

## CREDIT OPINION

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# Massachusetts (Commonwealth of)

## Update to credit analysis for CTF and GANs

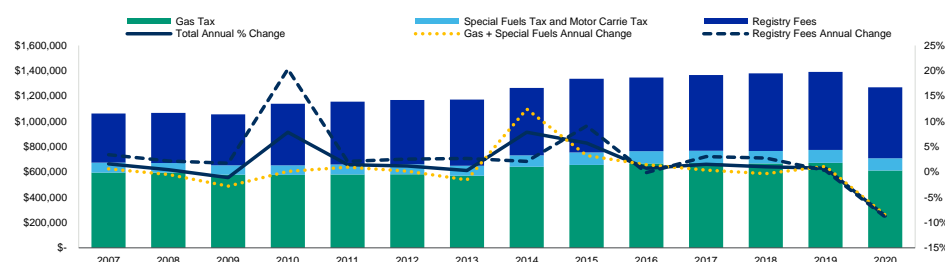
### Summary

The credit profiles of Massachusetts' Commonwealth Transportation Fund (CTF) bonds (Aa1 stable) and Grant Anticipation Notes (GANs; Aa2 stable) are supported by a historically stable, and diverse revenue pledge and strong legal protections that limit future issuances and restrictions on the use of pledged revenue. Pledged revenue for the CTF bonds includes gas taxes and a wide array of motor vehicle related fees. The GANs have a subordinate lien on these revenues, in addition to a first lien on federal highway aid reimbursements from the US government.

The negative impact on the economy resulting from the coronavirus pandemic has weighed on pledged revenues, though coverage remains strong and recovery is expected moving into fiscal 2022 as travel and commuting increases with vaccine rollout.

Exhibit 1

### Typically stable pledged revenues declined in 2020 amid the coronavirus pandemic



Source: Commonwealth of Massachusetts

### Credit strengths

- » CTF: A strong additional bonds test that requires four times coverage of maximum annual debt service and the commonwealth's covenant not to alter the pledged revenue if it would result in maximum annual debt service coverage of less than four times
- » CTF: Constitutional dedication of the pledged revenue solely for transportation purposes and statutory and indenture provisions that prohibit the commonwealth from using them until debt service on CTF bonds is paid
- » CTF: Strong debt service coverage provided by the pledged gas taxes and motor vehicle-related fees, even after planned future issuance

- » GANs: Strong coverage provided by a pledge of Massachusetts' federal highway reimbursements
- » GANs: Additional coverage provided by a pledge of CTF funds after payment of senior CTF bonds

### Credit challenges

- » CTF: The need for annual legislative appropriation for debt service
- » CTF: Pledged revenue is collected by the commonwealth, via the Department of Revenue and the Registry of Motor Vehicles, before being remitted to the trustee on a monthly basis, which then results in the separation of the pledged revenue
- » GANs: No limit on additional subordinated bonds in the CTF indenture, although additional debt is limited by additional bonds tests of 2.5x on CTF revenue and 1.5x on federal reimbursements in the GANs indenture
- » GANs: Periodic reauthorization risk inherent in the federal program and uncertainty about the form of future federal highway aid programs

### Rating outlook

The outlook for the Commonwealth of Massachusetts' Commonwealth Transportation Fund bonds is stable. The outlook reflects the strong legal structure of the bonds and healthy debt service coverage despite revenue declines resulting from the recession in 2020. For the GANs, the outlook is also stable, reflecting the expected levels of federal reimbursements through 2022 as well as the continued steady growth of CTF revenue that will be available in the event of disruption to federal funds.

### Factors that could lead to an upgrade

- » CTF: An upgrade of Massachusetts' general obligation rating
- » CTF: A change in legal structure that permits debt service to be paid without an appropriation, regardless of budget authorization
- » CTF: A change in the flow of funds that diverts the pledged revenue directly to the trustee rather than flowing through the commonwealth first
- » GANs: An upgrade to the CTF rating
- » GANs: Changes in legal structure such as stronger limitations on CTF leverage at the senior and subordinate level

### Factors that could lead to a downgrade

- » CTF: A downgrade to the Massachusetts' general obligation rating
- » CTF: Additional leverage, or decline in the pledged revenue that materially weakens debt service coverage
- » CTF: Non-appropriation of funds for debt service
- » GANs: A downgrade to the CTF rating
- » GANs: A significant decline in federal reimbursements or obligation authority, or overall changes in the federal highway aid program that materially impact the funds that flow to Massachusetts
- » GANs: Large leverage of the CTF or material weakening in the CTF revenue that reduce backup coverage

