MEMORANDUM

TO: **Richard A. Licht, Director, Department of Administration**

FROM: **Peter Marino, Director, Office of Management and Budget**

RE: **Moral Obligation Bonds**

DATE: **June 18, 2013**

This memo outlines (a) the potential actions which rating agencies, insurers and the market may take should the State not appropriate funding for its moral obligation bonds associated with the Rhode Island Economic Development Corporation's Loan Guarantee Program; and (b) other issues that should be taken into consideration as this issue is discussed.

The Governor has strongly recommended that the State meet its obligations and fully fund the debt service for this moral obligation debt. While the cost to taxpayers is distasteful and all is being done to mitigate this initiative undertaken by the prior administration, we must ensure the State's credit rating and access to markets is maintained at a cost taxpayers can afford.

There are both negative financial impacts, such as those influenced by credit rating agencies and markets, as well as those incurred through adverse reputational impacts to Rhode Island should the state not appropriate the funding for debt service on these moral obligation bonds. The following highlights the potential risks that are difficult to quantify, but must be taken into consideration.

- **State credit and reputation is at significant risk for a prolonged period of time** - Failure to make an appropriation would create a significant reputational risk to the state and could result in a substantial and prolonged penalty to access the financial markets (7-10 years before the state begins to recover from a downgrade, but a longer impact on Rhode Island's overall reputation, especially if it fails to pay back this debt).

- **Penalty will be severe to discourage others from considering default** - Rating agencies, bond insurers and the market could impose larger penalties on Rhode Island to discourage others from considering defaulting on bonds, thereby amplifying the degree of penalty levied against Rhode Island. Rating agencies will not want states to deem it practical to honor some appropriation debt obligations while repudiating others.

> *"Were state officials who were charged with funding debt to suggest an unwillingness to fund debt…**we would likely assign the state a GO rating or issuer credit rating that is no higher than the 'BB' category**. The rating would be no higher than the 'B' category and would likely be lower if we determined that this lack of willingness was likely to threaten a pending debt payment."*
>
> Standard and Poor's Global Credit Portal, Ratings Direct, January 3, 2011

- **Rating agencies and the market do not make distinctions in the type of debt when it comes to a default** - In the eyes of rating agencies, there is little to no distinction among State debt obligations when it comes to a default – whether they are G.O. debt, appropriation debt or moral obligation debt.

- **Failure to meet obligations will likely have a negative effect on G.O. Bond Ratings** - Some experts have indicated that Rhode Island's GO bond rating could drop to as low as A or even BBB levels, which would be at the lowest rating of any state in the country (Illinois is A3 – recently downgraded by Moody's Investors Service).

- **Failure to pay obligations calls into question the state's willingness to pay other obligations** – Rating agencies make a distinction between an unwillingness to pay back a bond and an inability to pay back a bond. Rating agencies would look at a default anywhere in a State's capital financing structure as a major failure. Appropriation bonds (such as COPs) could potentially be downgraded multiple notches below General Obligation Bonds, or not rated at all, which could make this type of debt very costly or result in an inability to issue appropriation debt.

- **Failure to meet obligations could result in the market bypassing Rhode Island debt given more secure alternatives for investment** - Investors will have other more secure options than Rhode Island debt should the state abdicate its responsibility to meet the debt service on moral obligations. Short term debt, such as Tax Anticipation Notes (TANS) could easily be avoided by investors and replaced with less risky debt at no cost to them. Similarly, the state may not achieve savings through refinancing opportunities of existing debt.

- **The impact of the State's failure to meet obligations could proliferate into other Rhode Island entities' ability to borrow** – Potential exposure and additional costs to municipalities and other State-related agencies issuing debt. The state, its related agencies, and municipalities issued over $4.2 billion in debt from 2008-2012.

- **Insurance company would almost certainly initiate lengthy litigation** – Assured Guaranty (currently the primary company insuring new issues) has taken legal action to defend its rights in the past, which would translate into ongoing exposure legal costs for the state and limit the State's ability to use insurance to drive down future borrowing costs.

- **Increased costs to borrowing could have an adverse impact on the portfolios of those holding Rhode Island outstanding debt.** Analysis from Municipal Market Advisors indicates that a 50 basis point increase in yield results in a drop in price (value) between 5.0-6.0 percent over a 20 year period. Given there is approximately $2.1 billion in outstanding State debt, this could result in a loss in portfolio value of $100 to $120 million.

