Photo courtesy WSDOT

Debt Affordability Study 2020

Duane A. Davidson, CPA
Washington State Treasurer

DUANE A. DAVIDSON
State Treasurer

Washington Office of the State Treasurer

Dear Washingtonians,

It is with great pleasure that I present to you the State's 2020 Debt Affordability Study. This annual report provides a comprehensive review of the State's outstanding debt and other financial obligations, credit ratings, and financing practices. My goal with this report is to encourage transparency, educate residents on Washington's financial condition, and inform policymakers as they make budgetary and capital spending decisions.

Bond proceeds are used for a variety of projects, such as building schools and hospitals, preserving state parks, and constructing bridges, tunnels, and other improvements. In fact, 68.6% of the 2019-21 Capital Budget is expected to be funded with bond proceeds.

The State's total outstanding obligations at the close of FY 2019 totaled $21.3 billion. This was an increase of $73.7 million from the prior year, and $13.5 billion over the last twenty years.

Washington is one of the most highly leveraged states in the country. Despite its high debt levels, in 2019, Washington was fortunate to receive its first-ever upgrade to Aaa from Moody's. Largely driven by the State's exceptional economy, well-funded pensions, and strong reserves, the Aaa rating should be a source of pride for Washingtonians as it helps drive down the cost of the State's financings.

Preserving the State's strong credit ratings and future borrowing capacity is essential for continued economic growth and capital investment. A significant economic downturn could inhibit the State's use of debt financing at a time when it may be most needed. **To better prepare the State for the next economic storm, the report includes recommendations on the following topics, which begin on page 22:**

- Reduce capital budget reliance on debt
- Protect our general fund and rainy day fund balances
- Improve the funding status of the State's pension plans

Finally, I'd like to thank my debt team, led by Deputy Treasurer Jason Richter, for their hard work and continued diligence in managing the State's debt portfolio. During 2019, they supported State operations with the issuance of thirteen separate series of bonds and certificates of participation, totaling over $2.4 billion. As part of this, they helped save the State over $160 million, on a present value basis, by carrying out seven separate refinancings.

Sincerely,

Duane A. Davidson,
State Treasurer and Chair, State Finance Committee

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The Office of the State Treasurer issues debt and financing contracts on behalf of the State of Washington ("the State" or "Washington") to fund capital projects such as real estate acquisition, building construction, transportation infrastructure, and equipment purchases. In fact, debt was used to finance approximately 67.9% of the State's 2017-19 Capital Budget.

Washington's general obligation pledge, which is the State's highest rated credit, has been assigned ratings of Aaa/AA+/AA+ (Moody's/S&P/Fitch). These very strong ratings reflect the State's prudent financial management and conservative debt portfolio, which includes no variable rate debt, derivatives, or other complex financial instruments. More importantly, these strong ratings allow the State, Washington school districts (through the school bond guarantee program), and participants in the State's LOCAL program to borrow at very low interest rates. Given the significant role that financings play in funding Washington's capital and transportation budgets, protecting the State's financial strength and its strong ratings must always be a top priority.

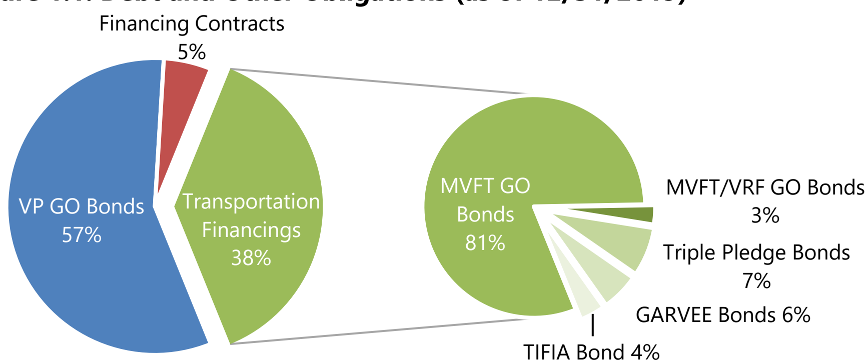
In the upcoming year, the Office of the State Treasurer looks forward to continuing in its role as steward of the State's portfolio of debt and other financial obligations. As always, this office remains committed to serving as a resource for our State and local government partners and to ensuring the efficient, effective, and prudent management of the State's financial obligations.

1. Overview of State Debt and Other Financial Obligations

The State's debt and other financial obligations consist of three primary categories: Various Purposes General Obligation (VP GO) bonds, transportation-related financings, and financing contracts. The largest share of this portfolio, about 57%, consists of VP GO bonds issued to finance general capital projects (Figure 1.1). VP GO bonds are backed by the full faith and credit of the State (GO pledge) and are repaid primarily from General Fund-State revenues (e.g. sales tax, property tax, etc.).

The second-largest category, at approximately 38% of the State's portfolio of debt and other financial obligations, consists of transportation-related financings for projects such as highways, roads, bridges, and the State ferry system. Of the transportation-related financings, 81% are supported by a pledge of Motor Vehicle Fuel Tax (MVFT) revenues, further guaranteed by the State's GO pledge. Three percent of transportation financings are supported by a separate bond authorization that pledges MVFT and Vehicle Related Fees (MVFT/VRF), further backed by the guarantee of the State's GO pledge. The remaining transportation financings (Triple Pledge, TIFIA, and GARVEE)* are project-specific and are backed by toll

Figure 1.1. Debt and Other Obligations (as of 12/31/2019)



Source: Office of the State Treasurer

**TIFIA and GARVEE are acronyms for federally-sponsored programs. The full names are Transportation Infrastructure Finance and Innovation Act (TIFIA) and Grant Anticipation Revenue Vehicle (GARVEE).*

revenues or federal aid, and in the case of the outstanding Triple Pledge Bonds, also by MVFT revenues and the State's GO pledge.

Financing contracts account for approximately 5% of the State's portfolio of debt and other financial obligations, and are primarily issued as Certificates of Participation (COPs). COPs consolidate various financing contracts with State agencies, which enter into lease agreements for property or equipment to be purchased. These leases are structured to expire on or before the end of the useful life of the property being financed, while ownership is retained by the agency.

Another form of financing contracts are 63-20 lease revenue bonds. 63-20 bonds are a special type of financing authorized by IRS Revenue Ruling 63-20, that are issued by a non-profit corporation on behalf of the State. In this arrangement, the non-profit constructs a facility and the State agrees to lease the property once completed. Ownership is transferred to the State upon the repayment of the bonds.

Figure 1.2. Outstanding Debt and Other Financial Obligations ($ in millions)

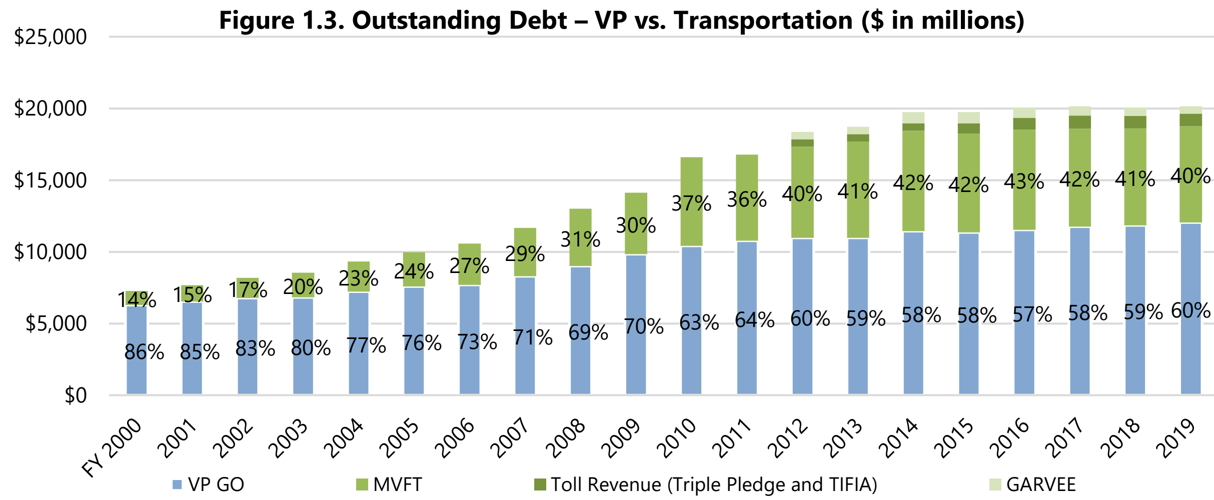
	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019	12/31/2019
Various Purpose GO Bonds	$11,358	$11,523	$11,759	$11,845	$12,057	$12,069
Transportation-Related Bonds						
GO-Backed Bonds:						
MVFT GO Bonds	$6,890	$6,996	$6,837	$6,753	$6,707	$6,443
MVFT/VRF GO Bonds	N/A	N/A	N/A	N/A	N/A	$224
Triple Pledge Bonds	519	519	596	583	569	569
Non-GO Backed Bonds:						
GARVEE Bonds	786	724	658	589	517	441
TIFIA Bond	195	300	300	297	294	292
Total Bonds Outstanding	$19,748	$20,062	$20,150	$20,067	$20,143	$20,038
Financing Contracts						
COPs – State	$615	$748	$814	$843	$885	$836
"63-20" Bonds	331	323	314	305	261	259
Total Financing Contracts	$946	$1,071	$1,128	$1,149	$1,146	$1,095
Total Outstanding	$20,694	$21,133	$21,278	$21,216	$21,289	$21,132

Source: Office of the State Treasurer

Figure 1.2 shows the State's total portfolio of debt and other financial obligations by type of obligation. The amount of outstanding State debt has been stable in recent years, increasing slightly over 2% since FY 2015. Most notably, debt financings for major transportation projects have slowed, while bond and COP issuance to fund infrastructure investments in education, the environment, and general government have increased at a modest pace.

At the end of FY 2019, Washington's portfolio of debt and other financial obligations stood at $21.289 billion. Total annual payments of principal and interest continue to rise, surpassing $2.0 billion for the second year in a row. In FY 2020, principal and interest payments are expected to account for 5.02% of General Fund-State revenues and approximately 42% of MVFT revenues.

Over the last two decades, transportation-related obligations have increased as a share of the State's overall portfolio of debt and other financial obligations. Of the State's total bonds outstanding, transportation-related debt has increased from 14% to 40% since 2000, as shown in Figure 1.3.



