SUSTAINABILITY VERIFICATION

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From the earliest stages of the sustainable finance market and of green, social, and sustainable debt as an asset class, sustainability verifiers have been essential to the market's function. Sustainability verifiers—professional service providers who provide an external review of an issuer's alignment with established green bond frameworks—play a crucial role in reducing information asymmetries between sustainable finance instrument issuers and investors and serve as reputational intermediaries that assure buyers of the seller's green, social, and sustainability-centered commitments. Yet, despite their essential function in facilitating the investment of trillions of dollars in green, social, and sustainable finance investments, the role and regulation of verifiers remains relatively ignored and undertheorized. This Article responds to that need by underlining the importance of the role played by the sustainability verification industry. And, importantly, the Article highlights key weaknesses at the core of the verification model—as with other informational intermediaries, such as credit ratings agencies and proxy advisors, conflicts of interest and low-quality verification risk jeopardizing the health and effectiveness of the sustainable finance market. But, as with credit ratings agencies and proxy advisors, strict regulation may prove to be an inapt solution, as it tends to erect barriers to the market, privilege incumbents, and ultimately reduce competition and the quality of information provided by the intermediaries. Instead, this Article argues that regulators could best protect investors against the risk of greenwashing through the imposition of securities liability for verifiers. The risk of liability will, in turn, help drive a sustainability verification market based on the development of reputational capital, while also protecting the market for

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sustainability verification services from some of the flaws that have undermined the effectiveness of regulations governing other informational intermediaries.

TABLE OF CONTENTS

Introduction 1019
- I. Green Bonds and Their Verification 1022
  - A. The Green Bond Principles and Green Bond Frameworks 1022
  - B. Minding the Commitment Gap 1026
    - 1. Contractual mechanisms 1027
    - 2. Antifraud rules 1032
    - 3. Regulatory incentives 1034
  - C. Verifier Services and Functions 1036
    - 1. Second party opinions 1037
    - 2. Verification. 1038
    - 3. Certification. 1039
    - 4. Green, social and sustainability bond scoring/rating 1040
  - D. Measuring the Impact of Verification in Bond Pricing 1043
- II. Green Bond Verification: A Case Study 1048
  - A. NADB Green Bond Framework 1049
  - B. Verification of the NADB Green Bond Framework 1052
  - C. Credit Rating 1054
- III. The Present and Future Risks of Green Bond Verification 1055
  - A. Conflicts of Interest 1056
  - B. Lack of Competition in the Verifier Market 1057
  - C. Poor Quality Ratings 1059
  - D. Limitations on the Assurances Provided by Verification 1062
  - E. Potential Flaws in the Definition of "Green" and "Climate" Bonds 1064
- IV. Developing a Sound Regulatory Structure for Sustainability Ratings Agencies 1065
  - A. Lessons from the Regulation of Credit Ratings Agencies 1065
  - B. The Virtues and Vices of Regulation 1073
  - C. The Development of Reputational Capital in the Verification Market 1076

1. Issuers 1076
2. Underwriters.. 1077
3. Verifiers 1079
4. Verification certifiers 1080
V. The Imposition of Securities Liability for Verifiers (and Issuers) 1081
Conclusion 1085

INTRODUCTION

In 2007, the Intergovernmental Panel for Climate Change published the seminal *Climate Change 2007: Synthesis Report*, which warned of unequivocal warming of the global average air and ocean temperatures, rising sea levels, and serious and permanent negative impacts on the natural and human systems.[1] Alarmed and motivated by the report, a group of Swedish pension funds discussed "how they could use the savings they were stewarding toward a solution."[2] The funds approached Skandinaviska Enskilda Banken AB (SEB), a Swedish banking group, to engage on green investment possibilities. SEB then contacted the World Bank, which "had environment projects to finance, a track record as a high-quality bond issuer, and the ability to report on the impact of its projects."[3]

A core problem arose, however: how would the pension funds verify that labelled "green" investments were indeed green, rather than mere greenwashing?[4] To solve this problem, the parties contacted the

1. INTERGOVERNMENTAL PANEL ON CLIMATE CHANGE, CLIMATE CHANGE 2007: SYNTHESIS REPORT 2–3 (Core Writing Team, Rajendra K. Pachauri & Andy Reisinger eds.) (2008), https://www.ipcc.ch/site/assets/uploads/2018/02/ar4_syr_full_report.pdf [https://perma.cc/E9DQ-AN5A].

2. *10 Years of Green Bonds: Creating the Blueprint for Sustainability Across Capital Markets*, WORLD BANK (Mar. 18, 2019), https://www.worldbank.org/en/news/immersive-story/2019/03/18/10-years-of-green-bonds-creating-the-blueprint-for-sustainability-across-capital-markets [https://perma.cc/3QMK-KKCE] [hereinafter *10 Years of Green Bonds*]. Prior to seeking climate-and green-linked investments, the funds had traditionally tried to green their portfolios by excluding companies in polluting industries. *See* World Bank Treasury, *The World's First Green Bond*, YOUTUBE (Nov. 27, 2018), https://www.youtube.com/watch?v=i3gIJrABLSc [https://perma.cc/E4P3-GZP3].

3. *10 Years of Green Bonds*, *supra* note 2.

4. Greenwashing has been defined as "the practice of falsely promoting an organization's environmental efforts or spending more resources to promote the organization as green than are spent to actually engage in environmentally sound

Centre for International Climate and Environmental Research (CICERO), an interdisciplinary climate research center based in Oslo, to supply "a credible view on whether a project was going to make a positive impact on the environment."[5] Thus, similar to the way a credit rating agency (CRA) supplies information on the credit risk associated with a particular investment, CICERO was willing to stand in as an informational and reputational intermediary that could determine the "greenness" of the World Bank's allocation of investment proceeds.[6]

From the beginnings of the sustainable finance market and of green, social, and sustainable debt as an asset class, sustainability verifiers have been essential to the market's function. Sustainability verifiers are crucial in reducing information asymmetries between sustainable finance instrument issuers and investors and serve as vital reputational intermediaries that assure securities buyers of the seller's green, social, and sustainability-centered commitments. Yet, despite their essential role in facilitating the investment of trillions of dollars in green, social, and sustainable finance investments,[7] the role and regulation of verifiers remains relatively ignored and undertheorized. This Article responds to that need by underlining the important role the sustainability verification industry plays in the sustainable finance market. And, importantly, the Article highlights key weaknesses at the core of the verification model; as with other informational intermediaries, such as CRAs and proxy advisors, conflicts of interest and low-quality verification risk jeopardize the health and effectiveness of the sustainable finance market. But, as with these other intermediaries, strict regulation may prove to be an inapt solution, as

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practices. Thus, greenwashing is the dissemination of false or deceptive information regarding an organization's environmental strategies, goals, motivations, and actions." ENCYCLOPEDIA OF CORPORATE SOCIAL RESPONSIBILITY 1318 (Samuel O. Idowu, Nicholas Capaldi, Liangrong Zu & Ananda Das Gupta eds., Springer 2013).

5. *10 Years of Green Bonds*, *supra* note 2. As part of the process, CICERO, the World Bank Treasury, SEB, and the investors needed to build bridges across disciplines. The World Bank reports that following the contact with CICERO, there were "many more conversations among the pension funds, SEB, CICERO, and the World Bank Treasury. The conversations were often difficult—especially since more often than not, the different organizations spoke different languages, and it was challenging to bridge the gap between finance, development and science." *Id.*

6. *Id.*

7. BloombergNEF estimates the size of the sustainable debt market as of the end of 2021 to be approximately $4 trillion. *Sustainable Debt Issuance Breezed Past $1.6 Trillion in 2021*, BLOOMBERGNEF (Jan. 12, 2022), https://about.bnef.com/blog/sustainable-debt-issuance-breezed-past-1-6-trillion-in-2021 [https://perma.cc/TF26-QJT8].

it tends to erect barriers to the market, privilege incumbents, and ultimately reduce competition and the quality of information provided by the intermediaries. Instead, this Article argues that regulators could best protect investors against the risk of greenwashing by allowing investors to pursue claims against verifiers who produce false or misleading statements about the issuer's green bond framework and the "greenness" of a given securities issuance. The disciplining effect of the risk of liability will, in turn, help drive a sustainability verification market based on the development of reputational capital, while also protecting the market for sustainability verification services from some of the flaws that have undermined the effectiveness of regulations governing other informational intermediaries.

This Article proceeds in four parts. First, Part I details the development of the green bond framework and the need for a gap-filling information intermediary in green bond issuance. The Part then describes the various functions and services provided by sustainability verifiers, including second party opinions (SPOs), verification, certification, and ratings. Part II provides a case study on how verification operates in practice, focusing on a quasi-sovereign debt issuance by the North American Development Bank (NADB) to support sustainable investment along the Mexico-U.S. border. Part III then turns to the risks inherent to the sustainability verification model, including lack of competition as the market develops, the risk of conflicts of interest and poor-quality ratings, and potential flaws in the working definitions of "green" and "climate" bonds. Part IV considers regulatory reforms to mitigate these risks and provides historical context on earlier (and unfortunately shambolic) efforts to regulate CRAs, the closest analog to sustainability verifiers.[8] The Article then concludes.

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8. There are also similarities between proxy advisors and sustainability verifiers, in that both provide essential information-intermediary functions. However, proxy advisors were largely the result of a regulatory intervention, while sustainability verifiers arose as a private solution to a market dilemma. On the development of the proxy advisory industry, see PAUL ROSE & CHRISTOPHER J. WALKER, CTR. FOR CAP. MKTS. COMPETITIVENESS, EXAMINING THE SEC'S PROXY ADVISOR RULE 6–8 (2020), https://www.centerforcapitalmarkets.com/wp-content/uploads/2020/10/CCMC_RoseWalker_v5.pdf [https://perma.cc/2ZTY-3G98].

I. GREEN BONDS AND THEIR VERIFICATION

Without standards to protect against greenwashing, green bonds and other sustainable finance products[9] risk becoming a marketing concept masquerading as a financial instrument. Whether they ultimately succeed will depend on the ability of issuers, self-regulatory organizations, standard-setting organizations, verifiers, and regulators to guard against greenwashing.

The definition of a green bond has itself proven to be slippery, much as the term "green" in the context of consumer products may be "less than accurate."[10] This Part describes the development of green bond standards and of sustainability verifiers' roles in providing assurances related to green bonds and other sustainable finance instruments.

A. *The Green Bond Principles and Green Bond Frameworks*

With a SEK 2.325 billion green bond sale in response to SEB's 2007 inquiry, the World Bank bond issuance provided a blueprint for green

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9. Although this paper focuses on green bonds (as so defined by the International Capital Market Association), there is an ever-expanding range of environmental and social-linked financial instruments, including green bonds and green loans (focused on a range of environmental goals), social bonds and social loans (focused on social goals and/or target populations), blue bonds (relating to water ecology or ecosystem issues), sustainability bonds or loans (fitting within a broader category of environmental and/or social issues), SDG bonds and loans (relating to specific efforts designed to meet the U.N.'s sustainable development goals), transition bonds or loans (designed to help firms, industries, municipalities, regions, or countries transition to low-carbon business models), and sustainability- or SDG-linked bonds or loans (linked to specific key performance indicators). *See, e.g.*, NAVINDU KATUGAMPOLA & BARBARA CALVI, MORGAN STANLEY INV. MGMT., 2021 MARKET OUTLOOK: A SUSTAINABLE FUTURE? 5 SUSTAINABLE INVESTING THEMES THAT WILL DEFINE 2021 2 & n.1, 4 (2021), https://www.morganstanley.com/im/publication/insights/articles/article_5sustainableinvestingthemesthatwilldefine2021_us.pdf [https://perma.cc/EG5P-USVF].

10. David S. Cohen, *The Regulation of Green Advertising: The State, the Market and the Environmental Good*, 25 U.B.C. L. REV. 225, 241 (1991). Cohen is pessimistic that markets in "green information" will never be perfect because

> First, we will never eliminate the self-interest of suppliers who are making these claims. Second, purchasers, except in the context of the most substantial purchase decisions, cannot make the required investments in research and analysis to assess the information and thus monitor and correct supplier misinformation. Third, the scientific and technical environmental data on which the claims are made are rapidly evolving, increasing the likelihood of even well-intentioned suppliers' making substantial errors in environmental impact assessment and biasing the information they disseminate in turn to purchasers.

Id. at 245.

bonds and the creation of a green bond market.[11] That blueprint was later refined through the creation of the Green Bond Principles (GBP), a set of best practices by the International Capital Market Association's (ICMA) Executive Committee of the GBP, a "collaborative industry group combining issuers, underwriters, and investors."[12] Under the GBP, green bonds are defined as "any type of bond instrument where the proceeds or an equivalent amount will be exclusively applied to finance or re-finance, in part or in full, new and/or existing eligible Green Projects . . . and which are aligned with the four core components of the GBP."[13] Issuers have created a variety of instruments that may be characterized as green bonds, including standard green use-of-proceeds bonds, green revenue bonds, green securitized bonds, and green project bonds.[14] To be considered green bonds, these instruments must fund "Green Projects" including "assets, investments and other related and supporting expenditures such as R&D that may relate to more than one category and/or environmental objective."[15]

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11. *World Bank and SEB Partner with Scandinavian Institutional Investors to Finance "Green" Projects*, WORLD BANK, https://www.worldbank.org/en/news/press-release/2008/11/06/world-bank-and-seb-partner-with-scandinavian-institutional-investors-to-finance-green-projects [https://perma.cc/ZCX7-69GU].

12. *Green Bonds*, INT'L FIN. CORP., https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/insights/perspectives-i1c2 [https://perma.cc/4YSC-Q3B6].

13. ICMA, GREEN BOND PRINCIPLES 3 (2021), https://www.icmagroup.org/assets/documents/Sustainable-finance/2021-updates/Green-Bond-Principles-June-2021-140621.pdf [https://perma.cc/NYG7-Z8EY] [hereinafter GREEN BOND PRINCIPLES].

