



Office of the
New York City Comptroller
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UPDATE

A GREEN BOND PROGRAM FOR NEW YORK CITY

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EXECUTIVE SUMMARY

One hundred and fifty years ago, New York City Parks Commissioner, William R. Martin published a pamphlet declaring with only a hint of New York City bravado that there was no spot in the world “where nature has been more lavish of her gifts of promises for a great city than the site where New York stands.”¹ Then, bonded debt outstanding in New York stood at only \$12 million², invested almost exclusively in what we now think of as “green” infrastructure: the City’s sewers and water supply.

Today, New York City has over \$100 billion in bonded debt across the General Obligation (GO), Transitional Finance Authority (TFA) and New York Water (NYW) credits and spends billions per year on that water and sewer system and to preserve our natural landscape, protect against the dangers of climate change, and provide a green urban environment for all residents to enjoy.

Last September, New York City Comptroller Scott M. Stringer issued a report recommending a Green Bond Initiative in New York, designed to help the City chart a course towards a more sustainable future by spurring environmentally beneficial investments within the five boroughs.³ The proposed Green Bond Program would expand the City’s investor base, shine a spotlight on the City’s important environmental initiatives, and help catalyze the emerging municipal Green Bond market through the visibility, liquidity and reputation of New York City bonds.

Since that proposal, the Comptroller’s Office has conducted intensive market research necessary to making green bonds a reality. This report details our findings and provides a snapshot of the maturing Green Bond market.

The consensus is clear: now is the time for New York to enter the market. We believe even more strongly than in September that a high-quality, sustained New York City Green Bond program would benefit both the fiscal and environmental health of the City.

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1. William Martin served as Parks Commissioner and prominent civic leader in the middle of the nineteenth century. Martin was an early advocate for public transit and was the first to propose the creation of Riverside Park in Manhattan. See William Martin, *The Growth of New York*, (1865)
 2. David Scobey, *Empire City: The Making and Meaning of the New York City Landscape*, (2003), p. 202.
 3. Comptroller Stringer, http://comptroller.nyc.gov/wp-content/uploads/documents/Green_Bond_Program_-_September.pdf

GREEN BOND MARKET UPDATE

The Green Bond market is expanding exponentially. Total issuance in 2014 was more than triple 2013 levels, with over \$36 billion issued worldwide. The explosive growth is expected to continue with \$100 billion of issuance forecast in 2015.⁴

Growth among municipal issuers was particularly striking. Prior to the release of Comptroller Stringer's report, municipal issuers accounted for a total of four Green Bond transactions, of which three were tax-exempt. Since September 2014, 15 U.S. municipal issuers have successfully sold nearly \$2 billion of tax-exempt Green Bonds. Many of these issues were met with high investor enthusiasm, signaling increased demand among investors seeking green investments.

As investor appetite for Green Bonds grew in 2014, market makers began to respond. In response to the increased demand, Bank of America Corporation⁵ and Barclays/MSCI⁶ launched their own Green Bond indices. Green Bond indices help form the basis for future mutual funds and exchange-traded funds and provide investors with a benchmark to evaluate their return and risk position. The packaging of Green Bonds into tailored products signals a maturing marketplace and New York City's large bond-funded capital expenditures and potential volume of Green Bonds puts us in a position to become index eligible, further elevating investor demand for City bonds.

Additional signs that Green Bonds are gaining traction in the fixed income markets include the addition of dedicated Green Bond investment analysts and staff at large institutions; significant institutional investor mandates for green investment portfolios; and considerable attention within some large broker-dealers to the use of "green" investments to attract the next generation of individual investors. According to a report released by Accenture in June 2012, a wealth transfer from Baby Boomers to their heirs is starting now. The next generation will inherit over \$30 trillion

in financial and non-financial assets in North America.⁷

Individual investors are especially important for tax-exempt Green Bonds, as they account directly or indirectly for almost two-thirds of municipal bond holders.⁸ Municipal bonds also provide a vehicle to inform residents about the City's capital investments. When residents participate in the City's bond transactions they not only benefit from tax-exempt income, they are achieving a 'double bottom line' by earning a return by investing in and improving their own communities. As Millennials take over investment decisions, they will become a key participant in the City's future issuance.