Source: Office of the State Treasurer

Reimbursable General Obligation Debt

Approximately $1.3 billion of the State's GO-backed debt is reimbursable, meaning that the debt service payments are reimbursed or repaid from sources outside of General Fund-State and MVFT revenues. Reimbursable VP GO debt includes bonds for technical education facilities that are repaid from interest 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 exhibition center repaid from admission, parking and certain sales taxes, and financings for "multimodal" facilities that are repaid from licenses and fees. In addition, $417 million of outstanding MVFT GO Bonds are to be repaid from toll revenues from the Tacoma Narrows Bridge (TNB) and the SR 99 Tunnel, while all of the State's outstanding Triple Pledge Bonds are to be repaid from tolls collected on the SR 520 Corridor. For the TNB, SR 99, and SR 520 financings, State statute and/or bond covenants require tolls to be set to generate sufficient revenues to repay the debt. Figure 1.4 shows the outstanding principal of the State's GO-backed debt, net of the principal portion of the reimbursable obligations.

Figure 1.4. Outstanding GO Bond Principal, Net of Reimbursable Debt ($ in millions)

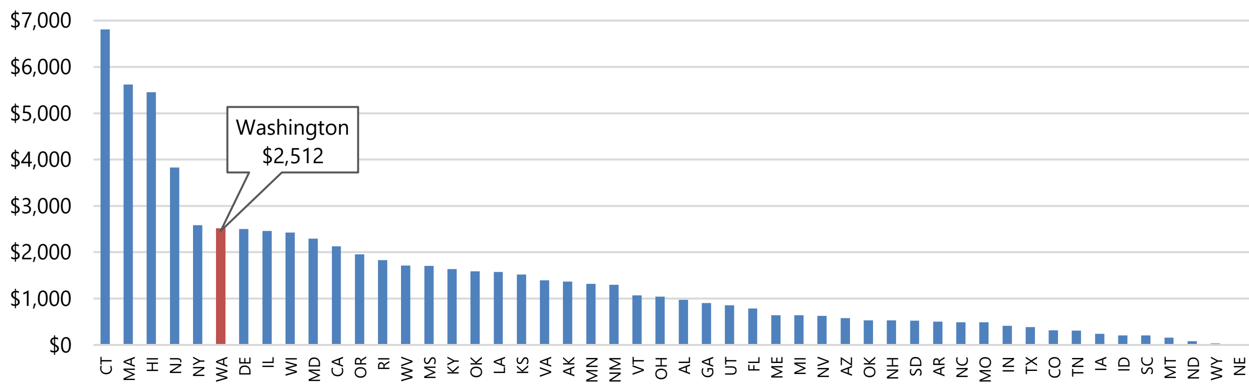
	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019	12/31/2019
Various Purpose	$11,358	$11,523	$11,759	$11,845	$12,057	$12,069
Reimbursed from various sources	(671)	(588)	(520)	(455)	(407)	(389)
	$10,687	$10,935	$11,239	$11,390	$11,650	$11,680
Motor Vehicle Fuel Tax	$6,890	$6,996	$6,837	$6,753	$6,707	$6,443
Reimbursed from tolls on TNB	(471)	(437)	(399)	(364)	(329)	(312)
Reimbursed from tolls on SR 99 Tunnel	-	-	-	-	(105)	(105)
	$6,418	$6,560	$6,438	$6,389	$6,274	$6,026
Triple Pledge	$519	$519	$596	$583	$569	$569
Payable from SR 520 tolls	(519)	(519)	(596)	(583)	(569)	(569)
	$0	$0	$0	$0	$0	$0
Total GO Debt	$18,766	$19,038	$19,192	$19,181	$19,333	$19,080
Total Reimbursables	(1,661)	(1,544)	(1,515)	(1,402)	(1,409)	(1,374)
GO Debt Net of Reimbursables	$17,105	$17,495	$17,677	$17,779	$17,924	$17,706

Source: Office of the State Treasurer

Peer Comparison

According to research conducted by Standard and Poor's (S&P), Washington is one of the most highly-leveraged states in the nation. For example, Figure 1.5 shows net tax supported debt per capita for all 50 states in FY 2018. S&P calculated Washington's debt per capita to be $2,512, the 6th highest in the country, and over 2.5 times the $1,010 national median. Debt per capita is one of the common metrics used by rating agencies to assess how leveraged a state is (along with debt as a percentage of personal income and debt as a percentage of gross state product). A comparison of the State's performance across a number of different metrics can be found in Figure 2.2 in the following section.

Figure 1.5. Net Tax Supported Debt Per Capita



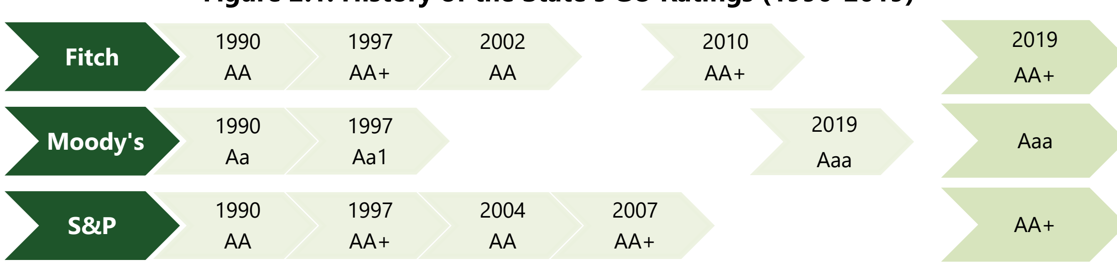
Source: *As U.S. State Debt Levels Moderate, Transportation Funding Takes Center Stage*. S&P. June 11, 2019.

2. Credit Ratings and Debt Metrics

Washington is fortunate to be home to a strong and diverse economy, with a growing population, high personal income levels, and solid job growth. The State operates with sound financial management practices and has access to significant liquidity and reserves. For these reasons, the State has received high marks from credit rating agencies. In August 2019, the State reached a coveted milestone when Moody's upgraded Washington's GO rating to Aaa from Aa1. This is the first time the State received a Aaa GO rating. Fitch and S&P each rate the State AA+, which is their second highest rating.

Figure 2.1 shows a history of changes to Washington's GO ratings by the three major rating agencies since 1990. Maintaining strong and stable ratings is critical to ensuring that the State continues to have access to low interest rates on future borrowings.

Figure 2.1. History of the State's GO Ratings (1990-2019)



Although the State is highly-rated, it is important to note that Washington's debt burden places it among the top ten states in the nation as measured by debt per capita, debt as a percentage of personal income, and debt service as a percentage of governmental expenditures, and 11th for debt as a percentage of gross state product. While citing debt levels as a potential risk, each rating agency has recognized that several fundamental credit strengths of the State help to mitigate its above-average debt burden.*

Moody's (August 23, 2019)

> *The upgrade of the general obligation bonds and school bond guarantee program to Aaa reflects a significant increase in financial reserves even as the state increased funding for K-12 education in response to a state supreme court mandate, the exceptional growth of the state's economy driven largely by the technology sector in the Seattle metro area, and the consequent diversification of the state's economy lessening dependence on aircraft manufacturing by The Boeing Company. Additional strengths include above-average wealth and income levels, and the state's strong fiscal governance practices. While the state's debt levels are above average, they have been declining relative to the 50-state medians and the state's debt and pension liabilities combined and fixed costs are comparable to medians.*

Fitch (November 4, 2019)

> *Washington's economy, historically reliant on manufacturing supplemented by regional and international trade and tourism, has broadened. Areas of concentration, including Boeing, Microsoft, and Amazon, offer relatively high-wage employment, and the population is well educated. In addition, population growth has far exceeded that of the U.S. as a whole for many years, a trend that seems likely to continue. The state's recovery from the Great Recession was significantly more robust than the U.S. as a whole and among the strongest of the states. The state's unemployment rate is slightly above the U.S., while the labor force and employment growth rate has been well above the national pace.*

Standard and Poor's (August 28, 2019)

> *In general, we consider Washington's approach to financial management strong, as reflected in our Financial Management Assessment (FMA) and budget management scores. Well-established economic and revenue forecasting, and increasingly refined debt management practices and oversight, served the state's credit quality well during the recession and its aftermath. Forward-looking state policies facilitate budget practices we view as prudent, including minimal reliance on payment deferrals or other one-time responses to anticipated budget gaps.*

In recent years, credit analysts have focused attention on the overall liability profile of each state when reviewing debt affordability. As shown in Figure 2.2, Washington's debt burden per capita is more than twice that of the national median. However, when the broader liability profile, including pension and OPEB liabilities, is taken into account, Washington's liability metrics are near the national median measures and the State's relative ranking improves significantly.

*Rating agency reports on the State can be found on Washington State Treasurer's website: https://tre.wa.gov/home/debt-management/debt-information/

Figure 2.2. Debt Metrics: A Comparison to National Medians

	Moody's	S&P
Net Tax-Supported Debt ($ millions)[1,2]		
Washington	**$19,689**	**$18,929**
Median of States	$4,147	$4,280
WA Rank Compared to Other States	8th	8th
Net Tax-Supported Debt Per Capita[1,2]		
Washington	**$2,613**	**$2,512**
Median of States	$1,068	$1,010
WA Rank Compared to Other States	8th	6th
Net Tax-Supported Debt as % of Personal Income[1,2]		
Washington	**4.6%**	**4.1%**
Median of States	2.3%	2.1%
WA Rank Compared to Other States	10th	10th
Net Tax-Supported Debt as % of Gross State Product[1,2]		
Washington	**3.8%**	**3.4%**
Median of States	2.1%	1.8%
WA Rank Compared to Other States	11th	11th
Debt Burden as % of State Revenue/Spending[1,2]		
Washington	**6.3%**	**6.9%**
Median of States	4.1%	3.8%
WA Rank Compared to Other States	11th%	6th
Debt + Pension + OPEB as % of State Revenue[3]		
Washington	**10.4%**	-
Median of States	7.5%	-
WA Rank Compared to Other States	16th	-
Debt + Net Pension Liability + OPEB Per Capita[4]		
Washington	-	**$3,452**
Median of States	-	$2,741
WA Rank Compared to Other States	-	21st

1. *Medians - Flat debt total signals cautious borrowing, despite infrastructure needs.* Moody's U.S. Public Finance. June 3, 2019.
2. *As U.S. State Debt Levels Moderate, Transportation Funding Takes Center Stage.* S&P. June 11, 2019.
3. *Medians - Adjusted net pension liabilities decline; OPEB liabilities vary widely.* Moody's U.S Public Finance. September 17, 2019.
4. *U.S. State Pension Reforms Partly Mitigate The Effects Of The Next Recession.* S&P. September 26, 2019.

Comparing Washington's debt metrics with those of other states with comparable or higher credit ratings provides insight as to areas of financial strengths and weaknesses, shows how the State compares to its peers financially, and indicates opportunities for improving the State's ratings. Figure 2.3 shows a comparison of Washington to states with similar or better credit ratings, as well as the primary metrics used by rating agencies to calculate a state's debt burden.