- **Rhode Island becomes famous for the wrong reasons** – All efforts to improve overall debt management, and in turn, Rhode Island's bond ratings over the past 20-30 years, will be cast aside. All the hard work to make the state more attractive to capital investment and to attract talent will be swiftly squandered if Rhode Island does not meet its fundamental obligations.

- **A lower rating becomes a starting point for further credit downgrades if the State were to experience renewed credit weakness for any number of reasons –** In other words, once downgraded, the state is vulnerable should it experience other issues that threaten the state's credit, with not much room to go.

Recent Rating Agency Actions

On June 17, 2013, Moody's Investors Service released a notice that it downgraded Rhode Island 38 Studio bonds from A2 to Baa1 and placed those bonds and all other state general obligation and appropriation debt under review for downgrade. Moody's made it clear that its review will not only consider the State's willingness to support the moral obligation bonds, but it will consider the degree of support the appropriation reflects as it emerges from the legislative process.

In its notice, Moody's made it very clear that there is little legal distinction between the state's appropriation debt and the 38 Studios moral obligation debt. While for both categories, the legislature is not legally obligated to appropriate the funds, the rating agency pointed out in its central arguments that the state had explicitly expressed its strong support for the moral obligation at the time the program (Loan Guarantee Program) was approved.

Moody's on potential 38 Studios default

"Selectivity regarding which obligations to honor leads us to question our confidence in the full faith and credit of the state and its willingness to honor its other debt obligations compared to otherwise similarly-rated states."

Moody's indicated that "selectivity regarding which obligations to honor leads us to question our confidence in the full faith and credit of the state and its willingness to honor its other debt obligations compared to otherwise similarly-rated states." In other words, an environment in which any debt service payments are considered optional undermines Moody's confidence in the full faith and credit of the state.

The two-notch downgrade on the 38 Studios bonds reflects the erosion of the legislature's willingness to honor the moral obligation, which was expressed so strongly at the time the program was approved. Moody's described the nature of the obligation as being a strong state commitment given how it was presented in legislation and to the market.

The rating action taken by Moody's is important because it was taken when there has not been an adverse action taken by the state to date. Rather, it is based primarily on the increased uncertainty as the issue has been debated, and hinges on the state's willingness to pay this moral obligation, not its financial capacity or ability to do so. The rating agency indicated that the nature of an annual appropriation for this bond has spawned a perpetual object for debate that increases risk to bond holders.

Moral Obligation Bonds

A Moral Obligation Bond is typically issued by a state agency or authority, which is secured by the revenues from the financed project, and additionally, by a non-binding undertaking that any deficiency in pledged revenues is included in the Governor's budget recommendation upon which the legislature may apportion state monies to make up the shortfall. The moral obligation bond legislation typically authorizes, but does not legally obligate, the legislature to appropriate funding.

However, as noted above, when a default occurs, rating agencies and the market make little to no distinctions in the type of debt when assessing a state's willingness to meet debt obligations. Any drop in ratings potentially reduces the pool of investors willing to buy Rhode Island bonds, which can add to the costs of borrowing (both interest rates and fees) beyond the initial cost differentials associated with a bond rating downgrade.

In the case of the Moral Obligation Bonds associated with the Loan Guaranty Program issued through the Rhode Island Economic Development Corporation (EDC), there are a number of key provisions worth

outlining. First, by no later than December 1 of each year, the Executive Director of the EDC is required to deliver a certificate to the Governor stating the sum, if any, required to restore the Capital Reserve Fund to the Minimum Capital Reserve fund Requirement. The Governor is then required to include such amounts in his or her budget request for appropriations to the General Assembly.

Second, should the borrower fail to make additional loan payments subsequent to the December 1 requirement noted above, the Executive Director is required to update the certificate delivered to the Governor and the State Budget Office on the 15th day of each month thereafter.

On June 7, 2012, 38 Studios filed for bankruptcy, and the Executive Director of the EDC officially notified the Governor in a certificate dated January 11, 2013, that 38 Studios, a recipient of $75.0 million in loan guarantees, defaulted on its payments.

