CAPITAL DEBT AFFORDABILITY
ADVISORY COMMITTEE

State of

Vermont

RECOMMENDED ANNUAL NET TAX-SUPPORTED DEBT AUTHORIZATION

September 2016

Prepared by:
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STATE OF VERMONT
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TO:	Governor Peter Shumlin Shap Smith, Speaker of the House of Representatives John Campbell, Senate President Pro Tempore Alice Emmons, Chair, House Committee on Corrections and Institutions Peg Flory, Chair, Senate Committee on Institutions Stephen Klein and Members, Joint Fiscal Committee
FROM:	Beth Pearce, State Treasurer
DATE:	September 30, 2016
RE:	Capital Debt Affordability Advisory Committee Report for 2016

Pursuant to 32 V.S.A. §1001, I am pleased to deliver on behalf of the Capital Debt Affordability Advisory Committee ("Committee" or "CDAAC") its "Recommended Annual Net Tax-Supported Debt Authorization" Report for 2016 ("Report").

This is the first year of the FY 2018-2019 biennium and the Committee is recommending a 2-year debt authorization of $132,460,000. This represents a reduction of 8.01% from the previous recommendation of $144,000,000.

As noted in the Report, debt issuance among Vermont's peer Triple-A rated states and the fifty states generally declined two years ago and continues to be lower than its peak in 2013. This has resulted in a noticeable impact on Vermont's debt ratio rankings compared to other states, notwithstanding a need to consider the impact of capital spending on the economic conditions of the State. The Committee also notes that Vermont's projected debt issuance of $66.3 million per year exceeds scheduled debt retirements, meaning that the State's overall debt outstanding continues to rise.

In late September 2015 the State received a reaffirmation of its bond ratings, with stable outlooks, of Aaa (highest) from Moody's Investors Service, AAA (highest) from Fitch Ratings, and AA+ (second highest) from Standard & Poor's. Recently Standard & Poor's reaffirmed Vermont's current rating.

These bond ratings, the highest in the Northeast, are critical to Vermont's financial future. We are able to access capital in the markets when needed at low rates. This not only supports the State's infrastructure needs but also lowers the cost of financing for various authorities that rely, at least in part, on our bond rating. A good bond rating reduces the cost for affordable housing (through the Vermont Housing Finance Agency), economic development (Vermont Economic Development Authority), higher education (Vermont Student Assistance Corporation), and the bricks and mortar projects in our communities (Vermont Municipal Bond Bank).

Our continued record of prudent financial management, by the Administration, General Assembly and the Treasury is important to continuing to manage both the ratings and the level of debt, so that we can attain the best value for our taxpayers.

For the preservation of Vermont's excellent credit ratings, and all the attendant benefits those ratings provide, the Committee members and I urge the Governor and General assembly to continue their unbroken 26-year record of adopting the Committee's debt recommendation. In addition, the most important steps the Governor and General Assembly can take to preserve Vermont's excellent ratings are to:

> (1) fund the full annual required contributions ("ARCs") for the State Employees' and State Teachers' pension funds;
>
> (2) maintain the full 5% statutory budget stabilization reserves for the General Fund, Education Fund, Transportation Fund, and other reserves;
>
> (3) continue to fund the General Fund contribution to the Retired Teachers' Health and Medical Benefits Fund.

Finally, as previously noted, the State should try to build the General Fund Balance Reserve (i.e., "rainy day" fund) to 3% of the General Fund, incrementally and over time, with the eventual goal of maintaining a combined General Fund budget stabilization and "rainy day" reserves of 8%.

A lot of work goes into maintaining our bond rating beyond our conservative debt management. Fiscal discipline and proactive steps to address budget gaps; consensus revenue forecasting; and fully transparent, accurate, and timely financial reporting are among these. I want to thank the Administration and General Assembly for their continued efforts in these important areas. Maintaining the discipline required to keep our ratings can be very difficult, but is within our collective control.

Please feel free to contact me with any questions.

TABLE OF CONTENTS

1. OVERVIEW

Purpose

In accordance with 32 V.S.A., Chapter 13, Subchapter 8 "Management of State Debt," the Capital Debt Affordability Advisory Committee (the "Committee" or "CDAAC") is required to present to the Governor and the General Assembly each year, no later than September 30, an estimate of the maximum amount of new long-term net State tax-supported debt that Vermont may prudently authorize for the next fiscal year. In Sec. 1 of Act No. 104 of 2012, the General Assembly expressed its intent to move to a biennial capital budgeting cycle "to accelerate the construction dates of larger projects and thus create jobs for Vermonters sooner than would be possible under a one-year capital budgeting cycle." In response, starting with its 2012 Report, the Committee has formally presented a two-year debt recommendation.

Formal Recommendation

Based upon the economic and financial projections prepared by Economic and Policy Resources, Inc. (EPR), the administration's economist, the Committee's two-year debt recommendation for fiscal years 2018 and 2019 is $132,460,000, reflecting a reduction of 8.01% from the previous biennium recommendation of $144,000,000. CDAAC's formal recommended debt authorization complies with the State's triple-A debt affordability guidelines, is consistent with the current expectations of the rating agencies, and demonstrates that the State continues to manage its debt issuance program in a prudent and restrained manner.

From 2004 through 2011, the State was able to increase the amount of capital funding authorized, while at the same time improving or maintaining its position with regard to its debt guidelines. However, over the last few years, the State's relative debt position has slipped compared to other states. This was exacerbated the last two years because total net-tax supported debt for US states declined in 2014 and remained static in 2015. Moody's 2015 State Debt Medians report, which summarizes state debt issuance in 2014, stated the drop was the first in 28 years since Moody's began compiling such data. Furthermore, the Moody's 2016 State Debt Medians report revealed that the net tax-supported debt remained essentially flat in 2015 compared to 2014, with a growth of only 0.6%. See Section 6, "State Debt Guidelines and Recent Events" for additional information.

Although the State's annual cost of debt service as a percentage of revenues is perhaps the single most important affordability metric, the Committee reviews other debt ratios such as debt as a percentage of gross state product, debt as a percentage of personal income and debt per capita. Similar to years past, debt service as a percentage of revenues and debt per capita are the main factors constraining this year's recommendation. See Section 6, "State Debt Guidelines and Recent Events" for a detailed discussion of CDAAC's analytical process.

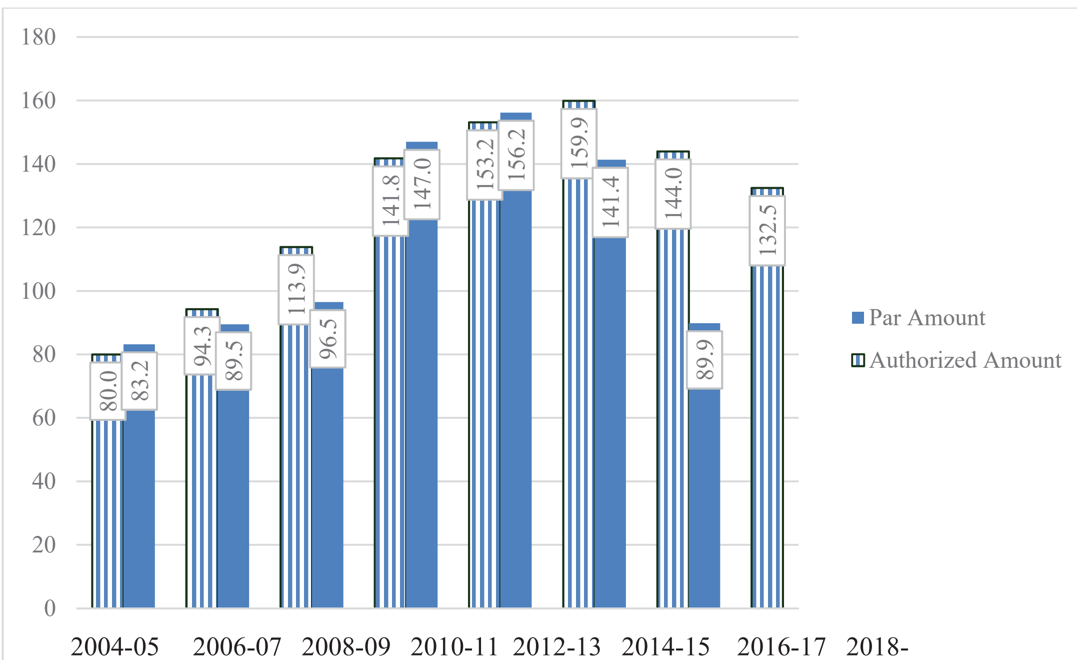
Definition of Vermont's "Long-Term Net Tax-Supported Debt"

As a matter of practice, while the CDAAC legislation refers to an authorization of "net tax-supported debt," the amount of net tax-supported debt for the State means only general obligation (or "G.O.") debt, and this report assumes only G.O. debt for authorization purposes and in calculating its projected debt ratios. As indicated in Section 6, "State Debt Guidelines and Recent Events," the rating agencies generally include the State's special obligation transportation infrastructure bonds ("TIBs"), issued by Vermont in 2010, 2012, and 2013, as part of net tax-supported debt, whereas the State treats this debt as self-supporting debt in its debt statement. While the CDAAC report includes "Dashboard Indicators" debt metrics calculated both with and without TIBs, it does not assume that such indebtedness is part of net tax-supported debt. See Section 3, "State Guidelines" for further information.

Debt Authorizations and Issuance Amounts

The following chart presents the amounts of G.O. debt that have been authorized and issued by the State since fiscal year 2004 on a biennial basis. As shown below, the State has experienced a significant increase in debt authorizations and issuances over the last thirteen years. For the period from 2004-2016, the biennial issuance has approximately doubled, and the compound annual growth rate in debt authorizations during this period has been 4.3%. Including the 2018-2019 recommended authorization amount, the compound annual growth rate in debt authorizations is 3.2%.

STATE OF VERMONT
HISTORICAL GENERAL OBLIGATION. BOND AUTHORIZATIONS AND ISSUANCE BY BIENNIUM(1)(2)(3)
(IN MILLIONS OF DOLLARS)



Notes:

1) Annual issuances do not include refunding bonds. Authorized but unissued debt has been carried forward and employed in subsequent years' bond issuances.
2) Pursuant to Section 34 of Act 104 of 2011, commencing in fiscal year 2013, premium received from the sale of bonds may be applied towards the purposes for which such bonds were authorized. .
3) For fiscal years 2016-17, the "Authorized" amount reflects the two-year authorized amount of the General Assembly in the 2015 Capital Bill (Act 26), as amended by the 2016 Capital Bill (Act 160). This amount excludes any amounts authorized that relate to (i) the principal amount of bonds authorized in prior biennial capital bills but not issued due to the use of original issue bond premium to fund capital projects and (ii) transfers and reallocations from prior years. The "Issuance" amount reflects $89.86 million aggregate par amount of the October 2015 issue. The State plans to issue its fiscal year 2017 bond towards the end of the calendar year 2016.

For fiscal years 2016-2017 the General Assembly has authorized $144,000,000 in new general obligation bonds, plus an additional $11,559,096.05 of prior year unissued bonds that were not needed due to the use of original issue bond premium to fund capital projects[1]. In October 2015, the State issued $89,860,000 in new money bonds that produced $99,125,021.25 in proceeds available for capital projects within the State. Of this amount $16,698,050.64 was from prior year authorizations. Thus in FY 2016 the State used $82,426,970.61 of its biennium authorization. The bonds issued in October 2015 were issued at a premium in the amount of $9,398,753.35 thus increasing the unissued principal that were not needed due to the use of original issue bond premium to $20,957,849.40 and the biennium authorization amount to $164,957,849.40, as explained in the Capital Funding and Capital Plan section below. In order to model the 10-year projection of State debt, in FY 2017 $82,530,000 ($82,530,878.40, rounded down to the nearest $5,000 denomination, respectively) is assumed to be issued.

Capital Funding and Capital Plan

For fiscal years 2015-2016, the General Assembly in the 2015 Capital Bill (Act 26), as amended by the 2016 Capital Bill Adjustment (Act 160) authorized $164,957,849.40 in total revenues consisting of: $144,000,000 in new general obligation debt, and $20,957,849.40 from "unissued principal." Sec. 11. Natural Resources, of the 2015 Capital Bill (Act 26), as amended by the 2016 Capital Bill Adjustment (Act 160), authorizes the proceeds of bonds to be used for water quality projects. Vermont is currently gathering information on funding options and recommendations for long-term financing of water quality needs with the development of long-term revenue models to sustain water quality needs, which may include the issuance of future dedicated revenue bonds.

The General Assembly created a formal review process by amending 32 V.S.A. § 701a to require Vermont's Department of Building and General Services to prepare a report on or before each January 15th to provide information on encumbrances, spending and project progress for authorized capital projects based on reporting received by the agencies that have received capital appropriations. CDAAC believes that this will result in a more efficient funding process for State capital projects.

With the passage of 32 V.S.A. § 310, the Administration will need to prepare and revise a ten-year State capital program plan on an annual basis, submitting it for approval by the general assembly. The plan will include a list of all recommended projects in the current fiscal year, as well as the five fiscal years thereafter. These recommendations will include an assessment, projection of capital need, and a comprehensive financial assessment. The Committee expects to annually review and consider future capital improvement program plans. Currently, the Agency of Transportation provides a capital improvement plan, which includes the current year appropriations and three years of projections. The web address is http://vtrans.vermont.gov/about/capital-programs

[1] Effective in fiscal year 2013, 32 V.S.A. § 954 was amended to permit the use of bond premium received from the issuance of G.O. debt for capital purposes. Previously bond premium was used to pay debt service. In fiscal year 2013, the net bond premium was applied to capital appropriations, effectively reducing the par amount of the bonds issued, such that the par amount of the bonds plus the net original issue premium (bond proceeds) is applied to the capital appropriations amount and the difference (the net original issue premium) becomes additional bonding capacity and available for future years authorization. See Section 5, "State Guidelines and Recent Events, Statutory Change Relating to Use of Bond Premium and Effect on Affordability".

2. STATE DEBT

In general, the State has borrowed money by issuing G.O. bonds, the payment of which the full faith and credit of the State are pledged. The State has also borrowed money to finance qualifying transportation capital projects by issuing TIBs, the payment of which is not secured by the full faith and credit of the State. The State also has established certain statewide authorities that have the power to issue revenue bonds and to incur, under certain circumstances, indebtedness for which the State has contingent or limited liability.

General Obligation Bonds

As stated above, the Committee includes only the State's G.O. debt as State net tax supported debt for purposes of its recommendation.

Purpose

The State has no constitutional or other limit on its power to issue G.O. bonds besides borrowing only for public purposes. Pursuant to various appropriation acts, the State has authorized and issued G.O. bonds for a variety of projects or purposes. Each appropriation act usually specifies projects or purposes and the amount of General Fund, Transportation Fund or Special Fund bonds to be issued, and provides that payment thereof is to be paid from the General, Transportation or Special Fund.

Structure

The State Treasurer, with the approval of the Governor, is authorized to issue and sell bonds that mature not later than twenty (20) years after the date of such bonds and such bonds must be payable in substantially equal or diminishing amounts annually. Under the General Obligation Bond Law, except with respect to refunding bonds, the first of such annual payments is to be made not later than five years after the date of the bonds. All terms of the bonds shall be determined by the State Treasurer with the approval of the Governor as he or she may deem for the best interests of the State.

Capital Leases

The State must include capital leases in its total of net tax-supported debt. A capital lease is considered to have the economic characteristics of asset ownership, and is considered to be a purchased asset for accounting purposes. By comparison, an operating lease is treated as a rental for accounting purposes. A lease is considered to be a capital lease if any one of the following four criteria are met:

1. The life of the lease is 75% or longer than the asset's useful life;
2. The lease contains a purchase agreement for less than market value;
3. The lessee gains ownership at the end of the lease period; or
4. The present value of lease payments is greater than 90% of the asset's market value.

Historically the State has avoided capital leases, however, during the fiscal year 2015 audit, the lease for the State's office building at 27 Federal Street in St. Albans was deemed to be a capital lease, having met criteria #4 above. This capital lease, with a fair market value of $10.015 million, is included as net tax-supported debt.

Current Status

G.O. Debt and Capital Leases Outstanding as of June 30, 2016 was $637,050,092. Amount authorized but unissued at June 30, 2016 was $82,530,878.40, which consists of $61,573,029.00 of the remaining $144,000,000 authorization and $20,957,849.40 of "unissued principal."

Ratings

The State of Vermont's general obligation ratings were affirmed by S&P Global Ratings ("S&P") in August 2016 and by Moody's Investors Service ("Moody's") and Fitch Ratings ("Fitch") in September 2015. The State enjoys triple-A ratings from both Fitch and Moody's. Fitch raised the State's rating in conjunction with a recalibration (generally meaning increased ratings) conducted in 2010. Moody's raised the State's rating to triple-A in February 2007. S&P rates Vermont's G.O. bonds AA+ with a "stable" outlook. Approximately three years ago, S&P raised its rating outlook from "stable" to "positive." In 2015, S&P revised its outlook back to "stable."

"The outlook is revised to stable from positive reflecting Vermont's slower than average economic recovery which continues to pressure the budget in our view. In addition, pension and OPEB liabilities continue to be high relative to state peers. We believe that the state has a very strong budget management framework and should this lead to improved reserve levels in the future, a higher rating could be warranted. In addition, we believe that there has been progress in increasing pension contributions and certain actions have been taken to begin to address OPEB liability. Improved liability position could also translate to a higher rating level. While not envisioned at this time given the state's history of pro-actively managing its budget and recent actions to address post-retirement liabilities, substantial deterioration of budget reserves or a deteriorating liability position could pressure the current rating."

Net Tax-Supported Debt Outstanding

The State's aggregate net tax-supported principal amount of debt increased from $595.7 million, as of June 30, 2015, to $637.0 million, as of June 30, 2016, an increase of 6.92%. The table below sets forth the sources of the change in net tax-supported debt outstanding from fiscal year 2015 to fiscal year 2016 (in thousands):

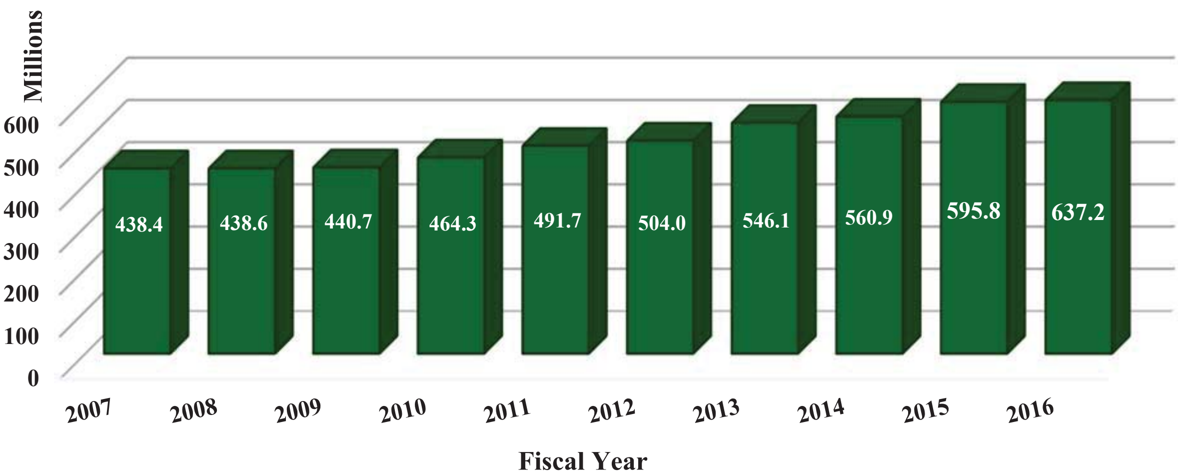
Net Tax-Supported Debt as of 6/30/15	$595,797
G.O. New Money Bonds Issued	89,860
G.O. Refunding Bonds Issued	25,720
Less: Retired G.O. Bonds	(48,495)
Less: Refunded G.O. Bonds	(25,250)
Less: Retired Capital Lease	(582)
Net Tax-Supported Debt as of 6/30/16	$637,050

STATE OF VERMONT
Debt Statement
As of June 30, 2016 (In Thousands)

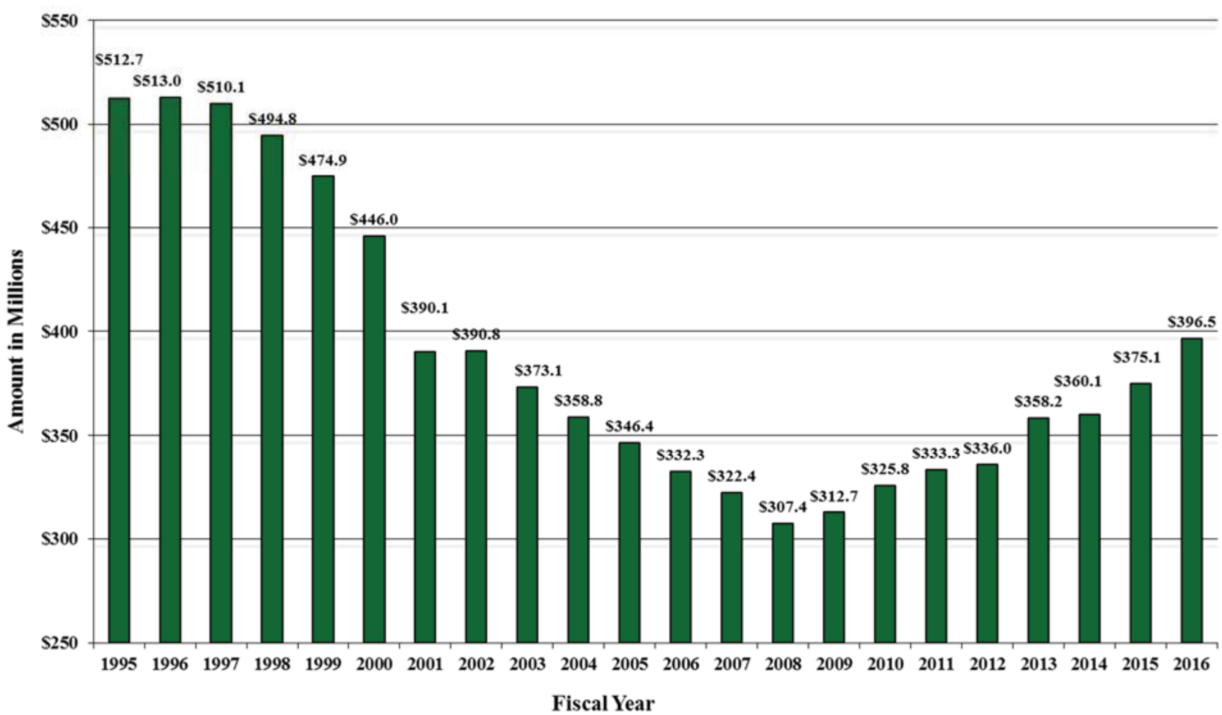
General Obligation Bonds:	
General Fund	$619,063
Transportation Fund	7,652
Special Fund	320
Capital Leases:	
27 Federal Street, St. Albans	$10,015
Self-Supporting Debt:	
Special Obligation Transportation Infrastructure Bonds (TIBs)	$29,885
Reserve Fund Commitments[2]:	
Vermont Municipal Bond Bank	$565,635
Vermont Housing Finance Agency	155,000
VEDA Indebtedness	155,000
Vermont Student Assistance Corporation	50,000
Vermont Telecommunications Authority	40,000
Univ. of Vermont/State Colleges	100,000
Gross Direct and Contingent Debt	$1,732,570
Less:	
Self-Supporting Debt	(29,885)
Reserve Fund Commitments	(1,065,635)
Net Tax-Supported Debt	**$637,050**

[1]Does not include (i) the general obligation bonds intended to be issued in calendar year 2016, (ii) general obligation bonds that have been refunded and (ii) the present value of certain outstanding capitalized leases in the amount of $905,379.
[2]Figures reflect the maximum amount permitted in statute. However, many of the Issuers have not issued debt or have not issued the maximum amount of debt permitted by statutes. See "Moral Obligation Indebtedness" herein for additional information.

STATE OF VERMONT
GENERAL OBLIGATION BONDS OUTSTANDING FY 2007-2016
(in millions of dollars)



STATE OF VERMONT
GENERAL OBLIGATION DEBT OUTSTANDING, FY 1995-2016
ADJUSTED FOR INFLATION
(in millions of dollars)



The table below sets forth the State's existing principal amounts outstanding and annual debt service requirements, as of June 30, 2016, without the issuance of any additional G.O. debt. Rating agencies consider Vermont's rapid debt amortization, with almost 67.5% of current principal retired by 2027, to be a positive credit factor.

OUTSTANDING GENERAL OBLIGATION NET TAX-SUPPORTED DEBT
(in thousands of dollars)

	GENERAL OBLIGATION BONDS (STATE DIRECT DEBT)									
	General Fund		Transportation Fund		Special Fund		Capital Leases		Total	
Fiscal Year	Principal Outstanding	Debt Service*	Principal Outstanding	Debt Service	Principal Outstanding	Debt Service	Principal Outstanding	Debt Service	Principal Outstanding	Total Debt Service*
2016	619,063	67,334	7,652	1,947	320	628	10,015	508	637,050	70,418
2017	570,959	71,036	6,101	1,884	-	336	9,845	790	586,905	74,046
2018	525,066	66,018	4,649	1,709	-	-	9,646	809	539,361	68,536
2019	480,029	63,489	3,231	1,630	-	-	9,418	829	492,678	65,948
2020	435,707	61,036	2,813	560	-	-	9,157	849	447,677	62,445
2021	391,319	59,368	2,396	541	-	-	8,862	870	402,577	60,779
2022	349,702	54,953	1,978	522	-	-	8,529	891	360,209	56,366
2023	309,920	51,634	1,560	502	-	-	8,157	913	319,637	53,049
2024	272,510	47,840	1,300	327	-	-	7,741	936	281,551	49,103
2025	235,150	46,402	1,040	317	-	-	7,280	959	243,470	47,677
2026	199,795	43,047	780	306	-	-	6,770	982	207,345	44,335
2027	166,405	39,877	520	295	-	-	6,207	1,007	173,132	41,179

* Debt service has been calculated using the net coupon rates on all Build America Bonds, taking into account the interest subsidy from the federal government. The entire amount of the Build America Bonds is allocated to the General Fund. Totals may not agree due to rounding.

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General Obligation and General Fund Supported Bond Debt Service Projections

The State's projected annual general obligation ("G.O.") debt service and debt outstanding are presented on the following pages and summarized below. The projected debt service (at estimated interest rates ranging from 5% to 6.5%) assumes the issuance of $82,530,000 in FY 2017 and $66,230,000 each fiscal year from 2018-2027.

PROJECTED GENERAL OBLIGATION DEBT SERVICE AND DEBT OUTSTANDING*
(in thousands of dollars)

Fiscal Year Ending	G.O. Debt Service	% Change	G.O. Bonds Outstanding	% Change
6/30/2016	70,418	2.60%	637,050	6.92%
6/30/2017	74,046	5.15%	669,435	5.08%
6/30/2018	76,793	3.71%	683,991	2.17%
6/30/2019	80,950	5.41%	696,098	1.77%
6/30/2020	84,343	4.19%	706,577	1.51%
6/30/2021	89,704	6.36%	713,647	1.00%
6/30/2022	92,104	2.68%	720,139	0.91%
6/30/2023	95,385	3.56%	725,117	0.69%
6/30/2024	97,821	2.55%	729,271	0.57%
6/30/2025	102,563	4.85%	730,120	0.12%
6/30/2026	105,172	2.54%	729,615	-0.07%
6/30/2027	107,753	2.45%	727,712	-0.26%

* Please see table titled "Historic and Projected Debt Ratios" on page 25 for projected debt relative to projected Vermont revenues.

