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The Corporate Green Bond Market Fizzes As The Global Economy Decarbonizes

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Table Of Contents

U.S. Utilities Begin To Seize An Opportunity

Corporate Environmental Disclosure Could Drive Green Bond Issuance

How Green Is My Bond?

Market Pricing Is Still Evolving

Related Research

The Corporate Green Bond Market Fizzes As The Global Economy Decarbonizes

The corporate green bond market got off to an auspicious start in 2016 with Apple's first ever green bond issuance on Feb. 16, worth \$1.5 billion. The market predicted this issue by the world's largest company by capitalization would open the gates to more large corporates tapping the market for green bonds, which are issued specifically to fund environmental projects. We estimate the corporate sector will issue at least \$15 billion in green bonds in 2016, which would represent a big leap from \$9.6 billion in 2015. Our estimate is based on the actual first-quarter volume of \$15.71 billion in the total sector--including sovereign, financial, and municipal issuance. It assumes that corporate bond issues continue to make up about 25% of the total deal flow, as was the case in 2015. It also corresponds with total outstanding issuance (see chart 1). If the Chinese corporate green bond market takes off this year, as some market observers predict, this could add around \$13 billion to corporate green bond issuance in 2016, by our reckoning, bringing total corporate green bond volumes to \$28 billion. However, this is subject to the release of the Chinese corporate green bond guidelines, expected this quarter.

Overview

- Corporates could issue between \$15 billion and \$28 billion in green bonds this year according to our estimates, a large increase on issuance in 2015.
- Forces driving rapid market growth include new issuance by high-profile corporates, a burgeoning Chinese market, emerging interest from U.S. utilities, strong investor demand, and increasing environmental disclosure requirements.
- We see signs that metrics to evaluate the level of disclosure and environmental credentials of green bonds are becoming more important to investors.
- Market pricing of green bonds is evolving and we believe a bond's environmental credentials could contribute to pricing over the long term.

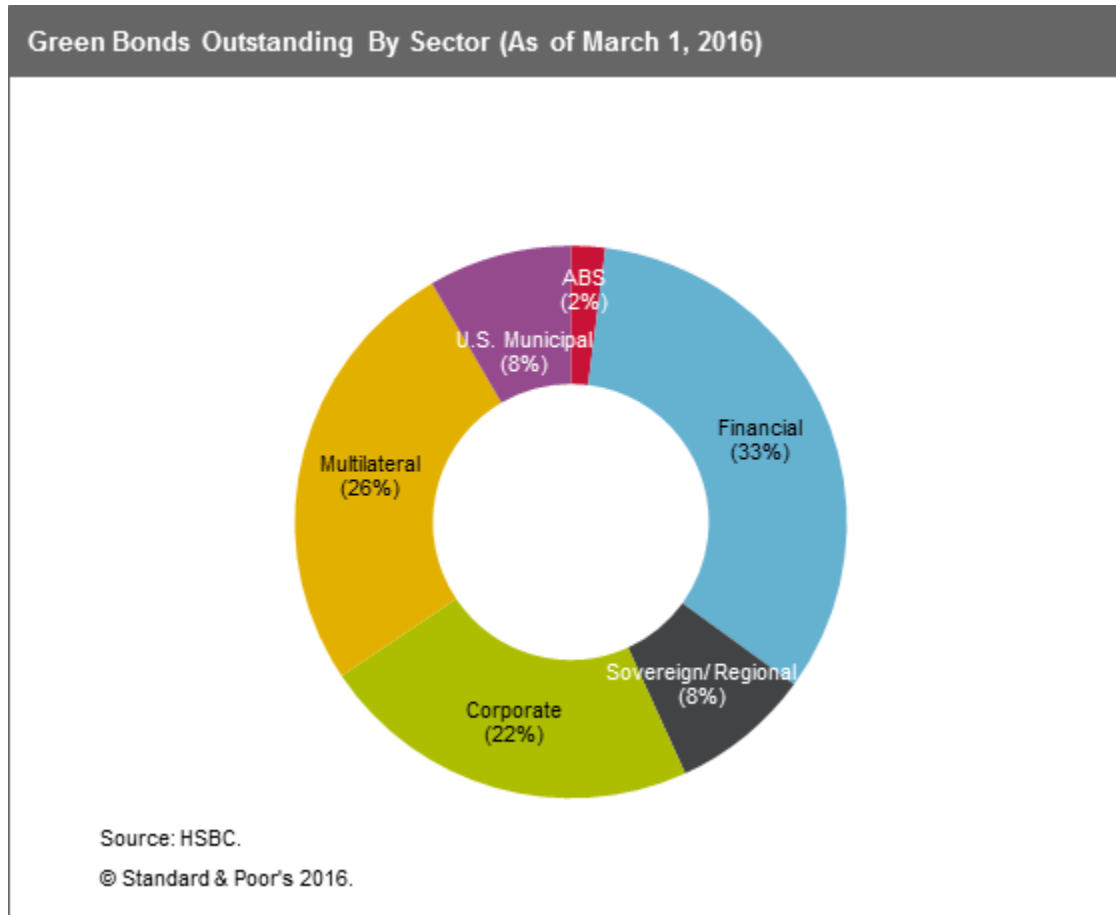
We think our estimates for market growth will prove robust for a number of reasons. First is the trend for larger green bond issuance. Ahead of Apple's \$1.5 billion issue this year, the largest green bonds issued in 2015 were by Electricite de France (\$1.25 billion), Toyota Finance (\$1.25 billion), and TenneT Holding B.V. (\$1.12 billion). The types of projects being financed by green bonds are also widening, with growth into water and transport. Increasing reporting requirements on corporations, either mandated or optional, to disclose environmental data in their annual reports, could also fuel further issuance.

