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WHAT DOES “GREEN” REALLY MEAN?: HOW INCREASED TRANSPARENCY AND STANDARDIZATION CAN GROW THE GREEN BOND MARKET

I. INTRODUCTION

As society progresses further into the twenty-first century, the fight against climate change continues to become one of the most important battles it faces. A key component in this fight is the global financial system. In December 2015, representatives from nearly two hundred nations reached an agreement on climate change goals. Decreasing the annual global temperature increase to two degrees Celsius above pre-industrial levels was one of the major goals resulting from the agreement. To achieve this goal, developed nations have agreed to provide at least one hundred billion dollars per year to climate change projects. Consequently, the demand for socially-responsible investment options from institutional investors and other consumers will continue to increase. There are several options available to environmentally conscious investors, including securities issued by companies with environmentally friendly goals, green mutual funds, environmentally focused exchange-traded funds, and green bonds.


3. See Domonoske, supra note 1 (discussing climate agreement reached at recent Paris COP21 summit). The COP21 summit included representatives from 196 nations. Id. The summit focused on climate change solutions, and the discussions resulted in an agreement to decrease the rate of global temperature increase, set a timeline for this goal, and set a one hundred billion dollars per year target for climate change research funding. Id.

4. Id. (defining two degree goal).

5. See id. (discussing financial requirements to achieve two degree goal). Developed countries were dedicated to reaching the one hundred billion dollars per year goal in 2009-2010. One hundred billion dollars, Paris COP21, http://www.cop21.gouv.fr/en/one-hundred-billion-dollars/ (last visited July 18, 2016) (providing background on one hundred billion dollar plan). The money will come from both public and private sources. Id.

6. See Baily, supra note 2, at 449-50 (explaining increased demand for socially responsible investment options by institutional investors).

A green bond is a debt instrument for which the proceeds are used to finance environmentally-friendly projects. There are two major types of green bonds: labeled and unlabeled. Unlabeled green bonds are standard bonds issued by corporations "whose businesses are naturally aligned with environmental projects." While both types of green bonds play an important role in climate change reform, the focus of this Comment is on labeled green bonds, which are bonds the issuer has designated as "green." In 2007, the European Investment Bank (EIB) issued the first labeled green bonds as a new financial instrument to help encourage investment in green projects. Shortly thereafter, in 2008, the "World Bank Treasury issued its first green bond..." The first green bond issuance marked the beginning of a new financial market that grew to $41.8 billion by year-end 2015.

Green bonds are "fixed income, liquid financial instruments (describing various forms of green investment vehicles). Green mutual funds and exchange-traded funds allow investment in "a pool of securities," which allows "average investors an affordable way to diversify across multiple sectors or industries." Id.


10. See id. (defining unlabeled green bonds). For example, a bond issued by a solar energy company is considered an unlabeled green bond. See id.

11. See id. (defining labeled green bonds). All references to green bonds in this Comment refer to labeled green bonds, unless otherwise specified. Id.


The types of projects funded by green bonds range from renewable energy to water and agriculture. The bonds were initially introduced as a way to tap into the multi-trillion dollar bond market, and to promote the growth of environmentally-focused projects. The green bond has been successful in its early years. Despite this success, in order to make a significant impact on climate change, “conservative estimates” predict the market must grow to one trillion dollars per year by 2050. Although the market reached forty billion dollars by year-end 2015, its current size is only “scratching the surface for [its] potential growth” moving forward. A major concern thus facing the future of the green bond market is the lack of transparency and the accompanied risk of “greenwashing.”

Greenwashing, a major risk facing green bonds, is defined as “the superficial or insincere display of concern for the environment.” Barclays’ report, issued in September 2015, showed evidence of higher investor demand for green bonds when the issuer provided more transparency as to the use of the bond’s proceeds. A United Nations report released in July 2016 expected the green bond market’s rapid growth to continue through year-end 2016 and beyond; as the market grows, so will the need to regulate the market to help increase investor confidence.