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EXISTING AND PROJECTED NET TAX-SUPPORTED G.O. DEBT SERVICE ($000)													
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
	Current	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Est.
FY	D/S	$82.530M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	D/S
		5.00%	5.50%	6.00%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	6.50%	
2017	74,046	0	0	0	0	0	0	0	0	0	0	0	74,046
2018	68,536	8,257	0	0	0	0	0	0	0	0	0	0	76,793
2019	65,948	8,050	6,953	0	0	0	0	0	0	0	0	0	80,950
2020	62,445	7,844	6,771	7,284	0	0	0	0	0	0	0	0	84,343
2021	60,779	7,637	6,589	7,085	7,615	0	0	0	0	0	0	0	89,704
2022	56,366	7,431	6,407	6,887	7,400	7,615	0	0	0	0	0	0	92,104
2023	53,049	7,224	6,224	6,688	7,185	7,400	7,615	0	0	0	0	0	95,385
2024	49,103	7,018	6,042	6,489	6,970	7,185	7,400	7,615	0	0	0	0	97,821
2025	47,677	6,811	5,860	6,291	6,754	6,970	7,185	7,400	7,615	0	0	0	102,563
2026	44,335	6,605	5,678	6,092	6,539	6,754	6,970	7,185	7,400	7,615	0	0	105,172
2027	41,179	6,398	5,496	5,894	6,324	6,539	6,754	6,970	7,185	7,400	7,615	0	107,753

EXISTING AND PROJECTED NET TAX-SUPPORTED G.O. BOND PRINCIPAL PAYMENTS ($000)													
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
	Current	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Est.
FY	Principal	$82.530M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	Principal
2017	50,145	0	0	0	0	0	0	0	0	0	0	0	50,145
2018	47,543	4,130	0	0	0	0	0	0	0	0	0	0	51,673
2019	46,683	4,130	3,310	0	0	0	0	0	0	0	0	0	54,123
2020	45,001	4,130	3,310	3,310	0	0	0	0	0	0	0	0	55,751
2021	45,100	4,130	3,310	3,310	3,310	0	0	0	0	0	0	0	59,160
2022	42,368	4,130	3,310	3,310	3,310	3,310	0	0	0	0	0	0	59,738
2023	40,573	4,130	3,310	3,310	3,310	3,310	3,310	0	0	0	0	0	61,253
2024	38,085	4,130	3,310	3,310	3,310	3,310	3,310	3,310	0	0	0	0	62,075
2025	38,081	4,130	3,310	3,310	3,310	3,310	3,310	3,310	3,310	0	0	0	65,381
2026	36,125	4,130	3,310	3,310	3,310	3,310	3,310	3,310	3,310	3,310	0	0	66,735
2027	34,213	4,130	3,310	3,310	3,310	3,310	3,310	3,310	3,310	3,310	3,310	0	68,133

EXISTING AND PROJECTED NET TAX-SUPPORTED G.O. BONDS OUTSTANDING ($000)													
		2017	2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	Total
	Current	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Issue	Est.
FY	Debt	$82.530M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	66.230M	Debt
2016	637,050	0	0	0	0	0	0	0	0	0	0	0	637,050
2017	586,905	82,530	0	0	0	0	0	0	0	0	0	0	669,435
2018	539,361	78,400	66,230	0	0	0	0	0	0	0	0	0	683,991
2019	492,678	74,270	62,920	66,230	0	0	0	0	0	0	0	0	696,098
2020	447,677	70,140	59,610	62,920	66,230	0	0	0	0	0	0	0	706,577
2021	402,577	66,010	56,300	59,610	62,920	66,230	0	0	0	0	0	0	713,647
2022	360,209	61,880	52,990	56,300	59,610	62,920	66,230	0	0	0	0	0	720,139
2023	319,637	57,750	49,680	52,990	56,300	59,610	62,920	66,230	0	0	0	0	725,117
2024	281,551	53,620	46,370	49,680	52,990	56,300	59,610	62,920	66,230	0	0	0	729,271
2025	243,470	49,490	43,060	46,370	49,680	52,990	56,300	59,610	62,920	66,230	0	0	730,120
2026	207,345	45,360	39,750	43,060	46,370	49,680	52,990	56,300	59,610	62,920	66,230	0	729,615
2027	173,132	41,230	36,440	39,750	43,060	46,370	49,680	52,990	56,300	59,610	62,920	66,230	727,712

Net Tax-Supported Debt Service by Fiscal Year

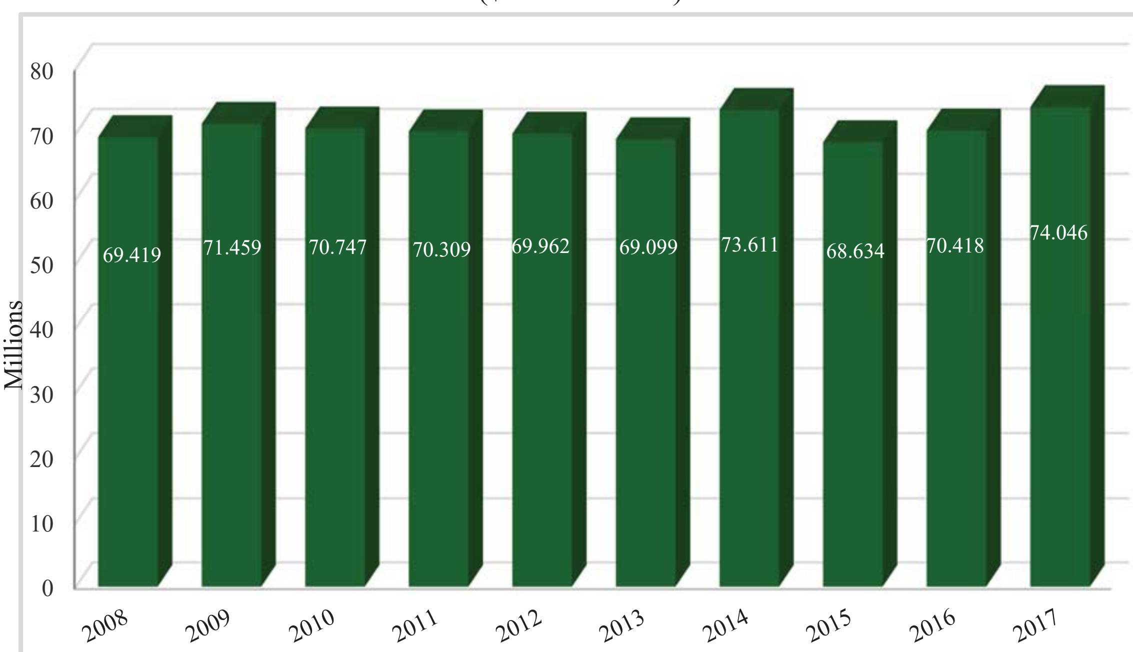
The State's scheduled G.O. net debt service requirement ("D/S") for fiscal year 2017 is $74.0 million, 5.15% more than the $70.4 million paid in fiscal year 2016.

(in $ thousands)

Net Tax-Supported D/S Paid in FY 2016[1]...………..…	$70,418
Decrease in D/S Requirement FY 2016…..…..…….......	(5,252)
D/S Decrease Due to G.O. Refunding in FY 2016…......…	(241)
D/S Increase Due to G.O. Debt Issued in FY 2016…….....	9,121
Net Tax-Supported D/S Due in FY 2017[1]….……….....	$ 74,046

[1] The debt service amount shown takes into account the interest subsidy from the federal government (calculated to be $1,155,256 during FY 2016), payable on the $87,050,000 Build America Bonds as part of the 2010 Series A-2 and D-2 bond issues. See "Sequestration and Potential Impact on Build America Bonds Subsidy" herein for a discussion of the impact of sequestration on the State's subsidy.

STATE OF VERMONT
HISTORICAL NET TAX-SUPPORTED DEBT SERVICE(*)(**)
($'s in millions)



*Consists of G.O. Bonds. Fiscal Year 2014 debt service includes an additional principal amortization of $3,150,000 that was structured to expend bond funded original issuance premium within 12 months of the issue date to satisfy Internal Revenue Service requirements. Going forward this will not be necessary due to the 2012 amendment to 32 V.S.A. § 954 to permit the use of bond premium for capital projects.
**Please see table titled "Historic and Projected Debt Ratios" on page 25 for debt ratios relative to historic Vermont revenues.

Authorized, But Unissued Debt

CDAAC believes the State's historical practice to annually extinguish all or a large portion of the authorized amount of debt to avoid a rising residual amount of authorized but unissued debt has enhanced the State's credit position, as it is viewed favorably by the rating agencies.

As discussed in Section 6, "State Guidelines and Recent Events, Statutory Change Relating to Use of Bond Premium and Effect on Affordability" effective in fiscal year 2013, 32 V.S.A. § 954 was amended to permit the use of bond premium received from issuance of debt for capital purposes. The effect of this legislative change is that if future bonds are issued with a net original issuance premium, the par amount of bonds will be less than the authorized amount and the difference will become available for additional authorization as "unissued principal." CDAAC believes that the advantage of additional funding capacity associated with this legislative change far outweighs the additional unissued amounts that may result, and that the annual amount of unissued bonds will continue to be manageable.

Special Obligation Transportation Infrastructure Bonds (TIBs)

The State has historically sold only G.O. bonds for its capital infrastructure purposes. Beginning in 2010, however, the State began issuing Special Obligation Transportation Infrastructure Bonds ("TIBs"). The bonds are payable from new assessments on motor vehicle gasoline and motor vehicle diesel fuel, and the State is not obligated to use any other funds to cover debt service on TIBs.

In 2012, S&P upgraded the State's Special Obligation Transportation Infrastructure Bonds from "AA" to "AA+" with a stable outlook. S&P indicated that the upgrade reflected strengthened debt service coverage, and further intention by the State to maintain coverage at no less than 3x, which is viewed as a strong level.

Moral Obligation Indebtedness

Provided below is a summary of the State's moral obligation commitments as of June 30, 2016:

Reserve Fund Commitments (all figures as of June 30, 2016):

1. Vermont Municipal Bond Bank (VMBB): The VMBB was established by the State in 1970 for the purpose of aiding governmental units in the financing of their public improvements by making available a voluntary, alternate method of marketing their obligations in addition to the ordinary competitive bidding channels. By using the VMBB, small individual issues of governmental units can be combined into one larger issue that would attract more investors. The VMBB is authorized to issue bonds in order to make loans to municipalities in the State through the purchase of either general obligation or revenue bonds of the municipalities. Municipal loan repayments to the VMBB are used to make the VMBB's bond payments. The VMBB consists of five directors: the State Treasurer, who is a director ex-officio, and four directors appointed by the Governor with the advice and consent of the Senate for terms of two years. As of June 30, 2016, the VMBB has issued 79 series of bonds (including refundings). The principal amount of bonds outstanding as of June 30, 2016 was $565,635,000, and the principal amount of loans outstanding to municipal borrowers as of June 30, 2016 was $534,565,588. The VMBB's outstanding bonds have been issued under one general bond resolution, adopted on May 3,

1988 (the "1988 resolution"). For bonds issued under the 1988 resolution, the VMBB is required to maintain a reserve fund equal to the lesser of: the maximum annual debt service requirement, 125% of average annual debt service, or 10% of the proceeds of any series of bonds. The VMBB anticipates issuing all additional bonds under the 1988 resolution. If the reserve funds have less than the required amount, the chair shall notify the Governor or Governor-elect of the deficiency. The General Assembly is legally authorized, but not legally obligated, to appropriate money to maintain the reserve funds at their required levels. Since the participating municipalities have always met their obligations on their bonds the State has never needed to appropriate any money to the reserve fund, and it is not anticipated that it will need to make an appropriation in the future. Based on the long history of the VMBB program, the rating agencies credit assessment of the underlying loans of the portfolio, the G.O. pledge of the underlying borrowers for a high percentage of the loan amounts and the State intercept provision for the payment of debt, it is not anticipated that it will be necessary for the State to appropriate money for the reserve fund. For additional information about the VMBB, see its most recent disclosure document, which can be found on the Electronic Municipal Market Access ("EMMA") system at http://emma.msrb.org.

2. Vermont Housing Finance Agency (VHFA): The VHFA was created by the State in 1974 for the purpose of promoting the expansion of the supply of funds available for mortgages on residential housing and to encourage an adequate supply of safe and decent housing at reasonable costs. The VHFA Board consists of nine commissioners, including ex-officio the Commissioner of the Department of Financial Regulation, the State Treasurer, the Secretary of Commerce and Community Development, the Executive Director of the Vermont Housing and Conservation Board, or their designees, and five commissioners to be appointed by the Governor with the advice and consent of the Senate for terms of four years. The VHFA is empowered to issue notes and bonds to fulfill its corporate purposes. As of June 30, 2016, the VHFA's total outstanding indebtedness was $443,404,692. The VHFA's act requires the creation of debt service reserve funds for each issue of bonds or notes based on the VHFA's resolutions and in an amount not to exceed the "maximum debt service." Of the debt that the VHFA may issue, up to $155,000,000 of principal outstanding may be backed by the moral obligation of the State, which means that the General Assembly is legally authorized, but not legally obligated, to appropriate money for any shortfalls in the debt service reserve funds for that debt. If the reserve fund requirement for this debt has less than the required amount, under the act, the chairman of the VHFA will notify the Governor or the Governor-elect, the president of the senate and the speaker of the house of the deficiency. As of June 30, 2016, the principal amount of outstanding debt covered by this moral obligation was $45,115,000. As of June 30, 2016, the debt service reserve fund requirement for this debt was $3,293,631, and the value of the debt service reserve fund was $3,357,866. Since the VHFA's creation, it has not been necessary for the State to appropriate money to maintain this debt service reserve fund requirement. For additional information about the VHFA, see its most recent disclosure document, which can be found on the EMMA system at http://emma.msrb.org.

3. Vermont Economic Development Authority (VEDA): VEDA has established a commercial paper program to fund loans to local and regional development corporations and to businesses under certain programs. VEDA's commercial paper is supported by a direct-pay letter of credit from a bank. The direct-pay letter of credit is collateralized from

various repayment sources, including a $20 million leverage reserve fund held by a trustee and a debt service reserve fund pledge from the State in an amount of $130 million. This debt service reserve pledge is based on a similar structure utilized by both the Vermont Municipal Bond Bank and the Vermont Housing Finance Agency as discussed above. The amount of commercial paper outstanding under this program at June 30, 2016 was $148.9 million. In 2016, VEDA's debt service reserve fund pledge from the State was increased $25 million for a total moral obligation amount of $155 million and VEDA is in the process of negotiating an increase of its direct-pay letter of credit facility to $175 million and expects to have the facility in place within the next six months. For additional information about VEDA, see its most recent disclosure document, which can be found on the EMMA system at http://emma.msrb.org.

4. Vermont Telecommunications Authority (VTA): VTA was created in 2007 to facilitate broadband and related access to Vermonters, and received authorization for $40 million of debt with the State's moral obligation pledge. The passage of Act No. 190 of 2014 created the Division for Connectivity as the successor entity to the VTA. The VTA did not issue any debt prior to ceasing operations on July 1, 2015.

5. University of Vermont and the Vermont State Colleges: Legislation was passed in 2008 to provide a moral obligation pledge from the State to the University of Vermont in the amount of $66 million and to the Vermont State Colleges in the amount of $34 million. No bonds have been issued to date. Currently, if bonds are issued, it is not expected that the State will need to appropriate money to the respective reserve funds for these purposes.

6. Vermont Student Assistance Corporation (VSAC): The State has provided $50 million of moral obligation commitment by the State to VSAC. Like VHFA, in 2009, the State authorized increased flexibility for VSAC's use of the moral obligation commitment specifically allowing for "pledged equity" contributions from the State's operating funds and increased flexibility in the use of the traditional debt service reserve structure. In 2011, VSAC issued $15 million of moral obligation supported bonds, of which $9.0 million is outstanding. It is not expected that the State will need to appropriate money to the respective reserve funds for VSAC.

Importantly, there has been a notable increase in the State's moral obligation commitments over the past five (5) years. For the period ended June 30, 2010, the total amount of moral obligation commitment was approximately $976.5 million. Currently, the moral obligation commitment stands at a total of $1,065.6 million, with the VMBB and VEDA granted most of the difference. However, the actual amount of moral obligation debt outstanding in the amount of $768.7 million is less than the amount authorized and the total commitment as of fiscal year 2010 ($976.5 million). See the table on the next page for a summary of the total reserve fund commitments and the outstanding bond amounts:

Reserve Fund Commitments:

State of Vermont
Moral Obligation Commitments and Debt Outstanding
As of June 30, 2016

Issuer Name	Amount Provided In Statute	Actual Par Amount Outstanding
Vermont Municipal Bond Bank	$565,635,000	$565,635,000
Vermont Economic Development Authority	155,000,000	148,900,000
Vermont Housing Finance Agency	155,000,000	45,115,000
Vermont Student Assistance Corporation	50,000,000	9,000,000
University of Vermont	66,000,000	0
Vermont State Colleges	34,000,000	0
Vermont Telecommunications Authority	40,000,000	0
	$1,065,635,000	$768,650,000

As the State's rating has improved, the value of its moral obligation has also grown. It is therefore apparent that there has been greater pressure on the State to raise the size of its existing moral obligation commitments and/or to assign the moral obligation pledges to State borrowers. However, without some form of containment, it is possible that an ever-increasing moral obligation debt load could erode the State's credit position.

In accordance with the appropriate provisions from the enabling statute that created CDAAC, the Committee has already been authorized to consider "any other long-term debt of instrumentalities of the state not secured by the full faith and credit of the state, or for which the state legislature is permitted to replenish reserve funds." Therefore, it is appropriate for CDAAC to develop guidelines for Vermont regarding the size and use of the State's moral obligation debt.

In recent years, CDAAC has adjusted its debt load guidelines to take into account the comparative debt load statistics for triple-A rated states throughout the country. Unfortunately, none of the rating agencies prepare comparative data on the respective triple-A rated states on moral obligation or contingent debt. Moreover, there is little consistency among the triple-A rated states regarding the size, nature and role of such debt. The types of contingent debt are quite varied among the states, including state guarantees of local school debt, back-up support for revenue obligations, etc. Because of the mixture of contingent debt applied by triple-A states, it would not be possible to employ guidelines that are similar to the G.O. guidelines that have been utilized by CDAAC in connection with its annual recommendation of long-term G.O. debt to be authorized by the legislature.

There had been, for several years, discussions within CDAAC regarding the establishment of guidelines for limiting the amount of moral obligation debt that the State should authorize. In an accompanying chart, the State's net tax-supported debt statement, consisting entirely of the State's G.O. outstanding indebtedness, is presented, as of June 30, 2016, at $637,050,092. Using 225% of G.O. debt for establishing a limit of moral obligation debt, the State would have had $367,727,707 in additional moral obligation capacity. Using 200% of G.O. debt for establishing a limit of moral obligation debt, the State would have had $208,465,184 in additional capacity. Using a more conservative 195%, the State still has $176,612,679 in additional capacity.

At this point, CDAAC believes that a range of 200-225% is appropriate in determining the amount of moral obligation commitments that should be outstanding in comparison to the State's G.O. debt. Since CDAAC has not recommended legislative action to codify any statutory limits on the incurrence of moral obligation debt, CDAAC will continuously monitor the developing size of moral obligation commitments and report the results.

At some point, should a major infrastructure requirement or other critical financing need arise that would be appropriately funded through a financing agency, the State may, as appropriate, consider rescinding the existing but unused moral obligation authority and have it transferred – taking into account the limited availability for the State to provide additional moral obligation capability as a result of the 200-225% administrative limits.

Ultimately, the effect of contingent liabilities and reserve fund commitments on the State's debt affordability is a function of the level of dependency for the repayment of this particular debt on the State's general operating revenues. With respect to this matter, the principle that the rating agencies follow give us relevant guidance: Until such time that the State's guarantee or contingent obligation becomes actual (through a payment or a replenishment obligation being made), then such debt or guarantee is not included in the State's net tax-supported indebtedness. To the extent that the State has not been called upon to pay for the debt components, as envisioned in Subparagraph (5) of the CDAAC legislation, then those items should not become quantifiable factors included in the affordability analysis.

Information on the principal amount and the debt service associated with the moral obligation commitments is found in the comprehensive annual financial statements for each of the entities:

Vermont Municipal Bond Bank*:
http://www.vmbb.org/about/annual-reports-audits/

Vermont Economic Development Authority:
http://www.veda.org/about-veda/annual-reports/

Vermont Housing Finance Authority:
http://www.vhfa.org/about/financial/annual_statements.php

Vermont Student Assistance Corporation
http://services.vsac.org/wps/wcm/connect/VSAC/VSAC/Investor+Relations/Audited+Financial+Statements/

*Financials are based on a December 31 year end.

Municipal Debt

In conformance with the standards followed by the rating agencies, this evaluation does not set forth or incorporate any debt obligations of Vermont municipalities. Should any such obligations be required to be payable by the State (e.g., through assumption or support of local debt as part of a financial emergency), a corresponding and appropriate amount related to the State's contribution would then be required to be included in the analysis. At present, no such liability has occurred, and, therefore, none has been included in this review.

Analysis of Types of Debt and Structure

CDAAC annually goes through an extensive analysis to determine the "cost-benefit of various levels of debt financing." The cost-benefit is demonstrated by CDAAC's determination of the amount of debt that the State should annually authorize and still achieve compliance with CDAAC's articulated affordability guidelines. This evaluation is fundamental to CDAAC's responsibility in recommending annually the amount of net tax-supported indebtedness (i.e., G.O., at present) that should be authorized by the State.

Second, with respect to the "types of debt," Vermont and its financing agencies have utilized a great variety of debt types. At present, revenue bonds are sold by the State (TIBs), VSAC, VHFA and VEDA, among others. The State Treasurer's office has looked at a series of options for possible revenue bond issuance, but, because of Vermont's special circumstances, revenue bonds have generally not appeared to be a comprehensive answer to the State's direct infrastructure needs. Notwithstanding the fact that there have been no new revenue bond uses recently for funding Vermont infrastructure requirements, with the exception of TIBs, the State will continue to explore possible opportunities in this respect that would not cause debt load or debt management difficulties for Vermont. CDAAC and the State Treasurer's Office are constantly reviewing prospects for funding of required infrastructure through approaches that will not add to the State's net tax-supported indebtedness.

The maturity schedules employed for State indebtedness are directly tied to State statute. Moreover, as indicated elsewhere herein, Vermont's current debt repayment for its G.O. bonds allows the State to recapture debt capacity at an attractive pace. Shortening the debt service payments would have the effect of placing more fixed costs in the State's annual operating budget, leaving less funds available for discretionary spending. Lengthening debt payments would increase the aggregate amount of the State's outstanding indebtedness, which would cause Vermont's debt per capita and debt as a percentage of personal income to rise, reducing the State's ability to comply with its affordability guidelines. Notwithstanding these limitations, there may be opportunities for the State in the future to adjust the maturity of its indebtedness to achieve various debt management goals over time.

3. DEBT GUIDELINES

For a number of years Vermont has pursued a strategy to achieve a triple-A rating from all three nationally recognized credit rating agencies. To facilitate this goal, CDAAC and the State have employed conservative debt load guidelines that are consistent with the measures that the rating agencies use to measure debt burden. The most widely-employed guidelines are:

1. Debt Per Capita;
2. Debt as a Percentage of Personal Income;
3. Debt Service as a Percentage of Revenues; and
4. Debt as a Percentage of Gross State Product.

CDAAC notes that Debt as a Percentage of Personal Income and Debt Service as a Percentage of Revenues are generally understood to be the better credit indicators of the State's ability to pay; however, certain rating agencies continue to calculate and monitor the State's Debt Per Capita and Debt as a Percentage of Gross State Product. These guidelines are described in greater detail below. CDAAC has not used Debt as a Percentage of Gross State Product as a specific guideline due to the fact that this measure has a high correlation and tracks the trend of the Debt as a Percentage of Personal Income. Since 2011, CDAAC has tracked this information and included it on the "Dashboard Indicators." This report contains current and historical information on Vermont's Debt as a Percentage of Gross State Product compared to a peer group of other triple-A states.

At present, CDAAC uses a peer group made up of all states that have at least two triple-A ratings from the national rating agencies (the "Peer Group"). The states within the Peer Group differ throughout the years as rating agencies upgrade or downgrade a specific state's rating. In the last year, Alaska was downgraded by all three rating agencies and is no longer included within the Peer Group. Furthermore, South Dakota was upgraded by all three rating agencies and is now included within the Peer Group. The Committee over time reviews the composition of the Peer Group. Similar to many of the U.S. States since 2014, the majority of the Peer Group reduced their debt levels, consequently improving the median debt statistics for the Peer Group. The Peer Group's Debt Per Capita decreased from $856 in 2015 to $687 in 2016, Debt as a Percentage of Personal Income decreased from 2.2% in 2015 to 1.8% in 2016 and Debt as a Percentage of Gross State Product decreased from 1.8% in 2015 to 1.6% in 2016. Vermont was in the minority of states that increased debt levels in 2015. As a result of the improvement in the Peer Group's median debt statistics and Vermont's increased debt levels the State's relative rankings deteriorated. If the State continues to increase authorized debt levels in future years it is at risk of further declines in its relative ranking to its triple-A Peer Group. See "State Guidelines and Recent Events" for more information.

In addition, both Moody's and S&P have developed rating scorecards for state issuers which include an assigned specific criteria and weighting for "debt" as one of their factors in the overall rating of a state. The rationale given by the rating agencies for the score card process is to provide more transparency for state ratings. Most recently, Fitch released its new rating criteria with "long-term liabilities" as one of four key rating factors driving state ratings. Please see Section 4, "National Credit Rating Methodologies and Criteria" for additional information..

Debt Per Capita

Since, 2004, the Committee has adopted a guideline for the State to equal or perform better than the 5-year average of the mean and median debt per capita of a peer group of triple-A rated states over the nine year projection period. The 5-year average of the mean of the Peer Group is $991 and the 5-year average of the median of the Peer Group is $847. Based on data from Moody's, Vermont's 5-year average debt per capita figure is $887, which is below the 5-year mean for triple-A rated states. However, Vermont's 5-year average debt per capita is slightly higher than the median for triple-A rated states. Please see the table titled "Debt Per Capita Comparison" for a detailed view of the Peer Group's Debt Per Capita. This guideline of debt per capita relative to its Peer Group has been the State's limiting factor in terms of calculating debt capacity over the past few years.

It should be emphasized that Vermont's debt per capita relative ranking, after improving for a number of years, has slipped recently. According to Moody's most recent information, the State's relative position among states improved during the period 2003 through 2011 with respect to net tax-supported debt per capita, improving from 16th position in 2003 to 37th position in 2011. From 2011 through 2015 the State's position slipped each year and in 2016, the State ranked 27th (rankings are in numerically descending order, with the state having the highest debt per capita ranked 1st and the state having the lowest debt per capita ranked 50th).

Debt as a Percent of Personal Income

The Committee also adopted a guideline for the State to equal or perform better than the 5-year mean and 5-year median of the Peer Group on the basis of debt as a percent of personal income. At present the targets are 2.1% and 1.8% for the mean and the median respectively (the five-year average of Moody's Mean and Moody's Median for the Peer Group is 2.4% and 2.3%, respectively). Based on data from Moody's, Vermont's 2015 net tax supported debt as a percent of personal income is 2.1% - better than the 5-year mean and 5-year median for triple-A rated states. Please see the table titled "Debt As % of Personal Income Comparison" for a detailed view of the Peer Group's Debt as a Percent of Personal Income. According to Moody's most recent information, the State's relative position among states improved during the period 2003 through 2010 with respect to net tax-supported debt as a percent of personal income, improving from 17th position in 2003 to 36th position in 2010 where it remained in 2011 and 2012. The State's relative ranking dropped slightly in the years 2013 to 2016 and the State is currently ranked in the 30th position.

Debt Service as a Percentage of Revenues

This guideline does not create a compliance requirement for triple-A rated states. Rather, it is an absolute guideline, not a comparative one. CDAAC's adopted standard is a ratio of no greater than 6% for annual G.O. debt service as a percent of the annual aggregate of General and Transportation Funds revenue. At present, this ratio equals approximately 4.2%, as can be seen within the table titled "Historic and Projected Debt Ratios." Looking back, Vermont's debt service as a percentage of revenues improved from the 2002-2004 period where it was over 6%, to 5.4% in 2005. Since 2005, the State's debt service as a percent of revenue has been less than 5.1% except for the recession years of 2009 and 2010, where the statistic increased to 5.5% and 5.7%. Although CDAAC has maintained a standard of a 6.0% limit for debt service as a percent of revenues, the effect of the recent recession on this ratio has been taken into account. CDAAC notices the 0.4% to 0.6% increase in the ratio immediately after the start of the recession and believes that a comparable amount of cushion is appropriate for its final recommendation.

In terms of the debt service projections provided in the table titled "Historic and Projected Debt Ratios", the analysis assumes future interest rates (coupons) range on pro forma bond issues from 5.0% in fiscal year 2017, increasing annually by 0.5% to a maximum rate of 6.5% in fiscal years 2020 through 2027.

The CDAAC statute defines operating revenues as General and Transportation Fund revenues based upon the historic general flexibility in their uses of these funds for meeting financial operations of the State. In 2012, Moody's reintroduced a Moody's Median for debt service as a percent of operating revenues ("Debt Service Ratio"), and included the State's Education Fund as part of the State's operating revenue for purposes of this calculation. Because Moody's uses a much larger revenue base in its analysis, Moody's Debt Service Ratio for Vermont, at 2.1%, is substantially lower than the CDAAC guideline, and results in Vermont's comparatively high (favorable) Moody's ranking of 42nd out of the 50 states.

Debt as a Percent of Gross State Product

At present the 2016 Moody's mean and median for debt as a percentage of gross state product for the Peer Group is 1.8% and 1.6%, respectively. Please see the table titled "Debt As % of Gross State Domestic Product Comparison" for a detailed view of the Peer Group's Debt as a Percent of Gross State Domestic Product. (Moody's calculates their 2016 statistics based on 2015 net tax supported debt as a percentage of 2014 state gross domestic product.) Based on data from Moody's, Vermont's 2015 net tax supported debt as a percentage of gross state product is 2.1%, which is slightly higher than the median and the mean for the Peer Group states and the five-year average of the mean and the median of 2.0% and 1.9% for the Peer Group, respectively. According to Moody's most recent information, the State's relative position among states was 32nd in 2013, 30th in 2014 and fell to 27th in 2015.

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STATE OF VERMONT
2016 STATES RATED TRIPLE-A BY TWO OR MORE RATING AGENCIES
(as of July 29, 2016)

2016 Triple-A Rated States (1)*	Moody's	S&P	Fitch
Delaware	Yes	Yes	Yes
Florida	No	Yes	Yes
Georgia	Yes	Yes	Yes
Indiana (2)	Yes	Yes	Yes
Iowa (2)	Yes	Yes	Yes
Maryland	Yes	Yes	Yes
Missouri	Yes	Yes	Yes
North Carolina	Yes	Yes	Yes
South Carolina	Yes	No	Yes
South Dakota	Yes	Yes	Yes
Tennessee	Yes	Yes	Yes
Texas	Yes	Yes (2)	Yes
Utah	Yes	Yes	Yes
Virginia	Yes	Yes	Yes
VERMONT	Yes	No	Yes

(1) Fitch raised Florida, Iowa, Vermont, Tennessee and Texas to triple-A in 2010 as part of their Ratings Recalibration effort. Moody's raised Indiana, Iowa, New Mexico, Tennessee and Texas to triple-A in 2010 as part of their Ratings Recalibration effort. Nineteen states are currently rated triple-A by one or more of the nationally recognized rating agencies. Fifteen states are currently rated triple-A by two or more of the nationally recognized rating agencies.