Therefore, pursuant to the provisions noted above, the Governor recommended that the state meet these moral obligation debt service obligations, requiring $2.4 million in FY 2014 and approximately $12.5 million annually in fiscal years FY 2015 through FY 2021. The State will pay back a total of $104.6 million, of which $15.4 million is available through capitalized interest and the capital reserve fund, leaving an estimated $89.2 million in net payments to eliminate this obligation. If one expresses the $89.2 million in net present value, it is estimated at $75.1 million over the life of the bonds. The current debt service obligations are included in the following table:

Outstanding Debt Service

EDC Job Creation Guaranty Program(1)

Fiscal Year	Principal	Interest	Total Debt Service	Capitalized Interest (2)	Capital Reserve Fund (2)	Total Net Debt Service
2013	-	5,309,413	5,309,413	(2,654,706)	(2,654,706)	-
2014	7,440,000	5,086,213	12,526,213	-	(10,095,206)	2,431,006
2015	7,885,000	4,626,463	12,511,463	-	-	12,511,463
2016	8,360,000	4,139,113	12,499,113	-	-	12,499,113
2017	8,860,000	3,589,288	12,449,288	-	-	12,449,288
2018	9,455,000	2,923,881	12,378,881	-	-	12,378,881
2019	10,190,000	2,162,638	12,352,638	-	-	12,352,638
2020	10,980,000	1,342,300	12,322,300	-	-	12,322,300
2021	11,830,000	458,413	12,288,413	-	-	12,288,413
2022	-	-	-	-	-	-
2023	-	-	-	-	-	-
2024	-	-	-	-	-	-
2025	-	-	-	-	-	-
2026	-	-	-	-	-	-
2027	-	-	-	-	-	-
2028	-	-	-	-	-	-
	75,000,000	**29,637,719**	**104,637,719**	**(2,654,706)**	**(12,749,913)**	**89,233,100**

(1) Under the loan and trust agreement of the 2010 EDC Job Creation Guaranty Program, the EDC is required to request that the Governor include funding in his annual budget submission to bring the balance in the capital reserve fund to a level equal to the minimum capital reserve fund requirement, whenever the fund balance falls below this level. This funding is subject to appropriation by the General Assembly.

(2) Capitalized interest and debt service reserve fund balances are projected be used to pay debt service in FY 2013 and FY 2014.

Redemption Premium Costs

Some have suggested that simply calling and refinancing the debt using another issuance could save the state money. However, the bonds issued under the EDC Loan Guarantee Program for this particular issuance are subject to a redemption premium prior to their stated maturity dates. The redemption price must be equal to the greater of:

1. The issue price on the inside cover of the Official Statement of such bonds to be redeemed (but not less than 100 percent of the principal amount);
2. The sum of the present value of the remaining principal and interest payments to the maturity date, discounted to the date on which the 2010 Bonds are to be redeemed on a semi-annual basis – assumes a 360-day year consisting of twelve 30 day months, at a Treasury rate +35 bps (basis points) plus accrued interest on such 2010 Bonds to be redeemed.

> The redemption premium was designed to discourage the State from paying this debt off early or refinancing, which would otherwise negate much of the return expected in this investment of capital.

For purposes of illustration, an analysis of the estimated cost of the redemption premium below indicates that the total cost to retire these bonds, assuming a settlement is initiated on August 1, 2013, totals $93.6 million. After adjusting for the estimated accrued interest ($1.3 million) and the principal ($75.0 million), the estimated net premium is $17.3 million. The following table shows the projected/potential costs associated with the redemption premium provision in the bond covenants.

Job Creation Guaranty Program Taxable Revenue Bonds (Series 2010)

Maturity (A)	Prinicipal (B)	Coupon (C)	Accrued Interest (D)	Remaining Term (E)	UST Yield (F)	Plus 35 bp (G)	Price (H)	Cost to Retire (I)
11/1/2013	$7,440,000	6.00%	$111,600	0.25	0.10%	0.45%	101.384	$7,542,970
11/1/2014	7,885,000	6.00%	118,275	1.25	0.10%	0.45%	106.909	8,429,775
11/1/2015	8,360,000	6.00%	125,400	2.25	0.22%	0.57%	112.121	9,373,316
11/1/2016	8,860,000	6.75%	149,513	3.25	0.35%	0.70%	119.405	10,579,283
11/1/2017	9,455,000	7.75%	183,191	4.25	0.35%	0.70%	129.469	12,241,294
11/1/2018	10,190,000	7.75%	197,431	5.25	0.75%	1.10%	133.831	13,637,379
11/1/2019	10,980,000	7.75%	212,738	6.25	1.21%	1.56%	136.721	15,011,966
11/1/2020	11,830,000	7.75%	229,206	7.25	1.21%	1.56%	142.273	16,830,896
Totals	**$75,000,000**		**1,327,353**					**$93,646,877**

Cost to Retire	$93,646,877
Accrued Interest	(1,327,353)
Principal	(75,000,000)
Est. Net Premium	**$17,319,524**

Notes:

Assumes settling as of 8/1/13

Cost to retire (I) includes principal (B), accrued interest (D), and the PV of the premium adjustment (I)

Rating Agency Implications

The last time a state defaulted on debt was in 1933. Arkansas defaulted on debt, but it was due to inability to pay, not an unwillingness to pay. Arkansas subsequently honored the debt, and in part improved its position in the market, but not until after sustaining long term damage to its credit and reputation in the market.