We expect that investor demand for green bonds will continue to outstrip supply this year following investor commitments at the Paris climate change negotiations (COP21) in December 2015. The Portfolio Decarbonization Coalition, which includes some of the world's largest investors, pledged to decarbonize a total of \$600 billion of their combined portfolios (see "The Paris Agreement: A New Dawn for Tackling Climate Change, Or More Of The Same?", Jan. 18, 2016). Some large financial institutions have also mandated commitments to invest billions of dollars in the green bond market. Barclays previously announced green bond investments of £1 billion, Credit Agricole of €2 billion,

HSBC of \$1 billion, Zurich \$1 billion, and KfW of €1 billion.

We also think emerging issuance by U.S. utilities will boost the green bond market. Even if European utility issuance were to slow this year as new green assets to issue against become less plentiful, the recent entry of U.S. utilities has the potential to replace or surpass it, in our view.

Chart 1



Increasing currency diversity of corporate green bond issuance will also drive growth in the market this year, in our view. New issuers emerged last year in Brazil, India, and China, among others. If Chinese green bond issuance takes off, this would provide a further boost. Two Chinese banks have received permission from the country's central bank to issue the equivalent of \$15 billion of green bonds, and tapped the market with initial issuance of around \$4.5 billion in total in January 2016. Two further banks have requested permission to issue similar amounts, which could see total Chinese green bond deal flow comfortably top the \$30 billion mark this year.

Following the COP21 climate change conference in Paris in December 2015, China and India have both produced guidelines for green bond issuance that use as their backbone the Green Bond Principles, a voluntary set of guidelines issued by a consortium of leading banks that recommend transparency and disclosure, and promote integrity in the market by clarifying the approach for issuance (see "Green Bond Principles Are Based On Four Pillars" below). A

subsidiary of the People's Bank of China, the National Association of Financial Market Institutional Investors (NAFMII), is currently developing standards that are expected to help nonfinancial corporations tap the interbank market. These could be released as early as this quarter and, once finalized, we believe they could trigger a surge in Chinese corporate deal flow.

Green Bond Principals Are Based On Four Pillars

The International Capital Markets Association, as secretariat of the Green Bond Principles (GBPs), issued updated principles in March 2015. The GBPs, which are voluntary guidelines that encourage transparency and disclosure and promote integrity in the development of the green bond market, continue to be based on four pillars:

1. Use of proceeds: Investment in recognized green investment categories.
2. Process for project evaluation and selection: relating to use of effective criteria.
3. Management of proceeds: Segregation of funds or appropriate tracking of the flow of funds.
4. Reporting/assurance: Disclosure and verification pre- and post-issuance.

