State of New Jersey

Debt Affordability Study

January 12, 2018

Commission on Capital Budgeting and Planning

Department of the Treasury
225 W. State Street
P.O. Box 002
Trenton, New Jersey 08625-0002

Table of Contents

Executive Summary

The Department of the Treasury is presenting this supplemental report to the Commission on Capital Budgeting and Planning (the "Commission") in furtherance of the Commission's responsibilities under N.J.S.A. 52:9S-1-3. In particular, N.J.S.A. 52:9S-3, "Preparation of State Capital Improvement Plan," requires the Commission to provide as part of the Capital Improvement Plan (the "Plan"): An assessment of the State's ability to increase its overall debt and a recommendation on the amount of any such increase.

The rationale for this report, and the information and recommendations contained herein, are to be used in concert with the annual Debt Report to assist the Commission in conducting and providing such an assessment as part of the Plan.

Debt affordability studies are becoming prevalent and important management tools in setting state fiscal policy, particularly tailored to assessing the ability of a state to issue further debt for capital needs. In addition to the added transparency and understanding that debt affordability studies provide to policymakers and taxpayers, rating agencies and institutional investors view their development and issuance as a best practice in a state's control of its debt burden, which in turn, is one of the primary factors in assessing its credit quality.

When state and local governments undertake a large capital investment, they face several options: pay with available cash on hand, borrow money to finance the project and repay the resulting debt over time, enter into a capital lease of the facility, or engage in some form of public-private partnership. Based on these choices, states often borrow money in order to enable the project to move forward immediately while spreading the costs over a number of years. The use of debt thus makes it possible to finance multiple infrastructure investments at the same time.

An overreliance on debt issuance, however, can constrain future spending, as the borrowing must be paid back via annual debt service payments. Accordingly, the importance of capital infrastructure and economic improvement today must be balanced against the fiscal implications for the State over time.

New Jersey's bonded debt grew dramatically over the early part of the 21st century, with the amount of debt outstanding more than doubling from Fiscal Year 2001 to Fiscal Year 2008. Since that time, the rate of bonded debt growth has declined dramatically, from average growth of more than 10% in the eight fiscal years prior to the Christie Administration to average annual growth of approximately 2% during this Administration.[1]

While the trend of runaway bonded debt has been corrected, the bills on the previously issued obligations remain due. New Jersey's debt metrics are elevated compared to other states across the U.S., with the State's metrics much higher than U.S. mean and median figures. While the metrics for most states have

[1] The average bonded debt growth rates based on the outstanding debt figures provided in the State Appendix are 10.28% for the eight years prior to the Christie Administration and, based on current expected issuance and principal repayment schedules, 1.64% during the Administration. These figures include the issuance of Federal Highway Reimbursement Revenue Notes. The growth rates based on State Appendix figures differ from those based on outstanding debt figures provided in the State's Comprehensive Annual Financial Report (CAFR), primarily due to the accretion of interest on capital appreciation bonds issued during prior administrations. Based on CAFR figures, the bonded debt growth rate for the eight years prior to the Christie Administration is 12% and an estimated 2.1% during the Administration.

improved since the financial crisis, New Jersey's metrics have improved in line with the national trends and more than the average of its peer states.

Though New Jersey still has work to do in cleaning up its balance sheet, it is important to recognize the progress made thus far. For example, in 2010, Treasury adopted an internal policy that all refundings must show net present value savings, nominal debt service savings, and that there should be no extension of the final maturity. Such a policy simultaneously ensures that the State is realizing savings without kicking the can down the road. Net present value savings generated from various refunding bond offerings have totaled $499.2 million to date.

The bonded debt outstanding must also be viewed in light of the State's large pension obligations. This Administration has dramatically increased pension funding, contributing more than two and half times the total contributions made from FY95 through FY10. In addition, the assumed rate of return on pension assets has been reduced to 7.0% today from 8.25% when the Administration began. Such concerted effort more accurately measures the true long-term State obligations to support the system, leading to higher payments which are crucial in insuring the long-term viability of the pension system.

Via enabling legislation and a memorandum of contribution, the Christie Administration contributed the State Lottery, as an Enterprise, to eligible pension systems for a 30-year term. The State Lottery is New Jersey's fourth largest revenue source, generating projected net proceeds of $37 billion during the 30-year term, with an estimated market value of $13.5 billion. The contribution immediately and dramatically improved the pension's funded ratio with a liquid, reliable source of income and eases the State's path toward full funding, for which there is a universally accepted plan for the first time.

While there will always be important infrastructure investments to be made across the State, those capital needs (and their resulting economic benefits) must be balanced against requisite continued improvements in the State's fiscal outlook. The Christie Administration has set a new path for the State on balancing such priorities, while simultaneously making significant progress on cleaning up past financial transgressions.

Continuing in this tradition, State bond issuance must be planned strategically in future years, prioritizing those projects with the highest positive impact while simultaneously steering the balance sheet toward improved debt ratios, in both absolute and relative terms.

Recommendations for charting this path include:

- Continue the ramp-up to full funding of the pension system;
- Pension and health benefit reform;
- Limit new money bond projects;
- Reduce the absolute and relative debt burden;
- Abstain from back-loaded debt financing;
- Pursue economically beneficial refunding transactions; and
- Deliberate use of outside capital.

Report Rationale

The Department of the Treasury is presenting this supplemental report to the Commission on Capital Budgeting and Planning (the “Commission”) in furtherance of the Commission’s responsibilities under N.J.S.A. 52:9S-1-3. In particular, N.J.S.A. 52:9S-3, “Preparation of State Capital Improvement Plan,” requires the Commission to provide as part of the Capital Improvement Plan (the “Plan”):

> An assessment of the State's ability to increase its overall debt and a recommendation on the amount of any such increase. In developing this assessment and recommendation, the commission shall consider those criteria used by municipal securities rating services in rating governmental obligations.

The rationale for this report, and the information and recommendations contained herein, are to be used in concert with the annual Debt Report to assist the Commission in conducting and providing such an assessment as part of the Plan. Indeed, there are tradeoffs inherent to any capital investment decision, and policymakers should explicitly acknowledge them, balancing the fiscal impact on the State against the capital infrastructure needs and economic development priorities.

Toward that end, debt affordability studies are becoming prevalent and important management tools in setting state fiscal policy, particularly tailored to assessing the ability of a state to issue further debt for capital needs. In addition to the added transparency and understanding that debt affordability studies provide to policymakers and taxpayers, rating agencies and institutional investors view their development and issuance as a best practice in a state’s control of its debt burden, which in turn is one of the primary factors in assessing its credit quality. For instance, the rating agency Standard & Poor’s Global Ratings (“S&P”) has opined, “Most of the AAA States have a clearly articulated debt management policy. Evaluating the impact of new or authorized but unissued bond programs on future operating budgets is an important element of debt management and assessing debt affordability.”

In particular, debt affordability studies, being one of the only publicly available forward-looking documents released by states (as opposed to point-in-time snapshots, such as the Comprehensive Annual Financial Report), help policymakers determine the future capacity for additional borrowing. Such information is vital as capital improvement plans are developed. This is particularly true in New Jersey, given the State’s relatively high levels of bonded obligations, as well as liabilities for pension and other post-employment benefits.

Financing Process

General

Government entities across the world are major sponsors of public infrastructure. These investments can take the form of building or repairing roads, bridges, railroads, ports, sewers, or a variety of public-use facilities, such as office buildings, hospitals, prisons, parks, universities, or public housing facilities. Not only is this infrastructure vital for quality of life purposes, the investment can also directly lead to or indirectly support higher levels of economic growth.

When state and local governments undertake a large capital investment, they face several options: pay with available cash on hand (often referred to as pay-as-you-go or pay-go financing), borrow money to finance the project and repay the resulting debt over time, enter into a capital lease of the facility, or engage in some form of public-private partnership. Based on these choices, states often borrow money in order to enable the project to move forward immediately but spread the costs over a number of years. The use of debt thus makes it possible to finance multiple infrastructure investments at the same time, rather than having to stagger them over a number of years.

An overreliance on debt issuance, however, can constrain future spending, as the borrowing must be paid back via annual debt service payments, including both a repayment of principal and a payment of interest on the amount of principal outstanding. Accordingly, the importance of capital infrastructure and economic improvement today must be balanced against the fiscal implications for the State over time. In general, this trade-off makes the issuance of long-term debt an attractive financing mechanism for infrastructure investment under some combination of the following circumstances:

- Quantifiable benefit: There is often an objective financial benefit to issuing debt that would not be realized under either a pay-go structure or a capital lease. In comparison to a lease, this benefit could take the form of the ability to leverage federal or other matching funds, a value ascribed to additional control of the asset, or simply cheaper all-in costs (in present value terms) of owning versus leasing, perhaps in part due to the tax-exempt status of most public debt issuance. As compared to pay-go, debt financing may lead to a quantifiable advantage from the ability to enjoy near-term benefits from higher capital expenditures without raising taxes to pay for them.
- Intergenerational equity: Generally speaking, debt issued for capital assets must be repaid within the expected useful life of the asset. When that asset is expected to be long-lived, it often makes sense to spread the cost of its construction over that useful life, effectively distributing over time the cost of the asset to the taxpayers who benefit from its use.
- High project cost inflation: If the annual costs of delaying the project are greater rate than the interest payments on the project, then there is a benefit to undertaking the project currently.[2]
- Revenue generating projects: Certain projects generate revenue that enable the project to be self-sustaining post-construction (for example, toll roads & bridges).

[2] In this case, the costs of delay would be in the economic sense rather than strict accounting sense of the word, and thus include cost inflation on the project from one year to the next as well as all opportunity costs of delay, such as maintenance costs that otherwise would have been avoided, forgone tax revenue from delayed economic activity, etc.

Restrictions

The New Jersey Constitution

The State Constitution provides, in part, that no money shall be drawn from the State Treasury but for appropriations made by law and that no law appropriating money for any State purpose shall be enacted if the appropriations contained therein, together with all prior appropriations made for the same fiscal period, shall exceed the total amount of the revenue on hand and anticipated to be available to meet such appropriations during such fiscal period, as certified by the Governor (Article VIII, Sec. 2, para. 2) (the "Appropriations Clause"). In addition to line-item appropriations for the payment of debt service on bonds, notes or other obligations which are subject to appropriation, beginning in Fiscal Year 2005, the annual Appropriations Act contains a general language provision which appropriates such additional amounts necessary to pay such debt service obligations subject to the approval of the Director of the Division of Budget and Accounting in the New Jersey Department of the Treasury. For bonds which must be paid for from constitutionally dedicated sources, such supplemental appropriations would need to be from constitutionally dedicated revenues.

The State Constitution further provides, in part, that the State Legislature shall not, in any manner, create in any fiscal year a debt or liability of the State, which, together with any previous debts or liabilities, shall exceed at any time one percent of the total appropriations for such year, unless the same shall be authorized by a law for some single object or work distinctly specified therein. No such law shall take effect until it shall have been submitted to the people at a general election and approved by a majority of the legally qualified voters voting thereon; provided, however, no such voter approval is required for any such law authorizing the creation of a debt for a refinancing of all or any portion of the outstanding debts or liabilities of the State, so long as such refinancing shall produce a debt service savings. Furthermore, any funds raised under these authorizations must be applied only to the specific object stated therein. The State Constitution provides as to any law authorizing such debt: "Regardless of any limitation relating to taxation in this Constitution, such law shall provide the ways and means, exclusive of loans, to pay the interest of such debt or liability as it falls due, and also to pay and discharge the principal thereof within thirty-five years from the time it is contracted; and the law shall not be repealed until such debt or liability and the interest thereon are fully paid and discharged." This constitutional provision does not apply to the creation of debts or liabilities for purposes of war, or to repel invasion, or to suppress insurrection or to meet emergencies caused by disaster or act of God (Article VIII, Sec. 2, para. 3) (the "Debt Limitation Clause").

