	1.0%	157,538	1.1%
2020	3,389	-8.8%	7,324	-7.7%	147,806	-6.2%
2021	3,534	4.3%	7,507	2.5%	152,579	3.2%
May 2022	3,630	2.7%	7,729	3.0%	158,426	3.8%
Δ Great Recession Trough to 2019	16.5%		11.8%		13.3%	
Δ 2019 Avg to May 2022	-2.3%		-2.6%		0.6%	

Source: U.S. Bureau of Labor Statistics

RD 4: Revenue Analysis

The COVID-19 Recovery Assessment was first collected in 2021 but is billed and collected in the same manner as the Commonwealth's longstanding SUTA. For this reason, the revenue analysis is based on the historic performance of the SUTA tax and the taxable wage base, which is subject to both SUTA and the Assessment.

SUTA and Assessment collections are a function of the tax rates applied and the taxable wage base.

SUTA and COVID-19 Recovery Assessment Tax Rates

Per Massachusetts law the SUTA tax rate is generally determined based on the reserve percentage of the Commonwealth's UITF and each employer's experience rating. The reserve percentage is calculated as the September 30 UITF balance, divided by the 3-year average total payroll. The applicable SUTA contribution schedule (A through G) is determined based on this ratio. Rates applicable to individual employers are then determined based on the applicable schedule and the employer's experience rating which is based on historical UI contributions and draws (its net impact on the UITF).

Figure 8

SUTA Contribution Rate Schedule

Schedule	Applicable When UITF Reserve Percentage is Between		Tax Rate Applied as % of Taxable Wages Is Set Between[1]	
	Minimum	Maximum	Minimum	Maximum
A	1.65%	-	0.56%	8.62%
B	1.50%	1.65%	0.64%	9.79%
C	1.20%	1.50%	0.73%	11.13%
D	0.90%	1.20%	0.83%	12.65%
E	0.60%	0.90%	0.94%	14.37%
F	0.30%	0.60%	1.07%	16.33%
G	-	0.29%	1.21%	18.55%

Source: POS

[1]Rate applicable within range is determined by Employer Account Reserve Percentage. Employers with highest reserve percentages pay the minimum. Employers with the lowest reserve percentages pay the maximum.

The Commonwealth has from time to time established the rate schedule legislatively instead of based on reserve percentages. The UI Improvement Act for example froze tax rates at Schedule E for 2021 and 2022 to forestall steep rate increases for employers. Bond proceeds will be used to repay UI program Federal Advances which if left unpaid would have triggered sharp increases in previously discussed FUTA tax rate for applicable employers. Per the repayment of the Federal Advances this year from bond proceeds, FUTA rates will not increase sharply, and the bonds will repaid from COVID-19 Recovery Assessments which will be applied through final maturity of the 2022 Bonds. Per the UI Improvement Act, the COVID-19 Recovery Assessment was set at a level to generated $150 million in proceeds in 2021 and 2022, but commencing in 2023 must be set at a level that will generate not less than 1.25x annual bond debt service requirements.

Taxable Wages

SUTA and COVID-19 Recovery Assessments are applicable to the first $15,000 of taxable wages earned from covered employers. Total wages in 2021 totaled $234.5 billion of which $45.6 billion or 19.4% was subject to SUTA taxes (the first $15,000 of employee earnings). Taxable wages increased at a 2.7% CAGR over the last decade and grew in all but three years since 2006. The largest single year decline over the period was a 6.2% dip in 2009 coinciding with the global financial crisis. The decline in 2020 coinciding with the first year of the pandemic was comparatively small at 2.5%.

Figure 9

Annual Taxable Wages and Total Wages

Year	Taxable Wage Base	Total Wages (in billions)	Taxable Wages (in billions)	*Δ in Taxable Wages YoY*
2006	$ 14,000	$ 128.5	$ 35.5	
2007	14,000	136.9	35.8	*0.8%*
2008	14,000	139.6	35.6	*-0.6%*
2009	14,000	130.7	33.4	*-6.2%*
2010	14,000	135.0	33.9	*1.5%*
2011	14,000	142.5	34.9	*2.9%*
2012	14,000	148.1	35.6	*2.0%*
2013	14,000	152.5	36.5	*2.5%*
2014	14,000	161.8	37.6	*3.0%*
2015	15,000	172.5	41.2	*9.6%*
2016	15,000	177.9	42.3	*2.7%*
2017	15,000	187.9	43.5	*2.8%*
2018	15,000	198.4	44.6	*2.5%*
2019	15,000	209.6	45.7	*2.5%*
2020	15,000	212.2	44.5	*-2.6%*
2021	15,000	234.5	45.6	*2.5%*

Source: POS

Trend in Revenues

Historic SUTA rates and revenues are variable reflecting the application of different rate schedules to assess costs of the UI program through different stages of the economic cycle.