14. *Id.* at 8. The ICMA defines these in more detail as follows:

> ∞ Standard Green Use of Proceeds Bond: a standard recourse-to-the-issuer debt obligation aligned with the GBP.
>
> ∞ Green Revenue Bond: a non-recourse-to-the-issuer debt obligation aligned with the GBP in which the credit exposure in the bond is to the pledged cash flows of the revenue streams, fees, taxes etc., and whose use of proceeds go to related or unrelated Green Project(s).
>
> ∞ Green Project Bond: a project bond for a single or multiple Green Project(s) for which the investor has direct exposure to the risk of the project(s) with or without potential recourse to the issuer, and that is aligned with the GBP.
>
> ∞ Green Securitised Bond: a bond collateralised by one or more specific Green Project(s), including but not limited to covered bonds, ABS, MBS, and other structures; and aligned with the GBP. The first source of repayment is generally the cash flows of the assets.

Id.

15. *Id.* at 4.

At the core of the GBP are four components guiding the development and ongoing disclosures for green bonds. First, the "cornerstone" of green bond issuance is a designated green "Use of Proceeds,"[16] fitting within ten eligible categories:

- Renewable energy
- Energy efficiency
- Pollution prevention and control
- Environmentally sustainable management of living natural resources and land use
- Terrestrial and aquatic biodiversity conservation
- Clean transportation
- Sustainable water and wastewater management
- Climate change adaptation
- Circular economy adapted products, production technologies, and processes
- Green buildings[17]

The second component is a "[p]rocess for [p]roject [e]valuation and [s]election."[18] The GBP do not outline a set process for issuers, but do state that issuers "should clearly communicate" the "environmental sustainability objectives" of the projects funded by the bond, "[t]he process by which the issuer determines how the projects fit within the eligible [GBP] categories," and the "processes by which the issuer identifies and manages perceived social and environmental risks associated with the relevant project(s)."[19] Aside from these essential disclosures, "[i]ssuers are also encouraged" to explain how the green projects identification and issuance process fits within the issuer's

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16. *Id.* The commitment to a particular use of proceeds is a core feature of securities offerings generally and is typically enshrined in securities offering rules. In the United States, for example, Item 504 of Regulation S-K requires issuers to "[s]tate the principal purposes for which the net proceeds to the registrant from the securities to be offered are intended to be used and the approximate amount intended to be used for each such purpose." 17 C.F.R. § 229.504 (2018).

17. *Id.* at 4–5. The ICMA acknowledges both the limitations of any set categories, as well as the need for a reinforcing structure of official taxonomies that support and legitimize its categorizations. *See id.* at 5 (noting that the "GBP's purpose is not to take a position on which green technologies, standards, claims and declarations are optimal for environmentally sustainable benefits, [but] it is noteworthy that there are several current international and national initiatives to produce taxonomies and nomenclatures, as well as to provide mapping between them to ensure comparability").

18. *Id.* at 4.

19. *Id.* at 5.

"overarching objectives, strategy, policy and/or processes relating to environmental sustainability."[20] Issuers should disclose how their projects align with official or market-based taxonomies, eligibility criteria, or exclusion criteria.[21] Issuers should also have a process to identify mitigants to material social and environmental risks from the project, such as through "clear and relevant trade-off analysis undertaken and monitoring required."[22]

Third, the GBP require set "[m]anagement of [p]roceeds" procedures to ensure that the bond proceeds are used as intended. Among other things, issuers should credit the net proceeds to a sub-account or sub-portfolio and track by the issuer through a "formal internal process linked to the issuer's lending and investment operations for eligible Green Projects."[23] The GBP also encourage the use of an external auditor to verify the allocation of funds and the internal tracking procedures.[24]

Finally, the GBP call for reporting mechanisms to provide disclosure of the use of proceeds at least annually (until full allocation) and as needed in the case of material developments. Specifically, "[t]he annual report should include a list of the projects to which Green Bond proceeds have been allocated, as well as a brief description of the projects, the amounts allocated, and their expected impact."[25] Annual disclosures should also include information on the impact of the funded projects, with qualitative and quantitative performance measures identified and disclosed where possible.[26] In addition to the four core components of the GBP—use of proceeds, process for project evaluation and selection, management of proceeds, and reporting—the GBP also recommend that issuers explain their alignment with the GBP in a "Green Bond Framework" or in their legal disclosures.[27]

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20. *Id.*
21. *Id.*
22. *Id.*
23. *Id.* at 6.
24. *Id.*
25. *Id.*
26. *Id.*
27. *Id.* at 7. Similarly, under the Climate Bonds Standard, each issuer must produce a green bond framework (GBF), which "is an important part of the Certification Process," as it is the "primary reference for the verifier when undertaking the verification process and must be provided to the Climate Bonds Standard Board as one of the certification documents." CLIMATE BONDS INITIATIVE, CLIMATE BONDS

The framework is used as a kind of template for all green bond sales for a particular issuer, operating like a set of default commitments that govern the use of proceeds, disclosure commitments, and verification procedures for green-, climate-, and sustainability-linked product issuers. Yet the framework is not a contract. In actuality, the working document of a bond issuance, the indenture agreement, usually makes clear that the framework does not create an actionable commitment by the issuer. For example, the failure to invest the proceeds as set out in a green bond framework will not create an event of default, triggering an acceleration of the bond payments. This creates a commitment gap that must be remedied through other mechanisms.

To help cover the commitment gap, the GBP encourage issuers to rely on verifiers throughout the issuance process. Prior to the issuance, issuers are recommended to "appoint (an) external review provider(s) to assess through a pre-issuance external review the alignment of their Green Bond or Green Bond programme and/ or Framework with the four core components of the GBP (i.e. Use of Proceeds, Process for Project Evaluation and Selection, Management of Proceeds and Reporting)."[28] Post-issuance, verifiers continue to play a role, as the GBP recommend "that an issuer's management of proceeds be supplemented by the use of an external auditor, or other third party, to verify the internal tracking and the allocation of funds from the Green Bond proceeds to eligible Green Projects."[29] Although not explicitly required, verification has become a core process at the heart of sustainable finance, and issuers who forego verification face skepticism from the market, typically resulting in higher costs of capital.[30]

B. Minding the Commitment Gap

Sustainability verification is a market solution to a problem of information asymmetry: certification, verification, SPOs, and ratings

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STANDARD VERSION 3.0 10 (2019), https://www.climatebonds.net/files/files/climate-bonds-standard-v3-20191210.pdf [https://perma.cc/3P77-9XGS]. Issuers must disclose their framework (or "relevant summaries") to the market, a practice that Climate Bonds Initiative notes is "in line with market best practice and also enables Certified Bonds to be eligible for key market indices, green bond funds and regional standards such as the proposed EU Green Bond Standard." *Id.*

28. GREEN BOND PRINCIPLES, *supra* note 13, at 7.

29. *Id.*

30. *See infra* Section I.D (describing pricing differences between verified and unverified green bonds).

all serve to mitigate informational asymmetries between buyers and sellers of green bonds. Sellers make (limited) assurances that they will use bond proceeds for "green" projects, and verifiers provide more certainty that sellers will use bond proceeds as stated.

What are the consequences if a green bond issuer does not keep its commitment? In practice, there is very little purchasers can do. Investors' relative weakness underscores the importance of the SPO and the role of verifiers generally. To demonstrate this importance, this section reviews the different options purchasers of green bonds have against issuers that fail to be green, ranging from contractual protections to reputational constraints to regulatory mechanisms, such as antifraud rules and capital reserve requirements.

1. Contractual mechanisms

Green bonds evidence an intention to use proceeds to fund various green projects, some of which may be described in detail in offering documents. Issuers may also simply designate a particular investment area—say, for example, clean transportation—without specifying any individual projects. As an example of the latter, the October 2021 UK "Green Gilt" offering describes a GBP €6 billion issuance,[31] the proceeds of which to be spent on clean transportation, agricultural and animal husbandry-related expenditures, and hydrogen expenditures, including projects in the "Net Zero Hydrogen Fund" and the "Net Zero Innovation Portfolio."[32] Several types of projects are explicitly excluded, such as fossil-fuel combustion and ethanol-powered vehicle expenditures, fossil fuel exploitation and exploration, large-scale hydro-electric projects ("due to potential risk to natural habitats"[33]), and investments in weapons, tobacco, gaming, palm oil industries, alcoholic beverages, and nuclear power.[34] Yet the disclosure also includes extensive disclaimers that cast doubt on the boundaries of

31. As an example of the high demand for green bonds, the UK received over GBP 74.1 billion in orders for its October 2021 green gilt offering, only a month after receiving GBP 100 billion in orders for its first green gilt issuance. David Milliken, *UK's Second 'Green' Gilt Draws Over $100 Billion in Demand*, REUTERS (Oct. 21, 2021, 4:13 AM), https://www.reuters.com/article/britain-bonds/update-3-uks-second-green-gilt-draws-over-100-billion-in-demand-idUSL8N2RH2IH [https://perma.cc/JY6V-JVGX].

32. HM TREASURY & UK DEBT MGMT. OFF., GREEN GILTS INVESTOR PRESENTATION 3.3 (2021), https://assets.publishing.service.gov.uk/government/uploads/system/uploads/attachment_data/file/1033194/Green_Gilt_Investor_Presentation.pdf [https://perma.cc/FCD5-RNLH].

33. *Id.*

34. *Id.*

"green" investments, and clearly allows the government contractual space to deviate from a green path:

> There is currently no clear definition (legal, regulatory or otherwise) of, nor clear market consensus as to what constitutes, a "green" or "sustainable" or equivalently labelled project or as to what precise attributes are required for a particular project to be defined as "green" or "sustainable" or such other equivalent label, nor can any assurance be given that a clear definition or consensus will develop over time nor, if a definition or consensus develops, that it will not change over time. Accordingly, no assurance is given that the Eligible Green Expenditures (as defined in the United Kingdom Green Financing Framework (as updated from time to time, the "Framework") will satisfy any present or future investment criteria or guidelines with which an investor is required, or intends, to comply, in particular with regard to any direct or indirect environmental or sustainability impact of any project or uses, nor that it will meet investor expectations or requirements regarding such "green", "sustainable", "social" or similarly labelled performance objectives . . . Furthermore, no assurance is given that any projects or uses the subject of, or related to, Eligible Green Expenditures will be completed as expected, that the stated aims and/or impacts of any projects or uses the subject of, or related to, any Eligible Green Expenditures will be met or made, nor that adverse environmental, social and/or other impacts will not occur during the implementation of any projects or uses the subject of, or related to, any Eligible Green Expenditures.[35]

There is thus no contractual guarantee that the UK will use the proceeds for green purposes, and it appears that no issuer has added such a contractual provision to its issuance documents. Instead, issuers will explicitly disclaim that a failure to use proceeds in a particular way constitutes an event of default.

The failure to include such provisions is an intentional feature of most issuances, not a bug resulting from careless drafting. If bond issuers desire to demonstrate a stronger commitment to their green efforts, there is no lack of imagination in how bond agreements may be structured to encourage or enforce compliance. In fact, a small category of green instruments—sustainability-linked notes and bonds—do base their payment terms on the issuer's adherence to such

35. *Id.* at Disclaimer 2/3.

commitments.[36] Even for standard green bonds, Sullivan and Cromwell attorneys Krystian Czerniecki and Sam Saunders suggest that issuers could include a use-of-proceeds covenant.[37] A hard-edged covenant that triggers an event of default for a use-of-proceeds failure would likely be unworkable and unacceptable to green bond issuers, but a more accommodating covenant could be drafted "such that the issuer has sufficient flexibility to avoid immaterial defaults."[38] Issuers could also include a put option in the agreements, providing purchasers with the right to resell an amount of notes to the issuer equal to the pro-rata amount of non-green allocation.[39] Note, however, that external verifiers—helping to determine non-compliant use of proceeds—would be essential to the smooth functioning of such a provision.

Some issuers may also feel comfortable with a green reporting covenant. Agreements for high-yield bonds typically include provisions requiring issuers to provide bondholders with periodic financial statements; these could be supplemented with disclosures on the use of proceeds and on the green impacts of the bonds. Although for certified green bonds these disclosures should already be provided, issuers could choose to covenant to provide disclosures beyond what is required for certification as a green bond under the GBP and could further obligate themselves to provide disclosure assurances that go beyond what is normally required of certification. However, as Czerniecki and Saunders note, these provisions would need to be carefully crafted because there are confidentiality and commercial sensitivities that limit what reporting may be feasible and acceptable to green bond issuers.[40]

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36. Michael Doran & James Tanner, *Critical Challenges Facing the Green Bond Market*, INT'L FIN. L. REV., Oct./Nov. 2019 at 22, 25 https://www.bakermckenzie.com/-/media/files/insight/publications/2019/09/iflr--green-bonds-(002).pdf?la=en [https://perma.cc/NME6-DHSQ] (noting that "[g]reen loans more frequently have enforceable green covenants—and a substantial number of green loans reward the borrower with improved margins if the borrower can prove it has met certain objectives linked to green or sustainable principles").

37. Krystian Czerniecki & Sam Saunders, *Green Bonds: An Introduction and Legal Considerations*, 48 SEC. REGUL. & L. REP. 275 (2016), *reproduced in* BLOOMBERG BNA 4 (2016), https://www.sullcrom.com/files/upload/Czerniecki-Saunders-Bloomberg-BNA-Green-Bonds.pdf [https://perma.cc/5K94-LBQP].

