Debt Affordability Study

2017

James L. McIntire
Washington State Treasurer

JAMES L. McINTIRE
State Treasurer

State of Washington
Office of the Treasurer

Fellow Washingtonians,

I am pleased to present the 2017 Debt Affordability Study – our annual update on the State's debt obligations, issuance trends and borrowing costs. This Study provides comprehensive information and analysis to better inform policy makers as they decide how to cost-effectively finance capital investments.

Over the past several years, the State has actively relied on debt to fund critical infrastructure. Our State benefited from a period of low construction costs and historically low interest rates to make significant investments in highways, clean water and school construction. Low interest rates have also given us an opportunity to refinance bonds, saving Washington taxpayers nearly $1.4 billion in debt service payments.

The State's consistently strong credit ratings over this period ensured access to low cost capital. Financial markets and investors have awarded Washington high marks for both effective financial management and transparent economic and financial reporting.

More recently, the State's debt portfolio has stabilized as economic recovery and population growth have outpaced debt issuance. Metrics used to monitor debt affordability are holding steady or improving. The share of revenues spent on repaying debt for capital projects has stabilized. The share of fuel taxes spent on paying debt service is falling as new Connecting Washington revenues outpace new borrowings. In national rankings of state net tax-supported debt, Washington has dropped from 6th to 8th highest. In future years, the constitutional debt limit amendment approved by voters will further reduce the burden of debt on the operating budget. And going forward, the State is expected to fund transportation projects with general obligation bonds backed by a broader pledge of transportation revenues.

Nonetheless, the annual total debt service bill now tops $2 billion and Washington's growing population and economy will require new infrastructure. Our Constitution prudently ties the State's debt capacity to the State's revenue growth, but as I have noted in the past, state revenues are not keeping pace with Washington's economy. This creates an increasing, structural deficit between the demand for infrastructure investments and our capacity for financing them. This deficit has been exacerbated by repeated legislative decisions to de-fund the Public Works Trust Account.

Moreover, recent funding decisions in response to the McCleary lawsuit have placed new revenues in dedicated funds outside of general state revenues. Because these revenues are not part of the base against which the debt limit is calculated, they cannot be used to expand needed debt capacity to fund school construction. I again recommend that all funds intended for basic education be structured as general state revenues so that we can fund the critical capital investments needed for our schools.

I've enjoyed working with you the past eight years, and I know that this office will continue to be a resource to you as you make the critical decisions concerning Washington's infrastructure investments. Thank you.

Sincerely,

James L. McIntire,
State Treasurer and Chair, State Finance Committee

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December 2016

James L. McIntire

Washington State Treasurer

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The State borrows to undertake capital projects such as building construction, land acquisition, and transportation projects. With each borrowing, the State makes a commitment to repay the debt with regular and approximately equal payments of principal and interest over the term of the borrowing. The term of the borrowing is always within the expected useful life of the assets being financed.

The alternative to debt financing is pay-as-you-go funding, or cash funding capital expenditures with revenues received over time. Debt financing is more expensive as the State pays interest, but funds are available for project construction sooner. Debt-financing can also promote tax equity as each asset is paid for over its useful life. However, leveraging future tax revenues with debt financing commits resources from future biennia for today's capital projects.

1. Debt Portfolio Overview

The debt portfolio of the State of Washington has stabilized with growth of less than one percent in 2016. Debt financing for major transportation projects has slowed in recent years while bond issuance to fund infrastructure investments in education, the environment and general government are increasing at a slower pace.

General obligation bonds represent more than 90 percent of the State's debt portfolio. This ensures that all of the State's infratructure investments are financed at the lowest possible interest rates. Exceptions include certain financings for the SR 520 Corridor and leases for real estate projects or equipment.

At the end of 2016, Washington's debt portfolio stood at $20.9 billion, an increase of less than four percent over three years. Nonetheless, total annual payments of principal and interest continue to rise, surpassing $2.0 billion in FY2017. This year, debt payments will account for 6.2 percent of general fund state revenues and 40.5 percent of motor vehicle fuel tax revenues.

Figure 1. State of Washington Debt Outstanding ($ millions)

	12/31/2012	12/31/2013	12/31/2014	12/31/2015	12/31/2016
General Obligation Bonds					
Various Purpose	11,019	11,277	11,357	11,528	11,608
Motor Vehicle Fuel Tax	6,459	6,837	6,799	6,898	6,906
Triple Pledge	519	519	519	519	609
Subtotal	17,997	18,632	18,674	18,945	19,118
GARVEEs	500	786	786	724	658
TIFIA Bond	-	-	10	195	300
Certificates of Participation - State	565	608	616	770	724
Certificates of Participation - Local	82	90	83	80	72
Total	$ 19,145	$ 20,116	$ 20,170	$ 20,713	$ 20,872

Source: Office of the State Treasurer, CAFR

Figure 2. Outstanding Bonds and COPs FY 2000-2017* ($ billions)

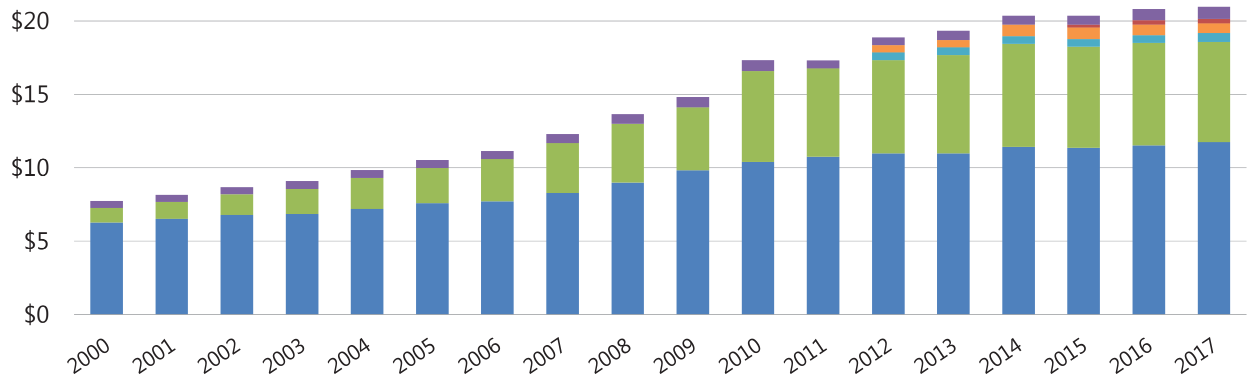


Figure 3. Bond and COP Issuance FY 2000-2017* ($millions)

