

# 2018 Debt Capacity Report

West Virginia State Treasurer's Office  
John D. Perdue, Treasurer



## EXECUTIVE SUMMARY

All of the data contained in this report is as of June 30, 2017. However, an important event in the history of West Virginia occurred subsequent to that date. On October 7, 2017 the citizens of West Virginia agreed to the largest bond amendment in the state's history. The "Roads to Prosperity Amendment of 2017," authorizes the issuance of up to \$1.6 billion in General Obligation (GO) bonds for the purpose of:

- (1) Matching available federal funds for highway and bridge construction in the state; and
- (2) General highway and secondary road and bridge construction or improvements in each of the fifty-five counties.

Governor Justice called the Legislature into its Third Special Session of 2017 on December 1<sup>st</sup> to consider various items. Among those was proposed legislation and a concurrent resolution to enable to sale of the "Roads to Prosperity Amendment of 2017" bonds. On December 4, 2017, Senate Bill 3001 and Senate Concurrent Resolution 301 were introduced and enacted by the Legislature. That same day Governor Justice signed Enrolled Senate Bill 3001 into law. It is anticipated that the first series of the Roads to Prosperity Bonds will be sold in the spring of 2018. Projections in this Debt Capacity Report exclude estimates of bonds that may be issued in the future, such as the Roads to Prosperity Bonds.

Although the issuance of \$1.6 billion in GO bonds will almost double our outstanding net tax supported debt, the goal of this investment is to capitalize on opportunities:

- Opportunity to spur economic growth with an influx of capital investments.
- Opportunity to replace our "old" GO debt, which is quickly maturing, with new investment in West Virginia.
- Opportunity to retain and create jobs with good pay.
- Opportunity to move West Virginia into the arena where it can compete with the best globally.

Clearly, an additional \$1.6 billion in GO bonds will double our outstanding debt. However, careful consideration has already been given to the revenues tied to servicing this debt. If fiscal prudence is exercised in managing the proceeds and carefully monitoring the state's economy then this investment will pay dividends for many years to come.

One tool that we can use is this Debt Capacity Report. Pursuant to West Virginia Code §12-6A-6 (e), the Treasurer is required to annually submit this Report to examine:

The amount of net tax supported debt outstanding and debt authorized but not issued during the current and next fiscal year and annually for the following ten fiscal years;

Debt service requirements during the current and next fiscal year and annually for the following ten fiscal years based upon existing outstanding debt, previously authorized but unissued debt and projected bond authorizations;

Any information available from the budget office of the department of revenue in connection with projected revenues and anticipated capital expenditures projected for at least the next five fiscal years;

The amount of debt the state and its spending units may prudently issue;

What is needed to keep West Virginia within an average to low range of nationally recognized debt limits;

The debt ratios rating agencies and analysts use; and

The effect of authorizations of new tax supported debt on each of the considerations in this subsection.

One other subsequent factor to consider is that the Tax Cuts and Jobs Act of 2017 eliminated the ability to advance refund municipal bonds after December 31, 2017. This will eliminate many opportunities to reduce the amount of debt the state and its many issuers owe. However, they will still be able to issue current refunding bonds for bonds that are callable.

**Net tax supported debt outstanding** – To assist in analyzing the amount of our debt capacity, we include Table one (page three), which shows the breakdown of the state’s \$1.52 billion in outstanding net tax supported debt as of June 30, 2017. Net tax supported debt outstanding includes:

General Obligation (GO) Bonds;

Lottery Revenue Bonds;

Bonds with debt service that is subject to an annual appropriation from the state’s General Revenue Fund; and

Lease Obligations.

### **DISCLAIMER**

Pursuant to W.Va. Code §12-6A-6, every state spending unit is required to report quarterly on its debt to the West Virginia State Treasurer’s Office. The Treasurer’s Office prepares this Report using information provided by the spending units and information from other sources considered reliable. This report is unaudited and may be amended when updated information is provided to the Treasurer’s Office.

**Table 1 - West Virginia Net Tax Supported Debt Outstanding  
as of June 30, 2017**

| Type of Debt  |                | Principal<br>Outstanding<br>June 30, 2017 |
|---|----------------|---|
| <b>GENERAL OBLIGATION BONDS</b>   |                |   |
| Safe Road Bonds   | \$ 151,160,000 |   |
| Infrastructure Improvement Bonds  | 156,460,960    |   |
| <b>Total General Obligation Bonds</b>   |                | <b>\$ 307,620,960</b>                     |
| <b>REVENUE BONDS</b>  |                |   |
| School Building Authority Capital Improvement Bonds                                   | 72,105,000     |   |
| Economic Development Authority, Lottery Revenue Bonds                                 | 135,940,000    |   |
| Economic Development Authority, Excess Lottery Revenue Bonds                          | 133,415,000    |   |
| Higher Education Policy Commission, Excess Lottery Revenue Bonds                      | 203,650,000    |   |
| Higher Education Policy Commission, Excess Lottery Revenue Bonds (BABs)               | 50,265,000     |   |
| School Building Authority, Lottery Revenue Bonds                                      | 104,930,000    |   |
| School Building Authority, Excess Lottery Revenue Bonds                               | 152,210,000    |   |
| School Building Authority, Excess Lottery Revenue Bonds (QSCBs)                       | 150,480,000    |   |
| West Virginia Infrastructure & Jobs Development Council (Excess Lottery Revenue Bond) | 70,100,000     |   |
| <b>Total Revenue Bonds</b>  |                | <b>1,073,095,000</b>                      |
| <b>TOTAL LEASE OBLIGATIONS</b>  |                | <b>340,488,736</b>                        |
| <b>GROSS TAX SUPPORTED DEBT</b>   |                | <b>1,721,204,696</b>                      |
| <b>DEDUCTIONS FOR ESCROW/SINKING FUND/RESERVE FUNDS</b>                               |                |   |
| Economic Development Authority, Excess Lottery Revenue Bonds                          | (19,782,648)   |   |
| Infrastructure Improvement Bonds, General Obligation Bonds                            | (26,100,000)   |   |
| School Building Authority Capital Improvement Revenue Bonds                           | (23,020,801)   |   |
| School Building Authority, Excess Lottery Revenue Bonds                               | (63,220,000)   |   |
| School Building Authority, Excess Lottery Revenue Bonds (QSCBs)                       | (67,657,682)   |   |
| <b>Total Deductions</b>   |                | <b>(199,781,131)</b>                      |
| <b>NET TAX SUPPORTED DEBT</b>   |                | <b>\$ 1,521,423,565</b>                   |

The debt service (principal and interest payments) on the \$1.52 billion in net tax supported debt represented 4.63% of the state’s General Revenue Fund receipts and 3.66% of specified revenue sources for Fiscal Year 2017. The specified revenue sources include the state road fund, lottery funds and certain dedicated severance taxes (see Appendix B for more information on the revenues included in this calculation). Both of these ratios are below the recommended caps.

Another important factor when determining debt capacity and the health of the state’s debt is amortization – or how rapidly is the state’s debt maturing? With all things remaining constant, the state will see a 6.13% decrease in its net tax supported debt outstanding within the next year. The recommended caps for various debt ratios are as follows:

Table 2 - Recommended Ratio Caps as of June 30, 2017

| Ratio  | Recommended Cap | June 30, 2017 Level | Projected Highest Level (FY18-28) |
|--|-----------------|---------------------|-----------------------------------|
| Net Tax Supported Debt Service as a percentage of the General Revenue Fund | 6.00%           | 4.63%               | 4.56% (June 30, 2018)             |
| Net Tax Supported Debt Service as a percentage of Revenues                 | 5.00%           | 3.66%               | 3.54% (June 30, 2018)             |
| Net Tax Supported Debt as a percentage of Personal Income                  | 3.00%           | 2.21%               | 2.01% (June 30, 2018)             |
| Net Tax Supported Debt Per Capita  | \$1,100         | \$838               | \$787 (June 30, 2018)             |
| Net Tax Supported Debt as a Percentage of Assessed Valuation               | 2.0%            | 1.60%               | 1.51% (June 30, 2018)             |

## Conclusion

The most important indicators of debt capacity include ratios which take into account the state’s revenues and how much of those revenues are dedicated to make payments on the state’s debt burden. With the anticipated issuance of \$1.6 billion in GO debt over the next several years, state leaders must carefully monitor the state’s ratios and be ready to take action, if necessary, to keep the state on the road to prosperity.

# Debt Capacity

The legislative purpose of this report is to perform the following tasks:

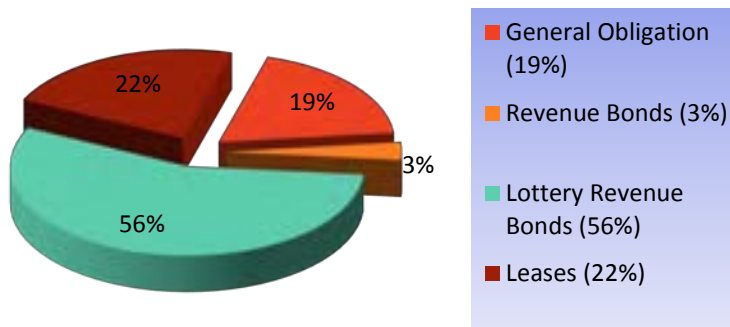
1. determine the amount of net tax supported debt outstanding;
2. calculate key ratios that are commonly used to examine debt; and
3. make recommendations which will attempt to keep the state within an average to low range of national recognized debt limits.

## 1. Determine the amount of net tax supported debt outstanding

The calculation of net tax supported debt is shown in table one, page three. This \$1.52 billion figure includes General Obligation (GO) Bonds, Revenue Bonds of the School Building Authority that are subject to an annual appropriation from the General Revenue Fund, Lottery Revenue Bonds and Lease Obligations of state agencies (including state colleges and universities).

The highest quality bonds that can be issued are GO Bonds because they pledge the full faith and credit of the state and are authorized only by a constitutional amendment. Currently, GO Bonds only constitute approximately 19% of the state’s net tax supported debt outstanding (see chart below). The State of West Virginia has not had a “new money” GO Bond issue in more than 15 years when it issued the final \$110 million authorized by the Safe Roads Amendment of 1996.