Another example includes the Spokane (WA) Downtown Foundation, a non-profit, which sold revenue bonds to finance a parking garage backed by Spokane's moral obligation. The bonds went into technical default in 2001 and monetary default in 2003. In 2001 Moody's downgraded the city's unlimited tax and

general-obligation bonds from A1 to A2, the city's limited tax general obligation bonds from A2 to A3, and the city's water and sewer revenue bonds from A1 to A3. Standard & Poor's downgraded the city to BBB and the parking garage bonds from BBB- to D (junk status) and switched to Not Rated in September 2003. It was not until the City paid this debt that ratings began to return.

"The rating actions reflect the failure of the city and other parties to resolve their disputes surrounding the development of a downtown parking garage despite the passage of considerable time; the city's continued unwillingness to honor its financial commitment made in conjunction with the bond-financing of the garage even in the face of an imminent default on the bonds; and the increasingly litigious environment resulting from the dispute over the garage project. Moody's believes that the city's actions over the past 18 months suggest that its general willingness-to-pay is notably weaker than was previously assumed in our ratings of the city's debt." (Moody's Investor's Service - Rating Update, 8/7/2001).

Not all states are treated equally. On June 3, 2013, Fitch Ratings reduced Illinois' $27.5 billion in general obligation bonds from A to A-. While this was not a function of a default, it reflected inaction to address longstanding pension liabilities and a chronic use of payment deferrals to manage operating cash. Recent research developed by Bloomberg found that "investors in the $3.7 trillion municipal market don't treat states equally. Buyers demanded 1.41 percentage points extra yield yesterday over AAA rated debt to own bonds issued by Illinois. They need just 0.53 percentage point more yield on those issued by California, graded the same by Fitch and a step higher by Standard & Poor's and Moody's Investors Service, relative to top-level securities." (*Illinois Bond Grade Cut as Lawmakers Can't Fix Pensions* - Bloomberg - Tim Jones and Brian Chappatta 6/3/13)

For illustrative purposes, the general meaning of Standard and Poor's credit rating opinions is summarized below:

- 'AAA'—Extremely strong capacity to meet financial commitments. Highest Rating.
- 'AA'—Very strong capacity to meet financial commitments.
- 'A'—Strong capacity to meet financial commitments, but somewhat susceptible to adverse economic conditions and changes in circumstances.

- 'BBB'—Adequate capacity to meet financial commitments, but more subject to adverse economic conditions.
- 'BBB-'—Considered lowest investment grade by market participants.
- 'BB+'—Considered highest speculative grade by market participants.
- 'BB'—Less vulnerable in the near-term but faces major ongoing uncertainties to adverse business, financial and economic conditions.
- 'B'—More vulnerable to adverse business, financial and economic conditions but currently has the capacity to meet financial commitments.

- 'CCC'—Currently vulnerable and dependent on favorable business, financial and economic conditions to meet financial commitments.
- 'CC'—Currently highly vulnerable.
- 'C'—Currently highly vulnerable obligations and other defined circumstances.
- 'D'—Payment default on financial commitments.

Note: Ratings from 'AA' to 'CCC' may be modified by the addition of a plus (+) or minus (-) sign to show relative standing within the major rating categories.

The distinction between inability versus unwilling to pay this particular debt obligation in Rhode Island would likely influence the degree by which rating agencies and the market react. In Standard and Poor's Global Credit Portal report (January 3, 2011), it stated, "Were state officials who were charged with funding debt to suggest an unwillingness to fund debt…we would likely assign the state a GO rating or issuer credit rating that is no higher than a 'BB' category. The rating would be no higher than the 'B' category and would likely be lower if we determine that this lack of willingness was likely to threaten a pending debt payment." Therefore, if the State were unwilling to meet this debt obligation, there would likely be a downgrade in the State's bond rating. The degree of the downgrade and the length of time it would take for the State to recover from such a downgrade are unknown, but the Standard and Poor's report noted above indicates that one should expect a significant reaction from the rating agencies.