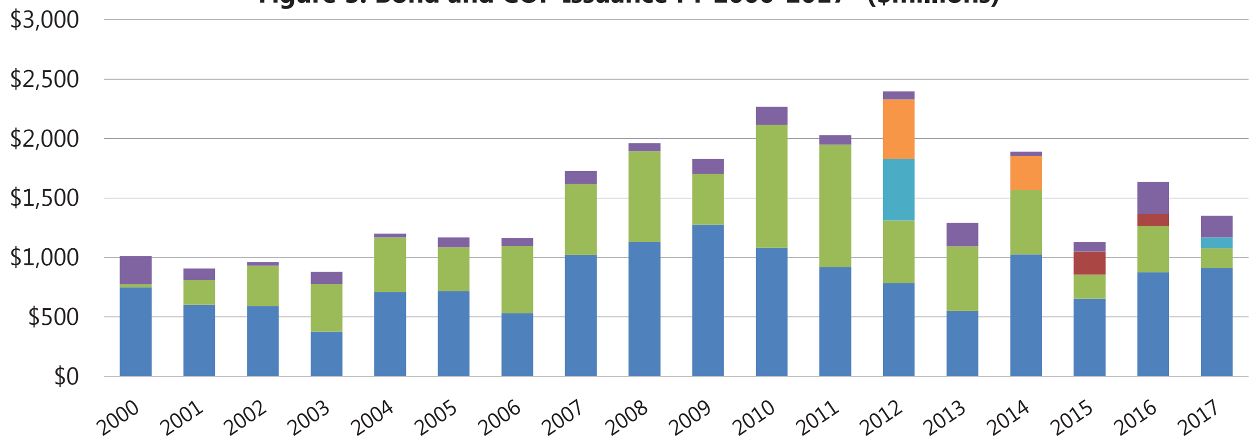
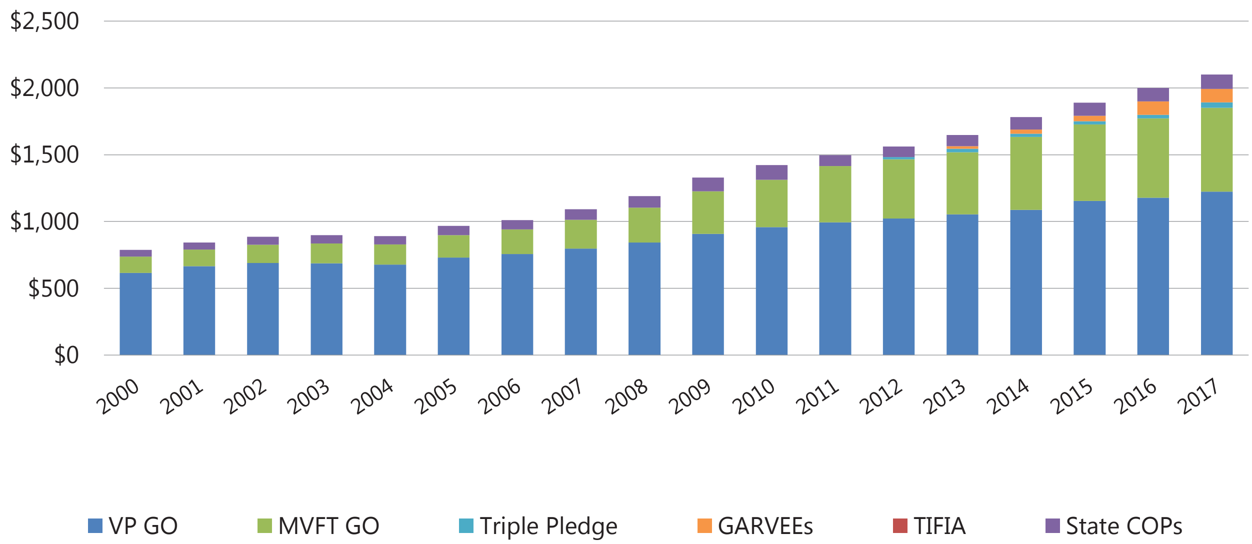


Figure 4. Debt Service Paid FY 2000-2017* ($ millions)

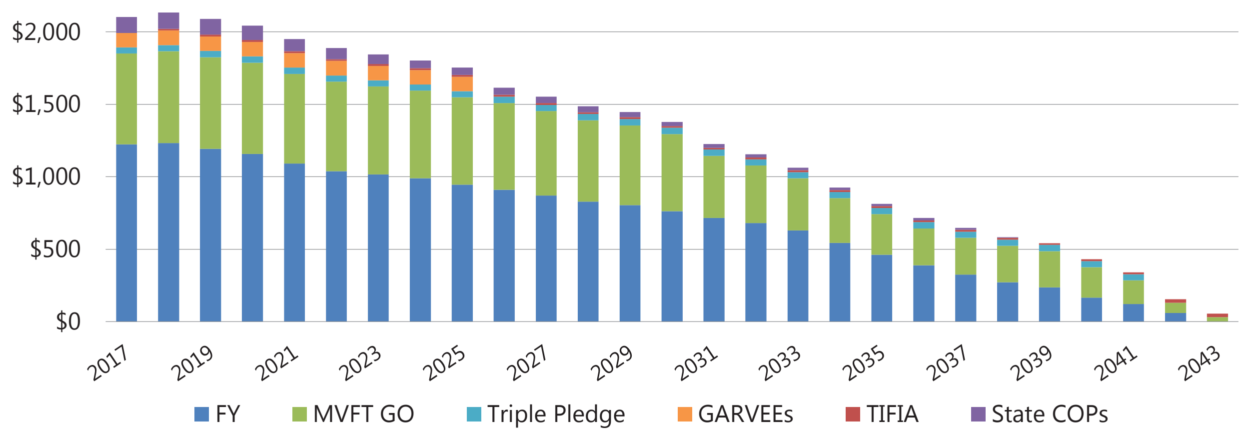


*FY 2017 estimate. **Excludes refundings. One half of MVFT GO bonds issued as Build America Bonds in FY 2010 are shown in FY 2011. No MVFT GO bonds were issued in FY 2011.

Source: Office of the State Treasurer

The State's borrowings have historically been structured with level debt service; much like a standard fixed-rate home mortgage, a portion of what has been borrowed is repaid every year and annual payments of principal and interest are approximately equal. With each bond sale, incremental debt service is added to each year through the final maturity. Approximately half of the State's current GO debt will be repaid by 2025, or in about 9 years.

Figure 5. Debt Service due on Bonds and State COPs by Fiscal Year ($ millions)



*Includes projected January 2017 issuance. Source: Office of the State Treasurer

Reimbursable General Obligation Debt

Approximately $1.6 billion of the State's general obligation debt is reimbursable, or repaid from funds outside of general fund-state revenues and motor vehicle fuel tax revenues. Reimbursable VP GO debt includes: bonds for technical education facilities that are repaid from investment income on the Permanent Common School Fund, certain bonds for higher education facilities that are repaid from parking or student fees, bonds for a stadium and exhibit center repaid from admission, parking and certain sales taxes, and financings for "multimodal' facilities that are repaid from licenses and fees. In addition, $1.0 billion MVFT GO and Triple Pledge bonds are paid from toll revenues from the Tacoma Narrows Bridge (TNB) or the SR 520 Corridor. In these financings, state statute or bond covenants require that tolls are set to generate revenues to repay the debt.