INVESTOR FEEDBACK

The Comptroller's New York City Green Bond Program proposal drew on guidelines established in the ICMA's Green Bond Principles⁹ and existing Green Bond programs, in order to tailor a program that met the City's complex budget, accounting and debt issuance needs.

To further explore investor needs and assess best practices for a New York City Green Bonds Program, representatives from the Comptroller's Office and the Mayor's Office of Management and Budget (OMB), our partners in debt issuance, met in November and December of 2014 with seven significant institutional Green Bond buyers and investment firms focused on environmental, social and governance ("ESG") issues. These investors included large money managers, insurance companies and investment firms that target socially responsible investments for their client base¹⁰.

Investors were generous with their time and insights and provided strong support and encouragement for

4. Climate Bonds Initiative, <http://www.climatebonds.net/>

5. BofA Merrill Lynch Global Research Launches Green Bond Index, <http://newsroom.bankofamerica.com/press-releases/economic-and-industry-outlooks/bofa-merrill-lynch-global-research-launches-green-bond>

6. Barclays and MSCI announce launch of Green Bond Index family, http://www.msci.com/resources/pressreleases/Barclays_and_MSCI_announce_launch_of_Green_Bond_Index_family_Nov2014.pdf

7. Accenture, The "Greater" Wealth Transfer. <http://www.accenture.com/SiteCollectionDocuments/PDF/Accenture-CM-AWAMS-Wealth-Transfer-Final-June2012-Web-Version.pdf>

8. Financial Accounts of the United States, Flow of Funds, Balance Sheets, and Integrated Macroeconomic Accounts, section L.211 <http://www.federalreserve.gov/releases/z1/Current/>

9. Green Bond Principles 2014: Voluntary Process Guidelines for Issuing Green Bonds, <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/> Updated March 2015: Green Bond Principles 2015: Voluntary Process Guidelines for Issuing Green Bonds, <http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles/>

10. In order to encourage a diversity of views, investor conversations were deemed to be confidential with no specific attribution of individual statements.

the Green Bond Program outlined in the Comptroller's September 2014 report. Key insights and feedback from the meetings included:

NEW YORK CITY-SPECIFIC INVESTOR COMMENTS

- **Benefit to Green Bond Market of New York City Participation:** The investors expressed a sense of urgency to expand the Green Bond market within the U.S. municipal arena. The lack of supply in both the primary and secondary market remains a concern as these investors seek to meet the increasing demand from their stakeholders for green investments. Investors felt that as a large, robust issuer, New York City's entrance and sustained participation in the Green Bond market would provide liquidity and size as well as visibility and credibility to the market.
- **Importance of New York City Establishing a High Quality Program:** New York's entry into the market can further encourage the growth of Green Bonds and establish an important funding vehicle for environmentally focused investment, given the relatively nascent stage of Green Bond markets and the size and visibility of the City's bond issuance. However, this will only take place with a high-quality New York City program. Conversely, a weak program could harm the market by diminishing the credibility of Green Bonds. Investors also felt it was important to the City's reputation to have a good product that shows we care and were not just jumping on a bandwagon.
- **Added Benefits to New York City of a Green Bonds Program:** Several investors identified a potential "halo" effect on the City's reputation from administering a high quality Green Bond program. Such a program would not only highlight the City's active, forward-thinking approach to sustainability, but would also re-confirm the City's strong management practices and improve the City's risk profile amongst investors. Several investors also pointed out a reputational benefit to New York City from providing leadership to this growing market.

