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Corporate Bond Market Shows Its Green Shoots

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Green bonds--one of a number of new issue trends to hit the capital markets--got a lift on March 11, 2015. That's when Danish wind turbine manufacturer Vestas issued a seven-year €500 million bond in a bid to diversify its funding base by taking advantage of the rising investor interest in green bonds. The Vestas issue marks the first green bond of the year for the European corporate bond market, and it's the first corporate green bond issued by a company dedicated exclusively to wind energy. (Watch related CreditMatters TV segment aired today titled "S&P Predicts $30 Billion Corporate Green Bond Issuance In 2015, But Challenges Lie Ahead".)

Green bonds are a new financing instrument aimed at funding a wide range of environmentally friendly investments. As an emerging asset class, they experienced dramatic growth in 2014, and expectations for 2015 remain equally healthy. Based on current trends, Standard & Poor's Ratings Services estimates corporate green bond issuance in 2015 could reach up to $30 billion, a near 50% increase on the $19.1 billion raised since the market sprung to life at the beginning of last year (see "The Greening of the Corporate Bond Market," published on RatingsDirect on May 20, 2014). In total, the Climate Bonds Initiative, a nonprofit group based in London, believes green bond issuance--not just from corporates--is likely to hit $50 billion with a "good chance" of getting to $100 billion. This compares to a tripling of the market to $36.6 billion last year. Several promising areas for growth include further issuance from the corporate sector and from municipal bond issuers. The real game changer, however, could be when China enters the green bond market in full force.

Overview

- Green bonds aimed at funding environmentally friendly investments more than tripled in issuance in 2014, to $36.6 billion.
- Corporate issuers have contributed greatly to the green bond market's expansion, though multilateral investment banks still lead in issuance.
- In particular, the Chinese corporate green bond market has the potential to experience substantial growth in coming months.
- Green bonds carry the same investor protections as regular bonds. Most green bonds now have investment-grade ratings, and investors aren't paying a premium for them.

Corporate issuers have been a driving force in the strong growth of green bond issuance over the past 18 months. Borrowers range from companies as diverse as Toyota, Unilever, Stockland (Australia's biggest real-estate trust), ASE (Taiwan's technology firm), and Bangkchak Petroleum (Thai oil company). Then there's China.

The Chinese green bond market could grow substantially over the next 12 months as Beijing steps up its antipollution drive and investment in renewable energy. The municipal bond market is also accelerating. The German State of North Rhine-Westphalia (NRW) issued a "sustainability" bond this month, known as the Nachhaltigkeitsanleihe. Due to the bond's popularity with investors, NRW increased the issue by 50%, from €500 million ($569 million) to €750 million.

Green bond issuance in 2014 comprised 44% of multilateral bank issuance, 38% of corporate issuance, and 13% of

municipal issuance (see chart 2). The increase in the green bond market brings the total outstanding number to $53.2 billion as of the end of 2014 (see table 1), according to the Climate Bonds Initiative.