While many of these states have fundamentally different economic, revenue, income, and debt characteristics, only Massachusetts exceeds Washington in debt per capita, debt service as a percentage of general spending, and debt as a percentage of gross state product. Washington ranks third in debt as a percentage of personal income, with Delaware joining Massachusetts at the top of the list.

Figure 2.3. Comparing the State of Washington to Peer States[1]

	Ratings (Moody's/S&P/Fitch)	Debt Per Capita[2]	Debt as % of Personal Income[2]	Debt Service as % of General Spending[2]	Debt as % Gross State Product[2]	Total Net Tax-Supported Debt[2] ($ millions)
Colorado	Aa1 / AA / NR	$315	0.6%	2.5%	0.5%	$1,795
Delaware	Aaa / AAA / AAA	$2,500	4.9%	5.7%	3.2%	$2,418
Florida	Aaa / AAA / AAA	$787	1.6%	6.2%	1.6%	$16,758
Georgia	Aaa / AAA / AAA	$903	2.0%	6.1%	1.6%	$9,504
Maryland	Aaa / AAA / AAA	$2,293	3.7%	6.1%	3.4%	$13,859
Massachusetts	Aa1 / AA / AA+	$5,622	8.0%	7.5%	6.8%	$38,803
Minnesota	Aa1 / AAA / AAA	$1,316	2.3%	3.7%	2.0%	$7,385
Missouri	Aaa / AAA / AAA	$488	1.1%	3.4%	0.9%	$2,992
Nevada	Aa2 / AA+ / AA+	$630	1.3%	2.4%	1.2%	$1,910
North Carolina	Aaa / AAA / AAA	$490	1.1%	2.7%	0.9%	$5,093
Ohio	Aa1 / AA+ / AA+	$1,044	2.2%	4.4%	1.8%	$12,200
Oregon	Aa1 / AA+ / AA+	$1,954	3.9%	4.8%	3.4%	$8,190
Texas	Aaa / AAA / AAA	$389	0.8%	2.4%	0.6%	$11,172
Utah	Aaa / AAA / AAA	$858	1.9%	4.3%	1.5%	$2,712
Virginia	Aaa / AAA / AAA	$1,392	2.4%	4.9%	2.2%	$11,859
Washington	**Aaa / AA+ / AA+**	**$2,512**	**4.1%**	**6.9%**	**3.4%**	**$18,929**
National Median		$1,010	2.1%	3.7%	1.8%	$4,280

1: Cells colored yellow are the highest value for the column; cells colored blue are the second highest.

2: As U.S. State Debt Levels Moderate, Transportation Funding Takes Center Stage. S&P. June 11, 2019.

3. Constraints on Debt Issuance

Constitutional Debt Limit

Since ratification in 1889, the Washington Constitution has limited the amount of certain types of State debt that can be issued. Originally, the State had a fixed debt limit of $400,000. In 1972, this was replaced with a limit on the State's maximum annual debt service (MADS) relative to a historical average of general state revenues. Today, the Constitution prohibits MADS for debt subject to this limit from exceeding a constitutionally-specified percentage (currently 8.25%) of the average general state revenues for the six preceding fiscal years. Debt service on nearly all VP GO debt is subject to the constitutional debt limit.

Under the Constitution, general state revenues include all State money received in the State treasury from each and every source, including monies received from ad valorem taxes levied by the State and deposited in the general fund, but not including: (1) fees and other revenues derived from the ownership or operation of any undertaking, facility, or project; (2) monies received as gifts, grants, donations, aid, or assistance when the terms and conditions require the application of such moneys otherwise than for general purposes of the State; (3) retirement system monies and performance bonds and deposits; (4) trust fund monies; (5) monies received from taxes levied for specific purposes and required to be deposited into specified funds or accounts other than the general fund; and (6) proceeds from the sale of bonds or other indebtedness.

The Office of the State Treasurer certifies the debt limit when general state revenues are finalized, typically in December of each year. The most recent Debt Limit report was published on December 11, 2019 and certified that the MADS for debt subject to the constitutional limit was $381.7 million less than the constitutional debt service limitation. This number represents the difference between 8.25% of the 6-year average of general state revenues ($1.560 billion) and the MADS as of November 25, 2019 ($1.218 billion).

Modeling Future Debt Capacity

The Legislature, the Office of Financial Management, and the Office of the State Treasurer 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 for long-term debt planning and as an "early warning" mechanism during times of decreasing revenues. The model 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 and amortized over 25 years with level annual debt service payments. Projections are reviewed at least quarterly. Both revenue and interest rate assumptions are aligned with projections from the Washington State Economic and Revenue Forecast Council and IHS Markit over the forecast horizon.

The debt model calculates the maximum bond authorization for each biennium as the dollar amount that causes projected MADS to reach but not exceed the State's debt limit, given the assumed growth in general state revenues, future biennial bond authorizations, and projected future bond issuance. To the extent that the maximum bond authorization for the current biennium is increased, future projected maximum bond authorizations must be decreased to keep MADS below the limit, and vice versa. Thus, the model provides a regularly updated measure 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, license fees on motor vehicles, and interest on the permanent common school fund (provided that there are sufficient revenues to repay the debt service from the specific revenue source). 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.

Below we summarize the State's existing debt that is excluded from the debt limit. The transportation-related debt is discussed in more detail in Section 5. Financing contracts are discussed later in Section 7.

MVFT GO Bonds are exempt from the constitutional debt limit provided there are sufficient motor vehicle fuel tax revenues to pay the debt service on such bonds. 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. Additionally, the State Finance Committee's MVFT GO authorizing resolutions incorporate this pledge into the contractual obligation made by the State to investors.

MVFT/VRF GO Bonds are exempt from the constitutional debt limit provided there are sufficient MVFT and VRF revenues to pay the debt service on such bonds. These bonds, authorized by the Connecting Washington bond authorization, are structured very similarly to the State's MVFT GO bonds, with the addition of the VRF pledge, which provides flexibility to better accommodate future changes in transportation funding.

Triple Pledge Bonds, which are expected to be paid by toll revenues, are exempt from the constitutional debt limit provided there are sufficient MVFT revenues to pay the debt service on such bonds. The Triple Pledge Bond master bond resolution under which the currently outstanding bonds were issued provides specific toll rate covenants and additional bonds tests which set minimum debt service coverage levels. While backed by both MVFT revenues and the State's GO pledge, to date, toll revenues have been, and the State expects that they will continue to be, sufficient to fully fund debt service payments for the Triple Pledge Bonds, as well as all requirements identified in the master bond resolution. The Legislature recently authorized issuance of future Triple Pledge Bonds expected to be repaid from tolls on the I-405 & SR 167 Express Toll Lanes and the Puget Sound Gateway toll facilities, and to be backed by a pledge of both MVFT and VRF revenues in addition to the State's GO pledge. These have not yet been issued.

GARVEE Bonds (Grant Anticipation Revenue Vehicle) are exempt from the debt limit as they are payable solely from Federal Aid-Highway Program funds, including federal reimbursements of debt service on the bonds and federal reimbursements to the State for projects or portions of projects not financed with bond proceeds. These bonds do not constitute either a legal or moral obligation of the State, nor does the State pledge its full faith, credit, or taxing power. The State's capacity for additional GARVEE bonds is estimated to be approximately $1.069 billion; however, no additional GARVEE issuance has been authorized since 2014.

The **TIFIA Bond** (Transportation Infrastructure Finance and Innovation Act) is exempt from the debt limit as the bond is held by the United States Department of Transportation and payable solely from net SR 520 toll revenues.

Financing Contracts such as COPs and 63-20s are not subject to the debt limit as these obligations do not constitute debt as defined by the State's Constitution. Budgetary consideration is given to future annual appropriations necessary for each financing. The State Finance Committee is responsible for establishing the maximum aggregate principal amount of financing contracts that may be issued.

4. Various Purpose General Obligation Bonds

Various Purpose General Obligation Bonds (VP GO)

VP GO bonds are issued to pay for a variety of projects including K-12 public school construction, higher education facilities, correctional facilities, environmental preservation, State office buildings, and public works infrastructure. The term of each financing is generally 25 years or less, but always with an average life within the expected weighted average useful life of the asset(s) being financed. In the years following the Great Recession, VP GO bonds have been used to fund an average of 62% of capital appropriations. In contrast, in the twenty years prior to the Great Recession, bonds funded an average of 51% of capital appropriations. In the 2019-21 Capital Budget, bonds are expected to fund 68.6% of the appropriations, with the remainder funded primarily from dedicated State revenues and federal funding. Figure 4.1 shows historical capital budget appropriations for projects funded by bonds and the percentage of total appropriations funded by bonds.

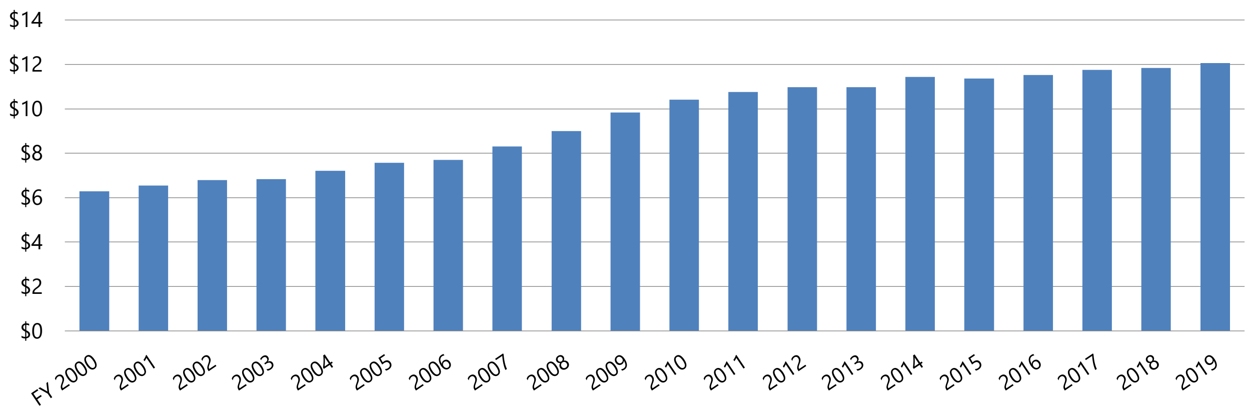
Figure 4.1. New Capital Appropriations ($ in millions)

	2009-11	2011-13	2013-15	2015-17	2017-19	2019-21
Bond Appropriations						
Governmental Operations	$466	$346	$536	$508	$696	$689
Human Services	64	104	70	134	147	233
Natural Resources	341	313	547	522	766	712
Higher Education	504	398	425	541	494	636
K-12 Education	655	497	463	627	827	953
Total Bond Appropriations	$2,031	$1,656	$2,040	$2,332	$2,931	$3,223
Other Funds Appropriated	$1,162	$1,674	$1,353	$1,333	$1,382	$1,474
Total Appropriations	$3,193	$3,331	$3,393	$3,665	$4,314	$4,697
Percent Funded by Bonds	64%	50%	60%	64%	68%	69%

Source: Legislative Evaluation & Accountability Program (LEAP) Committee

The State irrevocably pledges its full faith, credit, and taxing power to the payment of its VP GO 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. As Figure 4.2 shows, the State's total outstanding VP GO debt totaled $12.1 billion in FY 2019; a 92.0% increase since FY 2000 and a 15.8% increase since FY 2010.