Figure 6. GO Debt Outstanding Net of Reimbursables ($ millions)

	6/30/2012	6/30/2013	6/30/2014	6/30/2015	6/30/2016	12/31/2016
Various Purpose	10,981	10,980	11,433	11,358	11,523	11,603
Reimbursables	(856)	(823)	(747)	(671)	(588)	(570)
Motor Vehicle Fuel Tax	6,353	6,712	7,010	6,890	6,996	6,906
Reimbursed from TNB	(567)	(536)	(502)	(471)	(437)	(417)
Triple Pledge	-	519	519	519	519	609
Paid from SR 520 Tolls	-	(519)	(519)	(519)	(519)	(609)
Total Net of Reimbursables	$ 15,910	$ 16,334	$ 17,194	$ 17,105	$ 17,495	$ 17,522
Total GO Debt	$ 17,334	$ 18,211	18,962	$ 18,767	$ 19,038	$ 19,118

Source: Office of the State Treasurer

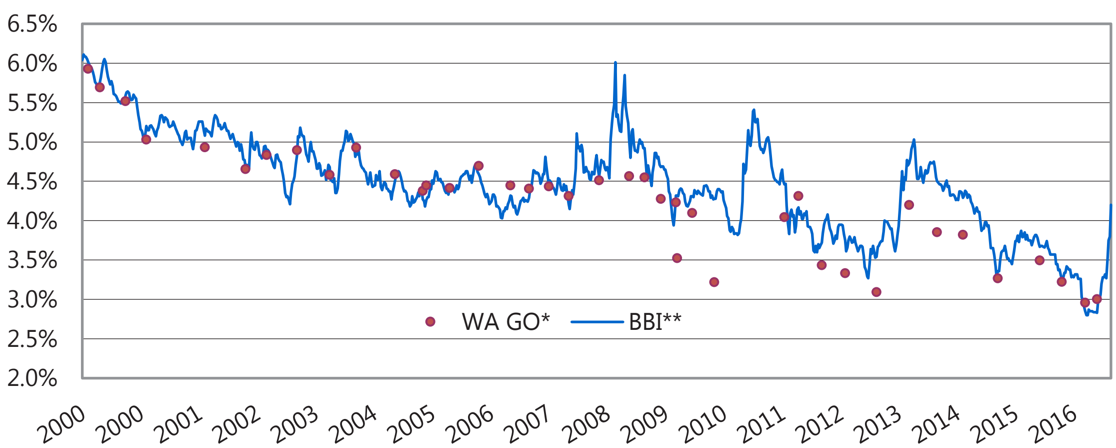
REFUNDINGS

The Office of the State Treasurer regularly monitors the debt portfolio to identify opportunities to lower borrowing costs by refunding bonds. All refundings are executed in accordance with debt policies of the State Finance Committee which specify minimum savings thresholds. From January 2009 through December 2016, low market interest rates and the State's stable rating enabled the State to refund $10.1 billion general obligation bonds, saving taxpayers $1.36 billion in nominal principal and interest payments or $1.1 billion on a present value basis. Seventy percent of these savings have been credited to the operating budget, the remainder to the transportation budget.

BORROWING COSTS

The State executes most bond sales through a competitive electronic auction process. Through most of 2016, borrowing costs remained near historical lows. The September 2016 sale of general obligation bonds with a 25-year final maturity and level debt service achieved a True Interest Cost (TIC) of 2.99%. The weighted average cost of funds on the entire VP GO portfolio is currently 3.22%.

Figure 7. GO Borrowing Costs vs. 20-Year Bond Buyer Index CY 2000-2016



*BBI - 20-year Bond Buyer Index of Municipal Yields

** WA GO - Cost of funds on 25-year general obligation bonds

Source: Office of the State Treasurer

2. Bonds: Issuance and Debt Service

Various Purpose General Obligation Bonds

Various Purpose General Obligation (VP GO) bonds are issued to pay for a wide variety of projects including K-12 school construction, higher education facilities, correctional facilities, environmental preservation, state office buildings, and public works infrastructure. In recent years, bonds have funded approximately 50 percent of capital expenditures. The remainder has been funded primarily with dedicated state revenues and federal funding.

Figure 8. Capital Budget – Expenditures and Appropriations ($ millions)

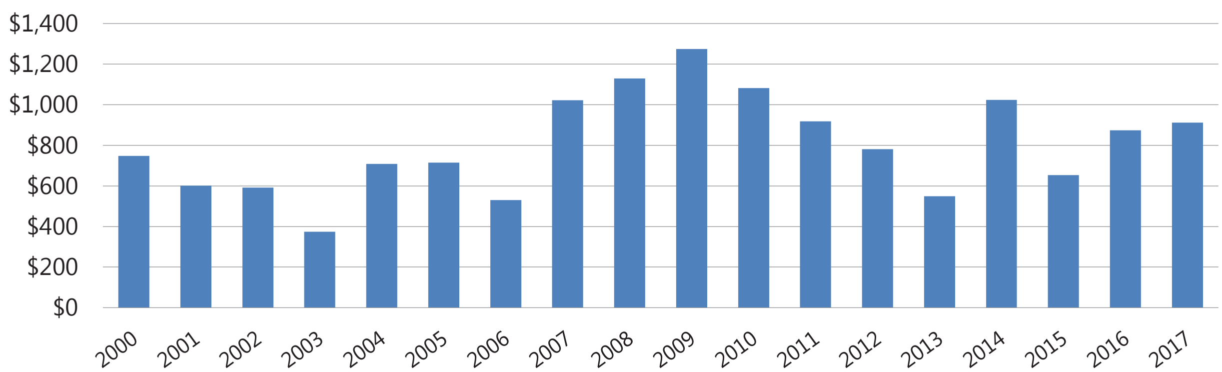
	Expenditures			Enacted Budget Appropriations	
	2009-11	2011-13	2013-15	2013-15	2015-17
Education	1,558	1,153	1,389	1,859	2,376
Human Services	177	140	138	263	276
Natural Resources/ Recreation	791	812	1,079	2,402	2,379
General Government	742	544	722	1,793	1,589
Total	$3,268	$2,649	$3,328	$6,317	$6,620
Percent Funded by Bonds	52%	52%	48%		

Source: Office of Financial Management, Legislative Evaluation & Accountability Program

The State irrevocably pledges its full faith, credit and taxing power to the payment of general obligation bonds. The ability of the State to make this pledge is provided in the State Constitution. The constitutional mandate regarding payment of State debt requires that the Legislature appropriate sufficient funds to pay State debt when due, and provides expressly for judicial enforcement of the State's payment obligation on that debt. No other provision of the Constitution contains comparable language providing courts with authority to compel payment of other State obligations.