Rating Change Analysis

While the degree of the downgrade and subsequent financial implications are uncertain, the following analysis does provide insight into the potential impact such a downgrade may have on the cost of borrowing. The following discusses a potential range the financial impact could have on general obligation bond and appropriation bond costs over the next ten to twenty years. In addition, the relative impact of a downgrade is in part driven by the current low-rate environment, and should interest rates increase, the potential price differential could also increase. This analysis does not necessarily answer the broader reputational issues and costs associated with the State's unwillingness to retire this debt.

Rhode Island State, Quasi Public and local Debt Issuances
Sum of PAR (Millions)

Year	Total
2008	$965.4
2009	822.1
2010	767.3
2011	442.9
2012	1,166.8
Total	$4,164.5
Average	$832.9

Source: Securities Data Corporation, as of 6/3/2013. Excludes Healthcare and Higher Education financings and BANs, TANs and RANs.

The following analysis focuses on General Obligation Debt and Appropriation Debt issued by the state – it does not expand the potential implications for opportunities to refinance existing debt, nor does it account for other debt issued by other state-related agencies or municipalities. Other state-related agencies include, but are not limited to the Rhode Island Health and Educational Building Corporation, the Narragansett Bay Commission, the Rhode Island Clean Water Finance Agency, the Rhode Island Housing, and the Rhode Island Airport Corporation. Not including Bond Anticipation notes (BANS), these entities issued $4.2 billion in debt from 2008 to 2012.

Best Case Scenario - One Notch downgrade

A one-notch downgrade would keep Rhode Island's general obligation rating in the lower end of the AA category (Aa3, AA, AA-). A downgrade in one of the three ratings would result in the market pricing state bonds at the lower bond rating level. However, it should be noted that if the state is downgraded one notch, the rating for appropriation debt, including certificates of participation (COPs), would likely fall to the A category, or depending on the rating agencies' reaction, could be more aggressive in downgrading non GO debt further. It is unclear how long rating agencies would apply this downgrade, but limited experiences at the local level have indicated lengths of up to 10 years, with most municipalities succumbing to the market reaction and eventually repaying the debt. The negative effects on the cost of borrowing would reach beyond ten years given the average debt issuance is over a twenty year period. Should the state not remedy the situation by paying the debt, the negative impact to Rhode Island could certainly exceed 10 years.

At current rates, the pricing differential for a one-notch downgrade in General Obligation bonds is estimated to range from 17 to 49 basis points, depending on the maturity of the bond. However, this assumption is based on overall expectations in the market. It is reasonable to assume that the spread differential will likely be larger if the state is downgraded given there will be fewer willing investors, thereby driving up the price differential. Therefore, an additional "penalty" of 30 to 50 basis points on top of the initial pricing differential would not unrealistic.

Best Case Scenario - One-Notch Credit Downgrade

Issuance	**GO bonds**	**Appropriation Debt**	**Total**
Basis Point Impact	**33**	**50**	**-**
Amount	**$100.0M**	**$40.0M**	**$140.0M**
Annual Impact per issuance	$201,657	$121,500	$323,158
Total impact per Bond issuance	$4,033,150	$2,430,008	$6,463,158
Cumulative Impact 10 Years	$16,412,615	$9,863,735	$26,276,350
Cumulative Impact 20 Years	$52,888,974	$31,829,054	$84,718,028
NPV of Cumulative Impact	$36,400,760	$21,902,809	$58,303,569
NPV of Net Moral Obligation Outstanding			$75,141,707
Net Impact			($16,838,137)

Note: Assumes a base rate of 2.5% based on Municipal Market Date as of 6/17/13

NPV of Net Moral Obligation Outstanding assumes the capital reserve of $12.7 million is used to retire debt

The following does not include any additional penalty in the pricing differential to provide a sense of what a minimal negative rating agency reaction might look like. If one assumes a 33 basis point increase in yield per General Obligation bond issuance due to a one-notch downgrade, the spread would cost the state approximately $202,000 annually on each $100 million General Obligation Bond issue. Over a 20 year period, the increase in interest costs for each GO bond would be an additional $4.0 million. On a present value basis, the increased amount of interest would be approximately $3.2 million over the life of each bond.

The State averages approximately $100 million in General Obligation Bond issuances annually, which would result in an estimated cumulative cost of $16.4 million over a ten-year period and would total $52.9 million over 20 years. If one assumes current rates for future issuances, the 20-year impact on a present value basis would be $36.4 million. This assumes present value calculated based on current rates. It should be noted that if future rates are higher, the lower the present value would likely be when calculating each issuance. However, should interest rates increase, the potential price differential due to a downgrade would also likely increase.