The Debt Limitation Clause was amended by the voters on November 4, 2008 (the "Lance Amendment"). The Lance Amendment provides that, beginning **after** the effective date of the amendment, the State Legislature is prohibited from enacting any **new** law that creates or authorizes the creation of a debt or liability of an autonomous State corporate entity, which debt or liability has a pledge of an annual appropriation as the means to pay the principal of and interest on such debt or liability, unless a law authorizing the creation of that debt or liability for some single object or work distinctly specified therein shall have been submitted to the people and approved by a majority of the legally qualified voters of the State voting thereon at a general election. Note, however, that the Lance Amendment does not prohibit bonds or other debt from being issued under laws that pre-date the Amendment; rather it prohibits adopting new laws authorizing debt without voter approval.

In addition, the Lance Amendment does not require voter approval for any law providing the means to pay the principal of and interest on a debt or liability subject to appropriations of an independent non-State source of revenue paid by third persons for the use of the single object or work thereof, or from a source of State revenue otherwise required to be appropriated pursuant to another provision of the State Constitution. Furthermore, voter approval is not needed for any law providing for the refinancing of all or a portion of any outstanding debts or liabilities of the State or of an autonomous State corporate entity provided that such law requires that the refinancing produces debt service savings.

Judicial Decisions

Pursuant to the Debt Limitation and the Appropriation Clauses described above, the State has issued various types of debt instruments. Under the Debt Limitation Clause, the State issues "General Obligation Bonds" pursuant to separate bond acts approved by the voters at a general election. The faith and credit of the State is pledged for the payment of such General Obligation Bonds. In addition, over the past fifty years, legislation has been enacted from time to time which provides for the issuance of obligations by various independent authorities, the debt service on which is paid by annual appropriations made by the State Legislature.

In December 2000, a challenge was brought seeking a declaration that legislative programs authorizing State Appropriation Obligations violated the Debt Limitation Clause. The New Jersey Supreme Court's first ruling in this matter ("*Lonegan I*") was limited solely to the issuance of State Appropriation Obligations by the New Jersey Economic Development Authority ("NJEDA") authorized by the Educational Facilities Construction and Financing Act ("EFCFA"). The Court held that such bonds did not violate the Debt Limitation Clause because such debt was not legally enforceable against the State. See *Lonegan v. State of New Jersey*, 174 N.J. 435 (2002). The Court ordered additional briefing and argument on the other legislatively authorized State Appropriation Obligations. In "*Lonegan II*", issued in April 2003, the Court rejected a broad challenge to the validity of fourteen New Jersey statutes authorizing the issuance of State Appropriation Obligations. The Court held that the Debt Limitation Clause does not apply to debt that is subject to future legislative appropriations because such debt is not legally enforceable against the State. Furthermore, the Court held that under New Jersey law, only debt that is legally enforceable against the State is subject to the Debt Limitation Clause and that in reliance upon such rule, the State Legislature responded to changes in the financial markets that reflect modern economic realities to provide for the issuance of debt where the payment is subject to annual legislative appropriation. *Lonegan v. State of New Jersey*, 176 N.J. 2 (2003).

Following *Lonegan II*, the State Legislature enacted two laws - the Cigarette Tax Securitization Act of 2004, L. 2004, c. 68 and the Motor Vehicle Surcharges Securitization Act of 2004, L. 2004, c. 70 (collectively, the "Securitization Acts"). The Securitization Acts authorized the issuance of State Appropriation Obligations by the NJEDA and provided that the proceeds of these bonds would be deposited into the General Fund and included as revenues to support the Governor's certification of revenues for the annual appropriations act (the "Appropriations Act") as required by the Appropriations Clause. A lawsuit was filed asserting that the Fiscal Year 2005 Appropriations Act was unconstitutional under the Appropriations Clause because of the inclusion of the proceeds of bonds as revenue for the purposes of the Governor's certification of revenues. The plaintiffs further claimed that absent voter approval, these bonds would be unconstitutional under the Debt Limitation Clause. In July 2004, the Supreme Court issued its decision holding that the issuance of bonds under the Securitization Acts did not violate the Debt Limitation Clause but that the proceeds of bonds issued under such acts cannot be included as "revenue" for the purposes of the Appropriations Clause. However, the Court determined that this ruling would be given prospective application only and that the State and the NJEDA would be permitted to proceed with the sale of bonds authorized under the Securitization Acts because barring these bond sales would require significant revisions to, if not a complete overhaul of, that year's budget, potentially resulting in great disruption to the State Government. *Lance v. McGreevy*, 180 N.J. 590 (2004).

A further challenge was launched in August 2005, seeking a declaration that the Fiscal Year 2006 Appropriations Act violated the State Constitution because it anticipated revenues in the amount of $150 million from the proceeds of Tobacco Settlement Asset-Backed Bonds (the "Tobacco Settlement Bonds") to be issued by the Tobacco Settlement Financing Corporation, a public body corporate and politic and an instrumentality of the State (the "Corporation"). On August 12, 2005, the trial court entered an order in favor of the plaintiffs (i) permanently enjoining the issuance of that portion of the Tobacco Settlement Bonds in excess of that necessary to effectuate the refunding of the Corporation's Series 2003 Bonds (estimated to be $150 million), (ii) permanently enjoining the transfer of any portion of the proceeds of the Tobacco Settlement Bonds to the State, and (iii) ruling that the proceeds from the sale of the Tobacco Settlement Bonds would not be "revenue" for purposes of the Appropriations. No appeal was taken and the bonds were not issued.

In July 2008, a complaint was filed in the Superior Court against the State claiming that *L*. 2008, *c*. 39 (the "EFCFA Amendment"), was unconstitutional under the Debt Limitation Clause. The Educational Facilities Construction and Financing Amendment (EFCFA), among other things, authorized the issuance by the NJEDA of an additional $3.9 billion of State Appropriation Bonds. The Superior Court dismissed the complaint in its entirety, with prejudice in December 2008. In November 2009, the Appellate Division affirmed the Superior Court's dismissal of the complaint.

In November 2008, as discussed above, the voters approved the Lance Amendment. A suit was filed in December 2008 in the Superior Court, seeking a declaration that the Lance Amendment was unconstitutional. The Plaintiffs claimed that the ballot question and the interpretative statement were defective. In November 2009, the Court dismissed the Plaintiffs' complaint for failure to state a claim upon which relief can be granted.

The most recent pronouncement by the New Jersey Supreme Court on the Debt Limitation and Appropriations Clauses occurred in its decision on June 9, 2015 in *Burgos v. State* which was a challenge to the State's failure to make the annual required pension contribution pursuant to *L*. 2011, *c*. 78 ("Chapter 78"). Chapter 78 provided for various reforms in the pension and health benefit systems and contained a provision providing a "contractual right" to the State making the annual required pension contribution. The State failed to do so and the Court ruled that "the State Legislature and the Governor were without authority to enact an enforceable and legally binding long-term financial agreement through" Chapter 78. Therefore, the Court found that the pension funding right in Chapter 78 is subject to appropriation. *Burgos v. State of New Jersey, et al*., 222 *N.J.* 175 (2015).

State Bond Indebtedness

Background

New Jersey's long-term liabilities include not only bonded obligations supported by State revenues, but also capital leases, installment obligations, certificates of participation, certain moral obligations, and obligations supported by other than State revenues. In addition, certain non-bonded obligations, such as the State's unfunded actuarially accrued liability, also are considered part of the overall debt picture. Past Debt Reports submitted to the New Jersey Commission on Capital Budgeting and Planning present the totality of the State's obligations.

An understanding of what constitutes New Jersey's long-term liabilities is important before recommendations can be made about the level of future debt and amount of future debt issuance. The largest of the State's long-term liabilities relates to its underfunded pension plans and other post-employment benefits (OPEB). Despite the implementation of pension reforms, increasing pension payment amounts, and the passage of the Lottery Enterprise Contribution Act, the Statutory Unfunded Actuarial Accrued Liability of the Pensions Plans is approximately $45.438 billion, as of June 30, 2017. OPEB liabilities, for post-retirement medical benefits (PRM), total $69.324 billion as of June 30, 2016. (Please note that PRM benefits are not pre-funded and are paid on a pay-as-you-go basis.) While not always included as part of the Debt discussion, rating agencies consistently reference pension and OPEB liabilities as major reasons for the State's assigned credit ratings.

Capital leases, both bonded and non-bonded, also are considered long-term obligations of the State. The State uses these types of leases for State facilities, offices and other uses. Rent payments are used to secure the payment of debt service in the case of bonded leases.

The State also holds agreements with certain authorities, such as the Educational Facilities Authority and the Economic Development Authority, which pledge payments equal to debt service amounts and are used when an Authority issues bonds for specific projects. The New Jersey Supreme Court's decision in *Lance v. McGreevey* found that while certain types of installment obligations, such as Cigarette Tax Revenue bonds and Motor Vehicle Surcharges Revenue bonds did not violate the Debt Limitations Clause, the bond proceeds could not be included as "revenue" for purposes of the Appropriations Clause of the State Constitution. These bonds, issued prior to the Court's decision, remain on the State's books.

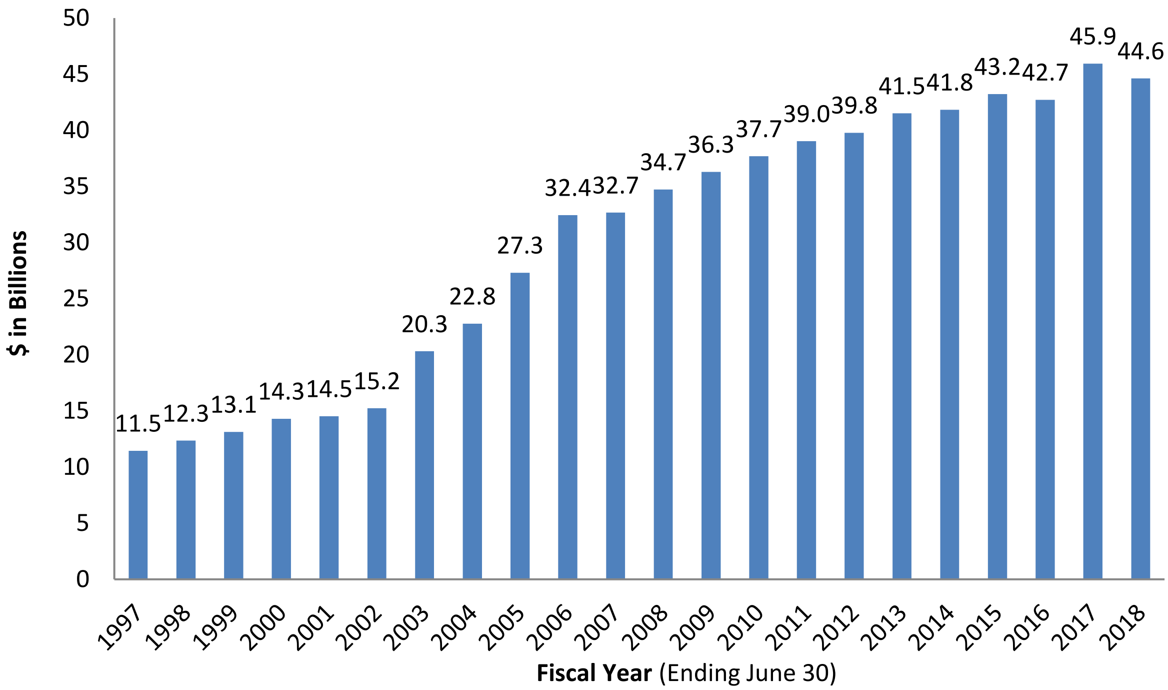
Certain bonds of the South Jersey Port Corporation also are considered obligations of the State. These "moral" obligations are supported by State revenues, subject to appropriation by the Legislature.