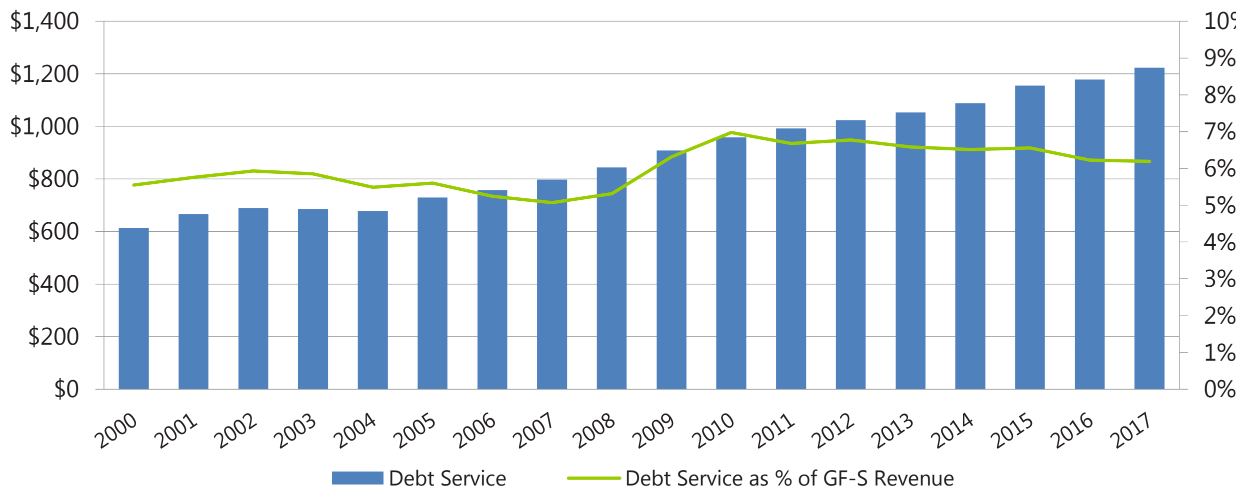
General obligation bonds are the State's most highly rated obligations and offer the lowest cost of funds. Annual issuance of VP GO bonds is again increasing after declining from 2009 to 2013. Excluding refundings, issuance of VP GO bonds is expected to total approximately $912 million in FY 2017.

Figure 9. Issuance of Various Purpose General Obligation Bonds FY 2000-2017* ($ millions)



*Excludes refundings. FY 2017 estimate includes projected January 2017 issuance. Source: Office of the State Treasurer

Figure 10. VP GO Debt Service: FY 2000-2017* ($ millions)



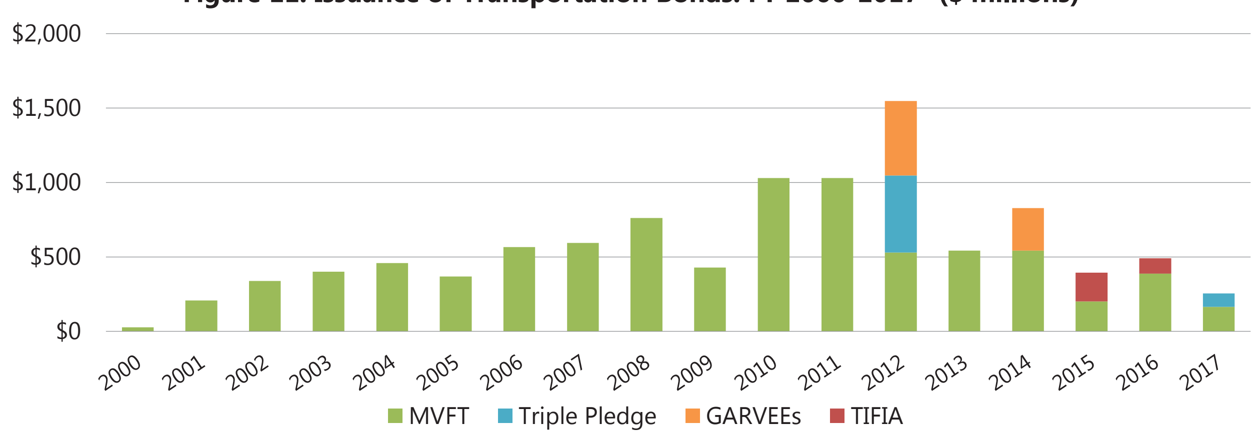
FY 2017 estimate. ** General fund revenues include the Education Legacy Trust and Opportunity Pathways accounts which are used for K-12 and higher education. Source: Economic & Revenue Forecast Council

The portion of state resources used for debt service is currently holding steady at just over 6 percent. Prior to the great recession, the portion of general fund revenues spent on debt service was in the 5 percent range but climbed to nearly 7 percent in 2010 as revenues declined. In fiscal year 2017, debt service on VP GO bonds is projected to total $1.22 billion or 6.2% of general state revenues.

Transportation Bonds: MVFT GO, Triple Pledge and GARVEE Bonds

Motor Vehicle Fuel Tax General Obligation (MVFT GO) bonds are paid from state excise taxes on motor vehicle fuels and are backed by the full faith, credit and taxing power of the State. Proceeds of MVFT GO bonds are constitutionally restricted to highway capital projects for public highways, county roads, bridges, city streets, and the ferry system. MVFT GO bonds carry the same ratings as VP GO bonds and borrowing rates are the same.

Figure 11. Issuance of Transportation Bonds: FY 2000-2017* ($ millions)



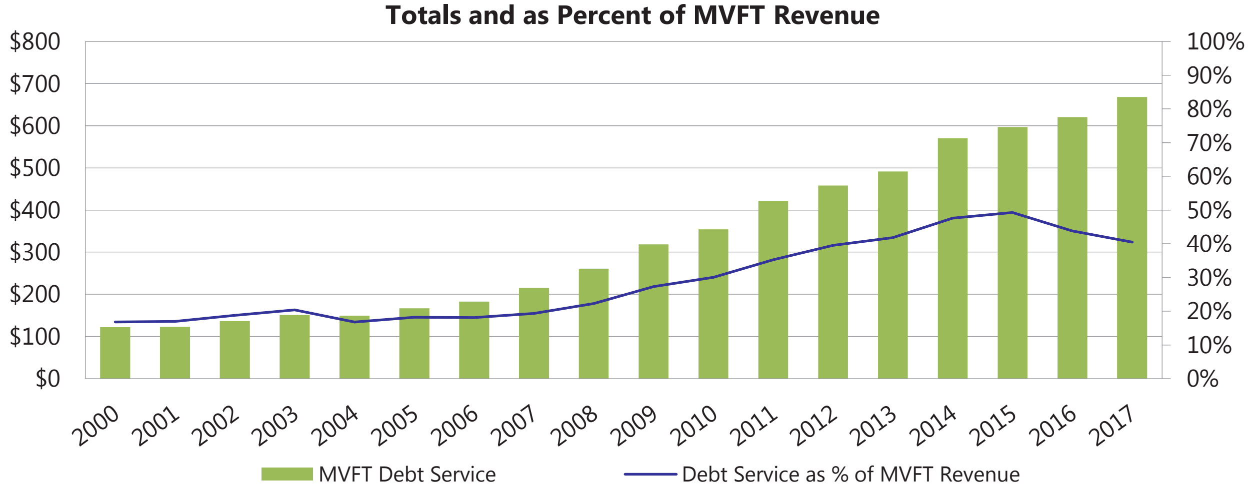
*Excludes refundings. FY 2017 estimates. One half of MVFT GO bonds issued as Build America Bonds in FY 2010 are show in FY 2011. No MVFT GO bonds were issued in FY 2011. Source: Office of the State Treasurer