Chart 1

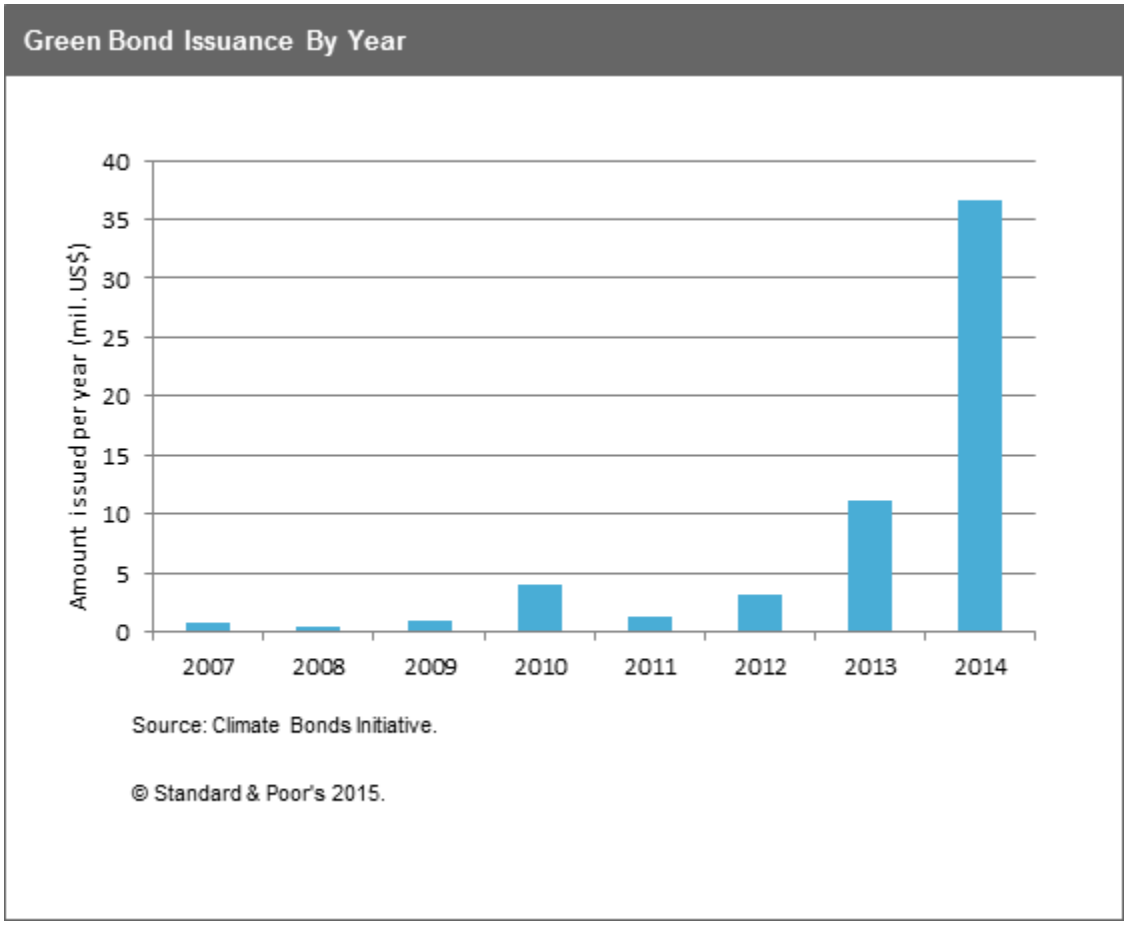

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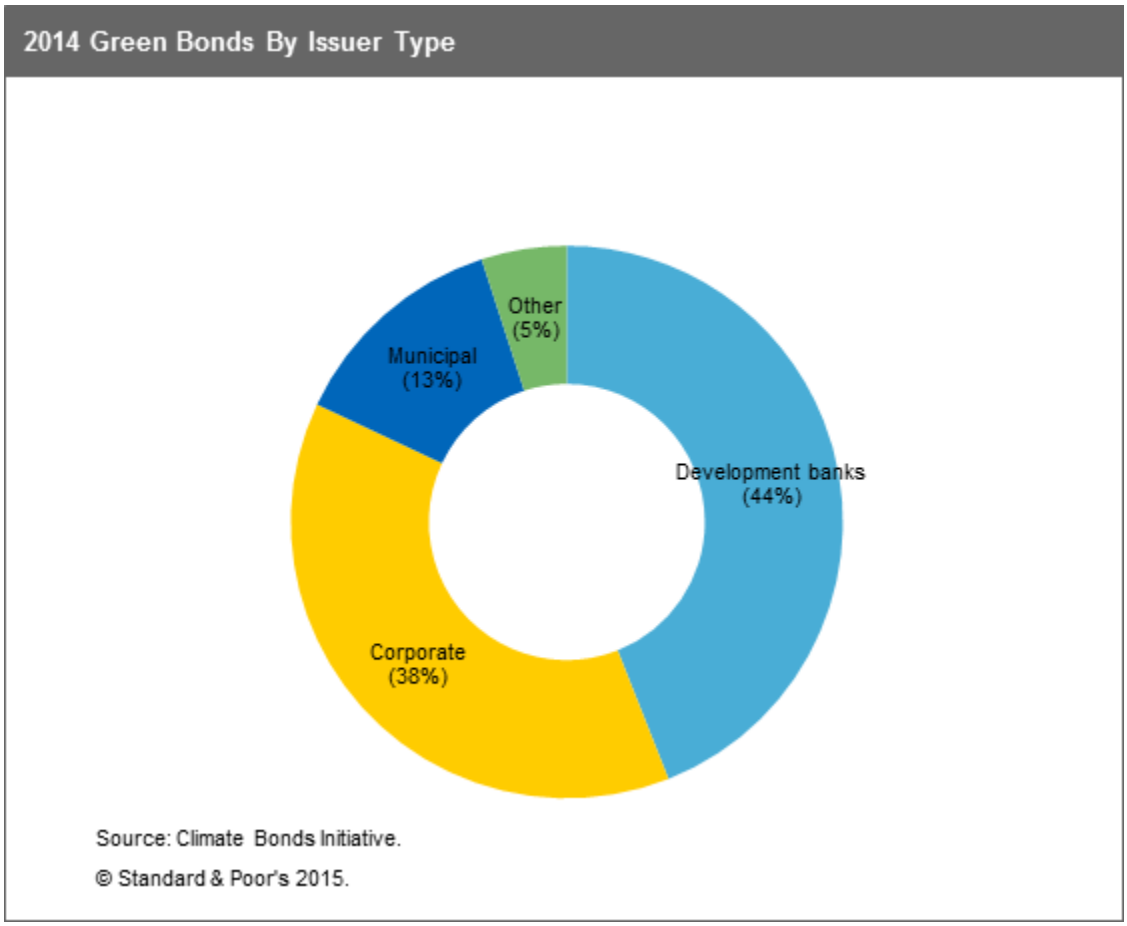
Chart 2