(2) Indicates issuer credit rating since state does not have any G.O. debt or the rating agency does not provide a rating on the state's G.O. debt.

(3) South Dakota was rated by S&P as a triple-A state in 2015. Fitch upgraded South Dakota to triple-A in June 2016 and Moody's gave South Dakota an initial triple-A rating in July 2016.

* Alaska was rated as a triple-a state by all three national credit rating agencies. S&P downgraded Alaska in January 2016 reflected by the "state's credit quality as oil prices have continued to slide, falling below forecasts from earlier this year, causing an already large structural gulf between unrestricted general fund revenues and expenditures to widen further." Moody' downgraded Alaska in February 2016 reflected by the "heightened volatility in Alaska's revenues and the unprecedented imbalance caused by it." Fitch downgraded Alaska in June 2016 reflected by the "substantial operating deficits recorded by the state in recent fiscal years and the modest reform efforts taken to date to realign its stressed, petroleum-based revenue structure with expenditure demands."

STATE OF VERMONT
MEAN DEBT RATIOS

Per Capita	2012	2013	2014	2015	2016
All States	$1,408	$1,416	$1,436	$1,419	$1,431
Triple-A[1]	1,024	1,021	1,027	980	904
VERMONT	**792**	**811**	**878**	**954**	**1,002**

% of Personal Income	2012	2013	2014	2015	2016
All States	3.4%	3.4%	3.2%	3.1%	3.0%
Triple-A[1]	2.7	2.6	2.4	2.3	2.1
VERMONT	**2.0**	**2.6**	**2.0**	**2.1**	**2.1**

(1) These calculations exclude all Vermont numbers and include only states rated triple-A by two or more of the three rating agencies during the year shown. See table titled "Debt Per Capita Comparison" for complete listing of triple-A states and respective ratings and triple-A time periods.

STATE OF VERMONT
DEBT PER CAPITA COMPARISON

Peer Group States (All states with at least two triple-A rating)
5-Year Average Mean and 5-Year Average Median Excluding Vermont:
MEAN: $991 MEDIAN: $847
5-Year Average Vermont: $887

Triple-A Rated States[1]	Moody's Ratings[2]	S&P Ratings[2]	Fitch Ratings[2]	Moody's Debt Per Capita 2012	2013	2014	2015	2016
Alaska	Aa1/Negative	AA+/Negative	AAA/Negative	$1,454*	$1,251	$1,573	$1,489	$1,422*
Delaware	Aaa/Stable	AAA/Stable	AAA/Stable	2,674	2,536	2,485	2,438	2,385
Florida	Aa1/Stable	AAA/Stable	AAA/Stable	1,167	1,087	1,008	973	1,038
Georgia	Aaa/Stable	AAA/Stable	AAA/Stable	1,099	1,061	1,064	1,043	1,029
Indiana	Aaa/Stable	AAA/Stable	AAA/Stable	446	424	533	474	463
Iowa	Aaa/Stable	AAA/Stable	AAA/Stable	310	287	275	250	239
Maryland	Aaa/Stable	AAA/Stable	AAA/Stable	1,742	1,799	1,791	1,889	1,928
Missouri	Aaa/Stable	AAA/Stable	AAA/Stable	741	699	668	606	574
North Carolina	Aaa/Stable	AAA/Stable	AAA/Stable	815	853	806	739	721
South Carolina	Aaa/Stable	AA+/Stable	AAA/Stable	827	780	749	672	603
South Dakota	Aaa/Stable	AAA/Stable	AAA/Stable	358*	355*	391*	547*	652
Tennessee	Aaa/Stable	AAA/Stable	AAA/Stable	343	343	324	327	298
Texas	Aaa/Stable	AAA/Stable	AAA/Stable	588	580	614	406	383
Utah	Aaa/Stable	AAA/Stable	AAA/Stable	1,393	1,275	1,187	1,060	921
Virginia	Aaa/Stable	AAA/Stable	AAA/Stable	1,169	1,315	1,302	1,356	1,418
MEAN[3]	___________	___________	__________	**1,024**	**1,021**	**1,027**	**980**	**904**
MEDIAN[3]	___________	___________	__________	**827**	**957**	**907**	**856**	**687**
VERMONT	Aaa/Stable	AA+/Stable	AAA/Stable	792	811	878	954	1002

(1) States that carry at least two triple A ratings.
(2) Ratings as of July 29, 2016.
(3) These calculations exclude all Vermont numbers.
* Indicates that the state was not rated triple-A thereby two or more of this rating agencies during the year shown. Amount not used in calculating the mean or median for the year.

STATE OF VERMONT
DEBT AS % OF PERSONAL INCOME COMPARISON

Peer Group States (All states with at least two triple-A ratings)
5-Year Average Mean and 5-Year Average Median Excluding Vermont:
MEAN: 2.4% MEDIAN: 2.3%
5-Year Average Vermont: 2.0%

Triple-A Rated States	Moody's Debt as % of 2014 Personal Income				
	2012	2013	2014	2015	2016
Alaska	3.3%*	2.8%	3.2%	3.0%	2.7%*
Delaware	6.8	6.2	5.7	5.5	5.2
Florida	3.0	2.8	2.5	2.4	2.5
Georgia	3.1	3.0	2.9	2.8	2.7
Indiana	1.3	1.2	1.4	1.2	1.2
Iowa	0.8	0.7	0.6	0.6	0.5
Maryland	3.6	3.6	3.4	3.5	3.5
Missouri	2.0	1.8	1.7	1.5	1.4
North Carolina	2.3	2.4	2.1	1.9	1.8
South Carolina	2.5	2.3	2.2	1.9	1.7
South Dakota	0.9*	0.9*	0.9*	1.2*	1.4
Tennessee	1.0	0.9	0.8	0.8	0.7
Texas	1.5	1.5	1.5	1.0	0.9
Utah	4.4	3.8	3.4	3.0	2.5
Virginia	2.6	2.9	2.7	2.8	2.9
MEAN[1]	**2.7**	**2.6**	**2.4**	**2.3**	**2.1**
MEDIAN[1]	**2.5**	**2.6**	**2.4**	**2.2**	**1.8**
VERMONT	2.0	1.9	2.0	2.1	2.1

(1) These calculations exclude all Vermont numbers and include only states rated triple-A by two or more of the rating agencies during the periods shown, year ended June 30th.
* Indicates that the state was not rated triple-A by two or more of the rating agencies during the year shown. Amount not used in calculating the mean or median for the year.

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STATE OF VERMONT
DEBT AS % OF GROSS STATE DOMESTIC PRODUCT COMPARISON

Peer Group States (All states with at least two triple-A ratings)
5-Year Average Mean and 5-Year Average Median Excluding Vermont:
MEAN: 2.0% MEDIAN: 1.9%
5-Year Average Vermont: 2.0%

Moody's Debt as % 2014 Gross State Domestic Product					
Triple-A Rated States	2012	2013	2014	2015	2016
Alaska	2.1%*	1.8%	2.2%	1.9%	1.9%*
Delaware	3.9	3.5	3.5	3.6	3.6
Florida	3.0	2.8	2.5	2.4	2.5
Georgia	2.7	2.5	2.5	2.3	2.2
Indiana	1.1	1.0	1.2	1.0	1.0
Iowa	0.7	0.6	0.6	0.5	0.5
Maryland	3.4	3.5	3.3	3.3	3.3
Missouri	1.8	1.7	1.6	1.3	1.3
North Carolina	1.9	1.9	1.7	1.6	1.5
South Carolina	2.4	2.2	2.0	1.8	1.6
South Dakota	0.7*	0.7*	0.78*	1.0*	1.2
Tennessee	0.9	0.8	0.8	0.7	0.7
Texas	1.3	1.2	1.2	0.7	0.6
Utah	3.4	2.9	2.6	2.2	2.0
Virginia	2.2	2.5	2.4	2.5	2.6
MEAN[1]	**2.2**	**2.1**	**2.0**	**1.8**	**1.8**
MEDIAN[1]	**2.2**	**2.1**	**2.1**	**1.8**	**1.6**
VERMONT	1.9	2.0	2.0	2.0	2.1

(1) These calculations exclude all Vermont numbers and include only states rated triple-A by two or more of the rating agencies during the periods shown, year ended June 30th.

* Indicates that the state was not rated triple-A by two or more of the rating agencies during the year shown. Amount not used in calculating the mean or median for the year.

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STATE OF VERMONT
HISTORIC AND PROJECTED DEBT RATIOS

	Net Tax-Supported Debt Per Capita (in $)			Net Tax-Supported Debt as Percent of Personal Income			Net Tax-Supported Debt Service as Percent of Revenues (5)		
Fiscal Year (ending 6/30)	State of Vermont	Moody's Median	State's Rank (4)	State of Vermont	Moody's Median	State's Rank (4)	State of Vermont (5)	Moody's Median	State's Rank (4)
Actual (1)									
2003	861	606	16	3.0	2.2	17	6.7	n.a.	n.a.
2004	724	701	24	2.5	2.4	25	6.0	n.a.	n.a.
2005	716	703	25	2.3	2.4	27	5.4	n.a.	n.a.
2006	707	754	29	2.2	2.5	28	5.1	n.a.	n.a.
2007	706	787	28	2.1	2.4	30	5.1	n.a.	n.a.
2008	707	889	32	2.0	2.6	33	5.0	n.a.	n.a.
2009	692	865	34	1.8	2.5	35	5.5	n.a.	n.a.
2010	709	936	36	1.8	2.5	36	5.7	n.a.	n.a.
2011	747	1066	37	1.9	2.8	36	5.1	n.a.	n.a.
2012	792	1117	34	2.0	2.8	36	4.9	n.a.	n.a.
2013	811	1074	33	1.9	2.8	35	4.9	n.a.	n.a.
2014	878	1054	30	2.0	2.6	34	4.7	n.a.	n.a.
2015	954	1012	28	2.1	2.5	31	4.2	n.a.	n.a.
2016	1002	1027	27	2.1	1.8	30	4.2	n.a.	n.a.
Current (2)	1,016	n.a.	n.a.	2.0	n.a.	n.a.	4.2	n.a.	n.a.
Projected (FYE 6/30) (3)		State Guideline (6)			State Guideline (7)			State Guideline	
2017	1,065	870		2.1	2.3		4.2	6.0	
2018	1,085	893		2.0	2.3		4.3	6.0	
2019	1,102	917		2.0	2.3		4.4	6.0	
2020	1,116	942		2.0	2.3		4.5	6.0	
2021	1,125	968		1.9	2.3		4.6	6.0	
2022	1,133	994		1.9	2.3		4.6	6.0	
2023	1,138	1,021		1.9	2.3		4.7	6.0	
2024	1,143	1,048		1.8	2.3		4.7	6.0	
2025	1,142	1,077		1.8	2.3		4.8	6.0	
2026	1,140	1,106		1.7	2.3		4.8	6.0	
2027	1,135	1,135		1.6	2.3		4.7	6.0	
5-Year Average of Moody's Mean for Triple-A States		991			2.4			n.a.	
5-Year Average of Moody's Median for Triple-A States		847			2.3			n.a.	

Note: Shaded figures in fiscal years 2017-2026 represent the period when Vermont's debt per capita is projected to exceed the projected State Guideline consistent with the current debt per capita guideline calculation methodology and the assumption that the State will issue bonds consistent with the proposed two-year authorization (footnote (3)). See Section 5, "State Guidelines and Recent Events, Debt Per Capita State Guideline – Future Debt Capacity Risk."

(1) Actual data compiled by Moody's Investors Service, reflective of all 50 states. Moody's uses states' prior year figures to calculate the "Actual" year numbers in the table.

(2) Calculated by Public Resources Advisory Group, using outstanding G.O. debt of $637.0 million as of 6/30/16 divided by Vermont's 2016 population of 626.918 as projected by EPR.

(3) Projections assume issuance of $82.530 million of G.O. debt in FY2017 and $66.230 million in FY 2018 through FY2027.

(4) Rankings are in numerically descending order (i.e., from high to low debt).

(5) Revenues are adjusted reflecting "current law" revenue forecasts based on a consensus between the State's administration and legislature. Current debt service is net of the federal interest subsidies on the Build America Bond issues, and projected debt service is based on estimated interest rates ranging from 5% to 6.5% over the project period. Calculated by Public Resources Advisory Group.

(6) State Guideline equals the 5-year average of Moody's median for the Peer Group of $847 increasing annually at 2.7%.

(7) State Guideline is 2.3%, which equals the 5-year average of Moody's median for Peer Group. The annual average number is quite volatile, ranging from 2.3% to 2.7% over the last five years.

"Dashboard" Indicators

	Vermont[a]	Median Triple-A States[d]
Net Tax-Supported Debt:	$637,050,092	$3,276,441,000[c]
Debt As A Percent Of Gross State Product:	2.11%	1.6%[c]
Debt Per Capita:	$1,016	$687[c]
Debt As A Percent Of Personal Income:	2.06%	1.8%[c]
Debt Service As A Percent Of Operating Revenue[b]:	4.20%	N/A
Rapidity Of Debt Retirement:	36.8% (In 5 Years)	N/A
	67.5% (In 10 Years)	N/A
	90.6% (In 15 Years)	N/A
	100.00% (In 20 Years)	N/A

(a) Debt statistics for Vermont are as of June 30, 2016. Estimates of FY 2016 Gross State Product, Population, Personal Income and Operating Revenue prepared by EPR.
(b) Aggregate of State's General Fund and Transportation Fund.
(c) Source: Moody's Investors Service, 2016 State Debt Medians Report calculated by Public Resources Advisory Group.
(d) These calculations exclude all Vermont numbers and include only states rated triple-A by two or more of the rating agencies during the periods shown, year ended June 30th.

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Special Obligation Transportation Infrastructure Bonds (TIBs)

As discussed in Section 4, "National Credit Rating Methodologies and Criteria," the rating agencies have effectively indicated the TIB debt, supported by the assessments, should be considered as part of the State's general indebtedness. CDAAC has considered TIBs self-supporting revenue bonds, and not net tax-supported indebtedness of the State. For purposes of illustration, however, it is relevant to quantify the impact of TIBs inclusion in the more critical debt ratios, as shown below:

STATE OF VERMONT
DEBT RATIOS WITH AND WITHOUT CONSIDERING TIBS*
As of June 30, 2016

	With TIBs[(a)(b)]	Without TIBs[(b)]
Net Tax-Supported Debt:	$666,935,092	$637,050,092
Debt As A Percent of Gross State Product:	2.12%	2.02%
Debt Per Capita:	$1,061	$1,014
Debt As A Percent of Personal Income:	2.07%	1.98%
Debt Service as a Percent of Operating Revenue[(c)]:	4.15%	4.01%

(a) As of June 30, 2016 the outstanding principal amount of the State's Special Obligation Transportation Infrastructure Bonds, 2010 Series A, 2012 Series A and 2013 Series A, was $10,840,000, $9,035,000 and $10,010,000 respectively.
(b) Debt statistics for Vermont are as of June 30, 2016. Estimates of FY 2017 Gross State Product, Population, Personal Income and Operating Revenue were prepared by EPR.
(c) Aggregate of State's General Fund and Transportation Fund.

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4. NATIONAL CREDIT RATING METHODOLOGIES AND CRITERIA

Standard & Poor's Methodology for U.S. State Ratings

On January 3, 2011, Standard & Poor's released the final version of its "U.S. State Ratings Methodology." A copy of the methodology was included in the Appendices to the CDAAC 2011 report. This methodology provides, for the first time, a comprehensive presentation that sets forth, in a systematic way, a quantification approach to rating states. By assigning numerical values to its various rating criteria, the agency has moved closer to the establishment of state ratings through a quantification approach. The methodology includes the important categories of review, referred to as "factors," by Standard & Poor's:

(i) Government Framework,
(ii) Financial Management,
(iii) Economy,
(iv) Budgetary Performance and Flexibility, and
(v) Debt and Liability Profile.

In addition, the sub-categories, or "metrics" within each factor are weighed. Specifically, S&P assigns a score of 1 (strongest) to 4 (weakest) for twenty-eight metrics, grouped into the five factors listed above. Each of the metrics is given equal weight within the category, and then each factor is given equal weight in an overall 1 through 4 score. The overall scores correspond to the following indicative credit levels for the highest three ratings categories:

Score	Indicative Credit Level
1.0-1.5	AAA
1.6-1.8	AA+
1.9-2.0	AA
2.1-2.2	AA-
2.3-2.5	A+
2.5-2.6	A
2.7-3.0	A-
3.1-4	BBB category

In 2011, S&P reported that Vermont's score was approximately 1.7, corresponding to the State's AA+ rating from S&P. The major metrics where Vermont could improve, that to varying degrees are within the State's control, were consistent with what S&P outlined when they placed the State on positive outlook in 2015 in which Vermont received a composite score of 1.7: (a) increasing formal budget-based reserves to 8%; (b) increasing pension funded ratios, and (c) planning for and accumulating assets to address other post-employment benefits.

In August 2016, S&P's most recent report, Vermont's composite scope was 1.7, a slight improvement over the 2015 report. The scores for each factor are as follows:

1.6	Government Framework
1.0	Financial Management,
2.0	Economy,
1.4	Budgetary Performance and Flexibility, and
2.5	Debt and Liability Profile.

The debt and liability profile is the fifth of the five major factors in S&P's assessment of the indicative credit level. S&P notes that they review debt service expenditures and how debt payments are prioritized versus funding of other long-term liabilities and operating costs for future tax streams and other revenue sources. They evaluate three key metrics which they score individually and weight equally: debt burden, pension liabilities, and other post-employment benefits. For each metric there may be multiple indicators (as they are for the debt metric) that they score separately and then average to develop the overall score for the metric.

In terms of debt, the CDAAC reports since 2011 have incorporated certain new pieces of information, such as debt as a percent of state domestic product and relative rapidity of debt retirement (See the table "Dash Board Operating Revenues"). Provided below is a table with S&P debt statistics and scores for Vermont.

S&P' Debt Score Card Metrics

	Low Ranking (Score of 1)	Moderate Ranking (Score of 2)	Vermont's Statistics[1]	Vermont's Score
Debt per Capita	Below $500	$500 - $2,000	950	2
Debt as a % of Personal Income	Below 2%	2% - 4%	2%	2
Debt Service as a % of Spending	Below 2%	2%- 6%	2%	2
Debt as a % of Gross State Product	Below 2%	2% - 4%	2%	2
Debt Amortization (10 year)	80% - 100%	60%-80%	67%	2

[1] As calculated and reported by S&P.

Moody's US States Rating Methodology

On April 17, 2013, Moody's Investors Services released the final version of its "US States Rating Methodology."

This methodology provides an updated explanation of how Moody's assigns ratings to US State G.O.s or their equivalents. The report provides market participants with insight into the factors Moody's considers being most important to their state ratings. The report also introduces a new state methodology scorecard. The scorecard's purpose is to provide a reference tool that can be used to approximate credit profiles for US states.

The methodology includes the following "key factors" and "sub-factors" as referred to by Moody's:

Broad Rating Factors	Factor Weighting	Rating Sub-Factors	Sub-Factor Weighting
Economy	20%	Income	10%
		Industrial Diversity	5%
		Employment Volatility	5%
Governance	30%	Financial Best Practices	15%
		Financial Flexibility/Constitutional Constraints	15%
Finances	30%	Revenues	10%
		Balances and Reserves	10%
		Liquidity	10%
Debt	20%	Bonded Debt	10%
		Adjusted Net Pension Liability	10%
Total	**100%**	**Total**	**100%**

Debt is the fourth factor of the four major factors in Moody's scorecard. The debt factor captures both debt and other long-term liabilities, such as unfunded pension liabilities. Moody's treats pension liabilities as a form of debt, and looks at the state's unfunded pension liabilities as a percent of state revenues.

In terms of Moody's scorecard, they look at debt and pension liability compared to revenues to measure the relative affordability of the state's debt obligations based on current revenues sources.

Sub-Factor	Measurement	Aaa	Aa1	Aa2	Aa3	A	Baa and below
Debt Measure	NTSD/Total Governmental Fund Revenues	Less than 15%	15%-30%	30%-50%	50%-90%	90%-130%	Greater than 130%
Pension Measure	3 year Average Adjusted Net Pension Liability/Total Governmental Funds Revenues	Less than 25%	25%-40%	40-80%	80-120%	120-180%	Greater than 180%

For the debt measure, Moody's uses net-tax supported debt (NTSD) divided by total governmental fund revenues. Moody's includes the State's Education Fund as part of the State's operating revenue for purpose of this calculation and its calculation of debt service as a percentage of operating revenues. Also, as discussed in the "Special Obligation Transportation Infrastructure Bonds (TIBs)" section of the report, the credit rating agencies include TIBs in their calculation of NTSD. Based on this assumption, Moody's debt measure for Vermont for FY 2015 is approximately 23%.

Based on the Moody's Median report titled "Robust 2014 Investment Returns Provide Pause in Growth of Adjusted Net Pension Liabilities," dated January 15, 2016, Vermont's 3-year Average Adjusted Net Pension Liability (ANPL) was \$3.7 billion. This as a percentage of 2014 governmental revenues was 70%, ranking Vermont 22nd of the 50 states, with 1 being the worst and 50 being the best. See "Moody's Adjustment to Pension Data and Adjusted State Pension

Liability Medians" herein for additional information regarding Vermont's relative standing to other triple-A states regarding pensions.

Moody's fundamental analytical framework also includes the following additional key rating factors and sub-factors that do not fall into the overall rating scorecard, but could shift a rating up or down anywhere from a half a notch to multiple notches from what the scorecard suggests. These factors include:

I. Additional Economic Factors

- A very narrow economy, with little expectation of growth and/or diversification, and/or shrinking
- Population due to outmigration (could bring rating down)
- A poverty rate that is greater than 30% (could bring rating down)
- Expected future status as a growth state (could bring rating up)

II. Additional Governance Factors

- Political polarization that makes budgeting and financial decisions difficult (could bring rating down)
- Lack of congressional representation (in the case of commonwealth or US territories) (could bring rating down)
- Weakness in fiscal best practices, such as late CAFR's, weakness in consensus revenue estimating process, etc. (could bring rating down)
- Heightened risk of lack of appropriation for debt service, or other nonpayment of debt service (could bring rating down)
- Long history of conservative financial management, and/or frequent revenues estimating (at least four times a year) (could bring rating up)

III. Additional Financial Factors

- Large structural imbalance, even in economic upswings (could bring rating down)
- Cash flow notes or other cash management tools used due to severe liquidity strain, may cross fiscal years or be rolled (could bring rating down)
- Lack of market access (could bring rating down)
- Delaying vendor payments due to cash flow strain (could bring rating down)

IV. Additional Debt Factors

- Significantly strong or weak pension characteristics (could bring rating up or down)
- Inflexible or risky debt structure, including high variable-rate and swap exposure relative to liquidity (could bring rating down)
- Extremely high debt ratios (debt/personal income greater than 50%, for example) (could bring rating down)
- Any structural subordination of GO debt (could bring rating down)
- Consolidated borrowing on behalf of local governments (could bring rating up)

V. Additional Other Factors

- Other factors specific to a state or credit that may affect rating
- Operating Environment

Fitch Rating Criteria for US State and Local Governments

On April 18, 2016, Fitch Ratings published an updated U.S. Tax-Supported Rating Criteria that outlines criteria applied by Fitch for ratings of U.S. state and local governments.

Notable aspects of the new criteria include published assessments of four key rating factors that drive rating analysis in the context of the economic base. The four key rating factors driving state and local government ratings include:

--Revenues;
--Expenditures;
--Long-term liabilities; and
--Operating performance.

Please see the guidance table on the following page that outlines general expectations for a given rating category.

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	aaa	**aa**	**a**	**bbb**	**bb**
Revenue Framework					
Growth Prospects for Revenues Without Revenue-Raising Measures	Strong Growth in line with or above the level of U.S. economic performance	Solid Growth below U.S. economic performance but above the level of inflation	Slow Growth in line with the level of inflation	Stagnant Growth below the level of inflation or flat performance	Negative Declining revenue trajectory
Independent Legal Ability	High	Substantial	Satisfactory	Moderate	Limited
to Raise Operating Revenues Without External Approval (in Relation to Normal Cyclical Revenue Decline)	Minimum revenue increase at least 300% of the scenario revenue decline	Maximum revenue increase at least 200% of the scenario revenue decline	Maximum revenue increase at least 100% of the scenario decline	Maximum revenue increase at least 50% of the scenario revenue decline	Maximum revenue increase less than 50% of the scenario revenue decline
Additional Considerations	In cases where an entity relies heavily on third-party funding (e.g. from a higher level of government) in support of core functions that likely would continue at the same level even without the external support, an evaluation of the associated risk informs the assessment. Third-party support can be a positive consideration in the overall framework assessment in cases where Fitch believes that support can be relied upon, for example state support of school districts. The requirement for periodic re-authorization of existing revenue streams is a negative consideration. In addition, in rare cases, there may be other factors, such as an unusually concentrated or volatile revenue base, that have a negative effect on the assessment.				
Expenditure Framework					
Natural Pace of Spending Growth Relative to Expected Revenue Growth (Based on Current Spending Profile)	Slower to equal	In line with to marginally above	Above	Well above	Very high
Flexibility of Main Expenditure Items (Ability to Cut Spending Throughout the Economic Cycle)	Ample	Solid	Adequate; legal or practical limits to budget management may result in manageable cuts to core services at times of economic downturn	Limited; cuts likely to meaningfully, but not critically, reduce core services at times of economic downturn	Constrained; adequate delivery of core services may be compromised at times of economic downturn
	Carrying cost metric less than 10%	Carrying cost metric less than 20%	Carrying cost metric less than 25%	Carrying cost metric less than 30%	Carrying cost metric 30% or greater
Additional Considerations	The analysis of an issuer's expenditure framework also considers potential funding pressures, including outstanding or pending litigation, internal service fund liabilities and contingent obligations				

Long-Tern Liability Burden	Low	Moderate	Elevated but still in the moderate range	High	Very High
Combined Burden of Debt and Unfunded Pension Liabilities in Relation to Resource Base	Liabilities less than 10% of personal income	Liabilities less than 20% of personal income	Liabilities less than 40% of personal income	Liabilities less than 60% of personal income	Liabilities 60% or more of personal income
Additional Considerations	The liability burden assessment could be negatively affected by high levels of derivatives exposure, short-term debt, variable-rate debt or bullet maturity debt or an exceptionally large OPEB liability without the ability or willingness to make changes to benefits. An exceptionally large accounts payable backlog can also negatively affect the long-term liability burden assessment.				
Operating Performance					
Financial Resilience Through Downturns (Based on Interpretation of Scenario Analysis)	Exceptionally strong gap-closing capacity; expected to manage through economic downturns while maintaining a high level of fundamental financial flexibility.	Very strong gap-closing capacity; expected to manage through economic downturns while maintaining an adequate level of fundamental financial flexibility.	Strong gap-closing capacity; financial operations would be more challenged in a downturn than is the case for higher rating levels but expected to recover financial flexibility.	Adequate gap-closing capacity; financial operations could become stressed in a downturn, but expected to recover financial flexibility	Limited gap-closing capacity; financial operations could become distressed in a downturn and might not recover.
Budget Management at Times of Economic Recovery	Rapid rebuilding of financial flexibility when needed, with no material deferral of required spending/ nonrecurring support of operations.	Consistent efforts in support of financial flexibility, with limited to no material deferral of required spending/nonrecurring support of operations.	Some deferral of required spending/ nonrecurring support of operations.	Significant deferral of required spending/ nonrecurring support of operations.	Deferral of required spending/ nonrecurring support of operations that risks becoming untenable given tools available to the issuer.
Additional Considerations	The operating performance assessment could be negatively affected by liquidity or market access concerns (in general, liquidity becomes a concern if the government-wide days cash on hand metric has or is expected to fall below 60 days); the risk of an outside party (e.g. another level of government) having a negative impact on operations; evidence of an exceptional degree of taxpayer dissatisfaction, particularly in environments with easy access to the voter-initiative process; or management weaknesses not captured above.				

As part of its revised criteria, Fitch can create scenarios that consider how a government's revenues may be affected in a cyclical downturn and the options available to address the resulting budget gap. Also under the revised criteria, Fitch provides more in-depth opinions on reserve adequacy related to individual issuers' inherent budget flexibility and revenue volatility.

Fitch does not expect the new criteria revisions to trigger widespread rating changes. Rating actions would likely not exceed 10% of the government credits covered by the criteria, with a roughly equal mix of upgrades and downgrades. Upgrades would likely result from the more focused consideration of the economy while downgrades would center around the more integrated consideration of the adequacy of reserve funding.

Vermont has not yet been rated under the new criteria.

5. ECONOMIC AND FINANCIAL FORECASTS

This section of the report includes excerpts from the "The Fiscal 2017-18 Revenue Outlook for the General Fund, Transportation Fund, and Education Fund" prepared by Economic and Policy Resources, Inc. ("EPR") dated July 21, 2016.

"The combination of a maturing U.S. and Vermont economic expansion, a small one percent under-performance in fiscal 2016 revenues, a poor Winter tourism season, and a series of special and technical factors have combined to produce a roughly one percent downgrade in the Staff Recommended Consensus Forecast (hereafter "the staff recommendation") across all three fund aggregates this July relative to what would have been expected combining the January consensus forecast and the initial estimates of the fee, payment, and other revenue changes as passed during the 2016 legislative session."