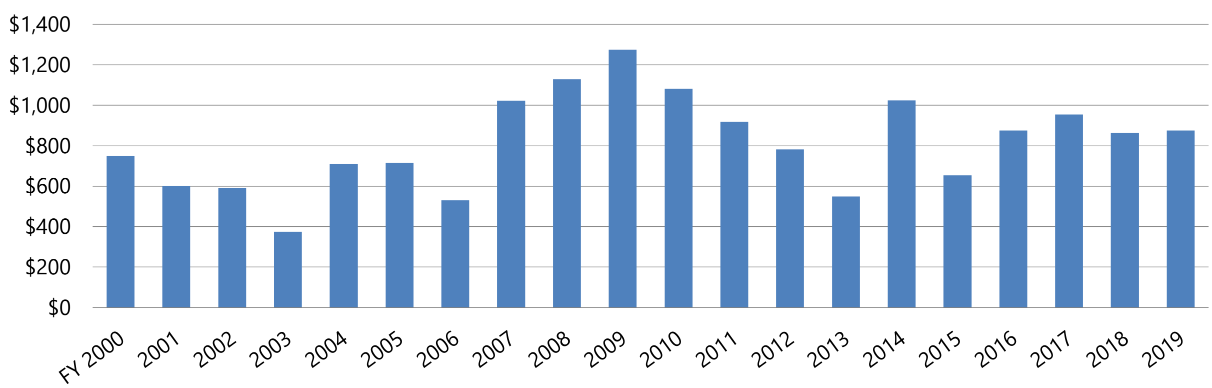
Figure 4.2. Outstanding VP GO Principal ($ in billions)



Source: Office of the State Treasurer

The annual issuance of VP GO bonds has varied over the last twenty years, but stabilized more recently (Figure 4.3). Over the last four years the average annual new money VP GO bond issuance was $890 million per year. New money issuance in FY 2019 exceeded the prior year by $12.6 million, or 1.5%.

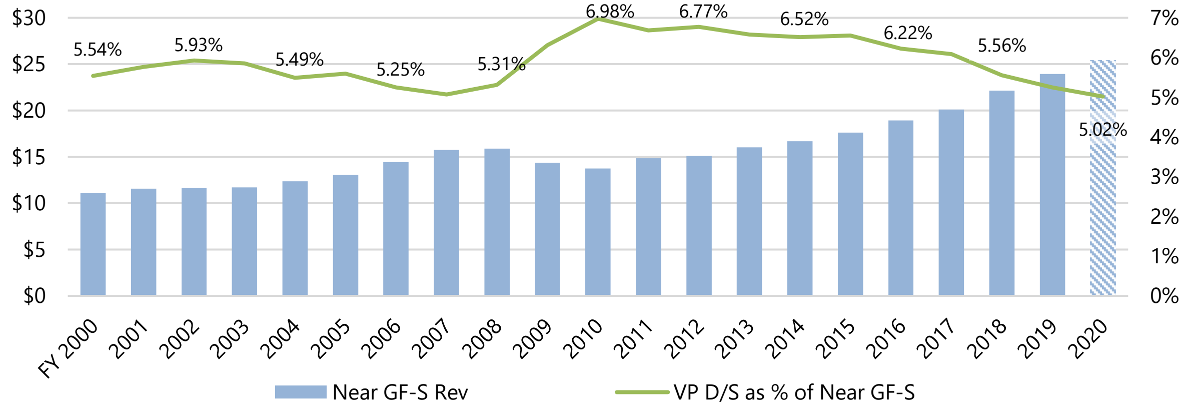
Figure 4.3. Annual New Money Issuance of VP GO Bonds* ($ in millions)



**Excludes refundings.*
Source: Office of the State Treasurer

Figure 4.4 shows the State's annual Near General Fund-State (NGF-S) revenues since 2000 and annual debt service, showing as a percent of NGF-S revenues dedicated to repay annual debt service on VP GO bonds. Prior to the Great Recession, the portion of NGF-S revenues used to pay debt service ranged from 5.07% to 5.93%, but climbed to nearly 7.0% in 2010 as revenues declined. In FY 2020, debt service on VP GO bonds is projected to total $1.276 billion or 5.02% of GF-S revenues.

Figure 4.4. Various Purpose GO Debt Service as a Percent of Near General Fund-State Revenues* ($ in billions)



**Near General Fund-State revenues include General Fund-State, the Education Legacy Trust Account (ELTA), and the Opportunity Pathways Account (OPA).*
Source: Economic and Revenue Forecast Council; Office of the State Treasurer

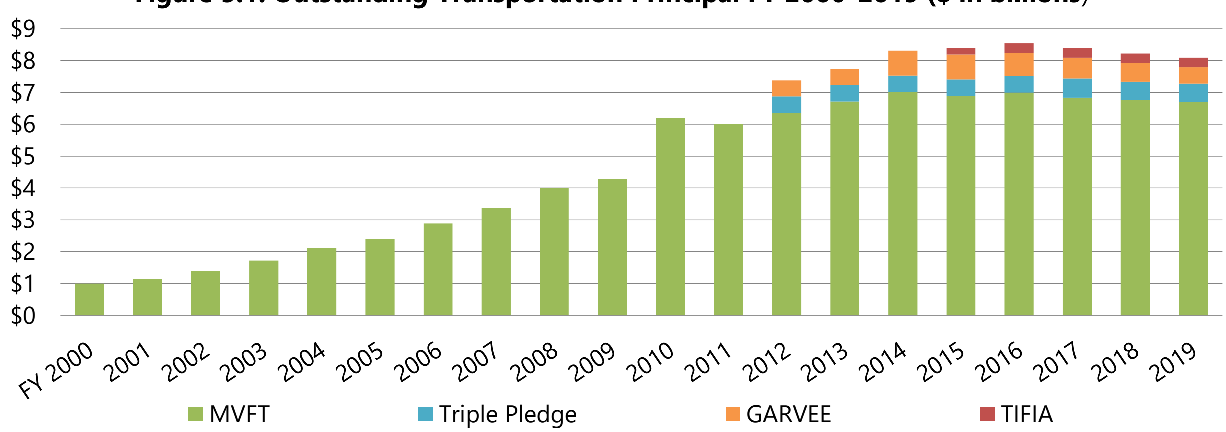
5. Transportation Debt

MVFT GO, MVFT/VRF GO, Triple Pledge, TIFIA, and GARVEE Bonds

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 projects, which include 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 essentially the same. The term of each financing is generally 25 years or less, but always with an average life within the expected weighted average useful life of the assets being financed.

As seen in Figure 5.1, at the end of FY 2019 the State had $6.7 billion of outstanding MVFT GO debt. Of this amount, $1.45 billion was issued as Build America Bonds (BABs) in FY 2010. BABs were created through the American Recovery and Reinvestment Act of 2009. This program offered states and local governments federal subsidies on taxable municipal bonds.

Figure 5.1. Outstanding Transportation Principal FY 2000-2019 ($ in billions)



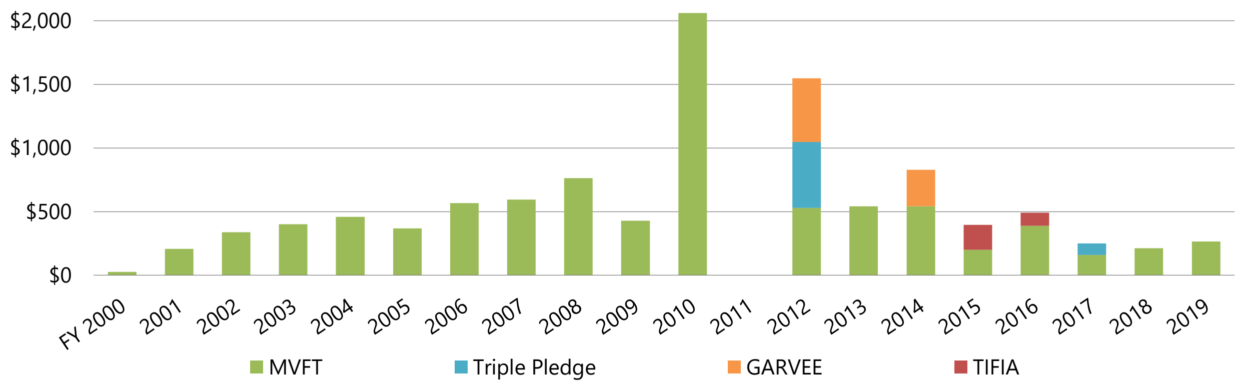
Source: Office of the State Treasurer

In addition to MVFT GO financings, the State has issued three additional types of transportation bonds to finance the SR 520 Bridge Replacement and HOV Program: Triple Pledge, GARVEE, and TIFIA bonds. Between FY 2012 and FY 2017, the State issued a total of $609 million in Triple Pledge Bonds, which are bonds first paid from SR 520 toll revenue, further backed by MVFT revenues and a guarantee of the State's GO pledge. Triple Pledge Bonds carry the same ratings as other GO bonds and borrowing rates are essentially the same.

The State has also issued two forms of transportation bonds which are not backed by the State's GO pledge: Grant Anticipation Revenue Bonds, or GARVEE bonds, secured solely by funds received from the Federal Highway Administration (FHWA), and a Transportation Infrastructure Finance and Innovation Act (TIFIA) bond which is a draw-down loan from the FHWA, paid solely from SR 520 toll revenues. The State issued $786.3 million in GARVEE bonds in 2012 and 2013, and a $300 million TIFIA Bond in 2012. The State has not issued new Triple Pledge, GARVEE or TIFIA loans since 2017.

By the end of FY 2019, the combined outstanding amount of bonds issued for SR 520 was approximately $1.379 billion. Figure 5.2 below shows the amount of the State's annual transportation debt issuances, excluding refundings, by fiscal year.