15. See Green Bonds Attract Private Sector Climate Finance, supra note 13 (defining “green bond”).
17. See Baily, supra note 2, at 453 (discussing history of green bond market).
18. See Green Bonds – how to unlock their full potential?, supra note 8, at 1 (describing early success of green bonds).
19. See id. (explaining current estimates of total cost to combat climate change over next few decades).
20. Id. (describing green bond market’s growth potential).
22. Id. (defining “greenwashing”).
23. See Preclaw, supra note 9, at 7 (explaining higher demand for bonds with high quality information regarding environmental benefits). The Barclays report noted “the quality of post-issuance impact reporting has become a key differentiator for the buyer base...” Id. (emphasis added).
This Comment will explore the relationship between the continued growth of the green bond market and the increasing need for standardization and regulation to supplement that growth. Part I explains how increased transparency and standardization can help grow the green bond market size by instilling confidence in investors that the bonds’ proceeds are used as advertised. Part II analyzes the history and growth of the green bond market, and identifies the driving forces behind this growth. Part III examines the present state of the green bond market and the different issues the market currently faces. Part IV describes the current legal landscape and the standards applied to green bonds. Finally, Part V investigates the future of climate finance and the importance of standardization and transparency for green bond market growth.

II. BACKGROUND

Global investment in green bonds reached eight hundred million dollars at the beginning of 2008. By the end of 2015, the total market grew to $41.8 billion. There are several key factors instrumental in the rapid expansion of the green bond market, including the involvement of many different national governments, private sector involvement that began in 2013, and the high demand for green bonds relative to their supply.

The growing number of national governments issuing green bonds around the world has driven green bond market growth. The EIB and the World Bank were the first two entities to issue...
these types of bonds.34 The proceeds went toward projects around the world, in countries, such as Peru, Mexico, and Colombia.35 The United States entered the market in 2013, when Massachusetts issued a one hundred million dollar municipal bond.36 Shortly thereafter, in 2014, California and New York issued their own green bonds.37 The participation of these local municipal governments was essential in establishing the credibility of the market in its early stages.38

In early 2015, China, the largest current international player, entered the green bond market and immediately became the leader in market growth.39 At that time, a United Nations report estimated China to have a thirty-three percent share of the entire green bond market.40 India issued its first bonds shortly thereafter.41 As of May 2016, emerging international markets have accounted for nearly half of the total global green bond issuance for the year, which accounts for ten billion dollars of the twenty-one billion dollars in global green bond issuance.42 Optimistic estimates project that the green bond market will grow to three hundred billion dollars by 2018.43 To make this a reality, China must

34. History, supra note 30 (identifying European Investment Bank as first issuer of green bonds).
37. See History, supra note 30 (discussing different local government green bond issuances).
39. See id. at 24 (describing China as “forefront of [ ] recent green bond developments”).
40. See id. (illustrating distribution of global green bond market share).
41. See id. (discussing India’s entry into bond market).
42. See Jennifer Hughes, Gavin Jackson & Thomas Hale, Chinese banks lead “green” bond boom, FINANCIAL TIMES (May 24, 2016, 8:03 AM), http://www.ft.com/intl/cms/s/0/9ee1a5f4-29d2-11e6-a998-db1e0f1ahc0c.html#axzz49oK4vqzg (explaining impact of emerging markets on worldwide green bond market). An emerging market economy is defined as “an economy with low to middle per capita income.” Reem Heakal, What Is An Emerging Market Economy?, INVESTOPEDIA (Dec. 8, 2015, 7:50 PM), http://www.investopedia.com/articles/03/073003.asp (defining emerging market economy).
43. See Jon Hay & Toby Fildes, 2016: the year of divergence, GLOBAL CAPITAL (Jan. 6, 2016), http://www.globalcapital.com/article/vxhj71scj6tm/2016-the-year-
be the driver of that growth. Chief economist of the Research Bureau of People’s Bank of China, Ma Jun, stated in early 2016 that China plans on issuing over forty-six billion dollars in green bonds in 2016 alone, which would be larger than the entire green bond market in 2015. A major driving force behind the green bond market growth has been the uniform global effort to invest in climate financing instruments.