"The above downshift in the consensus economic forecast is a reflection of actual data and on-going concerns about the "maturing" U.S. and Vermont economic expansions, on-going volatility on U.S. and global stock markets, the on-going uncertainty about economic conditions and future performance in China and many key parts of the developing world, the proliferation in terrorist activity, and now the expected somewhat negative economic fall-out (according to most published news reports) associated with the recent "Brexit" vote in the United Kingdom ("U.K.")."

"The principal sources of downside economic forecast risk includes: (1) the persistent European economic and fiscal crisis (now being driven by "Brexit)," (2) slowing productivity gains in the corporate sector and its likely slowing impact on corporate profits and tax payments, (3) the on-going terrorist threat complicated by the on-going unrest in the Middle East (e.g. the on-going refugee crisis) and the developing world and its impact on energy prices and its resulting braking effect on U.S. exports, (4) the slowdown in China and a large portion of the developing world due to commodity price weakness and deflation, (5) ongoing weakness in the state and local governments' fiscal situation in many parts of the U.S., and (6) the political uncertainty in Washington over fiscal policy-tax matters."

"On the other side of the risk ledger for the "consensus" economic forecast, there is: (1) strengthening labor markets that could help improve confidence that would bolster consumption spending, (2) the strong balance sheet condition of U.S. businesses which provides a supportive financial basis for additional hiring activity and higher wages, (3) the continued recovery in the housing market that is beginning to aid in the recovery of household wealth which can be supportive of additional consumption spending, and (4) the Federal Reserve's on-going commitment to continued U.S. growth—despite the statements indicating a transition to the "normalization" of monetary policy (which would translate into a trend towards higher short-term interest rates)."

"Developments in the Vermont economy over the most recent 6 to 9 months were generally positive except for very poor weather conditions during the 2015-16 Winter tourism season which undercut an otherwise positive tone to economic and labor market activity."

Provided below are EPR's 2016 economic projections as compared to its 2015 economic projections. As shown, the 2016 projections show a decrease in population in all years of the forecast. Furthermore the forecast for nominal personal income is down in every year of the forecast period. The 2016 General Fund and Transportation Fund revenue projections are lower throughout the forecast, except for an increase in 2017. Although the population and government revenue projections are somewhat lower from the previous projection on a year by year basis, the 2016 nominal dollar personal income projections are significantly lower than the 2015 projections on a year by year basis. Looking at the columns that compare revenues as a percentage of nominal personal income suggests that the State's general and transportation fund are expected to collect a slightly greater share of the state's personal income for government operations.

STATE OF VERMONT
POPULATION, PERSONAL INCOME AND REVENUE PROJECTIONS
2016 COMPARED TO 2015 PROJECTIONS

Population (Thousands)

Year	2015	2016	Change	% Change
2016	628.86	626.92	-1.94	-0.31%
2017	630.49	628.36	-2.13	-0.34%
2018	631.82	630.18	-1.63	-0.26%
2019	632.95	631.95	-1.01	-0.16%
2020	634.28	633.34	-0.95	-0.15%
2021	635.62	634.60	-1.01	-0.16%
2022	637.01	635.81	-1.20	-0.19%
2023	638.61	636.95	-1.65	-0.26%
2024	640.14	638.04	-2.10	-0.33%
2025	641.68	639.12	-2.55	-0.40%
2026	643.22	640.14	-3.07	-0.48%
2027		641.17	n.a.	n.a.

Nominal Dollar Personal Income (Millions)

Year	2015	2016	Change	% Change
2016	32,270.81	30,949.92	-1,320.89	-4.09%
2017	33,755.27	32,209.42	-1,545.85	-4.58%
2018	35,139.23	33,561.16	-1,578.07	-4.49%
2019	36,439.38	34,689.28	-1,750.10	-4.80%
2020	37,605.44	35,648.79	-1,956.65	-5.20%
2021	38,658.40	36,713.07	-1,945.32	-5.03%
2022	39,740.83	37,860.97	-1,879.86	-4.73%
2023	40,853.58	39,025.01	-1,828.57	-4.48%
2024	42,038.33	40,234.93	-1,803.40	-4.29%
2025	43,299.48	41,533.69	-1,765.79	-4.08%
2026	44,641.76	42,917.46	-1,724.30	-3.86%
2027		44,423.04	n.a.	n.a.

General Fund and Transportation Fund Revenue (Millions)

Year	2015	2016	Change	% Change
2016	1,699.14	1,677.03	-22.11	-1.30%
2017	1,752.83	1,758.23	5.40	0.31%
2018	1,804.53	1,799.95	-4.58	-0.25%
2019	1,854.62	1,844.27	-10.35	-0.56%
2020	1,904.89	1,892.13	-12.76	-0.67%
2021	1,960.24	1,940.35	-19.89	-1.01%
2022	2,020.92	1,992.80	-28.12	-1.39%
2023	2,085.04	2,047.61	-37.43	-1.80%
2024	2,151.03	2,102.00	-49.03	-2.28%
2025	2,217.40	2,155.97	-61.43	-2.77%
2026	2,286.25	2,210.45	-75.79	-3.32%
2027		2,268.88	n.a.	n.a.

General Fund and Transportation Fund Revenue as Percent of Nominal Personal Income

Year	2015	2016	Change
2016	5.3%	5.4%	0.2%
2017	5.2%	5.5%	0.3%
2018	5.1%	5.4%	0.2%
2019	5.1%	5.3%	0.2%
2020	5.1%	5.3%	0.2%
2021	5.1%	5.3%	0.2%
2022	5.1%	5.3%	0.2%
2023	5.1%	5.2%	0.1%
2024	5.1%	5.2%	0.1%
2025	5.1%	5.2%	0.1%
2026	5.1%	5.2%	0.0%
2027		5.1%	n.a.

The growth reduction in projected personal income from the previous year forecast will impact Vermont's debt guideline of debt as a percentage of personal income. Lower personal income numbers will increase the State's debt as a percentage of personal income at a constant amount of debt. However even with the drop in forecasted personal income figures, the State is still well under its guidelines of 2.3%.

Provided below are the forecasts of population, personal income, and nominal gross State product. As shown in the table below, population for fiscal year 2016 and 2017 is 626.9 thousand and 628.4 thousand, respectively, initially a decrease of 0.09% and then an increase of 0.23% over the previous fiscal years. Personal income for fiscal year 2016 and 2017 is $30.9 billion and $32.2 billion, respectively, an increase of 0.81% and 4.07%, over the previous fiscal year, respectively. Nominal gross State product for fiscal year 2016 and 2017 is $30.2 billion and $31.5 billion, respectively, a decrease of 1.36% and increase of 4.27%, over the previous fiscal year, respectively.

STATE OF VERMONT
PRIOR YEAR, CURRENT AND PROJECTED ECONOMIC DATA(1)

Year	Population (in thousands)	Personal Income (in $ billions)	Nominal GSP (in $ billions)
2016	626.9	30.9	30.2
2017	628.4	32.2	31.5
2018	630.2	33.6	33.1
2019	631.9	34.7	34.4
2020	633.3	35.6	35.5
2021	634.6	36.7	36.5
2022	635.8	37.9	37.7
2023	637.0	39.0	39.0
2024	638.0	40.2	40.3
2025	639.1	41.5	41.6
2026	640.1	42.9	43.0
2027	641.2	44.4	44.3

(1) Administration-Legislative Consensus Long-Term Forecast (Calendar Years 2016-2027). These figures were prepared by EPR, as of August 5, 2016.

As shown in the table below, total revenue for fiscal year 2016 is $39.8 million more than in fiscal year 2015, an increase of 2.4%. Fiscal year 2017 total revenue is forecasted to increase by $81.2 million, or 4.8%; the average annual revenue growth rate during the fiscal year period, 2017 through 2027, inclusive, is projected to be 2.76%.

STATE OF VERMONT
PRIOR YEAR, CURRENT AND PROJECTED STATE REVENUE [1]
(in millions of dollars)

Fiscal Year	General Fund	Transportation Fund	Total Revenue [2]
2015	1,375.8	261.4	1,637.2
2016	1,412.4	264.6	1,677.0
2017	1,480.5	277.7	1,758.2
2018	1,517.9	282.0	1,799.9
2019	1,558.7	285.5	1,844.3
2020	1,603.3	288.9	1,892.1
2021	1,648.2	292.1	1,940.3
2022	1,697.2	295.6	1,992.8
2023	1,748.1	299.6	2,047.6
2024	1,798.8	303.2	2,102.0
2025	1,849.4	306.6	2,156.0
2026	1,900.4	310.0	2,210.5
2027	1,955.2	313.7	2,268.9

(1) Administration-Legislative Consensus Long-Term Forecast (Calendar Years 2017-2027). These figures were prepared by EPR. Amounts shown are "current law" revenue forecasts, based on a consensus between the State's administration and legislature. As of August 5, 2016.

(2) Totals may not agree due to rounding.

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6. STATE GUIDELINES AND RECENT EVENTS

In order to recommend to the Governor and the General Assembly a maximum amount of net tax-supported indebtedness that the State may prudently issue for the ensuing fiscal year, CDAAC has adjusted its State guidelines and the method of calculating its State guidelines over time based on factors such as (i) changes in the rating agencies' criteria, (ii) changes in Vermont's ratings, (iii) changes to Vermont's Peer Group, (iv) substantial increases and decreases in the amount of debt issued due to market disruptions and tax law changes and (v) Vermont's relative debt position.

Examples of changes in rating criteria include Moody's dropping its State medians for "net tax supported debt as a percentage of effective full valuation" and "net tax supported debt service as a percentage of operating revenues" in 1996, reintroducing its "net tax supported debt service as a percentage of operating revenues" in 2012, Moody's and Fitch's recalibration of ratings in 2010, and the 2012 comparative research analysis that has combined State debt and pension liabilities as a method of evaluating states' financial position. The recalibration of ratings by Moody's and Fitch in 2010 and S&P rating changes over the past five years have also affected Vermont's Peer Group. Between 2002 and 2008, the number of states with two triple-A ratings remained fairly constant between eight and eleven states, compared to the current 15 states having at least two triple-A ratings.

While CDAAC has continued to make adjustments to the State guidelines and the way it calculates State guidelines, it has been consistent in its overall approach of projecting future State debt issuances and measuring the effect against prudent State guidelines based on Peer Group analysis. The Committee does not believe that adjustments in the credit markets or other recent events should alter its process; however, the Committee realizes that it and the State will need to keep the changing debt finance environment and other current circumstances in mind as the State develops its capital funding and debt management program.

Debt Per Capita State Guideline – Adjustments to Debt Per Capita State Guideline

The debt per capita statistics, among the various debt guidelines, is used to establish the recommended limitations on the amount of G.O. debt that the State should authorize annually. The debt per capita State guideline calculation is based on a starting point, which since 2006 has consisted of the median of the 5-year Peer Group average of the debt per capita median of peer group (triple-A) states, and an annual inflation factor, in order to achieve a realistic perspective on the future direction of debt per capita median for the Peer Group states. As recently as 2007, CDAAC used an inflator of 2.7% or 90% of an assumed 3% inflation rate. As part of the development of the 2009 report, CDAAC determined that it would be most appropriate to adopt an inflator based upon a percentage of the averaging of the annual increases in the median debt per capita of the triple-A States for the last five years. As the resulting five-year average was 5.35%, it was determined that an inflator of less than 100% of Vermont's triple-A peers was deemed appropriate and an inflation number representing only 60% of the growth factor, or 3.18%, was used in order to be consistent with the expectations of the rating agencies and financial community and consistent with the State's debt management practices and the prior year's report. The 2009 through 2011 CDAAC reports noted that the approach in calculating the inflator should not be considered fixed as there are too many variables that could conceivably alter this number. First, should the agencies continue to change the number of triple-A rated states, the composition of Vermont's Peer Group could be altered. Second, the amount of relative bond issuance by other triple-A states could affect the per capita median for the State's peer group which could alter the per capita growth rate. Third, Moody's has stated consistently in its credit reports that if the rating agency were to see a deterioration in the State's relative rankings with respect to debt per capita and debt as a percent of personal income, Vermont's triple-A rating could fall. CDAAC believes that it is imperative to continue to monitor the State's performance in these comparisons annually to determine if the inflation factor should be adjusted from time to time.

In conducting preliminary calculations for the 2012 report, it was determined that two of the factors mentioned above were having a pronounced effect on the calculation of the State guideline. The Committee reviewed analysis of the possible effect on the starting point and the inflator based on the drop in total calendar year 2011 municipal bond issuance and the change in the Peer Group as a result of the State of Minnesota losing its two triple-A ratings. The analysis indicated that each of these factors significantly affected the State guideline calculation and modifications were necessary in order to maintain a stable and reliable recommendation.

With the goal of limiting volatility in the State guideline calculation, it was determined to adjust the starting point calculation to be the five-year average of the medians of the triple-A Peer Group (instead of the median of the five-year Peer Group medians) and increase the time horizon from five years to ten years for the inflator, without adjustment. The Committee also reviewed other scenarios for adjusting the Peer Group, such as excluding states with the two highest and two lowest statistics and excluding states with a single triple-A rating. These scenarios resulted in State guidelines that were substantially the same as the recommended approach, indicating possible improvement in the reliability and stability of the methodology.

For the 2013 report, the methodology used was consistent with the one used in 2012. In the 2014 report, the group of triple-A states that make up the Peer Group was adjusted. After again reviewing the states with only one triple-A a determination was made that these states should not be part of the comparison, mainly due to differences in their capital funding mechanisms and the natural resource dependent nature of their revenue and debt funding mix. Thus for the 2014 and 2015, all the states with <u>two</u> triple-A ratings are included as Peer Group states.

In 2016, Alaska was downgraded by Moody's, S&P and Fitch; and by definition, dropping it from the Peer Group. While South Dakota was upgraded by all three rating agencies to triple A and qualifying it as a Peer Group state. In 2016, Alaska had debt per capita of $1,422, while South Dakota had debt per capita of $652. Therefore, the Peer Group lost a high debt per capita state and gained a low debt per capita state, driving down the median 2016 Peer Group debt per capita to $856 from its 2015 level of $687, which is a 20% decrease. This had a significant impact on the starting point of the State's debt per capita guideline, which continues to be the five-year average of the medians of the triple-A Peer Group debt per capita. For 2016, the starting point is $847 compared to $904 for 2015.

Since 2012, the State has used the ten-year average of the growth rates of the median debt per capita of the Peer Group to calculate the inflator by which the starting point guideline is increased each year (i.e. the rate by which the $847 increases annually to calculate the

State's annual guideline from 2017-2027). However, as previously mentioned, in 2016 we lost a high debt per capita state from the Peer Group and gained a low debt per capita state to the peer group which significantly decreased the median debt per capita figures and drove the 10-year average of the growth rates to a negative growth rate.

Back in 2012, CDAAC moved to using an inflator based on the 10-year average of the growth in the peer growth median in order to best predict the future growth of Peer Group debt issuances per capita. However, the addition and removal of certain states in the Peer Group created some noise in this calculation and the annual growth is more a result of the Peer Group states changing rather than an indicator of the change in debt issuance levels of the Peer Group.

As discussed earlier in this section of the report, the 2007 CDAAC used an inflator of 2.7% (or 90% of an assumed 3% inflation rate). In 2009, this approach was changed and the decision was made to adopt an inflator based on a percentage of the averaging of the annual increases in the median debt per capita of the Peer States in an attempt to best predict increases in future Peer State debt levels. At the time this changed occurred, it was noted that this approach should not be considered fixed because of possible changes to the Peer Group, among others, over time and that CDAAC should continue to monitor the best approach to calculating the inflator. With the recent changes to the Peer Group states and significant decrease in the Peer Group debt per capita resulting in an overall negative growth, or inflator, we have evidenced a deficiency in this approach and CDAAC has decided to revert back to its previous approach to calculating the inflator based on the 2.7% (90% of 3% assumed inflation). CDAAC will continue to monitor this approach as well as the approach to determining the starting point for its debt per capita guideline.

Statutory Change Relating to Use of Bond Premium and Effect on Affordability

Effective in fiscal year 2013, 32 V.S.A. § 954 was amended to permit the use of bond premium received from issuance of debt for capital purposes. Previously bond premium was used to pay debt service. In fiscal year 2013, the net bond premium became available to pay capital appropriations, effectively reducing the par amount of bonds issued such that the par amount of bond plus the net original issue premium equals the capital appropriations amount.

The effect of this legislative change on the CDAAC numbers is as follows: if future bonds are issued with a net original issuance premium, the par amount of bonds will be less than estimated by the CDAAC report; however, the higher the original issue premium, the higher the average interest rate on the lower amount of debt. Due to the lower nominal interest rates in the market and the institutional investors' preference for higher coupon debt, the State expects to sell bonds with some original issue premium and reduce the size of its bond sales. To the extent that occurs, the State could authorize future additional capital appropriations in an amount equal to or less than the premium generated and still be in compliance with the CDAAC bond issuance recommendation.

Recent Decreasing State Debt Levels, Future State Infrastructure Spending Increasing

According to the Moody's State Debt Medians 2015 report published June 24, 2015, total net tax-supported debt for US States declined in 2014. This was the first drop in state debt levels in the 28 years Moody's has been compiling the data. According to the 2015 report

"The decrease comes as states continue to be reluctant to take on new debt with tight operating budgets, a slow economic recovery, and uncertainty over federal fiscal policy and health care funding." The Moody's State Debt Medians 2016 report, which reports debt issuance from 2015, indicated the net tax-supported debt for US States remained virtually unchanged in 2015 from 2014 levels with a minimal year-over-year growth of 0.6%.

Despite two recent years with decreased and static state debt levels, debt levels are anticipated to rise in 2016. It was reported in February 2016 via the Center on Budget and Policy Priorities that state and local spending on infrastructure hit a 30-year low. Roads and bridges have continued to deteriorate due to federal investments dropping in half and the states' varying budget commitment to infrastructure. Nevertheless, it seems as if infrastructure spending is finally on the rise due to record low interest rates. Instead of issuing refunding bonds, many municipalities are taking advantage of the interest rates to finance much needed rehabilitation to roads and bridges. Mikhail Foux, head of municipal strategy in New York for underwriter Barclays Plc stated "That's going to be the story of the year – rebuilding infrastructure" and went on to forecasts that issuance may reach $400 billion this year.

Unlike many of its peer states in recent years, Vermont has continued to invest in its infrastructure, such as investing in the Waterbury office complex. The State has recognized the necessity of road and bridge improvements. Furthermore, these issues exemplify the cause in which the State's debt per capita has risen slightly in comparison to those states within the Peer Group. The report of the rise of infrastructure spending is positive news for Vermont as it will help the State become more in line with the other states within the Peer Group in regard to debt statistics.

Recent Proposals to Limit Tax-Exemption on Municipal Bonds

Certain federal proposals have been introduced over the past several years that would either completely remove exemption on municipal bonds interest or the limitation of 28% for investors to exempt their taxes. This has been part of President Obama's Budget Bill in 2016 and 2017. Eliminating or capping the tax exemptions on municipal bonds would create an obstacle in which state and local governments' have the ability to invest in needed infrastructure. Essentially, borrowing costs would increase to public entities and therefore, shift costs to local residents via tax or rate increases. Recently in June 2016, House Speaker Rep. Paul Ryan released a tax reform plan targeted for 2017. Although municipal bonds were not mentioned within the proposal, it has been speculated that some type of limitation of municipal tax-exemption could be included as part of a legislative proposal.

Sequestration and Potential Impact on Build America Bonds Subsidy

On September 14, 2012, the Office of Management and Budget ("OMB") released its Report Pursuant to the Sequestration Transparency Act of 2012, which detailed, among its $1.2 trillion of enumerated reductions to the federal budget, an ongoing cut of 5.1% (which resulting in an 8.7% cut in federal fiscal 2013 due to the fact that only 7 months remained in that year ending September 30) to the interest payment subsidy associated with the Build America Bonds (BABs) program. In February 2014, Congress voted to extend sequestration of BABs subsidies through 2024. The Internal Revenue Service has annually published guidance reducing subsidy payments as follows: 7.2% for federal fiscal 2014, 7.3% for federal fiscal 2015, 6.8% for federal fiscal 2016, and most recently, 6.9% for federal fiscal 2017.

Through fiscal year 2016, sequestration has reduced the subsidy payments that Vermont received for its 2010 Series A-2 and 2010 Series D-2 taxable G.O. Bonds by a total of $223,383.15. Based on the 6.9% reduction, the subsidy is reduced by $84,558.84 in fiscal year 2017. If the 6.9% reduction continues, the subsidy will be reduced by another $83,759.45 in fiscal 2018 with declining annual amounts through the maturity date totaling $603,487.37 overall. While this sequestration impact is a very unfortunate development, it does not materially alter Vermont's projected debt service as a percentage of revenue ratios; specifically, a $84,558.84 reduction in fiscal year 2017 equates to approximately 0.12% of the projected $74.046 million of debt service payments due that year.

Moody's Adjustment to Pension Data and Adjusted State Pension Liability Medians

On July 12, 2012, Moody's published a Request for Comments regarding proposed adjustments to pension data. On April 17, 2013, the adopted adjustments were published. The adjustments are intended to enhance transparency and comparability. As discussed above, Moody's considers debt and pension liabilities separately and has incorporated this decision into its US States Rating Methodology. The "debt" category reflects both bonded debt and adjusted net pension liabilities, with each accounting for half of the category, or, 10% each of the total score. While rating agencies have always taken pension funding into consideration, recent moves have involved increasing quantification. The measures used in the scorecard are not the conventional asset/liability of the debt related to tax base but instead are the debt related to total governmental revenue. At the present time, there is no indication that the new pension treatment or the scorecard will threaten existing ratings. However, it is indicative of the spotlight being placed on pension funding from several different sources.

On June 27, 2013 Moody's published "Adjusted Pension Liability Medians for US States." This inaugural report presents adjusted pension data for the 50 individual states for fiscal year 2011, based on Moody's recently published methodology for analyzing state and local government pension liabilities. The report ranks states based on ratios measuring the size of their adjusted net pension liabilities (ANPL) relative to several measures of economic capacity: state revenues, GDP and personal income.

On January 15, 2016, Moody's published its fourth annual report titled "Robust 2014 Investment Returns Provide Pause in Growth of Adjusted Net Pension Liabilities" which updated Moody's ANPL for fiscal year 2014 for the 50 states. Key takeaways of the report are summarized below:

- ANPL decreased for 27 states in fiscal 2014.
- The median ratio of ANPL to governmental revenues decreased from 60% for fiscal year 2013 to 59% in fiscal year 2014.
- Vermont's relative position among the 50 states with respect to its ANPL for 2013 and 2014 is as follows:

	State of Vermont Rankings	
Moody's Pension Ratios	**2013[1]**	**2014[1]**
ANPL as % of Personal Income	15	12
ANPL as % of State Gross Domestic Product	15	11
ANPL Per Capita	15	12
ANPL as % of State Government Revenues	23	21
Three-year Average ANPL as a % of State Government Revenues	22	22

Source: Moody's *Robust 2014 Investment Returns Provide Pause in Growth of Adjusted Net Pension Liabilities,* January 15, 2016.

[1]Rankings are in numerically descending order, with the state having the highest Moody's Adjusted Net Pension Liability statistic ranked 1st and the state having the lowest Adjusted Net Pension Liability statistic ranked 50th

STATE OF VERMONT AND PEER GROUP STATES' MOODY'S PENSION LIABILITIES METRICS*

Triple-A Rated States	Moody's Adjusted Net Pension Liability (ANPL)			
	As % of PI	As % of State GDP	Per Capita ($)	As % of Revenues
Delaware	9.6	6.6	4,448	62.0
Florida	2.1	2.1	903	25.0
Georgia	4.4	3.6	1,713	47.0
Indiana	7.8	6.4	3,088	69.0
Iowa	2.9	2.4	1,307	27.0
Maryland	14.6	13.6	7,931	149.0
Missouri	3.3	3.0	1,391	37.0
North Carolina	2.5	2.0	986	23.0
South Carolina	7.5	7.0	2,743	65.0
South Dakota	4.5	3.8	2,023	46.0
Tennessee	2.8	2.5	1,130	27.0
Texas	10.1	7.5	4,595	113.0
Utah	3.6	2.8	1,340	35.0
Virginia	3.7	3.4	1,884	47.0
MEAN[1]	**5.7**	**4.8**	**2,534**	**55.1**
MEDIAN[1]	**4.1**	**3.5**	**1,799**	**46.5**
VERMONT	12.8	12.5	5,929	70.0
VERMONT's 50 STATE RANK	12	11	12	21

Source: Moody's *Robust 2014 Investment Returns Provide Pause in Growth of Adjusted Net Pension Liabilities,* January 15, 2016.

[1] Calculated by Public Resources Advisory Group. These calculations exclude all Vermont numbers and include only states rated triple-A by two or more of the rating agencies, year ended June 30th, 2014.

[2] Vermont numbers include the combined defined benefits plans of the Vermont State Employees' Retirement System and the Vermont State Teachers' Retirement System.

[3] Rankings are in numerically descending order, with the state having the highest Moody's Adjusted Net Pension Liability statistic ranked 1st and the state having the lowest Adjusted Net Pension Liability statistic ranked 50th.

*Sources does not take into account differing retirement benefits among states.

Reserve or Rainy Day Fund Balances

The rating agencies are also putting greater emphasis on the importance of having robust general fund reserve fund balances, commonly referred to as rainy day funds. Historically a rainy day fund target of 5% of general fund expenditures was considered conservative and a credit positive by the rating agencies, but more recently the rating agencies have indicated that higher reserve funds are more consistent with triple-A ratings. In fact, Moody's US States Rating Methodology cited "Available Balances greater than 10%, with Requirements to Rebuild Rainy Day Fund if drawn upon" for their sub-factor Finances Measurement of "Available Balances as % of Operating Revenue (5-year average)." Additionally, the State's most recent Standard and Poor's report published in September 2015, S&P cited increasing reserve fund levels as one of the two factors that could translate into a triple-A rating for the State from S&P. The table below shows the fiscal year 2014, 2015, and 2016 rainy day fund balances of the other triple-A states.

As mentioned in Section 4, "National Credit Rating Methodologies and Criteria," Fitch released its new criteria, which has a different approach to evaluating reserve or rainy day balances. Rather than having a set target % of general fund expenditures, it determines reserve adequacy taking into consideration revenue volatility and budget flexibility.

Vermont has several reserve funds in order to reduce the effects of variations in revenues and are considered "available reserve funds." These are statutorily defined in 32 V.S.A.§§ 308-308e. The General Fund Stabilization Fund Reserve and Transportation Fund Stabilization Fund Reserve are determined on a self-building 5% budgetary basis and administered by the Commissioner of Finance and Management. The General Fund Balance Reserve is known as the "Rainy Day Reserve." Any remaining and undesignated General Fund amount is determined by the Emergency Board annually at its July meeting for deposit into this fund up to an additional 5% level. The use of this fund is restricted to 50% for unforeseen or emergency needs.

Finally, in FY17 the State recognized the pressures placed on the budget by periodic 53rd week Medicaid vendor payments and 27th payroll payments. The State created a new reserve to build over time the amount to fully fund these payments when needed.

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Rainy Day Fund Balances As a Percentage of General Government Expenditures			
Triple-A Rated States	**Fiscal 2014**	**Fiscal 2015**	**Fiscal 2016**
Alaska	213	146.4	126*
Delaware	5.3	5.6	5.5
Florida	3.4	4	4.6
Georgia	4.5	4.5	4.5
Indiana	6.7	8.4	8.7
Iowa	10.1	10	10
Maryland	4.9	4.9	5
Missouri	3.3	3.2	3.2
No. Carolina	3.1	3.2	5.1
So. Carolina	6.4	6.8	6.4
So. Dakota	9.7*	10.8*	9.7
Tennessee	3.8	3.9	4.4
Texas	14.3	15.5	18.1
Utah	8	7.5	7.8
Virginia	3.9	2.6	1.3
Median[1]	5.1	5.3	5.3
VERMONT	5.1	5.4	5.4

Source: "The Fiscal Survey of States 2016. A report by the National Governors Association and the National Association of State Budget Officers." Fiscal Year 2014 and 2015 are "Actuals" and Fiscal Year 2016 are "Estimated."

[1] Calculated by Public Resources Advisory Group. These calculations exclude all Vermont numbers and include only states rated triple-A by any two of the three rating agencies, year ended June 30th, 2016.

[2] Information for Georgia's FY 2015 and FY 2016 rainy day fund balance was not provided in the reports. Rainy day fund balance was assumed to stay constant at the FY 2014 level.

*Indicates that the state was not rated triple-A by two or more of the rating agencies during the year shown. Amount not used in calculating the median.

Capital Planning Program and the Impact of Capital Spending Upon the Economic Conditions of the State

All three rating agencies include the condition of Vermont's economy as a significant factor in their respective ratings. Capital improvements – whether financed through the use of debt, funded through direct appropriation or federal funds, or advanced through public private collaboration - have a significant impact on the State's economy. Further, the link between investment in infrastructure and economic development is widely accepted. As noted in a March 2012 report prepared by the United States Department of Treasury with the Council of Economic Advisors, titled *A New Economic Analysis of Infrastructure Investment*, states that "well-designed infrastructure investments can raise economic growth, productivity, and land values, while also providing significant positive spillovers to areas such as economic development, energy efficiency, public health, and manufacturing." These points notwithstanding, the report also states that not every infrastructure project is worth the investment. Metrics are needed to ensure that economic growth through infrastructure investment is done in an affordable and sustainable manner.

