

Capital Debt Affordability Committee

Treasurer Nancy K. Kopp, Chair
Louis L. Goldstein Treasury Building
Assembly Room
80 Calvert St.
Annapolis, MD

Agenda

September 28, 2016

2:00 PM

- 1) **Treasurer's Opening Comments**
- 2) **CDAC Workgroup Report on MDOT Affordability Limits**
Christian Lund, Director of Debt Management, State Treasurer's Office
- 3) **Affordability Analysis**
Christian Lund, Director of Debt Management, State Treasurer's Office
- 4) **Discussion of recommendations for FY 2018 to be submitted to the Governor and General Assembly:**
 - *General Obligation Bond Authorization:*
Recommendation of the amount of new State debt that prudently may be authorized for fiscal year 2018.
- 5) **Discussion of planning assumptions for FY 2019 – FY 2026 to be included in the 2016 annual report:**
 - Recommendation of planning assumptions for the total amount of new State debt for future fiscal years.
- 6) **Discussion of recommendations for FY 2018 to be submitted to the Governor and General Assembly:**
 - *Academic Facilities Bonds Authorization:*
Recommendation of the amount of new bonds for academic facilities for fiscal year 2018 by the University System of Maryland, Morgan State University, St. Mary's College of Maryland and the Baltimore City Community College.

CDAC Workgroup on MDOT Debt Affordability Criteria

Presented to the Capital Debt Affordability Committee
September 28, 2016

JCR Language

April 2016 Joint Chairmen's Report committee narrative:

Consolidated Transportation Bond Debt Affordability Criteria: The committees are concerned about the increasing share of Transportation Trust Fund (TTF) revenues being consumed by debt service payments on Consolidated Transportation Bond (CTB) debt. By fiscal 2021, the end of the current TTF forecast period, debt service is projected to require almost 11.0% of net TTF revenues. Furthermore, in fiscal 2021, the TTF forecast anticipated that debt service will equal an amount equivalent to over 90.0% of projected bond issuances. Given that CTB debt is part of total State tax-supported debt and total State tax-supported debt is approaching the State's affordability limits, it is desirable that CTB-specific affordability criteria be developed. The committees therefore request that the Maryland Department of Transportation (MDOT) work with the Capital Debt Affordability Committee (CDAC) to develop affordability criteria that may be used to ensure CTB debt remains affordable vis-à-vis TTF resources. MDOT should submit a report to the committees detailing the recommended affordability criteria developed through this effort by December 1, 2016.

CDAC Workgroup

- CDAC Workgroup met August 11, 2016
- Comprised of staff from STO, DBM, Comptroller, MDOT, and DLS

Workgroup Discussion: Reasons for Concern

- The Workgroup discussed the following reasons for concern:
 - MDOT's **projected** debt service-to-revenues ratio has increased in recent years, even as its **actual** debt service-to-revenues ratios has remained relatively stable
 - MDOT's debt service-to-revenues ratio is expected to increase further in the next Consolidated Transportation Plan (CTP) due to a change in methodology for debt service projections
 - MDOT's projected debt service is included in the CDAC affordability limits and impacts the State's ability to issue other types of debt