Over time, General Obligation (GO) bonds have been authorized for issuance. GO bonds acts must be approved by the voters at a general election. As of June 30, 2017, outstanding GO debt totaled approximately $1.992 billion. In addition, there remains $15 billion of authorized but unissued debt. While the issued amount is included as part of the State's bonded debt, the authorized but unissued amount is not.

The State's Comprehensive Annual Financial Report (CAFR), based on Government Accounting Standards Board principles, offers another view of State debt. Specifically, certain obligations not supported by State revenues such as the Master Settlement Bonds issued by the Tobacco Settlement Financing Corporation and Federal Grant Anticipation Bonds issued by the Transportation Trust Fund Authority are considered obligations of the State. Also, accretions on capital appreciation bonds, unamortized bond premium, and other accounting adjustment are included for purposes of CAFR.

New Jersey's bonded debt grew dramatically over the early part of the 21st century, with the amount of debt outstanding more than doubling from Fiscal Year 2001 to Fiscal Year 2008. Since that time, the rate of bonded debt growth has declined dramatically, from 12% average growth per year in the eight fiscal years prior to the Christie Administration to an estimated average annual growth rate of 2.1% during this Administration.

20-Year History of Long-Term Bonded Obligations [3, 4, 5]



While the trend of runaway bonded debt has been corrected, the bills on the previously issued obligations remain due. As of the end of Fiscal Year 2017, scheduled debt service payments were as follows:

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[3] The Christie Administration fully funded the General Obligation programs, as well as the Transportation Trust Fund Authority and NJEDA School Facilities Construction through the fall of calendar year 2018 prior to the end of the Administration, with the vast majority of the debt issued during FY2017, in order to allow for a professional transition between administrations. Accordingly, bonded debt growth in FY2017 was substantially higher than the trend over the rest of the Christie Administration, while debt outstanding is projected to decline in FY2018.

[4] These long-term bonded obligations figures match the figures in the Debt Report, which tie to the CAFR. The figures in the State Appendix do not include: debt which is not backed by State revenues (i.e., Tobacco Settlement bonds and GARVEEs), accretions on capital appreciation bonds, and other accounting adjustments, which are all included in the CAFR figures.

[5] FY2018 figures include all bonds currently issued and the existing debt service schedule for principal retirement over the remainder of the fiscal year. Final accounting adjustments as part of the CAFR process could cause the actual amounts to differ slightly from this projection.

Existing Future Obligations

As of June 30, 2017

($ in millions)

Fiscal Year	General Obligation Bonds	State Appropriation Bonds(1)		Projected State Pension Contributions(2)(3)	Total
2018	$ 337	$ 3,392		$ 1,394	$ 5,123
2019	325	3,870	(4)	1,983	6,178
2020	344	3,541		2,598	6,482
2021	271	3,494		3,277	7,042
2022	190	3,462		3,971	7,623
2023	131	3,441		4,893	8,465
2024	90	3,313		4,953	8,356
2025	89	3,291		5,002	8,382
2026	90	3,295	(5)	5,050	8,435
2027	90	3,069		5,095	8,254
2028	90	3,103	(6)	5,120	8,312
2029	90	2,605		5,140	7,834
2030	90	1,816		5,159	7,064
2031	90	1,596		5,151	6,836
2032	90	1,372		5,139	6,600
2033	90	1,332		5,130	6,551
2034	63	1,356		5,115	6,534
2035	63	1,320		5,095	6,479
2036	23	1,284		5,078	6,385
2037	23	1,216		5,062	6,301
2038	-	1,179		5,048	6,227
2039	-	1,229		5,034	6,263
2040	-	1,295		5,020	6,315
2041	-	1,082		5,009	6,091
2042	-	331		5,004	5,335
2043	-	163		5,002	5,165
2044	-	163		4,998	5,161
2045	-	41		5,001	5,042
2046	-	41		5,002	5,043
2047	-	-		5,010	5,010
	$ 2,665	**$ 56,692**		**$ 139,533**	**$ 198,890**

(1) For variable rate bonds, interest amounts were calculated using the rates in effect on June 30, 2017.

(2) Represents projected contributions by the State. The projected contributions by the State are assumed to follow the current funding policy of the State, which is to increase its contribution to the Pension Plans by 10% of the actuarially recommended contribution each Fiscal Year until the State contributes 100% of the actuarially recommended contribution, which is expected to occur in Fiscal Year ending June 30, 2023, and then to contribute the full actuarially recommended contribution for each Fiscal Year thereafter. Such contribution amounts reflect the annual Special Asset Adjustment specified in the Lottery Enterprise Contribution Act. Actual contributions are subject to appropriation by the State Legislature and have varied substantially over the last several years. These projections are based on a 7.65% assumed rate of return of assets of the State's portion of the Pension Plans. On December 19, 2017, the State Treasurer approved a reduction in the assumed rate of return to 7.00%.

(3) Does not include contributions that the State makes in respect to local governmental participation in the Pension Plans. In connection with increases in retirement benefits in the local governmental portion of the Pension Plans, the State has undertaken

to make contributions to pay for a portion of the impact of those retirement benefits. In Fiscal Year 2018, the State expects that this amount is equal to $108.9 million.

(4) The principal amount includes $42,775,000 State Lease Revenue Bonds (State House Project), 2017 Series A and $300,000,000 State Lease Revenue Bonds (State House Project), 2017 Series B that mature December 17, 2018. It is anticipated that these Bonds will be refunded prior to their maturity and issued as 20-year serial bonds.

(5) The principal amount includes $60,850,000 School Facilities Construction Notes, 2013 Series I that mature September 1, 2025. It is anticipated that these Notes will be refunded prior to their maturity.

(6) The principal amount includes $89,580,000 School Facilities Construction Notes, 2013 Series I that mature September 1, 2027 and $230,085,000 School Facilities Construction Notes, 2013 Series I that will mature March 1, 2028. It is anticipated that these Notes will be refunded prior to their maturity.

While the reduced debt service obligations in future years are a welcome sight, it is important to remember those obligations will be increased by new debt issuances. Such issuances could be either newly authorized bond issuances, or the issuance of legislatively authorized but currently unissued debt. The current universe of authorized but unissued debt is as follows:

Legislatively Authorized but Unissued Debt

Fiscal Years 2017 and 2016

(In Millions)

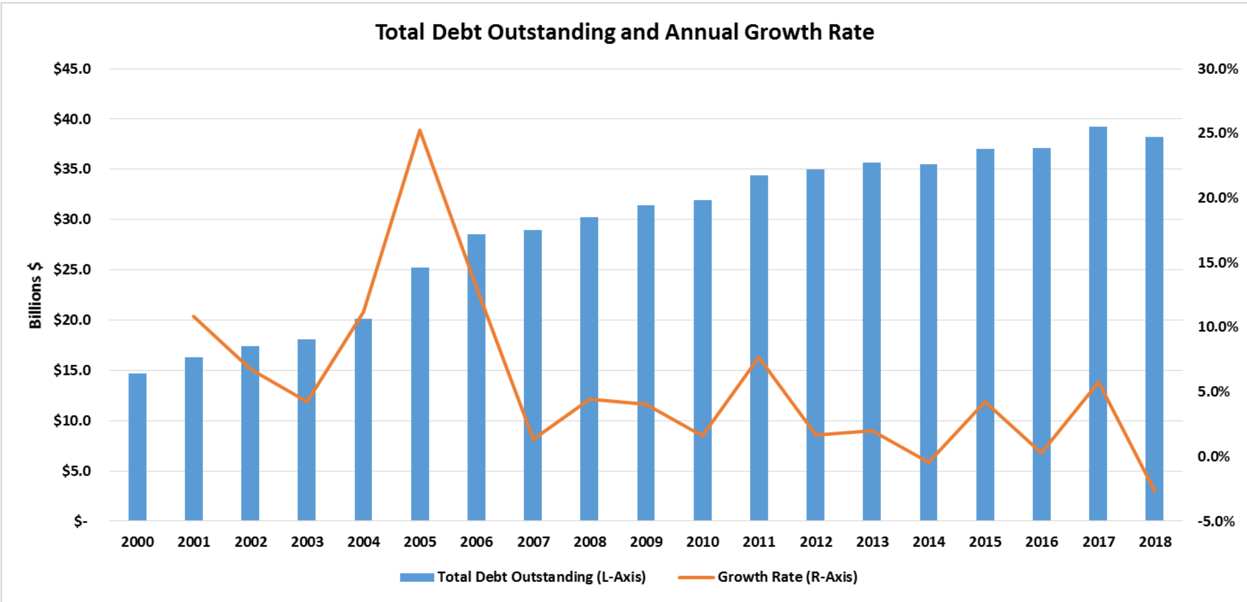
Debt Program	Year	Amount Authorized	Unissued As Of 6/30/2017	Unissued As Of 6/30/2016
General Obligation Bonds				
Building Our Future	2012	$ 750.0	$ 0.0	$ 200.0
Clean Waters	1976	120.0	3.4	3.4
Dam, Lake, Stream, Flood Control, Water Resources, and Wastewater Treatment Project	2003	200.0	38.7	38.7
Energy Conservation	1980	50.0	1.6	1.6
Green Acres, Cultural Centers, and Historic Preservation	1987	100.0	1.0	1.0
Green Acres, Farmland, Blue Acres, and Historic Preservation	2007	200.0	13.5	27.5
Green Acres, Farmland and Historic Preservation, and Blue Acres	1995	340.0	18.0	18.0
Green Acres, Water Supply and Floodplain Protection, and Farmland and Historic Preservation	2009	400.0	88.8	170.2
Hazardous Discharge	1981	100.0	43.0	43.0
Hazardous Discharge	1986	200.0	38.0	38.0
Natural Resources	1980	145.0	9.6	9.6
New Jersey Green Acres	1983	135.0	14.5	14.5
New Jersey Green Acres, Clean Water, Farmland and Historic Preservation	1992	345.0	12.9	12.9
New Jersey Open Space Preservation	1989	300.0	18.0	22.6
Pinelands Infrastructure Trust	1985	30.0	6.8	6.8
Port of New Jersey Revitalization, Dredging, Environmental Cleanup, Lake Restoration, and Delaware Bay Area Economic Development	1996	300.0	72.8	72.8
Public Purpose Buildings and Community-Based Facilities Construction	1989	125.0	5.0	5.0
Stormwater Management and Combined Sewer Overflow Abatement	1989	50.0	9.5	9.5
Water Supply	1981	350.0	73.1	73.1
Total General Obligation Bonds		4,240.0	468.2	768.2
Revenue Bonds Payable				
Transportation Trust Fund Authority				
Transportation Program Bonds	2016	12,000.0	12,000.0	0.0
Total Revenue Bonds Payable		12,000.0	12,000.0	0.0
Installment Obligations				
Economic Development Authority				
Market Transition Facility	1994	750.0	44.7	44.7
School Facilities Construction	2000	8,600.0	454.1	454.1
School Facilities Construction	2008	3,950.0	1,644.1	1,987.0
Stem Cell, Life Sciences, and Biomedical Research Facilities	2006	270.0	223.2	270.0
Educational Facilities Authority				
Dormitory Safety Trust Fund	2000	90.0	10.8	10.8
Higher Education Capital Improvement Fund	1999	550.0	239.4	375.8
Higher Education Equipment Leasing Fund	1993	100.0	47.2	33.9
Higher Education Facilities Trust Fund	1993	220.0	41.1	30.4
Higher Education Technology Infrastructure Fund	1997	55.0	22.6	20.4
Public Library Project Fund	1999	45.0	25.8	23.1
Total Installment Obligations		14,630.0	2,753.0	3,250.2
Grand Total		$ 30,870.0	$ 15,221.2	$ 4,018.4

Notes:

In addition to the items listed above, the Legislature has authorized certain additional Revenue Bonds and Installment Obligations which have unlimited issuing authorization. See "Restrictions – Constitutional Amendments."

