MOODY'S INVESTORS SERVICE

CREDIT OPINION

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Hanover (Town of) MA

Update to credit analysis

Summary

Hanover, MA (Aa2) benefits from strong resident wealth and income levels in a sizeable tax base with adequate reserves levels. While the town's debt burden is above average, pension liabilities should remain manageable.

Credit strengths

- » Largely residential tax base with above average resident wealth and incomes
- » Stable financial position with adequate reserves

Credit challenges

» Above average debt burden

Rating outlook

Outlooks are usually not assigned to local government credits with this amount of debt outstanding.

Factors that could lead to an upgrade

- » Significant tax base expansion
- » Large reduction in the debt burden
- » Increase in available reserves

Factors that could lead to a downgrade

- » Material increase in the debt burden
- » Multi-year trend of operating imbalance resulting in the decline in reserves

Key indicators

Exhibit 1

Hanover (Town of) MA	2013	2014	2015	2016	2017
Economy/Tax Base					
Total Full Value (\$000)	\$2,435,053	\$2,435,053	\$2,383,515	\$2,383,515	\$2,595,375
Population	14,027	14,120	14,226	14,332	13,879
Full Value Per Capita	\$173,598	\$172,454	\$167,546	\$166,307	\$187,000
Median Family Income (% of US Median)	184.0%	184.0%	186.4%	180.7%	180.7%
Finances					
Operating Revenue (\$000)	\$55,087	\$57,225	\$54,793	\$56,431	\$65,077
Fund Balance (\$000)	\$9,492	\$9,231	\$9,232	\$9,627	\$11,420
Cash Balance (\$000)	\$11,904	\$12,035	\$13,031	\$12,924	\$14,746
Fund Balance as a % of Revenues	17.2%	16.1%	16.8%	17.1%	17.5%
Cash Balance as a % of Revenues	21.6%	21.0%	23.8%	22.9%	22.7%
Debt/Pensions					
Net Direct Debt (\$000)	\$52,155	\$53,579	\$49,707	\$47,521	\$55,973
3-Year Average of Moody's ANPL (\$000)	\$51,806	\$56,057	\$64,317	\$60,659	\$61,805
Net Direct Debt / Operating Revenues (x)	0.9x	0.9x	0.9x	0.8x	0.9x
Net Direct Debt / Full Value (%)	2.1%	2.2%	2.1%	2.0%	2.2%
Moody's - adjusted Net Pension Liability (3-yr average) to Revenues (x)	0.9x	1.0x	1.2x	1.1x	0.9x
Moody's - adjusted Net Pension Liability (3-yr average) to Full Value (%)	2.1%	2.3%	2.7%	2.5%	2.4%

Data as of June 30 fiscal year end

Source: Moody's Investors Service and issuer's audited financial statements

Profile

Hanover is located 25 miles south of Boston (Aaa stable) with a population of 13,164. The town is primarily residential with some commercial presence.

Detailed credit considerations

Economy and Tax Base: Residential growth drives tax base turnaround

Hanover's \$2.6 billion equalized value recently stabilized after several years of declines and should see modest growth as its residential housing and commercial sectors continue to develop. The tax base is primarily residential (87% of 2018 assessed value), though it does have a significant commercial presence along Routes 3 and 53, which account for 11% of the 2018 assessed value.

Residential growth is driving the turnaround in equalized value with developments including a new 130 unit condominium at Sconset Landing and a new senior living facility at Barstow Village. Additionally, homeowners are redeveloping their homes to be larger and more expensive, which is driving up home values. Developments at Hanover Mall are just underway as PREP, the town's largest taxpayer, begins to deploy some of its \$40 million commitment, which is promised in exchange for its tax increment financing agreement. Increased commercial activity in the town should lead to more hiring and will push down the already low unemployment rate of 3.1% as of March 2018.

Wealth and income levels continue to be well above average with median family income equal to 136% of the state and 181% of the US median, respectively. Meanwhile, home values of \$444,500 in 2016 are well above the state and US medians at 130% and 241%.

Financial Operations and Reserves: Stability expected to continue through conservative budgeting

The town's financial position will remain stable over the near term given conservative fiscal management. Fiscal 2017 ended with a \$1.6 million operating fund surplus which was driven by conservative budgeting. The town encountered some minor, unexpected legal costs

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related to cleanup of the National Fireworks Site, an abandoned munitions facility, but those continuing costs have been budgeted for in the fiscal 2018 and 2019 budgets and should remain small relative to the overall budget. As a result of the operating surplus, available fund balance increased to \$11.4 million or a strong 19.6% of reserves. The town's primary revenue sources are property taxes and state aid at 65% and 26% of total revenues, respectively. The main expenditures are education at 57% of the total budget and public safety at 12%.

The fiscal 2018 budget increased by \$1.2 million or 2.2% driven by higher health insurance costs and pension contributions. The tax rate decreased for the third consecutive year in a row. The budget increase was balanced with \$500,000 in free cash as well as transfers from the Ambulance Fund (which is now grouped in with NonMajor Funds). Year to date revenues and expenditures are on track with the budgeted amounts. During the year, the town moved the funds in its OPEB stabilization reserve, which could have technically been used for non-OPEB purposes, to an OPEB trust, where the funds can only be used for OPEB purposes. The balance at the end of fiscal 2018 is expected to be around \$2.2 million.