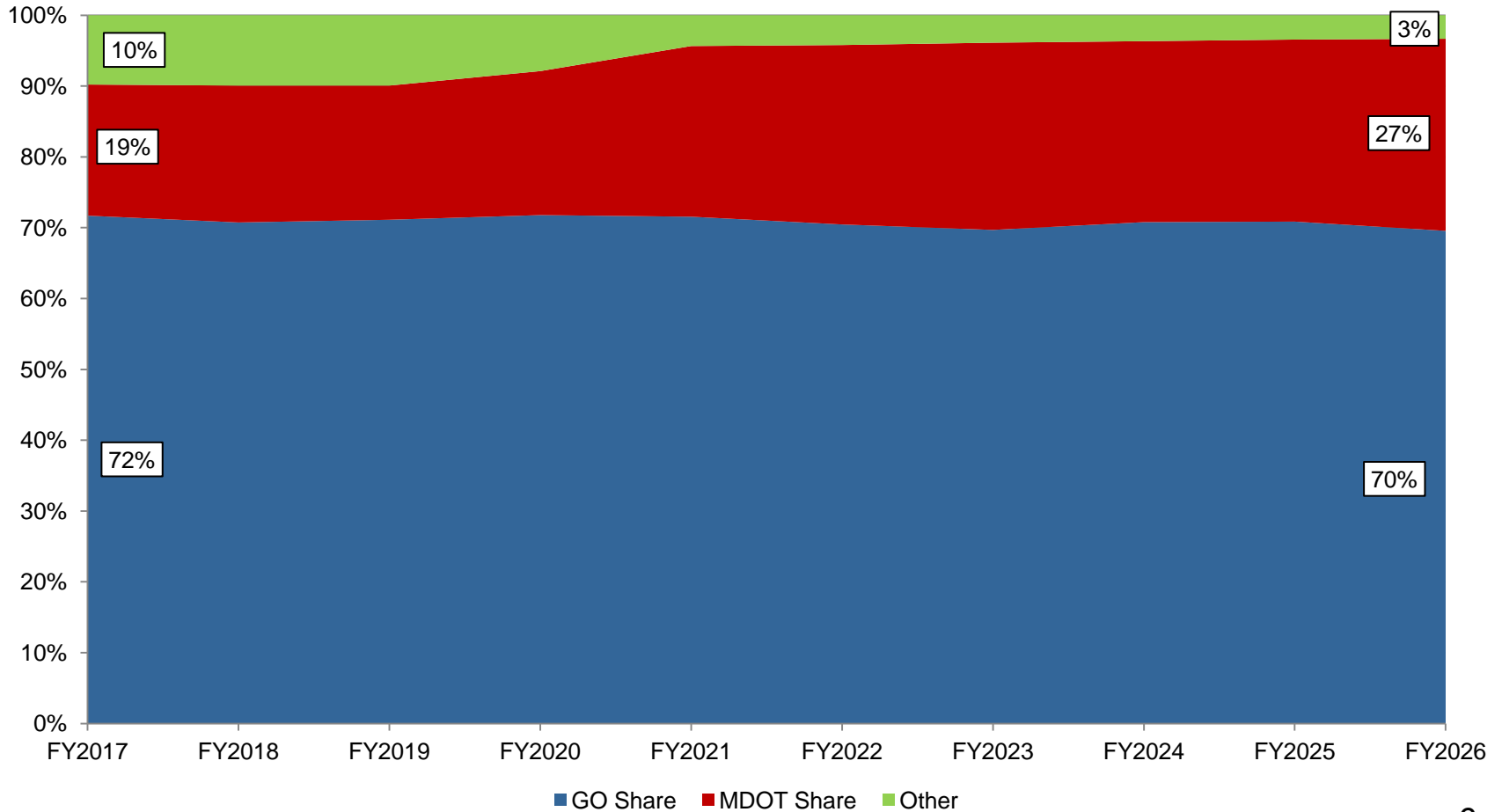
Debt Service to Revenues Summary

Final CTP	FINAL YEAR				ACTUALS			
	Final Fiscal Year	Net TTF Revenues	Debt Service	Debt Service to TTF Rev.	Actual Year	Net TTF Revenues	Debt Service	Debt Service to TTF Rev.
Dec-15	2021	3,690	401	11%				
Dec-14	2020	3,914	391	10%				
Dec-13	2019	3,672	401	11%				
Dec-12	2018	2,886	303	10%				
Dec-11	2017	2,834	304	11%				
Dec-10	2016	2,738	288	11%				
Dec-09	2015	2,740	268	10%	2015	2,971	248	8%
Dec-08	2014	2,736	248	9%	2014	2,736	200	7%
Dec-07	2013	2,936	241	8%	2013	2,526	174	7%
Dec-06	2012	2,417	206	9%	2012	2,361	174	7%
Dec-05	2011	2,308	173	7%	2011	2,292	158	7%
Dec-04	2010	2,164	170	8%	2010	2,188	151	7%
Dec-03	2009	1,955	143	7%	2009	2,203	142	6%
Dec-02	2008	1,842	149	8%	2008	2,075	122	6%
Dec-01	2007	1,818	130	7%	2007	2,102	115	5%
Dec-00	2006	1,765	153	9%	2006	2,079	141	7%
Dec-99	2005	1,567	175	11%	2005	2,096	154	7%
Dec-98	2004	1,500	151	10%	2004	2,030	135	7%
Dec-97	2003	1,446	148	10%	2003	1,776	130	7%
Dec-96	2002	1,379	142	10%	2002	1,747	113	6%
Dec-95	2001	1,356	135	10%	2001	1,642	110	7%
Dec-94	2000	1,337	158	12%	2000	1,590	135	8%
Dec-93	1999	1,293	152	12%	1999	1,479	133	9%
Dec-92	1998	1,281	150	12%	1998	1,353	127	9%
Dec-91	1997	1,128	118	10%	1997	1,305	121	9%
Dec-90	1996	1,108	114	10%	1996	1,284	120	9%

*Note: MDOT anticipates its projected debt service-to-revenue ratios to **increase** in its next CTP due to a change in its methodology for forecasting debt service.

Transportation Debt is Absorbing an Increasing Amount of State's Debt Capacity Under 8% Limit

Share of State's Debt Capacity By Type, FY 2017 - 2026



Preliminary projections as of September 2016. Subject to change.

Workgroup Discussion: Reasons Not To Be Concerned

- The Workgroup also discussed the following reasons not to be concerned:
 - MDOT has debt management tools in the form of additional bonds test and statutory restrictions
 - MDOT's debt management criteria are consistent with the criteria used in other highly rated states
 - Investors and rating agencies continue to value CTBs and have not indicated concern with MDOT's debt management policies
 - MDOT remains very highly rated by all three major rating agencies (Aa1/AAA/AA+)

Current MDOT Debt Management Policies

- Additional Bonds Tests (ABTs)
 - Pledged taxes (fuel, titling, corporate income, and sales and use taxes) shall equal at least 2x the maximum annual debt service on outstanding CTBs
 - Net revenues (pledged, operating, and other revenues net of expenditures) shall equal at least 2x maximum annual debt service on outstanding CTBs
 - As a management practice, MDOT manages these ratios to a level 25% higher than required under bond covenants
- Total debt outstanding limited by statute to \$4.5b
- Annual limits on bonds outstanding and debt service established annually in budget bill
- Current ratings: Aa1 (Moody's)/AAA (S&P)/AA+ (Fitch)