A second major driving force behind the success of the green bond market is the introduction of corporate green bonds, which private entities, such as banks and corporations, issue, as opposed to national banks. Before 2013, multilateral development banks and international financial institutions primarily issued green bonds. The initial success of green bonds led to private sector involvement in 2013. The market nearly tripled in value from 2013 to 2014. The private sector’s new involvement largely drove this change. By 2014, more than forty percent of all labeled green bond issuances were in the private sector.

In 2015, major international banks, including ING and HSBC France, began to participate in this booming market. The market continued its rapid growth in the first part of 2016, and the private

44. See id. (explaining China must be largest contributor if market is to meet projections).
46. See Hay, supra note 43 (outlining international impact on green bond market size).
47. See History, supra note 30 (describing private sector entrance to green bond market as “turning point”).
49. See Green Bonds – how to unlock their full potential?, supra note 8, at 5-6 (discussing effect of private sector on green bond market).
50. See History, supra note 30 (describing corporate green bond issuances as turning point in success of green bond market).
51. See Trends in Private Sector Climate Finance, supra note 38 (attributing green bond market’s rapid development to private sector).
52. See id. (illustrating forty percent of green bond market funded by private sector).
sector has played an integral role in the market’s current success.\textsuperscript{54} Chinese banks and companies have been at the forefront of this growth.\textsuperscript{55} One Chinese bank, Shanghai Pudong Development Bank, issued over five billion dollars in green bonds in two deals this year.\textsuperscript{56} Additionally, a Chinese automobile company recently raised over four hundred million dollars to fund research used to develop an electronic taxi service for the United Kingdom.\textsuperscript{57} Apple Incorporated, the American technology giant, entered the market in early 2016 by issuing a $1.5 billion green bond to fund “clean energy projects across its global business operations.”\textsuperscript{58} Today, more than ever before, companies are finding it important to invest funds into environmentally-friendly projects.\textsuperscript{59}

A third major driving force behind the green bond market growth is the high demand for these types of environmentally-friendly products.\textsuperscript{60} Institutional investors are among the largest purchasers of green bonds.\textsuperscript{61} In July 2014, it was estimated that “[over] [two hundred fifty] institutional investors ha[d] [purcha]sed at least one green bond[,]”\textsuperscript{62} “[These] institutional investo[rs] . . . [often] have mandates for [socially-responsible] . . .
By investing in green bonds, specifically those issued by major entities, such as the World Bank or the International Finance Corporation, these large institutions are able to meet their obligation of investing in socially-responsible projects with AAA-rated investments. Recent history shows that when a bank or other financial institution introduces a new green bond, the result is consumer oversubscription. Oversubscription occurs when the demand for a newly issued financial instrument exceeds the supply of that instrument; in other words, “investors are unable to buy all the bonds they want.” The market should continue its steady and rapid growth until the supply from issuers meets the demand from investors.

III. Present Challenges Facing Green Bonds

When a new market emerges and expands as rapidly as the green bond market, critics will inevitably be skeptical of the market’s success. As with any financial instrument, investment in green bonds involves a certain degree of risk.

63. See Green Bonds Are Changing Investor Expectations & Making Sustainable Investing Easier, supra note 35 (explaining how pension funds and other institutional investors have sustainable and responsible investment requirements).

64. See id. (describing how institutional investors can meet environmental sustainability mandates through high quality investment vehicles). “AAA is the highest possible [credit] rating assigned to a bond[,]” typically by a major credit rating agency such as Moody’s or Standard and Poor’s. AAA Definition, INVESTOPEDIA, http://www.investopedia.com/terms/a/aaa.asp?gln=infinite (last visited Nov. 30, 2016) (defining AAA rating). A bond rated AAA presents “the smallest risk of default,” and typically have “lower yields” as a result. See id.


68. See Green Bonds – how to unlock their full potential?, supra note 8 (explaining lack of adequate supply for green bonds).

69. See Sophia Grene, The dark side of green bonds, Fin. Times (Jun. 13, 2015), https://www.ft.com/content/16bd9a48-0f76-11e5-b968-00144feabdc0 (outlining concerns surrounding green bonds).