Over the past decade Washington has significantly increased its reliance on MVFT GO bonds to implement legislative spending plans associated with gas tax hikes. Fully leveraging revenues from the gas tax increases of the 2003 Nickel Act and the 2005 Transportation Partnership Act increased the State's annual MVFT GO issuance from $65 million in the 1990s to over $500 million by 2013. In 2015, the Legislature approved higher gas taxes in the Connecting Washington transportation package and directed these revenues to specific capital projects. These additional revenues are easing current leverage ratios. In fiscal year 2017, debt service on MVFT GO bonds will account for approximately 40.5 percent of MVFT revenues, down from 50 percent in FY 2015.

The State has also issued $609 million Triple Pledge bonds, MVFT GO bonds first paid from SR 520 toll revenue. Triple Pledge Bonds carry the same ratings as other GO bonds and borrowing rates are the same.

In addition, the State has issued two forms of transportation bonds which are not backed by the general obligation pledge: (1) Federal Highway Grant Anticipation Revenue Bonds, or GARVEE bonds secured solely by funds received from the Federal Highway Administration, and (2) a TIFIA bond which is a draw-down loan from the Federal Highway Administration paid solely from SR 520 toll revenues.

Figure 12. MVFT GO Debt Service: FY 2000-2017* ($ Millions)
Totals and as Percent of MVFT Revenue



*FY 2017 estimate. Debt service includes all bonds pledging MVFT revenue

Source: Office of the State Treasurer

3. Certificates of Participation: Issuance and Lease Payments

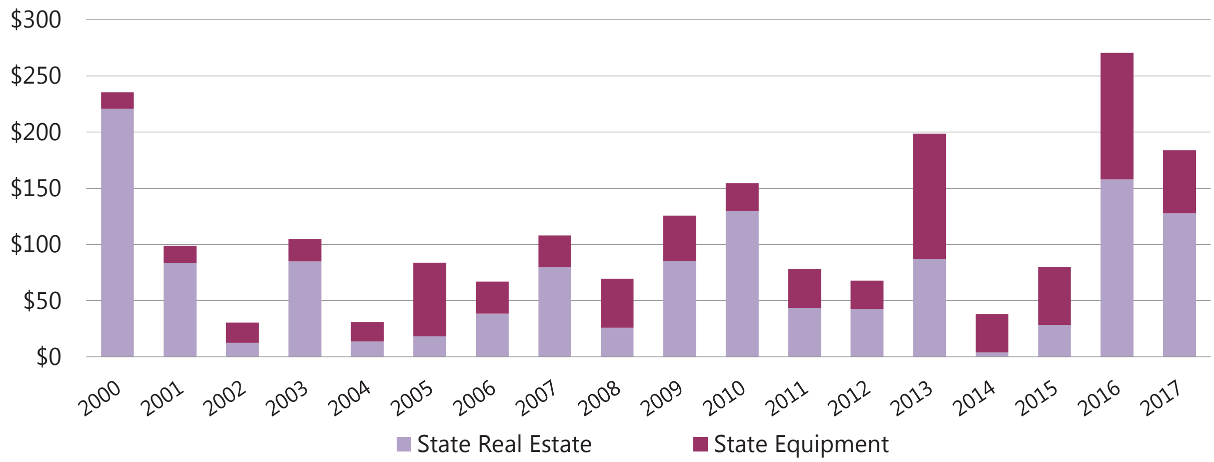
The State often finances real estate projects and equipment purchases by issuing certificates of participation (COPs). COPs consolidate multiple lease purchase contracts used to finance new construction, facility improvements, the acquisition of land or buildings, or personal property such as vehicles, computer hardware and office equipment. In this form of financing contract, the State leases property to a designated non-profit organization (without transferring ownership) and then leases the property back over the life of the financing. The term of each lease is determined by the useful life of the asset being financed. Real estate financings generally have 20-year terms and equipment is typically financed for a period of 3 to 10-years. Consolidating multiple financings in each COP issuance achieves economies of scale and minimizes issuance costs. Approximately half of outstanding COPs will be paid off in about 5 years.

COPs are not backed by the full faith and credit of the State. Each agency pledges its appropriation although in practice, many state agencies rely on revenues that are not considered general state revenues to make lease payments. COPs typically are rated one notch below general obligation debt and borrowing rates are somewhat higher. State real estate acquisitions financed with COPs must be authorized by the Legislature. The Office of the State Treasurer requires prior legislative approval for major equipment acquisitions.

Local governments can participate in the State's COP program if their borrowings are supported by a local government general obligation pledge and meet the credit criteria of the COP program.

COP issuance peaked at $270 million in 2016. Approximately $107 million real estate COPs were authorized by the Legislature in the 2015-17 Capital Budget and $100 million state equipment COPs are expected to be issued in the biennium.

Figure 13. State Agency COP Issuance FY 2000-2017* ($ millions)



*FY 2017 estimate. Excludes refundings. FY 2000 includes a $185 million issue for the Washington Convention and Trade Center that has subsequently been defeased.

Source: Office of the State Treasurer

4. Constraints on Debt Issuance

Constitutional Debt Limit

The Washington State Constitution places a firm limit on the amount of debt service the State can pay on certain forms of debt. Beginning in 1889, the State had a fixed debt limit of $400,000. In 1972, this was replaced with a limit on annual debt service (payments of principal and interest of debt) which sets the maximum annual debt service (MADS) in relation to a historical average of the State's general state revenues. More specifically, the Constitution requires that maximum annual payments of debt subject to this limit not exceed a specified percentage (currently 8.50 percent, declining to 8.00 percent effective fiscal year 2035) of the average general state revenues for the six preceding fiscal years. Debt service on nearly all VPGO debt is subject to the constitutional limit.

Under the Constitution, general state revenues include all state money received in the State treasury, with the exception of: (1) fees and revenues derived from the operation of any undertaking, facility, or project; (2) moneys received as gifts, grants, donations, aid, or assistance when the terms require the application of such moneys otherwise than for general purposes of the State; (3) retirement system moneys and performance bonds and deposits; (4) trust fund moneys, including moneys received from taxes levied for specific purposes; and (5) proceeds from sale of bonds or other indebtedness.

Linking the State's debt capacity to the State's revenue growth is intended to support sound financial management and ensure that debt service payments do not strain Washington's ability to provide other services to its residents. However, challenges arise when the pace of state revenue growth does not keep up with economic growth. General fund revenues now represent less than 4.5 percent of Washington total personal income down from 7 percent in the mid-1990's. If general fund revenues do not keep pace with growth in the State's personal income, the State's ability to finance infrastructure will be constrained.