On a $40.0 million Certificate of Participation issuance (COPs), a one-notch downgrade in GO Bonds would translate into at least a one-category downgrade for COPs debt, reducing it from AA to A, and costing approximately 50 basis points, resulting in approximately $121,500 annually for each issuance, and over a 20 year period, the increase in interest costs for each COPs bond would be an additional $2.4 million. On a present value basis, the increased amount of interest would be approximately $1.9 million over the life of the issuance. As noted above, there is likelihood that appropriation debt could experience a larger downgrade compared to a downgrade in GO Bonds.

The State averages approximately $40 million in COPs issuances annually, which would result in an estimated cumulative cost of $9.9 million over a ten-year period and would total $31.8 million over 20 years. On a present value basis it would be $21.9 million.

In summary, if there was a one-notch downgrade in the state's credit rating, and if the state continued to issue similar levels of debt annually for various purposes, the first year would result in a direct cost of approximately $323,200, but would translate into an estimated cost of $26.3 million over ten years, and nearly $84.7 million over 20 years. If one puts this in net present value, this is estimated at $58.3 million. The estimated net present value of the existing moral obligation bonds of $75.1 million exceeds the estimated net present value of a one-notch downgrade by $16.8 million (assuming no other adverse impacts). However, this scenario might only be possible if the State makes peace with the market by eventually repaying the debt in question. Otherwise, the downgrade would be prolonged and likely more severe than a one notch reduction in credit rating.

Mid-range Scenario - Multi-notch downgrade

Rating agencies could react more aggressively if Rhode Island was unwilling to pay the debt service on these moral obligation bonds. The experiences in some of the municipalities that have failed to meet their debt obligations indicate that rating agencies would levy harsher downgrades. For example, the multiple notch downgrades experienced in Spokane, Washington, indicates that more a severe downgrade is possible. While implicit, rating agency reactions could be purposeful to discourage other states and other public entities from going down a similar path and protect other debt across the country.

Mid-Range Scenario - Multiple Notch Credit Downgrade

Issuance	**GO bonds**	**Appropriation Debt**	**Total**
Basis Point Impact	**66**	**100**	**-**
Amount	**$100.0M**	**$40.0M**	**$140.0M**
Annual Impact per issuance	$406,681	$246,012	$652,693
Total impact per Bond issuance	$8,133,623	$4,920,238	$13,053,861
Cumulative Impact 10 Years	$32,932,448	$19,822,476	$52,754,925
Cumulative Impact 20 Years	$106,413,751	$64,224,897	$170,638,648
NPV of Cumulative Impact	$73,215,846	$44,174,815	$117,390,661
NPV of Moral Obligation			$75,141,707
Net Impact			$42,248,954

Note: Assumes a base rate of 2.5% based on Municipal Market Date as of 6/17/13

NPV of Net Moral Obligation Outstanding assumes the capital reserve of $12.7 million is used to retire debt

A mid-range pricing differential is estimated to range from 50 to 75 basis points depending on the maturity of the bond. Again, it is reasonable to assume that the spread differential will likely be larger if the state is downgraded given there will be fewer willing investors thereby driving up the price differential. Therefore, an additional "penalty" of 30 to 50 basis points on top of the initial pricing differential would not be unrealistic. This may be understated given at this point, Rhode Island would have the lowest GO Bond rating of any state in the nation.

To provide a sense of what a mid-range downgrade might look like, the following assumes there is a 66 basis point differential in the pricing of General obligation bonds for the State. Note that there is a potential for a more significant penalty if there are fewer willing investors or the markets react more harshly to Rhode Island credit. The assumed spread would cost the state approximately $406,700 annually on each $100 million General Obligation Bond issue. Over a 20 year period, the increase in interest costs for each GO bond would be an additional $8.1 million. On a present value basis, the increased amount of interest would be approximately $6.5 million over the life of each bond.

The State averages approximately $100 million in General Obligation Bond issuances annually, which would result in an estimated cumulative cost of $32.9 million over a ten-year period, and nearly $106.4 million over a 20 year period. If one assumes current rates for future issuances, the 20-year impact on a present value basis would be $73.2 million.

The state's rating for appropriation debt at this point is at significant risk. At a minimum, the state's appropriation debt would experience a 100 basis point adjustment and likely would be rated no higher than BBB. However, there is a strong possibility that the rating agencies would choose not to rate Rhode Island's appropriation debt at all, which puts this type of debt below investment grade, which in turn, results in fewer willing investors given their own rules and tolerance for increased risk. The State's appropriation debt may reach a point that only a private placement structure would be available to issue this debt – at a premium.