70. See Ludvigsen, supra note 21 (listing different risks presented by green bonds).
inquiry challenging green bonds is simple: What does “green” really mean?71 Though this seems like a simple question, “[t]here is [currently] no regulatory or universally accepted definition” for what constitutes a green bond.72 Some believe that the wide variety of definitions and standards that currently apply to green bonds inhibits the market’s growth.73 Presently, a “[l]abeled green bond . . . [simply requires the issuer to] designate[ ] [the bond as] ‘green.’”74 The lack of oversight has resulted in several substantial risks facing the green bond market, the first of which is greenwashing.75

Greenwashing “is defined as the superficial or insincere display of concern for the environment.”76 Investors have varying expectations when investing in green bonds.77 Corporations, for example, have seen the benefits of issuing green bonds, and are now doing so at a rapid rate.78 Without any mandatory regulations or standards put in place, however, there is nothing to prevent a corporation from using its “green bonds” in a way that does not truly benefit the environment, such as using the proceeds for a fracking project, or using the proceeds as if they were from a regular bond.79 Greenwashing existed before the introduction of green bonds, and will continue to be an issue as long as there is an intermix of business and the environment.80 If greenwashing continues to occur in the green bond market, “[it] could undermine the credibility of the market[.]”81 Some critics have even gone so far as to say, “[I]f
there is going to be a lot of ‘green washing’, this market will die.” 82 Without investor confidence that green bond proceeds are being used correctly, the market’s explosive growth may be hindered.83 Moving forward, the identification and prevention of greenwashing is vital in maintaining credibility in the green bond market.84

There is also a “non-performance risk[ ]” associated with green bonds.85 Environmental non-performance occurs “[when] a green bond issuer . . . provides misleading or insufficient information such that a reasonable investor would consider it material to their investment decision” to purchase a green bond.86 If an investor feels that bond issuers misled him or her when making an investment decision, litigation could follow.87 Due to the lack of standardization and regulation, issuers have broad leeway in labeling a product as “green.”88 Currently, with no regulation in place, it is difficult for an investor to ensure that his or her funds are being allocated to projects that are truly green.89 This non-performance risk is further exacerbated because there is no recourse available against an issuer who misappropriates the bond’s proceeds.90


83. See Sean Kidney, Responsible Investor blog: On three major risks to the market’s credibility; how standardization can help ensure that the green bonds market delivers on its potential, CLIMATE BONDS INITIATIVE (Oct. 17, 2014), https://www.climatebonds.net/2014/10/responsible-investor-blog-three-major-risks-market%E2%80%99s-credibility-how-standardization-can (observing how lack of investor confidence can destabilize financial markets).

84. See Ludvigsen, supra note 21 (proposing greenwashing is “[p]erhaps [ ] most recognised risk related to green bond[ ] market”).

85. See id. (introducing environmental non-performance risk).

86. Id. (defining environmental non-performance as it relates to green bonds).

87. See id. (associating litigation outcome to situation involving misinformed investor).

88. See id. (relating lack of regulation to environmental non-performance with green bonds).

89. See Mark Howe, Preventing Greenwash with Green Bonds, SOURCEABLE (Mar. 14, 2016), https://sourceable.net/preventing-greenwash-with-green-bonds/ (advising on risk of greenwashing and other associated risks tied to loosely regulated green bond market).

90. See id. (explaining how lack of legal resources make it difficult to enforce “green” aspect of “green bonds”).
A Barclays study in September 2015 revealed that investors currently pay a premium on green bonds.91 One theory the study presents explains the premium as a reflection of the bond’s external benefits.92 This theory highlights an issue with the premium investors pay on green bonds, namely, the difficulty in accurately “quantifying the financial value of the [ ] environmental benefit” derived from green bonds.93 Due to this problem, it would be difficult for any court to assess damages in the event of environmental non-performance by the green bond issuer.94 Even if an investor could prove the issuer erroneously labeled a bond as green, there is no legal recourse the investor could pursue in the event of misappropriation.95 This lack of accountability harms the green bond market’s credibility and poses a risk to the socially-responsible investor who wants to make an investment using green bonds.96