MODELING DEBT CAPACITY

The Legislature, OFM and the Office of the State Treasurer have developed a model to estimate debt capacity and to assess the affordability of bonds subject to the Constitutional debt limit. The debt model is used both for long term debt planning and as an "early warning" mechanism during times of decreasing revenues. It estimates debt service and debt capacity over a 30-year period as a function of the Constitutional debt limit, projected general state revenues and future interest rates. The model also assumes a fixed growth rate for biennial bond authorizations and that bonds authorized for each biennium are issued over a four-year period using 25-year, level debt service bond structures. Projections are reviewed at least quarterly and both revenue and interest rate assumptions are aligned with those of the Economic and Revenue Forecast Council over the forecast horizon.

The model determines the maximum bond authorization as the dollar amount that causes projected future MADS to equal the specified percentage of projected average general state revenues, given the assumed growth in general state revenues and in future biennial bond authorizations and the resultant future bond issuance. To the extent the maximum bond authorization for the current biennium is increased, future projected maximum bond authorizations are decreased to keep MADS below the limits and vice versa. Thus, the model provides regularly updated measures of current and projected future debt capacity governed primarily by projected growth in general state revenues.

EXEMPTIONS FROM THE CONSTITUTIONAL DEBT LIMIT

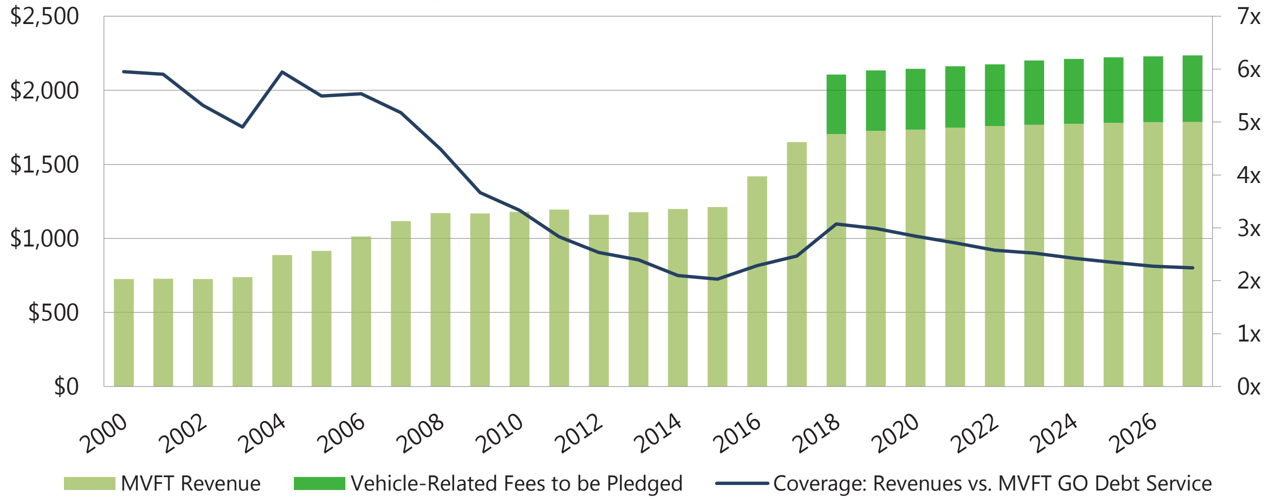
Article VIII of the Constitution excludes certain types of debt from the debt limit, most notably debt payable from motor vehicle fuel taxes, from license fees on motor vehicles and from interest on the permanent common school fund, provided that there are sufficient revenues *"from such sources to pay the principal and interest due on all obligations for which said source of revenue is pledged."* All forms of non-recourse revenue debt as well as debt approved by both the Legislature and the voters are also excluded from the limit.

MVFT GO Bonds. MVFT GO bonds are exempt from the constitutional debt limit provided there are sufficient MVFT revenues to pay debt service. Mindful of the constitutional provision, legislative bond authorizations for MVFT GO bonds include a statutory commitment to continue to impose excise taxes on motor vehicle fuels in amounts sufficient to pay principal and interest. The State Finance Committee's MVFT GO authorizing resolutions include this pledge and it is incorporated into the contractual obligation made by the State to investors.

In 2015, the Legislature approved an 11.9-cent gas tax hike and certain license fees in the Connecting Washington package. The Legislature also authorized the issuance of $5.3 billion general obligation bonds for transportation projects backed by a new broader pledge of both motor vehicle fuel taxes and vehicle-related license fees. Issuance under the new pledge is not expected until FY 2018. In the near term, the ratio of revenues to debt service (the coverage ratio) is rising as the growth in MVFT revenues outpaces additional debt service. In future biennia, the coverage ratio will likely edge lower depending on the phasing of construction, the pace of bond funding and the cost of funds.

In collaboration with other agencies, the Office of the State Treasurer is currently developing a technical model to estimate transportation debt capacity, similar to that used for capital projects. The model will estimate debt service and debt capacity over a 30-year period as a function of projected transportation revenues, future interest rates and the expected phasing of major construction projects.

Figure 15. Transportation Revenues: MVFT and Vehicle-Related Fees ($ millions)
Coverage: Revenues vs. MVFT GO Debt Service



*Debt service projections based on the 2017 transportation budget request. Source: Transportation Revenue Forecast Council, WSDOT, OST

Triple Pledge Bonds. Triple Pledge bonds – paid from SR 520 toll revenues, and backed by MVFT revenues and the general obligation pledge of the State –are exempt from the Constitutional debt limit. MVFT revenues must be sufficient to pay triple pledge bond debt service. In addition, triple pledge bonds are subject to contractual rate covenants and additional bonds tests set by net toll revenues.

GARVEE Bonds. GARVEE bonds are also subject to a contractual additional bonds test linked to pledged federal transportation funds (or more specifically obligation authority). This ensures that most federal funds will remain available to support the State's ongoing preservation and improvement program. No additional GARVEE issuance has been authorized. Technically, capacity is estimated to be approximately $350 million.

Certificates of Participation. COPs are not subject to the constitutional debt limit as these obligations do not constitute debt as defined by the Constitution. Budgetary consideration is given to future annual appropriations necessary for each real estate or equipment financing. The State Finance Committee determines the maximum aggregate principal amount of outstanding financing contracts.

5. Other State Obligations

School Bond Guarantee Program

The School Bond Guarantee Program is a credit enhancement program that provides savings to State taxpayers by pledging the full faith, credit and taxing power of the State to the payment of voter-approved school district general obligation bonds. Since its inception in 2000, the School Bond Guarantee Program has saved school districts an estimated $11 million annually. The State has never been called upon to pay debt service on any bonds guaranteed in the Program.