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## Key indicators

Exhibit 2

Commonwealth of Massachusetts CTF and GANs						
Credit Background						
Pledged Revenues - CTF	CTF funds					
Pledged Revenues - GANS	Federal highway grants Excess CTF funds					
Legal Structure						
Additional Bonds Test - CTF	4.0x CTF revenues					
Additional Bonds Test - GANS	2.5x CTF revenues and 1.5x federal reimbursements					
Open or Closed Lien - CTF & GANS	Open					
Debt Service Reserve Requirement - CTF & GANS	None					
Coverage						
MADS coverage - CTF	5.4x					
MADS coverage - GANS	5.5x					
Trend Analysis						
	FY2016	FY2017	FY2018	FY2019	FY2020	
Total CTF Debt Outstanding (\$mil)	\$2,484	\$2,752	\$2,812	\$2,970	\$2,924	
Total GANS Debt Outstanding (\$mil)	\$657	\$738	\$748	\$685	\$662	
CTF Pledged Revenue (\$mil)	\$1,345	\$1,366	\$1,380	\$1,390	\$1,268	
Pledged Revenue % Change	0.7%	1.6%	1.0%	0.7%	-8.8%	

MADS coverage is net of the 1994 bonds; GAN coverage includes CTF pledged revenues and debt service

Source: Moody's Investors Service, Commonwealth of Massachusetts

## Profile

The Commonwealth of Massachusetts is the 15th largest state by population, with an estimated 6.9 million residents in 2020. Its 2020 gross domestic product, reaching \$584 billion, ranks 12th among the states. Per capita income was 133.5% of the national average in 2020, second highest in the US.

## Detailed credit considerations

### Tax base and nature of the pledge

The CTF bonds are secured by a broad mix of transportation related taxes and fees that are collected across the state. Pledged revenue is split fairly evenly between fuel taxes and registry fees; fuel excise taxes accounted for 55.7% of the pledged revenue and motor vehicle fees are 44.3% in fiscal 2020.

The GANS benefit from two sources of pledged revenue: 1) all federal highway reimbursement grants, and 2) net CTF pledged revenue after the payment of debt service on the CTF bonds. The principal credit challenge for all credits backed by federal highway reimbursement grants, including Massachusetts' GANS, is the periodic uncertainty regarding reauthorization of the programs. Favorably, Massachusetts' GANS have a subordinate pledge on CTF revenue that provides an ample source of revenue as a backstop if federal reimbursement grants are not appropriated, delayed or reduced.

The Federal Aid Highway Program (FAHP) is administered by the US Department of Transportation's Federal Highway Administration (FHWA). The federal highway program was initiated in 1956 and has changed emphasis through various reauthorizations, but is based on reimbursement of state spending on qualified road and transportation programs according to formulas factoring in population and other factors. The source of pledged federal highway aid is the federal Highway Trust Fund (HTF), which receives revenue from dedicated national excise taxes on gasoline and other vehicle taxes. The national scope of the tax base makes it much broader than any state or local government tax base alone. The HTF is the repository of the dedicated taxes and is established under periodic reauthorizations by Congress. The most recent authorization, "Fixing America's Surface Transportation Act or FAST Act, expires

September 30, 2021. We expect a new long-term authorization, especially given the [current administration's focus on infrastructure](#), but delays in enacting reauthorizations and short-term extensions are common.

### Debt service coverage and revenue metrics

Debt service coverage of CTF bonds and GANs is strong, and remained so through 2020 despite revenue declines stemming from the pandemic and resulting recession. Year to date pledged revenues in fiscal 2021 exhibit further modest declines, but will pick up again in fiscal 2022 as the pandemic wanes from vaccine rollout and economic activity continues to recover.

Based on fiscal 2020 CTF receipts of nearly \$1.3 billion and debt service inclusive of the current issuance, coverage of CTF maximum annual debt service (MADS) is 5.4 times, increasing to 6 times in 2022 after the 1994 Trust Agreement Bonds have matured. Through 2026, the commonwealth plans to generate an additional \$1.26 billion in funds through issuance of CTF bonds. Inclusive of this additional planned debt, and assuming no growth in revenues from 2020, MADS coverage remains strong at 4.9 times.

Historical performance of the pledged CTF revenue has reflected overall modest growth, averaging 2.8% annually from 2009-2019. Pledged revenues dropped 8.7% in fiscal 2020 amid the pandemic, which largely halted commuting and travel, decreasing demand for motor fuels and depressed vehicle registration and license fee revenues. Year to date in fiscal 2021 (July through April), pledged revenues are down 3.4%, though are poised to gain ground heading into fiscal 2022 (beginning July 1) as the vaccine rollout is leading to increased activity that drives pledged revenues.

Federal highway obligation authority is expected to stabilize around \$670 million annually through 2027, as indicated by the FHWA, though the actual amount of federal highway reimbursements may vary because of the commonwealth's pace of project spending. The GANs have a subordinate claim on CTF revenue after CTF debt service is paid. MADS coverage on the CTF bonds and GANs combined, including both CTF revenues and projected federal highway reimbursements is strong at 5.5 times, reducing to 4.8 times when including only the federal highway reimbursements.