38. *Id.*

39. *Id.*

40. *Id.*

One could imagine a variety of other carrots and sticks that would either incentivize or penalize issuers with respect to their green commitments. For example, a bond agreement might provide for better repayment terms for issuers that have consistently met their green obligations. As a carrot, a bond could "step down" in payment amounts by a pre-determined number of basis points for each period in which the issuer complies with its use-of-proceeds and reporting obligations, thereby reducing its cost of capital as it meets its green obligations. As a potential stick, the agreement could contain provisions that penalize the issuer for failure to meet the green commitments. These could range from a relatively minor penalty of a few basis points to a much more significant penalty of, say twenty-five or even fifty basis points.[41] Such penalties would add teeth to the bond agreement, yet may also be acceptable to bond issuers (and, as noted above, analogous instruments already exist in the form of sustainability-linked bonds). More severe sanctions, such as a provision stating that a failure to meet green commitments constitutes an event of default, would "be seen as too draconian and face too much resistance" from issuers.[42]

As mentioned above, another solution that has arisen in recent years is to issue the bonds as sustainability-linked bonds or key performance indicator (KPI) bonds, which pay out based on the achievement of certain targets, such as a reduction in emissions, for example. As opposed to bonds that focus on a particular use of proceeds, these instruments' payouts are linked to the achievement of a green, social, or climate-related goal. But while this provides a built-in incentive that penalizes non-compliance (or incentivizes compliance), it does not eliminate the information asymmetry between the bond seller and buyers, and buyers would likely continue to seek a reputable third party (or reputable mechanism)[43] to help eliminate or reduce the asymmetry.

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41. Professors Mitu Gulati and Mark Weidemaier debate these possibilities in their *Clauses & Controversies* podcast. *See generally* Clauses & Controversies, *(Why) Are ESG Sovereign Bonds (Such) Scams?* (Aug. 2, 2021), soundcloud.com/clauses-controversies/ep-46-ft-mitu-mark [https://perma.cc/SQ6D-CQ8A].

42. Doran & Tanner, *supra* note 36, at 25.

43. Reputation capital may also be provided by others besides verifiers—The Nature Conservancy (TNC) is providing essential reputational support to the Belize Blue Bond, for example. But here TNC is essentially playing a similar role that verifiers play by having its scientists ascertain compliance with the KPIs of the Blue Bond. "As

While the contractual mechanisms and structures described above would provide stronger assurances to investors, there are at least three reasons why issuers may decide not to put in place such contractual commitments. First, contractual commitments, by definition, limit an issuer's flexibility in how it will use its proceeds. This lack of flexibility is a virtue for investors who want to credibly demonstrate their own commitments to sustainable investment, but a vice for issuers that may feel hamstrung by current definitions of green investment; if a new investment opportunity arises that may prove to be a better, "greener" use of proceeds, a strict contractual framework might make such a value-creating shift impossible. More flexible drafting may alleviate this concern, but investors may interpret that flexibility as a lack of commitment to green projects generally.

Second, issuers simply have not needed to supply inducements such as stronger green contractual commitments in order to attract investors. Demand for green issuances far outstrips supply. As an example, the EU's October 2021 sale of €12 billion worth of green bonds maturing in 2037, received more than €135 billion in orders, a demand eclipsed only by the €145 billion demand for the EU's debut social bonds.[44] "The jostle for orders was an 'absolute riot,'"[45] the financial market's equivalent to a Black Friday sale. Given the high levels of demand and the reality that green bonds require additional efforts from the issuer, including due diligence costs in selecting green projects and the costs of verification and ongoing reporting obligations, issuers have little interest in adding to their costs and risks by providing additional assurances to investors.

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part of this transaction, TNC will work closely with Belize to provide technical assistance to lead the design and establishment of the new conservation fund and facilitate the participatory marine spatial planning process to identify and develop Belize's new marine protections." Press Release, Credit Suisse, Credit Suisse Finances the Nature Conservancy's Blue Bond for Marine Conservation for Belize (Nov. 5, 2021), https://www.credit-suisse.com/about-us-news/en/articles/media-releases/credit-suisse-finances-the-nature-conservancys-blue-bond-for-marine-conservation-for-belize-202111.html [https://perma.cc/6DV4-2CGL].

44. Jill Ward, *Record Demand for EU Green Debut Shows Supply Can Hardly Keep Up*, BLOOMBERG (Oct. 12, 2021, 12:14 PM), https://www.bloomberg.com/news/articles/2021-10-12/eu-to-kick-off-green-bond-sales-with-market-s-largest-ever-offer [https://perma.cc/M74C-8NYN].

45. *Id.* Analysts at ING were quoted as saying that "[w]hat makes this deal special is the message it sends about the strength of green bond demand, after a flurry of deals targeting the same investor base . . . . [The deal] confirms that green bond supply is still catching up to demand." *Id.*

Third, stronger contractual commitments (and associated disclosures) would not only expose issuers to potentially more contractual liability but could also expose them to antifraud liability under securities regulations. As with other kinds of disclosures, expressions of green commitment may be in tension with antifraud rules, subjecting issuers to scrutiny and potential litigation with regulators and investors.

Because securities laws are high stakes disciplining mechanisms, they provide a potentially important way to police green commitments, at least in theory. In practice, however, issuers are careful to minimize securities fraud risk, often at the expense of their green commitments.[46] The following Section discusses the legal risks posed by securities laws to issuers of green bonds, including liability under section 10(b) of the Securities Exchange Act of 1934[47] and rule 10b-5 promulgated thereunder. Other sections, such as section 11[48] and section 12,[49] also may be implicated in the sale of green bonds, whereas rule 10b-5 may be implicated in both the sale of securities as well as with periodic impact reporting.

2. *Antifraud rules*

Federal securities laws provide some protections to purchasers of green bonds, but careful crafting of offering documents renders these laws relatively ineffective in policing the issuer's green bond commitments. Section 10(b)[50] and rule 10b-5[51] allow the Securities and Exchange Commission (SEC) and purchasers of securities a right of action against a person who "in connection with the purchase or sale of any security" who makes "any untrue statement of a material fact or omits to state a material fact."[52] Impact reporting in connection with

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46. In Part IV, *infra*, this Article argues for greater use of securities laws in disciplining sustainability verifiers, which, in turn, will incentivize issuers to select verifiers based on reputation.

47. Securities Exchange Act of 1934, Pub. L. No. 73-291, § 10(b), 48 Stat. 881, (codified at 15 U.S.C. § 78j-2).

48. 15 U.S.C. § 77k.

49. *Id.* § 77l.

50. *Id.* § 78j(b).

51. 17 C.F.R. § 240.10b-5 (2018).

52. *Id.* A plaintiff in a 10(b)/10b-5 claim must show that in cases involving publicly-traded securities, there was:

(1) *a material misrepresentation (or omission)* . . .

(2) *scienter, i.e.,* a wrongful state of mind . . .

green bonds could satisfy the "in connection with the purchase or sale of a security" requirement if the information is publicly disseminated, as would typically be the case with most impact reporting, and the information "influences (or is intended to influence) the price of the issuer's already-issued securities."[53] As practitioners have noted, given the "broad scope and the increasing relevance" of impact reporting to investors, "it is prudent to view this type of reporting as subject to the securities fraud laws."[54]

Sections 11 and 12 are also important in the sale of securities such as green bonds. Section 11, for example, imposes strict liability for issuers making false or misleading statements or omissions in a securities registration statement.[55] Liability also extends to a number of other parties engaged in the issuance, including every person who signed the registration statement, every person who was a director of or partner in the issuer at the time of the filing of the registration statement, every accountant, engineer, appraiser, or other named expert (with liability only for any untrue statements in portions of the registration statement prepared by the expert), and for "every underwriter with respect to such security."[56]

The threat of liability under section 11 would seem to have two potential effects on these named parties. First, potential liability may have the effect of increasing the amount of diligence undertaken by those assisting with a green bond offering. This diligence would likely help ensure the accuracy of impact reporting that is disclosed in the

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> (3) *a connection with the purchase or sale of a security* . . .
>
> (4) *reliance*, often referred to in cases involving public securities markets (fraud-on-the-market cases) as 'transaction causation'" . . .
>
> (5) *economic loss* . . . and
>
> (6) *"loss causation,"* i.e., a "causal connection between the material misrepresentation and the loss . . . .

Dura Pharms., Inc. v. Broudo, 544 U.S. 336, 341–42 (2005) (internal citations omitted).

53. AARON E. FRANKLIN, CHRISTOPHER HARRIS, SARA K. ORR & NICHOLAS HAZEN, LATHAM & WATKINS, GREEN BOND IMPACT REPORTING UNDER SECURITIES LAW 3 (2020), https://www.lw.com/admin/upload/SiteAttachments/Latham%20-%20Bloomberg%20Law%20byline%20GreenBondImpactECO-53429.pdf [https://perma.cc/V2WW-VL8M].

54. *Id.*

55. 15 U.S.C. § 77k.

56. *Id.* § 77k(a)(1)–(5).

green bond's registration statement.[57] On the other hand, the threat of liability could have—and indeed, judging by current disclosure practices, already does have—the effect of chilling the expression of green commitments by the issuer. As shown in the UK's green gilt offering described in the preceding Section,[58] issuers are careful to avoid making explicit green covenants, or even including language that would put significant constraints on their activities, lest a complaint later accuses them of providing misleading disclosure should they deviate from their intended use of proceeds or should the definitions of "green" shift over time.[59] In this treatment, green "commitments" differ little from other kinds of heavily caveated forward-looking disclosures provided by issuers. Rather than providing explicit statements of current and prospective compliance, issuers (certainly guided by their attorneys, as well as by the underwriters and their attorneys) instead provide cautionary language that reduces the risk of securities liability.

3. Regulatory incentives

Beyond private and public enforcement mechanisms in contract law and securities laws, regulators have a variety of tools that could be employed to promote green commitments, including tax incentives and capital requirements. To date, these incentives have not been widely implemented. But, even if they were implemented, such policies would not obviate the role and value of verifiers, and in fact would

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57. FRANKLIN et al., *supra* note 53, at 3 (warning that "Positive impact reporting could be used in connection with the sale of a green bond if the issuer affirmatively markets their green bond using positive impact reporting, such as by including those metrics in its offering disclosure (which could trigger section 11 exposure for offerings registered under the Securities Act)").

58. Milliken, *supra* note 31.

59. In such a case, where definitions have shifted and the issuer had no control over or knowledge of a potential shift, the issuer would likely not face liability, but the question is still unresolved, and the doctrine and case law is "muddled." *See* Donald C. Langevoort & G. Mitu Gulati, *The Muddled Duty to Disclose Under Rule 10b-5*, 57 VAND. L. REV. 1639, 1664–71 (2004). The U.S. Supreme Court recently denied a petition for a writ of certiorari to resolve the question as presented in the Ninth Circuit case *Khoja v. Orexigen Therapeutics, Inc.* 899 F.3d 988, 1018 (9th Cir. 2018), *cert. denied sub nom.*, Hagan v. Khoja, 139 S. Ct. 2615 (2019); *see also* Kevin LaCroix, *Supreme Court Denies Cert Petition in Duty to Update Case*, D&O DIARY (May 28, 2019), https://www.dandodiary.com/2019/05/articles/securities-litigation/supreme-court-denies-cert-petition-in-duty-to-update-case [https://perma.cc/E6QH-Z6PD] (describing the different standards among the circuit courts and the general ambiguity of the "existence and requirements" of a duty to update).

likely have a reinforcing effect on the verification industry by creating higher stakes for green commitments.

Regulators have proposed a variety of green-incentivizing policies. For example, tax incentives could include preferential tax treatment for green investment for both issuers and investors. Theoretically, such tax incentives would be defensible based on their promotion of economic activities that have fewer (or perhaps even remediate existing) negative externalities. Economically, a tax discount for green investments would essentially work as a tax increase for otherwise competing brown investments. However, critics of tax incentives have noted that green bonds do not have "any actionable contractual rights ensuring that the proceeds will be applied in the disclosed green fashion," and so taxpayers may "inadvertently end up subsidizing a plain vanilla bond."[60] If tax incentives could be tied to actionable green commitments, issuers may in turn be incentivized to overcome their reluctance to include such commitments in their bond agreements. Alternatively, bond issuers and investors could receive "back-ended" tax benefits when the bond reaches maturity, and its use of proceeds for green projects could be verified.[61] Both solutions, note, rely on independent third-party verification to ascertain compliance with green commitments. Thus, such solutions would serve to cement a quasi-regulatory role for green bond verifiers.

Regulators could also encourage green bonds and sustainable investment generally by providing "investor-friendly" risk weighting advantages to green investment. For example, the EU's High-Level Expert Group on Sustainable Finance suggested that regulators could nudge banks—the "backbone of the [EU's] financial system" and "the largest source of external financing" for the economy"[62]—to support green finance by linking capital requirements to green and brown project designations.[63] Again, however, verifying green status would seem to be key to the function of such a market.

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60. Doran & Tanner, *supra* note 36, at 25.

61. *See id.* (noting that tax incentives "would have the dual effects of bolstering the green bond market and helping to support clear public policy objectives (i.e., practical implementation of the objectives of the Paris Agreement)").

62. EU HIGH-LEVEL EXPERT GRP. ON SUSTAINABLE FIN., FINANCING A SUSTAINABLE EUROPEAN ECONOMY 67 (2018), https://commission.europa.eu/system/files/2018-01/180131-sustainable-finance-final-report_en.pdf [https://perma.cc/4YYF-ZLXG].

63. EU HIGH-LEVEL EXPERT GRP. ON SUSTAINABLE FIN., FINANCING A SUSTAINABLE EUROPEAN ECONOMY: INTERIM REPORT 32 (2017),

C. Verifier Services and Functions

Thus far, this Article has highlighted the lack of any promising substitutes for verification.[64] Verification thus remains a crucial part of

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https://commission.europa.eu/system/files/2017-07/170713-sustainable-finance-report_en.pdf [https://perma.cc/F6UR-UPKS]. The report notes:

> It is sometimes suggested that there should be lower minimum capital requirements for asset classes such as green bonds and green loans.
>
> ∞ The arguments in support of this idea refer to the economic desirability of green projects, the need to integrate positive externalities and the fact that green projects could be seen by construction as less risky than other bonds, ceteris paribus, given that they contribute to more sustainable economic development. But most supporters acknowledge that the risk associated with a green loan/bond is only marginally lower than that of a non-green loan/bond. Nevertheless, they consider that the lowering of capital requirements (which might be larger than the risk differential) would represent an important policy signal to foster the green sector.
>
> ∞ The arguments against such a 'green-supportive factor' refer to the blurring of risk and policy considerations. A politically motivated supportive factor would be ignored by most banks, which would stick to their economic capital calculation, while a few banks could focus on such assets, which are then underpriced for the real risk they carry. Overall, it would weaken the link between risk and capital requirements and potentially reduce trust in the banking system. Moreover, there is as yet no well-identified 'sustainable assets' class to which different capital charges could be applied. Finally, there may be more effective ways to support a green sector than trying to steer capital flows through capital requirements . . . .
>
> ∞ A 'brown-penalising' factor, raising capital requirements towards sectors with strong sustainability risks, would yield a constellation in which risk and policy considerations go in the same direction. Moreover, it would be more focused and easier to rationalise as capturing the risk of sudden value losses due to 'stranded assets.'

