Prepared by
The Division of Bond Finance
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EXECUTIVE SUMMARY

The Division of Bond Finance prepared the 2018 Debt Report (the "Report") to review changes in the State's debt position that occurred over the past year and show how future debt service payments, debt issuance, and revenue projections will affect the State's benchmark debt ratio. The report also provides information on matters important to the State's credit ratings like pension liabilities and reserves, as well as developments in alternative financing techniques used by the State including public private partnerships and university direct support organizations ("DSO"). The Report has been prepared as required by Section 215.98, Florida Statutes.

Debt Outstanding: ***Total State direct debt outstanding as of June 30, 2018 was $21.0 billion, a $1.6 billion decrease from the prior fiscal year. Total debt has decreased by $7.1 billion over the past eight years, continuing the trend which began in 2011.*** Net tax-supported debt for programs supported by State tax revenues or tax-like revenues totaled $17.5 billion while self-supporting debt, representing debt secured by revenues generated from operating bond-financed facilities, totaled $3.5 billion. Indirect State debt as of June 30, 2018 was approximately $9.0 billion and represents debt secured by revenues not appropriated by the State or debt obligations issued by a legal entity other than the State. Borrowings by insurance-related entities such as Citizens Property Insurance Corporation ("Citizens") and the Florida Hurricane Catastrophe Fund Finance Corporation ("CAT Fund") make up almost half of indirect debt. This debt is increasingly emphasized in the State's overall credit analysis due to the potential economic and financial consequences of hurricanes. Other categories of indirect debt are university DSOs (30%), Florida Housing Finance Corporation (21%), and other (7%). For purposes of this report, indirect debt is excluded from State debt ratios and the debt affordability analysis.

Overview of the State's Credit Ratings: Credit ratings play an integral role in the municipal bond market and are one factor that affects the State's borrowing cost. ***During the fiscal year ended June 30, 2018, two of the three major rating agencies, Fitch Ratings ("Fitch") and Standard and Poor's Rating Services ("S&P") each affirmed the State's AAA general obligation ratings and Stable outlooks. On June 21, 2018, Moody's Investors Service ("Moody's") upgraded the State's general obligation rating to "Aaa" from "Aa1" and assigned a stable outlook.*** **Florida is now rated in the highest rating category by each of the three major credit rating agencies for the first time in history.** Credit strengths noted by the rating agencies include adhering to structural budget balance while absorbing spending pressures; improved revenue performance that is outpacing estimates due to ongoing growth in sales tax collections, the State's primary operating revenue; strong fiscal and debt management practices; restoring reserves that improve financial flexibility; a relatively well-funded pension system; and broad employment and population growth that both currently exceed the U.S. growth rates. However, the State's ratings are sensitive to revenue volatility due to its primary reliance on sales tax to fund the budget and the potential negative fiscal and economic consequences of a catastrophic hurricane. Additionally, rating agencies continue to focus on the State's ability to maintain adequate reserves, preserve structural budget balance without over-reliance on non-recurring revenues, and manage long-term liabilities related to the pension system and public private partnership contracts.

Reserves: A government's level of general fund reserves is one of the most important indicators of its financial strength. It is prudent to maintain strong reserves in order to provide a source of financial flexibility to address revenue shortfalls or unexpected fiscal events. After using reserves to offset revenue declines during the Great Recession, the State's General Fund Reserves—unspent General Revenue plus the Budget Stabilization Fund—were replenished and cited as a key credit strength by the rating agencies. ***However, over the past three years, General Fund Reserves are down by more than $600 million as reserves have been used to supplement revenue collections to fund the budget. General Fund Reserves were approximately $3.1 billion or 9.8% of general revenues at the end of Fiscal Year 2018. General Fund Reserves are projected to be $2.8 billion or approximately 8.6% of***

general revenues as of June 30, 2019. Trust fund balances also serve as an additional source of reserves, augmenting the State's financial flexibility. ***The Legislature should consider establishing a more formal policy for General Fund Reserves.***

Hurricanes and Expected Impacts to Reserves: Maintaining adequate reserves provides the State the flexibility to meet unforeseen financial needs, including costs related to natural disasters such as hurricanes which have a negative impact on the State's reserves. The fiscal impact on the State's General Revenue Fund for Hurricane Irma and Hurricane Michael related expenses, including individual assistance costs and the State's share of county costs for Hurricane Irma, is currently projected to be $1.6 billion. ***After expected reimbursements from the Federal Emergency Management Agency ("FEMA"), these costs are expected to have a net impact of $770 million on the General Fund with an additional net impact of $95 million on the State's trust funds. The June 30, 2018 General Fund Reserve balance of $3.1 billion reflects $305.9 million of budget amendments which have already been processed.*** The State's share of county costs for Hurricane Michael are not yet available and may have an impact on the State's General Revenue Fund. These costs are expected to be incurred over multiple budget years. Current General Fund Reserves provide the State sufficient financial flexibility to cover these expenses in advance of FEMA reimbursements.

Hurricane Michael's effect on future State revenue collections is unknown and any effects will not be included in projections until the Revenue Estimating Conference meets in March 2019 to update and revise revenue forecasts.

Pension Liability: ***Florida's pension system is relatively well-funded with a funded ratio of 83.9% as of June 30, 2017 based on the Government Accounting Standards Board reporting methodology.*** Since Fiscal Year 2014, Florida has fully funded its actuarially determined contribution to the pension system following a period of underfunding for budget relief during the Great Recession. Annual pension contributions are viewed as long-term fixed costs by rating agencies and incorporated into their credit analysis. ***It is important that the assumptions and actuarial methodologies used to calculate the required contributions and pension liability accurately reflect reality or they could lead to underfunded pension contributions and cause the system to deteriorate.***

The Legislature should pay particular attention to the investment return assumption used to calculate required pension contributions. Although the investment return assumption has been lowered over the past five years—from 7.75% to 7.4%—more progress needs to be made. ***The Legislature should consider adopting a plan to systematically reduce the investment return assumption (e.g. over five years) to be brought more in line with expected long-term returns.***

The assumptions used to calculate the required contribution to the Florida Retirement System ("FRS") are set by the FRS Actuarial Assumption Conference ("Conference"). The actuary uses the assumptions and actuarial methodologies set by the Conference to calculate the pension liability and required contribution. The most recent actuarial valuation used an investment return assumption for the FRS of 7.50%, which the actuary concluded was unreasonable. The investment return assumption used for the State's financial statements to comply with the generally accepted accounting principles is 7.10%, which the actuary concluded is reasonable. The investment return assumption used for calculating the required pension contribution leads to underfunding. If underfunding the pension contribution continues, the financial strength of the FRS could be adversely affected.

Several states credit ratings have been downgraded because of poor pension system management resulting in outsized pension liabilities. Management and funding of the pension system are also important aspects of Florida's credit ratings. ***The Legislature should consider formalizing a clear policy calling for full funding of the required contribution each year to protect the strength of the pension system.***

Public-Private Partnership ("PPP") Debt: ***PPPs are an increasingly popular financing mechanism that add short and long-term liabilities to the State's balance sheet.*** PPPs refer to various contractual arrangements that must be carefully analyzed to determine their financial impact on the State. In some cases, PPP contracts create mandatory financial obligations that are properly reflected as State debt because they encumber future State resources. PPPs have been used most frequently by the Department of Transportation and universities. ***PPPs have added approximately $6.0 billion in State direct debt since inception with about $3.8 billion currently outstanding.*** All PPP projects are reviewed by the Division of Bond Finance for economic impact, return on investment, and potential credit impacts to the agency or university. The review process helps ensure the PPP project complies with the State's debt management policies which promote prudent financial management practices and are designed to minimize financing costs.

The 2016 Legislature created the DOT Financing Corporation to provide a more cost effective alternative to PPP financings for accelerating transportation projects. The initial projects being financed by the DOT Finance Corporation are improvements to the I-595/I-95 interchange in Broward County. DOT is also considering using the Financing Corporation to finance improvements and expansion of I-4 south of downtown Orlando. See "DEVELOPMENTS IN ALTERNATIVE FINANCING TECHNIQUES – DOT Financing Corporation" herein for details on the projects and finance plans.

University DSO Debt and PPPs: Universities have used their DSOs and PPPs to finance university facilities. ***University and DSO debt combined totals $3.4 billion as of June 30, 2018.*** University and DSO debt has increased since 2011 while State direct debt has been decreasing. ***DSO debt represents nearly 77% of all debt for universities and has accounted for over 95% of the $430 million increase in university and DSO debt over the past seven years.*** DSO debt is counted as indirect debt in this report. State direct debt would be 13% higher if DSO debt was included. However, the Board of Governors has enhanced oversight and has guidelines for debt management and PPPs which require their review and approval of debt or PPPs used to finance university facilities. The Board of Governors is also asking the universities' Boards of Trustees to perform a critical evaluation of the need for university facilities being financed with debt or PPPs.

Estimated Annual Debt Service Requirements: As expected, ***annual debt service payments increased by $117 million in Fiscal Year 2018 to $2.3 billion***. The increase in Fiscal Year 2018 debt service requirements reflects a refinement in how long-term PPP obligations are recorded. Projected debt service is expected to decrease to approximately $2.2 billion for Fiscal Year 2019, reflecting the debt pay-down which began in 2011.

Estimated Debt Issuance: ***Approximately $3.6 billion of debt is projected to be issued over the next ten years, primarily for transportation projects.*** Right-of-Way Acquisition and Bridge Construction bonds is the primary program with projected issuance of $1.4 billion, followed by Grant Anticipation Revenue Vehicles ("GARVEE") of $1.3 billion and the two projects to be financed by the DOT Financing Corporation totaling $790 million. Projections exclude any additional borrowing for PECO or Florida Forever and additional PPP projects entered into by DOT. Projected debt issuance over the next ten years has decreased by approximately $320 million below the $3.9 billion projected issuance figure in the 2017 Debt Report.

Revenue Projections: ***Revenues available to pay debt service in Fiscal Year 2018 totaled $41.0 billion, approximately $2.1 billion more than Fiscal Year 2017.*** The primary increase in available revenues ($1.5 billion) was the result of increased General Revenues. Florida's economy continues to strengthen following the Great Recession. Sales taxes and documentary stamp tax collections have shown particular improvement, fueling growth in base revenues available to pay debt service. The long-term revenue forecast could be impacted by global uncertainty and its effect on the

U.S. and international economies and continued monetary policy tightening by the Federal Reserve. ***Revenue estimates promulgated at the August 2018 conferences were used for the purposes of the 2018 Debt Report.*** The Revenue Estimating Conference is expected to update revenue forecasts in March 2019, and revisions to the projected benchmark debt ratio will be made accordingly.

Debt Ratios: ***The State's benchmark debt ratio—debt service to revenues available to pay debt service—remained level in Fiscal Year 2018 at 5.59%. The benchmark debt ratio remained below the 6% policy target for a fourth consecutive year*** and is forecasted to continue this trend due to the projected growth in revenues and restrained debt issuance.

An analysis of the primary debt ratios utilized by the municipal market based on June 30, 2017 data reveals that ***Florida's ratios are lower than peer group averages for debt per capita, debt as a percentage of personal income, and debt as a percentage of GDP. Florida's debt service as a percentage of revenues is higher than the peer group average due to the variability in availability payments for long term PPP projects.*** Although the State has seen improvement in its ranking among its peer group over the past ten years, in 2015 the addition of the I-4 PPP debt resulted in the State having the fifth highest ratio of debt service to revenues, a decline from seventh. The State ranked eighth, eighth, and seventh highest, respectively, for debt per capita, debt as a percentage of personal income and debt as a percentage of state Gross Domestic Product ("GDP").

Debt Ratios
2017 Comparison of Florida to Peer Group and National Medians

	Net Tax-Supported Debt Service as a % of Revenues	Net Tax-Supported Debt Per Capita	Net Tax-Supported Debt as a % of Personal Income	Net Tax-Supported Debt as a % of GDP
Florida	5.59%	$925	1.96%	2.02%
Peer Group Mean	5.53%	$1,682	3.19%	2.77%
National Median	4.20%	$987	2.30%	2.05%

Debt Capacity: ***Based upon current revenue projections and existing borrowing plans primarily for transportation projects, debt capacity is available within the 6% policy target*** as projections for the benchmark debt ratio remain consistently below 6% through 2028. The debt capacity available over the next ten years within the 6% policy target is nearly $27.2 billion. However, debt capacity is a scarce resource and should be used sparingly to fund critical infrastructure needs. Additional capacity is available under the 7% cap; however, this capacity should be considered as a buffer against revenue declines, which could quickly erode capacity under the 7% cap.