Figure 16. Guaranteed School District Bonds Outstanding ($ millions)

	6/30/2012	6/30/2013	6/30/2014	6/30/2015	6/30/2016	12/31/2016*
School Bond Guarantee Program	8,334	8,548	8,984	9,327	10,205	9,887

Source: Office of the State Treasurer

63-20 Revenue Bonds

The State has entered into two long-term leases known as "63-20" financings. With this type of financing, a non-profit corporation issues bonds on behalf of the State and uses the proceeds to manage the design and construction of a facility. Once the project has been completed, the State leases the facility from the non-profit and the lease payments are pledged to the repayment of the bonds. The State does not take title to the property until the bonds have been paid. The State's lease payments are subject to appropriation risk and across-the-board cuts by the Governor. The State's 63-20 financings were issued for 20 and 30 years. Borrowing costs on these financings are higher than those on similarly structured COPs.

Figure 17. 63-20 Bonds Outstanding ($ millions)

	6/30/2012	6/30/2013	6/30/2014	6/30/2015	6/30/2016	12/31/2016
Edna Lucille Goodrich Building*	53	52	43	43	42	40
1500 Jefferson Building	305	299	293	287	281	281
Total	$357	$351	$337	$331	$323	$321

Source: Office of the State Treasurer

Guaranteed Education Tuition Program

The Washington Guaranteed Education Tuition Program ("GET program") is a 529 prepaid college tuition plan that allows Washington residents to prepay for college tuition. Individual accounts are guaranteed by the State to keep pace with rising college tuition, based on the highest tuition at Washington's public universities. The after-tax contributions to a GET account grow tax-free and can be withdrawn tax-free when used for eligible higher education expenses.

The budget enacted in the 2015 Legislative session reduced tuition for state colleges and universities and limits tuition growth thereafter. For upcoming academic years thereafter, the GET Committee is authorized to make program adjustments necessary to ensure that the total payout value of each account is not decreased or diluted as a result of the tuition changes. The GET Committee has suspended new program enrollments and most purchases of new units for up to two years. The GET Committee is also currently developing a traditional 529 college savings plan.

According to the actuarial valuation performed by the Office of the State Actuary ("OSA"), the market value of GET program assets as of June 30, 2016 totaled $2.34 billion, in excess of the "best estimate" of the actuarially determined present value of obligations of $1.73 billion. However, OSA has noted that it is difficult to fully estimate the full extent of the legislation to reduce tuition at all public institutions of higher learning in FY2016 and FY2017 and to limit tuition growth in future years.

Pensions

The pension plans of the State of Washington are consistently recognized as some of the better funded plans in the nation. The State administers 13 defined benefit retirement plans, three of which contain hybrid defined benefit/defined contribution options. As of June 30, 2014, the plans covered an estimated 540,000 eligible state and local government employees. The Office of the State Actuary's (OSA) most recent actuarial valuation shows that the funded status for all the state-administered retirement plans combined as of June 30, 2015 is 86 percent comparing liabilities estimated using the Entry Age Normal cost method. Under the new GASB reporting standards, the State's share of Net Pension Liabilities for the fiscal year ended June 30, 2015 is $1.529 billion.

OPEBs (Other Post-Employment Benefits)

The State provides health care benefits to its retirees through implicit and explicit subsidies. But unlike the State's pensions, both the implicit and explicit subsidies are not contractual obligations to retirees. The State allows retirees not yet eligible for Medicare to use their own money to pay for health insurance at group rates negotiated for public employees (an implicit subsidy). While there is no contractual liability for the State, including retirees in this purchasing pool marginally increases overall insurance rates. The State provides an explicit subsidy to reduce Medicare-eligible retiree Part A and B premiums by an amount determined each year by the Public Employee Benefits Board (PEBB). Like the implicit subsidy, this is also not a contractual obligation because each year the Legislature determines whether or not to include it in the state budget.

6. Obligations of Other State Entities

College and University Revenue Bonds

The State has issued bonds and COPs to finance major campus construction projects for five state universities, the state college and 34 community and technical colleges. In addition, certain state colleges and universities are authorized to independently issue revenue bonds for the construction of certain types of revenue-generating facilities for student housing, dining and parking. These revenue bonds are payable solely from revenues derived from the operation of the constructed facilities.

Figure 18. Higher Education Revenue Bonds Outstanding ($ millions)

	6/30/2012	6/30/2013	6/30/2014	6/30/2015	6/30/2016
University of Washington	1,448	1,660	1,765	1,709	1,993
Washington State University	431	489	531	597	610
Eastern Washington	55	54	52	51	49
Central Washington	133	130	126	123	119
The Evergreen State College	5	5	5	4	4
Western Washington	77	75	72	69	65
Total	$2,150	$2,413	$2,551	$2,552	$2,839

Source: Office of Financial Management

Conduit Issuers/Financing Authorities

Washington State has created four financing authorities that can issue non-recourse bonds to make loans to qualified borrowers for capital projects: the Washington State Housing Finance Commission, the Washington Higher Education Facilities Authority, the Washington Health Care Facilities Authority and the Washington Economic Development Finance Authority. Bond issued by these authorities are not legal or moral obligations of the State and debt service is payable solely from repayments of loans for which the bonds were issued. All four financing authorities are financially self-supported and do not receive funding from the State.

Figure 19. Conduit Issuer Debt Outstanding ($ millions)

	6/30/2012	6/30/2013	6/30/2014	6/30/2015	6/30/2016
WA Housing Finance Commission	3,622	3,491	3,411	3,420	3,728
WA Higher Ed. Facilities Authority	675	706	766	760	743
WA Health Care Facilities Authority	5,425	5,484	5,452	5,609	5,682
WA Economic Dev. Finance Authority	838	759	702	682	678
Total	$10,560	$10,440	$10,332	$10,471	$10,831

Source: CAFR

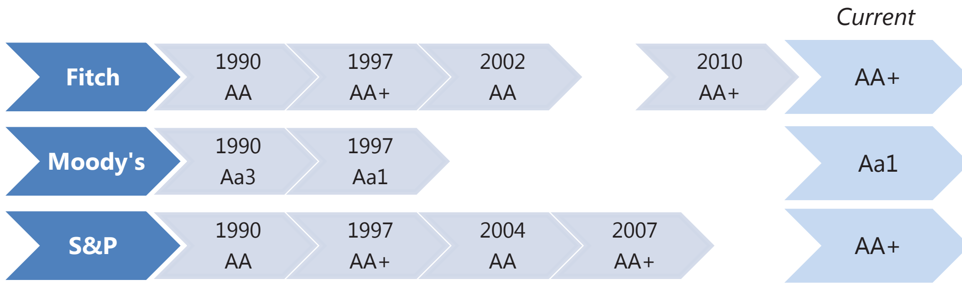
Tobacco Settlement Securitization

The Tobacco Settlement Authority (TSA) was created to securitize a portion of the State's revenue from the tobacco litigation settlement. In 2002, the TSA issued $517.9 million in bonds and transferred $450 million to the State to be used for increased health care, long-term care, and other programs. The TSA bonds are not obligations of the State. As of June 30, 2016, $258.2 million bonds were outstanding.

