Presentation on Rhode Island’s Moral Obligation
With Respect to the 38 Studios Bonds

Presentation to Rhode Island
House Committee on Finance

5/13/2014

Introduction

• SJ Advisors was tasked with providing an independent assessment of the costs to the state of not honoring its moral obligation to appropriate funds for debt service payments on the 38 Studios Bonds.
  – Neutral approach, not seeking to prove any particular outcome
  – Let data and findings drive our conclusions

• SJ Advisors background
  – Represent borrowers as financial advisor in this market
  – Independent – no ties to financial institutions, insurers, or investors
  – Registered with the MSRB and SEC
  – Steve Johnson: 20+ years experience in finance, management consulting, financial advisory, MBA from The Wharton School
  – Linda Port: over 24 years as bond attorney, 2 years as fiscal research analyst in Office of Policy Evaluation and Analysis for Commonwealth of Pennsylvania, economics and public policy double major from Duke University, JD from Boston College.
LP2    Too much?
Linda Port, 5/10/2014
Research

• Numerous meetings, calls and email exchanges to gather information, including:
  – Office of the General Treasurer: General Treasurer, Deputy Treasurer of Policy and Financial Empowerment, and Deputy Treasurer
  – Department of Administration: Director of Administration, Director of OMB, State Budget Officer, Director of Revenue
  – General Assembly: House Finance Chairman, House Fiscal Advisor, and Senate Fiscal Advisor
  – Rhode Island Housing: CFO and Treasurer
  – Rhode Island Public Expenditure Council: Executive Director
  – Rhode Island League of Cities and Towns: Executive Director
  – Rating agencies: S&P, Moody’s, and Fitch
  – Bond Insurer: Assured Guaranty
  – Various investors
• Extensive research to identify other similar cases and review of rating agency reports.

Our punch line

• Many arguments as to why RI should not pay – this is not a legal obligation, it is only a moral obligation, the bonds are insured, this was a bad deal, the rate on the bonds was too high, the money should go to pensions instead, the state should not bail out Wall Street, etc.

• Ultimately, based on our extensive research and analysis, we determined that regardless of how appealing these various arguments are, that from an economic perspective, the state will be better off honoring its moral obligation.
Not honoring the state’s moral obligation would lead to a cascading series of negative consequences

- Rating agencies would downgrade GO and appropriation debt
- Credit spreads on future issuance would increase
- I-195 Bonds’ rate would increase
- Future refunding opportunities would be diminished
- Lower ratings will persist for an extended time period

Chain of events is unequivocal, but the question is, to what extent?

Vadnais Heights, MN example

- Do not have a state example, but do have several municipalities that fall into category of “Unwillingness to Pay.”
- [For more detail, see Exhibit A of our report]

- Vadnais Heights Economic Development Authority
- Issued bonds in 2010 for sports complex. Deal was structured with City of Vadnais Heights, MN as sole tenant but with right to terminate lease annually. When project revenues were insufficient, City elected to terminate lease.
- Though the city had the legal right to not make payments, when it did not, both rating agencies downgraded the city.
- Moody’s downgraded the city from "Aa2" to "Ba1"
- S&P downgraded the city from “A” to “B”
Vadnais Heights GO debt credit spreads spiked following its failure to appropriate for non-GO debt.

For fixed rate debt, the cost of increased credit spreads is felt by the issuer on future issuance.

Our approach to analyzing the costs of non-appropriation on future debt issuance:

- **Ratings Downgrades**: Determined likely rating downgrades by S&P and Moody's.
- **Increased Cost of Debt**: Analyzed market index data for credit spreads by rating level. Determined increase in credit spreads for new debt issuance.
- **Time Horizon**: Established likely time horizon of downgrades. Projected annual debt issuance over that horizon.

How did we answer the question, to what extent?
Determined likely downgrades by focusing on cases of unwillingness to pay Non-GO debt, similar to 38 Studios

- We looked at other cases where there was no legal obligation to pay; obligation to make payments was subject to appropriation.

- Focused on those where there was an ability but unwillingness to pay.
  - If you have a tough financial situation, when things get better, you'll pay. And bondholders will get some recovery in all likelihood.
  - If you simply are unwilling to pay, regardless of financial situation, you still won't pay and bondholders (or insurer in this case) will get nothing.
  - Rating agencies have indicated that this is how they view RI and the debate over honoring its moral obligation.