State DOT Debt Policies and Limitations
8/11/2016

State	Agency	Name of Bonds	Pledged Revenues	Statutory or Policy Limitation	Additional Bonds Test	Current Par Amount Outstanding	Credit Ratings
Arizona	Arizona Transportation Board	(A) Senior Lien Highway Revenue Bonds (B) Subordinated Highway Revenue Bonds	50.5% of HURF Revenues plus State Legislative Distributions. HURF Revenues constitute: (i) Motor Vehicle Fuel Tax (ii) Use Fuel Tax (iii) Motor Carrier Fee (iv) Motor Vehicle License Rev. (v) Motor Vehicle Registration Fees (vi) Title, Operator, License, Misc. Other Fees Revenue	Statutory Limit of Additional Bonds: 3X MADS	Senior Bonds: 4X MADS Subordinated Bonds: 3X MADS	Senior Lien: \$500 MM Subordinate Lien: \$1.2 BN Second Subordinate Lien: 0	(A) Aa1 / AAA / - (B) Aa2 / AA+ / -
Connecticut	State of Connecticut	Special Tax Obligation Transportation Infrastructure Purposes	Motor Vehicle Fuel Tax, Registration Fees, License Permit Fees, Other Special Taxes	-	Senior: 2x Not to exceed \$11.15 Billion	Senior Lien: \$3 Billion Second Lien: \$500 Million	Aa3 / AA / AA
Delaware	Delaware Transportation Authority	Transportation System Revenue Bonds	I-95 Turnpike Tolls: 31% Motor Fuel Taxes: 31% Document Fees: 17% Registration Fees: 11% Misc. Transportation Fees & Int. Earnings: 10%	-	Senior Bonds: 2x MADS Junior Bonds: 3x MADS Subordinate Bonds: 1x MADS	Senior Lien: \$775 MM Junior Lien: 0 LOC Secured by Subordinate Lien: \$50 MM	Aa2 / AA+ / -
Hawaii	Hawaii DOT	Highway Revenue Bonds	Motor Vehicle Fuel Tax, Registration Fees, Rental Vehicle Tax	-	Senior: 2.00x Max. Agg DS Subordinate: 1.30x Max. Agg DS	\$400 Million	Aa2 / AA+ / AA
Indiana	Department of Transportation / Indiana Finance Authority	Highway Revenue Bonds	Paid from rental payments received from the Department and sourced to DOT/Transportation Fund revenues. Double-Barrel support from state general fund appropriation, if needed.	Limited by statute; No current authorization amount.	N/A	\$810 Million	Aa1 / AA+ / AA+
Kansas	Kansas DOT	Highway Revenue Bonds	Motor vehicle fuel tax, Registration Fees, License Permit Fees, Sales Tax	-	3x MADS	\$1.9 Billion	Aa2 / AAA / AA+
Kentucky	Turnpike Authority of Kentucky	Economic Development Road Revenue Bonds	Lease payments from the Transportation Cabinet and Motor Fuel Taxes and Surtaxes from the Road Fund	-	No future leases / parity bonds unless Pledged Revenues is at least 2x MADS	\$1.6 Billion	Aa2 / AA+ / A+
Louisiana	State of Louisiana	Gasoline and Fuels Tax Revenue Bonds	Motor Vehicle Fuel Tax	-	First Lien: 2x Second Lien: 2x	\$1.7 Billion	Senior: Aa1 / AA / AA- Sub: Aa2 / AA / AA-
Maine	Maine Turnpike Authority	Turnpike Revenue Refunding Bonds	Motor Fuel Taxes, Registration Fees, Title Fees, Vanity Plate Fees, and Other Pledged Highway Revenues.	State statute limits, by par amount, the total amount of Trans Cap Revenue Bonds that can be issued.	2x MADS	\$458 Million (2014)	Aa3 / AA- / AA-
Maryland	Department of Transportation of Maryland	Consolidated Transportation Bonds	(i) Motor Fuel Tax Revenue (ii) Corporate Income Tax Revenue (iii) Excise tax on Motor Vehicles (iv) Short term vehicle rental sales and use tax (v) Other receipts from MDOT	Statutory Debt Limit of \$4.5 billion outstanding. MDOT's 6-year transportation plan projects bond issuance resulting in debt service coverage as low as 2.7x	Total Net receipts is 2x MADS Total pledged tax revenues is 2x MADS	\$1.8 Billion	Aa1 / AAA / AA+
Massachusetts	Massachusetts DOT	Highway System Revenue Bonds	Secured and payable from 6.86 cents per gallon of the excise tax imposed on gasoline.	-	Senior Lien: Not Permitted Junior Lien: 2x MADS	\$7.9 Billion (2014)	Aa3 / - / AA-