New Jersey Debt Metrics[6]

The absolute scale of these bonded debt numbers are unquestionably large, and the pace of their increase over the first part of the 21st century equally eye-opening. But, large numbers, and even large growth in already large numbers, are often meaningless to the general public, and even policymakers, without the proper context. Toward that end, a review of New Jersey's debt metrics is needed—putting the State's debt in the proper context of the size of the State budget and economy. Additionally, understanding trends in such metrics over time is also insightful.



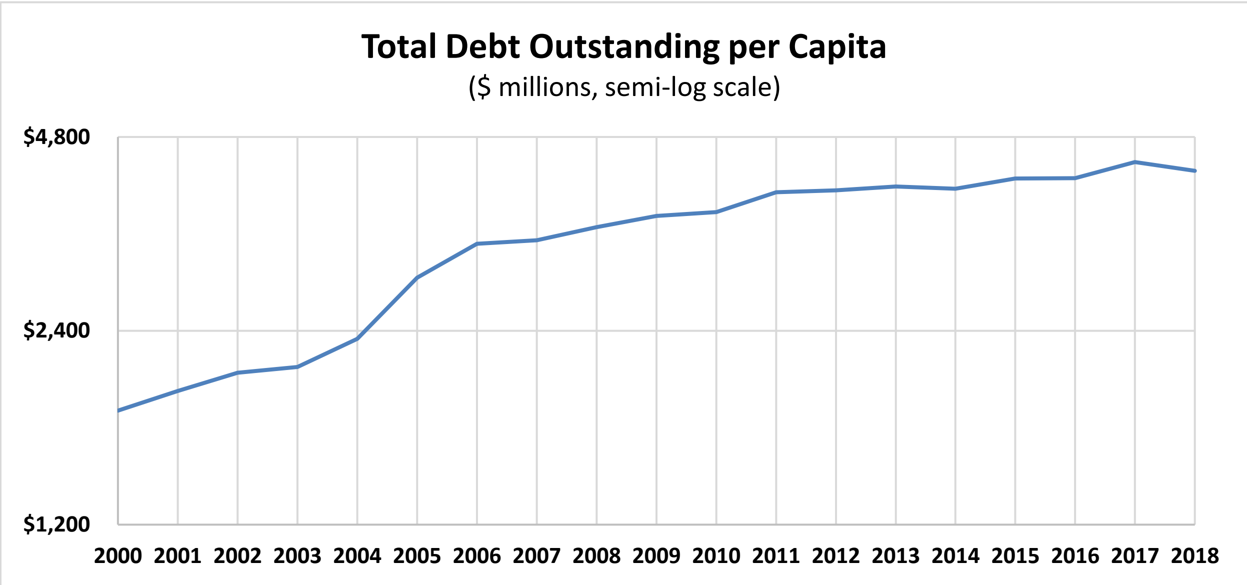
[6] The outstanding debt figures and the debt metrics in this section are derived from Moody's "State Debt Medians" reports, which are published annually. Debt figures and growth rates herein will thus differ from those presented in the State Appendix and State CAFR. In considering debt burden, Moody's focus is primarily based upon net tax-supported debt (NTSD), which Moody's characterizes as debt secured by statewide taxes and other general resources, net of obligations that are self-supporting from pledged sources other than state taxes or operating resources–such as utility or local government revenues. Moody's also examines gross debt, which captures debt supported by revenues other than state taxes and general resources. This includes self-supporting general obligation (GO) debt, special assessment bonds and contingent debt liabilities that may not have direct tax support but represent commitments to make debt service payments under certain conditions (i.e., state guarantees and bonds backed by state moral obligation pledges that have never been tapped). For New Jersey, NTSD is composed of general obligation bonds, appropriation-backed bonds, special tax bonds, GARVEEs, moral obligation bonds which are paid from statewide taxes and fees, and capital leases. New Jersey's gross debt includes all of these obligations as well as tobacco securitization bonds and moral obligation bonds which have an established history of being paid from sources other than taxes or general revenues.

As previously described, much of the increase in State bonded obligations can be attributed to issuances in the early 21st century. From 2000 through 2006, the average annual growth rate in total net tax supported debt was 11.7%, compared to a projected 2.26% from 2010 through 2018.

Again, however, it is important to put such figures in the proper context so as to fully comprehend their meaning and importance. Below are a series of metrics that attempt to do just that.

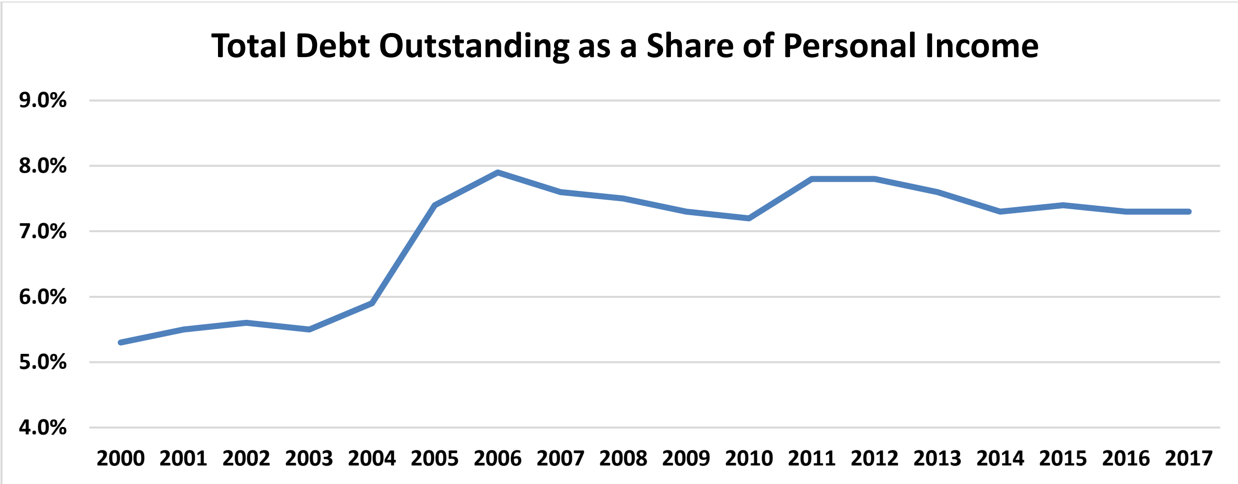
Debt Per Capita

Dividing the debt outstanding by the population of the State provides a measure of how much each resident of New Jersey would need to pay in taxes to immediately retire all the debt outstanding. With the population fairly stable, this metric has risen over time. Again, however, the bulk of the growth was during the early years of the 21st century, with the ratio largely flat since 2011.



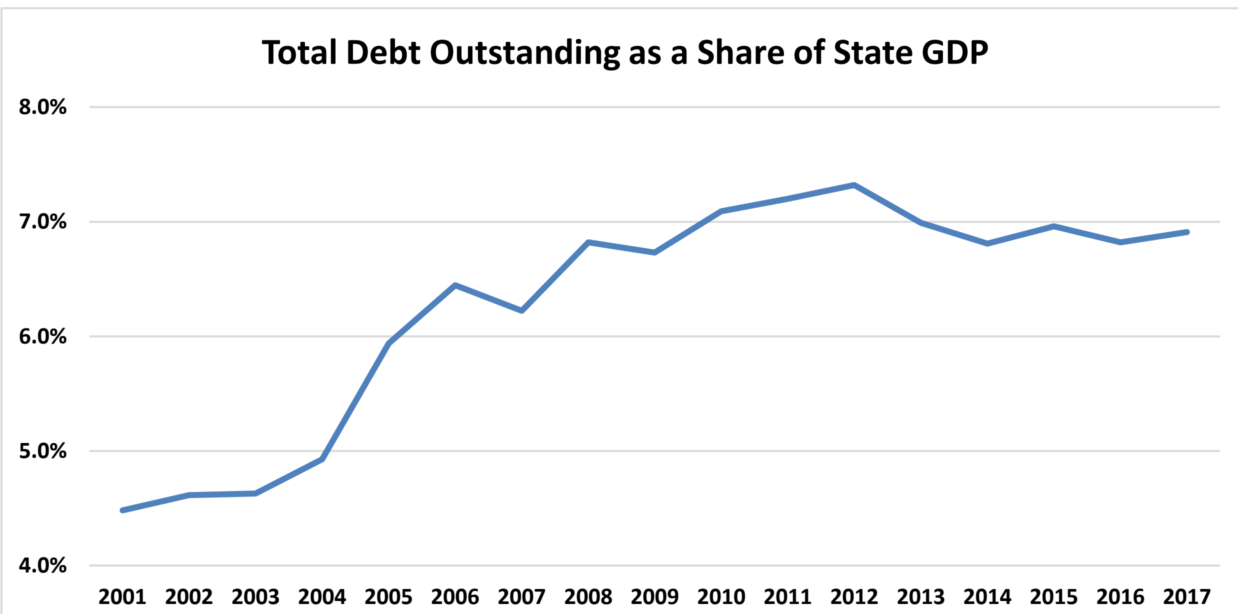
Debt as a Share of State Personal Income

While not a perfect measure because it compares a stock variable (debt outstanding) to a flow variable (annual income), debt as a share of personal income still helps provide context. Again, we see a steep run-up in the early 21st century, followed by a flattening out over time. The Great Recession caused another mild jump in the metric, which has then been trending down since 2011.



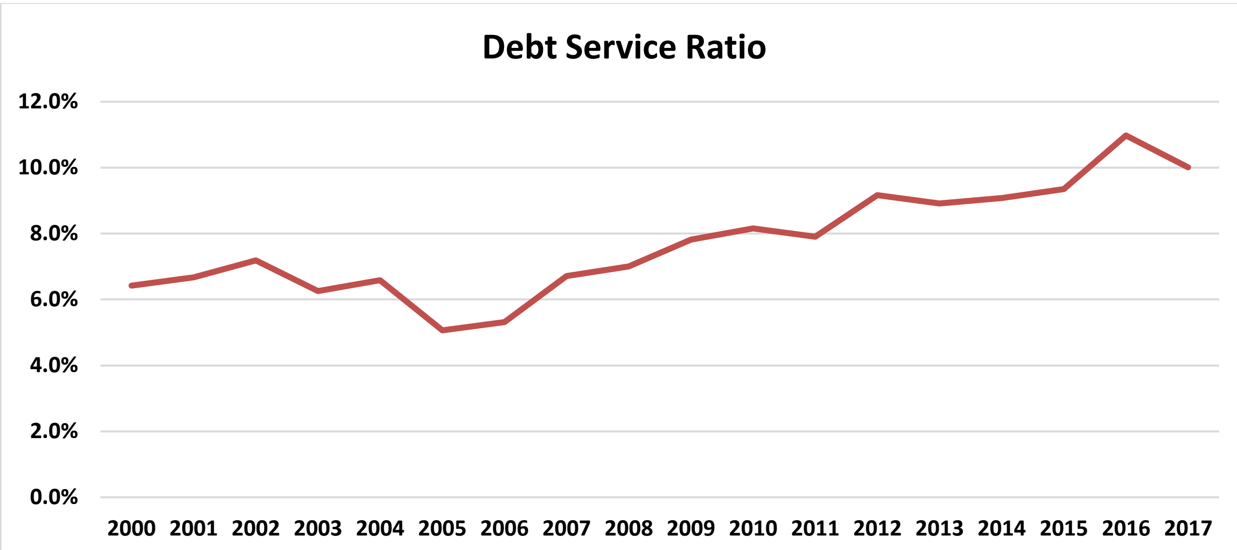
Debt as a Share of State GDP

Debt as a share of State gross domestic product is another way of contextualizing the amount of debt outstanding. The same pattern exists here—huge run-up in early 21st century, peak in the financial crisis (this time 2012) and decline thereafter.