INTRODUCTION

In 1999, the Governor and Cabinet, acting as Governing Board of the Division of Bond Finance, requested a study of the State's debt position. The debt study and analysis of the State's debt position was the genesis of the annual Debt Report. ***The annual analysis included in the Debt Report was and continues to be a tool to guide policymakers when assessing the impact of bond programs on the State's fiscal position, enabling them to make informed decisions regarding financing proposals and capital spending priorities.*** Additionally, the Report provides a methodology for measuring, monitoring, and managing the State's debt, thereby protecting, and perhaps enhancing, Florida's bond ratings.

The debt affordability study resulted in the development of a financial model that measures the impact of changes in two variables: (1) the State's annual debt service payments; and (2) the amount of revenues available for debt service payments. The analysis compares the State's current debt position to relevant industry metrics and evaluates the impact of issuing additional debt given current economic conditions reflected in revenue forecasts.

During the 2001 Legislative Session, the Legislature adopted the debt affordability analysis by enacting Section 215.98, Florida Statutes. The statute requires the annual preparation and delivery of the debt affordability analysis to the President of the Senate, Speaker of the House, and the chair of each appropriation committee. Among other things, the statute designates debt service to revenues as the benchmark debt ratio. ***Additionally, the Legislature created a 6% target and 7% cap as policy guidelines for the benchmark debt ratio.***

Additional debt causing the benchmark debt ratio to exceed the 6% target may be issued only if the Legislature determines that the additional authorization and issuance are in the best interest of the State. Additional debt causing the benchmark debt ratio to exceed 7% may be issued only if the Legislature determines that such additional debt is necessary to address a critical State emergency.

The purpose of the Debt Report is to review changes in the State's debt position that occurred over the past year and show how future debt issuance and revenue projections will affect the State's benchmark debt ratio. Performing the debt affordability analysis enables the State to monitor changes in its debt position. The Report includes information regarding current revenue estimates, which enables the State to consider changing economic conditions in its future borrowing plans.

The Report reflects information regarding the following three factors that impact revisions to projected debt ratios: (1) actual debt issuance and repayments over the past year; (2) projected future debt issuance over the next ten years; and (3) revised revenue forecasts by the Revenue Estimating Conference. The revised debt ratios are compared with national averages and Florida's eleven-state peer group. Additionally, the revised benchmark debt ratio is evaluated against the 6% target and the 7% cap. Lastly, ***the Debt Report shows whether future debt capacity is available within the 6% target and 7% cap.***

The information generated by this analysis is provided to the Governing Board of the Division of Bond Finance and to the Governor's Office of Policy and Budget for their use in connection with formulating the Governor's Budget Recommendations. ***Updates to the analysis will occur as Revenue Estimating Conference forecasts are revised so the Legislature has the latest information available when making critical future borrowing decisions during the appropriations process.*** In addition, the Legislature may request the Division of Bond Finance to conduct an analysis of the long-term financial impact when considering any proposed bonding. ***Information generated by this analysis includes important facts for policymakers to consider when making future borrowing decisions as these choices can affect the long-term fiscal health of the State.***

COMPOSITION OF OUTSTANDING STATE DEBT

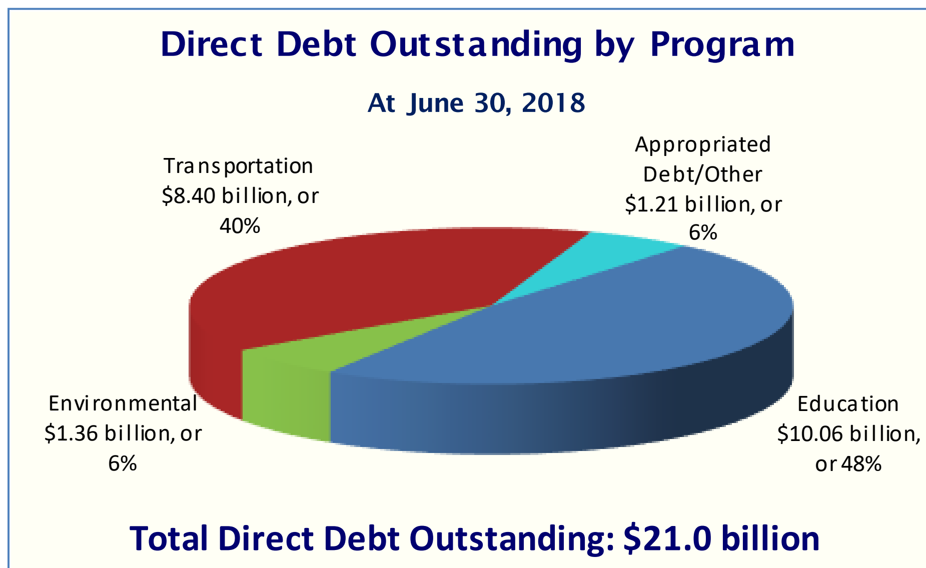


Figure 1

The State of Florida had $21.0 billion in total direct debt outstanding as of June 30, 2018. Figure 1 illustrates the State's investment in bond financed infrastructure by program area. Educational facilities are the largest investment financed with bonds, with $10.1 billion or 48% of total debt outstanding. The bulk of the outstanding amount for educational facilities is comprised of Public Education Capital Outlay ("PECO") bonds, which account for $7.8 billion. The 2014 Legislature passed legislation shifting a portion of the State sales tax to the gross receipts tax on electricity to generate revenue and bonding capacity for the PECO program. Remaining capacity was estimated at approximately $2.9 billion by the August 2018 PECO estimating conference. Despite the estimated capacity, no new bonding for PECO has been included in the 2018 Report. Transportation infrastructure at $8.4 billion or 40% of total debt outstanding is the second largest infrastructure investment funded with debt. The largest part of transportation debt reflects the State's payment obligations for financing transportation infrastructure through PPPs—$3.8 billion. Contributing to the next largest portion of transportation debt are toll roads financed with bonds for Florida's Turnpike Enterprise—$2.5 billion—and Right-of-Way Acquisition and Bridge Construction bonds—$1.8 billion. Environmental program bonding is the third largest component of State debt, with $1.4 billion of bonds outstanding for the Florida Forever, Everglades Restoration, Florida Water Pollution Control, and Inland Protection programs.

As shown in Figure 2, ***the $21.0 billion of direct debt outstanding as of June 30, 2018, consisted of net tax-supported debt totaling $17.5 billion and self-supporting debt of $3.5 billion.*** Net tax-supported debt consists of debt secured by state tax revenue or tax-like revenue. Self-supporting debt is secured by revenues generated from operating the facilities financed with bonds. The Turnpike Enterprise is the primary self-supporting program with outstanding debt. The remaining self-supporting debt relates to university auxiliary enterprises, which primarily finance campus housing and parking facilities and the water pollution control revolving loan program, which provides low interest rate loans to local governments for wastewater projects.

Direct Debt Outstanding by Type and Program

As of June 30, 2018

(In Millions Dollars)

Debt Type		Amount
Net Tax-Supported Debt		$17,527.9
Self-Supporting Debt		3,502.5
Total State Debt Outstanding		**$21,030.4**
Net Tax-Supported Debt		
Education		
Public Education Capital Outlay	$7,792.1	
Capital Outlay	122.5	
Lottery	1,195.8	
University System Improvement	106.8	
University Mandatory Fee	72.3	
State (Community) Colleges	70.6	
Total Education		$9,360.1
Environmental		
Florida Forever Bonds	810.0	
Everglades Restoration Bonds	202.3	
Inland Protection	46.8	
Total Environmental		$1,059.1
Transportation		
Right-of-Way Acquisition and Bridge Construction	1,778.0	
PPP Obligations L-T Projects	3,809.3	
Florida Ports	313.9	
Total Transportation		$5,901.2
Appropriated Debt / Other		
Facilities	190.8	
Prisons	407.3	
Children & Families	74.1	
Juvenile Justice	1.7	
Lee Moffitt Cancer Center	165.0	
Master Lease	16.8	
Energy Saving Contracts	31.0	
Sports Facility Obligations	320.7	
Total Appropriated Debt / Other		$1,207.5
Total Net Tax-Supported Debt Outstanding		**$17,527.9**
Self-Supporting Debt		
Education		
University Auxiliary Facility Revenue Bonds		$699.2
Environmental		
Florida Water Pollution Control		304.6
Transportation		
Toll Facilities	2,474.5	
State Infrastructure Bank Revenue Bonds	24.2	
Total Transportation		2,498.7
Total Self-Supported Debt Outstanding		**$3,502.5**

Figure 2

In addition to direct debt, the State has indirect debt. Indirect debt represents debt secured by revenues not appropriated by the State or debt obligations of a legal entity other than the State. In some cases, indirect debt may represent a financial burden on Florida's citizenry, e.g., assessments that are pledged to the CAT Fund and Citizens debt. ***Indirect debt is not included in the State's debt ratios or the analysis of the State's debt burden.***

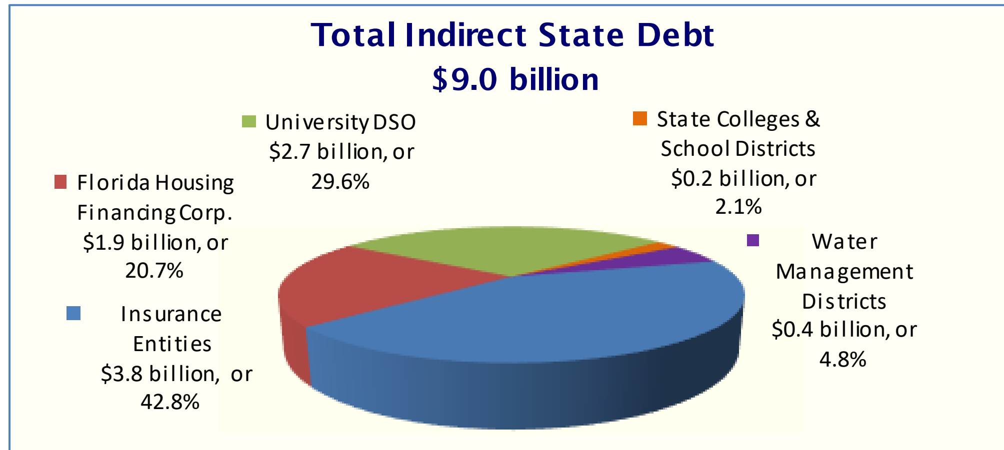


Figure 3

Indirect debt of the State totaled approximately $9.0 billion as of June 30, 2018, approximately $1.2 billion less than the previous year-end. Indirect debt decreased primarily due to substantial reductions in debt associated with insurance entities ($1.1 billion) and university DSOs ($100.2 million). Figures 3 and 4 provide information on the State's indirect debt. ***CAT Fund and Citizens represented $3.8 billion or 43% of total indirect debt and consists of pre-event financings to provide cash to pay potential losses incurred following a hurricane.*** As of June 30, 2017, pre-event debt outstanding was $1.6 billion for Citizens and $2.2 billion for the CAT Fund. Although the State views the insurance entities as completely independent and responsible for their own obligations, rating agencies consider the amount of debt outstanding by the insurance entities integral to the State's overall credit and debt analysis due to the fiscal impact the insurance entity assessments could have on Florida's citizenry. University direct support organizations comprise nearly $2.7 billion or 30% and Florida Housing Finance Corporation, which administers the State's housing programs, accounts for $1.9 billion or 21% of the total indirect debt outstanding.