For several years, the Committee has discussed at length the need for a multi-year capital planning process to identify and prioritize Vermont's capital needs. The Committee applauds the General Assembly for implementing first a six-year, and now ten-year State capital program plan in its latest capital construction and State bonding adjustment act. 32 V.S.A. § 310 thus provides that the Governor prepare and revise a plan on an annual basis, submitting it for approval by the General Assembly. The plan will include a list of all recommended projects in the current fiscal year, as well as the five fiscal years thereafter. These recommendations will include an assessment, projection of capital need, and a comprehensive financial assessment. The Committee expects to annually review and consider future capital improvement program plans.

The Committee also recognizes that the process set forth in 32 V.S.A. § 310 must also incorporate a comprehensive review of our current capital stock, its condition, and future replacement needs. Significant efforts have been made in this area. The Department of Buildings and General Services (BGS) has undertaken such efforts with State buildings. The Agency of Transportation (AOT) has studied road infrastructure needs, including the condition of Vermont bridges. In 2009, the General Assembly charged the Treasurer and AOT to prepare a report containing a long-term needs assessment for repair, maintenance, and rehabilitation of bridges and culverts in the state with funding options for such long-term needs. This ultimately led to the creation of the Special Obligation Transportation Infrastructure Bond Program and the substantial leveraging of federal matching funds. While this increased funding corresponded with transportation infrastructure funding from other sources – namely ARRA and federal highway funds after Tropical Storm Irene – the condition of the State's transportation infrastructure has improved dramatically since 2007. In particular, the percentage of federal, State and municipal bridges deemed "structurally deficient" decreased by half - from approximately 20% to approximately 10% - from 2007 through 2012.

As discussed in Section 1, "Overview", Sec. 11. Natural Resources, of the 2015 Capital Bill (Act 26), as amended by the 2016 Capital Bill Adjustment (Act 160), appropriates proceeds of bonds for water quality projects. Vermont is currently gathering information on funding options and recommendations for long-term financing of water quality needs with the development of long-term revenue models to sustain water quality needs. Projects include plans to implement phosphorus control upgrades at municipal wastewater treatment plants. Other projects include stormwater management, agricultural mitigation and remediation and natural resources (rivers, wetlands, floodplains restoration and forestry) projects that are necessary to comply with the Vermont Clean Water Act (Act 64). The state has identified a variety of revenue sources to dedicate to the effort, including municipal, state, private and federal moneys. There is currently a $1.36 billion funding gap. It is expected that additional revenues will be identified and dedicated to this program gap. The state may use dedicated revenue bonds to bridge the timing of the capital needs and available revenues.

As part of its discussions in 2014 and again in 2015, the Committee reviewed information prepared by the Auditor of Accounts' Office showing Vermont's rankings on a series of measures both of economic health and quality of life compared to other triple-A rated states. Vermont scores quite well in most categories, and with respect to the economic data, this is reflected in Vermont's favorable rankings relative to other triple-A rated states based upon several rating agencies' assessments, with Standard & Poor's in particular stating that "Vermont's quality of life and well-educated workforce provide economic development opportunities." For the 2016 CDAAC discussions, Auditor of Accounts' Office prepared a document entitled "Preliminary Economic Metrics for Moody's Triple-A States". The information consisted of a graphical comparison of the Vermont and other Aaa states on measures that included: percent change in real per capita personal income for the last five years, percent change in real per capita GDP for the last five years, percent change in job for the last five years, and other comparisons. These charts are included as Appendix E to this Report.

There is always a concern at the rating agencies when a state meaningfully enlarges its debt program to ameliorate periodic economic downturns. The rating agencies will often advise that long-term annual costs, in the form of higher debt service and frequently higher administrative and operating expenses, can accompany such an increased debt program. The Committee believes it is of critical importance to strike the correct balance between infrastructure investment and economic growth on the one hand, and maintaining affordable and sustainable levels of debt authorizations and capital spending on the other.

Implementation of Financial Reporting Webpage

In September of 2014, the Treasurer's Office launched the State of Vermont's Financial Reporting Web Page. This page organizes, in one location, ten items that the National Association of State Auditors, Comptrollers and Treasurers (NASACT) recommend that state government's provide for interim disclosure. NASACT represents the elected or appointed government officials tasked with the management of state finances.

These ten items are: tax revenues, budget updates, cash flow, debt outstanding, economic forecasts, pension and other post-employment benefits (OPEBs), interest rate swaps and bank liquidity, investments, debt management policies, and filings made to the Electronic Municipal Market Access (EMMA) system. The page may be accessed at:

http://www.vermonttreasurer.gov/cash-investments/financial-reporting/disclaimer

At the time of publication, NASACT indicated that Vermont's web page was the first statewide reporting site incorporating all ten of NASACT's recommendations, and at NASACT's 100th Anniversary Conference, Vermont's State Treasurer received the President's Award for exceptional efforts in government financial management and accountability, in part for her leadership in developing the disclosure web site. Delaware, Georgia, Maryland, Massachusetts, Tennessee, Utah and Wisconsin have followed suit and provided a respective website with NASACT's recommendations.

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7. ACKNOWLEDGEMENTS

We would like to express our gratitude to the State Treasurer's Office, the Department of Finance and Management, EPR, and various officers and staff members of the State, whose assistance has been invaluable in completing this report. Certain computations and projections were made based on population, personal income, and revenue projections provided by EPR. The numbers presented herein have not been audited and are, therefore, subject to change, possibly in a substantial manner.

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8. APPENDICES

A. 2016 State Debt Medians (Moody's Investors Service)

B. 2015 Fitch Ratings Credit Report

C. 2015 Moody's Investors Service Credit Report

D. 2015 Standard & Poor's Credit Report and 2016 Standard & Poor's Credit Report

E. Preliminary Economic Metrics for Moody's Triple-A States, Prepared by the Office of Douglas R. Hoffer, Auditor of Accounts.

F. Full Text of 32 V.S.A. §1001, Capital Debt Affordability Advisory Committee

APPENDIX A

SECTOR IN-DEPTH
6 May 2016

Rate this Research

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State Debt Medians 2016

Medians - Total Debt Remains Static in 2016

Total net tax-supported debt (NTSD) for US states remained virtually unchanged from last year. The stabilization follows NTSD's decline in the prior year, the first decrease in the 29 years we have compiled the data. The recent slowdown in debt levels highlights states' reluctance to take on new debt despite continued annual increases in tax revenue, including an estimated 6% rise in 2015. Several factors will likely suppress growth in state debt burdens in the next year, including the recent decline in commodity markets along with longer term trends of continued uncertainty over federal fiscal policy and healthcare funding.

Our 2016 state debt medians are based on our analysis of calendar year 2015 debt issuance and fiscal year 2015 debt service. As in prior year reports, the presentation of debt trend data incorporates a one-year lag (i.e., the data labeled 2016 reflect debt as of calendar year-end 2015).

» **State net tax-supported debt remained essentially flat, posting minimal year-over-year growth of 0.6%.** The total dollar amount outstanding of $512.5 billion remains below the 2013 peak of $516.0 billion and reflects the continued trend of a reduced appetite for new money borrowing by states.

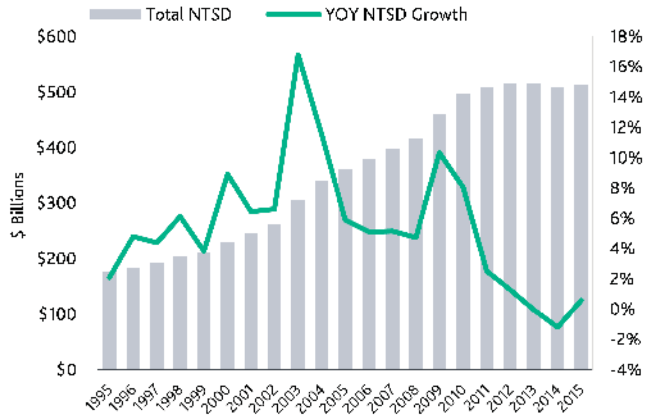
» **The median for NTSD as a percent of personal income remained static at 2.5% as personal income grew by 4.2%.** On a per capita level, the median level of net tax-supported debt grew modestly at 1.3%, reflecting population growth that is generally keeping pace with debt outstanding.

» **General obligation debt continues to comprise the largest share of state debt outstanding at 52% of the total state debt portfolio.** Appropriation and lease revenue debt makes up the second largest portion at 21%.

» **Median debt service costs are 4.3% of revenues, closely approximating the 4.4% median ratio in the previous year.** The trend is related to lower new debt issuance and the extremely low interest rate environment.

Exhibit 1

Net Tax Supported Debt Continues Trend of Leveling Off In Recent Years



Source: Moody's Investors Service

Aggregate net tax supported debt remains essentially flat, increasing by a minimal 0.6%

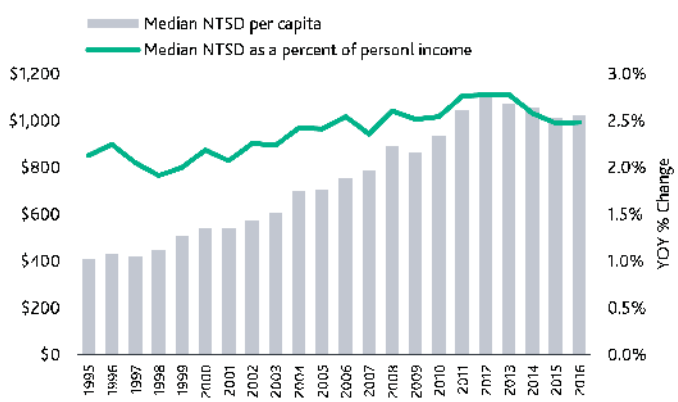
» Two states experienced double-digit percentage increases in NTSD – **Kansas** (Aa2 negative) and **South Dakota** (Aa1 stable). Their burdens grew by 40% and 20%, respectively, over last year. Kansas issued $1 billion in pension obligation bonds, which contributed significantly to its increase.

» Thirty-four states experienced a decline in absolute debt levels. **Nebraska** (Aa2 stable), **North Dakota** (Aa1 negative) and **Utah** (Aaa stable) experienced the largest year-over-year declines in NTSD, falling by 15%, 15% and 12%, respectively.

» We expect limited growth in NTSD in the coming year given the revenue pressures in several energy states and a number of others reaching debt issuance limitations.

Exhibit 2

Population and Personal Income Growth Continues to Ease Debt Pressure on States



Source: Moody's Investors Service

The median net tax-supported debt to personal income remained at 2.5% for the second year in a row

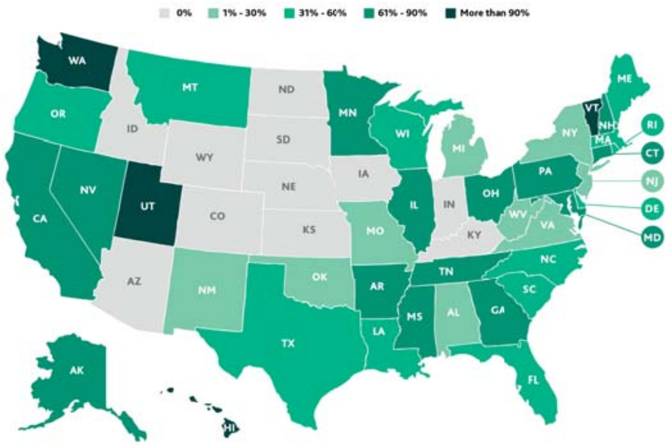
» NTSD as a percent of personal income and population both remained fairly flat in 2016, reflecting continued growth in population and earnings that keeps pace with the small increase in state debt.

» The 50-state median for NTSD per capita remained relatively stable at $1,025, following three years of decline. Thirty-six states experienced a decline in NTSD per capita.

» The median for NTSD as a percent of personal income was static at 2.5% as personal income grew by 4.2%. Thirty-eight states saw a decline in NTSD as percent of personal income.

» We expect personal income and population growth in the current year to moderate, resulting in low growth in these metrics over the near term.

Exhibit 3
Use of General Obligation Debt Varies Greatly by State

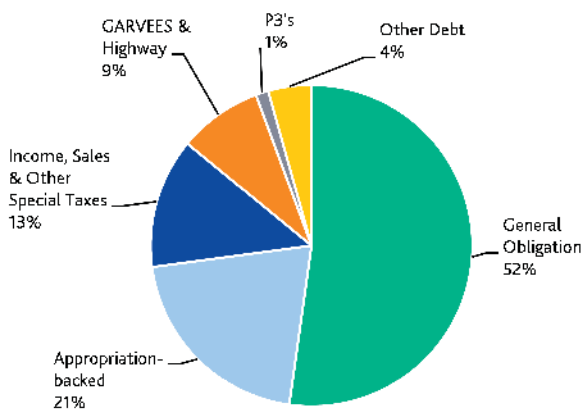


Source: Moody's Investors Service

Reliance on GO debt varies across the country

- Constitutional provisions in many states prohibit or severely limit the issuance of general obligation (GO) bonds. In other states, taxpayer concerns and other political considerations often make it easier to gain approval for other forms of debt, such as appropriation-backed or special tax debt.
- As a result, the reliance on GO bonds varies widely from state to state, ranging from 93% in **Vermont** (Aaa stable) to 0% in 11 other states.
- We expect this variation in outstanding pledges to continue into the next year.

Exhibit 4
General Obligation Debt Accounts for More Than Half of Total State Debt



Source: Moody's Investor Service

Nationwide GO debt accounts for majority of debt outstanding

- GO debt comprises 52% of NTSD outstanding; appropriation debt follows with 21% of outstanding debt associated with this pledge. Availability payment P3s still comprise a very small portion of outstanding debt for states at 1%.
- Most state debt remains fixed rate and publicly offered. Variable rate demand debt totaled $20.0 billion, a 3.1% increase from one year earlier and representing 3.9% of total NTSD. Direct bank loans and private financings continue to account for approximately 1.2% of state net debt.
- We expect limited to modest growth in debt going forward as some large state bonding programs have reached their full authorized issuance amounts. Nonetheless, states have significant capital spending needs, especially for transportation, and we expect them to use debt as a primary means to finance those projects in future years.

Appendix: Key Metrics for US State Debt Medians

Exhibit 5

Net Tax-Supported Debt – Per Capita and Percent of Personal Income

Net Tax-Supported Debt Per Capita			Rating	Net Tax-Supported Debt as a % of 2014 Personal Income		
1	Connecticut	$6,155	Aa3	1	Hawaii	9.9%
2	Massachusetts	$5,592	Aa1	2	Connecticut	9.8%
3	Hawaii	$4,557	Aa2	3	Massachusetts	9.5%
4	New Jersey	$4,141	A2	4	New Jersey	7.3%
5	New York	$3,021	Aa1	5	Washington	5.7%
6	Washington	$2,761	Aa1	6	New York	5.4%
7	Illinois	$2,522	Baa1	7	Delaware	5.2%
8	Delaware	$2,385	Aaa	8	Illinois	5.2%
9	California	$2,323	Aa3	9	Kentucky	5.2%
10	Kentucky	$1,954	Aa2*	10	Mississippi	5.0%
11	Maryland	$1,928	Aaa	11	California	4.7%
12	Oregon	$1,907	Aa1	12	Oregon	4.6%
13	Rhode Island	$1,813	Aa2	13	Wisconsin	4.0%
14	Wisconsin	$1,780	Aa2	14	Louisiana	3.8%
15	Mississippi	$1,707	Aa2	15	Rhode Island	3.7%
16	Louisiana	$1,609	Aa3	16	Maryland	3.5%
17	Kansas	$1,534	Aa2*	17	Kansas	3.4%
18	Minnesota	$1,527	Aa1	18	New Mexico	3.3%
19	Alaska	$1,422	Aa1	19	Minnesota	3.2%
20	Virginia	$1,418	Aaa	20	Virginia	2.9%
21	New Mexico	$1,230	Aaa	21	West Virginia	2.8%
22	Pennsylvania	$1,172	Aa3	22	Alaska	2.7%
23	Ohio	$1,091	Aa1	23	Georgia	2.7%
24	Florida	$1,038	Aa1	24	Ohio	2.6%
25	Georgia	$1,029	Aaa	25	Utah	2.5%
26	West Virginia	$1,020	Aa1	26	Florida	2.5%
27	Vermont	$1,002	Aaa	27	Pennsylvania	2.5%
28	Maine	$928	Aa2	28	Alabama	2.3%
29	Utah	$921	Aaa	29	Maine	2.2%
30	Alabama	$849	Aa1	30	Vermont	2.1%
31	New Hampshire	$808	Aa1	31	Arizona	2.1%
32	Arizona	$776	Aa2*	32	North Carolina	1.8%
33	North Carolina	$721	Aaa	33	Michigan	1.8%
34	Michigan	$719	Aa1	34	Arkansas	1.7%
35	South Dakota	$652	NGO**	35	South Carolina	1.7%
36	Arkansas	$628	Aa1	36	New Hampshire	1.5%
37	South Carolina	$603	Aaa	37	Nevada	1.5%
38	Nevada	$591	Aa2	38	South Dakota	1.4%
39	Missouri	$574	Aaa	39	Missouri	1.4%
40	Indiana	$463	Aaa*	40	Idaho	1.2%
41	Idaho	$455	Aa1*	41	Indiana	1.2%
42	Colorado	$424	Aa1*	42	Oklahoma	0.9%
43	Oklahoma	$397	Aa2	43	Colorado	0.9%
44	Texas	$383	Aaa	44	Texas	0.9%
45	Tennessee	$298	Aaa	45	Tennessee	0.7%
46	Montana	$247	Aa1	46	Montana	0.6%
47	Iowa	$239	Aaa*	47	Iowa	0.5%
48	North Dakota	$166	Aa1*	48	North Dakota	0.3%
49	Wyoming	$45	NGO**	49	Wyoming	0.1%
50	Nebraska	$8	NGO**	50	Nebraska	0.0%
	MEAN:	$1,431			MEAN:	3.0%
	MEDIAN:	$1,025			MEDIAN:	2.5%

*Issuer Rating (No GO debt outstanding)
**No General Obligation Debt
Puerto Rico Excluded Due to Lack of Available Data for 2015
Sources: Moody's Investors Service; US Census Bureau; US Bureau of Economic Analysis

Exhibit 6

State Net Tax-Supported Debt and Gross Tax-Supported Debt

Net Tax-Supported Debt			Rating	Gross Tax-Supported Debt			Gross to Net Ratio
1	California	$90,916,000	Aa3	1	California	$97,303,000	1.07
2	New York	$59,799,811	Aa1	2	New York	$60,202,811	1.01
3	Massachusetts	$37,997,157	Aa1	3	New Jersey	$42,708,463	1.15
4	New Jersey	$37,096,789	A2	4	Massachusetts	$39,047,361	1.03
5	Illinois	$32,435,177	Baa1	5	Illinois	$34,294,717	1.06
6	Connecticut	$22,103,517	Aa3	6	Washington	$30,802,689	1.56
7	Florida	$21,034,800	Aa1	7	Texas	$26,726,883	2.54
8	Washington	$19,800,626	Aa1	8	Connecticut	$26,080,087	1.18
9	Pennsylvania	$15,007,886	Aa3	9	Michigan	$23,413,200	3.28
10	Ohio	$12,664,731	Aa1	10	Minnesota	$21,782,781	2.60
11	Virginia	$11,884,485	Aaa	11	Pennsylvania	$21,643,131	1.44
12	Maryland	$11,577,387	Aaa	12	Florida	$21,432,800	1.02
13	Texas	$10,513,260	Aaa	13	Ohio	$18,226,526	1.44
14	Georgia	$10,510,695	Aaa	14	Virginia	$16,226,167	1.37
15	Wisconsin	$10,274,025	Aa2	15	Oregon	$14,191,014	1.85
16	Kentucky	$8,645,732	Aa2*	16	Wisconsin	$13,951,024	1.36
17	Minnesota	$8,384,485	Aa1	17	Kentucky	$11,942,487	1.38
18	Oregon	$7,683,117	Aa1	18	Maryland	$11,577,387	1.00
19	Louisiana	$7,514,988	Aa3	19	Georgia	$10,510,695	1.00
20	North Carolina	$7,276,985	Aaa	20	Colorado	$9,814,334	4.24
21	Michigan	$7,131,200	Aa1	21	Alabama	$8,878,184	2.15
22	Hawaii	$6,523,739	Aa2	22	Louisiana	$8,862,581	1.18
23	Arizona	$5,296,855	Aa2*	23	Utah	$7,978,328	2.89
24	Mississippi	$5,107,084	Aa2	24	North Carolina	$7,276,985	1.00
25	Kansas	$4,465,946	Aa2*	25	Hawaii	$6,553,450	1.00
26	Alabama	$4,124,043	Aa1	26	Mississippi	$5,843,899	1.14
27	Missouri	$3,489,776	Aaa	27	Arizona	$5,296,855	1.00
28	Indiana	$3,063,106	Aaa*	28	Tennessee	$4,874,337	2.47
29	South Carolina	$2,952,148	Aaa	29	Maine	$4,636,547	3.76
30	Utah	$2,759,175	Aaa	30	Kansas	$4,465,946	1.00
31	New Mexico	$2,563,850	Aaa	31	Indiana	$4,379,871	1.43
32	Colorado	$2,314,334	Aa1*	32	Alaska	$3,759,800	3.58
33	Delaware	$2,256,218	Aaa	33	Missouri	$3,489,776	1.00
34	Tennessee	$1,969,701	Aaa	34	West Virginia	$3,473,937	1.85
35	Rhode Island	$1,915,306	Aa2	35	South Carolina	$3,265,990	1.11
36	West Virginia	$1,881,734	Aa1	36	Delaware	$2,789,718	1.24
37	Arkansas	$1,871,058	Aa1	37	Rhode Island	$2,755,382	1.44
38	Nevada	$1,707,181	Aa2	38	Nevada	$2,620,226	1.53
39	Oklahoma	$1,553,879	Aa2	39	New Mexico	$2,563,850	1.00
40	Maine	$1,234,050	Aa2	40	New Hampshire	$2,514,411	2.34
41	New Hampshire	$1,075,660	Aa1	41	Idaho	$2,178,006	2.89
42	Alaska	$1,050,300	Aa1	42	Oklahoma	$2,138,319	1.38
43	Idaho	$753,106	Aa1*	43	Iowa	$2,137,610	2.86
44	Iowa	$746,815	Aaa*	44	Arkansas	$1,871,058	1.00
45	Vermont	$627,192	Aaa	45	North Dakota	$1,726,923	13.77
46	South Dakota	$559,808	NGO**	46	Vermont	$1,703,802	2.72
47	Montana	$255,340	Aa1	47	South Dakota	$683,433	1.22
48	North Dakota	$125,423	Aa1*	48	Montana	$418,835	1.64
49	Wyoming	$26,636	NGO**	49	Wyoming	$26,636	1.00
50	Nebraska	$15,475	NGO**	50	Nebraska	$15,475	1.00
	Totals	$ 512,537,792			Totals	$ 661,057,729	
	MEAN:	$10,250,756			MEAN:	13,221,155	1.92
	MEDIAN:	$4,294,995			MEDIAN:	6,198,675	1.37

*Issuer Rating (No GO debt outstanding)
**No General Obligation Debt
Puerto Rico Excluded Due to Lack of Available Data for 2015
Source: Moody's Investors Service

Exhibit 7

Net Tax-Supported Debt as Percent of Gross State Domestic Product

	2013 NTSD as % of 2012 State GDP			2014 NTSD as % of 2013 State GDP			2015 NTSD as % of 2014 State GDP	
1	Hawaii	9.16%	1	Hawaii	9.18%	1	Connecticut	8.82%
2	Connecticut	8.56%	2	Massachusetts	8.14%	2	Hawaii	8.56%
3	Massachusetts	8.28%	3	Connecticut	8.13%	3	Massachusetts	8.34%
4	New Jersey	6.99%	4	New Jersey	6.81%	4	New Jersey	6.72%
5	Washington	5.43%	5	Washington	5.00%	5	Mississippi	4.88%
6	Kentucky	5.16%	6	Mississippi	4.97%	6	Washington	4.68%
7	New York	5.15%	7	Illinois	4.79%	7	Kentucky	4.60%
8	Mississippi	5.15%	8	New York	4.66%	8	Illinois	4.41%
9	Illinois	4.78%	9	Kentucky	4.62%	9	New York	4.29%
10	California	4.72%	10	California	4.24%	10	California	3.94%
11	Rhode Island	4.26%	11	Rhode Island	3.94%	11	Oregon	3.61%
12	Wisconsin	4.05%	12	Wisconsin	3.66%	12	Delaware	3.56%
13	Oregon	3.80%	13	Delaware	3.64%	13	Wisconsin	3.55%
14	Delaware	3.49%	14	Oregon	3.46%	14	Rhode Island	3.51%
15	Maryland	3.34%	15	Maryland	3.30%	15	Maryland	3.34%
16	New Mexico	3.13%	16	Louisiana	2.87%	16	Kansas	3.09%
17	West Virginia	2.79%	17	New Mexico	2.84%	17	Louisiana	2.99%
18	Louisiana	2.78%	18	Minnesota	2.69%	18	New Mexico	2.79%
19	Utah	2.64%	19	Virginia	2.49%	19	Minnesota	2.64%
20	Minnesota	2.58%	20	Florida	2.42%	20	Virginia	2.57%
21	Florida	2.54%	21	Georgia	2.32%	21	West Virginia	2.53%
22	Pennsylvania	2.49%	22	West Virginia	2.30%	22	Florida	2.51%
23	Ohio	2.47%	23	Maine	2.29%	23	Pennsylvania	2.28%
24	Georgia	2.45%	24	Ohio	2.27%	24	Maine	2.27%
25	Virginia	2.41%	25	Kansas	2.21%	25	Georgia	2.21%
26	Maine	2.35%	26	Pennsylvania	2.21%	26	Ohio	2.20%
27	Alabama	2.31%	27	Utah	2.21%	27	Vermont	2.14%
28	Kansas	2.28%	28	Alabama	2.06%	28	Alabama	2.06%
29	Alaska	2.23%	29	Arizona	2.04%	29	Utah	1.97%
30	Arizona	2.21%	30	Vermont	2.02%	30	Alaska	1.85%
31	South Carolina	2.03%	31	Alaska	1.85%	31	Arizona	1.85%
32	Vermont	2.01%	32	South Carolina	1.77%	32	Michigan	1.59%
33	Michigan	1.94%	33	Michigan	1.74%	33	South Carolina	1.56%
34	New Hampshire	1.77%	34	New Hampshire	1.66%	34	Arkansas	1.56%
35	North Carolina	1.74%	35	Arkansas	1.60%	35	New Hampshire	1.53%
36	Arkansas	1.59%	36	North Carolina	1.56%	36	North Carolina	1.50%
37	Missouri	1.56%	37	Nevada	1.43%	37	Nevada	1.26%
38	Idaho	1.39%	38	Missouri	1.33%	38	Missouri	1.25%
39	Nevada	1.34%	39	Idaho	1.30%	39	South Dakota	1.21%
40	Oklahoma	1.26%	40	Oklahoma	1.05%	40	Idaho	1.19%
41	Indiana	1.17%	41	South Dakota	1.00%	41	Indiana	0.96%
42	Texas	1.16%	42	Indiana	0.99%	42	Oklahoma	0.85%
43	Colorado	0.99%	43	Colorado	0.87%	43	Colorado	0.76%
44	South Dakota	0.78%	44	Tennessee	0.74%	44	Tennessee	0.66%
45	Tennessee	0.76%	45	Texas	0.71%	45	Texas	0.64%
46	Montana	0.69%	46	Montana	0.59%	46	Montana	0.58%
47	Iowa	0.56%	47	Iowa	0.47%	47	Iowa	0.44%
48	North Dakota	0.39%	48	North Dakota	0.25%	48	North Dakota	0.22%
49	Wyoming	0.08%	49	Wyoming	0.06%	49	Wyoming	0.06%
50	Nebraska	0.02%	50	Nebraska	0.02%	50	Nebraska	0.01%
	MEAN:	2.86%		MEAN:	2.70%		MEAN:	2.65%
	MEDIAN:	2.38%		MEDIAN:	2.21%		MEDIAN:	2.21%

State GDP numbers have a 1-year lag.
Puerto Rico Excluded Due to Lack of Available Data for 2015
Sources: Moody's Analytics; US Bureau of Economic Analysis