Figure 5.2. Issuance of New Money Transportation Bonds ($ in millions)

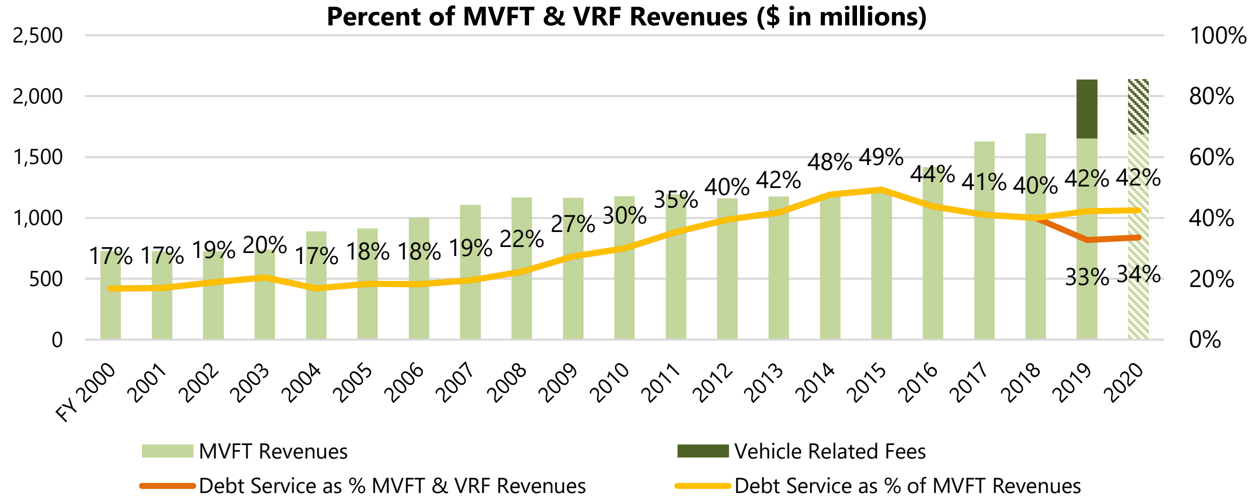


Source: Office of the State Treasurer

Over the past decade, Washington has significantly increased its reliance on MVFT GO bonds to implement legislative spending plans associated with gas tax increases. Leveraging revenues from the 2003 Nickel Act and the 2005 Transportation Partnership Act, which collectively raised the gas tax 14.5¢, increased the State's annual MVFT GO issuance from an average of $65 million per year in the 1990s, to a peak of over $2 billion with the issuance of Build America Bonds in FY 2010.

In 2015, the Legislature approved an additional 11.9¢ gas tax increase and allowed for leveraging certain vehicle-related fees (VRFs) in the Connecting Washington transportation package. Connecting Washington provided a $5.3 billion bond authorization secured by a new pledge of MVFT and VRF revenues, and further backed by the guarantee of the State's GO pledge. The first issuance of Connecting Washington bonds was sold in September of 2019, totaling $244 million. The remaining bond authorization is expected to be issued during the next ten or more years.

Figure 5.3. MVFT Debt Service as a Percent of MVFT & VRF Revenues ($ in millions)



Source: Office of the State Treasurer

ESTIMATING TRANSPORTATION DEBT CAPACITY

In the near term, the ratio of debt service to revenues for the State's MVFT GO bonds is decreasing. Since 2015, debt service as a percent of MVFT revenues has decreased to 42% from a high of 49%. This decrease is a result of growth in MVFT and VRF revenues outpacing additional debt service. When revenues from VRF are included, as pledged by Connecting Washington, this ratio further decreases to a projected 34% in FY 2020. In future biennia, debt service as a percentage of MVFT revenues is expected to increase due to increased construction, and the pace of bond funding.

In collaboration with the Washington State Department of Transportation (WSDOT), the Office of the State Treasurer is in the process of developing a technical model to estimate transportation debt capacity, similar to that used for capital projects. The model estimates 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.

6. AUTHORIZED BUT UNISSUED DEBT

UNISSUED BOND AUTHORITY

The State currently has the authority to issue nearly $15 billion of bonds to finance capital budget and transportation-related projects. Approximately $6.2 billion, or 41% of the total, is authorized but unissued VP GO bonds. Half of this amount was authorized in the previous biennium for the 2017-19 Capital Budget. The other half was authorized for the 2019-21 Capital Budget. Increased issuance of the VP GO bond authorization may negatively impact future debt capacity under the constitutional debt limit.

Fifty-nine percent, or $8.807 billion, of the authorized but unissued debt is for transportation projects. The largest portion of unissued transportation bonds is the Connecting Washington bond authorization. The first Connecting Washington bonds were issued in September 2019. Over $5 billion of the authorization remains, with issuance anticipated to occur over a 10-year time horizon.

Figure 6.1. Authorized but Unissued Debt
(as of December 31, 2019)

Various Purpose GO Bonds	**Unissued Bonds**
Subject to State Debt Limit	
2019-21 Biennium	$3,057,346,000
Prior Biennia	3,133,176,000
Excluded from Sate Debt Limit	755,000
	6,191,277,000
Transportation Bonds	
Connecting Washington	5,075,555,000
Transportation Partnership	1,375,496,664
I-405 & SR 167 Express Toll Lanes	1,160,000,000
Puget Sound Gateway Project	340,000,000
Triple-Pledge Toll (SR 520)	254,540,000
Special Category C	225,832,291
Nickel Account	212,491,123
Miscellaneous MVFT	163,578,288
	8,807,493,366
Total Authorized but Unissued	$14,998,770,366

Source: Office of the State Treasurer

7. Financing Contracts and Lease Obligations

State and Local Financing Contracts

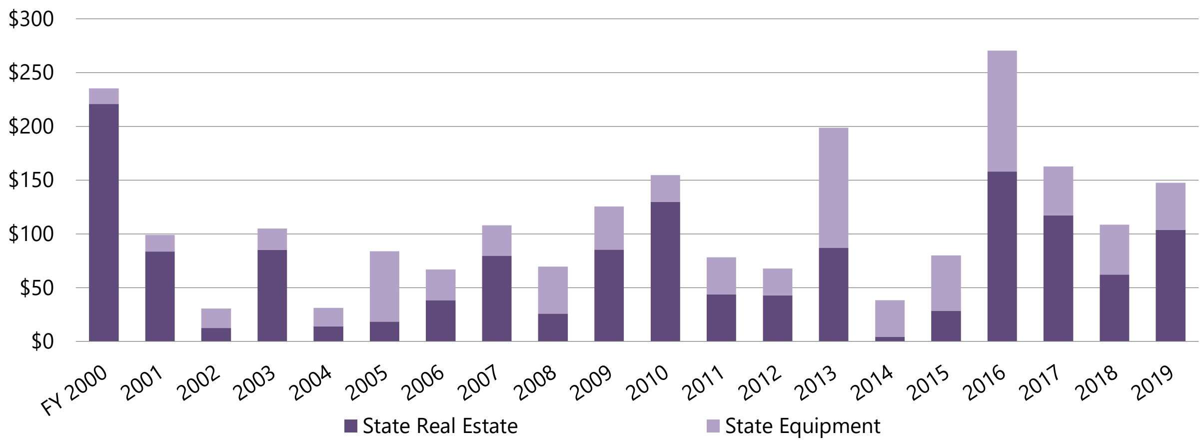
Certificates of Participation - State

The State often finances real estate projects and equipment purchases by issuing certificates of participation (COPs). COPs consolidate multiple financing contracts used to finance real property, such as land and building acquisition, new construction, facility improvements, or personal property, such as vehicles, computer hardware, and office equipment. The maximum term of each lease is determined by the useful life of the asset(s) being financed. Real estate financings have a maximum term of 25 years, while equipment is typically financed for a period of three to ten years. Consolidating multiple financing contracts into each COP issuance achieves economies of scale and minimizes issuance costs for participating agencies. Approximately half of the State's outstanding COPs will be paid off within five years.

COPs are not backed by the full faith and credit of the State. COPs are payable only from current appropriations and/or from funds that do not constitute general state revenues. Payments made by State agencies are subject to appropriation risk and executive order reduction. COPs are typically rated one notch below GO debt, and borrowing rates are slightly higher as a result. State real estate acquisition and construction projects financed with COPs must be authorized by the Legislature. Additionally, the Office of the State Treasurer may require prior legislative approval for major equipment acquisitions.

As seen in Figure 7.1, COP issuance peaked at $270 million in FY 2016. In FY 2019 the State issued $147.5 million worth of COP financings ($103.7 million for real estate and $43.8 million for equipment). At the end of FY 2019, the State had $885.2 million in outstanding COPs (Figure 7.2, below).

Figure 7.1. State COP Issuance ($ in millions)



Source: Office of the State Treasurer

Figure 7.2. State COPs Outstanding ($ in millions)

	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019	12/31/2019
State COPs Outstanding	$615.5	$748.0	$813.6	$843.2	$885.2	$836.0

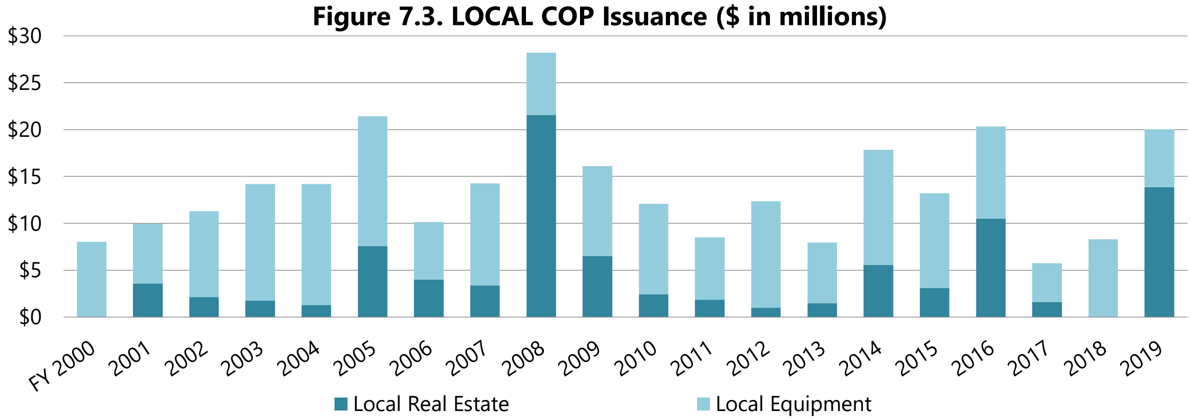
Source: Office of the State Treasurer

Certificates of Participation - Local

In partnership with the COP program, the Office of the State Treasurer operates the Local Option Capital Assets Lending (LOCAL) Program. The LOCAL Program is a special financing program available to local governments that are able to provide a general obligation pledge and meet the State's established credit criteria. The LOCAL Program offers local agencies a way to finance essential real estate and equipment such as fire trucks and police cars over a multi-year period. The Program provides smaller governments with economies of scale and the same low interest rates available through the State COP program by efficiently pooling local government financing contracts with the State's larger financing contracts. Debt service for the LOCAL Program is paid by the contracted entity.