Total Indirect State Debt by Program

(In Millions of Dollars)

Insurance Entities		
Florida Hurricane Catastrophe Fund Finance Corporation	$ 2,200.0	
Citizens Property Insurance Corporation	1,640.0	
Total		$ 3,840.0
Florida Housing Finance Corporation		
Single Family Programs	924.0	
Multi-Family Programs	939.6	
Total		1,863.6
University Direct Support Organizations		
Shands Teaching Hospital & Affiliates	1,069.3	
University of South Florida	329.9	
University of Central Florida	313.0	
Florida Gulf Coast University	192.1	
Florida Atlantic University	194.1	
North Florida	141.2	
University of Florida	91.8	
Other State Universities	325.6	
Total		2,657.0
Water Management Districts		432.5
School Districts		
Bay	16.3	
Lake	4.0	
Osceola	-	
Other School Districts	71.6	
Total		91.9
State (Community) Colleges and Foundations		95.3
Total State Indirect Debt		**$ 8,980.4**

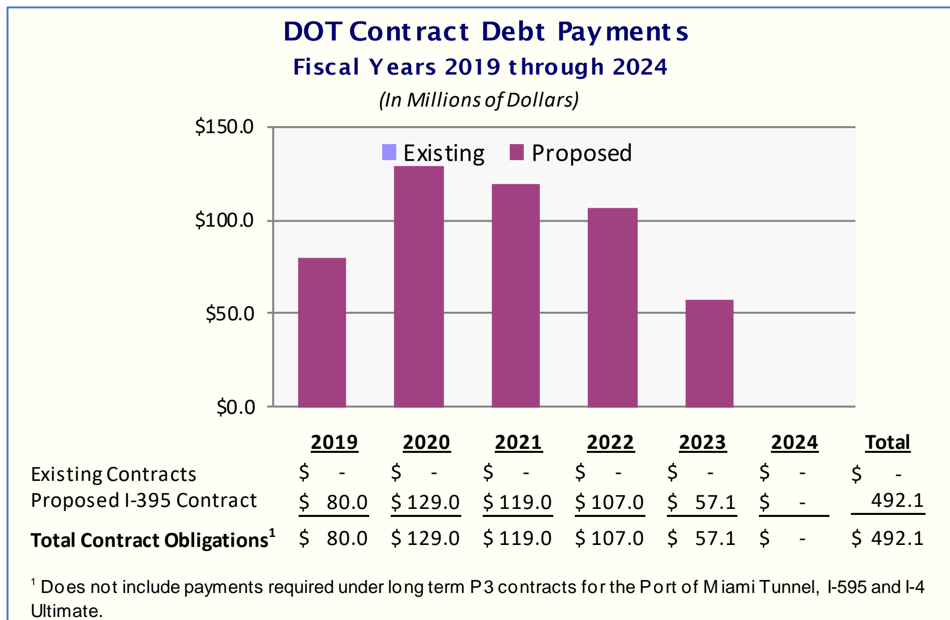
Figure 4

DEVELOPMENTS IN ALTERNATIVE FINANCING TECHNIQUES

Alternative financing techniques provide funding for capital projects and utilize State resources as a repayment source. Five alternative financing techniques are noted in this section of the Report: DOT short-term build-finance and design-build-finance contracts; DOT long-term PPP projects where the capital costs and operations/maintenance expenses associated with the project are paid to a private partner through "availability payments"; debt issued through university DSOs; university financed facilities through PPP contracts; and charter school transactions that have occurred with more frequency and may continue to grow. ***Tracking and disclosing alternative financing transactions is important as they frequently involve an encumbrance of future state resources but may not be reflected in State debt.***

DOT Short Term Contract Debt

DOT has used build-finance and design-build-finance contracts (collectively referred to herein as "Contract Debt") to advance construction projects. Contract debt accelerates project construction but obligates DOT to make payments at a later date based on a pre-determined contractual schedule—functionally equivalent to short-term debt. DOT generally begins making the mandatory cash availability payments from the State Transportation Trust Fund ("STTF") revenues during construction but payments sometimes continue once construction is complete. As of June 30, 2018, there was no existing DOT contract debt. ***As of July 1, 2018, DOT has one approved project to finance improvements to I-395 with contract debt payments totaling $492.1 million to be paid through Fiscal Year 2023. The contract was executed after June 30, 2018 and will be included in direct debt in the 2019 Debt Report.*** Contract debt payments are shown in Figure 5. Although a portion of the payments may be offset with other funding sources (e.g. toll revenues or contributions by local governments), the amounts represent the total payments due under contract debt payable from STTF revenues, as the State is the ultimate obligor.



	2019	2020	2021	2022	2023	2024	Total
Existing Contracts	$ -	$ -	$ -	$ -	$ -	$ -	$ -
Proposed I-395 Contract	$ 80.0	$ 129.0	$ 119.0	$ 107.0	$ 57.1	$ -	492.1
Total Contract Obligations[1]	$ 80.0	$ 129.0	$ 119.0	$ 107.0	$ 57.1	$ -	$ 492.1

[1] Does not include payments required under long term P3 contracts for the Port of Miami Tunnel, I-595 and I-4 Ultimate.

Figure 5

DOT's required payments under its contract debt have been included as State debt and excluded from calculating the benchmark debt ratio because the term of the contract debt is generally no longer than five years, i.e. repaid within the five-year Work Program. Including required payments under the contract debt would introduce near-term volatility in the State's benchmark debt ratio, impairing the usefulness of the debt affordability analysis as a long-term planning tool. This treatment differs from

the portion of required payments for the PPP obligations for the capital costs for the Port of Miami Tunnel, I-595, and the I-4 long-term PPP projects (discussed below) which are included when calculating the benchmark debt ratio. Contract debt is included in total debt outstanding to recognize the obligations as State debt, but excluded from calculating the benchmark debt ratio because of the short-term nature of the obligation and to reduce near-term volatility in the benchmark debt ratio.

DOT Long-Term PPP Projects

Pursuant to Section 334.30, Florida Statutes, DOT has executed three agreements with private partners to advance construction of the I-595 Corridor Improvement Project, the Port of Miami Tunnel Project, and I-4 Project through Orlando. ***These projects have original combined construction costs of $4.5 billion—$1.3 billion for the I-595, $543 million for the Port of Miami Tunnel, and $2.7 billion for the I-4 Project.***

The capital costs and operations/maintenance expenses of these PPP projects are paid through "Availability Payments" and short-term payments tied to construction. Availability Payments are mandatory, scheduled payments that commence when construction is complete and continue for 30 to 35 years. The capital costs of these PPP projects are included as outstanding debt of the State. ***The capital portion of the required payments for DOT's PPP projects total $6.7 billion over the next 37 years.*** The schedule of mandatory payments for the construction of PPP projects is shown in Figure 6. The maximum aggregate annual payment of $543 million for the capital costs associated with these projects is due in 2022.

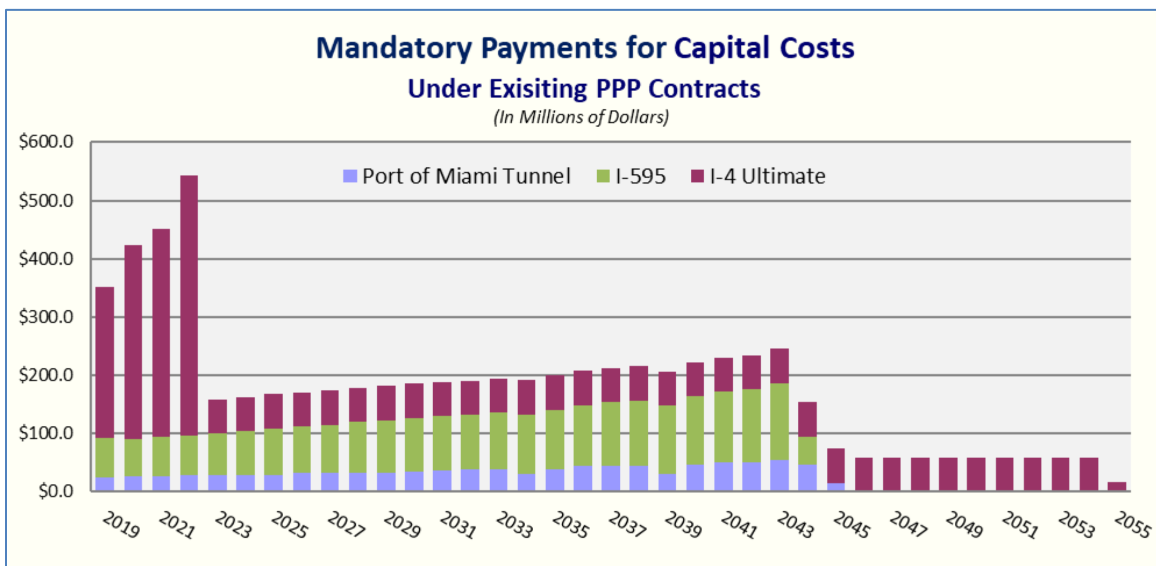


Figure 6

As noted above, ***the State includes the PPP obligations for the capital costs associated with construction of PPP projects as State debt.*** The general consensus among rating agencies is short-term payments tied to construction, no matter when paid to the private partner, should be included as debt of the State. Consequently, as of June 30, 2018, the remaining short-term payments tied to construction associated with the I-595 Project ($4.3 million) and with the I-4 Project ($1.3 billion) are included as State debt.

Section 334.30, Florida Statutes, requires DOT to ensure that no more than 15% of the total available federal and state funding in the STTF in any given year be obligated to required payments for contract debt and PPP contracts. The amount available under the 15% cap varies annually over the next ten years; however, DOT estimates that in Fiscal Year 2028, $940 million remains for further leveraging

under the statutory cap. ***The amount available under the statutory cap generates (for illustrative purposes) additional debt capacity of $9.4 billion. If this amount were added to the State's Fiscal Year 2018 benchmark debt ratio calculation, the incremental increase would be approximately 3.57%***. We will continue to analyze the amount available in the STTF that can be further leveraged under the statutory cap to determine the effect on the State's benchmark debt ratio.

DOT Financing Corporation

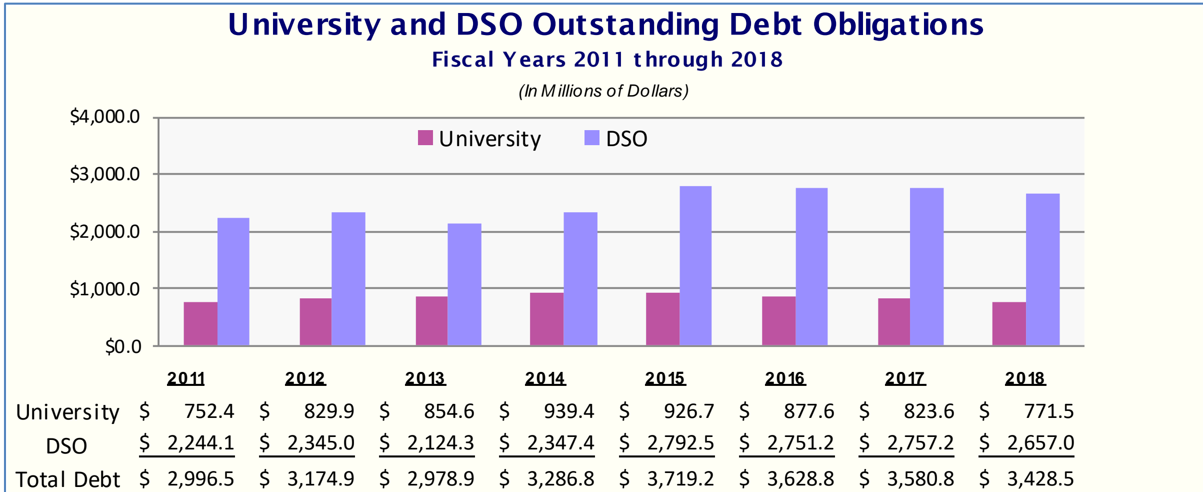
The 2016 Legislature adopted legislation which established the Florida Department of Transportation Financing Corporation ("Financing Corporation") to provide a more efficient method of financing projects to be advanced in DOT's work plan. Applicable projects would require specific approval for the financing by the Legislature along with the project approval. The Financing Corporation is governed by a board of directors consisting of the Governor's Budget Director, the Director of Bond Finance, and the Secretary of DOT. Financings undertaken by the corporation will be secured by a covenant to budget and appropriate monies from the STTF with no effective limit on the amount of debt that may be secured by those revenues.

The initial project financed by the Financing Corporation is an interchange connecting I-95 and I-595 and a second express lane from the interchange, north-bound and south bound, on I-95 in Broward County ("I-95/I-595 project"). The I-95/I-595 project is estimated to cost approximately $500 million and the first installment of the financing was delivered in early Fiscal Year 2019. The project is anticipated to be financed over three years with the overall life of the loan being no longer than 15 years from the initial financing.

DOT is also considering using the Financing Corporation to finance expansion and improvements to I-4 south of downtown Orlando ("I-4 Beyond the Ultimate" project). The first phase of expansion and improvement is estimated to utilize a combined $314 million in bonding and is scheduled for Fiscal Year 2020. The project is anticipated to be financed over three years with the life of the loan being no longer than 30 years.