Exhibit 8

Net Tax-Supported Debt as a Percentage of Personal Income

	2005	2006	2007	2008	2009	2010	2011	2012	2013	2014	2015	2016
Alabama	2.0%	2.2%	2.0%	2.8%	2.6%	2.4%	2.6%	2.5%	2.5%	2.4%	2.3%	2.3%
Alaska	2.8%	2.6%	2.7%	2.4%	2.2%	3.2%	3.0%	3.3%	2.8%	3.2%	3.0%	2.7%
Arizona	2.6%	2.2%	2.0%	2.0%	2.5%	2.3%	2.8%	2.8%	2.5%	2.5%	2.3%	2.1%
Arkansas	1.6%	1.6%	1.4%	1.7%	1.3%	1.0%	1.1%	1.0%	1.2%	1.7%	1.9%	1.7%
California	4.7%	4.6%	4.4%	4.3%	4.4%	5.6%	6.0%	6.0%	5.8%	5.4%	5.1%	4.7%
Colorado	1.0%	0.9%	0.9%	0.8%	0.8%	1.0%	1.3%	1.3%	1.2%	1.1%	1.0%	0.9%
Connecticut	8.5%	8.0%	7.8%	7.3%	8.2%	8.7%	9.5%	9.1%	9.1%	9.2%	9.3%	9.8%
Delaware	5.5%	5.3%	5.5%	5.2%	5.4%	6.2%	6.8%	6.8%	6.2%	5.7%	5.5%	5.2%
Florida	3.4%	3.2%	3.1%	2.8%	2.9%	2.9%	3.0%	3.0%	2.8%	2.5%	2.4%	2.5%
Georgia	2.8%	2.7%	3.0%	3.0%	3.0%	3.3%	3.3%	3.1%	3.0%	2.9%	2.8%	2.7%
Hawaii	11.1%	12.1%	10.6%	9.9%	9.4%	9.9%	10.1%	9.6%	10.0%	10.6%	10.8%	9.9%
Idaho	0.6%	0.6%	0.6%	1.2%	1.6%	1.7%	1.6%	1.7%	1.6%	1.5%	1.4%	1.2%
Illinois	6.2%	5.9%	5.5%	5.2%	4.6%	4.4%	5.7%	6.0%	5.7%	5.6%	5.7%	5.2%
Indiana	1.4%	1.6%	2.1%	1.5%	1.5%	1.5%	1.4%	1.3%	1.2%	1.4%	1.2%	1.2%
Iowa	0.5%	0.4%	0.3%	0.3%	0.2%	0.2%	0.7%	0.8%	0.7%	0.6%	0.6%	0.5%
Kansas	4.0%	3.8%	3.7%	3.5%	3.2%	3.0%	3.2%	3.1%	2.8%	2.6%	2.5%	3.4%
Kentucky	4.0%	4.5%	4.3%	4.7%	4.8%	5.4%	6.1%	6.1%	5.9%	5.7%	5.3%	5.2%
Louisiana	2.4%	3.1%	4.9%	4.3%	3.3%	3.6%	3.5%	3.7%	3.7%	3.7%	3.9%	3.8%
Maine	2.2%	2.0%	1.9%	1.9%	2.2%	2.2%	2.4%	2.3%	2.1%	2.4%	2.3%	2.2%
Maryland	2.9%	3.0%	2.8%	3.0%	3.3%	3.4%	3.3%	3.6%	3.6%	3.4%	3.5%	3.5%
Massachusetts	8.5%	9.8%	9.4%	9.8%	8.9%	9.2%	9.2%	9.4%	9.3%	9.0%	8.7%	9.5%
Michigan	2.2%	2.1%	2.2%	2.2%	2.2%	2.1%	2.2%	2.2%	2.2%	2.1%	1.9%	1.8%
Minnesota	2.0%	2.1%	2.2%	2.3%	2.1%	2.4%	2.5%	2.7%	3.0%	3.0%	3.2%	3.2%
Mississippi	4.8%	4.8%	4.9%	4.8%	5.2%	5.0%	5.1%	5.6%	5.4%	5.2%	5.1%	5.0%
Missouri	1.5%	1.6%	1.9%	2.1%	2.0%	2.2%	2.2%	2.0%	1.8%	1.7%	1.5%	1.4%
Montana	1.1%	1.4%	1.5%	1.2%	1.2%	1.1%	1.1%	1.0%	0.9%	0.7%	0.7%	0.6%
Nebraska	0.1%	0.1%	0.1%	0.1%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%	0.0%
Nevada	2.0%	2.2%	1.7%	2.0%	2.2%	2.3%	2.4%	2.2%	1.9%	1.7%	1.7%	1.5%
New Hampshire	1.3%	1.4%	1.3%	1.3%	1.3%	1.6%	1.9%	1.8%	1.9%	1.8%	1.7%	1.5%
New Jersey	7.4%	7.9%	7.6%	7.5%	7.3%	7.2%	7.8%	7.8%	7.6%	7.3%	7.4%	7.3%
New Mexico	5.3%	4.7%	5.3%	4.8%	4.6%	4.4%	5.6%	4.2%	3.8%	3.4%	3.5%	3.3%
New York	7.2%	6.7%	6.7%	6.3%	6.3%	6.5%	6.7%	6.6%	6.3%	6.0%	5.7%	5.4%
North Carolina	2.5%	2.8%	2.4%	2.8%	2.5%	2.3%	2.3%	2.3%	2.4%	2.1%	1.9%	1.8%
North Dakota	0.6%	1.2%	1.0%	1.1%	1.0%	0.8%	0.8%	0.6%	0.7%	0.5%	0.3%	0.3%
Ohio	2.9%	2.9%	3.0%	2.9%	2.8%	2.6%	2.8%	2.8%	2.8%	2.7%	2.7%	2.6%
Oklahoma	1.2%	1.4%	1.5%	1.5%	1.5%	1.6%	1.8%	1.7%	1.6%	1.3%	1.2%	0.9%
Oregon	4.7%	4.5%	4.6%	5.0%	4.6%	5.2%	5.6%	5.5%	5.2%	4.9%	4.8%	4.6%
Pennsylvania	2.3%	2.3%	2.4%	2.4%	2.5%	2.4%	2.7%	2.8%	2.8%	2.6%	2.4%	2.5%
Rhode Island	4.3%	4.1%	4.6%	4.7%	4.5%	5.2%	5.3%	4.7%	4.7%	4.5%	4.2%	3.7%
South Carolina	2.2%	2.5%	2.3%	3.3%	2.9%	2.9%	2.7%	2.5%	2.3%	2.2%	1.9%	1.7%
South Dakota	0.9%	0.7%	0.8%	0.9%	0.8%	0.4%	0.9%	0.9%	0.9%	0.9%	1.2%	1.4%
Tennessee	0.7%	0.8%	0.7%	0.7%	0.7%	0.9%	1.0%	1.0%	0.9%	0.8%	0.8%	0.7%
Texas	1.0%	1.0%	1.3%	1.4%	1.4%	1.4%	1.6%	1.5%	1.5%	1.5%	1.0%	0.9%
Utah	3.2%	2.7%	2.3%	1.9%	1.5%	3.2%	4.1%	4.4%	3.8%	3.4%	3.0%	2.5%
Vermont	2.3%	2.2%	2.1%	2.0%	1.8%	1.8%	1.9%	2.0%	1.9%	2.0%	2.1%	2.1%
Virginia	1.8%	1.7%	1.8%	1.9%	1.9%	2.1%	2.4%	2.6%	2.9%	2.7%	2.8%	2.9%
Washington	4.9%	4.9%	5.1%	5.1%	5.1%	5.3%	6.2%	6.0%	6.4%	6.4%	6.2%	5.7%
West Virginia	4.6%	4.4%	3.9%	3.9%	3.6%	3.5%	3.8%	3.6%	3.3%	3.0%	2.7%	2.8%
Wisconsin	4.7%	4.3%	4.2%	4.1%	4.0%	4.6%	4.8%	4.8%	4.7%	4.4%	4.2%	4.0%
Wyoming	0.7%	0.3%	0.3%	0.2%	0.2%	0.2%	0.1%	0.1%	0.1%	0.1%	0.1%	0.1%
Median	2.5%	2.5%	2.4%	2.6%	2.5%	2.5%	2.8%	2.8%	2.8%	2.6%	2.5%	2.5%

Puerto Rico Excluded Due to Lack of Available Data for 2015

Sources: Moody's Investors Service; US Bureau of Economic Analysis

Exhibit 9
Debt Service Ratio

		FY2013			FY2014			FY2015
1	Connecticut	12.9%	1	Connecticut	11.8%	1	Connecticut	14.3%
2	Hawaii	10.4%	2	Hawaii	11.7%	2	Hawaii	10.9%
3	Massachusetts	10.0%	3	Massachusetts	10.3%	3	Massachusetts*	10.6%
4	New York	8.3%	4	Utah	8.7%	4	Illinois	9.2%
5	New Jersey	8.1%	5	New York	8.7%	5	New Jersey	8.5%
6	Illinois	8.0%	6	New Jersey	8.1%	6	New York	7.6%
7	Nevada	7.6%	7	Illinois	8.1%	7	Kentucky	7.6%
8	Kentucky	7.5%	8	West Virginia	8.1%	8	Delaware	7.3%
9	Rhode Island	7.1%	9	Wisconsin	8.0%	9	Washington	7.0%
10	Oregon	7.1%	10	Kentucky	7.7%	10	Wisconsin	6.8%
11	Mississippi	6.9%	11	Delaware	7.6%	11	Georgia	6.6%
12	Washington	6.8%	12	Washington	7.0%	12	Rhode Island	6.4%
13	California	6.8%	13	Rhode Island	6.9%	13	West Virginia*	6.3%
14	Georgia	6.8%	14	Georgia	6.8%	14	Maryland	6.2%
15	Wisconsin	6.8%	15	Oregon	6.2%	15	Mississippi	6.0%
16	Utah	6.3%	16	Nevada	6.2%	16	Utah	5.9%
17	Delaware	5.9%	17	Maryland	6.2%	17	Oregon	5.7%
18	Maryland	5.8%	18	Mississippi	5.9%	18	Nevada	5.6%
19	Ohio	5.2%	19	California	5.7%	19	California	5.3%
20	Florida	5.1%	20	Ohio	5.4%	20	Ohio	5.2%
21	Maine	4.8%	21	Maine	4.9%	21	Maine	5.1%
22	New Mexico	4.8%	22	New Hampshire	4.8%	22	Virginia	5.0%
23	Virginia	4.7%	23	Virginia	4.6%	23	New Hampshire	4.7%
24	Louisiana	4.7%	24	Louisiana	4.6%	24	Arizona*	4.6%
25	Arizona	4.4%	25	Arizona	4.6%	25	New Mexico*	4.4%
26	New Hampshire	4.3%	26	Pennsylvania	4.3%	26	Florida	4.2%
27	Pennsylvania	4.3%	27	New Mexico	4.2%	27	Arkansas	4.1%
28	Kansas	3.9%	28	Florida	4.2%	28	Alabama*	3.9%
29	Alabama	3.8%	29	Alabama	4.0%	29	Pennsylvania	3.8%
30	South Carolina	3.7%	30	North Carolina	3.7%	30	Minnesota	3.7%
31	North Carolina	3.7%	31	South Carolina	3.7%	31	South Carolina	3.7%
32	West Virginia	3.5%	32	Minnesota	3.6%	32	North Carolina	3.5%
33	Missouri	3.2%	33	Missouri	3.6%	33	Missouri	3.5%
34	Texas	2.8%	34	Kansas	3.0%	34	Kansas	3.4%
35	Michigan	2.6%	35	Michigan	3.0%	35	Louisiana	3.1%
36	Colorado	2.6%	36	Arkansas	2.6%	36	Oklahoma	2.6%
37	Oklahoma	2.3%	37	Colorado	2.5%	37	Colorado	2.5%
38	Arkansas	2.2%	38	Oklahoma	2.4%	38	Michigan	2.5%
39	Vermont	2.2%	39	Texas	2.3%	39	Alaska	2.4%
40	Minnesota	1.8%	40	Vermont	2.3%	40	Texas	2.4%
41	Idaho	1.8%	41	South Dakota	2.0%	41	South Dakota	2.2%
42	Indiana	1.5%	42	Idaho	1.7%	42	Vermont	2.1%
43	Montana	1.4%	43	Tennessee	1.5%	43	Idaho	1.6%
44	Tennessee	1.4%	44	Montana	1.3%	44	Tennessee	1.3%
45	South Dakota	1.0%	45	Indiana	1.3%	45	Montana	1.3%
46	Alaska	1.0%	46	Alaska	0.9%	46	Indiana	1.2%
47	Iowa	0.9%	47	Iowa	0.8%	47	Iowa	0.7%
48	North Dakota	0.4%	48	North Dakota	0.3%	48	North Dakota	0.5%
49	Nebraska	0.2%	49	Nebraska	0.1%	49	Nebraska	0.3%
50	Wyoming	0.1%	50	Wyoming	0.1%	50	Wyoming*	0.1%
	Mean	4.6%		Mean	4.8%		Mean	4.7%
	Median	4.4%		Median	4.4%		Median	4.3%

*Figures based on fiscal 2014 revenues; fiscal 2015 audited financial statements not available at time of publication
Puerto Rico Excluded Due to Lack of Available Data for 2015
Source: Moody's Investors Service

Exhibit 10

Demand Debt and Direct Loans/Private Placements

State	NTSD $000	Demand Debt ($000)	Direct Loans/ Private Placements ($000)	# Direct Loans/ Private Placements
Alabama	$4,124,043	$0	$250,402	6
Alaska	$1,050,300	$0	$0	0
Arizona	$5,296,855	$0	$0	0
Arkansas	$1,871,058	$0	$1,000	1
California	$90,916,000	$5,200,000	$515,875	1
Colorado	$2,314,334	$0	$0	0
Connecticut	$22,103,517	$0	$0	0
Delaware	$2,256,218	$0	$1,892	4
Florida	$21,034,800	$69,830	$0	0
Georgia	$10,510,695	$0	$127,305	1
Hawaii	$6,523,739	$0	$0	0
Idaho	$753,106	$0	$452	1
Illinois	$32,435,177	$600,000	$0	0
Indiana	$3,063,106	$537,980	$239,075	4
Iowa	$746,815	$0	$10,495	1
Kansas	$4,465,946	$322,875	$0	0
Kentucky	$8,645,732	$0	$0	0
Louisiana	$7,514,988	$425,000	$209,600	6
Maine	$1,234,050	$0	$0	0
Maryland	$11,577,387	$51,385	$56,409	8
Massachusetts	$37,997,157	$3,918,000	$441,200	3
Michigan	$7,131,200	$181,380	$0	0
Minnesota	$8,384,485	$0	$0	0
Mississippi	$5,107,084	$165,000	$0	0
Missouri	$3,489,776	$0	$0	0
Montana	$255,340	$0	$0	0
Nebraska	$15,475	$0	$0	0
Nevada	$1,707,181	$0	$5,480	2
New Hampshire	$1,075,660	$0	$20,599	7
New Jersey	$37,096,789	$238,120	$1,053,640	5
New Mexico	$2,563,850	$420,000	$284,800	3
New York	$59,799,811	$2,119,000	$0	0
North Carolina	$7,276,985	$0	$0	0
North Dakota	$125,423	$45,800	$45,800	1
Ohio	$12,664,731	$491,615	$0	0
Oklahoma	$1,553,879	$0	$0	0
Oregon	$7,683,117	$404,400	$265,000	1
Pennsylvania	$15,007,886	$231,425	$73,475	1
Rhode Island	$1,915,306	$38,400	$38,400	3
South Carolina	$2,952,148	$0	$354,900	4
South Dakota	$559,808	$0	$0	0
Tennessee	$1,969,701	$350,000	$0	0
Texas	$10,513,260	$3,181,098	$1,694,620	18
Utah	$2,759,175	$0	$0	0
Vermont	$627,192	$0	$0	0
Virginia	$11,884,485	$139,555	$12,348	4
Washington	$19,800,626	$0	$0	0
West Virginia	$1,881,734	$0	$19,444	2
Wisconsin	$10,274,025	$886,891	$279,810	5
Wyoming	$26,636	$0	$0	0
TOTAL	$512,537,792	$20,017,754	$6,002,021	92

Puerto Rico Excluded Due to Lack of Available Data for 2015

Source: Moody's Investors Service

Basis for State Debt Medians

Our 2016 state debt medians are based on our analysis of calendar year 2015 debt issuance and fiscal year 2015 debt service. As in prior year reports, the presentation of debt trend data incorporates a one-year lag (i.e., the data labeled 2016 reflect debt as of calendar year-end 2015).

In considering debt burden, our focus is largely on net tax-supported debt, which we characterize as debt secured by statewide taxes and other general resources, net of obligations that are self-supporting from pledged sources other than state taxes or operating resources – such as utility or local government revenues. We also examine gross debt, which captures debt supported by revenues other than state taxes and general resources. This includes self-supporting general obligation (GO) debt, special assessment bonds, and contingent debt liabilities that may not have direct tax support but represent commitments to make debt service payments under certain conditions (e.g., state guarantees and bonds backed by state moral obligation pledges that have never been tapped).

The debt and debt service ratios of some states are relatively high because they issue debt for purposes that in other states would be financed at the local level, such as for schools or mass transit. Some states' debt service ratios rank higher than their debt ratios due to conservative debt management practices, such as rapid debt amortization. Conversely, some states' debt service ratios rank relatively lower due to the use of capital appreciation bonds or long maturity schedules.

Exhibit 12

Comparison of NTSD and Gross Tax-Supported Debt (GTSD)

Generally Included in NTSD	Generally Excluded from NTSD/ Included in GSTD
General obligation debt paid from statewide taxes and fees	Self-supporting general obligation debt with an established history of being paid from sources other than taxes or general revenues
Appropriation backed bonds	Moral obligation debt with an established history of being paid from sources other than taxes or general revenues
Lease revenue bonds	Tobacco securitization bonds, with no state backup
Special tax bonds secured by statewide taxes and fees	Unemployment insurance obligation bonds
Highway bonds, secured by gas taxes and DMV fees	Debt guaranteed, but not paid, by the state
GARVEE bonds	Special assessment bonds
Lottery bonds	Revenue bonds of state enterprise (ex. Toll roads)
Moral obligation debt paid from statewide taxes and fees	
Capital leases	
P3's with state concession obligation	
Pension obligation bonds	

Source: Moody's Investors Service

These ratios have been calculated based on our definition of net tax-supported debt, debt service and total governmental revenues, and in most cases will differ from a state's own published calculations of debt limits or debt affordability. There is no correlation between our ratios and a state's compliance with its internal policies.

Moody's Related Research

Rating Methodology:

US States Rating Methodology

Outlook:

US States 2016 Outlook - Moderate Revenue Growth Supports Fiscal Stability for Most States

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APPENDIX B

Fitch Ratings

Fitch Rates Vermont's $102MM GOs 'AAA'; Outlook Stable

Fitch Ratings-New York-23 September 2015: Fitch Ratings has assigned an 'AAA' rating to the following state of Vermont general obligation (GO) bonds:

--$26.565 million GO bonds, 2015 series A (Vermont Citizen Bonds) (negotiated);
--$50.765 million GO bonds, 2015 series B (competitive);
--$24.46 million GO refunding bonds, 2015 series C (competitive).

The bonds are expected to sell the week of Oct. 5, 2015; the series A bonds through negotiation and the series B and C bonds through competitive bid.

In addition, Fitch affirms the 'AAA' rating on the state's outstanding $585.2 million GO bonds.

The Rating Outlook is Stable.

SECURITY

The bonds are general obligations of the state of Vermont backed by the state's full faith and credit.

KEY RATING DRIVERS

CONSERVATIVE FINANCIAL MANAGEMENT: Vermont's strong fiscal management practices anchor the state's credit quality and offset risks posed by its relatively narrow economy. The state's revenue stream is diverse and estimates are updated at least twice a year. The state takes timely action to maintain balance, and budget stabilization reserves have been maintained at statutory maximum levels despite periods of declining revenue.

MODERATE LONG-TERM LIABILITY BURDEN: Vermont's debt levels are at the low end of the moderate range and are expected to remain so based on the state's careful affordability planning process. Funded ratios for Vermont's pension systems declined in recent years. Positively, the state regularly budgets for its full projected actuarially calculated annual required contribution (ARC) and has enacted plan modifications with the goal of gradually improving the funded status of the plans. The state's combined debt and unfunded pension liabilities pose a slightly above-average burden, but one that Fitch views as manageable.

RELATIVELY NARROW ECONOMY: Vermont's economy has diversified but remains narrow with above-average exposure to the cyclical manufacturing sector. While statewide educational attainment and unemployment levels compare favorably to the nation, the state's median age is well above the national level.

RATING SENSITIVITIES

The rating is sensitive to shifts in Vermont's fundamental credit characteristics, particularly its moderate long-term liability profile and fiscal discipline.

CREDIT PROFILE

Vermont's 'AAA' rating reflects its moderate debt burden, maintained through adherence to debt affordability guidelines, as well as conservative financial management and maintenance of sound reserves. Outstanding debt, which is nearly entirely GO and matures rapidly, has increased slightly in recent years but the debt burden remains moderately low. Debt plus unfunded state pension liabilities as percentage of personal income is slightly above the states' median, but the burden is very manageable as the state regularly budgets its full projected pension ARC payments. Vermont budgets conservatively, taking prompt action to address projected budget gaps. Its diverse revenue stream includes a state property tax for education, a relatively unique feature for state governments.

LIMITED ECONOMY, STILL RECOVERING

The relatively narrow state economy is characterized by larger-than-average reliance on tourism, health and educational services, and manufacturing, and performance is exposed to several key large employers. The state's population is older, but more well-educated than the national average. During the recession, Vermont's peak-to-trough monthly employment loss of 4.8% (seasonally adjusted levels) was less severe than the national 6.3% decline. The recovery has been in line with the national trend, as through August, the state had recovered 135% of the jobs it lost while the national rate was 145%. On a non-seasonally adjusted basis, Vermont's 1.4% three-month moving average of year-over-year (yoy) employment growth trailed the national 2.1% rate.

Unemployment levels remain well below those of the nation, at 3.6% in August 2015 compared to 5.1% for the country, but the state's labor force has been flat to declining indicating some weakness in the labor market. The recent sale by IBM of its chip manufacturing business to GlobalFoundries is a positive for the state as it should stabilize employment at one of the state's largest factories. Wealth levels are on par with the nation as 2014 per capita personal income of $47,330 was just slightly ahead of the U.S. Vermont's total personal income growth has been line with national growth in recent years.

STABLE FISCAL PROFILE

Fiscal management practices are strong, including a consensus revenue process that forecasts revenues at least twice a year, monthly revenue monitoring and a practice of accumulating excess resources in separate reserve funds for each of the state's three major operating funds.

Vermont's fiscal profile remains stable with recent performance indicating solid yoy growth, despite a downward revenue forecast revision at the start of fiscal 2015. Consistent with Fitch's expectations, the state took prompt action to address the modest shortfall at the start of fiscal 2015. Within three weeks of the $28 million general fund negative forecast revision (2.1% of forecast revenues) in July 2014, the state enacted a rescission plan to address the gap with a mix of one-time and recurring revenue and expense actions.

In January 2015, the state further revised its revenue forecast downward by another $10 million. Ultimately, preliminary fiscal 2015 general fund revenues ended 1.3%, or $17.9 million, ahead of the January 2015 forecast. Versus fiscal 2014, general fund revenues grew 3.6% and personal income tax (PIT) revenues notched particularly strong growth of 5.2%. This contrasts with fiscal 2014 when year-end results fell short of the January forecast and contributed to a notable downward forecast revision in July 2014.

For fiscal 2016, the state's consensus forecast from July 2015 is for continued general fund revenue growth of 4.2%. PIT growth is again particularly robust at 8.2% - excluding the effects of tax law changes, Fitch estimates the baseline growth forecast at a still-healthy 5%, reflecting the consensus economic outlook for continued economic improvement. Fitch notes the tax law changes, while general modest in dollar amount, add an element of uncertainty to the revenue forecast. Monthly revenue monitoring and the annual January forecast update should provide the state with ample time to make adjustments to maintain balance if necessary.

Budget stabilization reserves (BSR) in each of the state's three major operating funds as of the close of fiscal 2015 remained fully funded and are expected to remain so through the current fiscal year ending June 30, 2016. In addition to the general fund BSR, capped at 5% of prior year appropriations, Vermont also maintains a general fund balance reserve (BR; replacing the former revenue shortfall reserve). The BR also has a cap of 5% of prior year appropriations, and stood well below that at $6.8 million (or 0.5%) at the end of fiscal 2015. Vermont projects the BR will increase notably to $10.1 million at the end of the current fiscal year. The state also projects the BSRs for the education and transportation funds, its other major operating funds, will remain fully funded at 5% of appropriations at fiscal year-end 2016.

LOW DEBT, HIGHER PENSION LIABILITIES

Vermont's net tax-supported debt profile reflects a moderate burden, straightforward structure, and rapid amortization. As of June 30, 2015, pro forma net tax-supported debt (including the 2015 series A and B) equaled 2.3% of 2014 personal income, which is in line with the states' median.

In 1990, the state established a Capital Debt Affordability Advisory Committee (CDAAC), establishing an important policy mechanism to manage the state's debt burden. The committee annually recommends proposed debt authorizations, based on analysis of the state's capacity. After recommending a modest decrease in the recommended authorization for fiscal 2016 and 2017, at its September 2015 meeting, the committee recommended keeping authorization stable. The state has never exceeded the committee's recommended levels. Fitch views the CDAAC as a useful check as the state has no other constitutional or statutory limitations on debt issuance.

Vermont has budgeted and appropriated full projected ARC payments into its pension systems since fiscal 2007, but the unfunded liability remains above-average relative to the state's economic resources. The state assumes responsibility for retirement pensions not only of state workers, but of local school teachers. In recent years, the state implemented a series of changes to benefits, employee contributions, and actuarial assumptions to improve the funded status and reduce the long-term liabilities; these include closing the amortization periods of both plans. As of June 30, 2014, the state's Vermont State Retirement System (VSRS) was 68.7% funded on a Fitch-adjusted basis (77.9% reported). Similarly, the teachers' plan was just 53.2% funded on a Fitch-adjusted basis (59.9% reported). Fitch anticipates funded ratios will remain relatively stable and gradually improve, subject to investment performance, as the state continues to make full ARC payments. Combined net-tax-supported debt plus unfunded pension liabilities (as of Fitch's 2014 state pension update report) was an above-average, but still manageable, 9.7% of personal income.

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Fitch recently published an exposure draft of state and local government tax-supported criteria (Exposure Draft: U.S. Tax-Supported Rating Criteria, dated Sept. 10, 2015). The draft includes a number of proposed revisions to existing criteria. If applied in the proposed form, Fitch estimates the revised criteria would result in changes to fewer than 10% of existing tax-supported ratings. Fitch expects that final criteria will be approved and published by Jan. 20, 2016. Once approved, the criteria will be applied immediately to any new issue and surveillance rating review. Fitch anticipates the criteria to be applied to all ratings that fall under the criteria within a 12-month period from the final approval date.

In addition to the sources of information identified in the applicable criteria specified below, this action was informed by information from CreditScope, IHS, and FRED, Federal Reserve Bank of St. Louis.

Applicable Criteria
Exposure Draft: U.S. Tax-Supported Rating Criteria (pub. 10 Sep 2015)
(https://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=869942)
Tax-Supported Rating Criteria (pub. 14 Aug 2012)
(https://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=686015)
U.S. State Government Tax-Supported Rating Criteria (pub. 14 Aug 2012)
(https://www.fitchratings.com/creditdesk/reports/report_frame.cfm?rpt_id=686033)

Additional Disclosures
Dodd-Frank Rating Information Disclosure Form
(https://www.fitchratings.com/creditdesk/press_releases/content/ridf_frame.cfm?pr_id=991192)
Solicitation Status (https://www.fitchratings.com/gws/en/disclosure/solicitation?pr_id=991192)
Endorsement Policy (https://www.fitchratings.com/jsp/creditdesk/PolicyRegulation.faces?context=2&detail=31)

AND PROCEDURES ARE ALSO AVAILABLE FROM THE 'CODE OF CONDUCT' SECTION OF THIS SITE. FITCH MAY HAVE PROVIDED ANOTHER PERMISSIBLE SERVICE TO THE RATED ENTITY OR ITS RELATED THIRD PARTIES. DETAILS OF THIS SERVICE FOR RATINGS FOR WHICH THE LEAD ANALYST IS BASED IN AN EU-REGISTERED ENTITY CAN BE FOUND ON THE ENTITY SUMMARY PAGE FOR THIS ISSUER ON THE FITCH WEBSITE.

ENDORSEMENT POLICY - Fitch's approach to ratings endorsement so that ratings produced outside the EU may be used by regulated entities within the EU for regulatory purposes, pursuant to the terms of the EU Regulation with respect to credit rating agencies, can be found on the EU Regulatory Disclosures (https://www.fitchratings.com/regulatory) page. The endorsement status of all International ratings is provided within the entity summary page for each rated entity and in the transaction detail pages for all structured finance transactions on the Fitch website. These disclosures are updated on a daily basis.

APPENDIX C

MOODY'S
INVESTORS SERVICE

New Issue: Moody's assigns Aaa to Vermont's $100M 2015 GO Bonds

Global Credit Research - 23 Sep 2015

Maintains Aaa on $585M GO bonds

VERMONT (STATE OF)
State Governments (including Puerto Rico and US Territories)
VT

Moody's Rating

ISSUE		RATING
General Obligation Refunding Bonds Series 2015C		Aaa
Sale Amount	$25,000,000	
Expected Sale Date	10/05/15	
Rating Description	General Obligation	
General Obligation Bonds, 2015 Series A (Vermont Citizen Bonds)		Aaa
Sale Amount	$25,000,000	
Expected Sale Date	10/05/15	
Rating Description	General Obligation	
General Obligation Bonds Series 2015B		Aaa
Sale Amount	$50,000,000	
Expected Sale Date	10/05/15	
Rating Description	General Obligation	

Moody's Outlook STA

NEW YORK, September 23, 2015 --Moody's Investors Service has assigned a Aaa rating to the State of Vermont's $25 million Series 2015A General Obligation Bonds (Vermont Citizen Bonds), $50 million Series 2015B General Obligation Bonds, and $25 million Series 2015C General Obligation Refunding Bonds. The outlook is stable.

Moody's maintains a Aaa rating on roughly $585.2 million of GO debt.

The 2015 bonds are scheduled to price the week of Oct. 5.

SUMMARY RATING RATIONALE

The Aaa rating reflects Vermont's strong financial management, which features conservative fiscal policies, consistent governance, and a proven commitment to maintaining healthy reserve balances. The state's debt is modest, and its economy, while small for a state, is vibrant. The rating also recognizes Vermont's sizeable unfunded pension liabilities, which we consider the state's biggest long-term challenge.

OUTLOOK

The stable outlook reflects the state's proven ability to continue operating on a balanced basis and maintaining a solid rainy day fund balance regardless of economic cycles. The outlook also anticipates slow progress toward achieving stronger funding of the state's pension liabilities.