Figure 7.3 shows LOCAL COP issuance from FY 2000 through FY 2019, and Figure 7.4 (below) shows the total outstanding obligations of the program. LOCAL COP issuance peaked in FY 2008 with $28.2 million in new financing contracts issued. In FY 2019, new issues totaled $20.0 million. The total amount of outstanding LOCAL COPs at the end of FY 2019 was $72.3 million.

Figure 7.3. LOCAL COP Issuance ($ in millions)



Source: Office of the State Treasurer

Figure 7.4. LOCAL COPs Outstanding ($ in millions)

	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019	12/31/2019
LOCAL COPs Outstanding	$81.2	$77.5	$70.5	$67.6	$72.3	$72.2

Source: Office of the State Treasurer

63-20 Lease Revenue Bonds

The State has entered into two long-term leases known as "63-20" lease revenue bond financings. With this type of financing, a non-profit corporation issues bonds on behalf of the State and uses the proceeds for 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. Upon repayment of the bonds, the State takes title to the property. Similar to the COPs, the State's lease payments are subject to appropriation risk and across-the-board cuts by the Governor.

The State's two 63-20 projects are highlighted in Figure 7.5. The Edna Lucille Goodrich Building is a State office building in Tumwater, WA. The 1500 Jefferson Building, located in Olympia, WA, is a six-story State office building and a three-story data center. The final maturity for the related lease revenue bonds are July 1, 2028 and June 1, 2039, respectively.

Figure 7.5. 63-20 Lease Revenue Bonds Outstanding ($ in thousands)

	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019	12/31/2019
Edna Lucille Goodrich Building	$43,435	$41,870	$40,075	$38,065	$35,830	$33,415
1500 Jefferson Building	287,315	281,005	274,375	267,410	225,390	225,390
Total	$330,750	$322,875	$314,450	$305,475	$261,220	$258,805

Source: Office of the State Treasurer

8. Other State Obligations

Pensions

Washington's pension plans are consistently recognized as some of the better funded plans in the nation. The State administers 12 defined benefit retirement plans, three of which contain hybrid defined benefit/defined contribution options. The most recent actuarial report was released in September 2019 for the year ended June 30, 2018. According to the report, the plans covered 588,763 State and local government members (including active employees, terminated employees entitled to a future benefit, retirees, and beneficiaries).

The combined funded status for all the State-administered retirement plans was 89%—up from 86% for the fiscal year ending June 30, 2017—with $98.1 billion of liabilities and $86.9 billion as the accrual value of assets, leaving a total of $11.2 billion in unfunded liabilities.

Another measure, Net Pension Liabilities, represents unfunded actuarial accrued liability, and equals the total pension liability (a measure of the total cost of future pension benefit payments already earned, stated in current dollars) minus the value of the assets in the pension trust that can be used to make benefit payments. Under the Governmental Accounting Standards Board (GASB) reporting standards, the State's share of Net Pension Liabilities as of June 30, 2018 is a collective $400.6 million—a $1.6 billion decrease from the prior year.

According to a 2019 report by S&P, Washington;s pension systems score well when compared to peer states. S&P calculated Washington's funded ratio to be 93.8%, which is the highest among its peers. Similarly, the net pension liability per capita, $168, is the lowest. Due to the State's overall debt burden, the collective debt, pension and OPEB costs per capita, at $3,452, are higher than the national median.

Figure 8.1. Comparing Washington to Other State Pension Systems

	Ratings (Moody's/ S&P/ Fitch)	**Funded Ratio**[1]	**Net Pension Liability per Capita**[1]	**Debt, Pension and OPEB per Capita**[1]
Colorado	Aa1 / AA / NR	43.8%	$3,390	$3,782
Delaware	Aaa / AAA / AAA	85.1%	$1,645	$11,819
Florida	Aaa / AAA / AAA	84.3%	$249	$1,108
Georgia	Aaa / AAA / AAA	80.1%	$688	$2,105
Maryland	Aaa / AAA / AAA	71.2%	$3,262	$7,443
Massachusetts	Aa1 / AA / AA+	60.7%	$5,460	$13,242
Minnesota	Aa1 / AAA / AAA	80.7%	$453	$1,880
Missouri	Aaa / AAA / AAA	57.5%	$1,087	$2,067
Nevada	Aa2 / AA+ / AA+	75.3%	$762	$1,655
North Carolina	Aaa / AAA / AAA	88.6%	$228	$1,251
Ohio	Aa1 / AA+ / AA+	81.1%	$318	$1,595
Oregon	Aa1 / AA+ / AA+	82.1%	$749	$2,747
Texas	Aaa / AAA / AAA	70.6%	$2,038	$4,878
Utah	Aaa / AAA / AAA	90.3%	$247	$1,137
Virginia	Aaa / AAA / AAA	77.0%	$749	$2,360
Washington	**Aaa / AA+ / AA+**	**93.8%**	**$168**	**$3,452**
National Median		71.9%	$1,126	$2,741

1. *U.S. State Pension Reforms Partly Mitigate The Effects Of The Next Recession. S&P. September 26, 2019.*

Other Post-Employment Benefits (OPEB)

The State provides health care benefits to its retirees through implicit and explicit subsidies. Unlike the State's pension obligations, neither the implicit nor explicit subsidies are 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. This results in an implicit subsidy of the rates paid by those individuals choosing to participate. There is no direct contractual obligation for the State to provide this benefit, and the State does not pay any portion of retirees' premiums. Nonetheless, by including retirees in this purchasing pool, it does marginally increase overall insurance rates (including the rates that are paid to cover current employees).

In addition to the implicit subsidy, 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). In 2019, the estimated monthly contribution per retiree plan member was $1,019. Like the implicit subsidy, the State is under no contractual obligation to retirees to continue to provide this benefit. Instead, the Legislature determines each biennium whether or not to include it in the State's budget.

The State funds both the implicit and explicit subsidies on a pay-as-you-go basis. That is, the State pays the costs as they occur. The State's annual OPEB expense for FYs 2017 and 2018 was $479.7 million and $303.2 million, respectively, as reported in the 2018 Other Postemployment Benefits Actuarial Valuation Report.

GASB Statement No. 75 requires that the total OPEB liability be determined through an actuarial evaluation of the future costs of the implicit and explicit subsidies. Under GASB 75, the State's total OPEB liability was reported as $5.08 billion for the fiscal year ending June 30, 2018, a decrease of $746.0 million from the prior year.

School Bond Guarantee Program

The School Bond Guarantee Program is a direct 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 GO bonds. The State's obligation is a contingent obligation and is excluded from the Constitutional Debt Limitation. The State has never been called upon to pay debt service on any bonds guaranteed by the program. Since it began in 2000, the School Bond Guarantee Program has saved taxpayers $380 million.

As of December 31, 2019, there was a total of 472 bond issues guaranteed, an average outstanding principal amount for each guaranteed issue of $31 million, with a total principal outstanding of $14.854 billion (Figure 8.2).

Figure 8.2. Outstanding Guaranteed School District Bonds ($ in billions)

	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019	12/31/2019
Guaranteed Principal Amount Outstanding	$9.460	$10.542	$12.148	$13.397	$14.409	$14.854
Number of participating school districts	179	182	185	181	178	173
Number of guaranteed bond issues outstanding	495	501	500	496	482	472

Source: Office of the State Treasurer

Guaranteed Education Tuition (GET) Program

The Washington Guaranteed Education Tuition Program ("GET Program") is a 529 savings plan that allows Washington residents to prepay 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 aftertax contributions to a GET account grow tax-free and can be withdrawn tax-free when used for eligible higher education expenses. The market value of GET Program assets as of September 30, 2018, as measured by the Washington State Investment Board (WSIB), was $1.2 billion. As of June 30, 2019, GET Program assets totaled $1.456 billion, or 131.3% of estimated program obligations.

In 2018, the State also began offering the DreamAhead College Investment Plan, a 529 college savings plan that is managed and invested separately from assets in the GET Program. The State does not guarantee DreamAhead account investments, and participant account values are based on the performance of financial markets, rather than changes in tuition

9. Refinancings and Borrowing Costs

The Office of the State Treasurer regularly monitors the State's portfolio of debt and other financial obligations for opportunities to lower its borrowing costs through refinancings. All refinancings are executed in accordance with the debt policies of the State Finance Committee, which specify minimum savings thresholds.

Unfortunately, the Federal Tax Cuts and Jobs Act of 2017 resulted in the loss of the State's ability to issue tax-exempt advance refunding bonds ("advance" refunding bonds are refunding bonds issued more than 90 days in advance of the call date of the bonds to be refunded). The loss of advance refundings reduces the State's financial flexibility and severely limits its ability to lock in debt service savings during periods of low interest rates. While flexibility is now constrained, the State continues to monitor its outstanding obligations for opportunities to reduce debt service costs through current refundings (refunding bonds issued within 90 days of the call date of the bonds to be refunded).

2019 Refinancings

During calendar year 2019, low market interest rates and the State's strong ratings enabled the State to refinance millions of dollars of VP GO bonds, transportation-related bonds, 63-20 lease revenue bonds, and lease obligations.

Various Purpose General Obligation Bonds

In September, the State issued $91.7 million dollars of VP GO Refunding Bonds through a negotiated sale. The refunding achieved net present value savings (NPV) of $13.0 million, or 12.8%. This equates to an average NPV savings of $1.9 million for FYs 2020-2026.

Transportation Debt

The State completed two refundings of transportation-related bonds. In September, the State refunded $58.8 million of MVFT GO bonds through a negotiated sale, achieving NPV savings of $7.5 million, or 12.8%. This equates to an average NPV savings of $1.1 million for FYs 2020-2026.

In November, the State executed a refunding of the SR 520 Corridor Program—Toll Revenue triple pledge bonds (Series 2012C) on a forward delivery basis. Settlement of the refunding bonds is scheduled for March 3, 2021, subject to certain conditions being met. Forward delivery bonds have a delivery date that is further out than the typical 14-30 days following the sale date of a standard bond issue. This enables the refunding bonds to be delivered within 90 days of the refunded bond's call date, as required for a current refunding. This refunding (upon settlement subject to certain standard forward-delivery conditions) is expected to achieve NPV savings of $76.4 million, or 16.7%. This equates to more than $5 million of annual cash-flow savings for the SR 520 system from FY 2022 through FY 2041.