Rating agency comments on lack of willingness Lombard, IL

- S&P: "The downgrade reflects a recent nonappropriation that triggered a payment default for revenue bonds issued by [the issuer]." “The ‘B’ rating reflects our view of very weak management, stemming from a lack of willingness to support appropriation debt. ... Our view of Lombard's financial management is otherwise strong, with good financial policies and practices in place. However, we are likely to continue to assess its overall management as very weak until, in our opinion, it no longer exhibits an unwillingness to support appropriation debt in a full and timely manner."
Rating agency comments on lack of willingness
Vadnais Heights, MN

- Moody’s (downgrade from “Aa2” to “Ba1”): “The city’s failure to appropriate represents a significant lack of willingness to pay on a lease obligation that supported debt issued in the capital markets.”
  “While we recognize that the city’s right to terminate is clearly stated within the governing documents, the city’s appropriation pledge was critical.”

- S&P (downgrade from “A” to “B”): “The stable outlook reflects our view of the city’s recent unwillingness to support its appropriation debt, and accordingly, the city’s very weak management. We believe the city’s other factors are generally strong, including financial flexibility, budgetary performance, and liquidity.

Moody’s comment on RI debate over the 38 Studios Bonds

“An environment in which any debt service payments are considered optional in turn undermines our confidence in the full faith and credit of the state.”

- Moody’s Ratings Update, June 2013
Moody’s would likely downgrade RI’s GO debt from “Aa2” to “Ba1” and appropriation debt to “Ba2”

Notes: RI1 is current GO rating. “Aa2” is the third highest rating indicating a very strong capacity to meet its financial commitments. RI2 is the projected “Ba1” GO rating after a default on moral obligation debt and is a speculative grade or “junk” bond. While there is capacity to pay commitments, adverse conditions may impair the ability or willingness to pay.

Source for current ratings: www.Moodys.com, ratings current as of 2/7/2014 (except DC and PR, which reflect the latest rating shown on the website on 4/30/2014). Note that AZ, CO, ID, IN, IA, KS, KY, and ND are issuer credit ratings; others are ratings of general obligation debt.

S&P would likely downgrade RI’s GO debt from “AA” to “B” and appropriation debt to “B-”

Notes: RI1 is current GO rating. “AA” is the third highest rating indicating a very strong capacity to meet its financial commitments. RI2 is the projected “B” GO rating after a default on moral obligation debt and is a speculative grade or “junk” bond. While there is capacity to pay commitments, adverse conditions may impair the ability or willingness to pay.

Source for current ratings: U.S. State Ratings And Outlooks: Current List dated April 23, 2014 by S&P (except DC and PR, which reflect the latest ratings shown on the S&P website as of 4/30/14). Note that AZ, CO, ID, IN, IA, KS, KY, NE, ND, SD, TX and WY are issuer credit ratings; others are ratings of general obligation debt.
Incremental cost of new debt issuance - ratings assumptions for Best, Middle, and Worst Cases

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Best</th>
<th>Middle</th>
<th>Worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Model Parameters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>State GO Credit Ratings</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P</td>
<td>B</td>
<td>B</td>
<td>B</td>
</tr>
<tr>
<td>Moody’s</td>
<td>Ba1</td>
<td>Ba1</td>
<td>Ba2</td>
</tr>
<tr>
<td>Combined Rating</td>
<td>BB-/Ba3</td>
<td>BB-/Ba3</td>
<td>B/B2</td>
</tr>
<tr>
<td>State Appropriation Debt Rating</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>S&amp;P</td>
<td>B-</td>
<td>B-</td>
<td>B-</td>
</tr>
<tr>
<td>Moody’s</td>
<td>Ba2</td>
<td>Ba2</td>
<td>Ba3</td>
</tr>
<tr>
<td>Combined Rating</td>
<td>B+/B1</td>
<td>B+/B1</td>
<td>B-/B3</td>
</tr>
</tbody>
</table>

- Confidence is high that S&P will downgrade GO debt to "B"
- Confidence is reasonably high that Moody’s will downgrade GO debt to Ba1 or Ba2
- In either case, appropriation debt would be one notch lower
- Research supports using an average of the two ratings for speculative grade ("junk") bonds, though some research supports using the lower of the two

Incremental cost of new debt issuance - credit spread assumptions for Best, Middle, and Worst Cases