Debt Service Ratio

The debt service ratio measures the amount of annual debt service (including both principal and interest) as a share of annual State revenues. While this measure is better than certain others in that both the numerator and denominator are flow variables, the measure in some ways is less valid because debt service can be manipulated based upon the structure of debt issuances. While many bonds are issued with level debt service (i.e. much like an amortizing mortgage, the State faces the same total cost, inclusive of both principal repayment and interest, over each year the debt is outstanding), there are many other ways to structure a bond issue. For instance, because the pension obligation bonds issued in the late 1990s were heavily back-end loaded, more than half of the total debt service will be paid in the final 10 years of a 30-year bond issuance. Transportation Trust Fund debt issued between 2007 and 2009 has a similar back-end loaded debt service schedule. Such structures can serve to artificially depress the debt service ratio in some years at the expense of others, a negative effect the State has been feeling for the past few years, as the State faces higher debt service from previously issued, back-end loaded financings.



New Jersey Debt Metrics as Compared to Other States

The trend in the State's debt metrics over time is helpful for understanding how New Jersey's current balance sheet compares to prior years. Also instructive is how New Jersey's debt metrics compare to those of other states, and how that relationship has shifted over time.

Moody's 2017 State Debt Medians						
State	NTSD per capita	Change from 2010	2017 NTSD as a % of 2015 personal income	Change from 2010	2017 NTSD as % of 2015 State GDP	Change from 2010
NJ	$4,388	$448	7.3%	-0.6%	6.9%	0.2%
CT	$6,505	$1,269	9.7%	0.2%	9.2%	1.3%
NY	$3,070	-$79	5.3%	-1.5%	4.2%	-1.1%
MA	$5,983	$1,272	9.8%	0.3%	8.4%	0.1%
PA	$1,337	$262	2.7%	0.0%	2.4%	0.3%
MD	$2,122	$441	3.8%	0.3%	3.5%	0.1%
VA	$1,486	$428	2.9%	0.5%	2.6%	0.8%
Peer Group Avg	$3,417	$599	5.7%	0.0%	5.1%	0.2%
US Mean	$1,473	$65	3.0%	-0.5%	2.6%	-0.2%
US Median	$1,006	-$60	2.5%	-0.3%	2.2%	0.0%

When comparing New Jersey's debt metrics to other states, a few points stand out.[7]

- New Jersey's debt metrics are elevated compared to other states across the U.S., with the State's metrics much higher than U.S. mean and median figures.
- New Jersey metrics are also elevated compared to peer states (those relatively similarly situated in terms of size of economy/population, credit rating, and geography).
- While the metrics for most states have improved since the financial crisis, New Jersey's metrics have improved in line with the national trends and more than the average of its peer states.

[7] Note that while Moody's makes substantial efforts to standardize these measures across states, such standardization can never completely be accomplished based upon the different statutes and practices that exist across the 50 states. For instance, a substantial share of New Jersey State debt is for the construction of schools that benefit local school districts, a practice that is not followed in many other states, thus artificially increasing New Jersey metrics as compared to U.S. median and averages.

Long-Term Credit Ratings

The credit rating agencies develop methodologies which form the basis of their credit assessments of states. The agencies consider a variety of different factors when assessing the credit worthiness of states including: government framework; economy; governance/financial management; finances/budgetary performance; and debt and liability profile. For instance, Moody's Investor Service ("Moody's") develops a scorecard based on four broad rating factors: economy, governance, finances, and debt. The broad rating factors are then broken down into sub-factors, which are assigned a weight. Provided below are the factors and sub-factors and the weighting assigned to each:

Broad Rating Factors	Factor Weighting	Rating Sub-Factors	Sub-Factor Weighting
Economy	20%	Income	10%
		Industrial Diversity	5%
		Employment Volatility	5%
Governance	30%	Financial Best Practices	15%
		Financial Flexibility/Constitutional Constraints	15%
Finances	30%	Revenues	10%
		Balances and Reserves	10%
		Liquidity	10%
Debt	20%	Bonded Debt	10%
		Adjusted Net Pension Liabilities	10%
Total	100%	Total	100%

In addition to its scorecard, Moody's fundamental analytical framework also includes key rating factors and sub-factors that do not fall into the overall rating scorecard, but could shift a rating up or down from what the scorecard suggests. The additional debt factors are: pension liabilities/funding efforts; debt ratios or debt structure; and borrowing on behalf of local governments.

The primary metric Moody's uses to measure a state's debt burden is dividing its total NTSD by the total governmental fund revenues. A rating for the debt sub-factor is then determined by which rating bucket the percentage falls into. Provided below is Moody's debt sub-factor scorecard:

Sub-Factor	Measurement	Aaa	Aa1	Aa2	Aa3	A	Baa and below
Debt Measure	NTSD/ Total Governmental Fund Revenues	Less than 15%	15%-30%	30%-50%	50%-90%	90%-130%	Greater than 130%

Other rating agencies have different methodologies for assessing a state's credit quality and each rating agency publishes its methodology on its website. S&P's analytical framework centers around five factors: government framework; financial management; economy; budgetary performance; and debt and liability profile. S&P assesses each of these factors utilizing various metrics that it scores on a scale from

1 (strongest) to 4 (weakest). S&P scores each indicator individually on the same scale and averages the indicators' scores to develop the overall score for the metric. S&P uses five debt ratios to assess a state’s debt burden: NTSD per capita; NTSD/personal income; NTSD as a % of government spending; NTSD as a % of gross state product; and a 10-year debt payout ratio.

To fully understand each agency’s methodology, interested parties should read them in their entirety. The views of each of the credit rating agencies on New Jersey are included in Appendix B.

Lasting Improvements

While New Jersey still has work to do in cleaning up its balance sheet, it is important to recognize the progress made thus far. As previously displayed, the huge increase in New Jersey bonded debt and debt ratios, whether in absolute terms or relative to other states, was during the early part of the 21st century, with steady improvements made thereafter. Indeed, there is more to those improvements than meets the eye, and the efforts undertaken merit a full telling.

<u>First Step Initiatives</u>:

- Transparency: The Christie Administration has reformed the process by which investment banking firms are chosen. Requests for Proposals for banking services are now conducted via a competitive process, ensuring access to all interested bidders. In addition, all authorities in which the State Treasurer is an ex-officio member also now use an RFP process in the selection of investment banks.

- Performance Tracking: The Christie Administration also tracks all underwriter performance, whether an investment bank performs as a Senior Manager, Co-Senior Manager or Co-Manager. These two changes increase the incentive for financial firms covering the State to offer innovative ideas, competitive pricing, and better service.

- Treasury's Three Prong-Test: Within the first year of the Christie Administration, Treasury adopted an internal policy that all refunding bond issues must: (i) show net present value savings, (ii) have at least nominal debt service savings, and (iii) not extend the final maturity of the bonds refunded. Such a policy simultaneously ensures that the State is realizing savings without "kicking the can down the road."

<u>Legacy Issues</u>:

- Derivatives: The State inherited approximately $4.6 billion of derivatives (interest rate swap agreements) with an overall negative mark-to-market associated with the New Jersey Economic Development Authority's School Facilities Construction Program, the New Jersey Building Authority, and the New Jersey Transportation Trust Fund Authority. All such derivatives were terminated without the use of any statutory bond cap.

- Letters of Credit: The Christie Administration inherited $2.3 billion in Variable Rate Demand Bonds (VRDBs) which require an associated Letter of Credit. The State has replaced all of its VRDBs with new fixed rate debt and floating rate notes (which do not require Letters of Credit). Prior to this change, the State's demand for Letters of Credit outweighed Wall Street's supply. In addition, the VRDB market can dry up at times of stress in the financial system. This imbalance created higher debt service costs; the issuance of fixed rate debt and floating rate notes cured the situation.

- Refundings: Net present value savings generated from various refunding bond offerings have totaled $499.2 million to date.

- State Footprint: Government in New Jersey had grown too large and cumbersome, in just about every sense. In addition to the efforts to improve the State's financial balance sheet, the Christie Administration also attacked the physical size of the State government. Coincident with the decrease in headcount of State employees, since 2010 the State of New Jersey, Department of the Treasury, Division of Property Management and Construction (DPMC), has worked diligently to reduce State Government's footprint. DPMC has reduced the State's inventory of leases from 311 to 256 total leases as of December 31, 2017. This lease reduction effort has resulted in a net reduction of 593,309 square feet of rental space and $15,700,000 of annual rent expense. Since 2011, the DPMC has also assisted in the closure of over 1.5 million square feet of State-owned buildings.

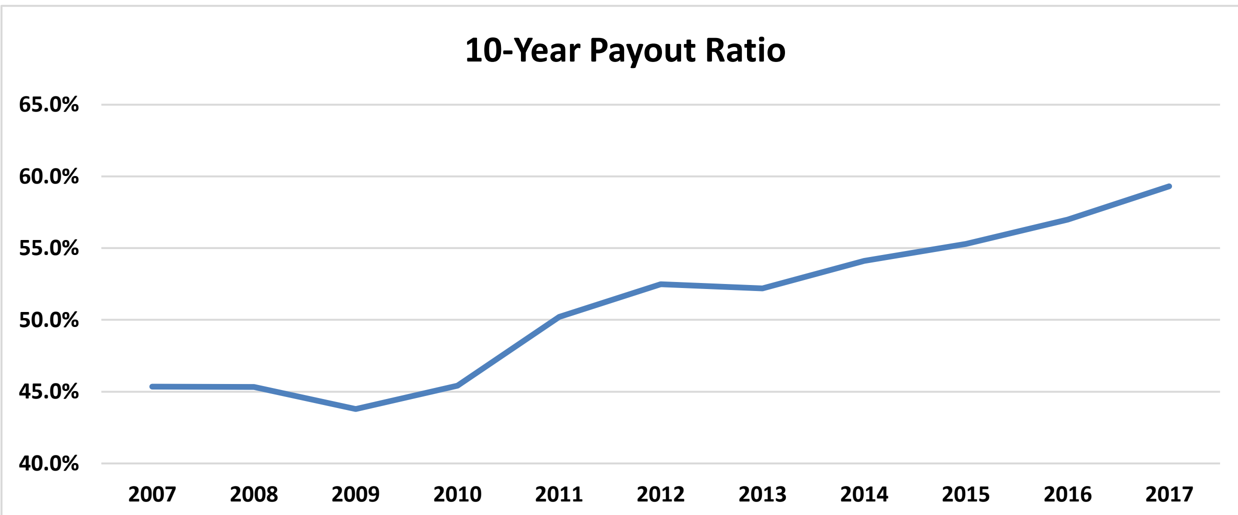
- Pension and Health Benefits Reform: Within the first 18 months of the Christie Administration, significant changes were made to preserve the State's public pension system. Member contribution rates were increased to more accurately reflect members' future benefits. Calculations used to determine the value of a member's pension benefit, including length of service and retirement age, also changed. Pension cost-of-living adjustments are suspended and will not be awarded until the Plans reach a certain funding level. A schedule to ramp-up the State's contributions to the Pension Plans continues with a full payment to be made in 2023.