**State DOT Debt Policies and Limitations
8/11/2016**

State	Agency	Name of Bonds	Pledged Revenues	Statutory or Policy Limitation	Additional Bonds Test	Current Par Amount Outstanding	Credit Ratings
Michigan	State of Michigan	State Trunk Line Fund Bonds (STF) Comprehensive Transportation Bonds (CTF)	STF - 39.1% of taxes on motor vehicle fuel sales and registrations, 39.1% of 3 cent gas tax, half cent gas tax CTF - Share of taxes on motor vehicle fuel sales and registrations plus not more than 25% of general sales and use tax on vehicle sales, fuel, parts & accessories	Statutory requirement of 4x MADS	2x MADS	STF - \$1.0 Billion CTF - \$149 Million	Aa2 / AA+
Missouri	Missouri Highways and Transportation Commission	State Road Bonds	Motor vehicle fuel tax, License permit fees, Sales Tax	A maximum of 20 percent of the annual Total Road and Bridge Revenue may be used to meet the repayment requirements of the Commission's debt obligations	Senior: Closed Lien First Lien: 4x Second Lien: 3x Third Lien: 2x	\$600 MM (Senior Lien) \$729 MM (First Lien) \$482 MM (Second Lien) \$317 MM (Third Lien)	Senior & First Lien: Aaa / AAA / AAA Second Lien: Aa1 / AAA / AA+ Third Lien: Aa1 / AA+ / AA-
Nevada	Nevada DOT	Highway Revenue Bonds	Motor Vehicle Fuel Tax, Federal Revenues	-	2x MADS	\$450 Million	Aa2 / AAA / AA+
New Jersey	New Jersey Transportation Trust Fund Authority	Transportation Revenue Bonds	Gas taxes, Special Fuel taxes, Vehicle fees, Trip taxes, Motor Vehicle fees and taxes.	Statutorily dedicated revenues to be spent exclusively on State-wide transportation needs, including debt service payments	ABT not specified, debt service supported by Appropriations from a larger Trust Fund.	\$17 Billion	A3 / A- / A-
New Mexico	State Transportation Commission of the State of New Mexico	State Transportation Revenue Bonds	Motor vehicle fuel tax, Registration Fees, License Permit Fees, Federal Revenues	Statutory issue limit of \$1.585 billion of new money, from Pledged Revenues, in cumulative increments of \$350 million and unlimited amount of refunding bonds	Senior: 3.5x (Includes Federal) 3x (Excludes Federal) Subordinate: 3x	\$900 Million (Senior) \$550 Million (Subordinate)	Senior: Aa1 / AAA / - Sub: Aa2 / AA / -
North Carolina	North Carolina Turnpike Authority	State Annual Appropriation Revenue Bonds	Legislation creates a continuing annual appropriation paid from the Highway Trust Fund (Motor Fuels Tax, Highway Use Tax, Motor Vehicle fees) to NCTA.	The appropriations are for a fixed amount and designated for specific projects. No current authorization remains. Debt service counts toward HTF debt affordability limits.	1x Net Debt Service, after BABs Interest Subsidy Payments. (Appropriations equal less than 5% of Highway Trust Fund Revenues.)	\$800 MM	Aa2 / AA / AA-
Oregon	Oregon DOT	Highway User Tax Revenue Bonds	Motor Vehicle Fuel tax, Registration Fees, License Permit Fees	-	Senior: 4x Subordinate: 3x	Senior: \$1.6 Billion Subordinate: \$830 Million	Senior: Aa1 / AAA / AA+ Sub: Aa2 / AA+ / AA
Rhode Island	Rhode Island Economic Development Corporation	Motor Fuel Tax Revenue Bonds	First lien on the Pledged Revenues of two (2) cents per gallon of the State's motor fuel tax revenues	-	1.25x MADS	\$26.5 Million	A3 / A+ / A

State DOT Debt Policies and Limitations
8/11/2016

State	Agency	Name of Bonds	Pledged Revenues	Statutory or Policy Limitation	Additional Bonds Test	Current Par Amount Outstanding	Credit Ratings
South Carolina	South Carolina Transportation Infrastructure Bank	Revenue Bonds	Truck Registration Fees, Motor Vehicle Registration Fees, Funds from State Highway Bonds, Electric Power Funds, Gasoline User Fee Revenue	General Obligation annual debt service requirements may not exceed 15% of state transportation revenues. However, that limit applies to their GO State Highway Bonds only, and they can leverage certain state transportation revenues through SCTIB to a much more aggressive projected 1.35x ABT.	1.35x and 1.2x Senior + Junior DS both on a projected annual coverage basis	\$1.9 Billion	A1 / - / A
Texas	Texas Transportation Commission	State Highway Fund First Tier Revenue Bonds	(i) State Motor Fuels Tax (ii) State Motor Vehicles Registration Fees (iii) Reimbursements from Federal Funds (iv) Other State Revenue Sources (sales tax on motor lubricants, funds from local governments, interest earnings, oversize and overweight trailer permit fees, vehicle title certificate fees, revenues from Texas Highways Magazine, and other reimbursements)	-	First Tier Senior Bonds: 4X MADS	\$5 Billion	- / AAA / AAA
Virginia	Commonwealth Transportation Board	Transportation Revenue Bonds	Limited obligations of CTB, expected to be paid from the Commonwealth's Transportation Trust Fund ("TTF") revenues appropriated by the General Assembly for bond payment and/or allocated by the CTB for such purpose. In the event such revenues are insufficient, bonds would be paid from a sum sufficient General Assembly appropriation from, first, legally available revenues in the TTF, and, second, from the Commonwealth's General Fund.	Virginia's TTF is primarily tax supported, and the CTB's Bonds are also supported by the Commonwealth's General Fund, therefore the CTB's debt is included in overall Commonwealth tax-backed debt limitations which include annual debt service of no more than 5% of blended Commonwealth revenues.	Subject to legislative approval. Currently limited to \$500.2 MM (NVTD) and \$1.3 BN (US 58)	NVTD: ~\$250 Million US Route 58 Bonds: ~\$330 MM	Aa1 / AA+ / AA+
Wisconsin	State of Wisconsin	Transportation Revenue Bonds	Registration Fees, Registration Related Fees	-	Senior: 2.25X MADS Subordinate: 1.75X MADS Requires State Authorization to issue, which is typically provided as part of the biennial budget	\$1.9 Billion	Aa2 / AA+ / AA+ / AAA (Kroll)

CDAC Workgroup

- The Workgroup discussed the following two options for the Capital Debt Affordability Committee's consideration:
 - **Option 1:** Since rating agencies/investors are satisfied, MDOT's existing ABTs and statutory limits are sufficient to keep MDOT's debt affordable for the State; therefore, no affordability criteria is needed
 - **Option 2:** Since the State has successfully used a debt service-to-revenue ratio to manage its debt and MDOT's ratio is expected to continue to rise, MDOT should further study the issue and choose a workable ratio it can use as additional debt management tool

Affordability Analysis for the Capital Debt Affordability Committee

September 28, 2016

Topics of Discussion

1. Planning Assumptions
2. Tax Supported Debt Affordability Metrics
3. General Obligation Bond Authorization
4. Academic Facilities Bond Authorization

Planning Assumptions

CDAC Planning Assumptions

- The authorization and issuance assumptions in calculating the CDAC ratios do not anticipate that future P3s will be included as tax-supported debt.
- The State Center Garage is included in this analysis with debt service beginning in FY 2018. However, it should be noted that the project is currently in mediation, making the cost difficult to accurately forecast.
- The projected debt service ratios assume a 5% coupon for all maturities with no future refunding savings or use of premium and are subject to change.