University DSO and PPP Obligations

Each state university utilizes DSOs to support its various auxiliary functions (e.g. athletics, healthcare, fundraising, research activities, etc.). DSOs can also serve as a conduit issuer or shell corporation that universities use to finance capital projects, including campus housing, parking and athletic facilities. DSO transactions are approved by the universities' Boards of Trustees, DSO Boards, and the Board of Governors. Unlike transactions managed by the Division of Bond Finance, DSO transactions do not require approval by the Governor and Cabinet. As shown in Figure 7, ***University DSO debt and PPP obligations are estimated to be approximately $2.7 billion as of June 30, 2018 and represented 77% of university debt outstanding.*** If DSO debt and PPP obligations were included in State direct debt it would be approximately 13% higher. ***Universities have increasingly used DSOs to incur debt for infrastructure projects.*** For purposes of the 2018 Report, University DSO debt and PPP obligations are excluded from state debt and the benchmark debt ratio.



	2011	2012	2013	2014	2015	2016	2017	2018
University	$ 752.4	$ 829.9	$ 854.6	$ 939.4	$ 926.7	$ 877.6	$ 823.6	$ 771.5
DSO	$ 2,244.1	$ 2,345.0	$ 2,124.3	$ 2,347.4	$ 2,792.5	$ 2,751.2	$ 2,757.2	$ 2,657.0
Total Debt	$ 2,996.5	$ 3,174.9	$ 2,978.9	$ 3,286.8	$ 3,719.2	$ 3,628.8	$ 3,580.8	$ 3,428.5

Figure 7

Board of Governors PPP and Debt Management Guidelines

During Fiscal Year 2016, the Board of Governors ("BOG") adopted PPP Guidelines which created a framework for analyzing and authorizing university PPPs. The PPP Guidelines are consistent with the requirements and limitations set forth in Section 1010.62, Florida Statutes governing the issuance of university or DSO debt, including the BOG's review and approval. Pursuant to the PPP Guidelines, each transaction is analyzed and if it involves the financing of university facilities it is properly reflected as university or DSO debt. We will continue to monitor the development of university PPP agreements and the associated long-term obligations to determine their effect on the State's liability profile.

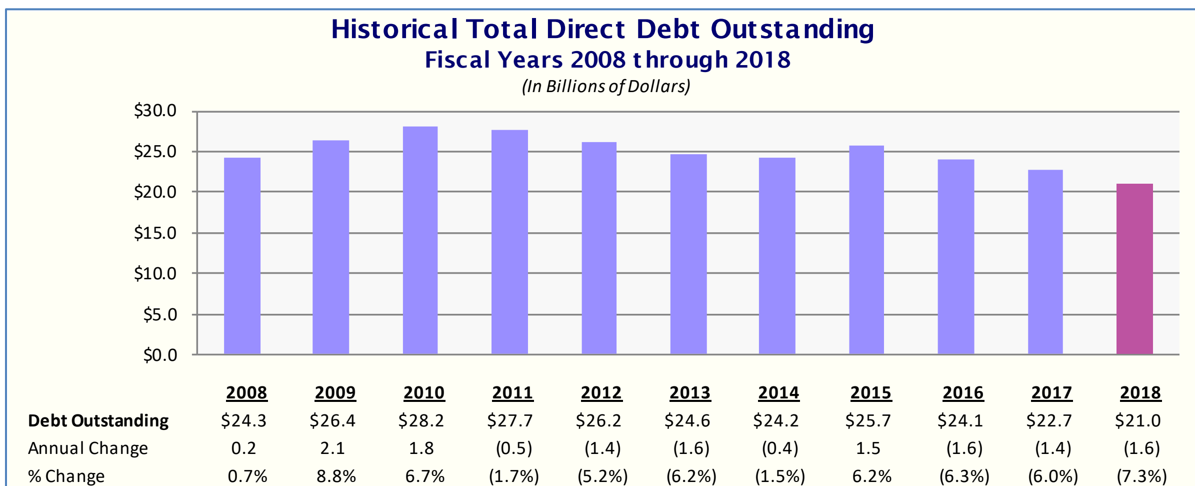
The BOG also amended its Debt Management Guidelines to require universities to coordinate rating agency communications with the Board of Governors and Division of Bond Finance. This facilitates the coordinated delivery of information to the rating agencies and better position the universities to maintain their ratings on university and DSO debt.

Charter Schools

According to the Florida Department of Education, there were 655 charter schools educating 295,800 students in the State of Florida in Fiscal Year 2018, an enrollment increase of 4.2% in one year. Like Florida public schools, charter schools receive funding for operations from the State on a per student basis. In addition, charter schools can become eligible for capital outlay funding beginning in the fourth year of operation. Capital outlay disbursements to charter schools totaled $50 million in Fiscal Year 2018, a decrease of $25 million from Fiscal Year 2017. Enrollment demand has pressured existing charter school facilities and contributed to the proliferation of debt issuance to finance new schools or refinance existing schools. ***Since charter school debt is not a direct obligation of the State and municipal market participants evaluate obligations based on the operator and success of the school, it is not treated as State direct debt and is excluded when calculating the benchmark debt ratio.***

CHANGES IN STATE DEBT OUTSTANDING

Reviewing the trend in the State's outstanding debt is an important tool in evaluating how debt levels have changed over time. Figure 8 illustrates the growth in total State direct debt from Fiscal Years 2008 through 2010 and the subsequent reductions in Fiscal Years 2011 through 2014 before increasing in Fiscal Year 2015 and once again decreasing in Fiscal Year 2016 through 2018.



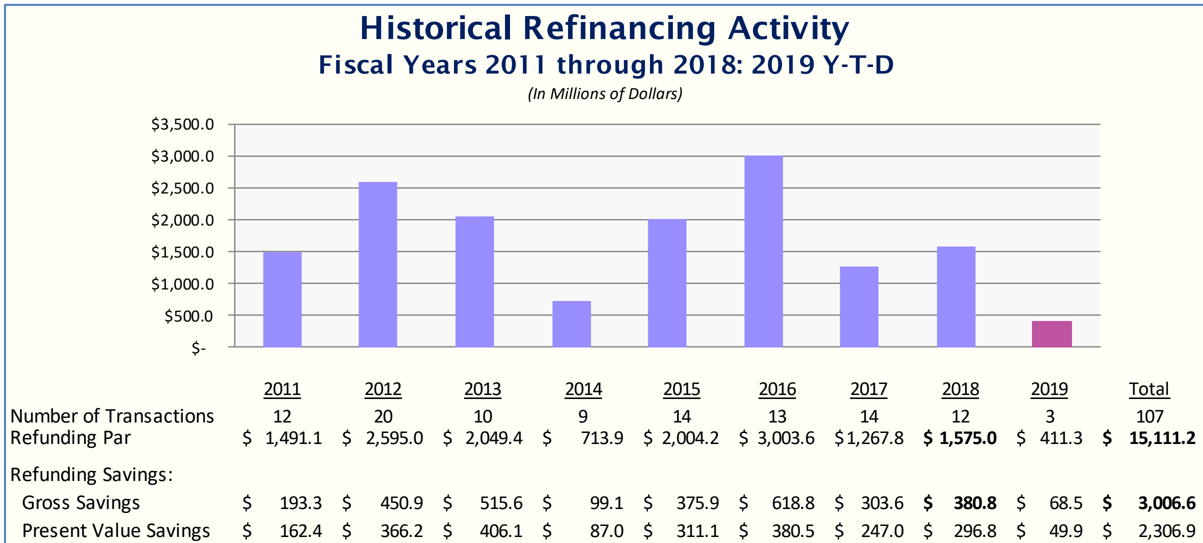
	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018
Debt Outstanding	$24.3	$26.4	$28.2	$27.7	$26.2	$24.6	$24.2	$25.7	$24.1	$22.7	$21.0
Annual Change	0.2	2.1	1.8	(0.5)	(1.4)	(1.6)	(0.4)	1.5	(1.6)	(1.4)	(1.6)
% Change	0.7%	8.8%	6.7%	(1.7%)	(5.2%)	(6.2%)	(1.5%)	6.2%	(6.3%)	(6.0%)	(7.3%)

Figure 8

During Fiscal Years 2008 through 2010, the State made substantial investments in infrastructure for education, transportation, and acquiring conservation lands to address the needs of a growing population. As a result, total State direct debt grew by $3.9 billion from $24.3 billion as of June 30, 2008 to $28.2 billion as of June 30, 2010. During those years, increases in debt outstanding were primarily due to the issuance of PECO bonds ($900 million), PPP obligations ($1.8 billion), Lottery bonds ($370 million), and correctional facility financings ($430 million).

Between June 30, 2010 and June 30, 2018, total direct debt declined by approximately $7.1 billion, or 25%, because very little new money debt was authorized. The decrease in new money debt authorizations was due in part to a change in debt management policy that requires more rigorous scrutiny of debt financed projects with a focus on the return on investment or other appropriate quantitative metrics. In Fiscal Year 2015, debt increased by approximately $1.5 billion to $25.7 billion due to substantial investment in transportation infrastructure (I-4 Project) and a refinement in how PPP obligations are recorded. ***In Fiscal Year 2018, debt declined $1.6 billion and continued the downward trend started in Fiscal Year 2011.***

The State executed 12 refinancing transactions in Fiscal Year 2018 generating gross debt service savings of $381 million or $297 million on a present value basis. The vast majority of debt issuance over the past eight and a half fiscal years has been to refinance debt at lower interest rates and reduce annual debt service. As shown in Figure 9, ***over the past eight and a half fiscal years, the State has executed 107 refundings totaling $15.1 billion generating gross debt service savings of $3.0 billion over the remaining life of the bonds or $2.3 billion on a present value basis. More than 70% of all State debt has been refinanced to lower interest rates.***



	2011	2012	2013	2014	2015	2016	2017	2018	2019	Total
Number of Transactions	12	20	10	9	14	13	14	12	3	107
Refunding Par	$ 1,491.1	$ 2,595.0	$ 2,049.4	$ 713.9	$ 2,004.2	$ 3,003.6	$1,267.8	**$ 1,575.0**	$ 411.3	**$ 15,111.2**
Refunding Savings:										
Gross Savings	$ 193.3	$ 450.9	$ 515.6	$ 99.1	$ 375.9	$ 618.8	$ 303.6	**$ 380.8**	$ 68.5	**$ 3,006.6**
Present Value Savings	$ 162.4	$ 366.2	$ 406.1	$ 87.0	$ 311.1	$ 380.5	$ 247.0	$ 296.8	$ 49.9	$ 2,306.9

Figure 9

Florida has been able to take advantage of historically low interest rates over the past several years through the use of advance refunding bonds. Advance refunding bonds are refunding bonds that are issued more than 90 days prior to the call date. The repeal of tax-exempt advance refunding bonds became law on January 1, 2018. The Division continues to actively manage the State's debt portfolio for refunding opportunities, including the advance refunding of certain Build America Bonds, to take advantage of favorable interest rate environments and provide meaningful savings to its taxpayers and citizens.

The Federal Reserve (the "Fed") is expected to continue its policy of monetary tightening for the foreseeable future. Continued tightening by the Fed will lead to an increase in interest rates which could hinder future refinancing of State debt.

The combination of the repeal of advance refundings and expected further monetary policy tightening from the Fed will likely lead to a decline in refinancing activity as the State will have fewer refinancing tools in a rising rate environment.

CHANGES IN ANNUAL DEBT SERVICE PAYMENTS

Annual debt service payments for the State's existing net tax-supported debt were approximately $2.3 billion in Fiscal Year 2018. Over the past ten years annual debt service payments increased between Fiscal Years 2008 and 2011, peaking at $2.2 billion in Fiscal Year 2011 where it remained for two years before declining 14% to $1.9 billion in Fiscal Year 2014. The change in the annual debt service payment mirrors the increase in total debt outstanding between Fiscal Years 2008 and 2010 and subsequent decline between Fiscal Years 2011 and 2014. The increase in Fiscal Years 2015 through 2018 show the impact from refining how PPP obligations are reflected. From a budgetary perspective, measuring the growth in annual debt service indicates how much of the State's resources are obligated for paying debt service before providing for other essential government services.

Figure 10 depicts the change in annual debt service payments over the past 11 years. The annual debt service requirement of $1.9 billion in Fiscal Year 2014 illustrates the first material decline in debt service since 1990. In Fiscal Year 2015, 2016, 2017, and 2018, debt service increased by $84 million, $82 million, $125 million, and $117 million, respectively, to nearly $2.3 billion in Fiscal Year 2018 reflecting the impact of PPP payments.