  State Health Benefits Program reforms also are being implemented. Since 2010, employees and retirees are contributing more toward their health benefits, making cost-sharing fairer between taxpayers and beneficiaries. Following up on these changes, the Christie Administration continues to propose benefit modifications. The Health Benefits Plan Design Committees, which must approve all changes, have acted on some of the modifications but much more needs to be accomplished, particularly from the School Employees Health Benefits Program.

- Pension Funding: The Administration has dramatically increased pension funding, contributing more than two and half times the total contributions made from FY95 through FY10. For the past six fiscal years the Administration has made at least the normal cost contribution to the pension system (i.e., a contribution that covers the present value of benefits earned by members during that fiscal year), something that had not occurred once in the 14 fiscal years prior to this administration. In addition, the assumed rate of return on pension assets has been reduced to 7.0% today from 8.25% when the Administration began. Such concerted effort more accurately measures the true long-term State obligations to support the system, leading to higher payments which are crucial in ensuring the long-term viability of the pension system. In total, there is for the first time in State history a universally acknowledged strategy to reach financial health for the Pension System.

- Lottery Enterprise Contribution: Via enabling legislation and a memorandum of contribution, the Christie Administration contributed the State Lottery, as an Enterprise, to eligible pension systems for a 30-year term. The State Lottery is New Jersey's fourth largest revenue source, generating projected net proceeds of $37 billion over the 30-year term, with an estimated market value of $13.5 billion. The contribution immediately and dramatically improved the pension's funded ratio with a liquid, reliable source of income and eases the State's path toward full funding.

Further evidence of the improved balance sheet over the course of the Christie Administration is provided by the 10-year payout ratio — the ratio of the amount of principal scheduled to be retired within the next ten years as a share of all debt outstanding. This ratio has steadily increased over the past eight years as bonded obligations have been paid off or refunded by following the three-prong test. The improvement in this ratio signals that the balance sheet will continue to be improved as the existing debt is repaid, provided future administrations do not rapidly expand debt issuance or push off repayment.



Forward-looking Metrics and Aspirations/Recommendations

In spite of the notable change in debt trajectory under the Christie Administration, New Jersey still maintains a debt burden that, by many measures, is higher than in most other states. Moreover, the rating agencies all view this elevated debt burden as a negative factor weighing on the State's credit quality. Going forward, the State should endeavor to remain on the path charted over the past eight years, reducing the absolute and relative debt burden of New Jersey, rather than rapidly increasing it as was the case at the start of the 21st century.

In order to comprehend what such a path would entail, and how much additional debt issuance the State can afford to undertake, it is necessary to make a number of forward-looking projections. If we assume going forward that the State's economy, population and revenues achieve annual growth equal to the average growth rate of the past five years, then we can project forward the amount of debt and resulting debt metrics. Toward that end, the charts that follow provide just such projections under the following State debt management scenarios:

1) Annual (gross) new money principal issuance equal to the average annual (gross) new money principal issuance from 2011 to 2017 ($2 billion)[8]
2) Annual (net) growth in debt outstanding equal to the average annual (net) growth rate in debt outstanding from 2010 to 2018 (2.26%)[9,10]
3) Annual (net) growth in debt outstanding equal to the average annual (net) growth rate in debt outstanding from 2000 to 2010 (8.1%)[11]

What becomes apparent from reviewing these projections is that **returning to the ways of the past (i.e., Option 3 as described above and depicted in the charts below) is not a viable option for the State. It would lead to certain fiscal calamity**. To the contrary, following either of the other proposed paths would lead to improved debt ratios over time, with Option 1 leading to dramatic improvement.

Aspirationally, the following represent reasonable goals for New Jersey over the medium-term:

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[8] Note that with principal retirement over the next ten years projected to average $2.07 billion per year, such a pace of debt issuance would equate to a minor reduction in total debt outstanding over ten years. Further, it should be noted that the average annual gross new money debt issuance from FY2011 to FY2018 is projected to be $1.9 billion, so $2.0 billion should not be construed as restrictive.

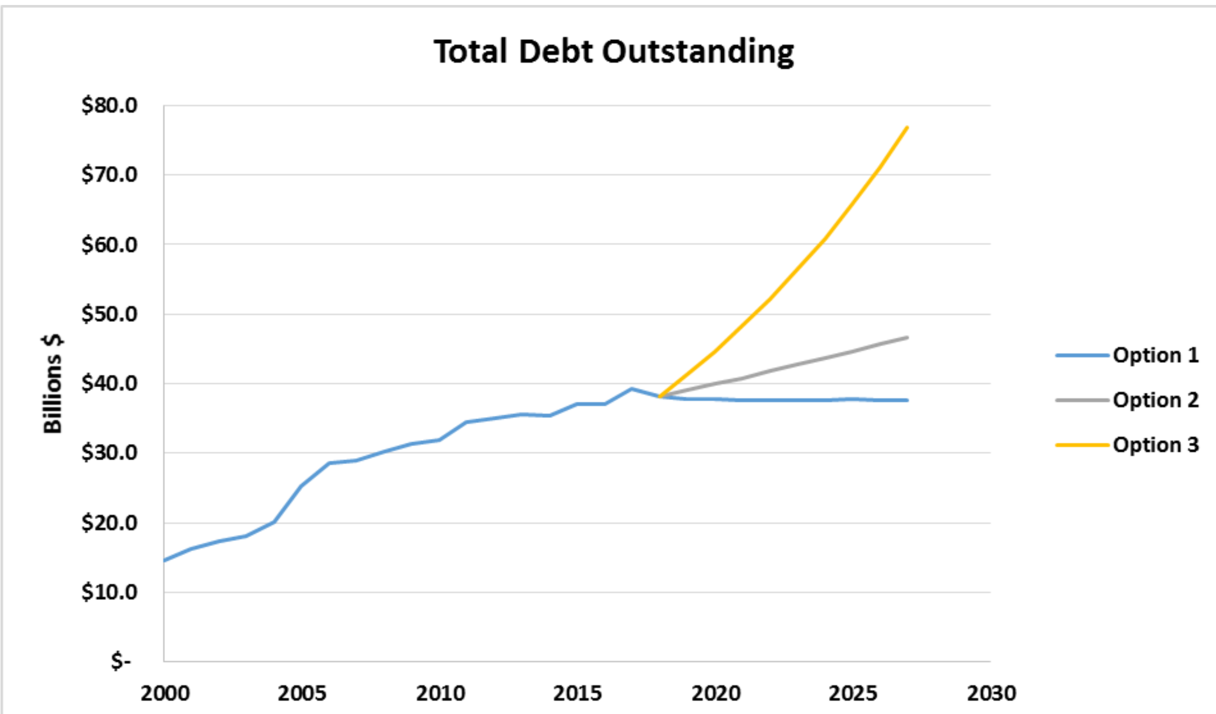
[9] Note that this is the growth rate based upon the Moody's net tax-supported debt figures. The growth rates based upon the debt numbers in the State Appendix and State CAFR are lower, at 1.64% and 2.1%, respectively. Following one of those lower growth rates would lead to improved debt metrics than following the growth rate based upon the Moody's figures.

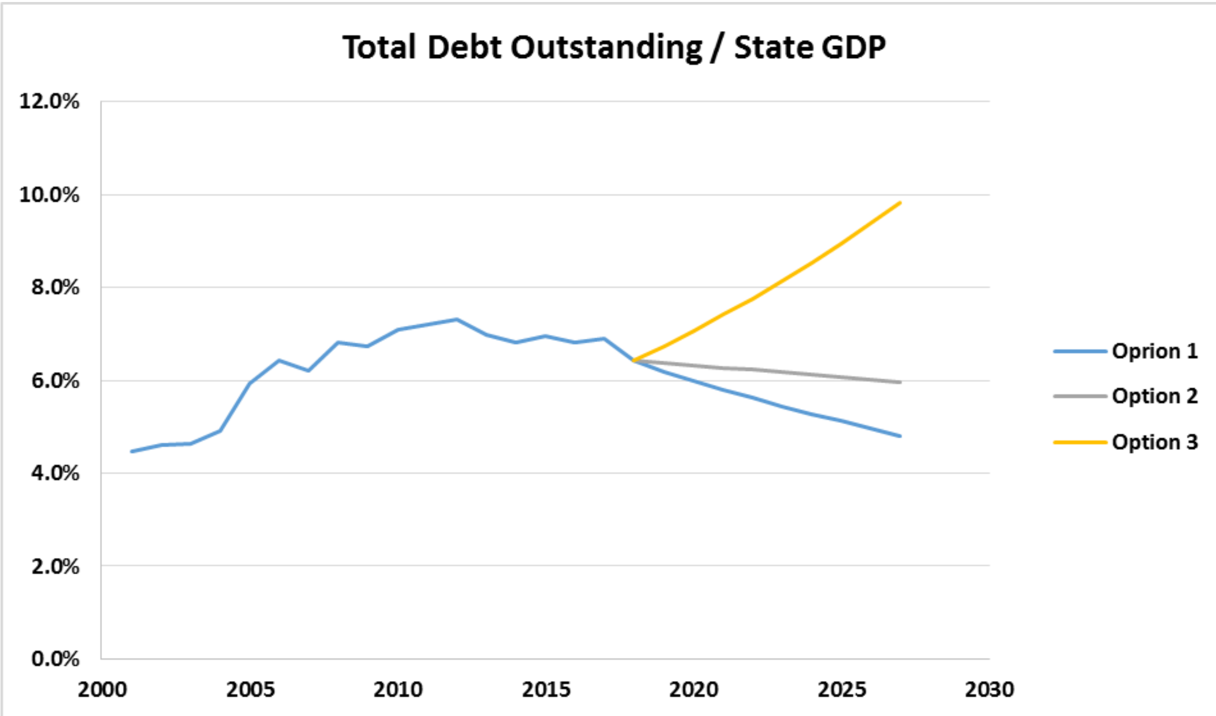
[10] While this was the growth rate over the Christie Administration, that growth rate is biased upwards based upon the debt service schedule inherited at the start of the Administration that was largely long-dated (see the increase in the 10-year payout ratio on page 22). To continue at such a pace of growth in the amount of debt outstanding would entail average annual gross new money debt issuance on the order of $3 billion/year, a more than 50% increase over the pace of debt issuance over the Christie Administration.