**West Virginia Net Tax Supported Debt by Type as of June 30, 2017**



The largest portion of the state’s net tax supported debt consists of bonds which are backed by various pledges of revenue generated from the West Virginia Lottery. Revenues from the West Virginia Lottery are anticipated to decrease approximately \$59 million between fiscal year 2018 to 2019. Projections show the revenues remaining at this level for fiscal year 2020. During the 2014 legislative session, the Legislature approved statutory changes which addressed

adequate debt service coverage ratio limits on the Excess Lottery Fund and provided a cross-collateral mechanism for lottery revenue bonds.

There are also several agencies that had Revenue Bonds outstanding at June 30, 2017 (see table three, page six). These Revenue Bonds are excluded from the calculation of net tax supported debt because they are self-supporting. For example, the bonds issued by the Tobacco Settlement Financing Authority are excluded because the debt service is paid directly from tobacco settlement funds.

Although certain bonds of the West Virginia Water Development Authority and the West Virginia Housing Development Fund are considered moral obligations of the state, they are currently self-supporting and are also excluded from the calculation of net tax supported debt.

| <b>Table 3 – Various Revenue Bonds Outstanding<br/>June 30, 2017</b> |                       |
|--|-----------------------|
| Entity   | Principal Outstanding |
| Economic Development Authority                                       | \$1.7 billion         |
| Hospital Finance Authority   | \$2.0 billion         |
| Commissioner of Highways   | \$53.4 million        |
| Concord University   | \$16.1 million        |
| Fairmont State University  | \$75.1 million        |
| Glenville State College  | \$33.1 million        |
| Higher Education Policy Commission                                   | \$69.3 million        |
| Housing Development Fund   | \$344.7 million       |
| Infrastructure & Jobs Development Council                            | \$98.8 million        |
| Marshall University  | \$79.5 million        |
| Mountwest Community and Technical College                            | \$1.9 million         |
| Parkway Authority  | \$20.1 million        |
| *Regional Jail & Correctional Facilities Authority                   | \$38.0 million        |
| Shepherd University  | \$39.8 million        |
| Tobacco Settlement Financing Authority                               | \$795.9 million       |
| Water Development Authority  | \$179.8 million       |
| West Liberty University  | \$15.7 million        |
| West Virginia State University                                       | \$12.6 million        |
| West Virginia University   | \$591.2 million       |

\* - does not include lease-backed bonds issued by the Economic Development Authority. The lease-backed bonds are included in net tax supported debt as lease obligations.

Calculations of the net tax supported debt and debt service of the State of West Virginia for fiscal years 2012 through 2028 are contained in tables four and five (pages 8 – 11). Fiscal years 2012 through 2016 are included to show the historical perspective of the actual debt issued and the debt service requirements for those obligations. The most recent and next ten fiscal years, 2017 through 2028, are included to show expected debt levels as existing obligations mature.

Revenue information included in tables four and five was compiled and provided by the West Virginia Department of Revenue and is included in Appendix B. The projected values of personal income were obtained from IHS Markit (“WV Annual Long- Term Forecast” November 2017).

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**Table 4. NET TAX SUPPORTED DEBT OUTSTANDING FOR FISCAL YEARS 2012 - 2028**

|  | 6/30/2012<br>FY12    | 6/30/2013<br>FY13    | 6/30/2014<br>FY14    | 6/30/2015<br>FY15    | 6/30/2016<br>FY16    | 6/30/2017<br>FY17    |
|--|----------------------|----------------------|----------------------|----------------------|----------------------|----------------------|
| <b>General Obligation</b>  |                      |                      |                      |                      |                      |                      |
| Safe Roads of 1996   | 270,595,000          | 245,365,000          | 220,525,000          | 168,845,000          | 166,385,000          | 151,160,000          |
| (1) Infrastructure of 1994   | <u>198,082,386</u>   | <u>186,474,763</u>   | <u>174,735,525</u>   | <u>158,633,538</u>   | <u>146,294,132</u>   | <u>130,360,960</u>   |
| Total General Obligation   | 468,677,386          | 431,839,763          | 395,260,525          | 327,478,538          | 312,679,132          | 281,520,960          |
| <b>Moral Obligations</b>   |                      |                      |                      |                      |                      |                      |
| Economic Development Authority - Excess Lottery                                | 181,920,000          | 173,070,000          | 163,830,000          | 154,170,000          | 144,065,000          | 133,415,000          |
| Economic Development Authority - Lottery                                       | 151,020,000          | 148,250,000          | 145,370,000          | 142,360,000          | 139,230,000          | 135,940,000          |
| (5) Higher Education Policy Commission - Excess Lottery                        | 244,170,000          | 235,375,000          | 227,675,000          | 219,640,000          | 211,255,000          | 203,650,000          |
| Higher Education Policy Commission - Excess Lottery (BABs)                     | 50,265,000           | 50,265,000           | 50,265,000           | 50,265,000           | 50,265,000           | 50,265,000           |
| (2) School Building Authority - Appropriation                                  | 158,160,000          | 142,535,000          | 126,190,000          | 109,075,000          | 91,040,000           | 72,105,000           |
| (2) School Building Authority - Lottery  | 59,500,000           | 67,360,000           | 76,055,000           | 72,010,000           | 89,100,000           | 104,930,000          |
| (3) School Building Authority - Excess Lottery                                 | 112,420,000          | 108,060,000          | 103,520,000          | 98,780,000           | 94,250,000           | 88,990,000           |
| School Building Authority - Excess Lottery (QSCBs)                             | 150,480,000          | 150,480,000          | 150,480,000          | 150,480,000          | 150,480,000          | 150,480,000          |
| West Virginia Infrastructure & Jobs Development Council - Excess Lottery       | -                    | -                    | -                    | 75,790,000           | 72,475,000           | 70,100,000           |
| Total Moral Obligations  | 1,107,935,000        | 1,075,395,000        | 1,043,385,000        | 1,072,570,000        | 1,042,160,000        | 1,009,875,000        |
| <b>Leases</b>  |                      |                      |                      |                      |                      |                      |
| (4) Leases   | <u>346,986,152</u>   | <u>322,874,298</u>   | <u>302,462,341</u>   | <u>316,784,254</u>   | <u>353,187,239</u>   | <u>340,488,736</u>   |
| Total Leases   | 346,986,152          | 322,874,298          | 302,462,341          | 316,784,254          | 353,187,239          | 340,488,736          |
| <b>Deductions for debt service reserve accounts</b>                            |                      |                      |                      |                      |                      |                      |
| Economic Development Authority - Excess Lottery                                | (23,501,000)         | (24,077,819)         | (24,941,484)         | (25,160,499)         | (25,192,359)         | (19,782,648)         |
| School Building Authority  | (23,020,801)         | (23,020,801)         | (23,020,801)         | (23,020,801)         | (23,020,801)         | (23,020,801)         |
| School Building Authority - Lottery  | (14,180,000)         | (14,180,000)         | -                    | -                    | -                    | -                    |
| School Building Authority - Excess Lottery (QSCBs) - debt service sinking fund | (21,682,952)         | (30,877,898)         | (40,072,844)         | (49,267,790)         | (58,462,736)         | (67,657,682)         |
| <b>Net Tax Supported Debt Outstanding</b>                                      | <u>1,841,213,785</u> | <u>1,737,952,543</u> | <u>1,653,072,737</u> | <u>1,619,383,702</u> | <u>1,601,350,475</u> | <u>1,521,423,565</u> |
| Assessed value (in thousands)  | 81,895,714           | 86,578,234           | 88,238,953           | 92,273,972           | 95,155,186           | 94,964,876           |
| Net tax supported debt as a percentage of assessed value                       | 2.25%                | 2.01%                | 1.87%                | 1.75%                | 1.68%                | 1.60%                |
| Income (in thousands)  | 64,623,761           | 64,207,088           | 66,047,210           | 67,273,774           | 67,061,987           | 68,704,332           |
| Net tax supported debt as a percentage of personal income                      | 2.85%                | 2.71%                | 2.50%                | 2.41%                | 2.39%                | 2.21%                |
| Population   | 1,856,313            | 1,853,595            | 1,850,326            | 1,844,128            | 1,831,102            | 1,815,857            |
| Net tax supported debt per capita  | 991.87               | 937.61               | 893.40               | 878.13               | 874.53               | 837.85               |

Income and Assessed value information and projections provided by the West Virginia Department of Revenue  
Population information obtained from the U.S. Census Bureau

- (1) - Cash basis and net of escrowed bonds
- (2) - Reported as paid from the School Building Authority to the Trustee
- (3) - FY17 & FY18 are reported as "net" outstanding due to an advance refunding.
- (4) - Compiled by the Division of Debt Management. Does not match the State's CAFR due to differences in materiality levels
- (5) - The Higher Education Excess Lottery Revenue Bonds, Series 2004B were incorrectly reported in the 2014 Annual Debt Position Report. The FY2014 amount outstanding has been properly updated.