Id.

64. Perhaps the most promising solutions will come from technological developments. For example, some information asymmetries may be remedied by smart contracts and blockchain technology that automatically verify compliance with green commitments. *See, e.g.*, Xiaochen Zhang, Matias Aranguiz, Duoqi Xu, Xing Zhang & Xinran Xu, *Utilizing Blockchain for Better Enforcement of Green Finance Law and Regulations*, *in* TRANSFORMING CLIMATE FINANCE AND GREEN INVESTMENT WITH BLOCKCHAINS 298, 300 (Alastair Marke et al. eds., 2018); *see also* WORLD BANK GRP., BLOCKCHAIN AND EMERGING DIGITAL TECHNOLOGIES FOR ENHANCING POST-2020 CLIMATE MARKETS 18 (2018),

the green bond issuance process, and further regulation of green commitments is likely to enhance, rather than diminish, the role of external verifiers. Verifiers perform a variety of functions, all of which depend on their role as information and reputational intermediaries. Under ICMA guidelines,[65] external reviewers provide four basic types of services (and many external reviewers provide more than one of these services):

1. Second party opinions

SPOs are provided by institutions with "environmental/social/sustainability expertise that is independent from the issuer."[66] The SPO provider generally should not also provide the issuer advice with respect to its green, social, sustainability and sustainability-linked bond framework, similar to how the SEC's auditor independence rules prohibit external auditors from auditing their own work.[67] Unlike the SEC's rules, however, ICMA's guidelines allow SPO providers to operate in both roles if they create "appropriate procedures such as information barriers" to ensure the independence of the SPO.[68]

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https://openknowledge.worldbank.org/handle/10986/29499 [https://perma.cc/7LBB-5Z65].

65. INT'L CAP. MKT. ASS'N, GUIDELINES FOR GREEN, SOCIAL, SUSTAINABILITY AND SUSTAINABILITY-LINKED BONDS EXTERNAL REVIEWS (2021), https://www.icmagroup.org/assets/documents/Sustainable-finance/Guidelines-for-GreenSocialSustainability-and-Sustainability-Linked-Bonds-External-Reviews-February-2021-170221.pdf [https://perma.cc/Q6NK-9BVA] [hereinafter ICMA REVIEWER GUIDELINES].

66. *Id.* at 4. SPO providers have additional qualifications requirements, beyond what is required for external reviewers generally. They must: "have expertise in[] the eligible green and social bond categories," "assess[] the environmental and/or social benefits and impact targeted by the eligible green and/or social projects financed by the green, social or sustainability bond," ""confirm/review the alignment with the four "core components of the Principles," and "evaluate where relevant "[t]he potentially material environmental and/or social risks associated with the projects," identified by the issuer." *Id.* at 5.

67. In determining independence, the Commission looks in the first instance to whether a relationship or the provision of a service: creates a mutual or conflicting interest between the accountant and the audit client; places the accountant in the position of auditing his or her own work; results in the accountant acting as management or an employee of the audit client; or places the accountant in a position of being an advocate for the audit client. 17 C.F.R. ¶ 210.2-01, preliminary note (2018).

68. ICMA REVIEWER GUIDELINES, *supra* note 65, at 3. The Guidelines merely encourage issuers to disclose "[a]ny concerns on the institution's independence." *Id.*

The SPO provides an "assessment of the alignment of the issuer's green, social, sustainability or sustainability-linked bond issuance/framework/programme with the relevant Principles."[69] For example, alignment with the GBP would entail an assessment of the use of proceeds, process for project evaluation and selection, management of proceeds, and reporting processes of the issuer. The SPO may also include an assessment of the issuer's "overarching objectives, strategy, policy, and/or processes relating to environmental and/or social sustainability."[70] For green bonds, SPOs should also provide an opinion on the environmental and/or social features of the type of intended green projects, the environmental and/or social benefits and impact targeted by the projects, and the material environmental and/or social risks associated with the projects.[71]

2. Verification.

In cases where an issuer seeks to offer verification against a "designated set of criteria, typically pertaining to environmental/social/sustainability or [key performance indicators] performance and sustainability targets for the [sustainability-linked bonds],"[72] some external reviewers provide verification of the issuer's alignment with these criteria.

"Verification" may also refer to "evaluation of the environmentally or socially sustainable features of underlying assets," and may track the issuer's claims against external criteria.[73] Verifiers also provide assurance or attestation with respect to the issuer's "internal tracking method for use of proceeds, allocation of funds from green, social and sustainability bond proceeds, statement of environmental and/or

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By contrast, the SEC rules prohibit the use of a potentially conflicted auditor, rather than only requiring disclosure of a concern that the auditor may be conflicted: the SEC will not recognize an accountant as independent, with respect to an audit client, if the accountant is not, or a reasonable investor with knowledge of all relevant facts and circumstances would conclude that the accountant is not, capable of exercising objective and impartial judgment on all issues encompassed within the accountant's engagement.

17 C.F.R. ¶ 210.2-01, preliminary note (2018).

69. ICMA REVIEWER GUIDELINES, *supra* note 65, at 5.

70. *Id.*

71. *Id.*

72. *Id.* at 3.

73. *Id.* at 5.

social impact or alignment of reporting with the [GBP]."[74] Contrasted with a pre-issuance SPO, verification is an annual post-issuance review designed to provide independent and external verification of an issuer's performance against a set of sustainability performance targets.

3. Certification.

External reviewers may certify "green, social, sustainability and sustainability-linked bond or associated green, social, sustainability and sustainability-linked bond framework or Use of Proceeds or KPIs and Sustainability Performance targets (SPTs)" against a set of recognized green, social, or sustainability standards or labels.[75] Simply, the process is a certification of compliance with the standard or label requirements by a "qualified, accredited third part[y]."[76] As an example, the Climate Bonds Standard provides for certification of a climate bond pre-issuance, which allows the issuer to use the Climate Bonds Certification Mark in sales and marketing efforts.[77] Then, post-issuance and during the proceeds allocation period, the issuer "must confirm the Certification by obtaining another assurance (the "Post-Issuance") report and providing that to the Climate Bonds Standard Board."[78]

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74. *Id.* Verification is required for some instruments, including sustainability-linked bonds under the Sustainability-Linked Bond Principles (SBLP). Under the SBLP, issuers voluntarily comply with five core components: (1) Selection of Key Performance Indicators (KPIs), (2) Calibration of Sustainability Performance Targets (SPTs), (3) Bond characteristics disclosure, (4) Reporting, and (5) Verification. INT'L CAP. MKT. ASS'N, SUSTAINABILITY-LINKED BOND PRINCIPLES: VOLUNTARY PROCESS GUIDELINES 2 (2020), https://www.icmagroup.org/assets/documents/Regulatory/Green-Bonds/June-2020/Sustainability-Linked-Bond-Principles-June-2020-171120.pdf [https://perma.cc/2E8D-VBSL].

75. ICMA REVIEWER GUIDELINES, *supra* note 65, at 3.

76. *Id.*

77. *Certification Under the Climate Bonds Standard*, CLIMATE BONDS INITIATIVE, https://www.climatebonds.net/certification [https://perma.cc/DK6E-FQYL].

78. *Id.* In the case of climate bonds certification, the process layers over the green bonds verification process as it "incorporates the Green Bond Principles and Green Loan Principles and is aligned with the proposed EU Green Bond Standard and the guidelines and rules in China, ASEAN, Japan, India and other countries and regions." *Id.* In the climate bonds certification process, the issuer first prepares the bond and a green bond framework, then engages an approved verifier top write an assurance report, then gets certified and issues the bond. *The Climate Bonds Certification Scheme: Best Practice in the Market*, CLIMATE BONDS INITIATIVE, 3 (2021), https://www.climatebonds.net/files/files/2021-09-03_Certification-brochure_Version-2021-09%281%29.pdf [https://perma.cc/P8MV-F6RZ]. After certification, the verifier provides a follow-up report and provides annual reporting during the term of the bond. *Id.*

4. Green, social and sustainability bond scoring/rating

Finally, issuers may seek to have their bond, bond framework, or a particular issuance feature, such as the Use of Proceeds, "evaluated or assessed by qualified third parties, such as speciali[z]ed research providers or rating agencies, according to an established scoring/rating methodology."[79] These ratings are intended to be distinct from credit ratings; while credit ratings may include "material environmental/ social/ sustainability risks," external reviewer scoring or ratings focus solely environmental or social performance metrics, processes related to the GBP, or specific green or social benchmarks, such as a two-degree climate change scenario.[80]

Whether providing SPOs, certifications, verification services, or ratings, ICMA's external reviewer guidelines state that external reviewers should ensure that they have an appropriate organizational structure, appropriate procedures and "other relevant systems for carrying out the external review," employ "appropriate staff with the necessary experience and qualifications for the scope of the external review being provided," and, as necessary, "carry the appropriate professional indemnity/professional liability insurance cover."[81]

External reviews should also provide a general description of the objective, scope of work, and the external reviewer's qualifications and credentials, including requisite credentials to evaluate the environmental and sustainability risks and impacts of the GBP and SBP categories, disclosures on independence and/or a conflict of interest policy,[82] the definitions, analytical approach, and/or methodologies used by the reviewer, and any "[c]onclusions or output of the external review report including any limitations on the external review."[83] The GBP recommend that external reviews be made publicly available by

79. ICMA REVIEWER GUIDELINES, *supra* note 65, at 3.

80. *Id.* at 6.

81. *Id.* at 4.

82. With respect to ethical guidelines, the ICMA external review guidelines acknowledge that some providers' activities are covered by professional standards of conduct, such as those applying to credit ratings agencies and accountants. For all reviewers, all firms providing external reviews should be guided by "five fundamental ethical and professional principles" of integrity, objectivity, professional competence and due care, confidentiality, and professional behavior. *Id.* at 3.

83. *Id.* at 4.

the issuer, and that the external review template or SPO be disclosed on the Green, Social, and Sustainability Bonds Database.[84]

In some cases, the green bond evaluations provided by external evaluators go beyond what is required under the GBP. Moody's, for example, provides a rating system that reflects a sliding scale of compliance, as shown in the chart on the following page.

84. Sustainable Bonds Database, INT'L CAP. MKT. ASS'N, https://www.icmagroup.org/sustainable-finance/green-social-and-sustainability-bonds-database [https://perma.cc/M6J9-M9LK].

Table 1. Moody's Green Bond Assessment Scale and Definitions

Grade	Detail	Definitions
GB1	Excellent	Green bond issuer has adopted an excellent approach to manage, administer, allocate proceeds to and report on environmental projects financed with proceeds derived from green bond offerings. Prospects for achieving stated environmental objectives are excellent.
GB2	Very Good	Green bond issuer has adopted a very good approach to manage, administer, allocate proceeds to and report on environmental projects financed with proceeds derived from green bond offerings. Prospects for achieving stated environmental objectives are very good.
GB3	Good	Green bond issuer has adopted a good approach to manage, administer, allocate proceeds to and report on environmental projects financed with proceeds derived from green bond offerings. Prospects for achieving stated environmental objectives are good.
GB4	Fair	Green bond issuer has adopted a fair approach to manage, administer, allocate proceeds to and report on environmental projects financed with proceeds derived from green bond offerings. Prospects for achieving stated environmental objectives are fair.
GB5	Poor	Green bond issuer has adopted a poor approach to manage, administer, allocate proceeds to and report on environmental projects financed with proceeds derived from green bond offerings. Prospects for achieving stated environmental objectives are poor.

The Moody's assessment does not precisely align with the GBP, though the core components of the GBP are covered in the assessment. Instead of merely relying on the four components of green bond assessment under the GBP—use of proceeds, process for project evaluation and selection, management of proceeds, and reporting—Moody's relies on five weighted factors that ultimately cover much of the same ground: (1) organization (15%); (2) use of proceeds (40%); (3) disclosure on the use of proceeds (10%); (4) management of

proceeds (15%); and (5) ongoing reporting and disclosure (20%). Each of these five factors (excepting the use of proceeds factor) is comprised of five subfactors.[85] For instance, the Organization factor considers as subfactors whether: the environmental governance and organization structure appears to be effective; the policies and procedures enable rigorous review and decision making processes; the issuer employs qualified and experienced personnel and/or relies on qualified third parties; the issuer employs explicit and comprehensive criteria for investment selection, including measurable impact results; and external evaluations for decision making are in line with project characteristics.[86]

In addition to ICMA's guidelines, jurisdiction-specific regulations may also dictate a role for external reviewers. The role of reviewers is codified, for example, in the Guidelines for the Conduct Assessment and Certification of Green Bonds (Interim) of the People's Bank of China and the China Securities Regulatory Commission, the EU Green Bond Standards, and the ASEAN Green Bond Standards.[87]

D. Measuring the Impact of Verification in Bond Pricing

Although the green bond market has existed only for a little over a decade, there is an active and growing literature on the pricing of

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85. Moody's explains the scoring as follows:

> Each of the five factors is scored on a scale from 1 to 5. For factors 1, 3, 4, and 5, scoring is based on the number of sub-factors for which the stated criteria are satisfied. For example, in order to achieve a factor score of 1 the criteria for all five sub-factors must be satisfied. In the same way, in order to achieve a score of 2, four of the five sub-factors must be satisfied, etc. In contrast, scoring for factor 2 is based on qualitative and quantitative gradations that are shown in the scorecard. The numerical score for each factor is multiplied by the weight for that factor with the results then summed to produce a composite weighted-factor score. The composite weighted factor score is then mapped back to an overall score using the legend below. Due to its over-arching importance, scores of 4 and 5 in the Use of Proceeds factor will cap the scorecard outcome and will generally cap the GBA grade at the corresponding levels, i.e. GB4 and GB5.