The fiscal 2019 budget was approved by voters at the town meeting in April and reflects an increase of \$3.2 million or 5.7% driven by newly hired firefighters, though some are covered under a federal grant. The town anticipates using \$680,000 of free cash in addition to its typical receipts from the Ambulance Fund to balance the increased budget.

LIQUIDITY

Cash and investments at the end of fiscal 2017 represented \$14.7 million or a healthy 22.7% of revenues.

Debt and Pensions: Above average debt burden and moderate pension liability to remain manageable

The town's net direct debt burden of 2.3% of equalized value will remain above average given future borrowing plans. We expect the burden to remain manageable given sufficient amortization of principal and a large portion that is excluded from Proposition 2 ½ levy limits. The town's five-year capital plan, which ranges from fiscal 2019-2023, totals \$16.2 million, with \$6 million anticipated to be funded with long term debt.

DEBT STRUCTURE

The entire debt portfolio is fixed rate with 85% of principal retired in ten years. Fiscal 2017 debt service represented \$5.3 million or 8.3% of expenditures.

DEBT-RELATED DERIVATIVES

The town is not party to any interest rate swaps or derivative agreements.

PENSIONS AND OPEB

The town participates in the Plymouth County Retirement System, a multi-employer, defined benefit retirement plan administered by the County Retirement Board. The town continues to pay required contributions to the plan which were \$3.0 million in fiscal 2017, or 4.7% of General Fund expenditures. The town's 2017 three-year average Moody's adjusted net pension liability, under Moody's methodology for adjusting reported pension data, is \$61.8 million, or a below average 0.95 times General Fund revenues or 2.4% of equalized value. The projected funding date for the county plan was moved up from 2032 to 2028, which is credit positive.

The town also makes pay-as-you-go contributions towards its OPEB liability totaling \$1.3 million in fiscal 2017 or 59% of the annual cost. As of the valuation report dated January 1, 2017, the plan has an unfunded liability of \$35.3 million, which is down 7% from the previous report's valuation of \$37.8 million. The town dedicates its local meals tax revenues (\$387,000 in fiscal 2017) toward its newly created OPEB trust. Having a dedicated revenue source to contribute to the trust demonstrates management's commitment to addressing its unfunded OPEB liability.

Total fixed costs in fiscal 2017 including debt service, required pension contributions and retiree healthcare payments represented \$9.5 million, or 14.9% of expenditures.

Management and Governance

The town continues to operate under fiscally conservative budgeting with formal policies and a five-year capital plan.

Massachusetts cities have an Institutional Framework score of Aa, which is high. Institutional Framework scores measure a sector's legal ability to increase revenues and decrease expenditures. Massachusetts cities' major revenue source, property taxes, are subject to the

Proposition 2 1/2 cap which can be overridden with voter approval only. However, the cap of 2.5% still allows for moderate revenueraising ability. Unpredictable revenue fluctuations tend to be minor, or under 5% annually. Across the sector, fixed and mandated costs are generally greater than 25% of expenditures. However, Massachusetts has public sector unions, which can limit the ability to cut expenditures. Unpredictable expenditure fluctuations tend to be minor, under 5% annually. © 2018 Moody's Corporation, Moody's Investors Service, Inc., Moody's Analytics, Inc. and/or their licensors and affiliates (collectively, "MOODY'S"). All rights reserved. CREDIT RATINGS ISSUED BY MOODY'S INVESTORS SERVICE, INC. AND ITS RATINGS AFFILIATES ("MIS") ARE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES, AND MOODY'S PUBLICATIONS MAY INCLUDE MOODY'S CURRENT OPINIONS OF THE RELATIVE FUTURE CREDIT RISK OF ENTITIES, CREDIT COMMITMENTS, OR DEBT OR DEBT-LIKE SECURITIES. MOODY'S DEFINES CREDIT RISK AS THE RISK THAT AN ENTITY MAY NOT MEET ITS CONTRACTUAL, FINANCIAL OBLIGATIONS AS THEY COME DUE AND ANY ESTIMATED FINANCIAL LOSS IN THE EVENT OF DEFAULT. CREDIT RATINGS DO NOT ADDRESS ANY OTHER RISK, INCLUDING BUT NOT LIMITED TO: LIQUIDITY RISK, MARKET VALUE RISK, OR PRICE VOLATILITY. CREDIT RATINGS AND MOODY'S OPINIONS INCLUDED IN MOODY'S PUBLICATIONS ARE NOT STATEMENTS OF CURRENT OR HISTORICAL FACT. MOODY'S PUBLICATIONS MAY ALSO INCLUDE QUANTITATIVE MODEL-BASED ESTIMATES OF CREDIT RISK AND RELATED OPINIONS OR FINANCIAL ADVICE, AND CREDIT RATINGS AND MOODY'S PUBLICATIONS DO NOT CONSTITUTE OR PROVIDE INVESTMENT OR FINANCIAL ADVICE, AND CREDIT RATINGS NOR MOODY'S PUBLICATIONS ARE NOT AND DO NOT PROVIDE RECOMMENDATIONS TO PURCHASE, SELL, OR HOLD PARTICULAR SECURITIES. NEITHER CREDIT RATINGS NOR MOODY'S PUBLICATIONS WITH THE EXPECTATION AND UNDERSTANDING THAT EACH INVESTOR WILL, WITH DUE CARE, MAKE ITS OWN STUDY AND EVALUATION OF EACH SECURITY THAT IS UNDER CONSIDERATION FOR PURCHASE, HOLDING, OR SALE.

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