63-20 Lease Revenue Bonds

In February, the Office of the State Treasurer led the refunding of the 2009 FYI Properties Lease Revenue Bonds, originally sold to finance the design, construction, and furnishings of the 1500 Jefferson Building and data center in Olympia The sale resulted in $54 million of NPV savings (20.2% of the refunded bonds) or annual savings of approximately $3.6 million through FY 2039.

Financing Contracts

OST regularly monitors outstanding lease-purchase obligations for refunding opportunities on behalf of State agencies and local governments. Refundings are conducted on a lease-by-lease basis and are regularly included in new money COP issuances. In CY 2019, savings of State COPs totaled $9.5 million NPV, or 14.4%, while refundings conducted on behalf of local governments totaled approximately $160,000 of NPV savings, or 12.7%.

Figure 9.1 2019 Refundings Summary (Calendar Year, $ in millions)

	Par Amount of Refunded Bonds	Net Present Value of Savings	Net Present Value of Savings
Various Purpose GO	$101.655	$13.037	12.82%
MVFT GO	$58.770	$7.537	12.82%
SR 520 Triple Pledge	$458.915	$76.387	16.65%
63-20 Lease Revenue	$267.410	$54.067	20.22%
COPs – State	$65.860	$9.453	14.35%

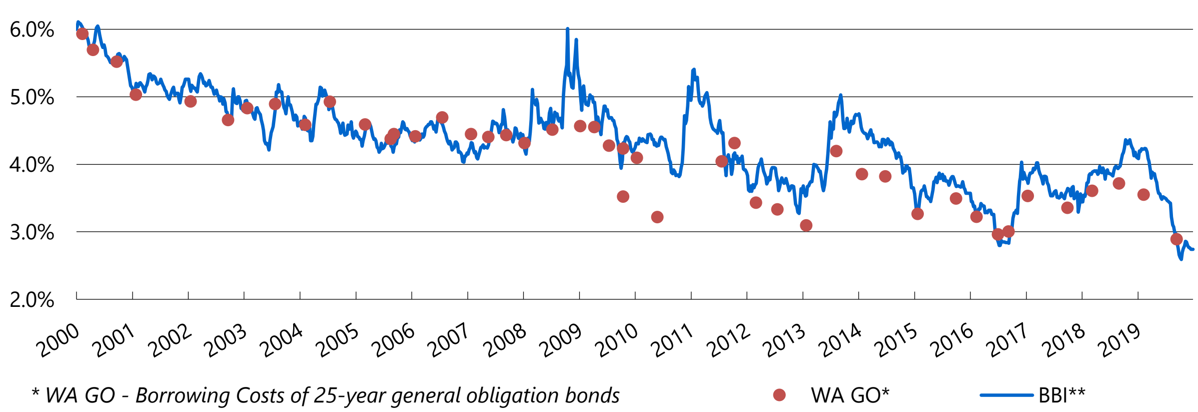
Source: Office of the State Treasurer

BORROWING COSTS

Borrowing costs in 2019 trended downward and reached new historic lows amid uncertainty in global markets and international trade tensions. The September 2019 sale of Various Purpose, MVFT/VRF GO, and taxable GO bonds (series 2020A, 2020B and 2020T, respectively) with a 25-year final maturity and level debt service achieved a combined True Interest Cost (TIC) of 2.88%. The weighted average cost of funds for the entire VP GO bond portfolio is currently 3.06%.

Figure 9.2 compares the State's borrowing costs to the Bond Buyer 20-Bond GO Index (BBI). BBI averages the yield of 20 different 20-year general obligation bonds that have an Aa2 (Moody's) or AA (S&P) average rating.

Figure 9.2. GO Borrowing Costs vs. Bond Buyer 20-Bond Index (BBI), Calendar Year



** WA GO - Borrowing Costs of 25-year general obligation bonds*
*** BBI - Bond Buyer 20-Bond Index of Municipal Yields (20 years)*
Source: Office of the State Treasurer

10. OBLIGATIONS OF OTHER WASHINGTON STATE ENTITIES

Revenue bonds and COPs issued by the State's colleges and universities, conduit issuers and financing authorities, and the Tobacco Settlement Authority are not legal or moral obligations of the State and the debt service on those revenue bonds and obligations is payable solely from the revenues pledged to the repayment of the obligations.

HIGHER EDUCATION REVENUE BONDS

Revenue bonds and COPs can be issued by the State's colleges and universities to finance major campus construction projects. 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 10.1 lists the total revenue bonds outstanding for each university over the past five years.

Figure 10.1. Higher Education Revenue Bonds Outstanding ($ in thousands)

	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019
University of Washington	$1,709,066	$1,992,944	$2,112,330	$2,168,866	$2,207,488
Washington State University	596,825	609,625	585,750	566,345	577,555
Central Washington University	122,781	119,265	115,386	156,966	152,941
Western Washington University	68,638	64,515	60,236	90,972	82,590
Eastern Washington University	50,810	49,125	82,865	80,520	78,105
The Evergreen State College	4,080	3,665	3,340	3,000	2,655
Total	$2,552,200	$2,839,139	$2,959,907	$3,066,669	$3,101,334

Source: Office of Financial Management

CONDUIT ISSUERS AND FINANCING AUTHORITIES

Washington has four conduit financing authorities that can issue non-recourse revenue bonds to make loans to qualified borrowers for capital projects: the Washington Health Care Facilities Authority (WHCFA), the Washington State Housing Finance Commission (WSHFC), the Washington Economic Development Finance Authority (WEDFA), and the Washington Higher Education Facilities Authority (WHEFA). All four financing authorities are financially self-supported and do not receive funding from the State.

Figure 10.2. Conduit Issuer Debt Outstanding ($ in thousands)

	6/30/2015	6/30/2016	6/30/2017	6/30/2018	6/30/2019
WA Health Care Facilities Authority	$5,609,000	$5,682,000	$5,662,000	$5,832,545	$5,583,925
WA State Housing Finance Commission	3,419,567	3,727,679	4,271,164	4,800,559	5,303,034
WA Economic Development Finance Auth.	682,472	678,160	688,432	841,794	694,275
WA Higher Education Facilities Authority	759,833	742,667	630,233	624,856	612,681
Total	$10,470,872	$10,830,506	$11,251,829	$12,099,754	$12,193,915

Source: Office of Financial Management

TOBACCO SETTLEMENT SECURITIZATION

The Tobacco Settlement Authority (TSA) was created to securitize a portion of the State's revenue from the 1998 Tobacco Master Settlement Agreement. 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, 2019, TSA had approximately $152.1 million of outstanding bonds.

11. Recommendations

This section provides a set of policy recommendations based on best practices and peer comparisons, with a goal of protecting the State's strong credit ratings, positioning Washington in the best possible position for the next economic downturn, and moving the State closer to credit rating upgrades with Fitch and S&P.

The recommendations focus on three metrics: 1) debt service as a percentage of revenues, 2) general fund and rainy day fund balance, and 3) the funding status of the State's pension plans. "AAA-rated" states are used as a benchmark for comparison. Striving for the "AAA-rated" state metrics provides meaningful goals, and, more importantly, moving towards these goals can help reduce borrowing costs for the State and local governments, and also better prepare the State for weathering an economic downturn.

Debt Service as a Percent of Revenues

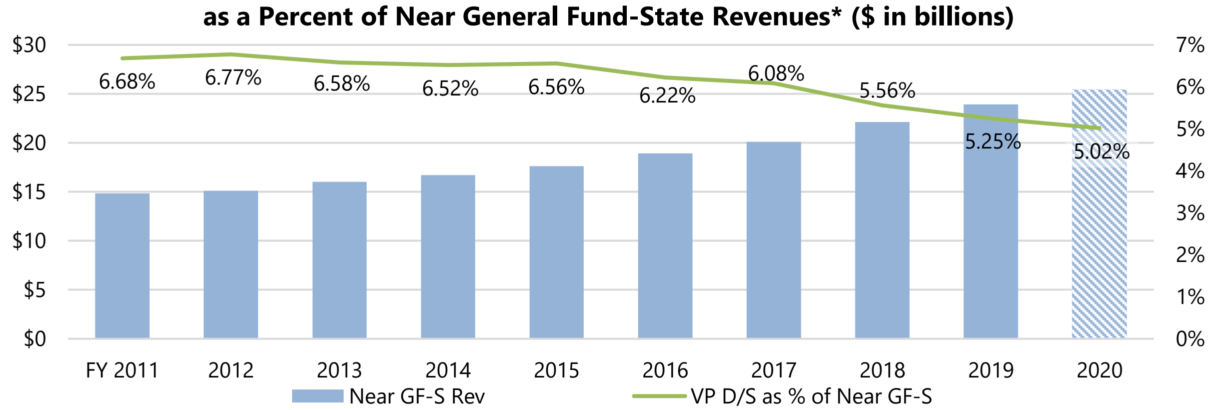
Recommendation 1: Reduce capital budget reliance on debt in order to decrease the ratio of VP GO debt service to Near General Fund-State revenues to 5% or less.

The first metric is debt service as a percent of revenues. As more money is dedicated to repaying principal and interest, fewer resources are available to provide essential services. Economic downturns can exacerbate this problem as revenues decrease.

In comparison to its peers, Washington has a high debt load. Based on a 2019 Moody's report, Washington has the 11th highest level of debt service as a percent of revenues. In this metric, Washington exceeded all Moody's "AAA-rated" states, which averaged 3.5%. The national median was 4.2%.

The State's VP GO debt service as a percent of Near General Fund-State revenues is projected to be 5.02% in FY 2020, down from a high of nearly 7.0% following the Great Recession. Reducing this amount below 5% helps ensure that resources are available for essential services and pay-go funding, especially in the event an economic downturn.