CDAC Planning Assumptions

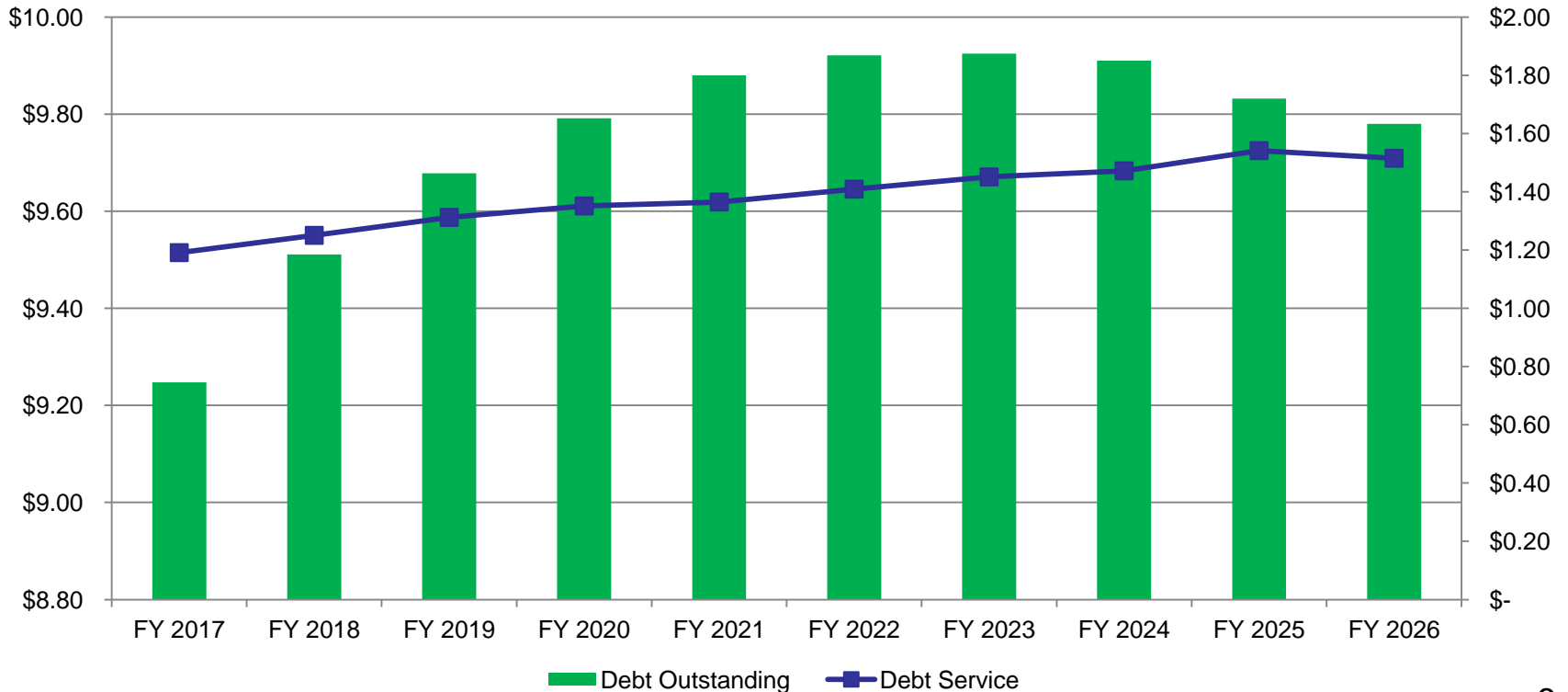
(\$ in millions)

Fiscal Year	Governor's Projected Authorization (based on 2015 CDAC)
2018	995
2019	995
2020	995
2021	995
2022	995
2023	995
2024	995
2025	995
2026	995

CDAC Planning Assumptions

Under \$995m Annual Authorization, G.O. Debt Outstanding Peaks in FY 2023 and G.O. Debt Service Peaks in FY 2025