GREEN BOND PROGRAM ATTRIBUTES

- **Ring-Fencing of Proceeds:** Investors consistently emphasized the importance of ring-fencing or segregation of bond proceeds from bond sale through expenditure. "Virtual" segregation through accounting (not separate bank accounts) was generally acceptable but transparency was key, including disclosure of procedures in bond

offering documents. Several but not all investors recommended an external verification of the funds flow to assure adequate controls. Others felt that municipal issuers already had sufficient restrictions in general on their use of funds, compared to corporations. In each meeting we reviewed the accounting and tracking methodology laid out in our report and investors felt it was sufficient. The ability to allocate bond proceeds through an existing automatic and transparent process was viewed as a positive for the City's Green Bonds Program.

- **Process and Disclosure for Project Evaluation and Selection:** Investors stressed the importance of clarity and transparency in offering documents. Indeed, having well-thought-out and clearly defined green project criteria and identification is particularly critical given the lack of uniformity among issuers' evaluation processes and definitions of green. We consistently heard that banks, funds, and institutional investors require sufficient information to judge "green-ness" for themselves as well as to communicate to their clients. Specific recommendations ranged from "telling the story" about green projects and justifying the green identity, to itemizing the most significant projects funded, to linking the initial disclosure and follow-up reporting.
- **"Additionality":** A subset of project selection is the question of whether the dollars raised by Green Bonds increase the amount of money spent on environmentally-beneficial projects. In New York City, Green Bonds will initially go to fund the existing and ongoing projects in the Capital Program, which was acceptable. We also discussed whether Green Bonds need to be new funds for costs not yet incurred, or can they include repayment of advances and even refinancing of existing green projects. This is particularly relevant for New York, given the City's practice is to advance some or all of the funds for a capital expense from the City's General Fund, and then repay the General Fund from bonds proceeds (a practice known as "back-bonding"). Investors were generally accepting of back-bonding, though several expressed either an individual or perceived market preference for forward-looking expenditures. Refundings were met with qualified interest.
- **Green Labeling:** New York City has eligible projects throughout the Capital Program that could be financed with GO, TFA and New York Water Green Bonds. Investors generally accepted the green project categories identified in the September

2014 report, which were modeled after issuers such as the Commonwealth of Massachusetts, IFC and World Bank as well as the Green Bond Principles.

- Further discussion centered on whether bonds that appear intrinsically green by virtue of funding environmentally-focused projects, such as bonds of New York Water, need to be labeled, structured, and marketed as Green Bonds to be accepted as such. Investors differed on the importance for their own portfolios of a green label for such bonds. Several ESG-focused investment firms told us that their business models require internal analysis and vetting to determine whether an issue qualifies as “green” regardless of label. Nevertheless, it was clear that the Green Bond attributes of ring-fencing and tracking of proceeds, project definitions and disclosure in the offering documents, as well as post-sale reporting were all significant to these investors. (It appeared that while NYW might qualify as a Green Bond to these investors, they had not, to date, purchased it as such.) Other investors felt the green label and the attributes it represented were powerful for clarity and communication, and that issuers like NYW needed to label and package their debt as Green Bonds in order to be recognized as such.
- Independent of their own portfolios, investors agreed that Green Bond designation and marketing were necessary to reach the broadest market, including individual investors. Several investors described how the Green Bond label and information on recent water and sewer issues helped their dialogue with investors and had “galvanized” individual investor demand or been a “real eye-opener” for existing investors. As one said, “optics matter.” We concluded from these conversations that NYW best fits as part of an overall New York City Green Bond Program that shares key attributes and branding with General Obligation and Transitional Finance Authority Green Bonds.
- **Third-Party Verification:** Some Green Bond transactions have included third-party opinions as “verification” that proceeds are being spent on projects that are truly green. These certifications can provide comfort to investors, especially individual investors and firms that do not have an internal process for determination. The investors we spoke with felt that having an outside party vet the process and furnish an independent opinion would provide benefits, but it would not be necessary in the case of New York City given the City’s reputation and quality of disclosure. In fact, third party verification

does not appear to be a barrier to entry as, to date, only two municipal issuers (DC Water and Spokane, Washington) have hired third party verification firms to conduct studies.