Figure 11.1. Various Purpose GO Debt Service as a Percent of Near General Fund-State Revenues* ($ in billions)



**Near General Fund-State revenues include General Fund-State as well as the Education Legacy Trust Account (ELTA) and Opportunity Pathways Account (OPA) which are used for K-12 and higher education.*
Source: Economic and Revenue Forecast Council; Office of the State Treasurer

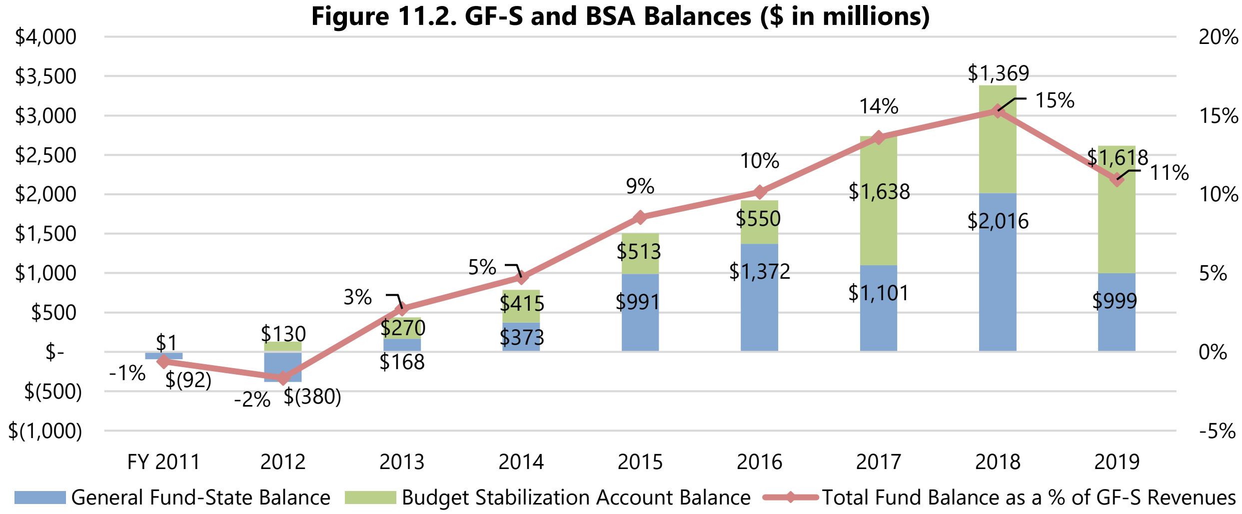
FUND BALANCE

Recommendation 2: Establish a formal policy with targeted amounts for the State's unrestricted GF-S balance, maintain the State's current strong GF-S/Budget Stabilization Account (BSA or Rainy Day Fund) balances, and set a target amount for the BSA of 10% of revenues.

Like many states, Washington maintains a BSA to mitigate declining revenues during an economic downturn. At the end of FY 2019, the State's BSA as a percent of general fund revenues reached 7.2%, just above the national median of 7.1% (Moody's Analytics. *Stress-Testing States 2019*. October 2019). On a combined basis, the State's combined General Fund-State and BSA balances have increased significantly since 2010, reaching a high of 15% of revenues by the end of FY 2018 (Figure 11.2 below). Despite continued revenue growth in FY 2019, the combined fund balance as a percent of General Fund-State revenues decreased to 11%.

In October of 2019, Moody's release a publication that provides an excellent benchmark as to how much the State should maintain in reserves. The publication described a financial stress test that Moody's performed on all 50 states to gauge their ability to withstand a recession without having to raise taxes or cut spending. The analysis estimated the amount of fiscal stress likely to be applied under different scenarios, and compared that to the amount of money set aside in reserves. The analysis showed that Washington was prepared to withstand a moderate recession, which Moody's estimated would result in a 9.6% impact (reduced revenues, plus increased costs) to the State. However, the Moody's report showed that the State was not prepared for a severe recession, which is projected to result in a 15% impact.

Figure 11.2. GF-S and BSA Balances ($ in millions)

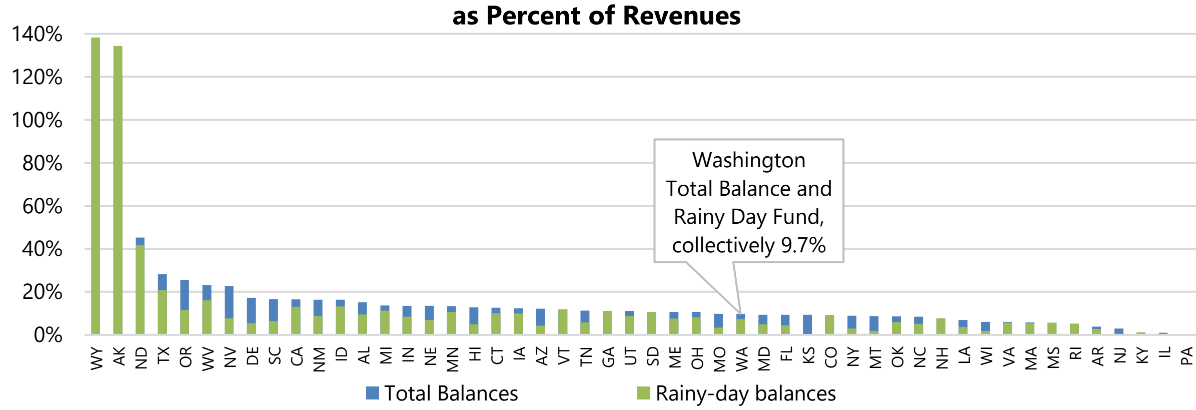


Note: Fund balances at close of fiscal year. GF-S revenue data is provided on a cash basis.
Source: Office of Financial Management, Economic and Revenue Forecast Council

As a second benchmark, the Government Finance Officers Association (GFOA) recommends maintaining adequate fund balance levels to prepare for financial fluctuations and to stabilize tax rates. At a minimum, GFOA recommends maintaining two months' (16.7%) worth of operating revenues (or expenditures) in the unrestricted fund balance. Factors to consider in maintaining a minimum balance are: the predictability of revenues and expenditures, the likelihood of significant one-time outlays, the availability of other funds that draw from the general fund, the impact of the fund balance on credit ratings and future borrowing, and funds restricted to certain expenditures.

When compared to national averages, as calculated by Moody's, Washington's total fund balance (General Fund-State plus Budget Stabilization Account) as a percentage of revenues, as shown in Figure 11.3, is approximately average. Moody's analysis calculated the national combined general fund and rainy-day fund balances as a percent of revenue to be 11.8%, compared to 10.9% for the State as of end of FY 2019. The distribution of Moody's "AAA-rated" states is more varied—ranging from 28.2% and 6.0%—with Washington falling in the bottom one-third of this group.

Figure 11.3. Total Fund Balance and Rainy Day Balance as Percent of Revenues



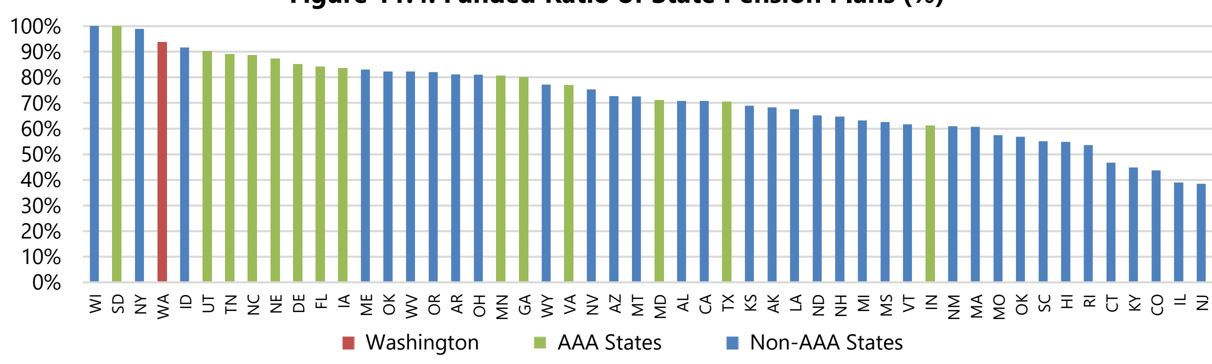
Source: Stress-Testing States 2019. Moody's. October 2019.

State Pension Funding

Recommendation 3: Fully fund the State's annual actuarially determined contributions and use one-time (extraordinary) revenues to further improve pension funding.

Relative to other states, Washington enjoys well-funded pension plans. According to the most recent actuarial report for the year ended June 30, 2018, the total funded status across all plans measured at 89% (up from 86% as of June 30, 2017). S&P published a report in September 2019 comparing all states in pension performance. In this report, Washington ranked 4th for its funded ratio (Figure 11.4). In this regard, the State outperforms many AAA-rated states, which have an average funded ratio of 80.4%.

Figure 11.4. Funded Ratio of State Pension Plans (%)



Source: U.S. State Pension Reforms Partly Mitigate The Effects Of The Next Recession. S&P. September 26, 2019.

Though its pension funding status is higher than most peers, the State's unfunded liability amounts to $11.208 billion dollars. With an assumed annual rate of return of 7.50%, the State's unfunded pension liability is its most expensive obligation. Accordingly, the Office of the State Treasurer recommends that the State fully fund its annual actuarially determined pension contributions and apply one-time (extraordinary) revenues to further improve the pension system's funding status and increase funding status to 100% as quickly as possible.

"Over the past twenty years, Washington's outstanding general obligation debt has increased from $7.3 billion to $19.3 billion. While these financings have funded a variety of important projects, our heavy reliance on bonds has left the State with a high debt burden.

Washington has the 8th highest debt per capita in the country. Every Washingtonian would have to contribute $2,613 to fully repay the State's debt, well over the national average of $1,068. In FY 2020, the State will pay more than $1.275 billion in debt service payments for its various purpose general obligation bonds, or 5.02% of total revenues.

Washington enjoys a robust economy and strong revenue collections. This presents an opportunity to strengthen the State's credit by emphasizing pay-go project financing, protecting our general fund and rainy day fund balances, and improving the funding status of our pension system. Now that the economy is strong, I urge the Legislature to ensure that the 2019-21 budget prepares the State to ride out the next economic downturn."

– Duane A. Davidson, Washington State Treasurer

The following quotations provide examples of how the State's credit is viewed and analyzed by the rating agencies:

> *"Washington's AA+ GP rating and Issuer Default Rating (IDR) reflect the state's solid economy with strong growth prospects, a demonstrated commitment to fiscal balance, and combined long-term liabilities that place a low burden on resources despite an above-average debt load."*
>
> – Fitch Ratings (November 2019)

> *"The Aaa rating on the state's general obligation bonds reflects its sizable financial reserves, the exceptional growth of the state's economy driven largely by the technology sector in the Seattle metro area, and the consequent economic diversification lessening dependence on aircraft manufacturing…. Additional strengths include above-average wealth and income levels, and the state's strong fiscal governance practices."*
>
> – Moody's Investor Services (October 2019)

> *"In general, we consider Washington's approach to financial management strong, as reflected in our Financial Management Assessment (FMA) and budget management scores. Well-established economic and revenue forecasting, and increasingly refined debt management practices and oversight, served the state's credit quality well during the recession and its aftermath."*
>
> – S&P Global Ratings (October 2019)

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