If the rating agencies do react similar to this scenario, the concern for appropriation debt may be less about the additional cost to issue this type of debt, but more about whether this debt instrument can be used at all. This could preclude the state from accessing the market for a wide range of capital projects.

If the state were able to issue COPs in this situation, a downgrade to BBB on a $40.0 million Certificate of Participation issuance (COPs) with a 100 basis point impact would cost approximately $246,000 annually for each issuance, and over a 20 year period, the increase in interest costs for each COPs bond would be an additional $4.9 million. On a present value basis, the increased amount of interest would be approximately $3.9 million over the life of the bond. As noted above, there is likelihood that appropriation debt could experience a larger downgrade compared to a downgrade in GO Bonds.

The State averages approximately $40.0 million in COPs issuances annually, which would result in an estimated cumulative cost of $19.8 million over a ten-year period and would total $64.2 million over 20 years. On a present value basis it would be $44.2 million.

In summary, if there was a multi notch downgrade in the state's credit rating, and if the state continued to issue similar levels of debt annually for various purposes (assuming appropriation debt does not fall below BBB), the first year would result in a direct cost of approximately $652,700, but would translate into an estimated cost of $52.7 million over ten years, and nearly $170.6 million over 20 years. If one puts this in net present value, this is estimated at $117.4 million. A multi notch downgrade that reaches 66 basis points in a price differential for GO bonds and 100 basis points for appropriation debt, the costs exceed the estimated net present value of the existing moral obligation bonds ($75.1 million) by $42.2 million. This does not include any adverse impacts.

Maximum Scenario – Multi notch downgrades

Rating agencies could react more aggressively if Rhode Island was unwilling to pay the debt service on these moral obligation bonds, and some have expressed concern that it could include significant penalties for not honoring this debt. In some recent municipal experiences, there have been downgrades of five or more notches when there was a failure to pay. Again, it is reasonable to assume that the spread differential will likely be larger if the state is downgraded given there will be fewer willing investors thereby driving up the price differential. Therefore, an additional "penalty" of 30 to 50 basis points on top of the initial pricing differential would not be unrealistic. This may be understated given at this point, Rhode Island would have the lowest GO Bond rating in the nation.

A maximum range pricing differential is estimated to range from 75 to 125 basis points depending on the maturity of the bond. To provide a sense of what a maximum range downgrade might look like, the following assumes there is a 100 basis point differential in the pricing of General obligation bonds for the State. The assumed spread would cost the state approximately $621,400 annually on each $100 million General Obligation Bond issue. Over a 20 year period, the increase in interest costs for each GO bond would be an additional $12.4 million. On a present value basis, the increased amount of interest would be approximately $9.9 million over the life of each bond.

The State averages approximately $100 million in General Obligation Bond issuances annually, which would result in an estimated cumulative cost of $50.1 million over a ten-year period, and nearly $162.2 million over a 20 year period. . If one assumes current rates for future issuances, the 20-year impact on a present value basis would be $111.6 million.

Maximum Scenario - Multiple Notch Credit Downgrade

Issuance	**GO bonds**	**Appropriation Debt**	**Total**
Basis Point Impact	**100**	**150**	**-**
Amount	**$100.0M**	**$40.0M**	**$140.0M**
Annual Impact per issuance	$621,395	$377,385	$998,780
Total impact per Bond issuance	$12,427,896	$7,547,697	$19,975,593
Cumulative Impact 10 Years	$50,061,527	$30,177,650	$80,239,177
Cumulative Impact 20 Years	$162,212,712	$98,177,708	$260,390,421
NPV of Cumulative Impact	$111,571,204	$67,495,980	$179,067,184
NPV of Moral Obligation			$75,141,707
Net Impact			$103,925,477

Note: Assumes a base rate of 2.5% based on Municipal Market Date as of 6/17/13

NPV of Net Moral Obligation Outstanding assumes the capital reserve of $12.7 million is used to retire debt

The state's rating for appropriation debt at this point is at significant risk. At a minimum, the state's appropriation debt would experience a 150 basis point adjustment. However, there is a strong possibility that the rating agencies would choose not to rate Rhode Island's appropriation debt at all, which puts this type of debt below investment grade, which in turn, results in fewer willing investors given their own rules and tolerance for increased risk. The State's appropriation debt may reach a point that only a private placement structure would be available to issue this debt – at a premium.