| 6/30/2018<br>FY18 | 6/30/2019<br>FY19 | 6/30/2020<br>FY20 | 6/30/2021<br>FY21 | 6/30/2022<br>FY22 | 6/30/2023<br>FY23 | 6/30/2024<br>FY24 | 6/30/2025<br>FY25 | 6/30/2026<br>FY26 | 6/30/2027<br>FY27 | 6/30/2028<br>FY28 |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 135,175,000       | 118,390,000       | 100,830,000       | 82,460,000        | 63,240,000        | 43,130,000        | 22,090,000        | -                 | -                 | -                 | -                 |
| 119,905,144       | 108,002,634       | 95,487,884        | 82,771,968        | 69,768,844        | 56,374,103        | 42,812,275        | 28,892,329        | 14,573,054        | -                 | -                 |
| 255,080,144       | 226,392,634       | 196,317,884       | 165,231,968       | 133,008,844       | 99,504,103        | 64,902,275        | 28,892,329        | 14,573,054        | -                 | -                 |
| 122,195,000       | 110,370,000       | 97,910,000        | 84,780,000        | 70,940,000        | 56,260,000        | 40,690,000        | 24,170,000        | 6,650,000         | -                 | -                 |
| 132,555,000       | 129,000,000       | 125,290,000       | 121,430,000       | 117,375,000       | 113,120,000       | 108,675,000       | 104,005,000       | 99,115,000        | 94,030,000        | 88,690,000        |
| 195,675,000       | 187,310,000       | 178,550,000       | 169,390,000       | 159,780,000       | 149,720,000       | 139,175,000       | 128,120,000       | 116,540,000       | 106,890,000       | 96,760,000        |
| 50,265,000        | 50,265,000        | 50,265,000        | 50,265,000        | 50,265,000        | 50,265,000        | 50,265,000        | 50,265,000        | 50,265,000        | 47,755,000        | 45,120,000        |
| 52,220,000        | 31,370,000        | 9,465,000         | 1,910,000         | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| 98,295,000        | 91,365,000        | 84,155,000        | 76,595,000        | 68,685,000        | 60,390,000        | 51,665,000        | 42,530,000        | 32,980,000        | 23,010,000        | 15,150,000        |
| 83,490,000        | 77,760,000        | 71,800,000        | 65,550,000        | 59,005,000        | 52,135,000        | 44,925,000        | 37,365,000        | 29,435,000        | 18,700,000        | 7,430,000         |
| 150,480,000       | 150,480,000       | 150,480,000       | 150,480,000       | 150,480,000       | 150,480,000       | 120,480,000       | 120,480,000       | 72,280,000        | -                 | -                 |
| 67,610,000        | 64,995,000        | 62,245,000        | 59,360,000        | 56,330,000        | 53,150,000        | 49,810,000        | 46,305,000        | 42,625,000        | 38,760,000        | 34,700,000        |
| 952,785,000       | 892,915,000       | 830,160,000       | 779,760,000       | 732,860,000       | 685,520,000       | 605,685,000       | 553,240,000       | 449,890,000       | 329,145,000       | 287,850,000       |
| 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       |
| 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       | 340,000,000       |
| (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      | (19,782,648)      |
| (23,020,801)      | (23,020,801)      | (9,465,000)       | (1,910,000)       | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| (76,852,628)      | (86,047,574)      | (95,242,520)      | (104,437,466)     | (113,632,412)     | (122,827,358)     | (101,822,304)     | (109,017,250)     | (68,012,196)      | -                 | -                 |
| 1,428,209,067     | 1,330,456,611     | 1,241,987,716     | 1,158,861,854     | 1,072,453,784     | 982,414,097       | 888,982,323       | 793,332,431       | 716,668,210       | 649,362,352       | 608,067,352       |
| 94,774,946        | 97,144,320        | 99,572,928        | 102,062,251       | 104,613,807       | 107,229,152       | 109,909,881       | 112,657,628       | 115,474,069       | 118,360,920       | 121,319,943       |
| 1.51%             | 1.37%             | 1.25%             | 1.14%             | 1.03%             | 0.92%             | 0.81%             | 0.70%             | 0.62%             | 0.55%             | 0.50%             |
| 71,004,087        | 73,954,771        | 77,161,142        | 80,332,692        | 83,470,444        | 86,551,824        | 89,693,688        | 92,859,872        | 96,093,043        | 99,451,063        | 102,963,021       |
| 2.01%             | 1.80%             | 1.61%             | 1.44%             | 1.28%             | 1.14%             | 0.99%             | 0.85%             | 0.75%             | 0.65%             | 0.59%             |
| 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         | 1,815,857         |
| 786.52            | 732.69            | 683.97            | 638.19            | 590.60            | 541.02            | 489.57            | 436.89            | 394.67            | 357.61            | 334.87            |

**Table 5. NET TAX SUPPORTED DEBT SERVICE FOR FISCAL YEARS 2012 - 2028**

|  | 6/30/2012<br>FY12  | 6/30/2013<br>FY13  | 6/30/2014<br>FY14  | 6/30/2015<br>FY15  | 6/30/2016<br>FY16  | 6/30/2017<br>FY17  |
|--|--------------------|--------------------|--------------------|--------------------|--------------------|--------------------|
| <b>General Obligation Debt Service</b>                                   |                    |                    |                    |                    |                    |                    |
| Safe Roads of 1996   | 49,779,756         | 38,402,531         | 36,756,900         | 6,040,150          | 11,163,738         | 23,192,900         |
| Infrastructure of 1994   | <u>22,730,117</u>  | <u>22,755,699</u>  | <u>22,769,275</u>  | <u>21,616,903</u>  | <u>22,068,153</u>  | <u>21,656,353</u>  |
| Total General Obligation Debt Service                                    | 72,509,873         | 61,158,230         | 59,526,175         | 27,657,053         | 33,231,891         | 44,849,253         |
| <b>Moral Obligation Debt Service</b>                                     |                    |                    |                    |                    |                    |                    |
| Economic Development Authority - Excess Lottery                          | 18,811,894         | 18,794,224         | 18,778,390         | 18,764,110         | 18,714,645         | 18,702,373         |
| Economic Development Authority - Lottery                                 | 9,995,363          | 9,999,813          | 9,999,013          | 9,995,513          | 9,995,113          | 9,998,613          |
| #Higher Education Policy Commission - Excess Lottery                     | 18,678,994         | 19,238,324         | 19,012,939         | 18,784,515         | 18,652,971         | 17,466,532         |
| Higher Education Policy Commission - Excess Lottery (BABs)               | 3,823,673          | 3,823,673          | 3,823,673          | 3,823,673          | 3,823,673          | 3,823,673          |
| School Building Authority - Appropriation                                | 23,298,475         | 23,308,645         | 23,308,582         | 23,312,770         | 23,423,270         | 23,421,520         |
| School Building Authority - Lottery                                      | 17,999,416         | 17,996,910         | 17,995,460         | 7,513,455          | 7,906,094          | 9,549,613          |
| School Building Authority - Excess Lottery                               | 9,799,781          | 9,797,631          | 9,797,581          | 9,798,831          | 8,508,661          | 9,797,513          |
| School Building Authority - Excess Lottery (QSCBs)                       | 9,194,946          | 9,194,946          | 9,194,946          | 9,194,946          | 9,194,946          | 9,194,946          |
| State Building Commission - Lottery                                      | -                  | -                  | -                  | -                  | -                  | -                  |
| West Virginia Infrastructure & Jobs Development Council - Excess Lottery | -                  | -                  | -                  | 789,479            | 7,021,625          | 5,939,375          |
| Total Moral Obligation Debt Service                                      | 111,602,542        | 112,154,166        | 111,910,584        | 101,977,291        | 107,240,997        | 107,894,158        |
| <b>Lease Debt Service</b>  |                    |                    |                    |                    |                    |                    |
| Leases   | <u>47,049,081</u>  | <u>45,368,773</u>  | <u>43,169,782</u>  | <u>38,905,103</u>  | <u>41,109,711</u>  | <u>40,000,000</u>  |
| Total Lease debt service   | 47,049,081         | 45,368,773         | 43,169,782         | 38,905,103         | 41,109,711         | 40,000,000         |
| <b>Net Tax Supported Debt Service</b>                                    |                    |                    |                    |                    |                    |                    |
|  | <u>231,161,496</u> | <u>218,681,169</u> | <u>214,606,540</u> | <u>168,539,448</u> | <u>181,582,599</u> | <u>192,743,410</u> |
| General revenue fund (expressed in thousands)                            | 4,103,305          | 4,059,121          | 4,106,106          | 4,193,310          | 4,102,679          | 4,166,510          |
| Debt service as a percentage of general revenue fund                     | 5.63%              | 5.39%              | 5.23%              | 4.02%              | 4.43%              | 4.63%              |
| Revenue (expressed in thousands and as defined in the rule)              | 5,285,853          | 5,150,746          | 5,201,032          | 5,364,708          | 5,220,305          | 5,266,423          |
| Debt as a percentage of revenue (as defined in the rule)                 | 4.37%              | 4.25%              | 4.13%              | 3.14%              | 3.48%              | 3.66%              |

Revenue information provided by the West Virginia Department of Revenue (see Appendix B).

# - FY14 debt service does NOT include bonds that had been advance refunded and were called on April 1, 2014

| 6/30/2018<br>FY18 | 6/30/2019<br>FY19 | 6/30/2020<br>FY20 | 6/30/2021<br>FY21 | 6/30/2022<br>FY22 | 6/30/2023<br>FY23 | 6/30/2024<br>FY24 | 6/30/2025<br>FY25 | 6/30/2026<br>FY26 | 6/30/2027<br>FY27 | 6/30/2027<br>FY28 |
|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|-------------------|
| 23,191,650        | 23,192,400        | 23,193,000        | 23,192,450        | 23,194,100        | 23,196,100        | 23,196,500        | 23,194,500        | -                 | -                 | -                 |
| 19,377,313        | 20,556,969        | 21,947,475        | 21,935,925        | 21,954,900        | 21,937,975        | 22,201,950        | 22,210,175        | 22,201,375        | 22,201,000        | -                 |
| 42,568,963        | 43,749,369        | 45,140,475        | 45,128,375        | 45,149,000        | 45,134,075        | 45,398,450        | 45,404,675        | 22,201,375        | 22,201,000        | -                 |
| 18,685,164        | 18,671,405        | 18,654,353        | 18,632,974        | 18,566,102        | 18,540,520        | 18,512,433        | 18,488,501        | 18,455,387        | 6,851,828         | -                 |
| 9,994,913         | 9,995,663         | 9,996,113         | 9,997,713         | 9,999,713         | 9,996,963         | 9,996,213         | 9,998,963         | 9,997,213         | 9,996,613         | 9,997,363         |
| 17,462,430        | 17,457,184        | 17,465,771        | 17,456,396        | 17,461,509        | 17,452,153        | 17,454,240        | 17,457,020        | 17,438,658        | 14,925,995        | 14,919,333        |
| 3,823,673         | 3,823,673         | 3,823,673         | 3,823,673         | 3,823,673         | 3,823,673         | 3,823,673         | 3,823,673         | 3,823,673         | 6,333,673         | 6,271,678         |
| 23,424,770        | 23,420,520        | 23,433,020        | 7,987,770         | 1,990,220         | -                 | -                 | -                 | -                 | -                 | -                 |
| 11,585,563        | 11,587,513        | 11,585,813        | 11,591,163        | 11,586,363        | 11,575,863        | 11,591,113        | 11,582,300        | 11,587,550        | 11,575,425        | 9,010,500         |
| 9,799,888         | 9,793,800         | 9,797,850         | 9,799,075         | 9,792,000         | 9,796,900         | 9,800,850         | 9,798,150         | 9,798,250         | 12,206,750        | 12,205,000        |
| 9,194,946         | 9,194,946         | 9,194,946         | 9,194,946         | 9,194,946         | 9,194,946         | 8,994,946         | 7,194,946         | 7,194,946         | 4,267,804         | -                 |
| -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 | -                 |
| 5,932,750         | 5,930,125         | 5,931,000         | 5,925,125         | 5,922,250         | 5,917,000         | 5,914,000         | 5,907,875         | 5,903,250         | 5,899,625         | 5,896,500         |
| 109,904,096       | 109,874,829       | 109,882,539       | 94,408,835        | 88,336,776        | 86,298,018        | 86,087,468        | 84,251,427        | 84,198,926        | 72,057,711        | 58,300,374        |
| 40,000,000        | 37,000,000        | 34,000,000        | 34,000,000        | 33,000,000        | 32,000,000        | 32,000,000        | 32,000,000        | 32,000,000        | 32,000,000        | 32,000,000        |
| 40,000,000        | 37,000,000        | 34,000,000        | 34,000,000        | 33,000,000        | 32,000,000        | 32,000,000        | 32,000,000        | 32,000,000        | 32,000,000        | 32,000,000        |
| 192,473,059       | 190,624,198       | 189,023,014       | 173,537,210       | 166,485,776       | 163,432,093       | 163,485,918       | 161,656,102       | 138,400,301       | 126,258,711       | 90,300,374        |
| 4,225,050         | 4,356,170         | 4,561,880         | 4,743,680         | 4,883,980         | 5,062,680         | 5,189,247         | 5,318,978         | 5,451,953         | 5,588,251         | 5,727,958         |
| 4.56%             | 4.38%             | 4.14%             | 3.66%             | 3.41%             | 3.23%             | 3.15%             | 3.04%             | 2.54%             | 2.26%             | 1.58%             |
| 5,432,750         | 5,514,329         | 5,726,129         | 5,935,218         | 6,063,837         | 6,233,730         | 6,363,245         | 6,492,985         | 6,625,951         | 6,762,249         | 6,879,755         |
| 3.54%             | 3.46%             | 3.30%             | 2.92%             | 2.75%             | 2.62%             | 2.57%             | 2.49%             | 2.09%             | 1.87%             | 1.31%             |