U.S. Utilities Begin To Seize An Opportunity

We expect corporate green bond issuance will be boosted in the U.S. by the recent entry by Georgia Power Co., a subsidiary of The Southern Company. It issued \$325 million in green bonds in March to fund investments in solar-powered electric generation facilities and electric vehicle-charging stations. Proceeds can also be used to pay for solar and wind-powered electricity purchased by the utility. The issue followed on the heels of \$1 billion in green bonds issued by another Southern Company subsidiary, the unregulated power producer Southern Power, in November 2015. Together, these bonds represent the first known green funding by a utility or an affiliate in the U.S., and we expect that it heralds much more to come from an industry that is a major and constant presence in the U.S. capital markets.

We think utilities in particular can realize value from green bonds by tapping into an investor base that until now has been at best indifferent to the sector. Even the cleanest of utilities has assets and operations that socially conscious investors would normally shy away from funding. By identifying and segregating investments in renewable generation and similar green endeavors, and offering investors assurances that the funds will serve that purpose, utilities can attract sources of capital that are otherwise unavailable. Green investors also benefit: they gain access to strong investment-grade issuers that offer debt backed by the overall creditworthiness of the company, while knowing that their money is going only into preferred environmental projects.

U.S. utilities' green bonds are also attracting greater interest from non-U.S. investors in green bonds, another source of capital whose interest in U.S. utilities was previously muted. A further trend likely to encourage significant growth in green bond issuance by U.S. utilities is the nascent interest in developing renewable energy projects on behalf of ratepayers, such as so-called "utility-scale" solar projects, instead of buying the power from third parties in order to meet renewables mandates. Although the costs of purchasing this power qualifies under green bond principles, as seen

in the Georgia Power use of proceeds, the prospect of investing directly in the solar power plants will provide a much bigger source of future green bond issuance. Utilities already have plenty of incentives to pursue green investments, in part due to looming carbon regulations. New funding sources in the form of green bonds will, in our view, accelerate this trend.

Corporate Environmental Disclosure Could Drive Green Bond Issuance

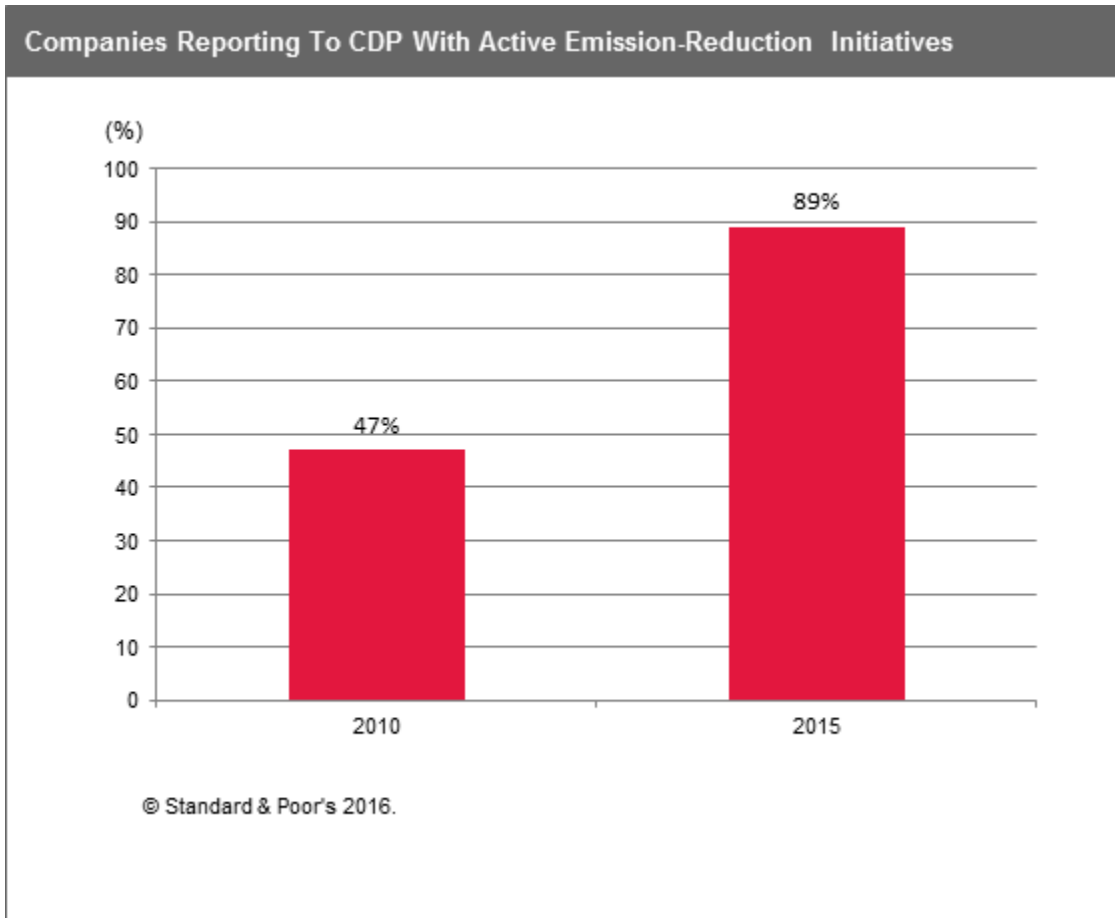
By issuing green bonds, corporates not only acquire a new source of capital, they also invest in the environmental standard of their business. This can have a direct financial benefit by reducing operational costs—for example, reducing energy bills through energy-efficiency measures. It also demonstrates improvement when making environmental disclosure requirements. Some of these environmental disclosures are optional, such as those pioneered by the Global Reporting Initiative and CDP (see "What Is CDP?"). Others are mandated, such as the U.K. government's 2013 requirement that all U.K.-listed companies report on their greenhouse gas (GHG) emissions. We think the level and quality of this reporting will continue to improve following the establishment of the Task Force on Climate-Related Financial Disclosures (TCFD) in 2015 by the Financial Stability Board. The TCFD is an industry-led body that is developing voluntary, consistent climate-related financial risk disclosures for use by companies in providing information to lenders, insurers, investors, and other stakeholders.