MOODY'S INVESTOR SERV., GREEN BONDS ASSESSMENT (GBA) 3–4 (2016), https://www.amwa.net/assets/GBA%20Methodology-final-30march2016.pdf [https://perma.cc/5EXM-3RFR]. A bond would receive a score of GB1 if its total score is 1.5 or below, GB2 if the total score is between 1.5–2.5, GB3 if the score is between 2.5–3.5, GB4 is the score is between 3.5–4.5, and GB5 if the score is greater than 4.5. *Id.* at 4.

86. *Id.*

87. ICMA REVIEWER GUIDELINES, *supra* note 65, at 2.

green bonds,[88] as well as on the impact of external reviews.[89] Much of the research conducted to date has identified a negative premium on green bonds (or "greenium," as it is sometimes called), meaning that "investors on average pay a higher price for green bonds in the primary market," and that "continued high demand for the instrument means the greenium has typically expanded in secondary trading."[90] A Danish pension fund manager explained his fund's willingness to pay a greenium as justified by "a simple economist argument . . . . The demand currently vastly outpaces the supply in this area. And if you don't have an expectation for that to change materially, then buying stuff that is expensive, but has the potential to be even more expensive, still makes sense."[91]

Ben Slimane, Da Fonseca, and Mahtani identify several additional arguments explaining the higher price.[92] They first note that green bonds represent a "commitment to dedicate at least an equivalent amount raised to a pool of specific, detailed green projects and transparency on the use of the proceeds, with reporting on the impact

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88. *See, e.g.*, Britta Hachenberg & D. Schiereck, *Are Green Bonds Priced Differently From Conventional Bonds?*, 19 J. ASSET MGMT. 371, 372 (2018); Gianfranco Gianfrate & Mattia Peri, *The Green Advantage: Exploring the Convenience of Issuing Green Bonds*, 219 J. CLEANER PROD. 127, 127–28 (2019); Oliver David Zerbib, *The Effect of Pro-Environmental Preferences on Bond Prices: Evidence From Green Bonds*, 98 J. BANKING & FIN. 39, 40 (2019); David F. Larcker & Edward M. Watts, *Where's the Greenium?*, 69 J. ACCOUNT. & ECON. 1, 3 (2020).

89. Suk Hyun, Donghyun Park & Shu Tian, *Pricing of Green Labeling: A Comparison of Labeled and Unlabeled Green Bonds*, 41 FIN. RSCH. LETTERS 101816, 101816 (2020); Suk Hyun, Donghyun Park & Shu Tian, *The Price of Going Green: The Role of Greenness in Green Bond Markets*, 60 ACCT. & FIN. 73, 84 (2019); Torsten Ehlers & Frank Packer, *Green Bond Finance and Certification*, BIS Q. REV., Sept. 2017, at 89; Nagihan Simeth, *The Value of External Reviews in the Secondary Green Bond Market*, 46 FIN. RSCH. LETTERS, May 2022, at 1, 1.

90. Sanne Wass, *Green Bond Premium Justified by Strong Secondary Market Performance, Flexibility*, S&P GLOBAL (Sept. 23, 2021), https://www.spglobal.com/marketintelligence/en/news-insights/latest-news-headlines/green-bond-premium-justified-by-strong-secondary-market-performance-flexibility-66696509 [https://perma.cc/M3VJ-J826] (noting that "[t]he Climate Bonds Initiative, or CBI, found that the premium on green bonds, also referred to as the 'greenium,' is evident globally and is particularly strong for U.S. dollar debt. Savings for borrowers range between 1 basis point and 10 bps on a global basis, according to ING").

91. *Id.*

92. Mohamed Ben Slimane, Dany Da Fonsca & Vivek Mahtani, *Facts and Fantasies About the Green Bond Premium*, 34 (AMUNDI ASSET MGMT., Working Paper No. 102-2020), https://research-center.amundi.com/article/facts-and-fantasies-about-green-bond-premium [https://perma.cc/G929-8QKR].

of those projects."[93] But the issuance of a green bond also entails additional costs not incurred in conventional bond issuances, including the costs of certification and reporting; thus, "[a]gainst a backdrop of strong demand, one may argue that green bond issuers may seek financial compensation to at least offset the additional cost of issuance."[94] If there is a mismatch in supply and demand where green bonds are scarce relative to their demand by investors, this may lead to higher prices for green bonds with concomitantly lower yields. They believe, however, that "most ESG investors are not ready to give up returns to hold green bonds, which may counter-balance the pace of demand for green bonds."[95] On the other hand, green bonds show higher liquidity compared to their conventional counterparts, and investors will pay for the convenience of higher liquidity.[96] They also note that climate risk "is [an] increasingly [important] concern for . . . investors, . . . governments and public policymakers," and that "it is foreseeable that[,] at some point in the future[,] regulators or public investors . . . will actively distort the markets to better price climate risk in asset prices."[97]

Ben Slimane, Da Fonseca, and Mahtani also survey the expanding literature on green bond pricing. Of the eighteen studies they identified, most show higher prices for green bonds, although the estimates are close to zero (and, as noted by Lau et. al., findings of relatively large premia are associated with small sample sizes, yield comparisons without sound matching criteria, or where the researchers have controlled for different bond features).[98] In their own investigation of green bond pricing, Ben Slimane and colleagues identify a small negative premium of 2.2 basis points.[99] They also find that the size of the premium and its significance "increases with the ESG quality of the issuer, i.e. beyond the use of proceeds, green bond

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93. *Id.* at 34.
94. *Id.*
95. *Id.*
96. *Id.* ("[G]reen bonds show strong liquidity features in favor of the seller. It is easier to find a buyer of a green bond than an equivalent non-green with the same characteristics.").
97. *Id.*
98. *Id.* at 10 (citing Peter Lau, Angela Sze, Wilson Wan & Alfred Wong, *The Economics of the Greenium: How Much Is the World to Pay to Save the Earth?*, HONG KONG INST. FOR MONETARY & FIN. RSCH. (2020).
99. *Id.* at 33.

investors reward a more negative premium to issuers with better extra-financial standards at the company level."[100]

Several studies have specifically targeted the question of the impact of verification on green bond pricing. Hyun, Park, and Tian, for example, studied green bond data for bonds issued from 2010 to 2017 that were labelled compliant with the GBP.[101] In reviewing the pricing data against a matched set of conventional bonds, the authors found evidence that "greenness information significantly reduces the green bond premium;"[102] in their dataset, green bonds that were externally reviewed were priced six basis points (0.06%) lower than bonds that were not externally reviewed.[103] Green bonds receiving a CBI certificate fared even better, with a discount of fifteen basis points (0.15%) compared to green bonds without a certificate.[104] These prices suggest that investors have a "greater demand in green bond markets for green bonds with lower information costs,"[105] and that "investors demand that issuers mitigate the intrinsic information asymmetry of the green bond market."[106] Put another way, issuers can lower their cost of capital—reflected in the rate they must pay on the bonds—through a credible external review.

In a 2018 paper, Baker, Bergstresser, Serafeim, and Wurgler also provide evidence of the importance of certification, finding that CBI-certified green bonds have yields twenty-six basis points [0.26%] lower than similar conventional bonds.[107] In other words, the price of certified green bonds is higher, lowering the expected return (or yield) on a fixed-payout bond held to maturity.[108] To put this difference in context, they note that twenty-six basis points is "equivalent to the

100. *Id.*
101. Suk Hyun et al., *supra* note 89, at 78.
102. *Id.* at 93.
103. *Id.*
104. *Id.* at 76.
105. *Id.* at 94.
106. *Id.*
107. Malcolm Baker, Daniel Bergstresser, George Serafeim & Jeffrey Wurgler, Financing the Response to Climate Change: The Pricing and Ownership of U.S. Green Bonds 22 (Oct. 12, 2018) (unpublished manuscript), https://papers.ssrn.com/sol3/papers.cfm?abstract_id=3275327 [https://perma.cc/UN2K-W232].
108. For a more detailed explanation of the inverse relationship between a bond's price and its yield, see *Understanding Bond Yield and Return*, FIN. INDUS. REGUL. AUTH. (Aug. 11, 2022), https://www.finra.org/investors/learn-to-invest/types-investments/bonds/bond-yield-and-return [https://perma.cc/NML9-38X4].

reduction in yield that comes from climbing more than two ratings notches."[109]

While verification may result in better pricing for issuers, it also imposes significant costs. First, an issuer must pay for "internal processes to allocate and confirm the management of proceeds."[110] Second, the issuer must pay "external costs related to parties contracted for the certification."[111] While there is not sufficient data to evaluate the costs of internal processes and structural changes (and would be decidedly more complicated to calculate), there is some evidence about the fees associated with the external verification. Baker and colleagues estimated the cost of verification to be between $10,000 and $50,000, depending on the size of the issuance.[112] Furthermore, there may be ongoing costs of verification, and to register the bond with the Climate Bonds Standard Board costs one-tenth of a basis point of the bond principal. The total cost might therefore range from as little as about $10,000 to much higher amounts, depending on the size of the issuance and the ongoing costs of verification. When compared to potential pricing benefits, however, the authors argue that "certification could be a good deal for larger and/or longer-maturity bonds."[113]

Most recently, Simeth also reviewed the impact of external reviews on the yield spread between green bonds and paired conventional bonds in the secondary green bond market.[114] Simeth found evidence suggesting that "obtaining a SPO signals credible information and the quality of greenness to investors, in turn leading to lower bond yield spreads compared with those of bonds without an SPO," which shows "the important role of an SPO in reducing information asymmetry and alleviating the risk of greenwashing."[115]

These studies highlight an implicit requirement of green bonds, at least for value-maximizing issuers: the initial and ongoing costs of

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109. Baker et al., *supra* note 107, at 22.
110. *Id.* at 25.
111. *Id.*
112. *Id.*; *see also* Paul Burton, *How Green Bond Issuers Weigh Certification*, BOND BUYER (Nov. 10, 2016, 10:43 AM), https://www.bondbuyer.com/news/how-green-bond-issuers-weigh-certification [https://perma.cc/E74L-HVX8] (noting the same range of certification cost and quoting a CBI staffer predicting that "[a]s more bonds are certified and the various processes become more familiar and standardized in the market, we would expect the top end of the range to reduce").
113. Baker et al., *supra* note 107, at 25.
114. *See generally* Simeth, *supra* note 89.
115. *Id.* at 4.

certification must be justified by the pricing of the bond. As Ben Slimane and colleagues have noted, "[f]rom the issuer's point of view, it seems clear that issuing a green bond is more expensive than a regular bond, given the costs of possible external review, regular reporting and holding separate accounts for the proceeds."[116] Issuer costs may range from 0.1 basis points to 0.6 basis points.[117] "From the investor's perspective," on the other hand, "the question that arises is whether the green label influences the price that investors are willing to pay for a bond, that is, whether investors are willing to accept a lower yield spread for a green bond relative to a conventional bond with the same characteristics."[118] Based on most of the empirical evidence gathered to this point, it appears that investors are indeed willing to pay a higher price (and accept lower yields) for green bonds, particularly if the bonds have been reputably verified.

II. GREEN BOND VERIFICATION: A CASE STUDY

Using the NADB's 2018 green bond issuance, this Section will describe how green bonds are developed, marketed, certified, issued, and reported post-issuance. The NADB is a bi-national financial institution created jointly in 1994 by the United States and Mexico "under the auspices of the North American Free Trade Agreement."[119] NADB was mandated to provide financing for "environmental infrastructure in the border region, especially in the areas of water

116. Slimane et al., *supra* note 92, at 8.

117. *Id.* (citing Hachenberg & Schiereck, *supra* note 88, at 373).

118. *Id.* Not all green bond studies show a premium or a benefit from certification. Like Baker and colleagues, Larcker and Watts review municipal green bond issuances to determine the effect of green labeling on bond pricing. Larcker & Watts *supra* note 88, at 1–2. Municipal bond issuers are ideal subjects for study because they are "one of the largest issuers of green bonds" and "are explicitly issued to fund environmentally sustainable projects." *Id.* at 2. However, using a matched set of green and conventional bonds, Larcker and Watts find no significant difference in the premia of green and non-green bonds. *Id.* They do not find evidence that fears of greenwashing explain the lack of difference; unlike other studies, they find no evidence that certification results in pricing differences, and if investors were concerned about greenwashing, certification would play a role in mitigating those concerns. *Id.* at 3, 19. Rather, it simply appears that "United States municipal investors are entirely unwilling to sacrifice returns to invest in green securities." *Id.* at 21.

119. N. AM. DEV. BANK, INFORMATION ON NADB 18 (2017), https://www.nadb.org/uploads/content/files/for-investors/2017InformationStatement2.pdf [https://perma.cc/MZ7P-KUE4].

pollution, wastewater treatment, municipal solid waste, and related matters."[120]

Given its mandate, the NADB is ideally suited to issue green bonds, and indeed has issued three green bonds since 2018. The first green bond, a CHF 125 million bond maturing in 2026,[121] was issued in July 2018. NADB later issued a CHF 180 million bond maturing in 2028 and a CHF 160 million bond maturing in 2033.[122] This Part first describes the NADB's green bond framework under which these bonds were issued, then turns to the verification of the framework by the external reviewer. The Part also discusses the credit rating that was issued alongside the external verification.