If the rating agencies do react similar to this scenario, the concern for appropriation debt may be less about the additional cost to issue this type of debt, but more about whether this debt instrument can be used at all. This could preclude the state from accessing the market for a wide range of capital projects.

If the state were able to issue COPs in this situation, a downgrade to BBB on a $40.0 million Certificate of Participation issuance (COPs) with a 150 basis point impact would cost approximately $377,400 annually for each issuance, and over a 20 year period, the increase in interest costs for each COPs bond would be an additional $7.5 million. On a present value basis, the increased amount of interest would be approximately $6.0 million over the life of the bond. As noted above, there is likelihood that appropriation debt could experience a larger downgrade compared to a downgrade in GO Bonds.

The State averages approximately $40 million in COPs issuances annually, which would result in an estimated cumulative cost of $30.2 million over a ten-year period and would total $98.2 million over 20 years. On a present value basis it would be $67.5 million.

In summary, if there was a multi notch downgrade in the state's credit rating, and if the state continued to issue similar levels of debt annually for various purposes (assuming appropriation debt does not fall below BBB), the first year would result in a direct cost of approximately $1.0 million, but would translate into an estimated cost of $80.2 million over ten years, and nearly $260.4 million over 20 years. If one puts this in net present value, this is estimated at $179.1 million. A multi notch downgrade that reaches 100 basis points in a price differential for GO bonds and 150 basis points for appropriation debt, the costs exceed the estimated net present value of the existing moral obligation bonds ($75.1 million) by $103.9 million. This does not include any adverse impacts.

Other Cost Implications

Among the uncertainty is the length of time the state would feel the impact of negative actions by the rating agencies, and for how long the markets would retain a negative view of Rhode Island debt. Because some investors will bypass Rhode Island debt and others would be precluded from considering Rhode Island debt, this could result in a prolonged period of time before the state begins to recover. Many of the other government entities that were downgraded because of their failure to meet their debt obligations were able to regain their credit ratings by eventually repaying the debt in question. Should there be some recovery from the financial impacts, the reputational impacts, which are more difficult to quantify, could last much longer and could permanently change Rhode Island's image.

While the direct threat and additional costs to the State primarily fall to general obligation and appropriation debt, there are other debt issues that should also be considered. For example, if the downgrades are significant, the state may no longer be able to achieve savings through refinancing existing debt. The most recent refinancing achieved $5.0 million in savings to the State. Should the state have to issue Tax Anticipation Notes (TANS) or Bond Anticipation Notes (BANS), there may be additional costs for issuing this type of debt. It also appears that should the state not meet the obligation in question, the state may be precluded from using appropriation and moral obligations to access the market in the future.

In addition, in the event of a non-payment by the state, there will be an ongoing need for additional investor road shows, greater disclosure requirements, and wider underwriting spreads given new bonds will be more difficult to sell for some time. Not only will there need to be constant effort to convince others that Rhode Island debt is good, but there will be underlying costs associated with encouraging investors to consider Rhode Island debt overall.

There is also a likely impact on those who hold outstanding RI bonds. It is estimated that a 50 basis point increase in yield is about a 4.0-6.0 percent drop in price. This is a particularly large adjustment for current holders of state bonds, many of whom would be RI residents, and likely a large percentage of which being seniors. There is approximately $2.0 billion in outstanding state debt. For every 50 basis point increase in yield due to a failure to pay, the value of this portfolio is projected to decrease between $80 - $100 million.

Lastly, the analysis above only considers the potential costs of borrowing for state general obligation and appropriation debt. There are many other Rhode Island government entities that issue debt that could also be affected, and there is a potential for the negative implications to proliferate to municipalities, especially those reliant on state aid. State and local governments issued approximately $4.2 billion in debt between 2008 and 2012, and should the stigma of a state downgrade due to its unwillingness to pay impact other issuers of debt, the cost implications increase quickly.

Final thoughts

The Governor raised concerns about the EDC's Loan Guaranty Program and in particular this specific arrangement with 38 Studios well before the Company failed to meet its obligations under this program. Regardless, we must ensure the State's credit rating, its positive reputation in the market and access to the capital markets is maintained.

The rating agencies willingness to react harshly and over a long period of time increases the potential risks to the state, and will not be confined to only the state's General Obligation Bonds and appropriation debt – municipalities and other state entities will also likely feel the impact. Rhode Island's reputation, its credit, and its ability to access to the capital markets are truly at stake.