What Is CDP?

CDP (formerly the Carbon Disclosure Project) is an organization that requests disclosure of environmental data and information from the world's largest companies on behalf of 827 institutional investors with a combined US\$100 trillion in assets. Currently, 70% of companies listed on the S&P 500 report to CDP. CDP produces a Carbon Performance Leadership Index, which highlights the reporting of companies that are doing the most—in terms of emissions reduction, strategy, and governance—to combat climate change.

Globally, we think these reporting requirements will increasingly drive large corporations to tap the green bond market. The percentage of companies reporting to CDP who have active emissions-reduction initiatives has increased from 47% in 2010 to 89% in 2015 (see chart 2). Public disclosure of environmental information helps encourage companies to "manage what they measure" and undertake action to improve their environmental credentials. We believe companies may consider that corporate green bonds offer a good way to finance these improvements.

Chart 2



How Green Is My Bond?

How carbon-conscious investors evaluate the environmental credentials of bonds remains a grey area, and we believe it will be subject to further focus. There are two main types of verification currently in use: second opinions and third-party verifications (see "Types Of Verification Of Green Bonds"). These standards have evolved significantly over the past few years and issuers are becoming more accustomed to them. This is demonstrated by the fact that, of the total green bonds outstanding, only 4% have failed to issue annual reports (see chart 3).