## General Obligation Bonds

### Safe Roads Amendment of 1996

As of June 30, 2017

Principal outstanding: \$151,160,000

No remaining authorization for “new money” debt

- FY 2018
  - Principal due: \$15,985,000
  - Interest due: \$7,206,650
  - Principal Outstanding: \$135,175,000
- FY 2019
  - Principal due: \$16,785,000
  - Interest due: \$6,407,400
  - Principal Outstanding: \$118,390,000
- FY 2020
  - Principal due: \$17,560,000
  - Interest due: \$5,633,000
  - Principal Outstanding: \$100,830,000
- FY2021
  - Principal due: \$18,370,000
  - Interest due: \$4,822,450
  - Principal Outstanding: \$82,460,000
- FY 2022
  - Principal due: \$19,220,000
  - Interest due: \$3,974,100
  - Principal Outstanding: \$63,240,000
- FY 2023
  - Principal due: \$20,110,000
  - Interest due: \$3,086,100
  - Principal Outstanding: \$43,130,000
- FY 2024
  - Principal due: \$21,040,000
  - Interest due: \$2,156,500
  - Principal Outstanding: \$22,090,000
- FY 2025
  - Principal due: \$22,090,000
  - Interest due: \$1,104,500
  - Principal Outstanding: \$0

## Components of net tax supported debt as of June 30, 2017 General Obligation Bonds

**Safe Road Amendment of 1996** – This amendment authorized bonds to be issued in an amount not to exceed \$550 million. All of the bonds will be completely retired by June 1, 2025.

The Safe Road Bonds are paid from the state’s road fund. The following table shows the debt service burden on the road fund which peaked during fiscal year 2012. The debt service burden is expected to continually drop from 2.90% in fiscal year 2019 through maturity in fiscal year 2025.

**Table 6 – Debt Service Burden, State Road Fund as of June 30, 2017**

| Fiscal Year | Debt Service | Road Fund Revenue | Debt Service as % of |
|-------------|--------------|-------------------|----------------------|
|             |              |                   | Road Fund            |
| 2012        | 49,779,756   | 665,602,000       | 7.48%                |
| 2013        | 38,402,531   | 688,327,000       | 5.58%                |
| 2014        | 36,756,900   | 734,717,000       | 5.00%                |
| 2015 *      | 6,040,150    | 742,998,000       | 0.81%                |
| 2016 *      | 11,163,738   | 691,481,000       | 1.61%                |
| 2017        | 23,192,900   | 691,645,000       | 3.35%                |
| 2018        | 23,191,650   | 792,205,000       | 2.93%                |
| 2019        | 23,192,400   | 800,805,000       | 2.90%                |
| 2020        | 23,193,000   | 805,505,000       | 2.88%                |
| 2021        | 23,192,450   | 807,805,000       | 2.87%                |
| 2022        | 23,194,100   | 810,105,000       | 2.86%                |
| 2023        | 23,196,100   | 812,315,000       | 2.86%                |
| 2024        | 23,196,500   | 815,000,000       | 2.85%                |
| 2025        | 23,194,500   | 815,000,000       | 2.85%                |

\*Does not include amounts paid through refunding.

## General Obligation Bonds

Infrastructure Improvement Amendment of 1994  
As of June 30, 2017

Principal outstanding: \$130,360,960  
No remaining authorization for "new money" debt

- FY 2018
  - Principal due: \$10,455,816
  - Interest due: \$8,921,497
  - Principal Outstanding: \$119,905,144
- FY 2019
  - Principal due: \$11,902,510
  - Interest due: \$8,654,459
  - Principal Outstanding: \$108,002,634
- FY 2020
  - Principal due: \$12,514,750
  - Interest due: \$9,432,725
  - Principal Outstanding: \$95,487,884
- FY2021
  - Principal due: \$12,715,916
  - Interest due: \$9,220,009
  - Principal Outstanding: \$82,771,968
- FY 2022
  - Principal due: \$13,003,124
  - Interest due: \$8,951,777
  - Principal Outstanding: \$69,768,844
- FY 2023
  - Principal due: \$13,394,741
  - Interest due: \$8,543,234
  - Principal Outstanding: \$56,374,103
- FY 2024
  - Principal due: \$13,561,828
  - Interest due: \$8,639,397
  - Principal Outstanding: \$42,812,275
- FY 2025
  - Principal due: \$13,919,946
  - Interest due: \$8,290,229
  - Principal Outstanding: \$28,892,329
- FY 2026
  - Principal due: \$14,319,275
  - Interest due: \$7,882,100
  - Principal Outstanding: \$14,573,054
- FY 2027
  - Principal due: \$14,573,054
  - Interest due: \$7,627,946
  - Principal Outstanding: \$0

## General Obligation Bonds Continued

**Infrastructure Improvement Amendment of 1994** – This amendment authorized bonds to be issued in an amount not to exceed \$300 million for water supply and sewage treatment systems and economic development sites. The bonds are secured by the first collections of severance taxes. Beginning in April 2016, the annual dedication of collections will be based on an amortization schedule published by the State Treasurer, not to exceed \$22.25 million per year. All of the bonds issued will be retired by November 1, 2026. Table seven (below) shows the debt service on all Infrastructure GO Bonds and the appropriation of dedicated severance tax collections as of June 30, 2017-

**Table 7 – Debt Service Infrastructure GO Bonds as of June 30, 2017**

| Fiscal Year | Debt Service | Annual Appropriation |
|-------------|--------------|----------------------|
| 2016        | 22,068,153   | 22,500,000           |
| 2017        | 21,656,353   | 21,656,000           |
| 2018        | 19,377,313   | 19,377,000           |
| 2019        | 20,556,969   | 20,557,000           |
| 2020        | 21,947,475   | 21,947,000           |
| 2021        | 21,935,925   | 21,936,000           |
| 2022        | 21,954,900   | 22,955,000           |
| 2023        | 21,937,975   | 21,938,000           |
| 2024        | 22,201,225   | 22,201,000           |
| 2025        | 22,210,175   | 22,210,000           |
| 2026        | 22,201,375   | 22,201,000           |
| 2027        | 22,201,000   | 22,201,000           |

**Authorized but unissued** - Vietnam Veterans Bonus Amendment of 1973, Veterans Bonus Amendment of 1992 and Veterans Bonus Amendment of 2004 – These amendments authorized the sale of bonds of not more than \$40 million, \$4 million and \$8 million, respectively, for the purpose of paying a bonus to the veterans serving in foreign conflicts. General Revenue funds were used to pay all of these bonuses and no bonds were issued.

**Qualified Veterans Housing Bonds Amendment of 1984** – This amendment authorized the sale of bonds to provide financing for owner-occupied residences for persons determined by the Legislature to be qualified veterans. The amount of bonds that may be issued is limited to bonds in which the annual principal and interest do not exceed a total of \$35 million in any fiscal year.

## Components of net tax supported debt as of June 30, 2017

### Revenue Bonds

**Bonds subject to an annual appropriation from the General Revenue Fund (School Building Authority)** – There is currently one outstanding issue which utilizes this funding source for repayment; it is a refunding. All of the bonds in this issuance will mature by July 1, 2022. The debt service is paid through an annual appropriation from the West Virginia Legislature. Debt service and debt outstanding information is included on table five, page 10.

### Revenue Bonds

Bonds subject to an annual appropriation from the General Revenue Fund (School Building Authority)

As of June 30, 2017

Principal outstanding: \$72,105,000

No remaining authorization for “new money” debt

- FY 2017
  - Principal due: \$18,935,000
  - Interest due: \$4,486,520
  - Principal Outstanding: \$72,105,000
- FY 2018
  - Principal due: \$19,885,000
  - Interest due: \$3,539,770
  - Principal Outstanding: \$52,220,000
- FY 2019
  - Principal due: \$20,850,000
  - Interest due: \$2,570,520
  - Principal Outstanding: \$31,370,000
- FY 2020
  - Principal due: \$21,905,000
  - Interest due: \$1,528,000
  - Principal Outstanding: \$9,465,000
- FY2021
  - Principal due: \$7,555,000
  - Interest due: \$432,770
  - Principal Outstanding: \$1,910,000
- FY 2022
  - Principal due: \$1,910,000
  - Interest due: \$80,220
  - Principal Outstanding: \$0

## Revenue Bonds Continued

**Lottery Revenue Bonds** – Revenue Bonds backed by certain funds of the West Virginia Lottery have been issued for various reasons, such as economic development grants and “brick & mortar” projects at various primary and secondary schools and at various colleges and universities. Lottery Revenue Bonds account for more than half of the state’s net tax supported debt outstanding. The following table shows the debt service burden that Lottery Revenue Bonds place on lottery funds (lottery fund numbers provided by the Department of Revenue and are net of transfers to the state’s General Revenue Fund).