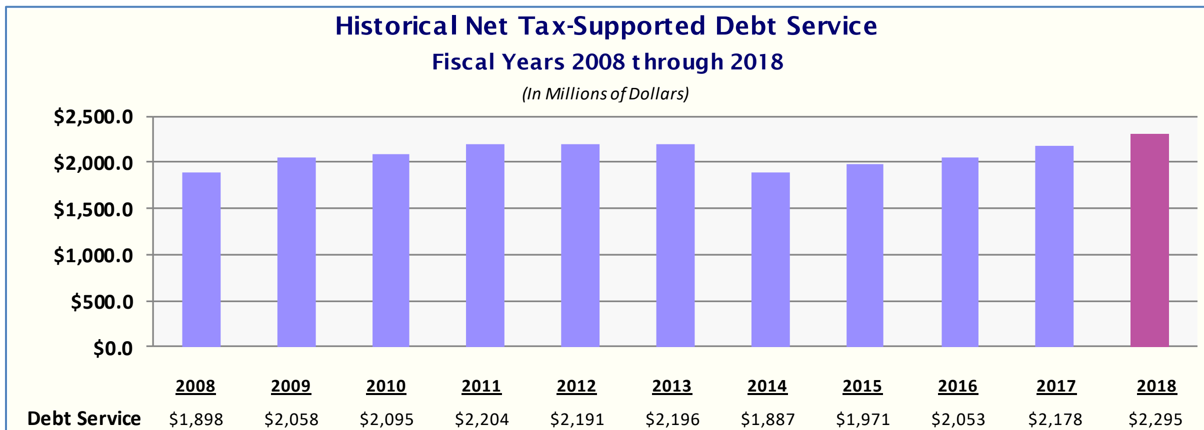


Figure 10

Figure 11 shows annual debt service payments consisting of both principal and interest amounts over the next ten years for the State's existing net tax-supported debt. ***Debt service payments on existing outstanding debt total $16.1 billion over the next ten years***, with principal and interest payments of $11.3 billion and $4.7 billion, respectively. Annual debt service requirements decrease next fiscal year to $2.0 billion and remain level before increasing to approximately $2.1 billion in Fiscal Year 2022. The uneven or increasing annual debt service requirements are due to the short-term (usually five years or less) payments for DOT PPPs tied to construction of the projects (I-595 and I-4 Projects).

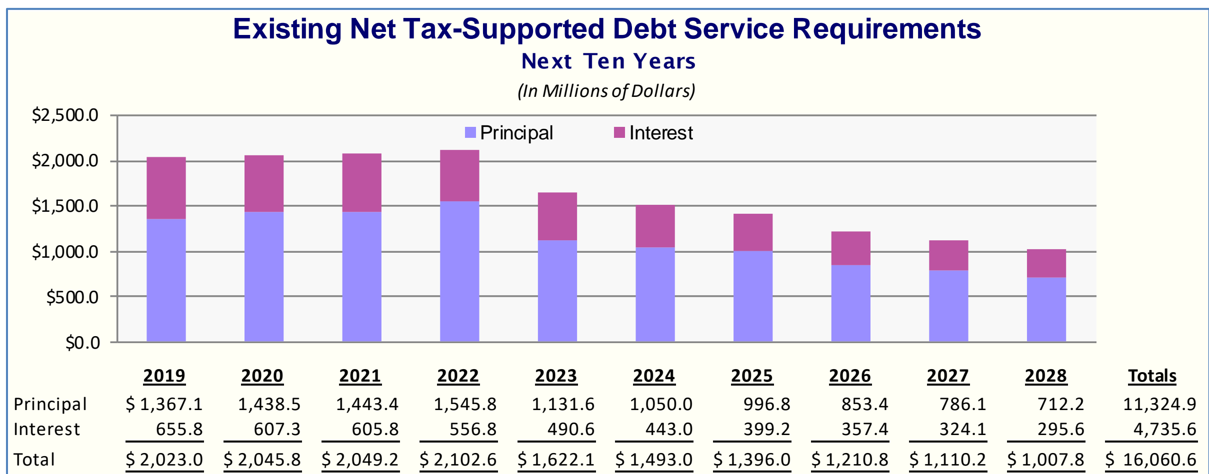


Figure 11

PROJECTED DEBT ISSUANCE

Future projected debt issuance is provided by various State agencies that receive proceeds under authorized bond programs. Projections exclude any (beyond that authorized but unissued) additional PECO borrowing and exclude Florida Forever, and additional PPP projects not yet entered into by DOT as the amounts and timing of debt issuance under these programs are unknown.

Projected Debt Issuance By Program

Fiscal Years 2019 through 2028

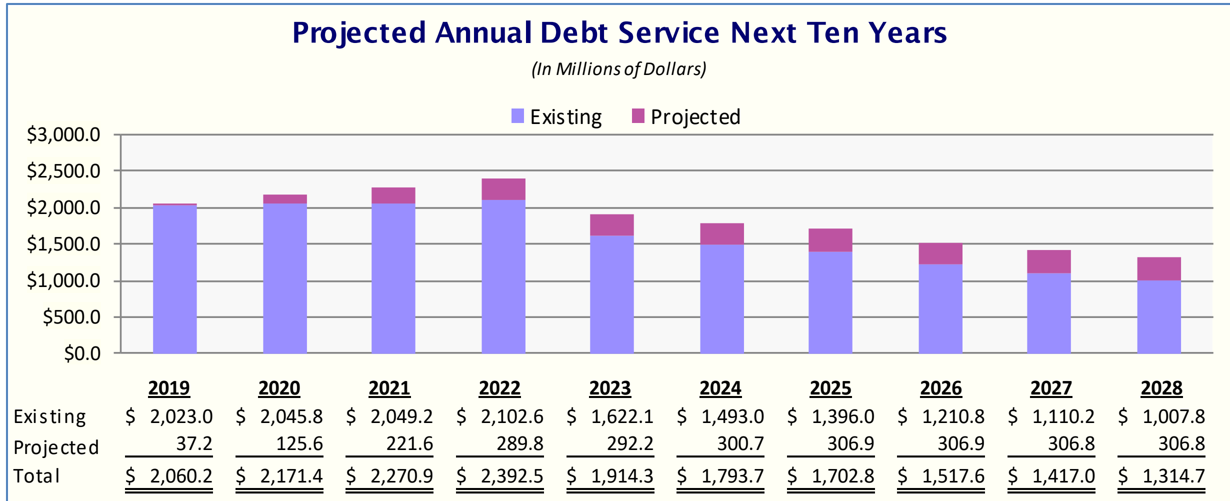
(In Millions of Dollars)

Fiscal Year	PECO	ROW	GARVEE	DOT Fin. Corp	Master Lease	Total Issuance
2019	$ 116.1	$ 245.3	$ -	$ 164.0	$ 7.0	$ 532.4
2020	-	345.0	325.0	249.6	12.0	931.6
2021	-	180.0	520.0	257.4	11.0	968.4
2022	-	225.0	445.0	89.6	-	759.6
2023	-	75.0	-	26.6	-	101.6
2024	-	190.0	-	-	-	190.0
2025	-	95.0	-	-	-	95.0
2026	-	-	-	-	-	-
2027	-	-	-	-	-	-
2028	-	-	-	-	-	-
Total	$ 116.1	$ 1,355.3	$ 1,290.0	$ 787.2	$ 30.0	$ 3,578.6

Figure 12

As detailed in Figure 12, ***approximately $3.6 billion in debt issuance is projected over the next ten years, primarily for transportation. The projected issuance decreased by approximately $320 million (8%) from $3.9 billion previously projected in the 2017 Report.*** The 2014 Legislature passed legislation that shifted a portion of the State sales tax to the gross receipts tax on electricity and telecommunications that generates revenues dedicated to the PECO program. The August 2018 PECO estimating conference projects that the funds shift, when combined with the remaining gross receipts, creates nearly $2.9 billion in PECO bonding capacity but only the issuance approved during the 2018 Legislative Session is included and no additional projected issuance is included in the 2018 Report. ***The high volume in projected issuance over the next ten years negatively impacts the projected benchmark debt ratio.***

PROJECTED DEBT SERVICE



	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
Existing	$ 2,023.0	$ 2,045.8	$ 2,049.2	$ 2,102.6	$ 1,622.1	$ 1,493.0	$ 1,396.0	$ 1,210.8	$ 1,110.2	$ 1,007.8
Projected	37.2	125.6	221.6	289.8	292.2	300.7	306.9	306.9	306.8	306.8
Total	$ 2,060.2	$ 2,171.4	$ 2,270.9	$ 2,392.5	$ 1,914.3	$ 1,793.7	$ 1,702.8	$ 1,517.6	$ 1,417.0	$ 1,314.7

Figure 13

Existing debt service and the annual debt service requirements associated with projected bond issuance over the next ten fiscal years is shown in Figure 13. ***Based on existing and projected debt service, annual debt service is expected to decrease to about $2.1 billion in Fiscal Year 2019 and will remain between $2.2 billion and $2.3 billion through Fiscal Year 2021 and will increase to a peak of $2.4 billion in Fiscal Year 2022, before declining to approximately $1.9 billion in Fiscal Year 2023.*** Figure 13 excludes required payments for DOT's short-term contract debt, which is included in total outstanding debt but not in projected debt service requirement.

LONG-RUN REVENUE FORECASTS

Revenue available to pay debt service is one of the two variables used to calculate the benchmark debt ratio. Actual revenue collections for Fiscal Year 2018 exceeded Fiscal Year 2017 collections by $2.1 billion, a 5.4% increase. The primary increase in available revenues—$1.5 billion—was the result of increased General Revenues. ***Changes in revenue estimates have a significant impact on the calculation of available debt capacity and are especially important given the State's dynamic economic environment. The August 2018 Revenue Estimating Conference results have been used for purposes of this Report. Revenue forecasts will be reviewed and revised by the Revenue Estimating Conferences in March 2019 and this Report will be updated once the results are available.*** Forecasted revenue growth could be tempered by geopolitical uncertainty and its effect on the U.S. and international economies and continued monetary policy tightening by the Federal Reserve.

General revenues, as well as specific tax revenues pledged to various bond programs (examples: gross receipts taxes pledged to the PECO bonds, motor fuel taxes pledged to Right-of-Way bonds, and dedicated percentages of documentary stamp tax collections pledged to the Florida Forever and Everglades Restoration bond programs), are available for debt service. Historical and short-term projections of revenues available for debt service, broken down by source, are provided in Figure 14. The projection of revenues available for debt service reflects forecasts adopted at the August 2018 Revenue Estimating Conferences.

Total revenues available in Fiscal Year 2018 totaled $41.0 billion or $2.1 billion more than the $38.9 billion available in Fiscal Year 2017. The increase in total available revenues helped offset the increase in annual debt service which put upward pressure on the projected benchmark debt ratio.

Projected Revenue Available for State Tax-Supported Debt

(In Millions of Dollars)

Fiscal Year	Actual 2017	Actual 2018	Projection 2019	Projection 2020	Projection 2021
Revenue Available:					
General Revenue	$ 29,594.5	$ 31,218.2	$ 32,243.8	$ 33,334.7	$ 34,544.2
Less : Documentary Stamp Tax Included Below	(762.2)	(867.2)	(901.5)	(933.9)	(964.9)
Net General Revenue	$ 28,832.3	$ 30,351.0	$ 31,342.3	$ 32,400.8	$ 33,579.3
Specific Tax Revenue					
Gross Receipts	1,111.6	1,153.7	1,177.0	1,191.0	1,204.5
Motor Vehicle License	734.6	768.9	816.3	828.4	840.1
Lottery	1,656.3	1,760.0	1,801.8	1,798.9	1,831.4
Documentary Stamp Tax	2,417.8	2,510.0	2,615.4	2,717.4	2,815.3
Motor Fuel Tax	1,398.7	1,440.5	1,469.5	1,527.3	1,572.8
Motor Vehicle License-Surcharge	25.7	26.2	18.4	18.4	18.4
Tax on Pollutants-IPTF	212.9	222.5	225.2	227.6	229.4
University Net Bldg Fees & Cap. Impr. Fees	56.2	58.3	58.9	59.5	60.1
Community College Cap. Impr.Fees	40.1	40.0	41.5	43.0	44.5
Title Fees	200.0	200.0	200.0	200.0	200.0
Federal Reimbursements for Transportation	2,216.5	2,506.4	2,441.7	2,323.1	2,195.8
Other Sources	-	-	-	-	-
Designated for P3 Debt Payments	42.3	10.5	2.8	2.8	222.3
Total State Revenue Available	**$ 38,945.0**	**$ 41,048.1**	**$ 42,210.9**	**$ 43,338.3**	**$ 44,813.9**

Figure 14

Figure 15 sets forth a five-year history and ten-year estimate of revenues available to pay debt service. Consistent improvement in the State's economy since Fiscal Year 2014 has positively affected revenues available for debt service and the projected benchmark debt ratio. Projected stable long-term revenue growth exerts positive influence on the benchmark debt ratio. Near-term revenues will be updated by the Revenue Estimating Conference to be held in March 2019.

