As the investor community allocates greater focus to Environmental, Social and Governance (ESG) factors, Green Bonds have grown in popularity worldwide as a vehicle to finance environmentally-friendly projects. While other segments of the fixed income market have embraced Green Bonds, the municipal market, which has historically financed pro-environment projects, is only recently experiencing a growing trend in issuance. Despite the delayed acceptance, early 2015 may reflect a tipping point, as issuance of Green Bonds has accelerated within the municipal market and forced both issuers and investors to familiarize themselves with the product. Below we present a brief history of Green Bonds and detail the developments within the municipal market specifically. We also provide an outlook for municipal Green Bonds and highlight both the benefits and risks for investors.

WHAT MAKES A BOND "GREEN?":

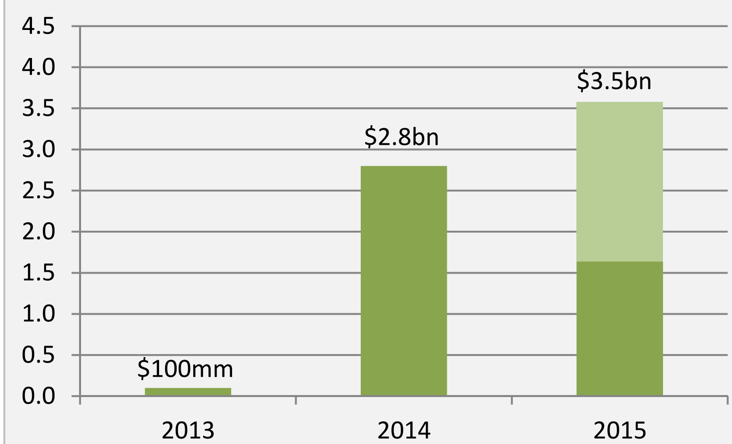
Within the municipal market, the use of proceeds is the sole differentiator between municipal Green Bonds and non-Green Bonds. Proceeds must be used for environmentally-beneficial projects, including, but not limited to, renewable energy, energy efficiency, clean water, and clean transportation. Green Bonds are typically secured by the issuer's general obligation or revenue pledge and are pari passu with outstanding debt, limiting project-specific risks. There are currently no regulatory mandates to be considered "green," and issuers voluntarily use the label "Green Bonds" when issuing debt, which does present a definitional gray area for what is considered "green." A deal in late 2014 which financed a parking garage, albeit with electric-car charging stations, serves as a good example of this ambiguity.

Although Green Bonds have experienced increased popularity in the municipal market over the last 12 months, we note that, ironically, a large part of the municipal market could already be considered "green." Historically, municipalities have financed projects that improved water conditions, expanded urban greenery, and made schools more energy efficient within their normal capital investment programs.

HISTORY:

While Green Bonds are relatively new to the municipal market, the first global deal was in 2007 when the European Investment Bank issued a €600mm "Climate Awareness" bond. Issuance has since accelerated. In 2014, global Green Bond issuance was $36 billion, more than triple the 2013 total. According to Climate Bonds Initiative, a non-profit group in London, expectations for 2015 global issuance project another near-tripling to over $100 billion.

YEAR-TO-DATE MUNICIPAL GREEN BOND ISSUANCE IS $1.6 BILLION
ANNUALIZED VOLUME WOULD BE 25% HIGHER THAN 2014

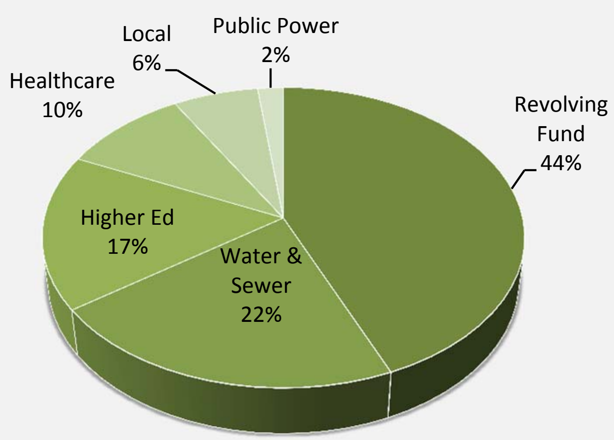


Source: JPMorgan, MSRB

The municipal market was introduced to Green Bonds through a $100 million General Obligation issuance by the Commonwealth of Massachusetts in June 2013, the lone "green" deal of that year. Municipal Green Bond issuance increased to $2.8 billion in 2014, and through the second week of June of this year, issuance has been approximately $1.64 billion. On an annualized basis, municipal Green Bond issuance is expected to exceed $3.5 billion in 2015. While still only a small part of the global Green Bond market (approx. 3.5%), the municipal market's share is growing. The sectors represented by issuers of Green Bonds are relatively diverse and reflect a broad application of green projects.

As mentioned above, the "Green Bond" label is voluntary by municipal issuers. Unlike Green Bonds issued in the corporate and sovereign markets, third-party verification that the proceeds are being spent on green projects is largely absent from the municipal market. This is a function of cost-benefit imbalances to the issuer, but also due to the inherent "greenness" of municipally-funded projects in general. As long as issuers are transparent and the project benefits are well-defined, we do not believe third-party verification will be necessary in the municipal market any time soon. We also point out that although there are no industry-wide adopted standards, the International Capital Market Association has established the Green Bond Principles, which act as voluntary guidelines for issuing Green Bonds and provide sufficient disclosure and evaluation of the environmental impacts.

GREEN BOND ISSUES REPRESENT DIVERSE SECTORS



Source: JPMorgan, MSRB

While other segments of the fixed income market have embraced Green Bonds, the municipal market, which has historically financed pro-environment projects, is only recently experiencing a growing trend in issuance.

OUTLOOK:

We believe the popularity of Green Bonds in the municipal market will continue to grow, and year-to-date supply presents evidence of this continuing trend. Issuance in 2015 is on pace to reach approximately $3.5 billion, a 25% increase from 2014. In addition to tax-exempt interest, municipal Green Bonds can provide investors with a direct path to improve environmental conditions, with an even greater impact provided by purchasing bonds from an investor's home state or municipality. We also note that municipal Green Bonds can provide diversification to a multi-asset investment strategy that has an ESG focus. However, the lack of adopted industry-wide standards for Green Bonds requires an in-depth examination of the potential environmental benefits of the project. Further, as most Green Bonds are secured pari passu with an issuer's outstanding debt, the need for independent credit analysis remains an important component of determining suitability for inclusion in an investor's portfolio.