Table 8 - Debt Service Burden, Lottery Fund as of June 30, 2017

| Fiscal Year | Debt Service | Lottery Fund Revenue | Debt Service as % of |
|-------------|--------------|----------------------|----------------------|
|             |              |                      | Lottery Fund         |
| 2012        | 88,304,067   | 492,946,000          | 17.91%               |
| 2013        | 88,845,520   | 380,298,000          | 23.36%               |
| 2014        | 88,602,001   | 337,209,000          | 26.28%               |
| 2015        | 78,664,521   | 405,400,000          | 19.40%               |
| 2016        | 83,817,727   | 403,645,000          | 20.77%               |
| 2017        | 84,472,638   | 386,612,000          | 21.85%               |
| 2018        | 86,479,326   | 396,118,000          | 21.83%               |
| 2019        | 86,454,309   | 336,797,000          | 25.67%               |
| 2020        | 86,449,519   | 336,797,000          | 25.67%               |
| 2021        | 86,421,065   | 361,797,000          | 23.89%               |
| 2022        | 86,346,556   | 336,797,000          | 25.64%               |
| 2023        | 86,298,018   | 336,797,000          | 25.62%               |
| 2024        | 86,087,468   | 336,797,000          | 25.56%               |
| 2025        | 84,251,427   | 336,797,000          | 25.02%               |
| 2026        | 84,198,926   | 336,797,000          | 25.00%               |
| 2027        | 72,057,711   | 336,797,000          | 21.39%               |
| 2028        | 58,300,374   | 336,797,000          | 17.31%               |

### Revenue Bonds

The remaining authorization for all bonds is dependent upon legislation and available revenues

#### Lottery and Excess Lottery Revenue Bonds – Economic Development Authority

Principal outstanding (net):  
\$249,572,352

#### Lottery and Excess Lottery Revenue Bonds – Higher Education Policy Commission

Principal outstanding (net):  
\$253,915,000

#### Lottery and Excess Lottery Revenue Bonds – School Building Authority

Principal outstanding (net):  
\$276,742,318

#### Excess Lottery Revenue Bonds – West Virginia Infrastructure & Jobs Development Council

Principal outstanding (net):  
\$70,100,000



## ***Lease Obligations***

### *Various Lease and Note Payable Obligations*

Principal outstanding: \$340,488,736

Remaining authorization is dependent upon legislation and available revenues

### *Top 10 Agencies with Leases Outstanding (dollar value outstanding) as of June 30, 2017*

1. Secretary of Administration: \$132.8 million
2. State Building Commission: \$90.0 million
3. Shepherd University: \$22.8 million
4. Department of Environmental Protection: \$17.5 million
5. Department of Health & Human Resources: \$15.2 million
6. WVU: \$13.7 million
7. Travel Management: \$13.3 million
8. Veterans Affairs: \$7.4 million
9. Marshall University: \$5.6 million
10. WVU-Tech: \$5.5 million

## **Components of net tax supported debt as of June 30, 2017**

### **Leases**

Approximately \$24.7 million of new leases were entered into during fiscal year 2017. This is down from fiscal year 2016 which had a total of \$65.0 million. The total amount of leases outstanding in this report (\$340 million) will differ from the figure reported in the state's Comprehensive Annual Financial Report (CAFR). This is due to several factors, including materiality levels and the fact that this report includes state colleges and universities.

## Components of net tax supported debt as of June 30, 2017

### Debt Service Reserve & Other Funds

Table nine (below) shows debt service reserve, escrow and sinking funds which are available to pay debt service on various issues which are part of the state's net tax supported debt. These amounts are deducted from the gross tax supported debt to arrive at the net figure which is detailed in table one, page three. All figures are as of June 30, 2017.

Table 9 - Escrow/Sinking Funds/  
Debt Service Reserve Accounts  
as of June 30, 2017

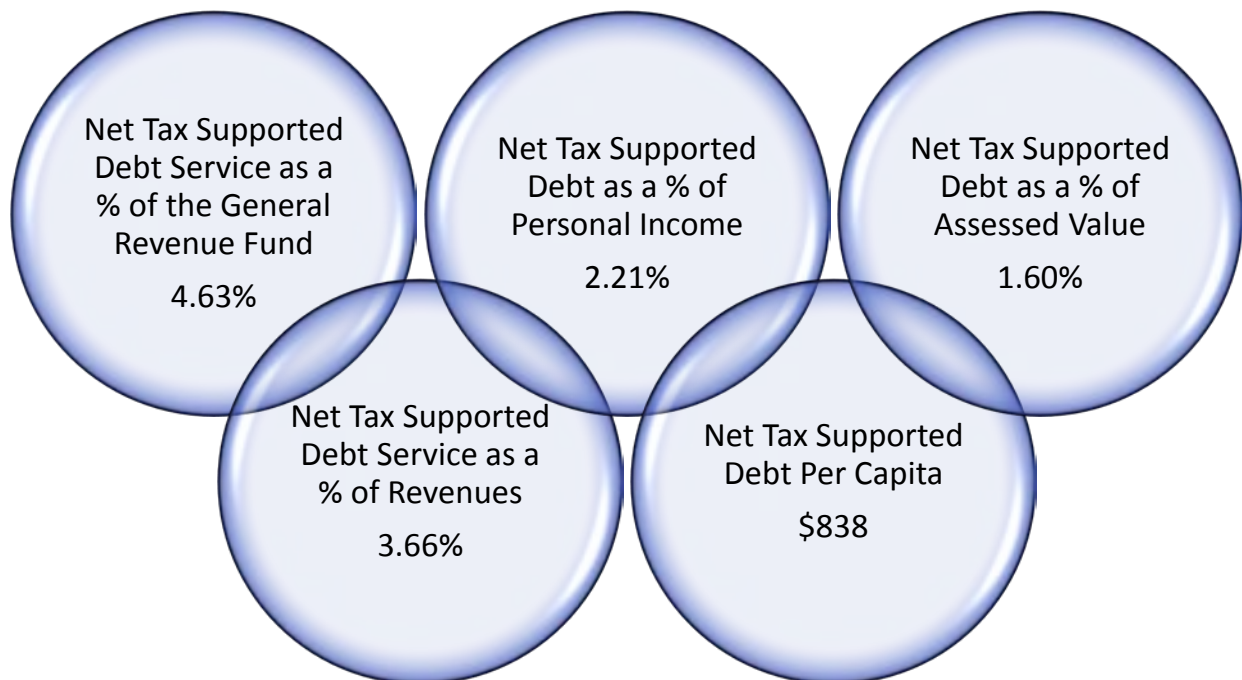
| Issue  | Type of Amount | Value at June 30, 2017 |
|--|----------------|------------------------|
| <b>Economic Development Authority Lottery Revenue</b>    | Reserve        | \$19,782,648           |
| <b>GO Infrastructure Bonds</b>                           | Escrow         | \$26,100,000           |
| <b>School Building Authority Appropriation Bonds</b>     | Reserve        | \$23,020,801           |
| <b>School Building Authority Lottery Revenue</b>         | Reserve        | \$63,220,000           |
| <b>School Building Authority Lottery Revenue (QSCBs)</b> | Sinking Fund   | \$67,657,682           |

## 2. Calculate key ratios that are commonly used to examine debt

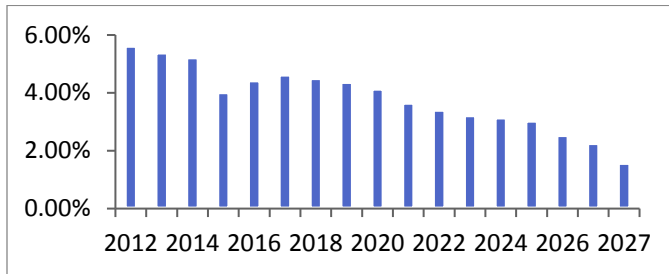
Key ratios establish benchmarks that the municipal bond industry and others use to provide a measurement of a state's outstanding debt and the servicing (principal and interest payments) of that debt. Ratios are useful tools since they provide quantifiable measurements which are used when analyzing a state's fiscal position. Ratios can also provide insight into economic trends and a state's reliance on debt financing.

According to calculations based on net tax supported debt, revenue projections, personal income projections and population estimates, the ratios as of June 30, 2017 are shown below:

### Various Debt Ratios as of June 30, 2017

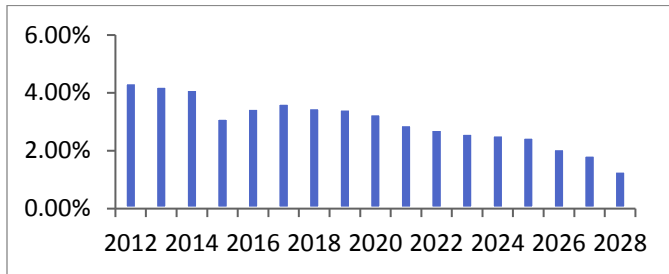


Historically, all of these ratios reached their peak at the end of fiscal year 2011; and are expected to continue declining in the coming years. This is, of course, dependent on future issuance of debt. The future projections do not include the issuance of any additional GO or Revenue Bond debt and assume lease obligations outstanding for fiscal years 2018 to 2028 remain constant. The following charts show the historical and future projections of these ratios.