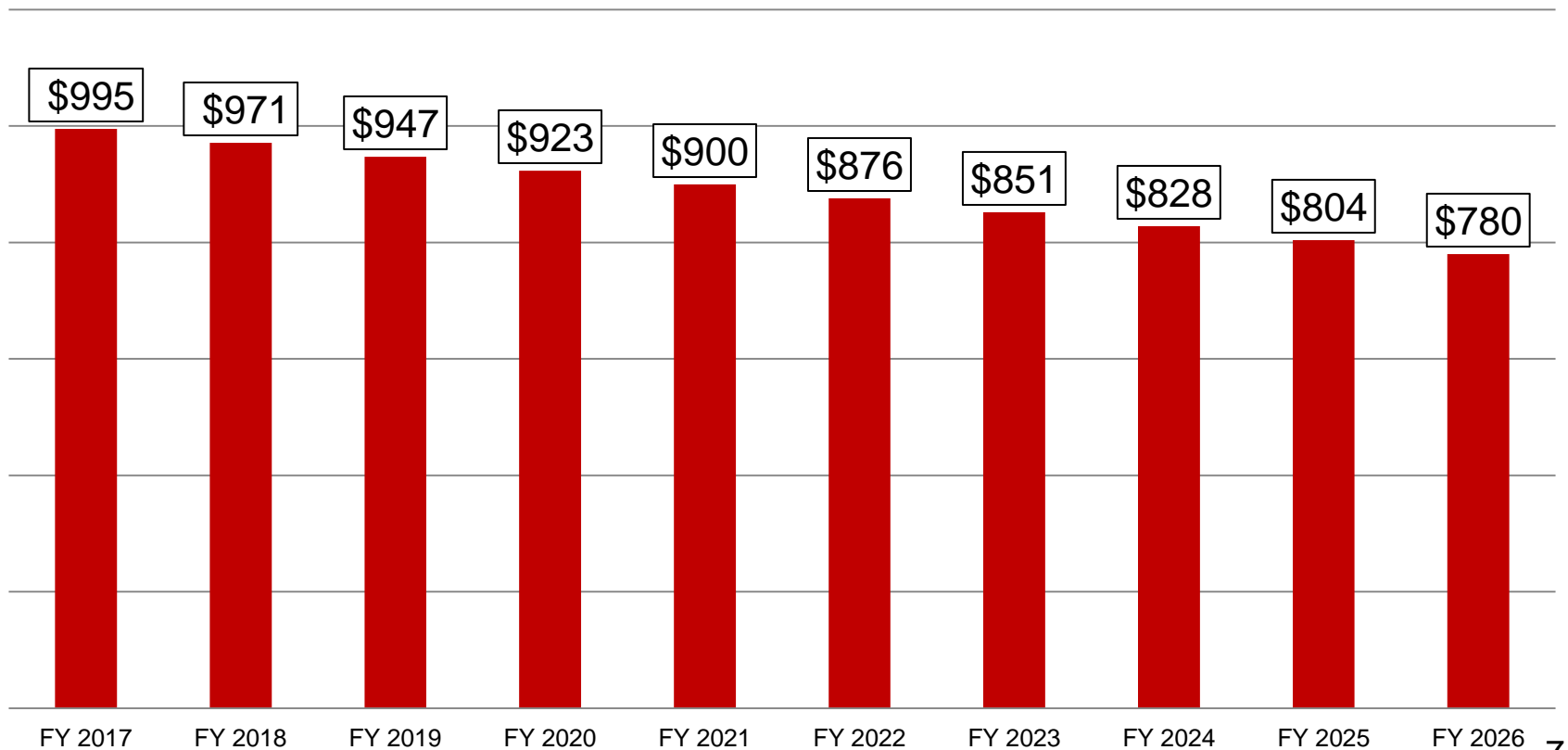
(\$ in billions)



All figures are preliminary forecasts as of September 2016 and are subject to change.

CDAC Planning Assumptions

Purchasing Power of \$995m Declines to \$780m in FY 2026 (\$ in millions)



Tax-Supported Debt Affordability Metrics

Tax-Supported Debt Outstanding Ratio

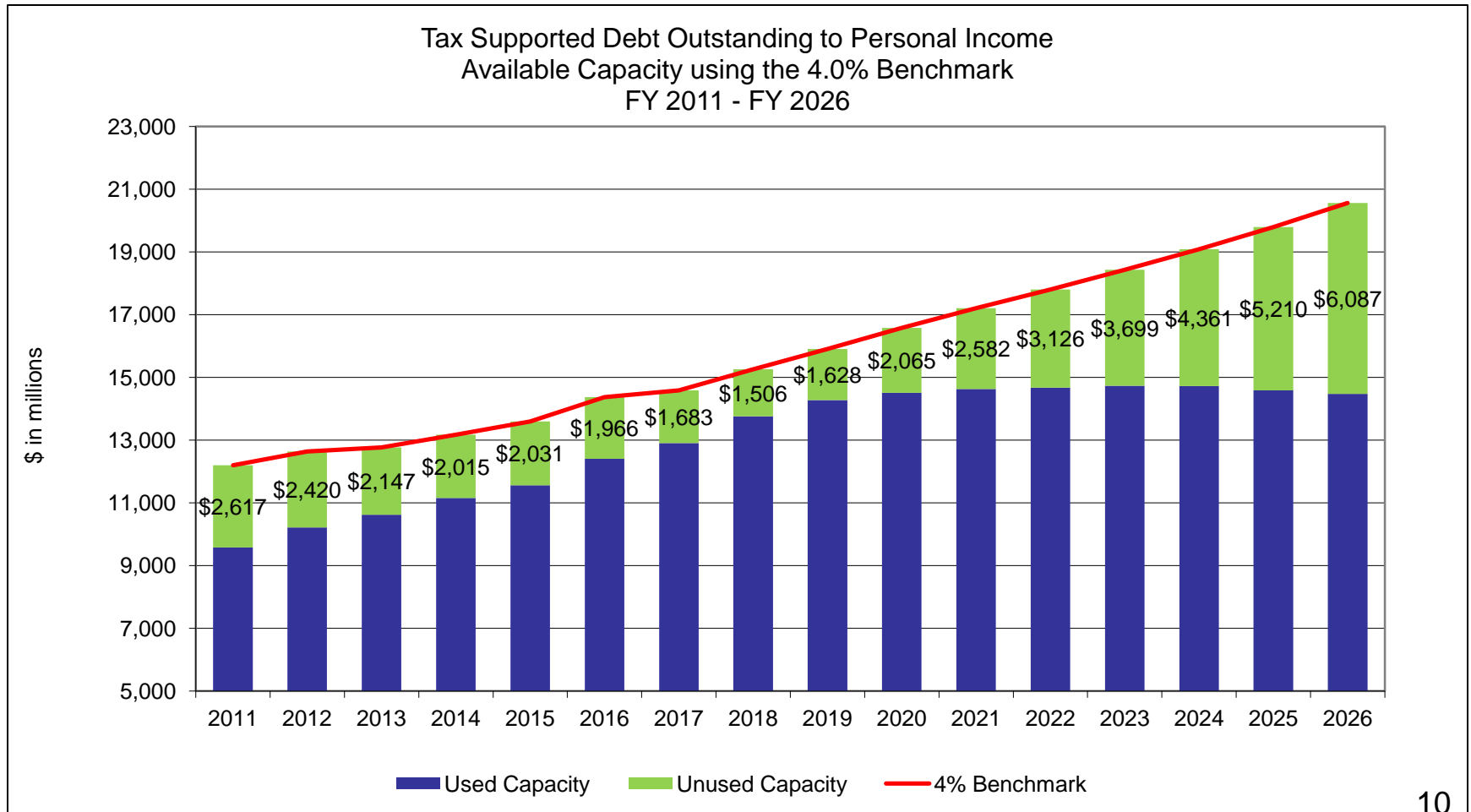
(\$995 Annual Authorization - \$ in millions)