Corporate Green Issuance Adds Depth And Liquidity To The Market

Corporate green bonds have helped create depth in the green fixed-income market, which multilateral investment banks have so far dominated. Not only have corporates introduced scale, but they have also offered a range of currencies, geographic locations, and maturities--all great for liquidity in the market.

While a broad range of corporate sectors were represented, issuance remains dominated by utilities and real estate companies. Utilities and power generation accounted for about 17% of total green bond issuance by volume, the largest in the nonfinancial sector. The second-largest sector in volume terms is real estate. These companies have raised funds generally for upgrading buildings to various environmental and energy-efficiency standards.

As well as the €500 million issue from Vestas, we recently saw the world's first green bond from an oil company, which came out of Thailand. State-owned Bangkchak Petroleum issued a THB3 billion ($93 million) green bond to help it expand its operations in renewable and clean energy. In July last year, Taiwan's ASE became the first technology firm to issue green bonds, which also marked the first corporate green bond from Asia.

Issuance to date has been met with healthy investor demand, although it is worth noting that 2014 was a year of very

strong bond issuance overall. Corporate green bond issues tend to behave similarly in yield performance to the other bonds of corporate issuers, even though there is lower liquidity in the green bond market.

China's Green Bond Market Could Be The Game Changer

The corporate green bond market has the potential to experience substantial growth in China in the coming months. First, dealing with environmental issues looms high on the Chinese government's agenda. Second, the government has a strong incentive to develop a bond market and encourage corporations to raise funds by bond issuance, which would help to diversify credit risk now concentrated in the banking system.

China's bond market is now the world's third-largest at about 24.61 trillion renminbi (RMB), or about US$3.97 trillion. Banks are the dominant Chinese investors, with a 75% market share at the end of 2011. (ADB, 2013). In March 2014, the Ministry of Environment announced a plan to integrate environmental benchmarks into credit scoring for companies in industries with heavy pollution or overcapacity. These scores will be based on their efforts to protect the environment and could directly lead to more green bond issuance.

Approximately $7.8 billion in outstanding Chinese corporate bonds are linked to green themes, according to the Climate Bonds Initiative. Many of these are high-yield notes or convertible bonds issued by solar photovoltaic and wind turbine manufacturers. These are by no means the largest or most important corporations active in China's green sectors, but they are the only ones whose proceeds are clearly linked with environmental projects. State-owned companies, large private corporations, and small and midsize enterprises are active in deploying environmental technologies and processes that may be recognized and supported through green bonds.