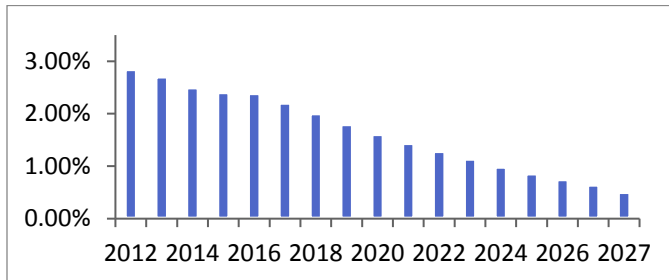
**Net Tax Supported Debt Service as a Percentage of General Revenue Fund**

**Current Percentage: 4.63%**



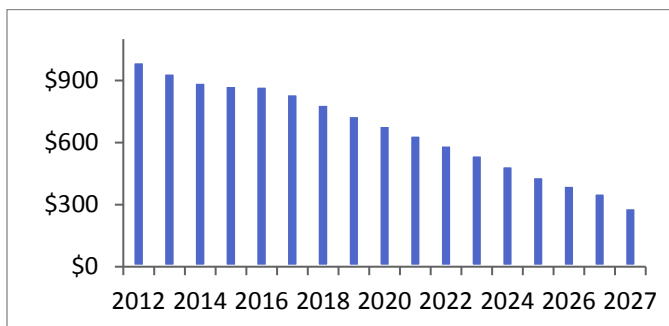
**Net Tax Supported Debt Service as a Percentage of Revenues**

**Current Percentage: 3.66%**



**Net Tax Supported Debt as a Percentage of Personal Income**

**Current Percentage: 2.21%**



**Net Tax Supported Debt Per Capita**

**Current Level: \$838**

### 3. Make recommendations which will attempt to keep the state within an average to low range of nationally recognized debt limits.

The final step in this analysis is making recommendations based on keeping the state within a certain range of debt ratios. Most ratios are easily accessible; therefore, making comparisons to other states and making recommendations of keeping the state in the average to low range is relatively easy. There are also certain industry practices that have been recognized as prudent fiscal management. For example, many states have constitutional or statutory caps on how much of their General Fund can be obligated toward debt repayment. Other states use a combination of ratios with various parameters.

Each year, Moody’s Investors Service produces a report in which they rank states according to various debt ratios. The 2017 report was “State Government – US Medians – Total State Debt Remains Essentially Flat in 2017,” shows the average (or “mean”), the high and the low for two of the ratios examined in this report. This comparison is made to West Virginia ratios in order to carry out the legislative intent of this report, which is to make recommendations with the aim of keeping the state in the “average to low range of national recognized debt limits.” The average debt per capita of the 50 states for 2017 was \$1,473. The average debt as a percentage of personal income was 3.0%

*Table 10 – Various Statistics from Moody’s 2017 Publication, “State Government – US Medians – Total State Debt Remains Essentially Flat in 2017”*

| Ratio                          | Average       | Highest                      | Lowest                    | West Virginia Ranking* |
|--------------------------------|---------------|------------------------------|---------------------------|------------------------|
| NTSD per capita                | \$1,473       | \$6,505                      | \$18                      | \$989                  |
|                                |               | Connecticut                  | Nebraska                  | #27                    |
| NTSD as a % of Personal Income | 3.0%          | 10.5%                        | 0.0%                      | 2.6%                   |
|                                |               | Hawaii                       | Nebraska                  | #23                    |
| Total NTSD                     | \$10.3billion | \$87.0 billion<br>California | \$24.3 million<br>Wyoming | \$1.8 billion<br>#36   |

*\* As reported by Moody’s in May 2017. These figures do not necessarily agree with the amounts stated in this report by the West Virginia State Treasurer’s Office, generally due to timing and the inclusion of certain obligations. For our specific calculations, see tables 4 and 5, pages 8 through 11.*

## ***Net Tax Supported Debt Service as a Percentage of the General Revenue Fund***

### Recommended Caps:

At June 30, 2017 the net tax supported debt service as a percentage of the General Revenue Fund was 4.63% which is below the recommended cap of 6.00%. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2012  
Recommended cap: 6.00%  
Actual Ratio: 5.63%

2013  
Recommended cap: 6.00%  
Actual Ratio: 5.39%

2014  
Recommended cap: 6.00%  
Actual Ratio: 5.23%

2015  
Recommended cap: 6.00%  
Actual ratio: 4.02%

2016  
Recommended cap: 6.00%  
Actual ratio: 4.43%

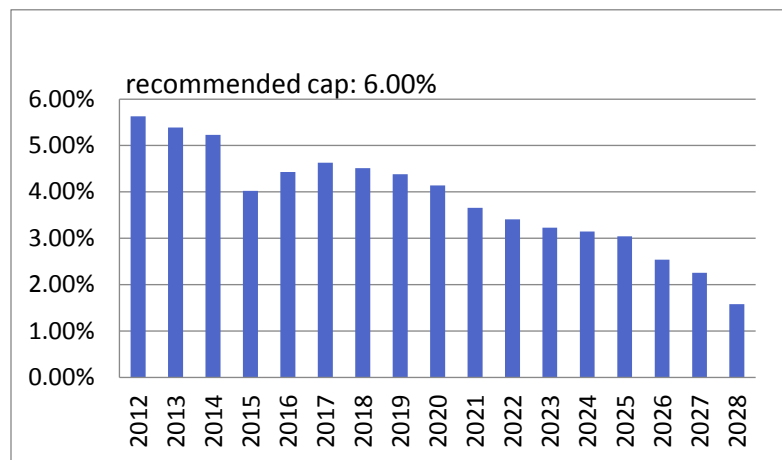
## **Net Tax Supported Debt Service as a Percentage of the General Revenue Fund**

This is perhaps the most important ratio measurement since it shows the potential strain on the General Revenue Fund if, for some reason, all other funds are insufficient to pay debt service.

As of the publication of this report, the General Revenue Fund is ahead of current revenue projections for fiscal year 2018.

Keeping the potential debt service burden on the state's General Revenue Fund below 6.00% is prudent fiscal management.

### **Net Tax Supported Debt Service as a Percentage of the General Revenue Fund Fiscal Years 2012-2017 (actual), 2018-2028 (projected) as of June 30, 2017**



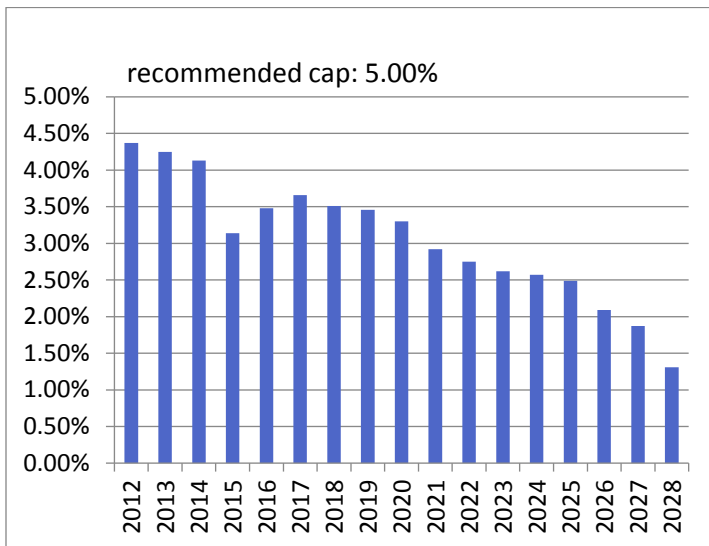
### Net Tax Supported Debt Service as a Percentage of Revenues

The definition of revenues includes not only the General Revenue Fund but also the state’s Road Fund, Lottery Fund and the dedicated stream of the state’s coal severance tax collections. The annual dedication of collections for the Infrastructure General Obligation bonds is based on an amortization schedule published by the State Treasurer, not to exceed \$22.25 million per year. The current and projected revenues are contained in table five, pages ten and eleven, and also in Appendix B.

The recommended level for this year’s report remains at 5.00%. As mentioned in previous reports, the amount of bonds backed by a pledge of lottery revenue remains at a high level. As mentioned on page six, the Legislature approved statutory changes which addressed adequate debt service coverage ratio limits on Excess Lottery Fund and provided a cross- collateral mechanism for Lottery Revenue Bonds.

The debt service on existing Lottery Revenue Bonds peaked at \$89 million during fiscal year 2014 and is expected to level out to approximately \$86 million for fiscal years 2019 through 2024.

Net Tax Supported Debt Service as a Percentage of Revenues  
Fiscal Years 2012-2017 (actual), 2018-2028 (projected)  
as of June 30, 2017



### Net Tax Supported Debt Service as a Percentage of Revenues

#### Recommended Caps:

At June 30, 2017 the net tax supported debt service as a percentage of Revenues was 3.66% which is below the recommended cap of 5.00%. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2012  
Recommended cap: 5.00%  
Actual Ratio: 4.37%

2013  
Recommended cap: 5.00%  
Actual Ratio: 4.25%

2014  
Recommended cap: 5.00%  
Actual Ratio: 4.13%

2015  
Recommended cap: 5.00%  
Actual Ratio: 3.14%

2016  
Recommended cap: 5.00%  
Actual Ratio: 3.48%

## ***Net Tax Supported Debt as a Percentage of Personal Income***

### Recommended Caps:

At June 30, 2017 the net tax supported debt as a percentage of Personal Income was 2.21% which is below the recommended cap of 3.00%. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2012 (personal income figures revised)  
Recommended cap: 3.10%  
Actual Ratio: 2.85%

2013 (personal income figures revised)  
Recommended cap: 3.10%  
Actual Ratio: 2.71%

2014 (personal income figures revised)  
Recommended cap: 3.10%  
Actual Ratio: 2.50%

2015 (personal income figures revised)  
Recommended cap: 3.10%  
Actual Ratio: 2.41%

2016 (personal income figures revised)  
Recommended cap: 3.00%  
Actual Ratio: 2.39%

## **Net Tax Supported Debt as a Percentage of Personal Income**

This has been a ratio that has historically plagued West Virginia because the measurement of personal income has been below the national average. According to figures supplied from the State Budget Office, with further reference to an IHS Markit report, West Virginia's personal income is forecasted to increase approximately 3.35% from 2017 to 2018, 4.16% from 2018 to 2019, and 4.34% from 2019 to 2020.

According to a Moody's Investors Service report, the average of this particular ratio is 3.0% with the median being 2.5%. Comparing states that have a similar Moody's rating to that of West Virginia (Aa2), West Virginia was the fifth highest within the average range of this particular ratio as detailed in table 11, page 24.