Figure 10

UITF Average Tax Rates, Receipts, Withdrawals and Balance Information
(dollars in millions)

								Federal Advances			
Year	Contribution Rate Schedule	Average Tax Rate as % of Taxable Wages	Average Tax Rate as % of Total Wages	**Total Receipts[1]**	Total Withdrawals[2]	Net Annual Flows	UITF Balance	Amounts Borrowed	Repayment of Amounts Borrowed	Outstanding Balance	Net UITF Balance
2006	D	4.47%	1.23%	$ 1,780	$ (1,342)	$ 438	$ 994	$ -	$ -	$ -	$ 994
2007	D	4.17%	1.09%	1,740	(1,445)	296	1,290	-	-	-	1,290
2008	D	3.96%	1.01%	1,682	(1,731)	(49)	1,242	-	-	-	1,242
2009	E	4.24%	1.08%	1,887	(2,895)	(1,008)	234	-	-	-	234
2010	E	4.57%	1.15%	1,834	(2,050)	(216)	18	387	(387)	-	18
2011	E	4.57%	1.15%	1,957	(1,782)	176	194	719	(719)	-	194
2012	E	4.23%	1.18%	1,976	(1,790)	187	381	338	(338)	-	381
2013	E	4.96%	1.19%	1,933	(1,606)	327	707	11	(11)	-	707
2014	E	4.50%	1.10%	1,896	(1,654)	242	949	-	-	-	949
2015	C	3.14%	0.74%	1,493	(1,516)	(24)	926	-	-	-	926
2016	C	3.23%	0.78%	1,524	(1,475)	49	975	-	-	-	975
2017	C	3.18%	0.76%	1,537	(1,513)	24	999	-	-	-	999
2018	D	3.52%	0.81%	1,752	(1,538)	214	1,213	-	-	-	1,213
2019	E	3.88%	0.85%	1,908	(1,395)	512	1,725	-	-	-	1,725
2020	E	3.59%	0.77%	2,400	(4,092)	(1,692)	34	2,201	-	2,201	(2,168)
2021	E	3.41%	0.69%	3,494	(674)	2,820	2,854	67	-	2,268	585
2022[3]	E			1,222	(1,187)	34	2,888	-	(500)	1,768	1,120

Source: POS

[1]Primarily derived from SUTA Taxes, but also includes earnings on the balance in the UITF and other deposits into it. Receipts for 2021 and 2022 include the portion of the COVID-19 Recovery Assessment received in such years and deposited in the UITF.

[2]Primarily derived from withdrawals for benefit payments, but also includes other outflows from the UITF.

[3]As of May 31, 2022.

The Bonds are structured such that aggregate COVID-19 Recovery Assessments and SUTA collections are relatively flat through final maturity of the 2022 Bonds.

Collection Rates

On time collections of quarterly SUTA fees averaged 94.8% between 2006 and 2021. The lowest on time collection rate was 83.8% in 2009 Q2 reflecting a degree of cyclicality in on time collections. Collections to date however are considerably stronger averaging 99.4% over the period.

Timing of Receipts

Because the COVID-19 Recovery Assessment is charged against the first $15,000 of earnings in the calendar year, receipts are front-loaded.

Figure 11

Timing of Employer Contributions

Employer Contribution Payment	Accrual Dates	Due Date	Quarter in Which Due Date Falls on Cash Collection Basis	Average Contributions by Quarter (2015-2019)[1]
Q1	Jan 1 - Mar 31	Apr 30	Q2	52.1%
Q2	Apr 1 - Jun 30	Jul 31	Q3	21.5%
Q3	Jul 1 - Sep 30	Oct 31	Q4	15.4%
Q4	Oct 1 - Dec 31	Jan 31	Q1	11.0%

Source: POS

The Commonwealth has covenanted in the Trust Agreement to set the COVID-19 Recovery Assessment each year at a level that will generate at least 1.25x annual debt service coverage (the Minimum Annual Assessment) which provides protection against cashflow timing related shortfalls. The Trust Agreement further establishes requirements for certain Intra-Year Retained Revenues to provide incremental coverage of debt service payments during the second half of the year, addressing the fact that more contributions are received earlier in the calendar year. It requires that 10% of Bond Debt Service Requirements for the next January 15th payment be retained in the Revenue Fund after the June calculation date rather than be transferred to the Redemption Fund as Excess Pledged Funds. It further requires that additional revenues be retained if coverage targets are not expected to be met on the June calculation date.

Concentration in Taxable Base

The COVID-19 Recovery Assessment is charged to all private contributory employers in the Commonwealth with three or more years of participation in the UI program. As of 2022 Q1 such employers number 184,144 and account for 71.4% of employees in the Commonwealth and 77.1% of total wages.

RD 5: Coverage and Bond Structure

The Bonds are structured as non-callable amortizing Series A Bonds with both semi-annual interest and semi-annual principal payments maturing through 2030 and a callable Series B "Super Sinker" with 2033 legal maturity (preliminary, subject to change) which is expected to be paid down from excess COVID-19 Recovery Assessment proceeds.