WHAT COULD MAKE THE RATING GO DOWN

Slower-than-actuarially scheduled progress in improving pension funding

Faster-than-anticipated growth in unfunded pension liabilities

Departure from the state's history of conservative financial management

Emergence of structurally imbalanced budgets

STRENGTHS

Proven track record of maintaining healthy reserves regardless of economic cycles

Vibrant economy

Moderate debt profile

CHALLENGES

Large unfunded pension liabilities

Likely slow progress toward improving pension funding

Small economy relative to other states

RECENT DEVELOPMENTS

Recent developments are incorporated in the Detailed Rating Rationale.

DETAILED RATING RATIONALE

ECONOMY: SMALL BUT VIBRANT ECONOMY

Vermont's economy, while small, is vibrant. Bolstered by key industries including health care, tourism, technology-related manufacturing, and food and agriculture, Vermont has the third-lowest unemployment rate in the US (3.6% as of July, compared with 5.3% nationwide).

The $30 billion economy (by far the smallest among 50 states) in this state of roughly 625,000 people is robust. Per capita income is above-average at roughly 103% of US PCI, and income growth is moving in a positive direction; Vermont's PCI was below US PCI as recently as 2010.

We expect moderate growth in gross state product over the next few years as the state's economy remains in expansion mode. Longer term, unfavorable demographics and high business costs will be difficult hurdles to overcome, and Vermont will underperform the nation in job and income growth.

FINANCIAL OPERATIONS AND RESERVES: PROVEN RECORD OF MAINTAINING STRONG RESERVES

The state's commitment to maintaining healthy reserves is a key credit strength and one of the main pillars of its Aaa rating. The state funds a budget stabilization reserve at 5% of appropriations for its operating funds (general, transportation, and education), the statutory maximum.

Notably, the state has funded reserves to the statutory maximum since 2004, avoiding any draws throughout the recession, and continuing to build them as revenues grow.

The state's roughly $2.7 billion of operating funds revenues consist mainly of a statewide education property tax (36% of revenues), a personal income tax (24%), and a 6-cent sales tax (13%). These tax revenues are growing: the income tax is forecast to climb 8% in fiscal 2016 after a 5% rise in 2015, and the sales tax projected to grow nearly 5% in 2016 following 3% growth in 2015.

Although Vermont's revenues are subject to economic volatility, we expect the state to adjust well to economic cycles thanks to a comprehensive consensus planning regime as well as a firm commitment to a sound fiscal position.

Liquidity

Vermont's strong budget stabilization reserves help to ensure ample cash. The state does not resort to cash-flow borrowing to provide liquidity throughout the year.

The state's unrestricted cash position for all funds on a pooled basis throughout the year averages about $250 million, or nearly 10% of operating fund revenues. As of June 30, unrestricted cash of $379 million was equal to 14% of operating fund revenues.

DEBT AND PENSIONS: MODERATE DEBT, HEAVY UNFUNDED PENSIONS

Vermont's $585 million of General Obligation debt, plus roughly $33 million of highway revenue bonds secured by gasoline taxes, equate to a modest $954 per capita, which is below-average. Debt is also modest measured relative to gross state product (2% versus 2.2% median) and relative to per capita income (2.1% versus 2.5% median).

Debt is likely to remain modest. The state's Capital Debt Affordability Advisory Committee has recommended new-money borrowing of $72 million annually, implying small increases to debt outstanding as current debt matures at a rate of roughly $45 million annually.

Debt Structure

The state's GO debt is all fixed rate.

Debt-related Derivatives

The state is not party to any debt-related derivatives.

Pensions and OPEB

Vermont's net pension liabilities are on the high side, and this is the one factor where the state scores poorly relative to peers in the top rating category.

The state contributes to two defined-benefit pension plans, one for state employees and one for teachers. All employer contributions to these plans come from the state (the state makes no contributions to the municipal pension plan).

As of the 6/30/2014 actuarial valuation, the actuarial accrued liabilities of the state's two plans totaled $4.7 billion while the actuarial value of assets totaled $3.2 billion, implying an unfunded actuarial liability of $1.5 billion.

Based on standard Moody's adjustments to pension liabilities, we estimate the adjusted net pension liability as of fiscal 2013 at $3.5 billion. The three-year average adjusted net pension liability is roughly 65% of governmental revenues, which is above the state median of 53%.

Positively, Vermont is on a path to achieve full funding of its actuarial pension liability by 2038. Like many paths to full funding that are based on a fixed share of payroll, Vermont's plan assumes larger contributions in later years than in early years. The state's funding plan will result in unfunded liabilities growing through negative amortization until 2022 before the unfunded liability begins to decline as contributions increase. As such, the ANPL score is likely to worsen over the next few years.

OPEB

The state also provides other post-employment benefits (OPEB), which have an actuarial unfunded liability of about $1.8 billion. The annual OPEB cost is $110 million, or 4% of operating revenues.

GOVERNANCE

We consider Vermont's fiscal management to be strong. It utilizes consensus forecasting for estimating revenues, has increased the frequency of its forecasting during economic downturns, and passes on-time budgets. The state's willingness to continue allocating money to its rainy day funds also reflects well on management.

KEY STATISTICS

Per capita income relative to US average: 103%

Industrial diversity: 0.73

Employment volatility: 71

Available balances as % of operating revenues (5-year average): 8%

Net tax supported debt to governmental revenues: 11%

3-year average adjusted net pension liability to governmental revenues: 69%

OBLIGOR PROFILE

Vermont is the second-smallest state by population, which is about 625,000. Located in the New England region, Vermont is primarily rural. Its gross state product of $30 billion is by far the smallest among the 50 states.

LEGAL SECURITY

The 2015 bonds are general obligations of the state. The full faith and credit of the state are pledged to payment of debt service on the bonds.

USE OF PROCEEDS

Proceeds of the Series 2015A and Series 2015B bonds will provide new money for a variety of purposes including state buildings, education, and public safety. The 2015C bonds will be used to advance refund the state's 2005C, 2007A, and 2007D bonds for estimated net present value savings of 4.9%.

PRINCIPAL METHODOLOGY

The principal methodology used in this rating was US States Rating Methodology published in April 2013. Please see the Credit Policy page on www.moodys.com for a copy of this methodology.

REGULATORY DISCLOSURES

For ratings issued on a program, series or category/class of debt, this announcement provides certain regulatory disclosures in relation to each rating of a subsequently issued bond or note of the same series or category/class of debt or pursuant to a program for which the ratings are derived exclusively from existing ratings in accordance with Moody's rating practices. For ratings issued on a support provider, this announcement provides certain regulatory disclosures in relation to the rating action on the support provider and in relation to each particular rating action for securities that derive their credit ratings from the support provider's credit rating. For provisional ratings, this announcement provides certain regulatory disclosures in relation to the provisional rating assigned, and in relation to a definitive rating that may be assigned subsequent to the final issuance of the debt, in each case where the transaction structure and terms have not changed prior to the assignment of the definitive rating in a manner that would have affected the rating. For further information please see the ratings tab on the issuer/entity page for the respective issuer on www.moodys.com.

Regulatory disclosures contained in this press release apply to the credit rating and, if applicable, the related rating outlook or rating review.

Please see www.moodys.com for any updates on changes to the lead rating analyst and to the Moody's legal entity that has issued the rating.

Please see the ratings tab on the issuer/entity page on www.moodys.com for additional regulatory disclosures for each credit rating.

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APPENDIX D

STANDARD & POOR'S
RATINGS SERVICES
McGRAW HILL FINANCIAL

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Vermont; General Obligation

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Table Of Contents

Vermont; General Obligation

Credit Profile		
US$ 50.765 mil GO bnds ser 2015 B due 08/15/2035		
Long Term Rating	AA+/Stable	New
US$28.46 mil GO rfdg bnds ser 2015 C due 08/15/2028		
Long Term Rating	AA+/Stable	New
US$26.565 mil GO bnds (Vt Citizens Bnds) ser 2015 A due 08/15/2035		
Long Term Rating	AA+/Stable	New
Vermont GO		
Long Term Rating	AA+/Stable	Affirmed

Rationale

Standard & Poor's Ratings Services assigned its 'AA+' rating and stable outlook to Vermont's series 2015A (Vermont citizen bonds), B, and C general obligation (GO) bonds. At the same time, Standard & Poor's affirmed its 'AA+' rating on Vermont's GO bonds. The outlook is stable.

The ratings reflect our opinion of the state's:

- An employment composition reflective of the U.S. economy that is characterized by above-average income levels and low unemployment rates, but a recent slower-than-average pace of growth by most measures;
- Strong financial and budget management policies that have contributed to consistent reserve and liquidity levels over time;
- Well-defined debt affordability and capital planning processes, in our view, that have limited leverage and contributed to a modest tax-supported debt burden with rapid amortization of tax-supported debt; and
- Significant pension and other postemployment benefits (OPEB), which remain sizable relative to those of state peers despite some recent reform efforts.

The state's GO bonds are secured by Vermont's full faith and credit pledge. We understand that the bond proceeds will be used for various capital projects and refunding of certain debt outstanding for interest cost savings.

Demographic trends for Vermont have recently been weak relative for the region and national trends. The estimated population of 627,000 in 2014 is only 0.1% above 2010 levels. Despite this weaker demographic pattern, income levels have expanded at a healthy pace and per capita personal income has been above that of the U.S. for the past four years. However, Vermont's pace of economic recovery has been uneven and more recently, growth has lagged that the U.S., a trend we expect to continue.

The state has actively managed its budget over time, which is a credit strength, and has consistently maintained financial reserves, providing flexibility to address midyear budget imbalance. Unaudited budgetary basis results for fiscal 2015 indicate a $25.2 million operating surplus in the general fund before transfers. General fund tax revenues for fiscal 2015 of $1.38 billion were 3.6% above those of fiscal 2014 and total revenues increased by a healthy 3.6%. After transfers, the state projects an increase in the total fiscal 2015 general fund reserve balance to $76.11 million (5% of general fund expenditures) from $71.16 million in fiscal 2014.

For the general fund, the budget stabilization reserve increased to $69.3 million and an additional $6.8 million was available in the reserve for general fund surplus/revenue shortfall reserve. This additional reserve was established by the legislature in 2012. This reserve can be funded with budget surpluses after the existing budget stabilization fund and other statutory requirements are funded, up to a level of 5% of prior-year appropriations. The education and transportation fund reserves were also maintained at their statutory maximum of 5% at year-end.

The revenue projection for the fiscal 2016 general fund budget is now $1.43 billion, a total increase in tax revenue of $40.2 million; of which $31.6 million is new revenue adopted during the 2015 legislative session. According to the state, there was a $113 million gap in the 2016 budget, which Vermont closed through new revenues, adjustments in funding sources, and a small amount of one-time resources. The used of one-time revenues was a minimal 2% of operations, which we do not consider material and the amount is actually down from previous years. The budgets for the general, education, and transportation funds project ending balances at statutory maximums at the end of fiscal 2016.

The state has expanded Medicaid under the Affordable Care Act (ACA) and has established a health benefits exchange, Vermont Health Connect (VHC). Vermont currently enrolls individuals who earn up to 350% of the poverty line in state health programs so the ACA eligibility expansion has resulted in some recurring federal revenue to the state as well as federal funds for other elements of implementation including grants to develop its health benefits exchange. The state has had some technical and security issues with the exchange but officials indicate they have the highest per capita enrollment of any state-based exchange to date. As of July 2015, Vermont had more than 213,000 enrolled (about one-third of the population) in VHC health plans, Qualified Health Plans, and Medicaid for Children and Adults through either the marketplace, the state's legacy ACCESS system, or directly through an insurance carrier. The majority of the cost of operating VHC is covered by federal funding, at present; however, we believe that ACA implementation and general caseload activity could pressure the state's budget in the future. Recently, the state's reform efforts have focused on moving to value-based payments from fee-for-service payments across all payers, including Medicare.

Vermont's debt burden is moderate overall, in our view, and all tax-supported debt issuance is governed by a comprehensive capital and debt affordability process. Pension liabilities have grown considerably in the past several years and funded ratios steadily deteriorated through fiscal 2014. The state has increased pension funding toward annual required contribution (ARC) levels, and contributions in fiscal years 2012-2014 were significantly above the actuarially determined annual pension costs of the two pension systems. We expect that these higher contributions should improve funding levels in future years. The updated pension valuations for fiscal 2014 indicate that funding levels improved under the new Governmental Accounting Standards Board (GASB) 67 reporting requirements with assets reported on a market value basis. Despite this improvement, funded ratios have been below those of state peers. OPEB liabilities also remain high, with limited asset accumulation despite the creation of a trust fund.

Based on the analytical factors we evaluate for states, on a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned Vermont a composite score of '1.7'.

Outlook

The stable outlook reflects Vermont's slower-than-average economic recovery, which continues to pressure the budget, in our view. In addition, pension and OPEB liabilities remain high relative to those of state peers. We believe that Vermont has a very strong budget management framework and should this lead to improved reserve levels in the future, a higher rating could be warranted. In addition, we believe that there has been progress in increasing pension contributions and the state has taken certain actions to begin to address OPEB liability. A demonstrated improvement in the pension and OPEB liability position could also translate to a higher rating. Although we do not envision it at this time, given Vermont's history of proactively managing its budget and recent actions to address retirement liabilities, substantial deterioration of budget reserves, or a deteriorating liability position could negatively pressure the rating.

Government Framework

Vermont does not have a constitutional or statutory requirement to enact or maintain a balanced budget, but it has consistently maintained sound finances. In our view, the state has significant flexibility to increase the rate and base of its major tax revenues, which include income taxes, sales taxes, and a statewide property tax that funds the state's support of local education. We view the state's revenue sources as diverse. Voter initiatives cannot affect the state. Vermont maintains the ability to adjust disbursements in order to maintain sufficient liquidity. Debt service can be paid without a budget, but there is no other legal priority for debt.

The state's tax structure is broad, and its revenue sources are diverse across several operating funds. The general fund relies primarily on unrestricted revenues from personal and corporate income, sales and use, and meal taxes.

The education fund relies primarily on a statewide property tax, and an appropriation from the general fund. The education stabilization reserve ended the year at the statutory maximum of 5% of expenditures. The transportation fund relies primarily on federal-match grant revenues, a motor vehicle license fee, and a motor fuel tax.

On a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned a '1.6' to Vermont's government framework.

Financial Management Assessment: 'Strong'

Standard & Poor's considers Vermont's financial management practices "strong" under its financial management assessment methodology, indicating financial practices are strong, well embedded, and likely sustainable.

Much of Vermont's debt and financial management practices are embedded in state statute. These, along with internally developed policies, guide the state's long-term budget and capital planning, debt management, and investing practices. The state has a well-established consensus revenue-estimating process. According to statute, the joint fiscal office and administration provide their respective revenue estimates for the general, transportation, and federal funds for the current and next succeeding fiscal year to the Vermont Emergency Board.

Vermont law also requires a long-term capital plan. The governor submits a capital budget annually to the General

Assembly based on debt management provisions outlined by the state's capital debt affordability advisory committee. The committee's estimate is nonbinding, but the state legislature has never authorized new long-term GO debt in excess of the committee's estimated amount. The state has formal debt management policies, including a statutory debt affordability analysis developed by the capital debt affordability advisory committee that Vermont integrates into the operating budget development process and updates at least annually. Vermont has not entered into any interest rate swaps and thus does not have an adopted swap management policy. Statutory restrictions and adopted administrative policies govern investment management, and the office of the state treasurer monitors compliance.

Budget Management Framework

The state has multiple tools to assist financial management. Vermont monitors revenues and publishes results monthly; and the emergency board meets at least twice annually, in July and January, to evaluate the revenue forecast and make adjustments, if necessary. The state forecasts also include Medicaid revenues and spending. These consensus forecasting meetings can be convened more frequently, and were held quarterly during fiscal years 2008 through 2010, due to the recession and the potential impact on revenues and expenditures. The emergency board includes the governor and the legislative chairs of the house and senate fiscal appropriations committees. The forecasting process includes traditional economic and revenue forecasting, which Vermont performs with the assistance of outside economists, for the current and next succeeding fiscal year, as well as a less detailed forecast for the next eight years.

The governor has statutory authorization to adjust the budget within certain revenue and expenditure change limits when the Vermont Legislature is not in session. Vermont maintains stabilization reserve funds at statutory levels to reduce their effect on annual revenue variations. In 1993, the state created separate budget stabilization reserves within the general and transportation funds. The amount in each of these reserves is not to exceed 5% of previous-year appropriations. In fiscal 1999, the state created an education fund budget stabilization reserve, which is to fund in a range between 3.5%-5.0% of expenditures. Vermont statute requires annual funding of such reserves. The governor included a proposal in the fiscal 2013 executive budget to increase the general fund stabilization fund to 5.25% from 5.00%, but instead, the legislature added a second general fund reserve fund with a separate cap of 5.00% of expenditures.

On a scale of '1' (strongest) to '4' (weakest), we have assigned a '1.' to Vermont's financial management.

Economy

Vermont's economy is driven by tourism, higher education, computer and electronics manufacturing, consumer-goods manufacturing and agriculture. Exports continue to be an important part of the state's economy at 16% of gross state product (GSP), with a substantial portion going to Canada according to IHS Global Insight Inc. Exports were primarily made up of computer and electronic products (68.6%) followed by food manufactures (5.7%), and machinery (4.4%). In 2014, Vermont's exports totaled $3.6 billion of which 44.2% was with Canada; however, along with the strong dollar demand is likely to weaken as the fall in oil prices has damaged Canada's heavily oil-extraction reliant economy, thus in our view likely contributing to a weaker demand in the near term for Vermont's exports. Recent data from the International Trade Administration show that the state's export performance deteriorated in 2014, with total exports shrinking by 10% from 2013.

Vermont's employment diversity by sector is generally in line with the nation's, in our view, and has not demonstrated more cyclicality than when the U.S. Global Foundries completed its acquisition of IBM, which is the second-largest private-sector employer in the state and accounts for a large portion of the state's manufacturing employment and exports. Global Foundries employs about 3,000 at its Essex Junction plant, which manufactures semiconductors for consumer electronic products, including chips for cell phones and other devices. According to IHS Global Insight, a large portion of the state's manufacturing exports includes computers and electronics products from the facility. The Vermont Yankee nuclear power plant ceased power production at the end of 2014 and the facility is in the process of placing spent fuel into dry cast storage. Employment levels in 2015 reflects that development. The transition to site restoration will take multiple years, and state officials indicate that this close is not expected to immediately affect power prices, given that Vermont power companies do not purchase power from this plant. However, according to IHS Global Insight the facility's closure is expected to lead to layoffs of about 600 highly compensated employees in the medium term.

The state reports it was the second state in New England to complete its labor market recovery from the last recession--following the State of Massachusetts. Health care employment, in particular, will be a growth driver; however, IHS Global Insight forecasts very slow total employment growth of 1% in 2014 and an average annual growth rate of 0.98% between 2015 and 2018, which is well below forecast national employment growth rates. Despite the slow forecast employment growth, IHS projects unemployment rates to remain low in the next few years at about 3.4%, as labor force growth will be stagnant. It projects real GSP and personal income growth to average 2.0% and 4.3%, respectively, from 2015 to 2018 period. Although Vermont housing starts declined in 2014, and growth is projected to be uneven and not expected to return to its prerecession levels in the near future, home prices continue to appreciate in the near term similar to trends in the New England region.

Vermont's quality of life and well-educated workforce provide economic development opportunities; however, the state ranks low among the states in its business tax and regulatory environment and its slow labor force growth could stifle future economic growth prospects. The state's demographic trends continue to weaken with the Census Bureau estimating a population decrease from July 1, 2013, to July 1, 2014, of about 0.1% (293 people). This is below both the New England and national trends of an increase of 0.3% and 0.7%, respectively, over the same period. Vermont's population has grown more slowly than the nation as a whole; for 2000-2010, its population increased by only 0.26% compared with the nation's 0.9%. Furthermore, the state's aging population--31.7% over 55 and 16.4% over 65, compared with 26.6% and 14.2%, respectively, for the nation--will continue to be a drag on the state's growth potential in our view.

On a scale of '1' (strongest) to '4' (weakest), we have assigned a '2' to Vermont's economy.

Budgetary Performance

The fiscal 2016 general fund consensus revenue forecast was $1.39 billion for the fiscal 2016 budget. The budget that passed included $32.14 million in additional tax revenues a result of law change and $44.28 million in revenue enhancements, primarily from direct applications from special funds. Appropriations total $1.7 billion and the budget projected a budget stabilization reserve of $71.25 million and an ending general fund balance reserve of $10 million. The general fund consensus revenue forecast in July 2015, increased the general fund revenue estimate for fiscal 2016 by $40.2 million to $1.43 billion. This increase, according to the state, is due to updated economic information, technical re-specifications of the forecasting models, and tax changes enacted in the 2015 General Assembly.

The state ended fiscal 2015 with general fund revenues of $1.376 billion creating an operating gain of $25.2 million, which was offset by net transfers out to other funds of $10.27 million and transfers to reserves of $9.95 million. The fiscal 2015 general fund revenues were -1.52% below the January 2014 revenue forecast. Vermont ended fiscal 2014--the last audited year--with the budget stabilization reserves in the general fund, transportation fund, and education fund fully funded at their maximum statutory levels of 5% of the previous year's budgetary appropriations, along with some additional reserves in the general fund. These three funds' stabilization reserves remained funded at their statutory maximums through the recent recession. The total general fund balance decreased by $34 million after transfers to $125 million, a still-solid 14.6% of operating expenditures.

The state maintains separate budget stabilization funds in its general, transportation, and education funds that are available to offset undesignated fund deficits. The statutory maximum for the three stabilization reserves is 5% of the prior-year budgetary appropriations, and the education stabilization fund also has a statutory minimum of 3.5% of the prior-year appropriation. The three stabilization funds have been at their statutory maximums since fiscal 2007. Vermont pools the cash reserves for these major funds, which results in sufficient liquidity for operations during the fiscal year. Officials indicated that the state has not externally borrowed for liquidity since fiscal 2004.

On a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned a '1.4' to Vermont's budgetary performance.

Debt And Liability Profile

Debt

Vermont's total tax-supported debt is moderate about $950 per capita, or 2% of personal income and 2% of GSP. The fiscal 2014 tax-supported debt service was low, in our view, at about 2% of general governmental expenditures. Vermont's debt portfolio consists of only fixed-rate debt, without any exposure to interest rate swaps. The state also does not have any direct placement debt. We consider the debt amortization to be rapid, with officials retiring more than 67% of tax-supported debt over the next 10 years. The state has a debt affordability committee that annually recommends a maximum amount of debt issuance for the next fiscal year, and while the committee's recommendations are not binding, Vermont has consistently adhered to them. The authorization for fiscal years 2015 and 2016 totals $144 million, of which $83 million is expected to be issued in fiscal 2016 from the new Capital Bill and $17 million is previous authorized but unissued debt. State projections show debt levels remaining well within the state affordability guidelines through 2026. Debt service can be paid without a budget, but there is no other priority for the payment of debt before other general state expenditures.

Pensions

Vermont maintains three statutory pension plans: the Vermont State Teachers' Retirement System (VSTRS), with about 9,950 active members; the Vermont State Retirement System (VSRS), which includes general state employees and state police and has about 8,300 active members; and the municipal employees' retirement system (6,664 members). The state appropriates funding for the first two systems; the municipal system is supported entirely by municipal employers and employees.

The pension systems' funded ratio for the combined VSTRS and VSRS systems is below average, in our view, at 67.6% as of June 30, 2014, and has declined from 72.7% as of June 30, 2010. The valuation uses a "select and ultimate" method for developing interest rate assumptions, which results in an effective expected rate of return of 8.1% for VSRS and 7.9% for VSTRS, which is somewhat high relative to state peers. The combined unfunded actuarial accrued liability (UAAL) at June 30, 2014, was $1.5 billion, or $2,426 per capita, which we also view as below average; however, on the GASB 67 basis, the net pension liability is lower at $1.31 billion due to the higher actuarial value of assets based on market value and an assumed 8.2% rate of return.

The state budgets for pension contributions based on percentage rates of each member's annual earnable compensation and the actuarial valuations from the previous fiscal year. It budgets for the VSTRS ARC appropriation at the beginning of the year. The VSRS ARC accrues as a percent of salary expenses throughout the year and the state adjusts subsequent appropriations to reconcile variations in actual payroll from year to year to meet the projected ARC. Since fiscal 2012, actual annual contributions to the systems have exceeded the respective ARCs, which state officials attribute to conservative budgeting. In fiscal 2014, actual contributions of $56.5 million to VSRS represented 132% of the pension ARC. The actual contribution to the VSTRS system in fiscal 2014 represented 106% of the ARC, which included amounts to be used toward the payment of retiree health care expenses.

Other Postemployment Benefits

The state's unfunded OPEB liability is relatively high, in our view, at $2,556 per capita, although the state has recently made plan adjustments to manage the liability. Vermont offers postemployment medical insurance, dental insurance, and life insurance benefits to retirees of the single-employer VSRS and the multiemployer VSTRS. The VSTRS plan's OPEB UAAL improved to $713 million as of June 30, 2013, from $827 million in June 2012, primarily reflecting a change to a Medicare Part D Employer Group Waiver Plan (EGWP) for prescription drug benefits from a retiree drug subsidy (RDS) program. As of June 30, 2014, however, the VSTRS OPEB UAAL increased to almost $767 million, reflecting recent demographic experience and other refinements of estimated savings related to the EGWP implementation. The fiscal 2015 OPEB cost is almost $45 million compared with $42.8 million in fiscal 2014. The VSTRS contributes to the liability on a pay-as-you-go basis, but Vermont did not historically break out the actual employer contribution, including it, instead, through the pension contribution without an explicit appropriation. In 2014, Vermont passed legislation to establish a separate retired teachers benefit fund to fund current-year health care expenses, which will receive funding from general fund appropriations, EGWP subsidies, and a future health care fee for new hires.

The state has established an OPEB trust fund for the VSRS, but as of June 30, 2014, it contained only $18.9 million of assets, for a 1% actuarial asset funded ratio. The actuarial annual OPEB cost in fiscal 2014 was $67 million for the VSRS, of which Vermont paid almost 36% under pay-as-you-go funding. VSRS also began offering Medicare prescription drug benefits through an EGWP as of Jan. 1, 2015; according to the state this should reduce the liability by $116.2 million. Before this change, the VSRS actuarial valuation had assumed the system contributed Medicare Part D refunds from the RDS program into the irrevocable trust fund. Assuming no future contributions to the trust after implementation of EGWP, the June 30, 2014, OPEB valuation assumed a lower 4.00% discount rate (from 4.25%) which, along with rising assumed per capita costs and demographic experience--and despite the savings from the EGWP implementation--increased the estimated OPEB UAAL to about $1 billion from $932 million as of June 30, 2013. The separate multiemployer Vermont Municipal Employees Health Benefit Fund for local government is administered by the state, but has no liability to the state, and is not included in our OPEB calculations.

On a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned a '2.5' to Vermont's debt and liability profile.

Related Criteria And Research

Related Criteria

- USPF Criteria: State Ratings Methodology, Jan. 3, 2011
- Criteria: Use of CreditWatch And Outlooks, Sept. 14, 2009
- USPF Criteria: GO Debt, Oct. 12, 2006
- USPF Criteria: Debt Statement Analysis, Aug. 22, 2006
- USPF Criteria: Financial Management Assessment, June 27, 2006

Ratings Detail (As Of September 22, 2015)		
Vermont GO bnds		
Long Term Rating	AA+/Stable	Affirmed
Vermont GO		
Long Term Rating	AA+/Stable	Affirmed
Vermont GO bnds		
Long Term Rating	AA+/Stable	Affirmed

S&P Global
Ratings

RatingsDirect®

Summary:
Vermont; General Obligation

Primary Credit Analyst:
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Jillian Legnos, Boston

Table Of Contents

Summary:

Vermont; General Obligation

Credit Profile		
Vermont GO		
Long Term Rating	AA+/Stable	Affirmed
Vermont GO		
Long Term Rating	AA+/Stable	Affirmed
Vermont GO bnds		
Long Term Rating	AA+/Stable	Affirmed

Rationale

S&P Global Ratings affirmed its 'AA+' rating and stable outlook on the State of Vermont's general obligation debt and it's 'A+' rating and stable outlook on the state's moral obligation bonds.

This review was done in conjunction with the review on the Vermont Housing Finance Agency bonds. For further information on that rating please refer to the report published July 29, 2016, on RatingsDirect.

The ratings reflect our opinion of the state's:

- Employment composition reflective of the U.S. economy that is characterized by average income levels and low unemployment rates, but a recent slower-than-average pace of growth by most measures;
- Strong financial and budget management policies that have contributed to consistent reserve and liquidity levels over time;
- Well-defined debt affordability and capital planning processes, in our view, that have limited leverage and contributed to a modest tax-supported debt burden with rapid amortization of tax-supported debt; and
- Significant pension and other postemployment benefits (OPEB), which remain sizable relative to those of state peers despite some recent reform efforts.

Demographic trends for Vermont have recently been weak relative for the region and national trends. The state's population declined slightly in 2015 and 2014 and the estimated population of 626,000 in 2015 is less than 0.1% above 2010 levels. Despite this weaker demographic pattern, income levels have expanded at a healthy pace and per capita personal income has been at or above that of the U.S. for the past five years. However, Vermont's pace of economic recovery has been uneven and more recently, growth has lagged that the U.S., a trend we expect to continue.