Also noticeably, the International Finance Corporation (IFC) issued a 500 million renminbi-denominated green bond (approximately $80.29 million) in June 2014 whose funds will be used to support climate-friendly investments in emerging markets. The bond is listed on the London Stock Exchange and sets a precedent as the first green bond issued by a multilateral institution offshore in Chinese currency.

Low Oil Prices Could Test The Green Bond Market

This year may represent a test for the viability and durability of the green bond concept, given recent developments in energy markets, not to mention emerging markets. Therefore, this year may represent a test for the viability and durability of the green bond concept. Are the fast-growing green bonds simply a product of exceptionally benign weather conditions in capital markets? Would the growth of exotic products such as green bonds stall if there is a market correction?

A recent Bank of America Merrill Lynch note argued that green bond prices were not only similar to non-green bonds but they were also "less volatile than counterparts, which may be driven by their perceived safety and longer-term investor base with lower churn rates." Apparently, green bond owners are likely to be long-term investors holding them to maturity. This is because a significant proportion of green bond investors are signatories to the Principles of Responsible Investment (PRI) and have mandates to buy and hold a certain proportion of green assets in their

portfolios.

Another question is whether green bonds will wither as oil prices tumble, making alternative energy investments less appealing. We believe chances are good that the market's strong growth could continue even with lower oil prices. Oil price movements, in our view, will have less of an impact on renewables than many fear due to the longevity of climate change as an investment driver relative to the short-term fluctuations in commodity prices. Moreover, green bonds don't just raise funds for renewable energy projects, they're also used to tackle pollution. Socially responsible investing also covers housing, education, and water projects that oil prices don't affect.

At the moment, green bonds are priced based on the corporate credit of the bond issuers and investors are not paying a premium for their environmental integrity, which is not seen as an investment benchmark yet.

High-Yield Issuers Are Testing The Water

Green bonds carry the same investor protections as regular bonds. Most green bonds also have investment-grade ratings, although some speculative-grade corporates tapped into the green bond demand last year.

Three high-yield green bonds have been issued so far: Abengoa Greenfield (which Standard & Poor's rates 'B'), NRG Yield, and TerraForm Power. Altogether, these three companies issued $2 billion equivalent in aggregate principal amount.

According to the Green Bond Principles, there are four types of green bonds, including green use of proceeds bonds, green use of proceeds revenue bonds, green project bonds, and green securitized bonds. The green-use-of-proceeds category is the only one that high-yield issuers have adopted so far, and in general, high-yield bonds provide recourse to all of the assets of the issuer and guarantors, rather than recourse only to certain projects or contracts.

And the existing high-yield green bonds already incorporate the green-use-of-proceeds concept of "eligible green projects," despite the continuing debate around the meaning of green. Each of Abengoa Greenfield, NRG Yield, and TerraForm Power promised to use the proceeds of their issuances for eligible green projects in general, with the use of proceeds for the NRG Yield and TerraForm Power green bonds tied to the acquisition of wind power companies.

Green Standards Are Taking Root

The surge in green bond sales represents growing demand among bond buyers for green investments amid concerns about climate change. But it also highlights one major challenge facing the nascent market: What should qualify as an environmentally friendly project?

If everybody wants to be associated with being green, it raises the danger that the value of green bonds may get diluted by "greenwashing." Transparency for this developing market requires clear definitions and disclosure of how proceeds are used and how projects are managed.

In fact, the market has been making efforts at standardization. For example, since the Green Bond Principles (GBP) were produced in January last year, 77 members and 35 observers have joined. These institutions worked over the

past year to improve the GBPs, and they expect to produce an updated version at the end of first-quarter 2015. Some issuers have also said they plan to report regularly to investors about how green bond proceeds are being used. More recently, the Investor Network on Climate Risk (INCR) drafted a new set of guidelines for green bond issuers in February 2015. The group comprises 27 institutional investors, including pension funds, insurance companies, and asset managers.

The aim of issuers and investors alike is to have commonly agreed standards on what counts as a green bond, with sufficient transparency and monitoring to ensure funds are not misused. The emphasis is likely to remain on investors checking exactly what they are buying.