### Liquidity

There is no debt service reserve fund for neither CTF bonds nor the GANs. Massachusetts maintains minimal unrestricted liquidity in its CTF fund. As of fiscal 2020 the Commonwealth Transportation Fund had fund balance of just \$75.2 million, with a restricted balance of \$20.4 million and a committed balance of \$54.8 million.

### Debt and legal covenants

CTF bonds are issued under two programs: the Accelerated Bridge Program (ABP), which has approximately \$1.6 billion in outstanding debt and Rail Enhancement Program (REP), which will have approximately \$1.6 billion outstanding following the 2021 issuance. The commonwealth currently has \$662.3 million in outstanding federal Grant Anticipation Notes; proceeds are used to fund the commonwealth's Accelerated Bridge Program.

The commonwealth will continue to issue CTF bonds and GANs to fund transportation infrastructure projects. The commonwealth will largely exhaust its nearly \$1.9 billion authorization, dating back to 2010, for the ABP with a small \$10 million issuance included in the 2021 bonds. The REP was authorized in 2014 to fund Massachusetts Bay Transportation Authority (senior sales tax bonds Aa2 stable) and other rail projects. It has significant additional authorization for the REP, with total authorized issuance cap is \$6.7 billion and \$2 billion financed to date. Additionally, in 2021 the commonwealth adopted the transportation bond act, which authorizes \$16.2 billion of capital spending on transportation infrastructure over eight years, including projects for MBTA, bridges and other transportation infrastructure. The bill allows for issuance of special obligations, secured by CTF, or general obligation bonds, as well as \$1.25 billion of additional GANs.

The CTF bonds benefit from an additional bonds test (ABT) that requires the pledged revenue to equal four times maximum annual debt service on outstanding bonds, as well as the planned issuance, in any 12 of the prior 18 months before issuance. A strong non-impairment covenant allows the commonwealth to reduce the pledged revenue tax rates or base but only if that action would continue to result in at least four times coverage of maximum annual debt service. Inclusion of the BAB subsidies, received as part of the 2010 issue, somewhat dilutes those protections but not materially; they are still strong relative to similar credits and the ability to issue new bonds under the BAB program has expired.

GAN bondholders benefit from strong legal protections that insulate them from annual appropriation risk for federal revenue and overleveraging of both pledged revenue streams. The federal highway revenue that are pledged to the GANs are not subject to annual state appropriation for debt service payments, protecting the credit somewhat from the nonpayment in the event of late budgets, which is a perennial issue for Massachusetts. This does not mitigate federal reauthorization risk, though, including congressional reauthorization of the federal Highway Trust Fund, the continuation of the Federal Aid Highway Program and federal budget risk in the case of federal budget cuts or deficits. Recognizing this fact, the federal revenue are deposited with the trustee one year in advance, providing the state with time to deal with significant changes to the federal revenue structure, if they occur. Bondholders are protected from excessive leverage by an additional bonds test that requires 1.5 times of MADS by federal reimbursements, and 2.5 times coverage by excess CTF revenue. The trust agreement allows the commonwealth to change the rates for pledged revenue, but only if the rate change will result in 4 times MADS coverage on currently outstanding CTF debt.

#### **Debt structure**

Debt service on the CTF bonds is relatively level through 2046 with MADS occurring in fiscal 2022; debt service declines after 2046 until maturity in 2054. The GANs final maturity is 2027 with MADS occurring in the final year.

#### **Debt-related derivatives**

All of the commonwealth's CTF and GAN debt is fixed rate and it does not have any derivative products outstanding.

#### **Pensions and OPEB**

A key credit issue for Massachusetts is its large unfunded pension burden, which ranked 5th highest in the nation, along with associated elevated fixed costs that are high despite being well below the amount necessary to prevent current liabilities from growing. Favorably, the commonwealth's growing economy has provided a solid base to keep pace with its long-term liabilities. Please see the most recent [credit opinion](#).

### **ESG considerations**

#### **Environmental**

Environmental risks to the CTF bonds and GANs are the same as those for the commonwealth as a whole. Please see the commonwealth [credit opinion](#).

Beyond the general environmental risks of Massachusetts as a whole, longer term, demand for motor vehicle fuel is expected to gradually decline amid increasing global initiatives to curb carbon emissions, including most recently within the Biden administration's [infrastructure plan](#). These environmental initiatives are driving greater and greater vehicle fuel efficiency and continued pledges to move to manufacturing electric vehicles, from car manufacturers such as [Ford Motor Company](#) (Ba2 stable), [General Motors Company](#) (Baa3 stable) and [Volvo Car AB](#) (Ba1 stable). Given the high coverage test required to issue additional CTF bonds, coverage will remain healthy over the long term, though the revenue pledge or funding mechanism will likely evolve as these economic forces materialize.

#### **Social**

Social factors impacting the CTF bonds and GANs are the same as those for the commonwealth as a whole. Please see the commonwealth [credit opinion](#).

#### **Governance**

Governance factors impacting the CTF bonds and GANs are the same as those for the commonwealth as a whole. Please see the commonwealth [credit opinion](#).

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