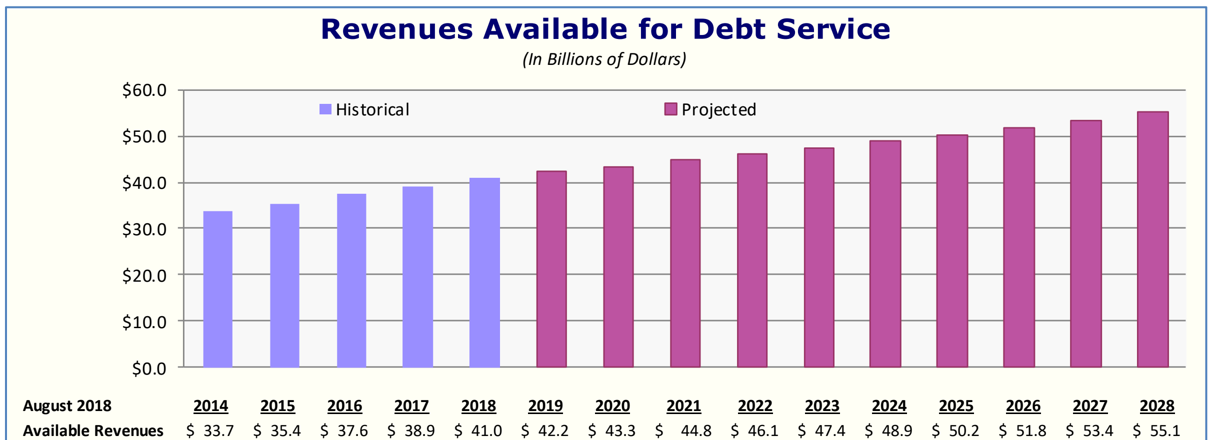


Figure 15

BENCHMARK DEBT RATIO

The metric used for the benchmark in the debt affordability analysis is the ratio of debt service to revenues available to pay debt service. The policy guidelines established by the Legislature include a 6% target and a 7% cap for the benchmark debt ratio. ***Figure 16 tracks both the historical and projected benchmark debt ratio.*** The benchmark debt ratio increased significantly between Fiscal Years 2007 and 2009 as revenues declined during the Great Recession. Following Fiscal Year 2010, the benchmark debt ratio gradually declined when revenues improved and debt service payments remained flat. ***Total debt service payments of $2.3 billion in Fiscal Year 2018 were nearly $117***

million higher than Fiscal Year 2017. The benchmark debt ratio was 5.59% in Fiscal Year 2018, remaining under the 6% target for the fifth consecutive year.

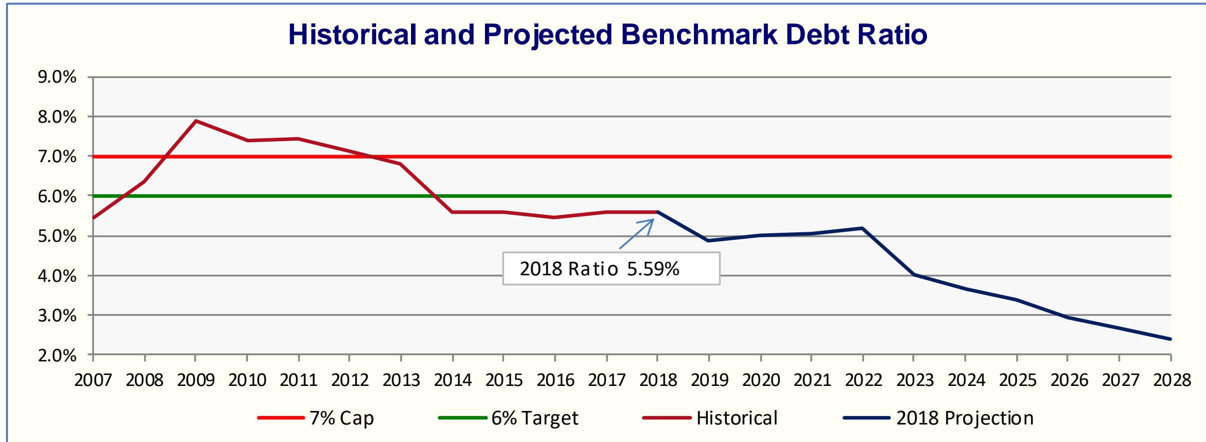


Figure 16

The projected benchmark debt ratio for the next ten years, shown in Figure 17, is based on the August 2018 revenue forecasts and projected debt issuance as of the date of this Report. The Revenue Estimating Conference scheduled in March 2019 is expected to revise the general revenue forecast, and projections of the benchmark debt ratio will be updated accordingly.

Benchmark Debt Ratio Projection

	Actual 2017	Actual 2018	2019	2020	2021	2022	2023	2024	2025	2026	2027	2028
2018 Projection	5.59%	**5.59%**	4.88%	5.01%	5.07%	5.19%	4.04%	3.67%	3.40%	2.93%	2.65%	2.39%

Figure 17

The benchmark debt ratio was 5.59% in Fiscal Year 2018, remaining below the 6% target for the fifth consecutive year. Projections show the benchmark debt ratio remaining below the 6% policy target over the forecast period reflecting lower projected issuance and steady increases in forecasted revenue collections.

Projected bond issuance excludes any additional borrowing for PECO debt, Florida Forever, and additional PPP projects entered into by DOT as the amounts and timing of debt issuance under these programs are unknown. ***The projected improvement in the benchmark debt ratio is dependent on realizing the revenue growth projected by the Revenue Estimating Conference and forgoing new bond authorizations beyond those included in projected borrowing plans.***

CHANGE IN DEBT CAPACITY

The final step in the debt affordability analysis is estimating future debt capacity. Debt capacity as shown below in Figure 18 is based on projected issuance, over the next ten years, as of the date of this Report and the August 2018 revenue projections. Debt capacity can change significantly due to changes in revenue estimates reflecting a changing economic environment. ***With the benchmark debt ratio remaining below the 6% policy target in Fiscal Year 2018 and with a significant reduction in projected debt issuance over the next 10 years, a substantial amount of debt capacity is available for future bonding.***

Debt Capacity Analysis Ten-Year Projection 6% Target; 7.0% Cap (In Millions of Dollars)	6% Target	7% Cap
Total Debt Capacity Available	$ 30,785.0	$ 37,865.0
Estimated Bond Issuance	3,578.6	3,578.6
Net Debt Capacity Available	$ 27,206.4	$ 34,286.4

Figure 18

Figure 18 shows that over the next 10 years, nearly $30.8 billion in bonding capacity is available based on the 6% benchmark debt ratio target. As shown previously, projected debt issuance under existing bond programs is approximately $3.6 billion for the next ten fiscal years. As a result, approximately $27.2 billion of debt capacity is available over the next ten years. Assumptions for projected issuance excludes any additional borrowing for PECO, Florida Forever, and additional PPP projects entered into by the Department of Transportation as the amounts and timing of debt issuance under these programs are unknown. Also shown in Figure 18 is an estimated $34.3 billion in net debt capacity available to address State infrastructure needs under the 7% benchmark debt ratio cap over the next ten years.

Projections in this Report indicate ***the benchmark debt ratio will remain consistently below the 6% target through 2028, which provides flexibility for the State to issue additional debt while maintaining compliance with the 6% policy target.*** However, the State's debt policy was modified in December 2012, requiring state agencies to show a return on investment or other appropriate quantitative metrics as justification for bond-financed projects. This policy change creates a more rigorous standard to justify using bonding capacity and reinforces the principle that ***estimated debt capacity should be considered a scarce resource and used sparingly to provide funding for critical State infrastructure needs.*** Once used, the capacity is not available again for 20 to 30 years.

DEBT RATIO COMPARISON

The municipal bond market evaluates a government's debt position with four primary debt ratios: debt service to revenues; debt per capita; debt to personal income; and net tax-supported debt as a percentage of a state's gross domestic product ("GDP"). Florida's debt ratios are compared to national and peer group medians where the State's peer group is comprised of the eleven most populous states. ***Florida's ratios are lower than peer group averages for debt per capita, debt as a percentage of personal income, and debt as a percentage of GDP. Florida's debt service as a percentage of revenues is higher than the peer group average due to the variability in Availability Payments for long term PPP projects.***

Debt Ratios
2017 Comparison of Florida to Peer Group and National Medians

	Net Tax-Supported Debt Service as a % of Revenues	Net Tax-Supported Debt Per Capita	Net Tax-Supported Debt as a % of Personal Income	Net Tax-Supported Debt as a % of GDP
Florida	5.59%	$925	1.96%	2.02%
Peer Group Mean	5.53%	$1,682	3.19%	2.77%
National Median	4.20%	$987	2.30%	2.05%

Figure 19

Figure 20 details the Eleven Most Populous State Peer Group Comparison for the four debt ratios relative to net tax-supported debt. Florida improved in the debt per capita and debt as a percent of State

GDP categories, from 7th highest to 8th highest and 6th highest to 7th highest, respectively. Debt Service as a Percent of Revenues category where Florida's relative ranking improved to 6th highest from 5th highest. Florida maintained the 6th spot in debt service as a percent of revenues and the 8th spot in debt as a percent of State personal income.

2017 Debt Ratios Comparison of Eleven Most Populous States

	Rank	Net Tax-Supported Debt Service as a % of Revenues	Rank	Net Tax-Supported Debt Per Capita	Rank	Net Tax-Supported Debt as a % of Personal Income	Rank	Net Tax-Supported Debt as a % of State GDP	General Obligation Ratings Fitch/Moody's/S&P
New Jersey	1	9.40%	1	$4,281	1	7.00%	1	6.70%	A/A3/A-
Illinois	2	9.20%	3	$2,919	2	5.60%	2	4.70%	BBB/Baa3/BBB-
New York	3	8.10%	2	$3,082	3	5.20%	3	4.08%	AA+/Aa1/AA+
Georgia	4	6.40%	7	$986	7	2.40%	8	1.94%	AAA/Aaa/AAA
Ohio	5	5.60%	6	$1,118	6	2.50%	6	2.08%	AA+/Aa1/AA+
Florida	**6**	**5.59%**	**8**	**$925**	**8**	**1.96%**	**7**	**2.02%**	**AAA/Aaa/AAA**
California	7	4.60%	4	$2,188	4	3.90%	4	3.30%	AA-/Aa3/AA-
Pennsylvania	8	3.60%	5	$1,311	5	2.60%	5	2.33%	AA-/Aa3/A+
North Carolina	9	3.10%	10	$611	9	1.50%	10	1.20%	AAA/Aaa/AAA
Texas	10	2.70%	11	$410	11	0.90%	11	0.73%	AAA/Aaa/AAA
Michigan	11	2.50%	9	$673	9	1.50%	9	1.37%	AA/Aa1/AA
Median		**5.59%**		**$1,118**		**2.50%**		**2.08%**	
Mean		**5.53%**		**$1,682**		**3.19%**		**2.77%**	
National Median		**4.20%**		**$987**		**2.30%**		**2.05%**	

Figure 20

Pension Obligations

The pension system is relatively well-funded with a funded ratio of 83.9% as of June 30, 2017 based on GASB reporting methodology. Since 2014, Florida has fully funded its actuarially determined contribution to the pension system following a period of underfunding for budget relief during the Great Recession. Rating agencies continue to evaluate the credit impact of unfunded pension liabilities and several states have been downgraded due to the magnitude and poor management of the pension obligation. Annual pension contributions are viewed as long-term fixed costs by rating agencies, and like debt service, potentially crowd-out other expenditures and create structural budget imbalance if not managed. As a result, ***management and funding of the pension system are important aspects of evaluating Florida's credit rating.***

Rating agencies have developed quantitative methodologies to evaluate a state's pension liabilities and integrate them into their credit analysis. Moody's and Fitch each employ various "adjustments" to reported pension liabilities for greater comparability across the state sector including application of a common rate of return to the pension system's investments. Additionally, for multi-employer plans like Florida's, Moody's and Fitch allocate the unfunded liability to all participating governments, attributing only a portion to the State. These adjusted net pension liabilities ("ANPL") are analyzed relative to the economic metrics used to evaluate debt obligations among Florida's peer group. As shown in Figure 21, Florida's adjusted pension liability of about $25.4 billion falls significantly below the median of nearly $89.0 billion for the largest states. ***Florida has the next to lowest ratio in the peer group when comparing ANPL per capita and ANPL as a percent of personal income. Florida ranks 8th highest when comparing ANPL as a percent of revenues and 9th highest when comparing ANPL as a percent of State GDP.***