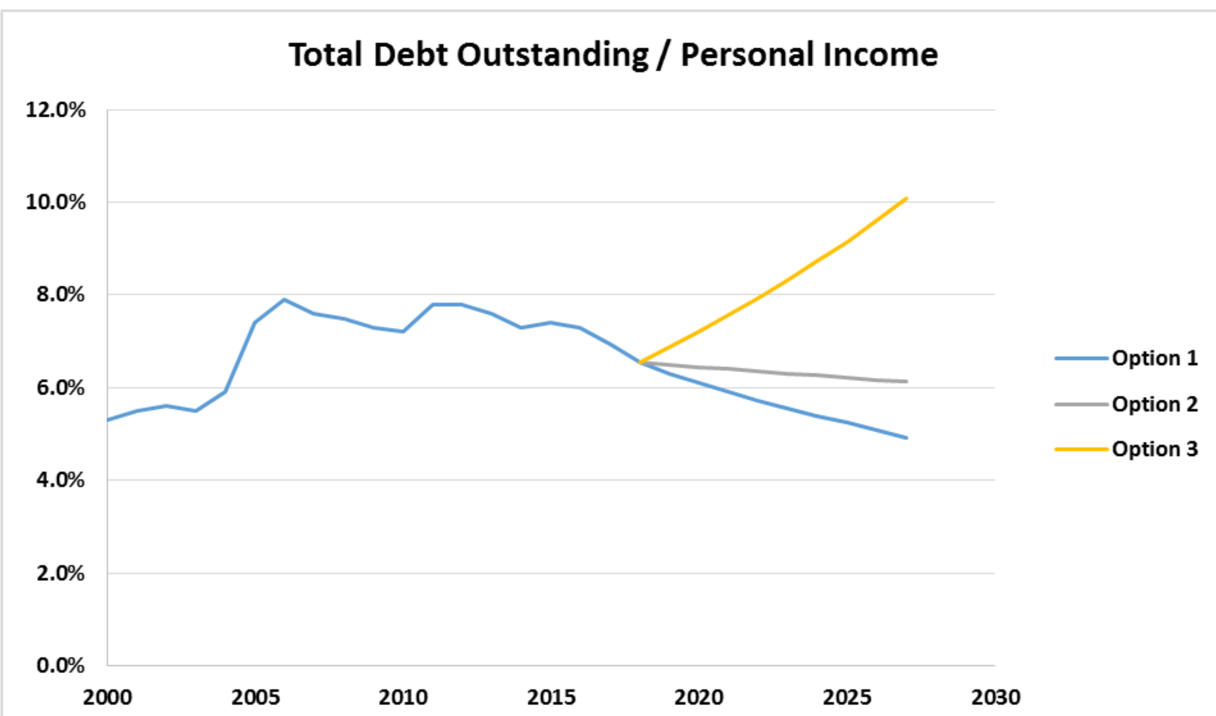
[11] Note that this is the growth rate based upon the Moody's net tax-supported debt figures. The growth rates based upon the debt numbers in the State Appendix and State CAFR are higher, at 10.28% and 12%, respectively. Following one of those higher growth rates would lead to even worse and more unsustainable debt metrics than following the growth rate based upon the Moody's figures.

- Reduce NTSD per capita from $4,388 to $3,500 or below, which would increase the State's score in the S&P debt metric scorecard from 4 to 3;
- Reduce NTSD/personal income from 7.3% to 5% or below, which would increase the State's score in the S&P debt metric scorecard from 4 to 3; and
- Reduce NTSD as a % of GSP from 6.9% to 4% or below, which would increase the State's score in the S&P debt metric scorecard from 3 to 2.

None of these figures includes pension and OPEB liabilities, the levels of which are also elevated in New Jersey. Accordingly, the pressing reality becomes clear: 1) pension and health benefit reform is a necessity; and, 2) the bonded debt ratios must be reduced via proactive management.




Total Debt Outstanding / State GDP
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2000
2005
2010
2015
2020
2025
2030
Oprion 1
Option 2
Option 3


Total Debt Outstanding / Personal Income
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2000
2005
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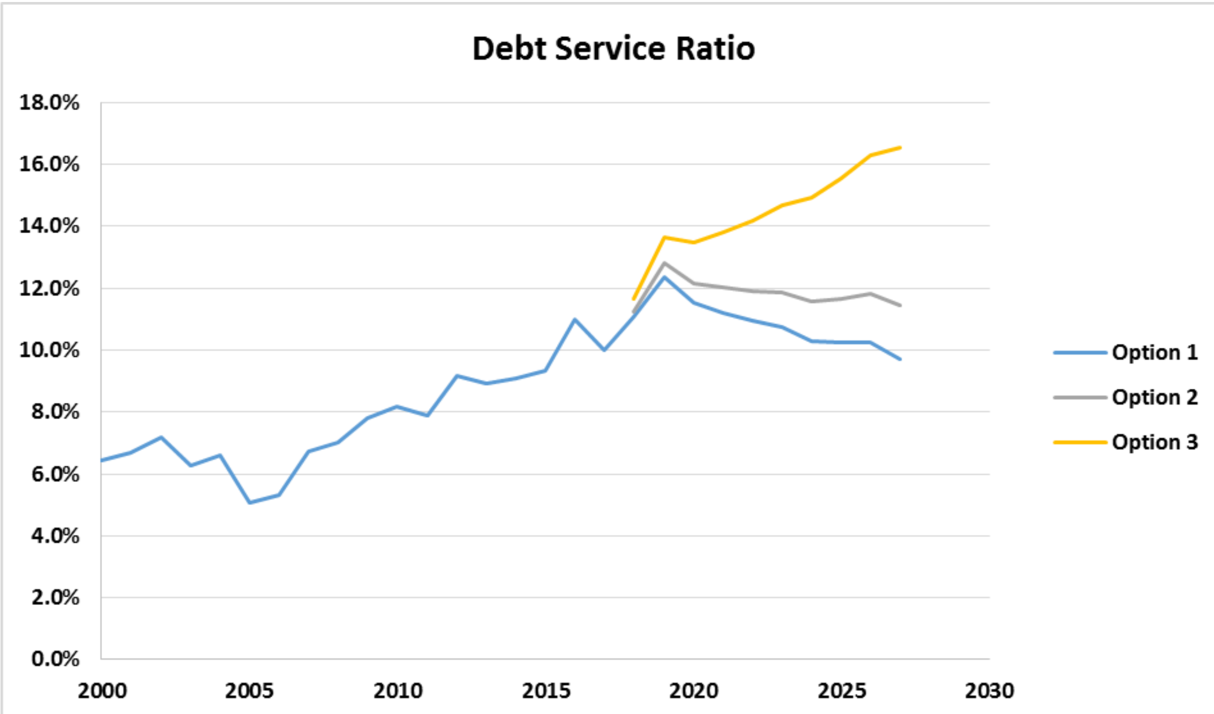
Option 1
Option 2
Option 3


Debt Service Ratio
18.0%
16.0%
14.0%
12.0%
10.0%
8.0%
6.0%
4.0%
2.0%
0.0%
2000
2005
2010
2015
2020
2025
2030
Option 1
Option 2
Option 3

Conclusion

While there will always be important infrastructure investments to be made across the State, those capital needs (and their resulting economic benefits) must be balanced against requisite continued improvements in the State's fiscal outlook. The Christie Administration has set a new path for the State on balancing such priorities, while simultaneously making significant progress on cleaning up past financial transgressions.

Continuing in this tradition, State bond issuance must be planned strategically in future years, prioritizing those projects with the highest positive impact while simultaneously steering the balance sheet toward improved debt ratios, in both absolute and relative terms.

Suggestions and considerations for charting this path are as follows:

-The first priority must be stabilizing the pension system, continuing the 1/10th ramp-up to the full actuarially recommended contribution while maintaining a realistic assumed rate of investment return. As the pension liability accrues at 7% per annum, far higher than the rate at which the State can borrow, the pension must be the priority above all else until the system is stabilized.

-Proactively pursue pension and health benefit reform in order to ensure such stabilization.

-Limit new money bond issuance to projects that: i) produce quantifiable present value benefits; and ii) are deemed essential.

-Except in the case of unforeseen emergent needs, over the near- to medium-term limit debt issuance in any fiscal year such that over any three year period the average (gross) new money debt issued per year is no more than $2.0 billion. As debt service in each fiscal year will include a retirement of principal, such a policy will help ensure that over time the denominator in most debt ratios (e.g., State revenue, State GDP, State personal income) grows faster than the numerator (i.e., total debt or debt service), thus reducing the ratios toward their respective targets. Over the medium- to long-term, explicitly guide debt issuance to help the State reach its debt metric goals.

-At least until such time as New Jersey has reached its debt metric goals, expand the universe of potential projects via proactive, deliberate use of outside capital.

- State volume cap should only be allocated to projects that: 1) produce quantifiable present value benefits; and 2) are deemed essential.
- Public-private partnerships should be utilized whenever feasible.

Absent such efforts, the amount of infrastructure investment will simply have to be reduced.

-Follow recent State history, best practices and New Jersey Supreme Court guidance that debt cannot be issued for operational purposes, but instead should be used for long-term capital infrastructure investments.

-Continue transparent, competitive procurement and performance monitoring of underwriters.

-Continue to utilize Treasury's three-prong test for refunding transactions (i.e., gross debt service savings, net present value debt service savings, and no extension of maturities).

-In light of reduced credit spreads following the Lottery Enterprise Contribution Act, aggressively pursue refunding transactions that meet Treasury's three-prong test.

-Continue to assess the proper footprint of State government, collapsing leases and selling State assets when it is financially beneficial to do so. Such transactions have the benefit of freeing up additional resources by reducing debt service or lease payments.

-Likewise, continue to use the recently developed capital budgeting analysis tool at the Department of the Treasury's Division of Property Management and Construction to analyze lease versus buy decisions on State facilities and only build when there is a clear financial benefit to doing so.[12] If there is a financial benefit to owning rather than leasing the capital asset, to the extent that pay-go is not desirable or feasible, it would be imprudent to lease the required infrastructure solely to show a lower bonded debt figure. Capital leases are likewise obligations of the State, and the State should undertake that path which has the greatest financial benefit.

-Barring extremely favorable and unforeseen market circumstances, **never again** issue pension obligation bonds.

-Avoid the issuance of non-callable, back-end loaded, long-term debt whenever possible.

-Develop a long-term strategy for the Economic Development Authority's School Facilities Construction bond program. The program, which uses the State's balance sheet and resources for local financing, is incredibly large, the Legislature never defined what qualifies as success, and the program will soon exhaust the legislatively authorized amount of debt. Criteria for program accountability should be formulated prior to any future bonding authorization.

[12] For instance, the decision to build new buildings for the Division of Taxation and Departments of Health and Agriculture provides a projected net present value savings of $55 million.

Appendix A: Debt Service Breakdown
General Fund and Property Tax Relief Fund

The General Fund is the fund into which all State revenues, not otherwise restricted by statute, are deposited and from which appropriations are made. The largest part of the total financial operations of the State is accounted for in the General Fund. Revenues received from most taxes, federal revenues and certain miscellaneous revenue items are recorded in the General Fund. The major categories of anticipated revenue for the General Fund are as follows:

- The major taxes category is composed of 13 taxes or fees, which are levied within the State and deposited in the General Fund. The majority of this revenue is generated from the sale and use of goods and services, general business taxes, motor vehicle fees and other excise taxes;

- The miscellaneous taxes, fees and revenues category includes various revenues received by State agencies. Typical items include license and inspection fees, recreation and boating fees, institutional and patient fees, investment earnings and other similar items; and

- The interfund transfers category includes resources from other governmental Funds and proprietary funds that are transferred into the General Fund as anticipated revenue for expenditure purposes. Included in these types of revenue is the interest earned on investment of bond funds.

The Property Tax Relief Fund (PTRF) receives revenues from the New Jersey Gross Income Tax and revenues derived from a tax rate of 0.5% imposed under the Sales and Use Tax, both of which are constitutionally dedicated toward property tax relief and reform. All receipts from taxes levied pursuant to the New Jersey Gross Income Tax on personal income of individuals, estates, and trusts must be appropriated exclusively for the purpose of reducing or offsetting property taxes. Annual appropriations are made from the Fund, pursuant to formulas established by the State Legislature, to counties, municipalities and school districts. The Property Tax Relief Fund was established by the New Jersey Gross Income Tax Act, N.J.S.A. 54A:9-25, approved July 8, 1976.

Due to the requirements that PTRF monies must be used for property tax relief and reform, not all State debt service is eligible to be paid from PTRF monies. Thus, in the context of debt affordability, it is not only necessary to consider the total debt service on all State obligations, but also to consider from which source the debt service is eligible to be paid.

Almost all General Obligation and appropriation bonds of the State are paid for by either the General Fund or the PTRF. The only bonds which are not paid from these two funds are bonds which are backed by dedicated taxes or surcharges such as the NJEDA Motor Vehicle Surcharges bonds and the NJEDA Cigarette Tax revenue bonds.