Project Bonds Offer A Deeper Shade Of Green

Among supranational organizations, green bonds have now become part of the normal funding landscape. However, among corporates, they're still a new product, and not all corporations that are eligible have decided to tap the market. That's partly because financing climate-change mitigation is not part of the mandates of corporates. Also, the current market is fairly small, and a more liquid market, diversified with private placements, is yet to be developed in order for more issuers and investors to step in.

Green labeling in the corporate arena currently applies only to the category of green-use-of-proceeds bonds, which have developed around the idea of flat pricing. That is, the credit profile of green bonds is the same as vanilla bonds, reflecting the balance-sheet strength of the issuer. This deviates from green project bonds, which fund clean-energy projects and infrastructure via nonrecourse asset financing structures. Such structures link revenue and cash flow to the asset being financed and are already commonly adopted in wind, solar, and hydro power, energy efficiency, and other clean-energy projects, with cash flows from such assets acting as the primary source of bond repayments. Such assets often have long economic lives, with cash flows supported by long-term offtake contracts with strong counterparties. These asset characteristics have the potential to meet the financial objectives of institutional investors, while also providing environmental benefits.

S&P Dow Jones Indices has created a Green Bond Index and a Green Project Bond Index to capture both areas. Over time, we may see an opportunity for these two groups to converge, as the green fixed-income market increasingly evolves and focuses more on bonds backed by the credit of environmental projects rather than the corporate creditworthiness of the issuer. This convergence, in our view, would necessitate close scrutiny of the projects to ensure they meet credentials related to both creditworthiness as well as greenness.

Table 1

Corporate Green Bond Issuance To March 13, 2015

Issuer Name	Coupon (%)	Maturity date	Amount issued ($)*	Price at issue ($)	S&P issuer rating	Sector
Vasakronan AB	0.342	25/05/2016	152,272,000	100	NR	Real Estate
Vasakronan AB	1.774	25/05/2016	45,681,600	100	NR	Real Estate
Electricite de France SA	2.25	27/04/2021	1,899,840,000	99.561	A+	Utilities
Unibail-Rodamco SE	2.5	26/02/2024	1,025,360,000	98.723	A	Real Estate
Vasakronan AB	0.925	19/03/2019	102,283,000	N/A	NR	Real Estate