<table>
<thead>
<tr>
<th>Scenarios</th>
<th>Best</th>
<th>Middle</th>
<th>Worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Key Model Parameters</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Incremental Credit Spread</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>GO Bonds</td>
<td>1.49%</td>
<td>2.13%</td>
<td>4.09%</td>
</tr>
<tr>
<td>COPS/Appropriation Debt</td>
<td>1.66%</td>
<td>2.29%</td>
<td>4.13%</td>
</tr>
</tbody>
</table>

- Used a number of Bloomberg indices to determine credit spreads from "AA" to lower ratings levels
- Indices available daily by maturity and specific ratings level
- Used 10-year historic look back period for municipal GO credit spreads from "AA" to "BBB"
- Supplemented with 7 months of corporate bond credit spread data for "BBB" to "BB" and "B"
Incremental cost of new debt – future issuance assumptions (same for all cases)

<table>
<thead>
<tr>
<th>Type/Purpose of Debt</th>
<th>FY 2015</th>
<th>FY 2016</th>
<th>FY 2017</th>
<th>FY 2018</th>
<th>FY 2019</th>
<th>FY 2020</th>
<th>FY 2021 and beyond</th>
</tr>
</thead>
<tbody>
<tr>
<td>GO</td>
<td>$60,125,000</td>
<td>$114,875,000</td>
<td>$106,800,000</td>
<td>$112,700,000</td>
<td>$130,700,000</td>
<td>$80,000,000</td>
<td>$80,000,000</td>
</tr>
<tr>
<td>IT COPS</td>
<td>5,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>New IT COPS</td>
<td>10,000,000</td>
<td>10,000,000</td>
<td>10,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Virks COPS</td>
<td>6,000,000</td>
<td>7,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Historic Structures</td>
<td>75,000,000</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Future COPS**</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total Appropriation Debt</td>
<td>$16,000,000</td>
<td>$97,000,000</td>
<td>$10,000,000</td>
<td>$72,000,000</td>
<td>$20,000,000</td>
<td>$20,000,000</td>
<td>$20,000,000</td>
</tr>
</tbody>
</table>

*GO issuance per Capital Plan with $80 million per year estimated after 2019.
**COPS and other appropriation debt per Capital Plan less $19.5 million of FY 2015 projects issued in FY 2014 with $20 million per year added starting in FY 2018.

Conservative assumptions

- Average GO debt in plan is $105 million, we modelled $80 million.
- Looking back, average COPS issuance has been about $25 million, we assumed $20 million, starting in 2018.
- Assumes all debt planned for 2014 occurs prior to a downgrade.

Incremental cost of new debt – time horizon assumptions

<table>
<thead>
<tr>
<th>Key Model Parameters</th>
<th>Scenarios</th>
<th>Best</th>
<th>Middle</th>
<th>Worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ratings Downgrade/Upgrade Timing</td>
<td>Initial Downgrade timing</td>
<td>Summer/Fall 2014 (FY 15)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Duration of Downgrade</td>
<td>7</td>
<td>9</td>
<td>11</td>
<td></td>
</tr>
</tbody>
</table>

- 38 Studios Bonds will require appropriation to make debt service payments in FY 2015 – 2021, 7 years
- Typical ratings horizon is 2 years, so it might take 9 years for ratings to start to recover.
- All three cases assume that after the specified time horizon, bonds can once again be issued with no penalty relative to the state’s current “AA” rate; 11 years takes into account some effect for the ramp up time that would likely be required.
Even in our Best Case, the incremental cost of new debt is higher than honoring the moral obligation

<table>
<thead>
<tr>
<th>Key Model Parameters</th>
<th>Scenarios</th>
</tr>
</thead>
<tbody>
<tr>
<td>Incremental Cost to the Call Date of Bonds Issued with Higher Yields</td>
<td></td>
</tr>
<tr>
<td>PV @ 5%</td>
<td>Best</td>
</tr>
<tr>
<td>$109,085,595</td>
<td>$188,260,260</td>
</tr>
<tr>
<td>$75,437,581</td>
<td>$125,377,549</td>
</tr>
<tr>
<td>$420,729,266</td>
<td>$989,321,588</td>
</tr>
<tr>
<td>Incremental Cost Through Final Maturity of Bonds Issued with Higher Yields</td>
<td></td>
</tr>
<tr>
<td>PV @ 5%</td>
<td>Best</td>
</tr>
<tr>
<td>$142,856,050</td>
<td>$246,933,320</td>
</tr>
<tr>
<td>$90,395,813</td>
<td>$150,470,573</td>
</tr>
<tr>
<td>$553,338,978</td>
<td>$323,955,244</td>
</tr>
</tbody>
</table>

- Results have been calculated based on all assumptions associated with each case.
- Cost to the Call Date assumes, the state’s ratings return to “AA” and there is no lingering impact so that the bonds can be refunded to avoid the high rates charged at issuance.
- Cost through Maturity assumes the bonds can not be refunded for a savings.