- **Impact Reporting:** Impact reporting is one of the fundamental Green Bond Principles. Socially-responsible investors increasingly focus on aligning their investment needs with their environmental goals. Annual reporting on project spending and performance indicators of impact, where feasible, have become the norm. We outlined our ability to report system-wide outputs (gallons of water treated, offices retrofitted for energy efficiency, number of trees planted, etc.), with a goal of providing detailed information on the largest and most impactful projects. This would be combined with updated expenditure data on green projects. This reporting, in concert with strong upfront disclosure, appears likely to satisfy investor needs. All would be happy with more reporting, and felt it would further enhance New York’s credibility as a Green Bond issuer, which suggests exploring greater impact reporting as a goal for later stages of a New York City Green Bond Program.

GREEN BOND MARKET

- **Pricing:** Not surprisingly, investors expressed an unwillingness to accept lower yields for a Green Bond. Most of them, however, acknowledged and expressed willingness to accept spread tightening in the pricing process depending on supply and demand. Several felt that while no reliable Green Bond price differential exists now, they expected it to emerge as the market grew (and in fact felt that potential above-market price appreciation over time was a reason to buy Green Bonds now).
- **Other Market Observations:** Many of investors cited a need for more supply and liquidity (as noted above) and for continued growth of issuers that were serious about the environmental side of Green Bonds. We heard that more liquidity would underpin a greater retail push by financial services firms; that retail buyers will accept longer duration in a green product than in typical municipals; and that green buyers would be more willing to buy out-of-state bonds to get the green product.

Our report also garnered interest from investment banks active in the Green Bond market, including some co-authors of the Green Bond Principles. Our office and OMB met with seven firms to hear the sell-side perspective.¹¹ These firms also discussed advantages of a Green Bond program for the City. Many of their comments were consistent with the investor comments detailed above. Highlights of their incremental feedback include the following:

- Future Pricing Power – As the Green Bond market continues to develop, the City may be able to realize a quantifiable pricing impact depending on the addition of new green investors, potentially saving taxpayers money over the long-term.
- Expected Participation of New Institutional and Retail Investors – Green Bonds would invite additional U.S. institutions that incorporate ESG in their analysis to buy the City’s bonds. Many green investors are buy and hold investors. By increasing demand for the City’s bonds, the City potentially has greater pricing power.
- Importance of ESG investment options for “Millennial” investors – With \$30 trillion of wealth expected to transfer by inheritance, these firms see Green Bonds as an investment class that will draw a wider variety of investors to the municipal marketplace and particularly appeal to the new generation of active investors.
- Positive Press and Public Perception – In addition to the environmental benefits of the City’s projects, investors and citizens will be more aware of the environmental benefits that the City’s projects offer.
- Promoting the City’s Environmental Focus – City Green Bonds will further establish New York’s environmental “brand.” The Green Bond sale marketing campaign can emphasize the City’s mission and detail exactly why the bonds should be considered green.

Local and national environmental advocacy groups have also showed interest and support for a New York City Green Bonds program. The advocates seek to channel funding to environmentally-beneficially projects and view tax-exempt Green Bonds as an efficient financing

vehicle for the City as well as nationally. Through these advocates, New York City can work in coalition with other cities around the country and the world to build and improve the Green Bond market.

CONCLUSION

Green Bonds provide an efficient financing vehicle for the City’s current and future environmental initiatives and demonstrate to our investors and residents that the City is committed to a more sustainable environment. The Comptroller’s vision for a New York City Green Bond Program was reaffirmed through our detailed discussions with key market participants as well as by market developments since the report was issued in September 2014.

In February 2015, the New York City Panel on Climate Change issued a comprehensive climate assessment detailing rises in temperature, rainfall and sea level. Green Bonds, and the projects they finance, will allow New York to adapt to a changing climate while also building a better and greener local environment for its citizens.

Over the coming months, the Comptroller’s office will continue to press for the creation of a high-quality Green Bond program. The market and the environment demand it.

11. NYC has not engaged any of these firms to work on any Green Bonds Program or Green Bond issuance.





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