Historically, this report has recommended a cap of 3.00% for this particular ratio. It was raised slightly in 2010 due to an increase in the national average but lowered back to 3.0% in 2016. It is recommended, again this year, that the cap be at 3.0%. Until West Virginia is able to realize a greater increase in its personal income, careful attention should be paid to this important economic indicator.

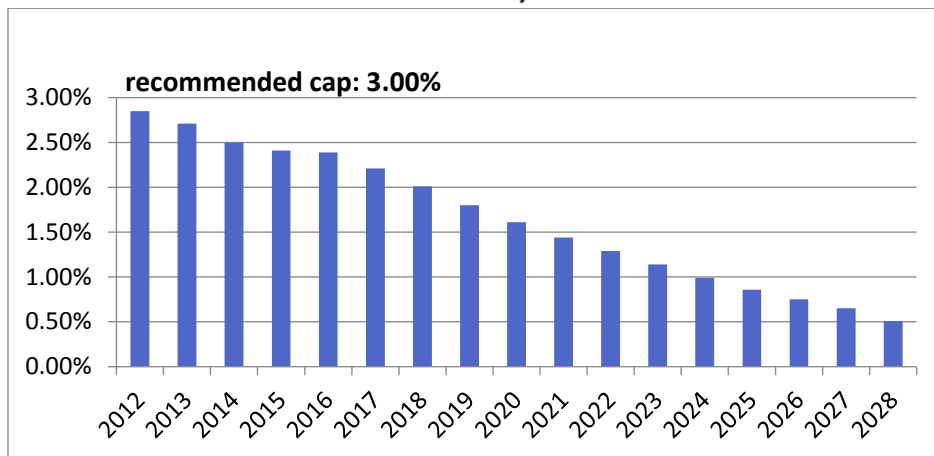


Table 11 - Debt as a Percentage of Personal Income (similarly rated states)  
as Presented in a 2017 report by Moody's Investors Service

| State         | Debt as a % of Personal Income* |
|---------------|---------------------------------|
| Oklahoma      | 0.8%                            |
| Nevada        | 1.4%                            |
| Arizona       | 1.8%                            |
| Maine         | 2.1%                            |
| West Virginia | 2.6%                            |
| Alaska        | 3.0%                            |
| Kansas        | 3.4%                            |
| Wisconsin     | 3.8%                            |
| Rhode Island  | 4.3%                            |
| Mississippi   | 5.2%                            |
| Kentucky      | 5.3%                            |

\* As reported by Moody's in May 2017. These figures do not necessarily agree with the amounts stated in this report by the West Virginia State Treasurer's Office, generally due to timing and the inclusion of certain obligations. For our specific calculations, see tables 4 and 5, pages 8 through 11.

**West Virginia Debt as a percentage of personal income  
Fiscal Years 2012-2017 (actual), 2018-2028(projected)  
as of June 30, 2017**



## Net Tax Supported Debt Per Capita

### Recommended Caps:

At June 30, 2017 the net tax supported debt per capita was \$838 which is below the recommended cap of \$1,100. This report recommends a cap on this particular ratio each year. The following are the recommended caps in past reports and actual levels at the time the report was issued:

2011  
Recommended cap: \$1,100  
Actual Ratio: \$1,074

2012  
Recommended cap: \$1,100  
Actual Ratio: \$992

2013  
Recommended cap: \$1,100  
Actual Ratio: \$938

2014  
Recommended cap: \$1,100  
Actual Ratio: \$893

2015  
Recommended cap: \$1,100  
Actual Ratio: \$878

2016  
Recommended cap: \$1,100  
Actual Ratio: \$875

### Net Tax Supported Debt Per Capita

West Virginia's net tax supported debt per capita, as calculated by the West Virginia State Treasurer's Office, was \$838 which is well below the national average of \$1,473.

Population figures can be good economic measurements. For example, the ratio of "Net Tax Supported Debt Per Capita," indicates the possible debt burden on each West Virginia citizen. According to estimates from the United States Census Bureau, West Virginia's population in 2017 was 1.815 million which is down by 0.8% (approximately 15,000) from 2016. The continued downward trend is not a good indicator for West Virginia since the potential debt burden increases on the remaining population. It is also important to note that West Virginia's median age now stands at 42.2 which is 4 years higher than the national average and the second "oldest" state in the United States.

It is possible that the state's population may see positive growth as more jobs are anticipated with an influx of investment in infrastructure development. However, until this shift in declining population is realized, the recommended cap of net tax supported debt per capita should remain at \$1,100 as of June 30, 2017. This is well below the national average of \$1,473. According to Moody's, the net tax supported debt per capita for West Virginia was \$989 which was the fifth highest ratio among other states with a Moody's rating of Aa2. This figure is different than the figure calculated by the West Virginia State Treasurer's Office (see note on page 26).

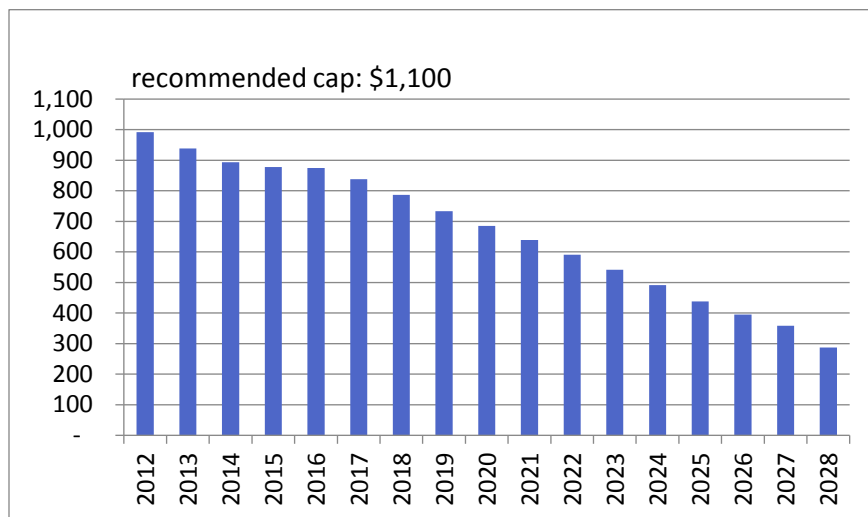
**Table 12 - Debt Per Capita**  
 (similarly rated states)  
 as Presented in a 2017 report by Moody's Investors Service

| State         | Debt Per Capita* |
|---------------|------------------|
| Oklahoma      | \$365            |
| Nevada        | \$587            |
| Arizona       | \$696            |
| Maine         | \$889            |
| West Virginia | \$989            |
| Kansas        | \$1,575          |
| Alaska        | \$1,691          |
| Wisconsin     | \$1,739          |
| Mississippi   | \$1,847          |
| Kentucky      | \$2,057          |
| Rhode Island  | \$2,131          |

*\* As reported by Moody's in May 2017. These figures do not necessarily agree with the amounts stated in this report by the West Virginia State Treasurer's Office, generally due to timing and the inclusion of certain obligations. For our specific calculations, see tables 4 and 5, pages 8 through 11.*

**West Virginia Debt Per Capita**

**Fiscal Years 2012-2017 (actual), 2018-2028 (projected) as of June 30, 2017**



## ***Other Debt Ratios***

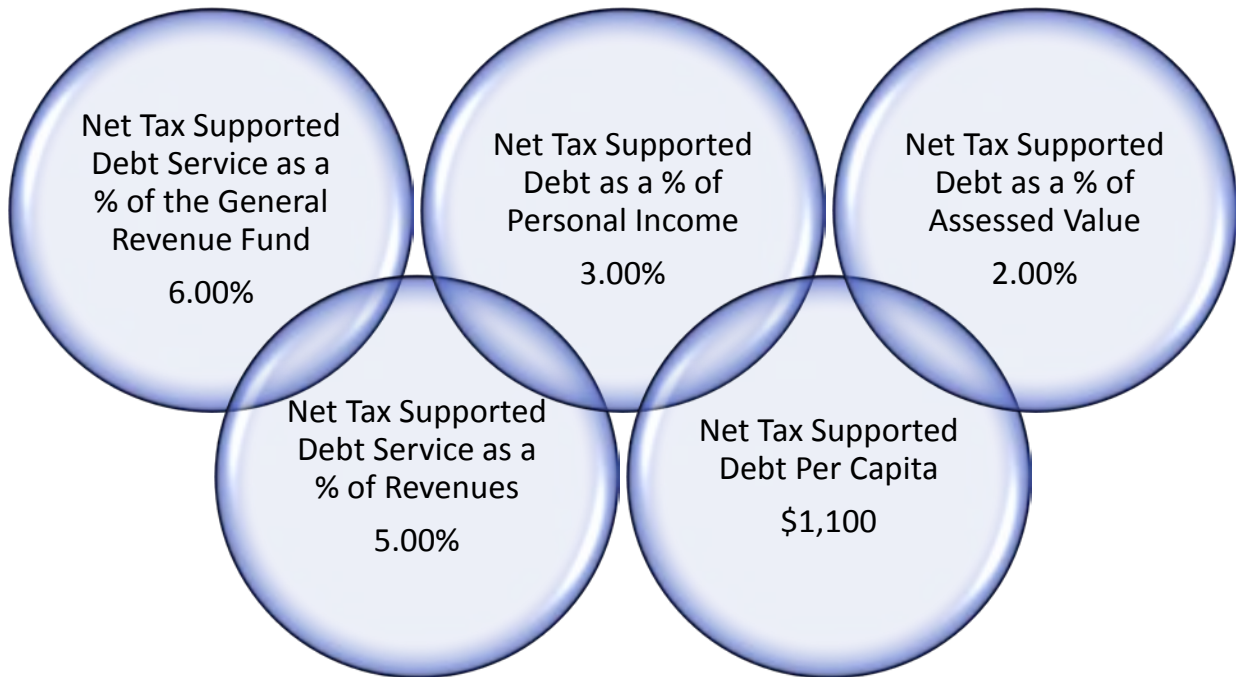
Net Tax Supported Debt as a Percentage of the Assessed Value of Taxable Property - Historically, the Debt Capacity Report has suggested a cap of 2.00% for this particular ratio. This recommendation has not been based on any particular research but rather on the relationship to the other current debt ratios of the state. At June 30, 2017, the ratio was 1.60%.