A. NADB Green Bond Framework

The initial step for the NADB was to create a green bond framework aligned with the GBP. As noted above, this requires the NADB to create a category of green projects that fit within the GBP's eligible projects categories. Of the ten category types, the NADB chose to focus on four:

∞ Renewable energy [including solar power production, transmission, and maintenance, and wind power production, transmission, and maintenance]

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120. Agreement Between the Government of the United States of America and the Government of the United Mexican States Concerning the Establishment of a North American Development Bank, Mex.-U.S., pmbl., Nov. 10, 2017, https://www.nadb.org/uploads/content/files/Charter_and_Bylaws/Amended%20Charter%202017.pdf [https://perma.cc/BQP5-9SGR]. "Environmental infrastructure project" is defined as means "a project that will prevent, control or reduce environmental pollutants or contaminants, improve the drinking water supply, or protect flora and fauna so as to improve human health, promote sustainable development, or contribute to a higher quality of life." *Id.* art. II. "Border region" is defined as the area within 100 kilometers of the border on the U.S. side, and within 300 kilometers on the Mexico side. *Id.*

121. At the time of issuance, CHF 125 million was roughly equivalent to 126.42 million U.S. dollars. N. AM. DEV. BANK, NORTH AMERICAN DEVELOPMENT BANK ANNUAL REPORT 47 (2018), https://www.nadb.org/uploads/files/2018_annual_report_eng_final.pdf [https://perma.cc/FVK8-PV37] [hereinafter NADB 2018 REPORT]. As with later NADB green bond issuances, the bond was likely denominated in Swiss francs because the "target market for the green bond issues were Swiss asset management and life insurance firms and pension funds." Jo Bruni, *NADB Sells Green Bonds in Swiss Francs*, LATIN FIN. (May 21, 2020), https://www.latinfinance.com/daily-briefs/2020/5/21/nadb-sells-green-bonds-in-swiss-francs [https://perma.cc/H8M8-PP32].

122. N. AM. DEV. BANK, 2021 GREEN BOND IMPACT REPORT 3 (2021), https://www.nadb.org/uploads/files/2021greenbondreport_eng_final.pdf [https://perma.cc/T4MP-YJ4W].

∞ Sustainable water and wastewater management (e.g. improvements to water distribution systems, including leak elimination, wastewater treatment and reuse, water conservation, storm drainage & flood control)

∞ Energy efficiency (e.g. municipal and commercial building upgrades, industrial equipment retrofits, public lighting), excluding investments in fossil fuel-powered equipment (e.g. boilers) unless linked to a comprehensive retrofit where such equipment represents less than 20% of total investment

∞ Pollution prevention and control (e.g. industrial emissions reduction, waste treatment and disposal), excluding investments in fossil fuel-powered equipment.[123]

The second component under the GBP, a process for "[e]valuation and [s]election,"[124] is briefly laid out in the NADB framework. The framework states that projects must be certified by the NADB's board of directors.[125] This certification process requires projects to "comply with technical, financial and environmental criteria,[126] as well to provide public access to project information."[127] In addition to this certification process, the NADB approves a list of "specific types of Eligible Green Projects expected to be funded out of the Net Proceeds" of a given green bond issuance.[128]

The third GBP component is a set of procedures designed to ensure that proceeds are managed in accordance with the stated "use of proceeds" disclosures and appropriately allocated to eligible green projects.[129] As noted above, the GBP encourages the use of an external auditor to verify the management of proceeds.[130] NADB responds to

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123. N. AM. DEV. BANK, GREEN BOND FRAMEWORK 1–2 (2020), https://www.nadb.org/uploads/content/files/for-investors/Green%20Bond/2020%20Green%20Bond%20Framework%20(Eng).pdf [https://perma.cc/Q3DR-UMHE] [hereinafter NADB GREEN BOND FRAMEWORK].

124. *Id.* at 2.

125. *Id.* The NADB board of directors includes "representatives from the U.S. Environmental Protection Agency and the Departments of State and Treasury; the Mexican Ministries of Environment and Natural Resources, Foreign Relations, and Finance and Public Credit; a representative from a border state government in each country, and; a representative of the residents of a border state in each country." *Id.*

126. To satisfy the environmental criterion, a project "must demonstrate environmental merits and benefits, as well as compliance with local, state and national environmental regulations." *Id.*

127. *Id.*

128. *Id.*

129. *Id.* at 1, 3.

130. *Supra* note 24 and accompanying text.

this requirement by holding net proceeds from green bond issuances "in the Bank's investment portfolio or [in a] cash [account]."[131] The investment portfolio is "managed with conservative guidelines," and invests in "US Treasuries or issues of U.S. agencies, Mexican Government US dollar denominated securities or investment grade corporate notes and bonds, denominated in US dollars, rated A or better."[132] Under NADB procedures, funds are allocated to eligible green projects within twenty-four months of the green bond issuance.[133] Payment on the bonds is made from the NADB's general account, and is not linked to performance of the projects.[134] Management receives quarterly reports on the management of green bond proceeds to ensure compliance with NADB policies and procedures.[135]

The fourth GBP component is a set of disclosure policies and procedures that include, among other things, a list of projects to which the green bond proceeds have been allocated, as well as the expected impact of those projects.[136] To meet this requirement, NADB's green bond framework describes intended reporting on both allocations and impacts.[137] Under its allocation reporting commitment, NADB "will endeavor to make and keep readily available on its website information on the Allocation of the Net Proceeds"—amounts allocated and brief descriptions of the projects—and will update the report annually until the net proceeds have been fully allocate to eligible green projects.[138]

Under its impact reporting commitments, NADB will provide "[d]etailed information regarding the certification of the [green projects] and the expected environmental benefits . . . ."[139] As suggested by the GBP, NADB intends to disclose "quantitative environmental performance indicators (e.g. annual renewable energy produced, and estimated carbon dioxide, sulfur dioxide and nitrogen oxide emissions avoided)"[140] when feasible.

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131. NADB GREEN BOND FRAMEWORK, *supra* note 123, at 2.
132. *Id.*
133. *Id.*
134. *Id.*
135. *Id.*
136. *Id.* at 2–3.
137. *Id.*
138. *Id.* at 2.
139. *Id.* at 3.
140. *Id.*

B. *Verification of the NADB Green Bond Framework*

NADB turned to a leading green bond verifier, Sustainalytics, to provide an opinion[141] on the alignment of the green bond framework with the GBP. In addition, Sustainalytics opined on the "credibility and anticipated positive impacts of the use of proceeds," and the "alignment of the issuers sustainability strategy and performance and sustainability risk management in relation to the use of proceeds."[142]

The NADB issuance provides a standard example of how sustainability verification takes shape. Consider, for example, the following excerpt from Sustainalytics' opinion on the NADB's framework:

> Sustainalytics is of the opinion that the North American Development Bank Green Bond Framework is credible and impactful, and aligns with the four core components of the GBP 2018 . . . .
>
> Use of Proceeds: Use of Proceeds:
>
> ∞ The eligible categories, Renewable Energy, Sustainable Water and Wastewater Management, Energy Efficiency, and Pollution Prevention and Control, are aligned with those recognized by the GBP 2018.

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141. SUSTAINALYTICS, SECOND PARTY OPINION: NORTH AMERICAN DEVELOPMENT BANK GREEN BOND FRAMEWORK 1 (2020), https://www.nadb.org/uploads/content/files/for-investors/Green%20Bond/NADB%20Green%20Bond%20Framework%20Second-Party%20Opinion%202020.pdf [https://perma.cc/L3E5-N589]. The opinion has customary disclaimers, including that Sustainalytics has relied on NADB representatives to confirm:

> (1) they understand it is the sole responsibility of NADB to ensure that the information provided is complete, accurate or up to date; (2) that they have provided Sustainalytics with all relevant information and (3) that any provided material information has been duly disclosed in a timely manner. Sustainalytics also reviewed relevant public documents and non-public information.

Id. at 2–3. Sustainalytics also notes that the opinion is "no guarantee of alignment nor warrants any alignment with future versions of relevant market standards," and that the opinion "addresses the anticipated impacts of eligible projects expected to be financed with bond proceeds but does not measure the actual impact." Similarly, the opinion opines on the intended allocation of proceeds but "does not guarantee the realised allocation of the bond proceeds towards eligible activities." Sustainalytics makes no warranty "either in favour or against, the truthfulness, reliability or completeness of any facts or statements and related surrounding circumstances that NADB has made available to Sustainalytics for the purpose of this Second-Part Opinion." *Id.* at 3.

142. *Id.* at 2.

- ∞ The types of renewable energy defined by the Framework, solar and wind energy, are well-accepted by the green bond market and are considered to provide net-positive environmental impacts.
- ∞ Within the area of Water and Wastewater Management the Framework allows for a variety of investments to improve water use efficiency and better manage stormwater or effluents. Sustainalytics highlights the following:
  - ∞ Investments in water distribution systems specifically include those intended to reduce leakage, leading to positive environmental outcomes.
  - ∞ In the geographical context of NADB's operations, innovative solutions such as water reuse offer the potential to provide significant environmental benefits.
- ∞ NADB has disclosed that Energy Efficiency projects may include municipal and commercial building upgrades, industrial equipment retrofits, and public lighting; investments in fossil fuel equipment are expressly excluded, except as part of comprehensive retrofits, where the fossil-fuel equipment makes up no more than 20% of the overall project. Sustainalytics views positively the intent of this category, in particular considering the exclusion, and encourages NADB to report on the project-level energy performance where feasible to demonstrate the magnitude of impact.
- ∞ The Framework specifies that, within the area of Pollution Prevention and Control, investments in fossil fuel equipment are expressly excluded, which Sustainalytics views as helping provide assurance of the net-positive impacts of the projects being financed.[143]

As shown in this example, a framework verification is a relatively direct analysis and opinion on how a particular framework aligns with the GBP. The discussion and analysis of the use of proceeds in this excerpt is, as is true for verifications generally, fairly simple and unadorned, with little detail on the justifications for the opinions stated. Yet, these simple statements of opinion play a key function in sustainable finance markets by providing assurance to investors of an issuer's green commitments and in protecting against greenwashing.

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143. *Id.* at 3.

C. Credit Rating

Green bonds ultimately have two sets of gatekeepers who provide (or are expected to provide) credible reputational capital in support of an issuance: green verification agencies, such as Sustainalytics, and bond ratings agencies, such as Standard & Poor's, Fitch, and Moody's.[144] The credit rating for green bond issuers provides information designed to help bond purchasers evaluate credit risk, rather than risks related to the green, climate, transitional, or social goals attached to a particular issuance.[145] In reviewing the NADB's credit report, for example, the *green* aspects of NADB's issuances are not discussed at all, except to note that because of its low leverage and modest size, the bank has had a "modest borrowing program," but with an updated green bond framework, more green bond issuances are likely to be forthcoming.[146] More issuances could improve the liquidity position[147] of NADB and lead to a higher credit rating. But with respect to the green focus of NADB's issuances, Moody's drily notes that the 2020 bond issuances "were marketed as 'green,' keeping with the fact that NADB primarily lends to green projects," and that the NADB is "committed to annually self-report compliance with industry best practices on requirements to consider bonds green, which is an increasingly important consideration for a growing number of investors."[148]

While Moody's does not opine on the greenness of NADB's issuances, it does take into account ESG issues in evaluating NADB's overall credit profile.[149] Environmental issues are material to NADB, Moody's notes, "because of the bank's mandate to invest in projects with a strong environmental component."[150] However, regulatory

144. As described in Section IV.H, underwriters could also be considered to serve a gatekeeping role. *See, e.g.*, Reinier H. Kraakman, *"Gatekeepers: The Anatomy of a Third-Party Enforcement Strategy*," 2 J.L., ECON. & ORG. 53, 54, 61–62 (1986).

145. *See e.g.*, *Information for Investors*, N. AM. DEV. BANK, https://www.nadb.org/for-investors [https://perma.cc/6GHR-ANHE] (listing "Credit Rating[s]" from Fitch and Moody's separately from "Green Bonds" section including SPO information and details about "Project Evaluation and Selection" and "Use of Proceeds").

146. MOODY'S INVESTOR SERVICE, NORTH AMERICAN DEVELOPMENT BANK-AA1 NEGATIVE: ANNUAL CREDIT ANALYSIS 10 (2020) (on file with author).

147. Moody's explains that "[a]n entity's liquidity is important in determining its ability to meet its financial obligations. We evaluate the extent to which liquid assets cover net cash flows over the coming 18 months and the stability and diversification of the institution's access to funding." *Id.* at 9.

148. *Id.* at 10.

149. *Id.* at 14.

150. *Id*

changes by the Mexican government could "negatively impact NADB's asset quality and performance."[151] Social issues are also material to NADB's creditworthiness; COVID-19 is "a social risk under [Moody's] ESG framework, given the substantial implications for public health and safety."[152] COVID-19 also affected "the bank's operating environment through [its] negative impact . . . on the Mexican and US economies . . . ."[153]

Finally, governance considerations are also deemed material by Moody's, including whether the bank has sound governance mechanisms and an appropriate risk management framework. The risk management framework, Moody's notes, has been "progressively strengthened in recent years by the adoption of tools to measure risks more accurately, including internal credit rating models."[154]

Having described the essential role that verifiers play in sustainable finance, the following Part turns to the risks presented by their business model and role and lays the groundwork for an analysis of potential regulation of sustainability verification. The Part first introduces this discussion by considering the risks and regulation of another, analogous information intermediary, and the CRA.

III. THE PRESENT AND FUTURE RISKS OF GREEN BOND VERIFICATION

The discussion of CRAs in the previous Section helps frame the role and regulation of verifiers. As with verifiers, CRAs play a crucial role in facilitating debt issuances for both public and private issuers.[155] And, because CRAs and verifiers play similar roles, verifiers may be subject to the same pathologies that affect the CRA market, similarly jeopardizing their ability to serve their crucial functions.[156] Several of the flaws in the CRA industry are manifest (or risk becoming manifest) in the sustainability ratings industry.[157] Among the most significant concerns are conflicts of interest, methodological weaknesses and a lack of accountability that result in poor quality ratings, and the risk of the formation of an oligopoly.[158] This Part reviews these risks, as well as challenges particular to the verification market, including the

151. *Id.*
152. *Id.*
153. *Id.*
154. *Id.*
155. *See infra* Sections III.A–E.
156. *See infra* Sections III.A–E.
157. *See infra* Sections III.A–E.
158. *See infra* Sections III.A, III.E.

malleability of the green or climate designation. As this Part will argue, these flaws present significant risks to the development of the green bond market.