Table 1

Corporate Green Bond Issuance To March 13, 2015 (cont.)						
Vasakronan AB	2.473	19/03/2019	55,075,600	N/A	NR	Real Estate
Unilever PLC	2	19/12/2018	414,200,000	99.675	A+	Consumer Staples
Svenska Cellulosa AB SCA	0.945	02/04/2019	154,240,000	100	A-	Consumer Staples
Svenska Cellulosa AB SCA	2.5	02/04/2019	77,120,000	100	A-	Consumer Staples
Skanska Financial Services AB	1.216	08/04/2019	130,886,000	100	NR	Industrials
Iberdrola International BV	2.5	24/10/2022	1,036,770,000	99.72	NR	Utilities
Vasakronan AB	0.531	24/10/2016	152,158,000	N/A	NR	Real Estate
Acciona SA	5.55	29/04/2024	86,596,500	100	NR	Industrials
Arise AB	3.181	25/04/2019	167,087,000	100	NR	Utilities
Enna Energia SRL	5	16/05/2019	4,384,620	100	NR	Energy
Regency Centers LP	3.75	15/06/2024	250,000,000	99.482	BBB	Real Estate
GDF Suez	1.375	19/05/2020	1,645,140,000	99.345	A	Utilities
GDF Suez	2.375	19/05/2026	1,782,230,000	98.494	A	Utilities
Rikshem AB	0.171	20/05/2016	15,171,700	100	A-	Real Estate
Toyota	0.41	15/08/2016	560,000,000	99.999	AAA	Industrials
Toyota	0.67	15/12/2017	480,000,000	99.982	AAA	Industrials
Toyota	1.18	17/06/2019	165,250,000	99.987	AAA	Industrials
Toyota	0	15/04/2020	43,750,000	N/A	AAA	Industrials
Rodamco Sverige AB	0.798	03/06/2019	97,289,400	100	NR	Real Estate
Rodamco Sverige AB	2.25	03/06/2019	127,225,000	99.906	NR	Real Estate
Vornado Realty LP	2.5	30/06/2019	450,000,000	99.619	BBB+	Real Estate
THP Partnership	4.394	31/10/2046	217,066,000	100	NR	Real Estate
Hera SpA	2.375	04/07/2024	679,633,000	99.464	BBB	Utilities
Anstock II Ltd	2.125	24/07/2017	300,000,000	99.723	NR	Technology
NRG Yield Operating LLC	5.375	15/08/2024	500,000,000	100	NR	Utilities
NRG Yield Operating LLC	5.375	15/08/2024	500,000,000	100	NR	Utilities
Arise AB	6.059	08/09/2017	49,313,100	100	NR	Utilities
Massachusetts Institute of Technology	3.959	01/07/2038	370,000,000	100	NR	Consumer Discretionary
Abengoa Greenfield SA	5.5	01/10/2019	334,662,000	100	NR	Industrials
Abengoa Greenfield SA	6.5	01/10/2019	300,000,000	100	NR	Industrials
Abengoa Greenfield SA	6.5	01/10/2019	300,000,000	100	NR	Industrials
Abengoa Greenfield SA	5.5	01/10/2019	334,662,000	100	NR	Industrials
BKK AS	2.05	06/10/2021	169,036,000	100	NR	Utilities
Fastighets AB Forvaltaren	0.71	10/10/2019	55,375,600	N/A	AA-	Real Estate
Innovatec SpA	8.125	21/10/2020	12,733,100	N/A	NR	Energy
Stockland Trust Management Ltd	1.5	03/11/2021	374,561,000	99.618	A-	Real Estate
Nord-Troendelag Elektrisitetsverk Holding AS	2.19	12/11/2021	14,719,500	N/A	NR	Utilities
Nord-Troendelag Elektrisitetsverk Holding AS	2.07	13/11/2019	58,950,100	N/A	NR	Utilities
Nord-Troendelag Elektrisitetsverk Holding AS	1.88	13/11/2017	36,843,800	N/A	NR	Utilities
Vasakronan AB	0.513	18/11/2019	67,902,500	N/A	NR	Real Estate

Table 1

Corporate Green Bond Issuance To March 13, 2015 (cont.)						
Verbund AG	1.5	20/11/2024	626,940,000	98.437	BBB+	Utilities
Rikshem AB	0.178	02/12/2016	26,607,100	N/A	A-	Real Estate
Rikshem AB	0.274	05/06/2017	33,100,700	N/A	A-	Real Estate
Vardar AS	3.8	11/12/2019	41,233,100	100	NR	Energy
Energia Eolica SA	6	30/08/2034	204,000,000	98.344	NR	Energy
Energia Eolica SA	6	30/08/2034	204,000,000	98.344	NR	Energy
TerraForm Power Operating LLC	5.875	01/02/2023	800,000,000	99.214	NR	Utilities
TerraForm Power Operating LLC	5.875	01/02/2023	800,000,000	99.214	NR	Utilities
Vasakronan AB	0.37	20/02/2018	47,827,400	N/A	NR	Real Estate
Vestas Wind System A/S	2.75	11/03/2022	535,960,000	N/A	NR	Energy

*Exchange rate as of each issue date. Source: Bloomberg Professional. N/A--Not applicable. NR--Not rated.

Related Criteria And Research

- The Greening of The Corporate Bond Market, May 20, 2014
- Standard & Poor's Takes A Look At The Emerging YieldCo Financing Vehicle, Sept. 8, 2014

Notes:

- Credit Theme: Green Bonds year-end review: what is independent verification for? Societe Generale Cross Asset Research, Jan. 7, 2015
- Introducing the Green Bond Index, Bank of America Merrill Lynch, Oct. 30, 2014
- Green Bonds 1Q15 Quarterly, Bank of America Merrill Lynch, March 13, 2015
- Green Bond Roundtable, IFR, February 2015
- Environmental Finance, Winter 2014 Edition
- Green Bonds: 1Q15 Quarterly: US$59 billion & growing, Bank of America Merrill Lynch, March 13, 2015
- The S&P Green Project Bond Index, S&P Dow Jones Indices, October 2014

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