IV. CURRENT TRANSPARENCY STANDARDS FOR THE GREEN BOND MARKET

The private sector’s involvement in the green bond market caused green bond investors and observers to raise questions regarding the validity of green bonds.97 In response to the increasing concerns regarding the transparency of green bonds, the International Capital Markets Association (ICMA), along with other large investment banks, published the Green Bond Principles (GBP) in 2014.98 Following a worldwide summit that nearly two hundred different institutions and observers involved in the green bond market attended, the ICMA updated the GBP in June 2016.99 “The Green Bond Principles (GBP) are voluntary process guidelines that [promote the] transparency . . . and integrity . . . of the [g]reen [b]ond

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91. See Preclaw, supra note 9 (providing detailed data on existence of premiums paid on green bonds by investors).
92. See id. (detailing several different theories explaining premium placed on green bonds).
93. Ludvigsen, supra note 21 (identifying difficulty in attaching quantifiable financial value to environmental benefit associated to green bond).
94. See id. (discussing difficulty courts face to properly assess damages relating to green bonds).
95. See id. (illustrating risk of environmental non-performance taken by investors when purchasing green bond).
96. See id. (summarizing risks facing green bond market).
97. Green bonds – how to unlock their full potential?, supra note 8 (discussing private sector involvement in green bonds as related to potential regulation).
98. See id. (introducing history of Green Bond Principles).
These guidelines “are intended for [investors to use] broadly [ . . . ] in the market[ , ]” and to help issuers establish credibility.101

The GBP consists of “four [main] components[:][][u]se of [p]roceeds, [p]rocess for [p]roject [e]valuation and [s]election, [m]anagement of [p]roceeds[,] and [r]eporting[.]”102 The “[u]se of [p]roceeds” component is described as “the cornerstone of a [g]reen [b]ond.”103 There are several “Green Project” categories that the GBP designates, with each project category providing clear, environmentally-sustainable benefits.104 These broad categories include projects in “renewable energy[,] . . . sustainable [waste] management[,] . . . clean transportation[,] [and] climate change adaptation[,]”105 The purpose of the “use of proceeds” component is to require an issuer to state, at the time of the bond’s issuance, exactly how the bond proceeds will be used.106 Outlining the use of proceeds helps attach a quantifiable value to the environmentally-beneficial projects the bond funds, and promotes transparency and accountability on behalf of the issuer.107

The second GBP component is “[p]rocess for [p]roject [e]valuation and [s]election.”108 This component requires “[an] issuer . . . [to] outline[ ] [the decision-making] process [the issuer follows when] [ ] determining [ ] [the eligibility of] the projects” using the green bond’s proceeds.109 Under this prong, an issuer should detail the process used in deciding how the projects will qualify as “Green Projects.”110 At this stage, “[t]he issuer . . . should [also] outline[ ] . . . the [project’s] environmental sustainability.

101. *Id.* (describing purpose of Green Bond Principles and intended effect on increasing funds for environmentally sustainable projects).
102. *Id.* (listing Green Bond Principles four main components).
103. *Id.* (describing first component, use of proceeds, as cornerstone of green bond).
104. *See id.* (describing GBP’s recognition of “several broad categories of eligibility for Green Projects aiming to address key areas of concern[,] such as climate change, . . . [renewable energy], [and] loss of biodiversity[ ]”).
106. *See id.* (describing purpose of first GBP component).
107. *See id.* (explaining how “use of proceeds” component encourages issuers to quantify projects).
108. *Id.* (introducing second GBP component).
109. *Id.* (describing second GBP component and what issuer should outline).
110. *Green Bond Principles, 2016*, supra note 100 (describing requirements for meeting second GBP component).
This component highlights the GBP’s encouragement of “high[-]level transparency” within the green bond market by allowing for “external review” of “[the] issuer’s process for project evaluation and selection.”

The third GBP component is “management of proceeds.” This step requires an issuer to “credit [any net proceeds] to a sub-account.” According to the GBP, issuers should use this sub-account periodically to track how the green bond proceeds are used, and to ensure compliance with predetermined environmental sustainability objectives. Information related to this sub-account should be made available to investors in order to ensure high-level transparency. “The GBP encourages . . . the use of an auditor, or [similar] third party, to verify the internal tracking method and the allocation of funds [that result] from the [green bond proceeds].”