7. Credit Ratings and Debt Metrics

Washington continues to experience high income levels, solid population and income growth and a diverse state economy. The State operates with sound financial management practices and has access to significant reserves and liquidity. For these reasons, the State continues to receive high marks from credit rating agencies. The State's ratings from Fitch, Moody's, and S&P are in the second highest category. These strong and stable ratings are critical to ensure that the State pays low interest rates on all borrowings.

Figure 20. History of Washington State GO Ratings 1990-2016



Nonetheless, Washington's debt burden places it among the top 10 states in the nation as measured by: debt per capita, debt as a percentage of personal income, debt service as a percentage of governmental expenditures, and debt as a percentage of gross state product. While citing the State's debt levels as a potential risk, each rating agency has recognized that fundamental credit strengths of the State mitigate the above-average debt burden.

Fitch (August 2016)

> *The combined burden of debt plus pensions is low as a percentage of personal income, although solidly above the median for U.S. states. Elevated debt levels incorporate the funding of substantial capital needs, particularly for transportation, but are offset by a moderate unfunded pension liability. Washington's debt levels are in the upper moderate range and well above average for a U.S. state …. Positively, the state has increased its focus on debt affordability in recent years.*

Moody's (August 2016)

> *The state's debt ratios are more than twice Moody's 2016 50-State Medians; net tax-supported debt as a percentage of personal income is 5.7%, compared with Moody's median of 2.5% and net tax-supported debt per capita is $2,522, compared to a median of $1,025. Annual debt service costs relative to revenue available for debt service (Moody's calculation) was also relatively high at 7.0% in fiscal 2015 versus a median of 4.3%. … While debt ratios are above average, the state's aggregate pension funding is relatively strong.*

Standard and Poor's (August 2016)

> *Tax-supported debt was moderately high by several of our measures. Debt pay down remained average, with about 50% of outstanding principal amortized over 10 years. Gross GO and lease appropriation-backed debt service is moderate, at 5.0% of the funds' expenditures from which it pays debt service. However, portions of Washington's debt are funded from self-supporting or reimbursable source. Considering just the general fund, adjusted for these offsetting revenues, we estimate that debt service was 5.7%, moderate in our view. …with the expected issuance (in the first quarter of 2017), we estimate the state's debt burden will remain moderately high.*

Figure 21. Debt Metrics: A Comparison to National Medians

	Moody's[1]	S&P[2]
Net Tax-Supported Debt ($ millions)		
Washington	**$19,800**	**$18,108**
Median of States	$4,294	$3,959
WA Rank Compared to Other States	8th	9th
Net Tax-Supported Debt Per Capita		
Washington	**$2,761**	**$2,552**
Median of States	$1,025	$1,018
WA Rank Compared to Other States	6th	6th
Net Tax-Supported Debt as % of Personal Income		
Washington	**5.7%**	**5.1%**
Median of States	2.5%	2.5%
WA Rank Compared to Other States	5th	6th
Net Tax-Supported Debt as % of Gross State Product		
Washington	**4.7%**	**4.3%**
Median of States	2.2%	2.4%
WA Rank Compared to Other States	6th	8th
Debt Burden as % of State Revenue/Spending[2,3]		
Washington	**8.3%**	**5.7%**
Median of States	4.2%	3.9%
Debt + Pension + OPEB as % of State Revenue[3]		
Washington	**10.5%**	
Median of States	8.5%	
Debt + Net Pension Liability + OPEB Per Capita[4]		
Washington		**$3,019**
Median of States		$3,016

1. *2016 State Medians.* Moody's U.S. Public Finance. May 6, 2016
2. *Debt Levels Flatline as U.S. States Prioritize Budget Management.* S&P. June 14, 2016
3. *State Pension Liabilities*. Moody's October 6, 2016
4. *U.S. State Pensions*. Standard and Poor's September 12, 2016

In recent years, credit analysts have focused attention on each state's overall liability profile when reviewing debt affordability. In fact, Washington's relative ranking improves significantly when the broader liability profile including pension and OPEB liabilities is taken into account. As shown in Figure 21, Washington's debt burden is least twice that of the median of all states. However, if pension liabilities and OPEB contributions are also included, Washington's liability metrics approach the median measures.

It is useful to compare Washington's debt metrics with those of other states with comparable or higher credit ratings and similar demographic characteristics. Many of these states have fundamentally different economic, revenue, debt and income characteristics. Within this list of states, only Massachusetts has higher debt per capita and more debt as a percentage of personal income. Florida, Georgia, Maryland, Massachusetts, and Oregon spend a larger portion of state revenues on debt service payments.

Figure 22. Comparing the State of Washington to Other States

	Ratings (S&P/ Moody's/ Fitch)	Debt Per Capita[1]	Debt as % of Personal Income[1]	Debt Service as % of General Spending[2]	Debt as % Gross State Product[2]	Net Tax-Supported Debt[2,3]
Colorado	AA / AA1/ NR	$424	0.9%	3.0%	0.8%	$2,333
Delaware	AAA/ Aaa/ AAA	$2,385	5.2%	5.5%	3.5%	$2,198
Florida	AAA/ Aa1/ AAA	$1,038	2.5%	7.2%	2.5%	$21,168
Georgia	AAA/ Aaa/ AAA	$1,029	2.7%	6.8%	2.2%	$9,387
Maryland	AAA/ Aaa/ AAA	$1,928	3.5%	5.9%	3.6%	$11,560
Massachusetts	AA+/ Aa1/ AA+	$5,592	9.5%	7.0%	8.2%	$34,549
Minnesota	AA+/ Aa1/ AA+	$1,527	3.2%	3.9%	3.0%	$8,648
Missouri	AAA/ Aaa/ AAA	$574	1.4%	3.5%	1.3%	$3,530
Nevada	AA / Aa2/ AA+	$591	1.5%	4.2%	1.5%	$1,804
North Carolina	AAA/ Aaa/ AAA	$721	1.8%	3.2%	1.4%	$6,500
Ohio	AA+/ Aa1/ AA+	$1,091	2.6%	3.9%	2.2%	$11,300
Oregon	AA+/ Aa1/ AA+	$1,907	4.6%	5.8%	3.7%	$7,805
Texas	AAA/ Aaa/ AAA	$383	0.9%	2.4%	0.7%	$11,138
Utah	AAA/ Aaa/ AAA	$921	2.5%	4.9%	2.5%	$3,508
Virginia	AAA/ Aaa/ AAA	$1,418	2.9%	3.4%	2.6%	$10,940
Washington	**AA+/ Aa1/ AA+**	**$2,761**	**5.7%**	**5.7%**	**4.3%**	**$18,018**
Median		$1,025	2.5%	3.9%	2.4%	$3,959

1. *2016 State Medians.* Moody's U.S. Public Finance. May 6, 2016
2. *Debt Levels Flatline as U.S. States Prioritize Budget Management.* Standard & Poor's. June 14, 2016
3. Dollars in millions