2017 Pension Metrics Comparison of Eleven Most Populous States

Adjusted Net Pension Liabilities ("ANPL") and Medians

State	Rank	ANPL (in Millions)	Rank	ANPL as a % of Own-Source Revenues	Rank	ANPL Per Capita	Rank	ANPL as a % of Personal Income	Rank	ANPL as a % of State GDP
Illinois	1	$ 250,136	1	601.0%	1	$ 19,539	1	37.0%	1	30.5%
California	2	234,042	5	136.0%	4	5,920	5	10.2%	4	8.5%
Texas	3	140,253	3	196.0%	5	4,955	4	10.6%	5	8.3%
New Jersey	4	115,964	2	290.0%	2	12,877	2	20.6%	2	19.6%
Pennsylvania	5	80,549	4	185.0%	3	6,290	3	12.1%	3	10.7%
New York	6	43,640	10	48.0%	8	2,199	8	3.6%	8	2.8%
Michigan	7	37,142	6	113.0%	6	3,728	6	8.2%	6	7.4%
Georgia	8	26,236	7	104.0%	7	2,516	7	5.8%	7	4.7%
Florida	**9**	**25,395**	**8**	**52.0%**	**10**	**1,210**	**10**	**2.6%**	**9**	**2.6%**
Ohio	10	15,681	9	49.0%	9	1,345	9	2.9%	10	2.4%
North Carolina	11	10,348	11	36.0%	11	1,007	11	2.3%	11	1.9%
Median		**$ 43,640**		**113.0%**		**$ 3,728**		**8.2%**		**7.4%**
Mean		**$ 89,035**		**164.5%**		**$ 5,599**		**10.5%**		**9.0%**
National Median		**$ 12,033**		**107.0%**		**$ 3,207**		**6.9%**		**6.1%**

Figure 21

Rating agencies continue to refine the analysis used to evaluate pension liabilities. They now evaluate the reasonableness of assumptions used to calculate the pension liability and whether investment returns meet expectations. The actuarial methodologies which vary across plans are being assessed. The State's actuaries are using actuarial assumptions and methodologies that are not best practice or generally accepted. These factors can cause an understatement of pension liabilities and, more importantly, lead to underfunded pension contributions. Some larger states (California and New York) have adopted a glide-path to systematically lower the pension return assumption over a number of years to 7%. Other states have made large steps in decreasing the pension return assumption. For example, the Teacher Retirement System of Texas ("Texas TRS") made a 0.75% reduction in their pension return assumption in July of 2018 from 8.0% to 7.25%. ***Although the State has lowered the pension return assumption from 7.75% to 7.40% over the past five years, more progress to lower the return assumption is needed. The Legislature should consider creating a plan (e.g. over five years) to systematically bring the return assumption more in-line with expected investment returns.***

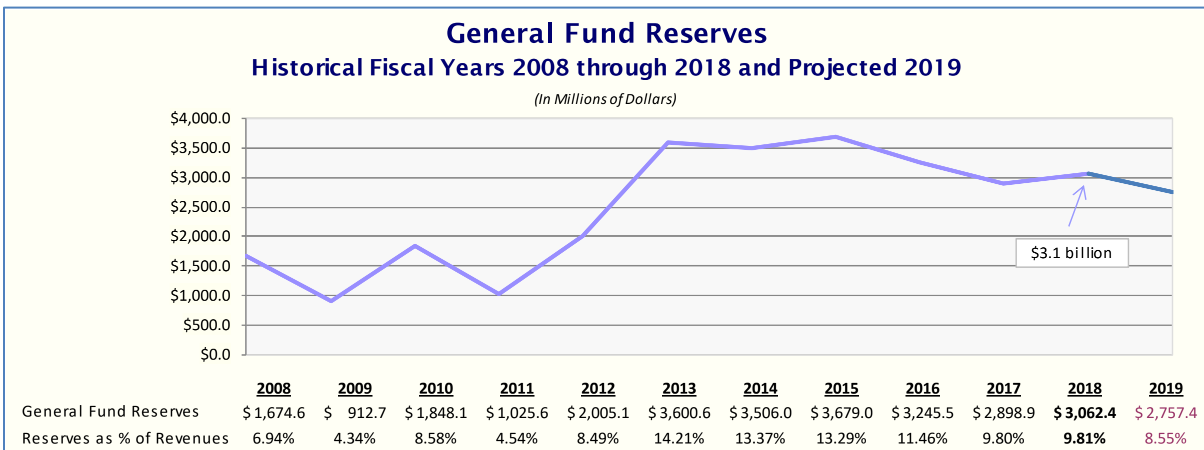
The assumptions used to calculate the required contribution to the Florida Retirement System ("FRS") are set by the FRS Actuarial Assumption Conference ("Conference"). The actuary uses the assumptions and actuarial methodologies set by the Conference to calculate the pension liability and required contribution. The most recent actuarial valuation used an investment return assumption for the FRS of 7.50%, which the actuary concluded was unreasonable. The investment return assumption used for the State's financial statements to comply with the generally accepted accounting principles is 7.10%, which the actuary concluded is reasonable. The investment return assumption used for calculating the required pension contribution leads to underfunding. If underfunding the pension contribution continues, the financial strength of the FRS could be adversely affected. It is imperative that the annually required contribution be made to adequately fund the FRS pension system. ***The Legislature should also consider formalizing a clear policy calling for full funding of the actuarially required contribution each year.***

Rating agencies have not coalesced around a standard methodology for treatment of other post-employment benefits ("OPEB"). Generally the analysis and credit implications of OPEB costs revolve around whether benefits are contractually or constitutionally protected similar to pension benefits or, if

like Florida, benefits are discretionary and included in the budget on a pay-as-you-go basis. As a result, the implicit subsidy associated with Florida's OPEB does not materially affect its long-term liability profile.

LEVEL OF RESERVES

An important measure of financial health and ability to respond to unforeseen financial challenges is the level of general fund reserves. The State's unspent general revenue combined with the Budget Stabilization Fund are collectively referred to herein as the "General Fund Reserves." Figure 22 shows the level of the State's General Fund Reserves since 2008, as well as the projected June 30, 2019 General Fund Reserve balance. ***Historically, Florida's level of reserves resulted from conservative financial management practices, and rating agencies cite financial flexibility provided by reserves as a key Credit Strength. Reserve levels were cited as a credit strength when Moody's upgraded Florida to "Aaa" in June, 2018.*** The traditional measure used by credit analysts, investors and rating agencies to assess the strength of the State's financial position is the ratio of General Fund Reserves to general revenues, expressed as a percentage.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
General Fund Reserves	$ 1,674.6	$ 912.7	$ 1,848.1	$ 1,025.6	$ 2,005.1	$ 3,600.6	$ 3,506.0	$ 3,679.0	$ 3,245.5	$ 2,898.9	**$ 3,062.4**	$ 2,757.4
Reserves as % of Revenues	6.94%	4.34%	8.58%	4.54%	8.49%	14.21%	13.37%	13.29%	11.46%	9.80%	**9.81%**	8.55%

Figure 22

General Fund Reserves

The substantial growth in reserves in the early 2000s strengthened the State's financial position and was cited as a credit strength in State rating upgrades in early 2005. From Fiscal Years 2007 to 2009 when Florida experienced a precipitous decline in its major operating revenues (sales tax and documentary stamp taxes) due to the Great Recession, General Fund Reserves were drawn down to mitigate spending reductions. Improving revenue collections in each year since 2011, as well as an informal policy to retain $1 billion in unspent general revenue, helped the state rebuild reserves. ***General Fund Reserves at Fiscal Year-end 2018 were $3.1 billion or 9.8% of general revenues. However, over the past three years, General Fund Reserves are down by more than $600 million as reserves have been used to supplement revenue collections to fund the budget.*** The Budget Stabilization Fund is fully funded at the required 5% of general revenues.

General Fund Reserves are projected to be $2.8 billion as of June 30, 2019, and reflects $73 million of processed budget amendments related to Hurricane Michael expenses. The fiscal impact on the State's General Revenue Fund for Hurricane Irma and Hurricane Michael related expenses, including individual assistance costs and the State's share of county costs for Hurricane Irma, is currently projected to be $1.6 billion or net $770 million after expected reimbursements from FEMA, with an additional net $95 million to be paid from State Trust Funds. The State's share of county costs for Hurricane Michael are not yet available and may have a significant impact on the State's General

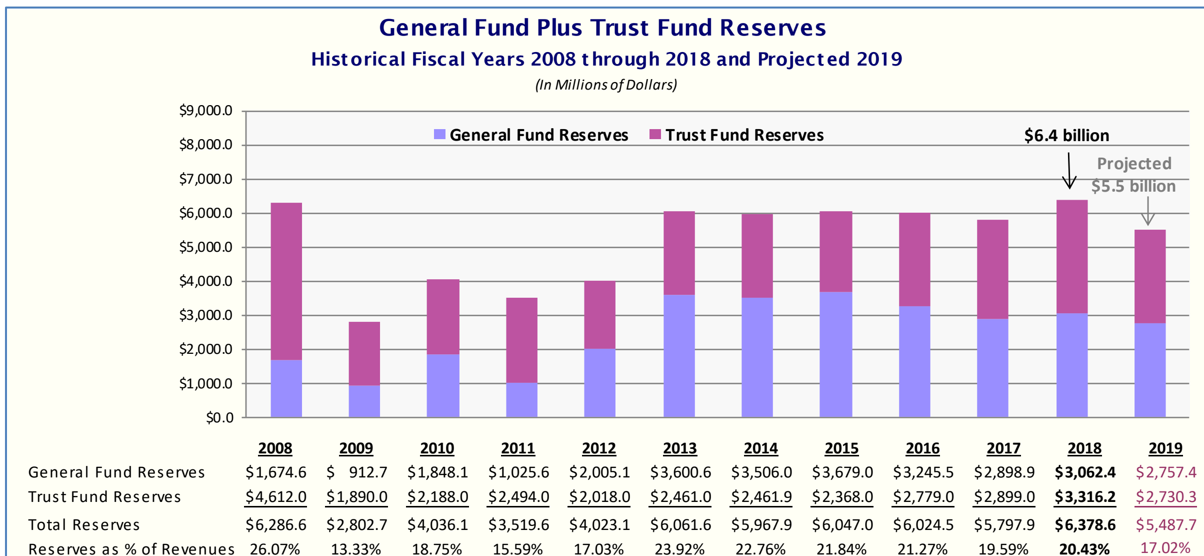
Revenue Fund. These costs are expected to be incurred over multiple budget years and current reserves provide sufficient financial flexibility to cover expenses in advance of FEMA reimbursement.

The State has used more than $600 million of General Fund Reserves to support budgeted spending in over the past three fiscal years. ***The legislature should consider formalizing targeted General Fund Reserves (unspent General Revenue plus Budget Stabilization Fund).*** Currently the amount of unspent general revenue targeted as reserves is $1 billion and this has been helpful in maintaining prudent reserves and financial flexibility. However, a more dynamic target should be considered (such as a percentage of General Fund Revenue other than a fixed dollar amount) to provide adequate financial flexibility with a growing state budget and inevitable revenue volatility experienced during changing economic climates or to address unexpected financial events like hurricanes.

Recently, rating agencies have been updating their rating criteria and methodology to include revenue and reserve sensitivity analysis. Fitch's FAST Model, for example, tests state revenue and reserve sensitivity to a recession on the national level. This dynamic analysis is being used in order to move away from "hard and fast" rating specific reserve requirements and instead, move toward understanding how a state's current level of reserves can serve to offset potential revenue volatility.

Trust Fund Reserves

Prior to 2009, trust fund balances that could be considered a "reserve," such as moneys in the Lawton Chiles Endowment Fund and other trust fund balances, were not included in measuring the State's reserves. The State has historically created trust funds and dedicated specified revenues for particular purposes. Well over half of the State's budget is comprised of trust-funded programs and activities. Established budgetary practices identify excess trust fund balances that are available and can be used for other purposes if directed by the Legislature. In fact, the Legislature has routinely swept available trust fund balances to supplement the general fund budget during periods of economic weakness to offset declining revenue collections. Therefore, including trust fund balances in the reserve analysis provides a more holistic picture of the State's financial flexibility. Figure 23 shows the impact of including trust funds in the reserve analysis over the past ten years.