In Fiscal Year 2018, debt service on most General Obligation and State appropriation bonds is anticipated to be paid for from the General Fund; however, debt service on some obligations is anticipated to be paid from the PTRF, which include 100% of the Fiscal Year 2018 debt service on the NJEDA School Facilities Construction bonds, NJEDA Municipal Rehabilitation program bonds, NJEFA Public Library program bonds, and the State's portion of debt service on the Chapter 12 County College bonds. It is also anticipated that the PTRF will fund a portion of the debt service on certain obligations with the balance of the debt service on those obligations being paid for by the General Fund. These obligations include $200 million (or 15%) of the debt service on the Transportation Trust Fund Authority's System and Program bonds, $248.75 million (or 58%) of the debt service on the NJEDA's Pension Obligation Bonds, and $31.258 million (or 32%) of the Garden State Preservation Trust Fund's bonds.

The following table displays a breakdown of outstanding debt service payments based on the fund from which they are anticipated to be paid in Fiscal Year 2018. The table also shows the projected debt service on all authorized but unissued debt as if it were all issued in Fiscal Year 2018 (represented by the column "Projected").

Projected Debt Service Breakdown by Fund Source
General Fund vs. Property Tax Relief Fund
As of June 30, 2017

	General Fund			Property Tax Relief Fund			
Fiscal Year	Existing	Projected	Total	Existing	Projected	Total	PTRF + GF
2018	$ 2,298	$ 27	$ 2,325	$ 1,424	$ 58	$ 1,482	$ 3,807
2019	2,623	84	2,707	1,563	160	1,722	4,429
2020	2,286	84	2,370	1,589	160	1,749	4,119
2021	2,188	84	2,272	1,573	160	1,733	4,005
2022	2,060	84	2,144	1,588	160	1,748	3,892
2023	1,997	84	2,082	1,571	160	1,731	3,812
2024	1,878	84	1,962	1,523	160	1,682	3,645
2025	1,862	84	1,946	1,517	160	1,677	3,622
2026	1,821	84	1,905	1,562	160	1,721	3,626
2027	1,818	84	1,903	1,338	160	1,498	3,400
2028	1,755	84	1,839	1,436	160	1,595	3,434
2029	1,629	84	1,714	1,063	160	1,223	2,937
2030	1,130	84	1,215	773	160	932	2,147
2031	1,122	84	1,206	561	160	721	1,927
2032	1,118	84	1,202	341	160	501	1,703
2033	1,090	84	1,175	330	160	489	1,664
2034	1,086	84	1,170	333	160	493	1,663
2035	1,050	84	1,135	333	160	493	1,628
2036	972	84	1,056	335	160	495	1,551
2037	944	84	1,029	295	160	454	1,483
2038	888	-	888	291	160	451	1,339
2039	939	-	939	290	160	450	1,389
2040	993	-	993	302	160	462	1,455
2041	889	-	889	193	160	353	1,242
2042	281	-	281	50	160	209	491
2043	139	-	139	25	-	25	163
2044	139	-	139	25	-	25	163
2045	35	-	35	6	-	6	41
2046	35	-	35	6	-	6	41
2047	-	-	-	-	-	-	-
Total	$ 37,064	$ 1,628	$ 38,693	$ 22,238	$ 3,887	$ 26,125	$ 64,817

Appendix B: Long-Term Credit Ratings

Though credit ratings often provide a lagging indicator of the fiscal health of a state, the goal of the rating agencies is to assess the ability of an entity to repay its debt. Accordingly, it is only logical that state credit ratings place large emphasis on the amount of bonded debt obligations outstanding. Moreover, the Capital Improvement Plan statute dictates that the Committee consider those criteria used by rating agencies. New Jersey's current credit ratings, and the rationale provided by the individual credit rating agencies, are as follows:

Current Ratings:

	Moody's	S&P	Fitch	KBRA
G.O.	A3 (Stable)	A- (Stable)	A (Stable)	A (Stable)
State Appropriation	Baa1 (Stable)	BBB+ (Stable)	A- (Stable)	A- (Stable)

Rationale:

Moody's – "New Jersey's A3 rating primarily reflects its significant pension underfunding, large and rising long-term liabilities, a persistent 11% structural budget imbalance, and weak 1.3% fund balances. Despite large increases in pension contributions since 2012, the state's contributions remain well below actuarial recommendations. Moreover, tax cuts enacted in January 2017 and a reliance on optimistic revenue growth assumptions to balance the budget may make it harder for the state to keep pace with its statutory pension contribution schedule. The state nevertheless benefits from a diverse economy and high wealth, as well as the governor's broad powers to reduce expenditures.

The Baa1 is notched off the state's A3 GO rating, reflecting the need for annual legislative appropriation of state contract payments backing the bonds. A large majority of the state's net tax-supported debt is subject to appropriation, and the importance of maintaining access to the capital markets provides strong incentive for the state to make these appropriations."

S&P – "Our GO rating on the state reflects what we consider:

- A history of structurally unbalanced budgets, when including annual underfunding of pension payments and other obligations, which creates increasing long-term pressure on future budgets;
- A large unfunded pension liability, and continued state underfunding of the state retirement systems' annual actuarially determined contribution (ADC);
- Significant postemployment benefit obligations; and
- Above-average debt burden.

In our (S&P's) opinion, credit strengths include New Jersey's:

- Diverse economic base, which is showing signs of improvement, but which continues to lag the national growth rate;

- Improving, but still-limited, fund balance reserves relative to revenue fluctuations; and

- High wealth and incomes, which are still among the highest of the 50 states."

Fitch - "New Jersey's 'A' IDR (G.O.) incorporates a history of structurally imbalanced financial operations and slim reserves, persistent underfunding of its liabilities, and an elevated long-term liability burden, as well as the state's diverse and high wealth economy that has returned to sustained growth. In the absence of additional pension reforms Fitch expects that incremental pension contribution increases will consume the bulk of natural revenue growth for the next several years and remain a significant part of the state's budget going forward. The rating also incorporates the strong control over revenues and spending inherent in a state's powers."

Kroll – "Key Rating Strengths:

- The Governor has broad executive powers under the New Jersey Constitution to adjust the budget and reduce spending to maintain budget balance. The current Governor has exercised this authority and cut spending to maintain fiscal balance.

- Financial management procedures have strengthened under the current administration.

- State economic base is large and diverse.

- Per capita income is third highest in the nation.

Key Rating Concerns:

- State has not made its required pension contributions under the 2011 pension reform legislation due to budgetary pressures.

- State has been operating with minimal levels of reserves in its operating funds with available fund balance at approximately 1%-2% of expenditures. State has no specific plans to increase reserve levels.

- State's liquidity position has deteriorated significantly over the last several years.

- Revenue base is volatile due to progressive nature of tax structure and reliance on financial services sector employment and high wealth individuals.

- State debt burden is relatively high, compared to other states.

- Recently enacted Chapter 57 tax changes will significantly reduce General Fund revenues in future years, beginning in FY 2018."

Outlook:

Moody's – "The stable outlook reflects our view that the current A3 rating is well positioned for the next 12-18 months due to solid economic performance and the expectation that any fiscal 2018 budget gaps will remain manageable. However, in the longer term, the state's credit profile will continue to weaken as large long-term liabilities grow and the state's budget is challenged by growing pension contributions in a low revenue growth environment."

S&P – "The stable outlook on the GO debt reflects our belief that the state's combined pension-funded ratio, calculated on a GASB 67 basis, will stabilize or improve over our one-year outlook horizon, following a decline in the most recent July 1, 2016, actuarial valuation. In our view, New Jersey's high unfunded pension liabilities and underfunding of annual ADC remain key credit considerations and a source of future budget pressure. New Jersey's pension system remains among the worst funded in the nation and a primary reason why our GO rating on the state is the second-lowest of all the states."

Kroll – "The Stable Outlook on the State's General Obligation Bonds reflects KBRA's expectation that the Governor will continue to adjust the budget and to cut spending, when necessary, to maintain budget balance during the course of the fiscal year. It also reflects the expectation that the State will continue to stabilize its cash position. In KBRA's view, the funding of pension contributions under its new budgeting plan remains uncertain, given the potential for budget pressure from the planned increase in pension contributions over the next five years. KBRA will also continue to monitor the impact of Chapter 57 tax changes on the State's fiscal position and will assess actions taken by the State to maintain budgetary balance.

Factors that could lead to an upgrade:

Moody's:

- "Increased pension contributions, far greater than the current 1/10 plan, that stabilize growth in the Adjusted Net Pension Liability (ANPL)

- Near-term reduction in structural imbalance through sustainable budget improvements

- Sustained improvement in budgetary balances and liquidity"

Kroll:

- "Trend of full annual funding of the State's annual pension actuarially required contribution ("ARC").

- Significant increase in the State's financial reserves, including funding of the Surplus Revenue Fund."

Factors that could lead to a downgrade:

Moody's:

- "Indications that low revenue growth or high cost growth will make the 1/10 pension contribution increases unaffordable and heighten the risk of additional underfunding

- Increase in structural imbalance

- Reduced liquidity levels and/or increased liquidity support (cash-flow borrowing and other cash management tactics)

- A significant increase in unfunded pension liabilities, for example due to weak investment returns"

Kroll:

- "Deterioration in the State's available cash position.

- Deterioration in the level of the State's financial reserves.

- Continued non-payment of statutorily required pension contributions."

STATE OF NEW JERSEY-RATINGS HISTORY

Rating Changes - General Obligation Bonds*

DATE	RATING ACTION	MOODY'S	S & P	Fitch	KBRA
1960'S	Initial Rating	Aaa	AAA		
6/23/1975	Downgrade	Aa	AAA		
5/18/1977	Upgrade	Aaa	AAA		
7/3/1991	Downgrade	Aaa	AA+		
8/24/1992	Downgrade	Aa1	AA+		
3/4/2002	Downgrade	Aa2	AA+		
6/4/2002	Downgrade	Aa2	AA		
7/27/2004	Downgrade	Aa2	AA-		
7/28/2004	Downgrade	Aa3	AA-		
7/19/2005	Upgrade	Aa3	AA	AA-	
4/1/2010	Recalibration**	Aa2	AA	AA	
2/9/2011	Downgrade	Aa2	AA-	AA	
4/27/2011	Downgrade	Aa3	AA-	AA	
8/17/2011	Downgrade	Aa3	AA-	AA-	
4/9/2014	Downgrade	Aa3	A+	AA-	
5/1/2014	Downgrade	Aa3	A+	A+	
5/13/2014	Downgrade	A1	A+	A+	
9/5/2014	Downgrade	A1	A+	A	
9/10/2014	Downgrade	A1	A	A	
4/16/2015	Downgrade	A2	A	A	
10/26/2015	Initial Rating	A2	A	A	A
11/14/2016	Downgrade	A2	A-	A	A
3/27/2017	Downgrade	A3	A-	A	A

* Ratings are for State general obligation bonds only. Most State-backed Authority bonds that are "subject to appropriation" are rated one degree lower (i.e. Moody's: A3/Baa1; S&P: A-/BBB+).

**Moody's announced in April, 2010 that it had recalibrated its long-term municipal ratings to its global rating scale. Moody's has stated that the recalibration does not reflect a change in the credit quality, or a change in Moody's credit opinion, of an issue or issuer; the recalibration is simply a change in scale.

On April 5, 2010, Fitch recalibrated its U.S. public finance credit ratings for states. Fitch has stated that the recalibration of such ratings should not be interpreted as an improvement in the credit quality of those securities but are adjustments to denote a comparable level of credit risk as ratings in other sectors.