Types Of Verification Of Green Bonds

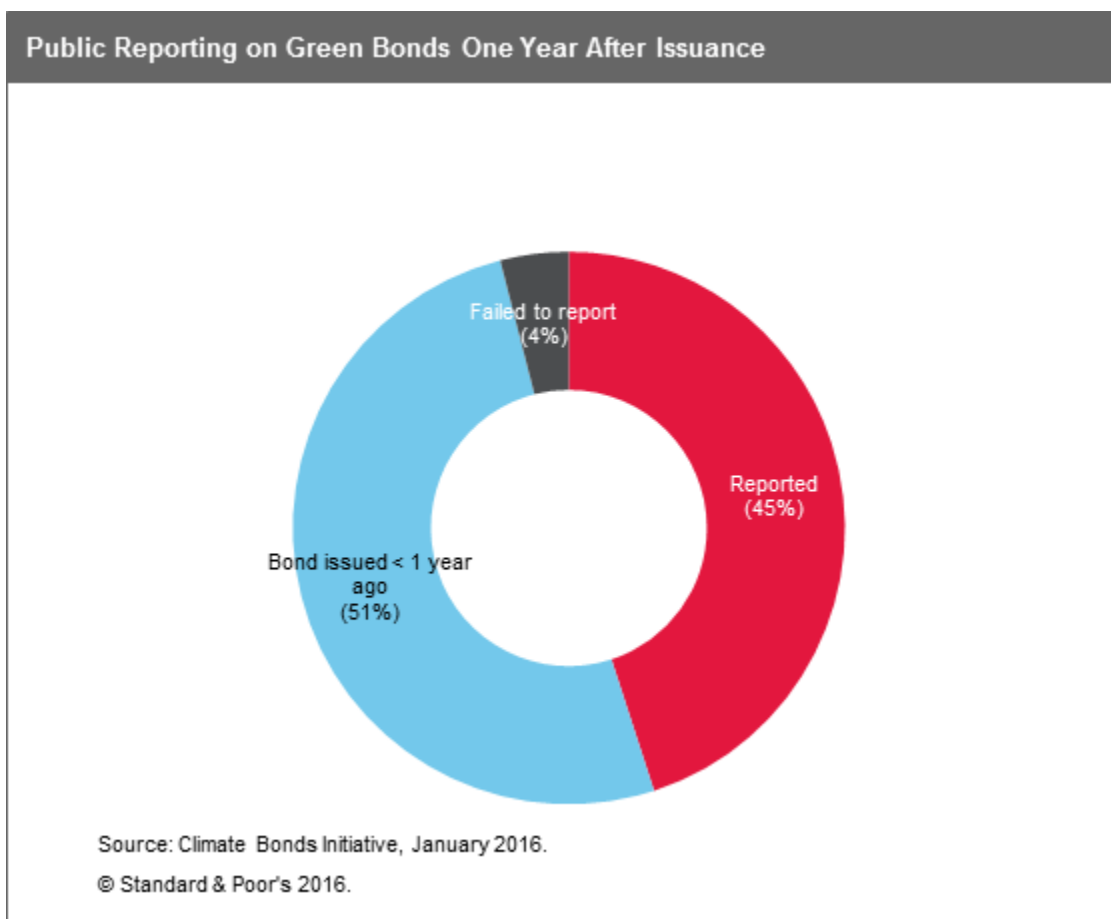
Second Opinion. This type of verification generally declares whether or not a bond's intended use of proceeds and intended governance framework comply with the Green Bond Principals (GBPs). This verification method lacks a standard form or process but a few companies (CICERO and Vigeo) are beginning to emerge as leaders in second-opinion provision, which is enhancing the comparability.

Third-Party Verification. This is recognized as the more rigorous form of assessment by the GBPs. Verification is against a declared set of industry-specific criteria, which assess whether the projects being funded are green. It is also conducted by audit professionals in line with standards such as the International Standard on Assurance Engagements 3000 (ISAE 3000) or ISO 14064-3 for the verification of greenhouse gas emissions. This verification method also complies with professional standards that ensure that the assurer is independent from the bond issuer.

Despite this progress, we think that investors still need a clearer way to understand the environmental credentials of a green bond as opposed to the governance and intended use of proceeds of a green bond that second-party opinions focus on. We think the market will mature to demand more transparency and verification of a bond's green credentials and that, consequently, third-party assurance will become more commonplace. The Climate Bond Standards, the most frequently used standard in third-party verification of a project's green credentials, provide a binary outcome, whereby a bond is either certified if it reaches this standard or failed if it falls short. We think a more relative assessment will become necessary, whereby investors are able to see which of two certified bonds provides the greatest environmental benefit.

Emissions reductions in carbon dioxide equivalent (CO₂e) would be an obvious choice of metric for such an assessment given that techniques for carbon footprinting are already well developed. Some third-party verifications already involve such measures, and investors are coming under pressure to consider the carbon content of their portfolios. We are, however, cautious about this approach because we acknowledge that not everything with environmental credibility can be measured in CO₂e savings. For example, water conservation or responsible sourcing of raw materials are not captured. We therefore see CO₂e is a necessary starting point, but, over time, we believe more sophisticated metrics will dominate environmental credential assessments.