The fourth and final component of the GBP is the “reporting requirement.” This additional requirement mandates that the issuer make an annual report “available [with] updated . . . information [regarding] the use of proceeds.” The annual report should include both “qualitative performance indicators and, where feasible, quantitative performance [indicators] measuring” the environmental sustainability impact of the various “Green Projects.” In the event that this requirement conflicts with an organization’s duty to keep information confidential, the bond issuer can issue a report with more “generic terms” yet still provide enough information to satisfy a bond purchaser’s need for transparency.

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111. *Id.* (listing different aspects of second GBP component).
112. *Green Bond Principles, 2016*, supra note 100 (supporting desire for “high[-]level transparency” in green bond market, and second component supports notion).
113. *Id.* (introducing third GBP component).
114. *Id.* (detailing requirements of third component regarding net proceeds).
115. *See id.* (describing process of managing net proceeds of Green Bonds in sub-accounts or sub-portfolios).
116. *See id.* (describing need to share information with investors in order to preserve “high[-]level transparency”).
117. *Green Bond Principles, 2016*, supra note 100 (encouraging use of third party auditor to promote transparency).
118. *Id.* (introducing fourth GBP component).
119. *Id.* (describing requirements of reporting component).
120. *Id.* (outlining different things issuers should include in environmental sustainability reports).
121. *See id.* (addressing potential conflicts stemming from confidential information and reporting).
The GBP further recommends issuers use external review to demonstrate the green bond’s compliance with the GBP.122 These assurances materialize in a variety of ways, “including [] [(1) consultant review[,] . . . [(2) verification[,] . . . [(3) certification[,] . . . [and] [(4) rating[.]]”123 A consultant review requires a green bond issuer to seek the advice and consultation of an organization that has expertise in environmental sustainability projects.124 Verification involves auditors, or another independent third party, reviewing the green bond to evaluate its “alignment with internal standards or claims made by the issuer.”125 Certification and rating allow a qualified third party to “certify” or “rate” an issuer’s green bond.126 The GBP recommends that issuers whose bonds are reviewed externally should disclose these reviews publicly to promote transparency between issuers and investors.127

In addition to these four GBP components, there are four specific types of green bonds.128 The first type is a “Green Use of Proceeds Bond,” which is defined as “a standard recourse-to-the-issuer debt obligation.”129 This type of bond must have its proceeds moved to a sub-account or a sub-portfolio.130 “[The] sub-portfolio [must be] tracked by the issuer and attested to by a formal internal process that will be linked to . . . eligible Green Projects” that use the bond proceeds.131 The issuer is also encouraged to inform investors of the intended use of any proceeds that are not allocated to green projects.132 These bonds are earmarked for specific projects at the time of issuance.133

The second green bond type, according to the GBP, is a “Green Use of Proceeds Revenue Bond.”134 This bond type is simi-
lar to the “Green Use of Proceeds Bond.” The primary difference is that this second bond type is a “non-recourse-to-the-issuer debt obligation.” This means “the credit exposure in the bond is to the pledged cash flows of the revenue streams, fees, [and] taxes.” The proceeds of the bonds go directly toward “related or unrelated Green Projects.” These bonds are also earmarked for green projects at the time of issuance.

The third green bond type is a “Green Use of Proceeds Project Bond.” This bond’s proceeds are applied directly to either a single project or several different projects. According to the GBP, the major difference between this bond type and the other three bonds types is that “the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer.”