The planning assumptions for authorizations and issuance result in the following projections of tax-supported debt outstanding:

Fiscal Year	Debt Outstanding	Personal Income	Ratio (%)
2017	12,901	364,581	3.54%
2018	13,753	381,471	3.61%
2019	14,274	397,541	3.59%
2020	14,509	414,346	3.50%
2021	14,626	430,197	3.40%
2022	14,673	444,962	3.30%
2023	14,728	460,677	3.20%
2024	14,724	477,114	3.09%
2025	14,583	494,832	2.95%
2026	14,468	513,890	2.82%

Tax-Supported Debt Outstanding Ratio

(\$995 Annual Authorization - \$ in millions)



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Tax-Supported Debt Service Ratio

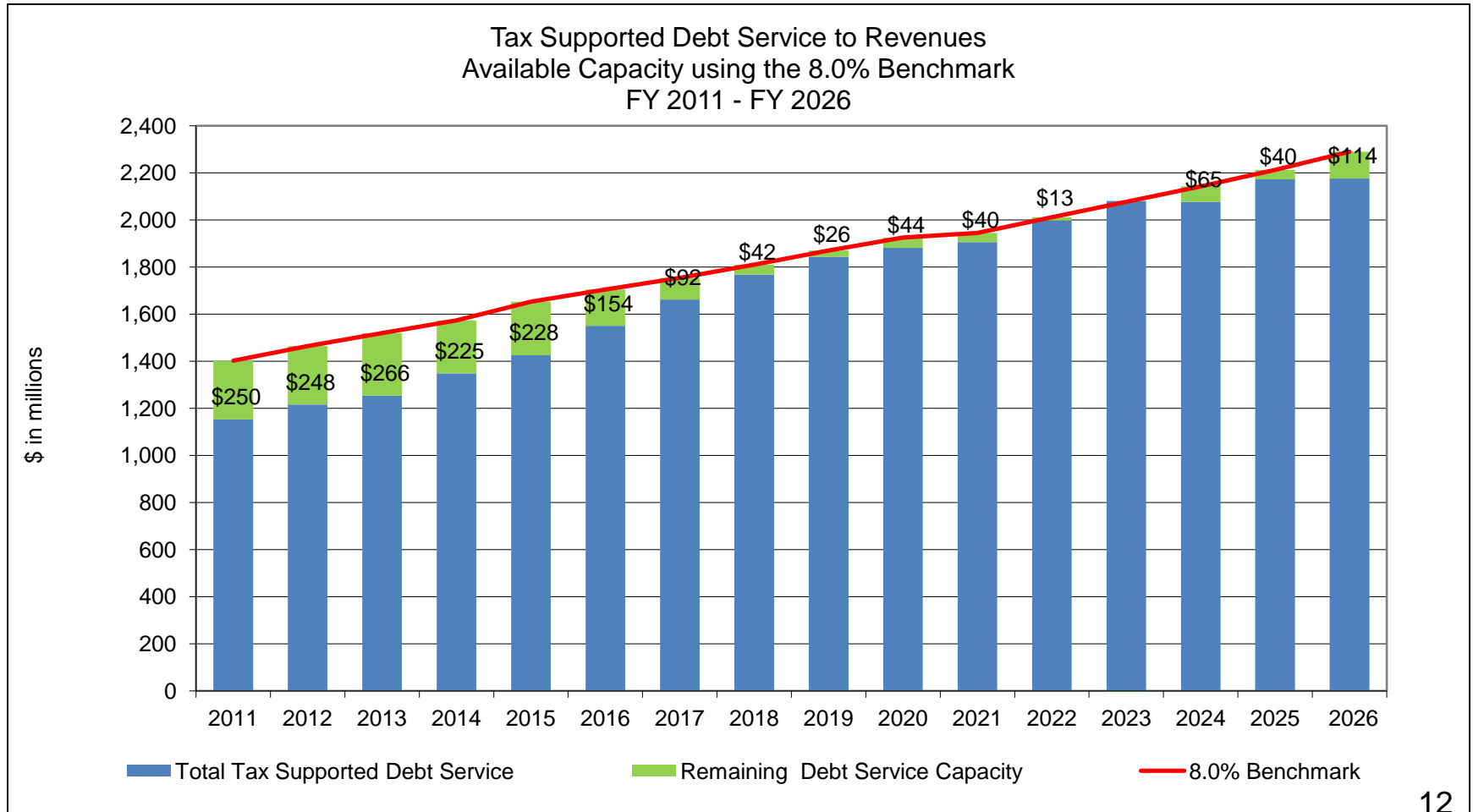
(\$995 Annual Authorization - \$ in millions)