Chart 3



Market Pricing Is Still Evolving

Market pricing of green bonds is still developing but, in the longer term, we believe bonds' environmental credentials will contribute to their pricing. Although examples can be found of green bonds trading both above and below the credit curve of their non-green counterparts, the general consensus is that they largely trade in line with conventional bonds. Research has suggested that premiums for green bonds can be achieved in the secondary market. This is most likely due to the imbalance of supply and demand; currently, there are simply not enough green-labelled bonds available to meet investor demand, and this is driving up the price.

In the primary market, there is little evidence of any green premium. Providing that other characteristics are similar, green and conventional bonds trade broadly in line with each other. Market sell-side participants have indicated anecdotally that a two to three basis-point tightening could be achieved with European green bond issuance. But no such tightening has been experienced as yet in the U.S. market, where the level of understanding and demand for environmentally-driven issuance lags behind Europe.

Preferential pricing for green bonds could reduce the participation of mainstream investors in the markets unwilling to

pay a premium for green benefits, potentially limiting market growth. However, we also see a need to incentivise the issuer to do the extra work and incur the extra costs required to issue and report on a green bond. We see a danger that the market will reach a stand-off, where growth stagnates as investors aren't willing to lose any return and issuers aren't willing to cover the extra costs to label their bonds as green. We think that the increasing pressure on investors to consider the environmental and social costs of their portfolios could circumvent this stand-off and eventually lead to tighter spreads for green bond issuers.

We think that this pressure is, in part, coming from the growing trend of disclosure around the carbon footprint of portfolios. For example, the Montreal Pledge, a voluntary action initiated in 2014, has more than 120 investor signatories with over \$10 trillion assets under management, which have all agreed to disclose the carbon footprint of their portfolios. Notably, last year France turned this disclosure into a legal requirement for financial institutions. We foresee that, in the same way that CDP has seen the percentage of reporting companies who have active emission-reduction initiatives rise over time, increased reporting on the carbon content of portfolios will lead to a higher percentage of reporting investors with active decarbonization initiatives. Green bonds will provide an attractive and clear method of decarbonizing portfolios, especially as verification is carried out by the issuer. This new incentive to lower portfolios' carbon footprints will cause investors to consider the green or decarbonization potential of a bond alongside conventional metrics, which could in turn lead to the incorporation of such factors into pricing.

Other benefits to issuers do exist but are difficult to quantify and therefore don't entice issuers as directly as pricing mechanisms. One such benefit argument is that, over the longer term, a corporate's cost of debt could reduce due to enhanced credit quality created by the climate-resilient and efficiency measures financed by the bond's proceeds. This is because these measures may make a company more resilient in terms of its exposure to environmental and climate-related issues, which could affect its business risk profile. By this reasoning, green quality may eventually supplement credit quality as a price determinant in the corporate bond market because the enhanced green quality of the corporate, as opposed to individual bonds, will affect and feed into the credit quality of the issuer. At present it is unlikely that differing "green quality" of individual bonds from the same issuer would affect pricing, but as the market matures and the quality and sophistication of reporting continues to improve, we could see this trend emerge.

We expect that any changes in green bond pricing to reflect the green credentials of a bond will come initially in the secondary market. In the primary market, syndication desks will likely push for similar spreads to conventional bonds as the market develops so as to maintain interest from as large a pool of investors as possible. In the secondary market, no such pressure exists, so increased disclosure of the green credentials of a bond could drive demand and influence pricing in the same way as other factors, such as credit quality, yield, duration, and demand.

Related Research

Reports published by Standard & Poor's on RatingsDirect

- The Paris Agreement: A New Dawn For Tackling Climate Change, Or More Of The Same?, Jan. 18, 2016
- How Environmental And Climate Risks Are Factored Into Global Corporate Ratings, Oct. 21, 2015
- Corporate Bond Market Shows Its Green Shoots, March 23, 2015
- The Greening Of The Corporate Bond Market, May 20, 2014

Reports published by other organizations

- Global Green Bonds - Asia rising, HSBC, March 4, 2016
- Year 2015 Green Bonds Final Report, Climate Bonds Initiative, Jan. 11, 2016
- The Cost Of Being Green, Barclays, Sept. 18, 2015

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