The state has actively managed its budget over time, which is a credit strength, and has consistently maintained financial reserves, providing flexibility to address midyear budget imbalance. Adjustments to the fiscal 2016 budget, presented to the House Committee on Appropriations in December 2015, were minor, in our opinion. The proposals included updated revenue estimates from the July 2015 consensus revenue forecast with a $22.5 million increase in revenues versus the enacted budget. On the expenditure side, a $14.7 million increase in appropriations was proposed for various expenses. A $5.21 million transferred from the general fund to reserve accounts was also proposed. For the general fund, the proposal stated an increase in the budget stabilization reserve balance to $71.25 million, with an additional $6.8 million available in the reserve for general fund surplus/revenue shortfall reserve. This additional reserve was established by the legislature in 2012. This reserve can be funded with budget surpluses after the existing budget stabilization fund and other statutory requirements are funded, up to a level of 5% of prior-year appropriations. The education and transportation fund reserves were also maintained at their statutory maximum of 5% at year-end.

The governor released his executive budget recommendations for fiscal 2017 in January. The proposal incorporated the January 2016 consensus revenue forecasts, which estimated the general fund revenues to reach $1.47 billion for the fiscal year. The proposed general fund budget maintained the general fund balance reserve at $6.8 million and increased the budget stabilization reserve to the statutory maximum of 5%, or $74.3 million.

The final budget as passed by legislature included $28 million of new general fund revenue above the January 2106 consensus revenue forecast and fully funded all budget stabilization reserves at the 5% statutory level and left intact the $6.8 million general fund balance reserve.

The state's January 2016 consensus revenue forecast lowered fiscal 2016 expected revenues by 0.3%, compared with the July 2015 consensus forecast. Preliminary fiscal year-to-date performance through June of 2016, paints a similar picture. While the state estimates that total general fund revenues of $1.41 billion are 2.3% above the previous year revenues of $1.38 billion, year-to-date results are 1.2% below estimates. The shortfall is driven by slower-than-expected revenue growth in personal income taxes and sales and use taxes, at negative 1.8% and negative 1.9% below estimates, respectively.

Vermont's debt burden is moderate overall, in our view, and all tax-supported debt issuance is governed by a comprehensive capital and debt affordability process. Pension liabilities have grown considerably in the past several years and funded ratios steadily deteriorated through fiscal 2014; however, this trend did reverse in fiscal 2015. The state has increased pension funding toward annual required contribution levels, and contributions in fiscal years 2012-2015 were significantly above the actuarially determined annual pension costs of the two pension systems. We expect that these higher contributions should improve funding levels in future years. The updated pension valuations for fiscal 2015 indicate that funding levels improved under the new Governmental Accounting Standards Board 67 reporting requirements with assets reported on a market value basis. Despite this improvement, funded ratios have been below those of state peers. OPEB liabilities also remain high, with limited asset accumulation despite the creation of a trust fund.

Based on the analytical factors we evaluate for states, on a scale of '1.0' (strongest) to '4.0' (weakest), we have assigned Vermont a composite score of '1.7'.

(For more information please refer to the full analysis published Sept. 22, 2015, on RatingsDirect.)

Outlook

The stable outlook reflects Vermont's slower-than-average economic recovery, which continues to pressure the budget, in our view. In addition, pension and OPEB liabilities remain high relative to those of state peers. We believe that Vermont has a very strong budget management framework and should this lead to improved reserve levels in the future, a higher rating could be warranted. In addition, we believe that there has been progress in increasing pension contributions and the state has taken certain actions to begin to address OPEB liability. A demonstrated improvement in the pension and OPEB liability position could also translate to a higher rating. Although we do not envision it at this time, given Vermont's history of proactively managing its budget and recent actions to address retirement liabilities, substantial deterioration of budget reserves or a deteriorating liability position could negatively pressure the rating.

Ratings Detail (As Of August 1, 2016)		
Vermont GO		
Long Term Rating	AA+/Stable	Affirmed
Vermont GO bnds		
Long Term Rating	AA+/Stable	Affirmed

Certain terms used in this report, particularly certain adjectives used to express our view on rating relevant factors, have specific meanings ascribed to them in our criteria, and should therefore be read in conjunction with such criteria. Please see Ratings Criteria at www.standardandpoors.com for further information. Complete ratings information is available to subscribers of RatingsDirect at www.globalcreditportal.com. All ratings affected by this rating action can be found on the S&P Global Ratings' public website at www.standardandpoors.com. Use the Ratings search box located in the left column.

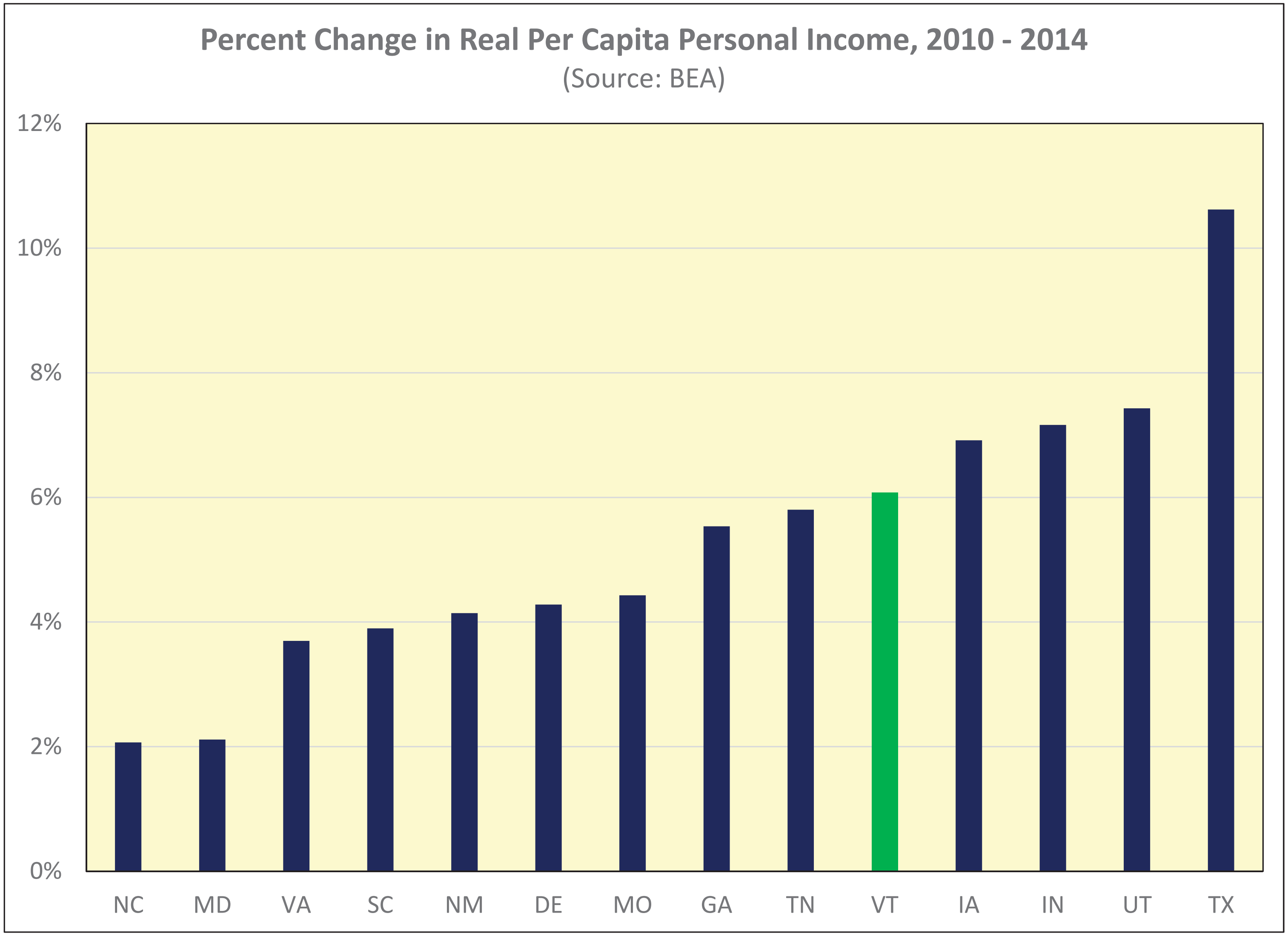
APPENDIX E

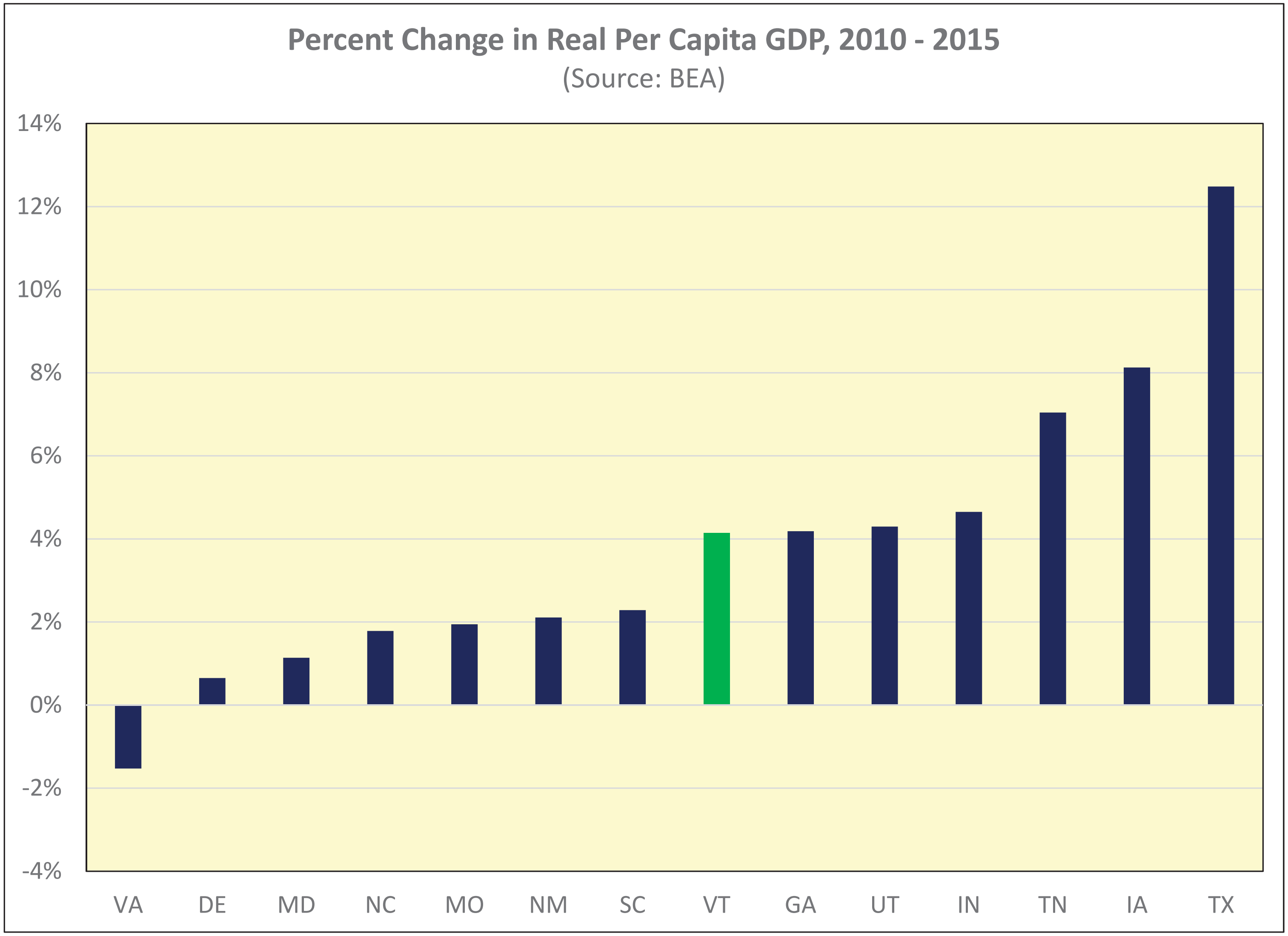
CDAAC

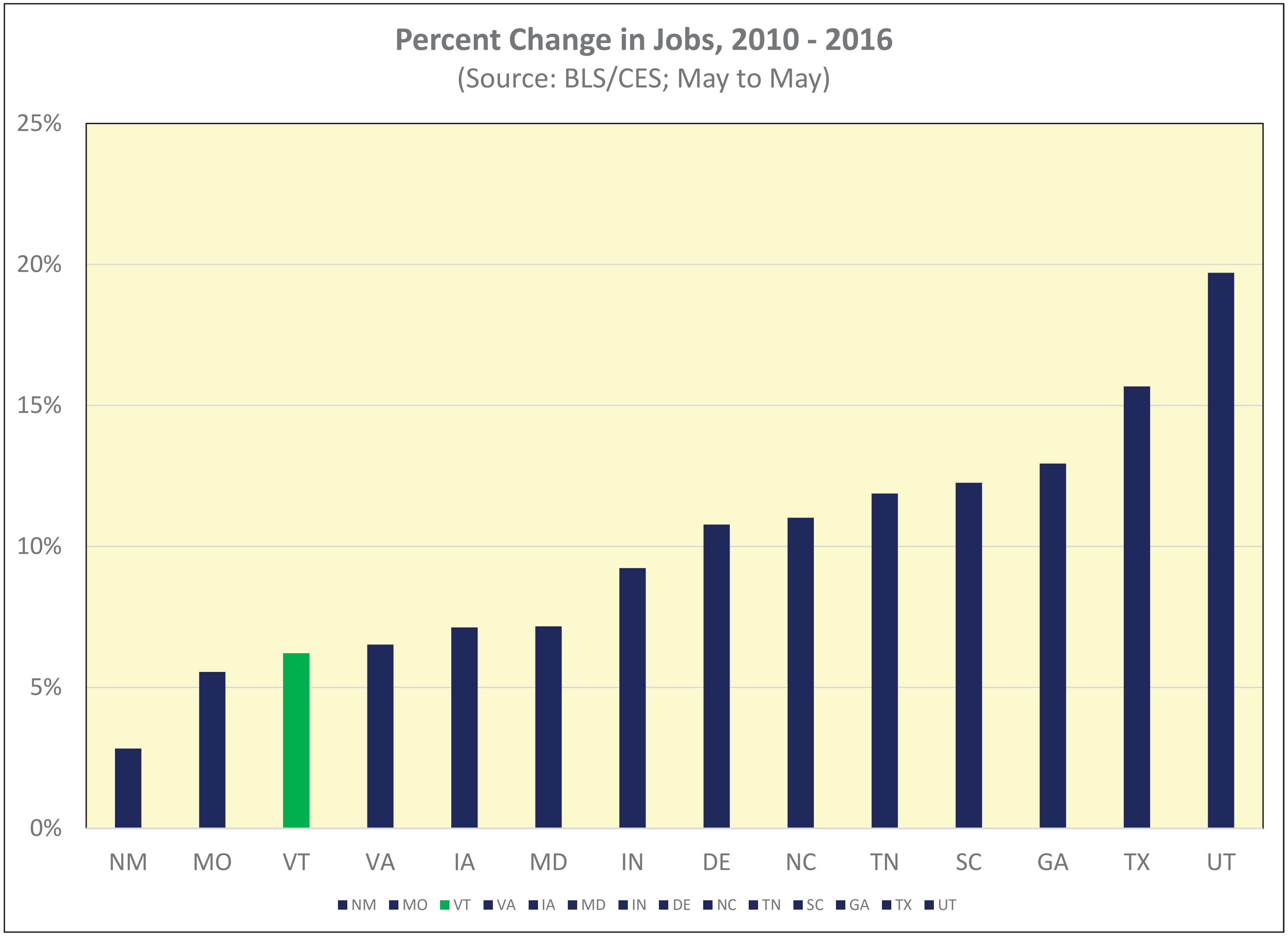
Preliminary Economic Metrics
for
Moody's Triple A States

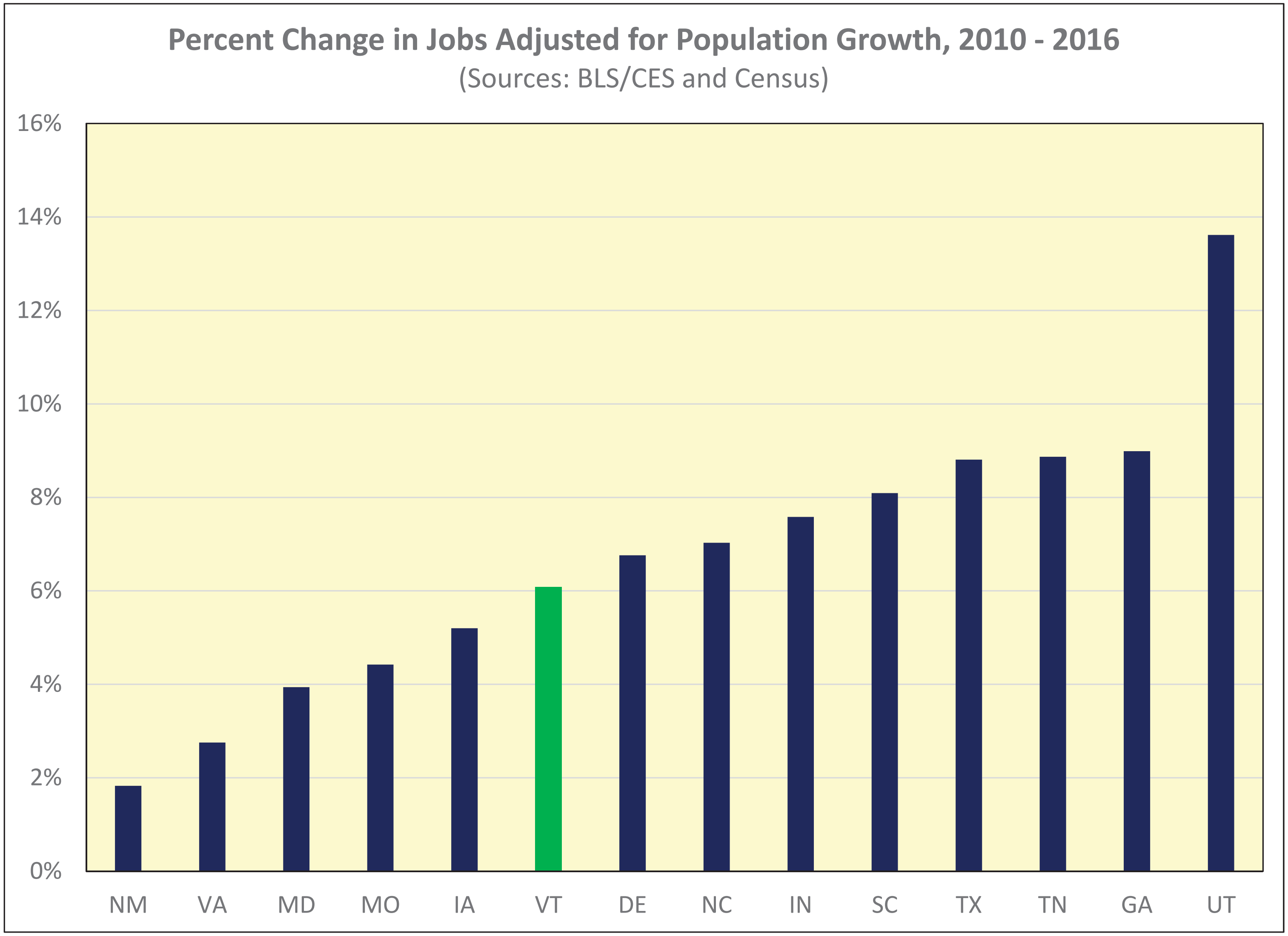
Doug Hoffer

18 July 2016

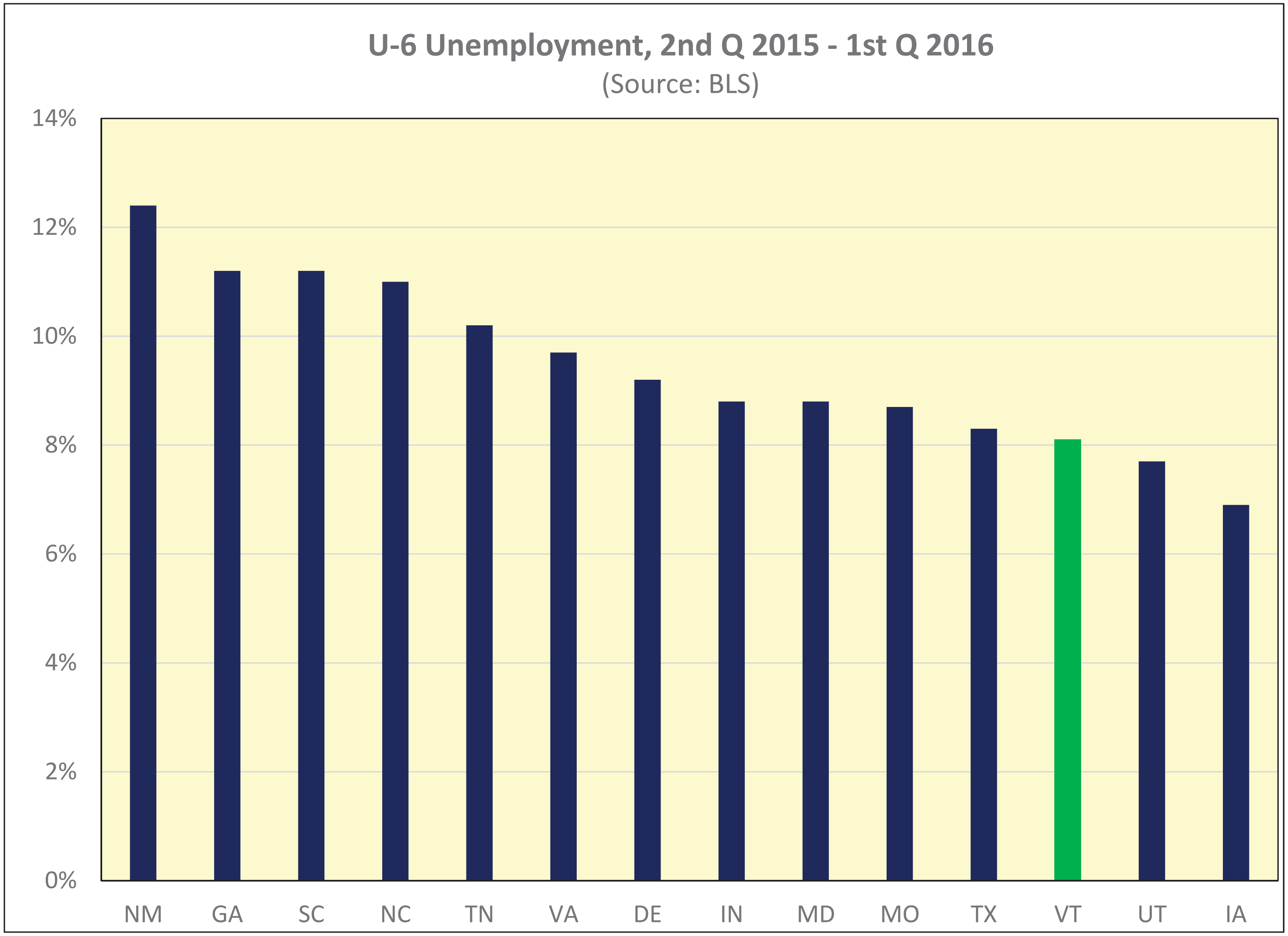

Percent Change in Real Per Capita Personal Income, 2010 - 2014
(Source: BEA)
12%
10%
8%
6%
4%
2%
0%
NC
MD
VA
SC
NM
DE
MO
GA
TN
VT
IA
IN
UT
TX


Percent Change in Real Per Capita GDP, 2010 - 2015
(Source: BEA)
14%
12%
10%
8%
6%
4%
2%
0%
-2%
-4%
VA
DE
MD
NC
MO
NM
SC
VT
GA
UT
IN
TN
IA
TX


Percent Change in Jobs, 2010 - 2016
(Source: BLS/CES; May to May)
25%
20%
15%
10%
5%
0%
NM
MO
VT
VA
IA
MD
IN
DE
NC
TN
SC
GA
TX
UT


Percent Change in Jobs Adjusted for Population Growth, 2010 - 2016
(Sources: BLS/CES and Census)
16%
14%
12%
10%
8%
6%
4%
2%
0%
NM
VA
MD
MO
IA
VT
DE
NC
IN
SC
TX
TN
GA
UT


Unemployment Rate, May 2016
(Source: BLS)
7%
6%
5%
4%
3%
2%
1%
0%
NM
SC
GA
NC
IN
MD
TX
MO
DE
TN
IA
UT
VA
VT


U-6 Unemployment, 2nd Q 2015 - 1st Q 2016
(Source: BLS)
14%
12%
10%
8%
6%
4%
2%
0%
NM
GA
SC
NC
TN
VA
DE
IN
MD
MO
TX
VT
UT
IA

APPENDIX F

Title 32: Taxation and Finance

Chapter 13: DEBTS AND CLAIMS

Sub-Chapter 08: Management Of State Debt

32 V.S.A. § 1001. Capital Debt Affordability Advisory Committee

§ 1001. Capital Debt Affordability Advisory Committee

(a) Committee established. A Capital Debt Affordability Advisory Committee is hereby created with the duties and composition provided by this section.

(b)(1) Committee duties. The Committee shall review annually the size and affordability of the net State tax-supported indebtedness and submit to the Governor and to the General Assembly an estimate of the maximum amount of new long-term net State tax-supported debt that prudently may be authorized for the next fiscal year. The estimate of the Committee shall be advisory and in no way bind the Governor or the General Assembly.

(2) The Committee shall conduct ongoing reviews of the amount and condition of bonds, notes, and other obligations of instrumentalities of the State for which the State has a contingent or limited liability or for which the State Legislature is permitted to replenish reserve funds, and, when deemed appropriate, recommend limits on the occurrence of such additional obligations to the Governor and to the General Assembly.

(3) The Committee shall conduct ongoing reviews of the amount and condition of the Transportation Infrastructure Bond Fund established in 19 V.S.A. § 11f and of bonds and notes issued against the fund for which the state has a contingent or limited liability.

(c) Committee estimate of a prudent amount of net State tax-supported debt; affordability considerations. On or before September 30 of each year, the Committee shall submit to the Governor and the General Assembly the Committee's estimate of net State tax-supported debt which prudently may be authorized for the next fiscal year, together with a report explaining the basis for the estimate. In developing its annual estimate, and in preparing its annual report, the Committee shall consider:

(1) The amount of net State tax-supported indebtedness that, during the next fiscal year, and annually for the following nine fiscal years:

(A) will be outstanding; and

(B) has been authorized but not yet issued.

(2) A projected schedule of affordable State net state tax-supported bond authorizations, for the next fiscal year and annually for the following nine fiscal years. The assessment of the affordability of the projected authorizations shall be based on all of the remaining considerations specified in this section.

(3) Projected debt service requirements during the next fiscal year, and annually for the following nine fiscal years, based upon:

(A) existing outstanding debt;

(B) previously authorized but unissued debt; and

(C) projected bond authorizations.

(4) The criteria that recognized bond rating agencies use to judge the quality of issues of State bonds, including:

(A) existing and projected total debt service on net tax-supported debt as a percentage of combined General and Transportation Fund revenues, excluding surpluses in these revenues which may occur in an individual fiscal year; and

(B) existing and projected total net tax-supported debt outstanding as a percentage of total state personal income.

(5) The principal amounts currently outstanding, and balances for the next fiscal year, and annually for the following nine fiscal years, of existing:

(A) obligations of instrumentalities of the State for which the State has a contingent or limited liability;

(B) any other long-term debt of instrumentalities of the State not secured by the full faith and credit of the State, or for which the State Legislature is permitted to replenish reserve funds; and

(C) to the maximum extent obtainable, all long-term debt of municipal governments in Vermont which is secured by general tax or user fee revenues.

(6) The impact of capital spending upon the economic conditions and outlook for the State.

(7) The cost-benefit of various levels of debt financing, types of debt, and maturity schedules.

(8) Any projections of capital needs authorized or prepared by the Agency of Transportation, the Joint Fiscal Office, or other agencies or departments.

(9) Any other factor that is relevant to:

(A) the ability of the State to meet its projected debt service requirements for the next five fiscal years; or

(B) the interest rate to be borne by, the credit rating on, or other factors affecting the marketability of State bonds.

(10) The effect of authorizations of new State debt on each of the considerations of this section.

(d) Committee composition.

(1) Membership. Committee membership shall consist of:

(A) As ex officio members:

(i) the State Treasurer;

(ii) the Secretary of Administration; and

(iii) a representative of the Vermont Municipal Bond Bank chosen by the directors of the Bank.

(B) Two individuals with experience in accounting or finance, who are not officials or employees of State government appointed by the Governor for six-year terms.

(C) The Auditor of Accounts who shall be a nonvoting ex officio member.

(D) One person who is not an official or employee of State government with experience in accounting or finance appointed by the State Treasurer for a six-year term.

(2) The State Treasurer shall be the Chairperson of the Committee.

(e) Other attendants of committee meetings. Staff of the Legislative Council and the Joint Fiscal Committee shall be invited to attend Committee meetings for the purpose of fostering a mutual understanding between the Executive and Legislative Branches on the appropriate statistics to be used in committee reviews, debt affordability considerations, and recommendations.

(f) Information. All public entities whose liabilities are to be considered by the Committee shall annually provide the State Treasurer with the information the Committee deems necessary for it to carry out the requirements of this subchapter. (Added 1989, No. 258 (Adj. Sess.), § 1; amended 2007, No. 121 (Adj. Sess.), § 28; 2007, No. 200 (Adj. Sess.), § 25, eff. June 9, 2008; 2009, No. 50, § 31.)