I-195 Bonds are variable rate bonds with a credit spread that depends on the state’s GO rating

- These are also moral obligation bonds
- With the state’s current ratings of "AA"/"Aa2", the rate of the bonds resets monthly
  - Series A Bonds: 1-Month LIBOR + 1.00% = 1.15%
  - Series B Bonds: 1-Month LIBOR + 1.15% = 1.30%
- If the state’s GO rating is downgraded below "A-"/"A3", then the bonds will be in default
- The Default Rate on the bonds is prime + 4% = 7.25%
- Each scenario makes a different assumption for the future level of 1-Month LIBOR. As rates increase, the caps are reached, so the worst case for this analysis is if rates stay low.
- All scenarios assume the bonds remain outstanding through the bank commitment period which ends 4/1/2023. The numbers also assume that the bonds can be refinanced in 2023 with no penalty through final maturity in 2033.

<table>
<thead>
<tr>
<th>Scenarios</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Best</td>
<td>Middle</td>
</tr>
<tr>
<td>Cost</td>
<td>$4,638,110</td>
</tr>
<tr>
<td></td>
<td>$15,018,578</td>
</tr>
<tr>
<td></td>
<td>$18,839,534</td>
</tr>
<tr>
<td>PV</td>
<td>$3,701,200</td>
</tr>
<tr>
<td></td>
<td>$11,984,092</td>
</tr>
<tr>
<td></td>
<td>$15,032,172</td>
</tr>
</tbody>
</table>
Lost refunding opportunities

- The state routinely refunds callable bonds when market conditions permit a PV savings of at least 3% of debt service.
- Typically the savings exceeds 3%, for example the 2014A refunding bonds achieved a savings of 4.8%.
- The calculation assumes all callable maturities will be refunded on the call date for a 3% PV savings.
- Total cost savings would be $8.6 million, $7.4 million on a PV basis.
Historic Structures Tax Credit

- The model assumes that the Historic Structures Tax Credit bonds in the Capital Plan for fiscal year 2014 are issued prior to any downgrade events.
- If those bonds are issued after the downgrade in our model, the additional expected cost would be at least $6.6 million, using the same assumptions discussed previously with an additional $75 million of debt.

<table>
<thead>
<tr>
<th></th>
<th>Best</th>
<th>Middle</th>
<th>Worst</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cost</td>
<td>$6,589,376</td>
<td>$9,090,164</td>
<td>$16,394,051</td>
</tr>
<tr>
<td>PV</td>
<td>$5,448,925</td>
<td>$7,516,891</td>
<td>$13,556,663</td>
</tr>
</tbody>
</table>

Impact on existing bond holders

- Following a downgrade, the value of Rhode Island's $1.8 billion of outstanding bonds would be reduced.
- Due to the higher credit risk associated with the lower rating, bond holders would demand a higher yield which would cause the price to drop.
- The price drop would occur immediately and would likely cause a reduction in total value of about $212 to $255 million based on an assumption of a 2.13% yield increase and an average maturity of between 7 and 9 years.
- Assuming 35% of the $1.8 billion in bonds outstanding are held by Rhode Island residents, $75-90 million of that would be felt directly in state with potential implications for lost tax revenue and negative wealth effect on the economy.
## Contagion effect

- Other issuers in RI may be affected if the state defaults on its debt: cities and towns, conduit borrowers, others with Rhode island in their name.

- In Michigan for example, certain local governments have apparently faced a significant market penalty as a result of Detroit's bankruptcy.

- If we assume RI endures a similar fate, many entities would be affected. According to the Director of Finance at the Rhode Island Department of Elementary and Secondary Education, the pipeline of new school deals is approximately $300 million. Using a simple rough metric of the present value of a basis point equaling $300 thousand, ten bps would cost these organizations $3,000,000

## Other impacts of negative view of RI

- May affect decisions by businesses looking at moving to or expanding in RI.

- May affect decisions by individuals deciding whether to live in RI.

- May very well lose ability to issue moral obligation debt. This was helpful in bringing Fidelity to RI.

- May have fewer options for how debt is issued, e.g. private placements like I-195 deal.