Coverage

KBRA evaluated cashflow projections provided by the Commonwealth demonstrating its intention to set the SUTA and COVID-19 Recovery Assessment to in aggregate generate approximately level proceeds through the final maturity of the Bonds. The projections demonstrate based on a number of conservative assumptions its ability to generate annual coverage from current COVID-19 Recovery Assessment revenues at or above the covenanted 1.25x coverage level and semi-annual coverage inclusive of Intra-Year Retained Revenues at or above 1.35x over the life of the bonds.

Stress Case

There is no limitation upon the COVID-19 Recovery Assessment tax rate that the Commonwealth can levy in order to meet its 1.25x annual debt service coverage rate covenant. On time collection of unemployment taxes however has historically demonstrated some sensitivity to economic cycles. As previously discussed, the lowest current collection rate since 2006 occurred during the Global Financial Crisis when current collections declined to 83.8% in 2009 Q2. The average current collection rate for that year was stronger at 88.3%. For the purpose of evaluating a stress scenario, however, KBRA considered a scenario where this weak current collection rate was assumed to persist for a full year, resulting in 16.2% going uncollected. We then compared this hypothetical uncollected level to the decline to breakeven that could occur before sum-sufficient debt service coverage was not met. Assuming the Assessment at the beginning of the year was set at the minimum level to provide 1.25x coverage, collections could fall by 20% for a full year before reaching breakeven coverage.

As previously discussed, additional protection against deficiencies is provided by requirements in the Trust Indenture for certain Intra-Year Retained Revenues to provide incremental coverage of debt service payments during the second half of the year, addressing the fact that more contributions are received earlier in the calendar year. It requires that 10% of Bond Debt Service Requirements for the next January 15th payment be retained in the Revenue Fund after the June calculation date rather than be transferred to the Redemption Fund as Excess Pledged Funds. It further requires that additional revenues be retained if coverage targets are not expected to be met on the June calculation date.

ESG Management

KBRA typically analyzes Environmental, Social, and Governance (ESG) factors through the lens of how issuers plan for and manage relevant ESG risks and opportunities. More information on KBRA's approach to ESG risk management in public finance ratings can be found here. Over the medium-term, public finance issuers will likely need to prioritize ESG risk management and disclosure with the likelihood of expansions in ESG-related regulation and rising investor focus on ESG issues.

Environmental Factors

Clean Energy and Climate Plan for 2025 and 2030 (CECP): On March 26, 2021, Governor Baker signed into law An Act Creating a Next-Generation Roadmap for Massachusetts Climate Policy, which requires the Secretary of the Executive Office of Environmental Affairs to set interim emissions limit and sector-specific sub-limits every 5 years. The 2030 emissions limit shall be at least 50% below the 1990 baseline, the 2040 emissions limit shall be at least 75% below the 1990 level, and a 2050 emissions limit that achieves at least net zero statewide greenhouse gas emissions, provided that in no event shall the level of emissions in 2050 be higher than a level 85% below the 1990 level. It also specifies July 1, 2022, as the deadline for the adoption of the 2025 and 2030 emissions limits and sublimits, as well as the release of a comprehensive plan to achieve those limits. In compliance with the new law, EEA will develop and finalize the 2025/2030 CECP by the deadline. At the same time, the Administration is continuing implementation of the strategies, policies, and actions outlined in the Interim 2030 CECP.

Social Factors

Social Bonds Designation: The Commonwealth has designated the 2022 Bonds as "Social Bonds." The Commonwealth is issuing the 2022 Bonds as "Social Bonds" based on the intended use of the proceeds to fund a deposit to the Massachusetts UI Program, an economic stabilization program designed to provide a safety net for individuals that lose their jobs due to no fault of their own.

Public Engagement for Clean Energy and Climate Plan (CECP): Executive Office of Environmental Affairs (EEA) worked with stakeholders across the Commonwealth to ensure development of the Clean Energy and Climate Plan for 2025 and 2030 is an inclusive policy planning effort. Engagement included a public comment period on the Interim 2030 CECP from January 7 through March 22 of 2021. It followed up with public meetings on the approach to completing the CECP in October 2021 and public meetings on proposed interim emission reduction targets and carbon sequestration goals in April 2022. EEA has additionally been convening with the Global Warming Solutions Act Implementation Advisory Committee since 2012 on greenhouse gas reduction measures.

Governance Factors

Cybersecurity: Governor Baker in August 2017 established the Executive Office of Technology Services and Security (EOTSS), which is working to standardize the Commonwealth's IT infrastructure by adopting and implementing a standard operating environment which is being employed to an increasing portion of the State workforce over time. EOTSS provides annual cybersecurity awareness training for Commonwealth employees and maintains an integrated security technology framework that includes multi-factor authentication for applications and users, enhanced cloud and mail security tools, and network monitoring, among other tools. It also provides a range of enterprise-wide services including operation of a Security Incident Response Team (SIRT) which is coordinated through EOTSS' Security Operations Center. IT investments are guided by EOTSS' IT Investment Advisory Board comprising security, IT and business operation executives from across state government. The FY 2022 capital budget includes $162 million for EOTSS, evidencing the State's commitment to cybersecurity initiatives.