	2008	2009	2010	2011	2012	2013	2014	2015	2016	2017	2018	2019
General Fund Reserves	$1,674.6	$ 912.7	$1,848.1	$1,025.6	$2,005.1	$3,600.6	$3,506.0	$3,679.0	$3,245.5	$2,898.9	**$3,062.4**	$2,757.4
Trust Fund Reserves	$4,612.0	$1,890.0	$2,188.0	$2,494.0	$2,018.0	$2,461.0	$2,461.9	$2,368.0	$2,779.0	$2,899.0	**$3,316.2**	$2,730.3
Total Reserves	$6,286.6	$2,802.7	$4,036.1	$3,519.6	$4,023.1	$6,061.6	$5,967.9	$6,047.0	$6,024.5	$5,797.9	**$6,378.6**	$5,487.7
Reserves as % of Revenues	26.07%	13.33%	18.75%	15.59%	17.03%	23.92%	22.76%	21.84%	21.27%	19.59%	**20.43%**	17.02%

Figure 23

Including trust fund balances better reflects the State's true financial flexibility available from reserves. Total reserves (including trust fund balances) of approximately $6.4 billion or 20.4% of general revenues as of June 30, 2018 are considered strong by rating agencies. The adopted budget

for Fiscal Year 2019 includes the use of unspent General Revenue to supplement expected revenue collections and the one-time use of trust fund balances equal to $400 million. ***Total reserves as of June 30, 2019 are projected to decline to $5.5 billion or 17.0% of general revenues.***

REVIEW OF CREDIT RATINGS

The State's credit rating is a rating agency's assessment of the willingness and ability to timely repay debt obligations. ***Credit ratings play an integral role in the municipal bond market and are one factor that affects the State's borrowing cost on debt offerings.*** Each rating agency considers four primary factors in its analysis: governance, debt and liability profile, budget and financial management, and economic indicators. Each agency assesses the four factors on a quantitative and qualitative basis relative to the state's peers within its rating category. Despite the standardization of credit factors, each are evaluated slightly differently based on the agency's published criteria.

State of Florida
General Obligation Credit Ratings

	Rating	Outlook
Standard & Poor's	AAA	Stable
Fitch Ratings	AAA	Stable
Moody's Investors Service	Aaa	Stable

Figure 24

Florida is now rated in the highest rating category by each of the three major credit rating agencies for the first time in history. During the fiscal year ended June 30, 2018, two of the three major rating agencies, Fitch and S&P each affirmed the State's AAA general obligation ratings and Stable outlooks. On June 21, 2018 Moody's upgraded the State's general obligation rating to "Aaa" from "Aa1" and assigned a stable outlook. The stability in the State's general obligation ratings and credit strengths reflect each agency's view including: economic recovery and population growth; improved revenue collections that currently outpace estimates used to fund the budget; greater financial flexibility through restoration of reserve levels following the depletion from the peak during the Great Recession; and a relatively well-funded pension system. Additionally, the State is continually recognized for its conservative financial and debt management practices, including the Legislature's consistent and prompt attention to addressing negative revenue estimates during the downturn to maintain a balanced budget. The rating agencies also note the broad employment growth, outpacing the national average and experiencing positive year-over-year improvement as of June 2018. The existing ratings are further bolstered by strong long-term economic fundamentals including a low cost of living, attractive tourist and retirement destinations, and favorable geographic location. The State's ongoing credit challenges include maintenance of structural budget balance despite absorbing spending pressures; ongoing improvement in reserve balances following restoration since the end of the Great Recession; and the potential negative fiscal and economic consequences or unmanageable assessments caused by a catastrophic hurricane. In addition, the rating agencies will continue to evaluate how management of long-term liabilities such as PPP contracts and pension funding will affect the State's budget. ***Rating agencies will continue to evaluate the State's ability to meet revenue projections, maintain improved reserves and structural budget balance given reliance on economically sensitive sales tax collections, Florida's primary operating revenue.***

In an attempt to increase transparency, rating agencies are continuing to enhance rating methodologies and analysis. Both Fitch and Moody's have recent publications utilizing scenario analysis as a tool to stress test state revenues and reserves in the event of a national recession. Rating agencies also continue to clarify the criteria used to rate debt by state and local governments. Fitch recently published a user guide detailing which key rating factor assessments and guidance for evaluating metrics used as a "scorecard". Such publications afford issuers the opportunity to anticipate occurrences or situations which might have a rating impact either positively and negatively.

Over the past few years the rating agencies have increased their focus on issuer pension liabilities. Moody's and Fitch make adjustments to issuer reported pension liabilities to reflect their view of

reasonable return assumptions, amortization periods, and other actuarial methodologies. As recently as December 5th, 2017, Moody's Investors Service proposed an update to their "US States Rating Methodology" which would increase the weighting assigned to the debt and pension factor, further underscoring the importance of prudent financial management and funding of the pension system. The update also combines the pension and debt sub-factors into one sub-factor, reflecting how credit rating agencies are evolving their view of total state long-term liabilities.

CONCLUSION

Total State direct debt outstanding as of June 30, 2018 was $21.0 billion, a $1.6 billion decrease from the prior fiscal year. Total debt has decreased by $7.1 billion, or 25%, since June 30, 2010. Indirect debt decreased by approximately $1.2 billion million during Fiscal Year 2018, to $9.0 billion from $10.2 billion as of June 30, 2017. ***Projected future debt issuance, primarily for transportation, totals $3.6 billion.*** Projected issuance is driven by DOT's planned use of the Right-of-Way Acquisition and Bridge Construction bonding program ($1.4 billion), GARVEE ($1.3 billion), and the Florida DOT Financing Corporation ($800 million). Projections exclude any additional borrowing for PECO, Florida Forever, and additional PPP projects entered into by the Department of Transportation as the amounts and timing of debt issuance under these programs are unknown. ***Florida's debt is considered moderate and is manageable at the current level.***

Credit ratings play an integral role in the municipal bond market and are one factor that affects the State's borrowing costs. ***Florida is now rated in the highest rating category by each of the three major credit rating agencies for the first time in history. Fitch and S&P each affirmed the State's AAA general obligation ratings and Stable outlooks. On June 21, 2018 Moody's upgraded the State's general obligation rating to "Aaa" from "Aa1" and assigned a stable outlook.*** Rating agencies cite credit strengths for the State as adhering to structural budget balance while absorbing spending pressures; improved revenue performance; strong fiscal and debt management practices; restoring reserves that improve financial flexibility; a relatively well-funded pension system; and broad employment and population growth that both currently exceed the U.S. growth rates. However, the State's ratings are sensitive to revenue volatility due to its primary reliance on sales tax to fund the budget and the potential negative fiscal and economic consequences of a catastrophic hurricane. The State's ability to maintain structural budget balance and manage long-term liabilities related to the pension system and PPP contracts will also continue to factor into the credit analysis of the State.

Reserves are critical and provide the financial flexibility necessary to address financial uncertainties. At the end of Fiscal Year 2018, ***General Fund Reserves were $3.1 billion or 9.8% of general revenues. General Fund Reserves are projected to be $2.8 billion as of June 30, 2019,*** reflecting $73 million of processed budget amendments related to Hurricane Michael costs. Trust fund balances also provide reserves the State can utilize, if necessary. Including trust fund reserves augments the General Fund Reserves and better reflects the State's true level of financial flexibility. ***Total reserves, including trust fund balances, were considered strong by rating agencies at $6.4 billion or 20.4% of general revenues as of June 30, 2018. Total reserves are expected to decrease, but remain sufficient at $5.5 billion or 17.0% of general revenues as of June 30, 2019.*** Although Trust Fund balances also serve as an additional source of reserves, augmenting the State's financial flexibility, ***the Legislature should consider establishing a more formal policy for General Fund Reserves.***

The pension system is relatively well-funded with a funded ratio of 83.9% as of June 30, 2017 based on the Government Accounting Standards Board reporting methodology. Management and funding of the pension system are an important aspect of evaluating Florida's credit rating. Annual pension contributions are viewed as long-term fixed costs by rating agencies, and like debt service, potentially crowd-out other expenditures and create structural budget imbalance if not managed. Some larger states (California and New York) have adopted a glide-path to systematically lower the pension return assumption to 7% over a number of years. Other states have made large steps in decreasing the pension return assumption. For example, Texas TRS made a 0.75% reduction in their pension return assumption in July of 2018 from 8.0% to 7.25%. The assumptions used to calculate the required contribution to the Florida Retirement System ("FRS") are set by the FRS Actuarial Assumption Conference ("Conference").

The actuary uses the assumptions and actuarial methodologies set by the Conference to calculate the pension liability and required contribution. The most recent actuarial valuation used an investment return assumption for the FRS of 7.50%, which the actuary concluded was unreasonable. The investment return assumption used for the State's financial statements to comply with the generally accepted accounting principles is 7.10%, which the actuary concluded is reasonable. The investment return assumption used for calculating the required pension contribution leads to underfunding. If underfunding the pension contribution continues, the financial strength of the FRS could be adversely affected. ***The assumptions and actuarial methodologies used to calculate the required contributions and pension liability should accurately reflect realities or it could lead to underfunded pension contributions and cause deterioration in funded status. The Legislature should consider formalizing a clear policy calling for full funding of the required contribution each year and focus on reducing the investment return assumption to protect the strength of the pension system.***

PPPs are increasingly popular as a financing mechanism that add short and long-term liabilities to the State's balance sheet. PPPs refer to a multitude of contractual arrangements that must be carefully analyzed to determine its financial impact on the State. In some cases, the PPP contracts create mandatory financial obligations that are properly reflected as State debt because they encumber future State resources. PPPs have been used most frequently by the DOT and universities. ***PPPs have added approximately $6.0 billion in State debt since inception with about $3.8 billion currently outstanding.*** All PPP projects are reviewed by the Division of Bond Finance for economic impact, return on investment, and potential credit impacts to the agency. The review process helps ensure that the PPP project complies with the State's debt management policies which promote prudent financial management practices and are designed to minimize financing costs.

Universities have used their DSOs and PPPs as mechanisms to finance university facilities. ***University and DSO debt combined totals $3.4 billion as of June 30, 2018. University and DSO debt has been increasing while State direct debt has been decreasing. DSO debt represents nearly 77% of all debt for universities and has accounted for over 95% of the $430 million increase in university and DSO debt over the past seven years.*** DSO debt is counted as indirect debt in this Report and if it were included in State direct debt, it would be 13% higher. However, BOG has enhanced oversight and has guidelines for debt management and PPPs which requires their review and approval of debt or PPPs used to finance university facilities. The BOG is also asking the universities' Board of Trustees to perform a critical evaluation of the need for university facilities being financed with debt or PPPs.

Annual debt service requirements on net tax-supported debt increased by $117 million to $2.3 billion for Fiscal Year 2018 from $2.2 billion in Fiscal Year 2017. The increase in Fiscal Year 2018 debt service requirement is due to the refinement of the way long-term PPP obligations are reflected. Projected debt service is expected to increase to a high of $2.4 billion in Fiscal Year 2022, reflecting the payment obligations for the I-4 Project and additional borrowing for transportation projects.

Revenues available for debt service increased $2.1 billion in Fiscal Year 2018 to $41.0 billion. The economic recovery has stabilized, as evidenced by an increased forecast for sales tax and documentary stamp tax collections. The largest increase, of approximately $1.2 billion, in available revenue was from the sales tax portion of General Revenue. The State's forecast remains vulnerable to a change in the Federal Reserve's monetary policy or potential geopolitical uncertainty and its effect on the U.S. and international economies. ***The August 2018 revenue estimates were used to prepare this Report.*** Hurricane Michael's effect on future State revenue collections is unknown and any effects will not be included in projections until the Revenue Estimating Conference meets in March 2019 to update and revise revenue forecasts.

The increase in revenues available for debt service offset the nearly $117 million increase in debt service payments in Fiscal Year 2018, consequently the benchmark debt ratio remained level over

the past year at 5.59%. The projected benchmark debt ratio shows the ratio remains below the 6% policy target for the foreseeable future. Annual debt service is projected to increase to $2.4 billion in Fiscal Year 2022 due to the addition of adding PPP obligations for the I-4 Project causing an increase in the benchmark debt ratio and additional borrowing for transportation projects. The projected benchmark debt ratio should be used as a general guide and should be considered by the Legislature when evaluating future debt authorization.

A comparison of 2017 debt ratios to national and peer group averages indicate that Florida's debt ratios are consistent with national and lower than peer group averages for most debt metrics. Improvement in the State's ranking among its peer group over the past ten years has resulted in the State having the sixth lowest ratio of debt service to revenues. The State's is ranked fourth lowest for debt per capita and debt as a percentage of personal income.

GREAT SEAL OF THE STATE OF FLORIDA
IN GOD WE TRUST