A. Conflicts of Interest

The credit ratings agencies' poor-quality ratings were at the center of the global financial crisis of 2007–2008, and CRAs were subsequently "scorned and vilified for their bad performance."[159] The failures of the credit rating industry in the Financial Crisis resulted from a confluence of factors. As summarized by Barnett,[160] these structural and regulatory flaws include (1) the fact that CRAs have been subject to limited legal liability because of regulatory exemptions (even after the Dodd-Frank Act,[161] as described in Part IV.A below) and court decisions affording First Amendment protections, (2) CRA reliance on issuer-provided information, (3) a concentrated market protected against new entrants by regulatory barriers, (4) inherent conflicts of interest arising from the issuer-pays model, and (5) incentives to generate business and provide positive ratings, which resulted in "famously tardy downgrades in the Enron implosion and slow reaction to the August 2007 turmoil in the mortgage-backed securities market."[162] Because of these flaws—and particularly because of the inherent conflicts of interest at the heart of their business model, which is not remediated through the threat of liability—CRAs are not providing actionable advice, but instead "tend to follow, rather than lead, the market consensus."[163]

The market for verifier services presents problems similar to CRAs in that verifiers have been subject to limited legal liability, they also rely in issuer information, they have the same inherent conflict of interest arising from an issuer-pays model and have similar incentives to generate more business through positive ratings. Although regulators

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159. Claire A. Hill, *Why Did Rating Agencies Do Such a Bad Job Rating Subprime Securities?*, 71 U. PITT. L. REV. 585, 585 (2010), https://scholarship.law.umn.edu/cgi/viewcontent.cgi?article=1084&context=faculty_articles [https://perma.cc/ZDW5-52JD].

160. Jonathan M. Barnett, *Certification Drag: The Opinion Puzzle and Other Transactional Curiosities*, 33 J. CORP. L. 95, 96 (2007), https://ssrn.com/abstract=1012961 [https://perma.cc/RX74-2B9M].

161. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 1872 (2010).

162. *Id.* at 139.

163. *Id.*

and industry groups such as ICMA have sought to impose conflicts of interest-reducing regulation on verifiers, the business model in inherently risky in that issuers—rather than investors—pay for verification services and that many verifiers operate as for-profit, wealth-maximizing entities.[164] Unless the market for verification services rewards competition based on price and reputation, as opposed to price and positive verification outcomes, verifiers will tend to produce ratings that favor paying issuers, not investors.

B. *Lack of Competition in the Verifier Market*

A large and growing number of firms currently operate in the sustainability verification industry.[165] Climate Bonds Initiative recognizes over sixty verifiers.[166] Over time, however, it is likely that dominant players will emerge, and the number of verifiers recommended by underwriters will shrink to a handful of trusted players. The evolution of other certification markets shows the pattern of the formation of oligopolies or even functional monopolies. For example, oligopolies have formed in the credit rating markets (Moody's, S&P, Fitch), the proxy advice market (ISS and Glass Lewis), the consumer credit reporting market (Experian, Equifax, and TransUnion), and the public company auditing market (Ernst & Young, Deloitte, PwC, and KPMG).[167] These concentrated markets arise because of the high costs of developing reputational capital. Alternatively, as Partnoy has suggested, markets may arise from the high costs of developing a regulatory license, which include lobbying

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164. *Id.* at 111, 139–42.

165. *See e.g.*, Approved Verifiers Under the Climate Bonds Standard, CLIMATE BONDS INITIATIVE, https://www.climatebonds.net/certification/approved-verifiers [https://perma.cc/G9RE-E67H] (listing numerous approved verifiers).

166. *Id.*

167. *See* Press Release, Consumer Fin. Prot. Bureau, CFPB Releases Report Detailing Consumer Complaint Response Deficiencies of the Big Three Credit Bureaus (Jan. 5, 2022), https://www.consumerfinance.gov/about-us/newsroom/cfpb-releases-report-detailing-consumer-complaint-response-deficiencies-of-the-big-three-credit-bureaus [https://perma.cc/W3UW-5UWU] (quoting CFPB Director Rohit Chopra referring to Equifax, Experian, and TransUnion as "America's credit reporting oligopoly"); Joseph Smith, *Multi-firm Audits can Break the Big Four's Oligopoly*, FIN. TIMES (July 23, 2019), https://www.ft.com/content/bc5afbc4-a3fd-11e9-a282-2df48f366f7d [https://perma.cc/YGA2-JGBM] (referring to PwC, KPMG, EY, and Deloitte as "the Big Four . . . an oligopoly where members are 'too big to fail'").

and other rent-seeking behavior.[168] The costs of acquiring and defending a hard-won reputation or a regulatory license will also deter new entrants into the market.[169] As a result, a concentrated market may result in less competition and may be at a greater risk of systemic failure as a larger percentage of the market may be at risk from a verifier's poor governance or practices.

However, the prognosis for the verifier market is not entirely grim, as concentrated markets may produce some efficiencies. For example, Barnett argues that because of the high costs of building and maintaining reputational capital, a dominant market player has an incentive to continue generating rents through a "strong track record of quality inspection and monitoring, which in turn maintains the value of the certifier's stock of reputational capital."[170] By contrast, in a perfectly competitive market, participants would become short-term players with little incentive to build and maintain reputational capital, and would be more at risk to engage in "various forms of short-term profit-taking, such as shirking, taking bribes for fabricated evaluations, or otherwise colluding with certified firms."[171]

Certification oligopolies also reduce search costs by certification consumers. In a market with dozens of participants, a consumer would be required to expend more resources on determining the value of a certifier's recommendations and would likely have less information (in the form of completed certifications) from which to conclude. As a result, "nascent certification markets exhibit concerns about excessive numbers of standards or certifiers and consumer confusion over certification accuracy."[172] The confusion over standards and

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168. As Hasen describes, a common form of rent-seeking "occurs when individuals or groups devote resources to capturing government transfers, rather than putting them to a productive use, and lobbyists are often the key actors securing such benefits." Richard L. Hasen, *Lobbying, Rent-Seeking, and the Constitution*, 64 STAN. L. REV. 191, 197 (2012), http://stanfordlawreview.org/wp-content/uploads/sites/3/2012/02/Hasen-64-Stan-L-Rev-191_0.pdf [https://perma.cc/8EWZ-5F78].

169. *See* Jonathan M. Barnett, *The Certification Paradox*, *in* THE CAMBRIDGE HANDBOOK OF TECHNICAL STANDARDIZATION LAW 257 (Jorge L. Contreras, ed. 2019 (noting that "[w]hile established certifiers' stock of reputational capital generates rents that preserve incentives to generally maintain high levels of investment in information collection and verification, it implies entry costs for competitors and switching costs for users that periodically induce incumbents to reduce investment in those same activities").

170. *Id.* at 258.

171. *Id.*

172. *Id.*

certification accuracy aptly describes concerns with the sustainability verification industry. But as the market grows and market power is captured by a smaller number of players, verifiers will be able to take advantage of economies of scale and increased familiarity with standards and increased precision in their application.[173] A reduction in competition thus poses both burdens and benefits for verification consumers. The development of an oligopoly and of reputational capital may ultimately benefit consumers. But, as will be discussed below, if the market position of the oligopolists results not from hard-won reputation but from the creation of a regulatory license—such as through the creation of costly qualification regulations that create barriers to entry for smaller firms—the informational value of verification is likely to suffer as verifiers do not work to defend their reputations, but merely their regulatory licenses. Previewing the final Part of this Article, the regulation of the verification market will allow verifiers to establish reputational capital while avoiding the regulatory instantiation that results in a regulatory license.

C. Poor Quality Ratings

A rich literature in both law and finance has evaluated the quality of external evaluations generally. And, perhaps as importantly, the literature has also identified a suite of common concerns arising from the quasi-regulatory effect of some types of evaluations, including those provided by CRAs.[174] The quasi-regulatory effect arises from the fact that the market may impose a standard on participants without a direct regulatory requirement, simply because the standard debt mechanism provides a reliable means of reducing transaction costs and standardizing transactions. Verifiers perform that function without an express governmental regulatory requirement that green deals include a verifier. But while there is a market justification for the role of external evaluators—reducing information asymmetries that would otherwise make buyers unwilling to purchase goods or services—external evaluations may also be imposed by regulation. As Sangiorgi and Spatt have noted:

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173. *Id.* at 259 ("If the marginal costs of evaluating a particular product are substantially lower than the fixed costs to develop the standard and testing methodology, then the market naturally converges on a handful of certification entities or even a single certification entity.").

174. *See, e.g.*, Francesco Sangiorgi & Chester S. Spatt, *The Economics of Credit Rating Agencies*, 12 FOUNDS. & TRENDS FIN. 1, 3–4 (2017), https://ssrn.com/abstract=3055889 [https://perma.cc/4WQD-KUKN]

> The use of ratings and other public signals is an efficient response to scale economies in information production. At the same time, ensuring the payment for ratings (and other) informational services is an important friction and incentive challenge confronting rating agencies. One consequence of the rating agency framework is that the incorrect assessment of aggregate features of debt by rating agencies can be an important source of systematic and even systemic risk. This is especially significant when ratings are hardwired into the regulatory structure, i.e., when regulatory treatment is based upon ratings. Relying upon ratings for regulation, by imposing uniformity in standards both across rating agencies and also among products, can be anti-competitive and discourage innovation. Of course, even without regulatory reliance on the ratings and even in the presence of diverse sources of information production, there is considerable potential for systemic risk when there is commonality in the underlying methods and techniques that determine the ratings.[175]

A regulatory requirement that a product or instrument receive a rating from a designated provider effectively makes the rating agency a quasi-regulator operating in an "unusual hybrid gatekeeper role" in which the ratings firms are "a cross between government and private providers of rating services."[176] As will be described below, some jurisdictions are considering whether to require verification by an independent external evaluator as a condition for use of the "green" label in debt offerings. Instantiating verifiers within regulations may have a similar effect to what occurred in the credit ratings market—the diminution of quality, rather than its guarantor.

Partnoy has argued that the regulation and designation of certain approved credit ratings agencies, such as Nationally Recognized Statistical Ratings Organizations (NRSROs), gave the NRSROS a substantial degree of market power, ultimately permitting them to grant "regulatory licenses," a term he uses to describe "the valuable property rights associated with the ability of a private entity, rather than the regulator, to determine the substantive effect of legal rules."[177] In the context of credit ratings (and, just as applicably, in the context

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175. *Id.*

176. Aline Darbellay & Frank Partnoy, *Credit Rating Agencies and Regulatory Reform*, San Diego Legal Studies Paper No. 12-082 (Apr. 18, 2012), https://ssrn.com/abstract=2042111 [https://perma.cc/AY3A-YQGE].

177. Frank Partnoy, *The Siskel and Ebert of Financial Markets?: Two Thumbs Down for the Credit Rating Agencies*, 77 WASH. U. L.Q. 619, 623 (1999).

of green bonds), "a good rating entitles the issuer (and the investors in a particular issue) to certain advantages related to regulation."[178]

Partnoy persuasively contends that reputational constraint—a stock of "reputational capital, a reserve of good will, on which other parties rely"[179]—fails to effectively manage conflicts of interest in the credit ratings industry. While credit ratings agencies have prospered, they have not done so because of their ability to provide high-quality ratings. And, Partnoy notes that credit ratings increased in importance during two key periods, the 1930s and the mid-1970s through the 1990s, where "each instance paradoxically followed by a series of bond defaults demonstrating the rating agencies' serious mistakes in rating bonds."[180] While the credit ratings agencies claim that their ratings have informational value because ratings are highly correlated with actual credit spreads,[181] studies have shown that credit ratings have become inconsistent and less accurate over time, can be influenced by competitive pressures, and that credit spreads in some bond categories have changed dramatically.[182] And, in practice, investment professionals tend to use credit ratings as a "rearview mirror" analysis of credit risk, rather than as providing them actionable forward-looking information.[183] Thus, requiring verification through regulation may actually serve to decrease the quality of verification.

Many of these concerns will also affect the sustainability verification industry, although there are some differences that could be relevant to the quality of green bond verification. Most importantly, the informational asymmetries between green bond issuers and investors are arguably greater than the asymmetries between standard bonds

178. *Id.* at 681.

179. *Id.* at 628 (for reputational constraints to take hold, three conditions must be satisfied: the certifier "must have reputational capital at stake in the certification activity" (meaning that the certifier risks losing future profitable relationships because of reduced trustworthiness); the potential loss in reputational capital must be more than what the certifier might obtain through false certification; and the certifier's services "must be costly and the cost must be related to the asymmetric information associated with the issuing firm." *Id.* at 633 (citing Roger Stover, *Third-Party Certification in New Issues of Corporate Tax-Exempt Bonds: Standby Letter of Credit and Bond Rating Information*, FIN. MGMT., Spring 1996, at 62–63).

180. *Id.* at 654.

181. *Id.* at 656–58 (noting that the credit spread may be defined as "the market's estimate of the riskiness of the bond compared to its risk-free counterpart, based on both the probability of default and the expected recovery in the event of default").

182. *Id.* at 659–60.