## **Summary**

The goal of this report is to continue West Virginia's practice of fiscal conservatism by making recommendations to help the state maintain a "moderate-to-low" debt burden. This burden does not take into account the state's "soft" debts such as pension liabilities or other post-employment benefits, but it does consider those debt issuances which the state's citizens and its lawmakers have authorized.

Although West Virginia is below all of the recommended caps on the ratios examined in this report, it should be noted, as previously discussed, the state is on the precipice of issuing more than \$1.6 billion in GO debt. This investment in the state's future must be carefully monitored to ensure that it pays the expected dividends of long-term income and population growth for West Virginia and its citizens. Maintaining a fiscally conservative approach will guide West Virginia on the road to prosperity.

# Summary of Recommended Caps as of June 30, 2017



## **Appendix A**

### **West Virginia State Code §12-6A**

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## **ARTICLE 6A. THE DEBT MANAGEMENT ACT**

### **§12-6A-1. Short title.**

This article shall be known and may be cited as “The Debt Management Act”.

### **§12-6A-2. Legislative findings and declaration of public necessity.**

The Legislature hereby finds and declares that in order to maintain the strong financial management of the state, to meet the fiscal needs of state government and to facilitate financing essential capital projects at the lowest possible cost to the citizens of the state, the state must regularly monitor the amount of debt issued by the state and its spending units, ensure the state and its spending units meet all debt service requirements, monitor the credit rating of the state and analyze the acceptance of debt issued by the state and its spending units. The Legislature further finds that in order to meet these important goals, the Division of Debt Management needs to be continued.

### **§12-6A-3. Division of Debt Management continued; director.**

(a) The Division of Debt Management is continued in the office of the State Treasurer.

(b) The Division shall serve as a central information source concerning the incurrence, recording and reporting of debt issued by the state and its spending units, and shall prepare reports pertaining to the capacity of the state and its spending units to issue debt.

(c) The Treasurer shall appoint a director, qualified by reason of exceptional training and experience in the field of activities of his or her respective Division, and who shall serve at the will and pleasure of the Treasurer.

### **§12-6A-4. Definitions.**

For the purpose of this article:

“Debt” means bonds, notes, certificates of participation, certificate transactions, capital leases, debentures, lease purchases, mortgages, securitizations and all other forms of securities and indebtedness obligations evidencing specific amounts owed and payable on demand or on determinable dates.

“Debt impact report” means a report prepared by the division which includes information pertaining to a proposed issuance of debt by the state or its spending units.

“Division” means the Division of Debt Management.



“Moral obligation bond” means a debt obligation for which the state or a spending unit has made a nonbinding covenant to make up any deficiency in debt service.

“Net tax supported debt” means the amount of tax supported debt less any applicable refundings, defeasances, escrow accounts, reserve requirements and sinking funds.

“State” means the State of West Virginia.

“Spending unit” means a state department, agency, board, commission, committee, authority or other entity of the state with the power to issue and secure debt. Spending unit does not include local political subdivisions.

“Tax-supported debt” means: (1) General obligation bonds of the state; (2) moral obligation bonds of the state or a spending unit; (3) capital leases, installment purchases, lease purchases, mortgages, certificates of participation and any other similar debt financing transaction extending beyond one year issued by the state or its spending units; and (4) any other debt issued by the state or a spending unit which is not self-supporting. Debt issued by the West Virginia housing development fund, economic development authority, hospital finance authority, parkway authority, public energy authority, solid waste management board and water development authority, with the exception of debt secured by lottery revenues or secured by a lease with the Secretary of Administration, is not tax-supported debt.

#### **§12-6A-5. Powers and duties.**

The Division of Debt Management shall perform the following functions and duties:

(1) Continuously evaluate the current and projected debt and debt service requirements of the State and its spending units.

(2) Evaluate cash flow projections relative to proposed and existing revenue bond issues.

(3) Issue a debt impact report if requested by the Governor, the President of the Senate or the Speaker of the House of Delegates. The Division may request any additional information needed to issue a debt impact report. A debt impact report shall in no way restrict the Governor, the Legislature or the spending unit.

(4) Act as liaison with the Legislature on all debt matters, including, but not limited to, new debt issues and the status of debt issued by the State and its spending units.

(5) Assist the State and its spending units regarding the issuance of debt if requested.

(6) Establish reporting requirements for the issuance of debt by the State and its spending units pursuant to the provisions of this article.

(7) Monitor continuing disclosure requirements and post-issuance compliance issues with federal and state tax and securities law, including, without limitation, arbitrage, rebate and remedial measures.

(8) Make and execute contracts and other instruments and pay the reasonable value of services or commodities rendered to the division pursuant to those contracts.

(9) Contract, cooperate or join with any one or more other governments or public agencies, with any political subdivision of the State, or with the United States, to perform any administrative service, activity or undertaking which the contracting party is authorized by law to perform, charge for providing services and expend any fees collected.

(10) Do all things necessary or convenient to effectuate the intent of this article and to carry out its powers and functions.

#### **§12-6A-6. Reporting.**

(a) Within fifteen days following the end of each calendar quarter, each state spending unit shall provide the division and the Legislative Auditor, in the manner provided by this article and in such form and detail as the State Treasurer may require, a report including, but not limited to, the name of the state spending unit, the amounts and types of debt incurred during the calendar quarter and outstanding at the end of the calendar quarter, the cost and expenses of incurring the debt, the maturity date of each debt, the terms and conditions of the debt, the current debt service on the debt, the interest rate on the debt, the source of the proceeds utilized for repayment of the debt, the amounts of repayment during the calendar quarter, the repayment schedule and the security for the debt. A state spending unit having no outstanding debt shall not be required to provide the quarterly report but shall file an annual report, on forms established by the Division of Debt Management: *Provided*, That the state spending unit shall immediately notify the Division of Debt Management of any change in the spending unit's outstanding debt or financial condition.

(b) Not less than thirty days prior to a proposed offering of debt by the state or a state spending unit, written notice of the proposed offering and the terms thereof shall be given to the Division by the state spending unit in the form as the Division may require.

(c) Within thirty days after closing on an offering, the responsible spending unit shall report to the division the information pertaining to the offering required by the division in the form the division may require.

(d) On or before January 31 and July 31 of each year, the division shall prepare and issue a report of all debt of the State and its spending units and of all proposed debt issuances of which the division has received notice and shall furnish a copy of the report to the Governor, the President of the Senate, the Speaker of the House of Delegates, the members

of the Joint Committee on Government and Finance, the Legislative Auditor and upon request to any other legislative committee and any member of the Legislature. The report shall be kept available for inspection by any citizen of the state. The division shall also prepare updated reports of all debt of the state and its spending units as of March 31 and September 30 each year, which shall be available for inspection at the office of the state Treasurer within thirty days of the end of the respective calendar quarter.

(e) On or before January 15 each year, the division shall report to the Governor and to the Legislature on the capacity of the state to issue additional debt. In preparing its annual review and estimate, the division shall, at a minimum, consider:

(1) The amount of net tax supported debt outstanding and debt authorized but not issued during the current and next fiscal year and annually for the following ten fiscal years;

(2) Debt service requirements during the current and next fiscal year and annually for the following ten fiscal years based upon existing outstanding debt, previously authorized but unissued debt and projected bond authorizations;

(3) Any information available from the budget office of the department of revenue in connection with projected revenues and anticipated capital expenditures projected for at least the next five fiscal years;

(4) The amount of debt the state and its spending units may prudently issue;

(5) What is needed to keep West Virginia within an average to low range of nationally recognized debt limits;

(6) The debt ratios rating agencies and analysts use; and

(7) The effect of authorizations of new tax supported debt on each of the considerations in this subsection.

#### **§12-6A-7. Promulgation of rules.**

The Treasurer shall propose rules for legislative approval relating to the reporting requirements and duties under this article in accordance with the provisions of article three, chapter twenty-nine-a of this code.

## **Appendix B**

### **Revenue Information**

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Revenue & Revenue Projections  
(thousands)  
2018-2028 (projected)

| <u>Year</u> | <u>General Revenue</u> | <u>Road Fund</u> | <u>Lottery**</u> | <u>Severance</u> | <u>Total</u> |
|-------------|------------------------|------------------|------------------|------------------|--------------|
| 2010        | 3,758,372              | 628,157          | 385,992          | 24,000           | 4,796,521    |
| 2011        | 4,063,786              | 663,309          | 397,571          | 24,000           | 5,148,666    |
| 2012        | 4,103,305              | 665,602          | 492,946          | 24,000           | 5,285,853    |
| 2013        | 4,059,121              | 688,327          | 380,298          | 23,000           | 5,150,746    |
| 2014        | 4,106,106              | 734,717          | 337,209          | 23,000           | 5,201,032    |
| 2015        | 4,193,310              | 742,998          | 405,400          | 23,000           | 5,364,708    |
| 2016        | 4,102,679              | 691,481          | 403,645          | 22,500           | 5,220,305    |
| 2017        | 4,166,510              | 691,645          | 386,612          | 21,656           | 5,266,423    |
| *2018       | 4,225,050              | 792,205          | 396,118          | 19,377           | 5,432,750    |
| *2019       | 4,356,170              | 800,805          | 336,797          | 20,557           | 5,514,329    |
| *2020       | 4,561,880              | 805,505          | 336,797          | 21,947           | 5,726,129    |
| *2021       | 4,743,680              | 807,805          | 361,797          | 21,936           | 5,935,218    |
| *2022       | 4,883,980              | 810,105          | 336,797          | 32,955           | 6,063,837    |
| *2023       | 5,062,680              | 812,315          | 336,797          | 21,938           | 6,233,730    |
| *2024       | 5,189,247              | 815,000          | 336,797          | 22,201           | 6,363,245    |
| *2025       | 5,318,978              | 815,000          | 336,797          | 22,210           | 6,492,985    |
| *2026       | 5,451,953              | 815,000          | 336,797          | 22,201           | 6,625,951    |
| *2027       | 5,588,251              | 815,000          | 336,797          | 22,201           | 6,762,249    |
| *2028       | 5,727,958              | 815,000          | 336,797          | 0                | 6,879,755    |

Notes: Revenue information provided by the West Virginia Budget Office  
FY2013 Actuals do not include \$45 million transfer from Income Tax Refund Reserve Account  
Lottery fund does not include any revenue added to General State Revenue Fund

\* Estimates

\*\* Net of transfers to the General Revenue Fund

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