The fourth and final type of bond pursuant to GBP is a “Green Use of Proceeds Securitized Bond.” This bond type is “collateralized by one or more specific Green Projects.” Collateralization typically takes the form of a covered bond, an asset-backed security, or a mortgage-backed security. The repayment source of the bond is generally the cash flows from the asset. The GBP also

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135. See id. (defining “Green Use of Proceeds Revenue Bond”).
136. See id. (continuing definition of “Green Use of Proceeds Revenue Bond”).
137. Id. (describing “Green Use of Proceeds Revenue Bond”).
138. Id. (explaining where proceeds of “Green Use of Proceeds Revenue Bond” are distributed).
139. See Explaining green bonds, supra note 133 (detailing use of proceeds for green revenue bonds).
140. Green Bond Principles, 2016, supra note 100, at 7 (introducing third green bond type under GBP).
141. Id. (defining “Green Use of Proceeds Project Bond”).
142. Id. (describing difference between “Green Use of Proceeds Project Bond” and other green bond types).
143. Id. (introducing fourth green bond type under GBP).
144. Id. (defining “Green Securitized Bond”).
145. See Green Bond Principles, 2016, supra note 100, at 7 (defining “Green Use of Proceeds Securitized Bond”). A covered bond is a “security created from the public sector loans or mortgage loans where the security is backed by a separate group of loans. Covered Bond, INVESTOPEDIA, http://www.investopedia.com/terms/c/coveredbond.asp (last visited July 31, 2016) (defining covered bond). Asset-backed securities and mortgage-backed securities are similar financial instruments, with the former backed by assets such as loans or credit card debt, and the latter backed by a mortgage or collection of mortgages. See Asset-Backed Security – ABS, INVESTOPEDIA, http://www.investopedia.com/terms/a/asset-backedsecurity.asp (last visited July 31, 2016) (defining asset-backed security).
146. Green Bond Principles, 2016, supra note 100, at 7 (defining “Green Use of Proceeds Securitized Bond”).
notes that additional bond types may emerge as the market develops.147

The GBP are not the only set of voluntary standards aimed at green bond transparency and regulation.148 The primary alternative to the GBP is the Climate Bonds Standard and Certification Scheme (CBSCS).149 The Climate Bonds Initiative, an “investor-focused not-for-profit organization,” promoting the growth of the green bond market, established the CBSCS as a framework for the green bond market.150 The Climate Bonds Initiative produced this certification scheme because the organization considers “[c]onfidence in the climate objectives and the use of funds intended to address climate change” as fundamental to the credibility of a green bond.151 The organization emphasizes that “[t]rust in the green label and transparency to the underlying assets are essential” factors in order to have the green bond market reach its maximum potential.152 CBSCS targets corporate issuers specifically, but is also available to any issuer for use.153

CBSCS is similar to GBP in that it embodies the similar fundamental principles of environmental sustainability.154 CBSCS, however, has a narrower scope than that of the GBP.155 The GBP can be applied to any green bond and maintains broader requirements, whereas CBSCS is directed only at green bonds with a focus on low-carbon and other climate-focused projects.156 The requirements of CBSCS and GBP are similar, but the CBSCS requires an additional “[c]ertification by an independent Climate Bonds Standards Board.”157

147. Id. (noting additional types of green bonds may be added to GBP).
148. See Minas, supra note 82 (discussing competing green bond regulation standards).
149. See id. (introducing and explaining Climate Bonds Standards).
151. See id. at 3 (stating purpose behind climate bonds standards and certification scheme).
152. Id. (describing reasons for creating climate bonds standards and certification scheme).
153. See id. (describing target group for Certification Scheme).
155. See id. (providing descriptions of both Certification Scheme and Green Bond Principles).
156. See Climate Bonds Standard, supra note 150, at 9-10 (comparing Certification Scheme with Green Bond Principles).
157. Id. at 3 (describing step by step requirements for Certification Scheme).
The Climate Bonds Standards Board (Board) consists of three sub-groups: the Climate Science Reference Group, the Technical Working Group, and the Industry Working Group. The Climate Science Reference Group advises issuers and the Board on the scope of low-carbon economy and eligible types of projects. The Climate Science Reference Group also recommends the next sub-group, the Technical Working Group. The Technical Working Group develops eligibility criteria for different investment areas, such as low-carbon transport, low-carbon buildings, water, and agriculture projects. The third sub-group is the Industry Working Group. This group reviews the practicality of proposed eligibility criteria, as well as various aspects of the operation of the certification. The Board oversees the implementation of work performed in the development of standards and supervises these three working sub-groups.