The planning assumptions for authorizations and issuance result in the following projections of tax-supported debt outstanding:

Fiscal Year	Debt Service	Revenues	Ratio (%)
2017	1,661	21,920	7.58%
2018	1,768	22,620	7.81%
2019	1,843	23,365	7.89%
2020	1,881	24,066	7.82%
2021	1,905	24,312	7.84%
2022	1,997	25,131	7.95%
2023	2,079	25,956	8.01%
2024	2,076	26,771	7.76%
2025	2,172	27,659	7.85%
2026	2,176	28,618	7.60%

Tax-Supported Debt Service Ratio

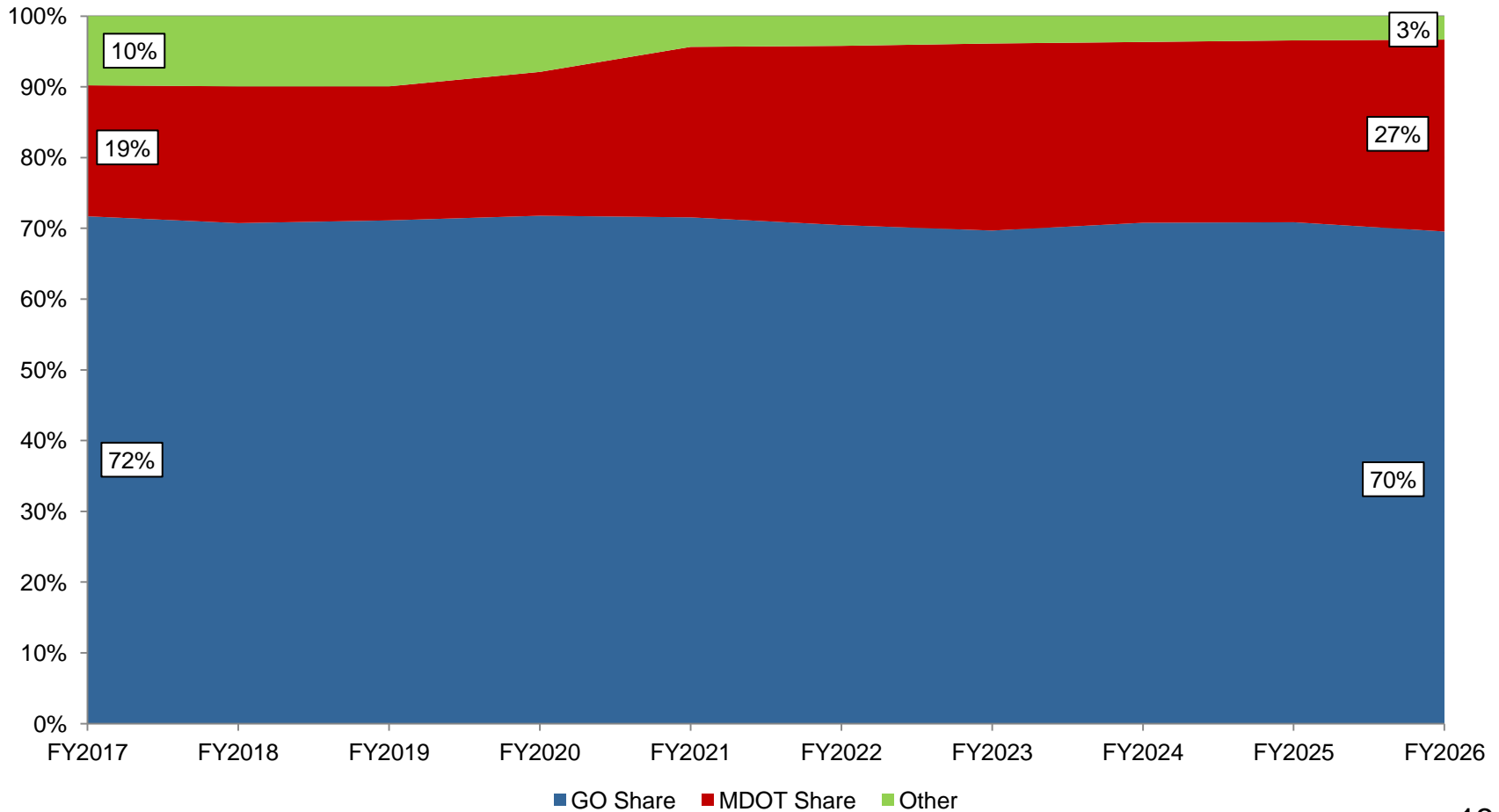
(\$995 Annual Authorization - \$ in millions)



All figures are preliminary forecasts as of September 2016 and are subject to change.

Transportation Debt is Absorbing an Increasing Amount of State's Debt Capacity Under 8% Limit

Share of State's Debt Capacity By Type, FY 2017 - 2026



All figures are preliminary forecasts as of September 2016 and are subject to change.

General Obligation Bond Authorization



CDAC 2016 General Obligation Bond Authorization

- CDAC needs to vote on its recommendation for a General Obligation Debt authorization level for FY 2018.
- CDAC votes on the upcoming fiscal year's authorization (FY 2018). Assumed authorizations for FY 2019 – 2026 are for planning purposes only and subject to change.

Academic Facilities Bonds Authorization



Recommendation of Amount of New Bonds for Academic Facilities for Fiscal Year 2018

Amount of new bonds for academic facilities for fiscal year 2018 requested by institution:

University System of Maryland:	\$32.0 million
Morgan State University:	\$0
St. Mary's College of Maryland:	\$0
Baltimore City Community College:	<u>\$0</u>
Total Requested	\$32.0 million