CBSCS also outlines several different sector-specific standards. The current version of CBSCS covers projects pertaining to wind energy, solar energy, geothermal energy, low carbon buildings, and bus rapid transit systems. CBSCS also details more sector-specific standards, including low-carbon transport, bioenergy, and water. Each of these sector-specific standards lists different technical and scientific criteria that issuers must meet in order to get their climate bonds certified.

V. LOOKING TOWARD THE FUTURE OF GREEN BOND REGULATION

While the GBP and the CBSCS are the most definitive guidelines seeking to define “green,” both systems are flawed. The pri-
mary issue with both sets of guidelines is that cooperation with either is voluntary.\textsuperscript{170} No organization enforces these guidelines, and there are no legal repercussions against a deviating issuer.\textsuperscript{171} It is difficult to negotiate a universal agreement on principles that should govern green bonds.\textsuperscript{172} The current trend demonstrates that market observers believe that the green bond market is not yet ready for product standardization.\textsuperscript{173} These observers believe it is time for a standard approach to green bond transparency.\textsuperscript{174}

It is important for issuers and regulators to find a balance when ensuring transparency.\textsuperscript{175} If the standards regulating the green bond market are too stringent, it could prove to be too costly to issuers and thus result in slow market growth.\textsuperscript{176} Still, it is imperative to ensure transparency to allow the market to expand its investor-base through increased confidence.\textsuperscript{177} If even one private green bond issuer deliberately misleads investors, the entire market could lose credibility.\textsuperscript{178} The GBP and the CBSCS will continue to evolve with time.\textsuperscript{179} Investors currently face a challenge when attempting to assess the “green credentials” of a green bond.\textsuperscript{180}

With more standardization and regulation, the green bond market can further grow and become more liquid, thus becoming a more widely recognized and credible financial instrument.\textsuperscript{181} Soon, the green bond market will outgrow self-regulation.\textsuperscript{182} It is unlikely the world will have achieved the climate change goal of Greens-Bonds-The-Growing-Market-for-Environment-Focused-Investment.aspx (outlining and discussing issues stemming from GBP).

\begin{itemize}
  \item \textsuperscript{170} See \textit{id.} (stressing voluntary framework as biggest flaw for GBP).
  \item \textsuperscript{171} See \textit{id.} (acknowledging lack of enforcement for GBP).
  \item \textsuperscript{172} See \textit{id.} (explaining difficulties in unifying green bond issuers under one set of principles).
  \item \textsuperscript{173} See \textit{Green bonds – how to unlock their full potential?}, supra note 8, at 2 (discussing current state of green bond regulation and standardization).
  \item \textsuperscript{174} See \textit{id.} (suggesting market observers believe it is time to standardize approaches to green bond transparency).
  \item \textsuperscript{175} See \textit{Transparency the key for burgeoning Green bond market}, \textit{REUTERS} (Mar. 30, 2015), http://www.reuters.com/article/green-bonds-idUSL6N0WW16120150330 (discussing line between too much and too little regulation).
  \item \textsuperscript{176} See \textit{id.} (advising against stringent standards).
  \item \textsuperscript{177} See \textit{id.} (emphasizing importance of transparency in green bond market).
  \item \textsuperscript{178} See \textit{id.} (providing example of event that would severely harm green bond market).
  \item \textsuperscript{179} See \textit{Green bonds – how to unlock their full potential?}, supra note 8, at 2 (discussing evolving state of GBP).
  \item \textsuperscript{180} See \textit{id.} at 1 (demonstrating difficulty of investors to properly assess green credentials of green bonds).
  \item \textsuperscript{181} See \textit{id.} (illustrating how standardization may allow green bonds to become more “mainstream”).
  \item \textsuperscript{182} See \textit{id.} (discussing looming future for green bonds).
\end{itemize}
decreasing the annual global temperature increase to two degrees Celsius above pre-industrial levels by that time. In order to help accelerate increases in the finance of environmental sustainability through green bonds and push for the green bond market’s long-term success, transparency and standardization are essential.

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183. See id. (discussing importance of reaching two-degree goal through regulation).
184. See Green bonds – how to unlock their full potential?, supra note 8, at 6 (linking transparency and standardization to green bond market growth).

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