183. *Id.* at 659 (citing David Zigas, *Why the Rating Agencies Get Low Marks on the Street*, BUS. WK., Mar. 12, 1990, at 104).

issuers and investors. Of course, the addition of a green label adds an extra layer of complexity to the offering, but the difference between the two issuances may be a difference in kind, and not merely degree: the kind of information produced by green bond verifiers may be more difficult to obtain and evaluate, compared to the standard risk evaluation provided by CRAs. Indeed, some have argued that the low value of credit ratings is not merely a function of poor-quality information, but of the relatively low value of the information.[184] Barnett notes, in this respect, that a Senate committee review of CRAs agencies reported that 95% of corporate bonds are held by institutional investors with in-house research departments, "thereby casting doubt on the incremental value of credit ratings for most bondholders."[185] If many bond buyers are already well-informed, then "credit ratings typically do not seem to tell the bond market (or most of the market) substantially (if anything) more than it knew already."[186] As a result, credit ratings have the "flavor" of a "degenerate certification practice": skepticism about the value of the information CRAs provide, coupled with "widespread usage in the relevant market."[187]

D. Limitations on the Assurances Provided by Verification

Because of the securities law concerns highlighted earlier, issuers will often add significant caveats to their own commitments in their issuance documents but will also minimize the importance of the verification. In doing so, the issuers are walking a line between providing credible assurances through verification (and thereby securing a premium over unverified instruments) and reducing potential securities liability for a misstatement omission with respect to their commitment. As an example of this kind of measured disclosure, the UK green gilt offering, described earlier in Part B.1, offers this provision with respect to its second-party opinion:

The disclaimer also suggests that investors should not be overly reliant on any second-party opinion provided to investors:

> No representation or assurance is given as to the relevance, suitability or reliability of any opinion or certification of any third

184. *Id.* at 658.

185. Jonathan M. Barnett, *Certification Drag: The Opinion Puzzle and Other Transactional Curiosities*, 33 J. CORP. L. 95, 139 (2007).

186. *Id.*

187. *Id.*

> party made available in connection with the Framework. Any such opinion or certification is not a recommendation by HM Treasury or any other person to buy, sell, or hold or invest in the Green Gilts. As at the date of this presentation, the providers of such opinions and certifications are not subject to any specific regulatory or other regime or oversight. Prospective investors must determine for themselves the relevance, suitability and reliability of any such opinion or certification and/or the information contained therein.[188]

Similar language in found in the green debt issued by the Republic of Korea. In representative disclosure, the bond prospectus includes the following disclaimer:

> The Second Party Opinion may not reflect the potential impact of all risks related to the structure, market, additional risks discussed above and other factors that may affect the value of the Euro-denominated Notes. The Second Party Opinion is not a recommendation to buy, sell or hold securities and is only current as of the date that the Second Party Opinion was initially issued. In addition, although the Republic has agreed to certain reporting and use of proceeds obligations in connection with certain criteria, the Republic's failure to comply with such obligations does not constitute a breach or an event of default under the Euro-denominated Notes. A withdrawal of the Second Party Opinion or any failure by the Republic to use an amount equivalent to the net proceeds from the issuance of the Euro-denominated Notes as set forth in the Framework or to meet or continue to meet the investment requirements of certain environmentally focused investors with respect to the Euro-denominated Notes may affect the value of the Euro-denominated Notes and may have consequences for certain investors with portfolio mandates to invest in "green" assets.
>
> No assurance can be provided with respect to the suitability of the Second Party Opinion or that the Euro-denominated Notes will fulfil the environmental criteria to qualify as "green" bonds. Each potential purchaser of the Euro-denominated Notes should determine for itself the relevance of the information contained in this prospectus supplement regarding the use of proceeds and its purchase of the Euro-denominated Notes should be based upon such investigation as it deems necessary.[189]

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188. HM TREASURY & UK DEBT MGMT. OFF., *supra* note 32, at Disclaimer 2/3.

189. REPUBLIC OF KOR., PROSPECTUS SUPPLEMENT S-6–S-7 (2021), https://www.sec.gov/Archives/edgar/data/0000873465/000119312521296221/d197329d424b2.htm [https://perma.cc/PKZ8-NASA].

This sort of provision is driven not only by the potential for securities litigation, but also the slipperiness of "green," "social," and "sustainable" definitions. Consequently, the power of the verification loses force as issuers expressly assert its limitations and encourage each investor to "determine for itself the relevance of the information contained in this prospectus."[190]

E. Potential Flaws in the Definition of "Green" and "Climate" Bonds

Much work has been done to create a designation of "green" bonds. However, the category suffers from being at once underinclusive and overinclusive. The hard work of developing green bond standards has resulted in the creation of workable categories of green investments. Further, the development of standards in certification supplies a common framework for evaluating green products that reduces the information costs of investors. As was described in Part II, much of this work was accomplished through private industry groups, spurred on by demand from sustainability-conscious institutional investors. In addition to these private-sector initiatives, some governments have made progress in developing their own standards, with China and the EU as leaders in the field.[191] The EU standard, for example, was created as a voluntary standard to help "scale up and raise the environmental ambitions of the green bond market."[192] As member states adopt national legislation based on the standard, the regulation is intended to "set a gold standard for how companies and public authorities can use green bonds to raise funds on capital markets to finance such

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190. *Id.* at S-7.

191. The EU explains the reasoning for development of a green bond standard, despite the existence of private standards, in a set of FAQs accompanying the release of the standard:

> The future standard should provide issuers of high quality green bonds a reliable and trustworthy way to demonstrate their strong environmental commitment. For bond investors, the standard should enable them to more easily trust that their investments are sustainable, thereby reducing the risk of greenwashing. Based on its close alignment with the EU Taxonomy and its strong focus on market integrity and investor protection, the EUGBS will set a new benchmark for green bonds. The overall aim is to create a 'gold standard' that other market standards can be compared to, and potentially seek to align.

Questions and Answers: European Green Bonds Regulation, EUR. COMM'N (July 6, 2021), https://ec.europa.eu/commission/presscorner/detail/en/qanda_21_3406 [https://perma.cc/CGG6-WL5P] [hereinafter *Questions and Answers*].

192. *Green Bond Standard*, EUR. COMM'N, https://ec.europa.eu/info/business-economy-euro/banking-and-finance/sustainable-finance/european-green-bond-standard_en [https://perma.cc/FLE3-YPGP].

ambitious large-scale investments, while meeting tough sustainability requirements and protecting investors."[193]

The EU standard requires the development of four key features: 1) taxonomy-alignment (with use of proceeds only for projects aligned with the EU taxonomy), 2) transparency in how the proceeds are allocated through detailed reporting requirements, 3) external review by independent verifiers, and 4) supervision by the European Securities Markets Authority (ESMA) of reviewers, with verifiers required to register with and supervised by the ESMA.[194]

Yet, as noted above, the imposition of uniform standards for both green instruments and the certification and rating methodologies of green instruments can be anti-competitive and can dampen innovation in a rapidly-evolving technological, political, and social environment.[195] The development of green standards thus represents a regulatory trade-off: standardized definitions of green or sustainable projects and products will reduce search and information costs, allow for comparability of green investment opportunities, and should allow for a more rapid development of expertise and reputation by certifiers, yet the development of such frameworks may result in a more rigid and brittle market that struggles to adapt to changing policies, social preferences, and technologies.

IV. DEVELOPING A SOUND REGULATORY STRUCTURE FOR SUSTAINABILITY RATINGS AGENCIES

A. *Lessons from the Regulation of Credit Ratings Agencies*

The role of credit ratings agencies in the financial system came under acute scrutiny in the ebb of the Financial Crisis. Congress was particularly concerned with the "systemic importance of credit ratings and the reliance placed on credit ratings by individual and institutional

193. *Id.*

194. *Id.* (noting that the external supervision requirement is intended to "ensure the quality of their services and the reliability of their reviews to protect investors and ensure market integrity").

195. *See* Sangiorgi & Spatt, *supra* note 174, at 1; *see ESMA Responds to EU Green Bond Standard Consultation*, EUR. SEC. & MKTS. AUTH. (Oct. 2, 2020), https://www.esma.europa.eu/press-news/esma-news/esma-responds-eu-green-bond-standard-consultation [https://perma.cc/KKG8-U3W9] (the ESMA highlights that "[i]t is important to ensure that the [EU's final rules on external verifiers] will not result in market concentration of external reviewers which may disadvantage issuers, especially SMEs, as well as smaller external reviewers, while still ensuring that the market develops in a properly regulated and supervised way at EU level").

investors and financial regulators."[196] Simply, the financial system was too reliant on the "critical gatekeeper" role played by the CRAs,[197] a reliance made more tenuous and fraught by the conflicts of interest faced by credit ratings agencies.[198] These conflicts were thought to have caused or contributed to the inaccuracy of the ratings of structured financial products; this inaccuracy, Congress found, "contributed significantly to the mismanagement of risks by financial institutions and investors, which in turn adversely impacted the health of the economy in the United States and around the world."[199]

The Dodd-Frank Act imposed new regulations on CRAs to limit the systemic risk posed by reliance on credit ratings.[200] Among other

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196. Dodd-Frank Wall Street Reform and Consumer Protection Act, Pub. L. No. 111-203, 124 Stat. 1376, 1872 (2010).

197. *Id.*

198. *Id.*

199. *Id.*

200. *See* Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, § 702, 116 Stat. 745, 797–98 (2002) (demonstrating that Dodd-Frank was not the first effort to regulate CRAs, and indeed was only one of several efforts in recent history. The failure of CRAs to predict and warn investors of the impending failure of companies like Enron and WorldCom raised Congress' attention, and section 702 of the Sarbanes-Oxley Act directed the SEC to "conduct a study of the role and function of credit rating agencies in the operation of the securities market." *Id.* Likewise, Sarbanes-Oxley required the SEC to study:

> (A) the role of credit rating agencies in the evaluation of issuers of securities; (B) the importance of that role to investors and the functioning of the securities markets; (C) any impediments to the accurate appraisal by credit rating agencies of the financial resources and risks of issuers of securities; (D) any barriers to entry into the business of acting as a credit rating agency, and any measures needed to remove such barriers; (E) any measures which may be required to improve the dissemination of information concerning such resources and risks when credit rating agencies announce credit ratings; and (F) any conflicts of interest in the operation of credit rating agencies and measures to prevent such conflicts or ameliorate the consequences of such conflicts.

Id. at 797–98. The SEC produced the study in 2003, and also published a concept release on CRAs seeking input on fifty-six questions related to specific CRA regulations). *See* U.S. SEC. & EXCH. COMMN, REPORT ON THE ROLE AND FUNCTION OF CREDIT RATING AGENCIES IN THE OPERATION OF THE SECURITIES MARKETS 1 (2003), http://www.sec.gov/news/studies/credratingreport0103.pdf; *see also* Ratings Agencies and the Use of Credit Ratings under the Federal Securities Laws, Exchange Act Release Nos. 33-8236, 34-47972, IC-26066 (June 4, 2003), http://www.sec.gov/rules/concept/33-8236.htm. *See generally* Credit Rating Agency Reform Act of 2006, Pub. L. No. 109-291, 120 Stat. 1327 (2006) (noting that on the eve of the financial crisis, Congress passed the Credit Rating Agency Reform Act of

things, Dodd-Frank instituted a Sarbanes-Oxley Act[201] section 404-like requirement[202] that CRAs "establish, maintain, enforce, and document an effective internal control structure governing the implementation of and adherence to policies, procedures, and methodologies for determining credit ratings."[203] CRAs must also submit to the SEC an annual internal controls report with a description of the responsibility of the management of the nationally recognized statistical rating organization in establishing and maintaining an effective internal control system, an assessment of the effectiveness of the internal control system, and an attestation by the CRA's chief executive officer.[204] Dodd-Frank also imposed rules designed to manage conflicts of interest. Among other things, the SEC was required to promulgate rules to prevent the sales and marketing considerations from influencing ratings. CRAs are also required to conduct a "look-back" review in any case in which an employee of an issuer (or underwriter working with an issuer) subject to a credit rating, was employed by the CRA and participated in any capacity in determining credit ratings for the issuer during the one-year period preceding the date an action was taken with respect to the credit rating,[205] and to report to the SEC any case in which the CRA knows or could reasonably be expected to know that certain CRA employees[206] have obtained employment within the previous five years with a company for which the CRA provided credit ratings.[207]

2006, which formalized the SEC's authority to regulate CRAs. In promulgating the legislation, Congress found that oversight of CRAs "serves the compelling interest of investor protection," and "the 2 largest credit rating agencies serve the vast majority of the market, and additional competition is in the public interest").

201. Pub. L. No. 107-204, 116 Stat. 745 (2002).

202. Section 404 requires the SEC to prescribe rules requiring public companies to prepare internal controls report that must (1) "state the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting," and (2) "contain an assessment, as of the end of the most recent fiscal year of the issuer, of the effectiveness of the internal control structure and procedures of the issuer for financial reporting." *Id.* at 789.

203. §§ 931–32, 124 Stat. 1376 at 1872–73.

204. *Id.*

205. *Id.* at 1875.

206. *Id.* (noting that the employees covered by the statute include senior officers and employees who "participated in any capacity in determining credit ratings for such obligor, issuer, underwriter, or sponsor," as well as anyone who supervised such employees).

207. *Id.*

Dodd-Frank required the SEC to prescribe rules "for the protection of investors and in the public interest" that require CRAs to disclose the procedures and methodologies, "including qualitative and quantitative data and models," used by the CRA in developing credit ratings.[208] As a result of the Dodd-Frank Act, SEC rules were promulgated to compel CRAs to "establish, maintain, enforce, and document standards of training, experience, and competence for the individuals they employ to participate in the determination of credit ratings."[209] At a minimum, CRAs must periodically test employees participating in the determination of credit ratings on their knowledge of the procedures and methodologies used by the CRA to determine ratings, and the CRA must have at "least one individual with an appropriate level of experience in performing credit analysis, but not less than three years, participates in the determination of a credit rating."[210]

Perhaps Dodd-Frank's most important change to the credit rating business was in adjusting the liability calculation for CRAs: section 933(b) lowered the pleading requirements in private rights of action against CRAs under section 10(b) of the Exchange Act of 1934.[211] The

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208. *Id.* at 1879; S&P GLOB., Principles of Credit Ratings 1–2 (2011), https://disclosure.spglobal.com/ratings/en/regulatory/delegate/getPDF?articleId=2620923&type=COMMENTS&subType=REGULATORY [https://perma.cc/83DC-GRU5] (discussing how the criteria that S&P uses in evaluating structured finance securitizations are the credit quality of the securitized assets, legal and regulatory risks, payment structure and cash flow mechanics, operational and administrative risks, and counterparty risks).

209. Nationally Recognized Statistical Rating Organizations, Exchange Act Release No. 34-72936, 79 Fed. Reg. 55,078, 55,092 (Sept. 15, 2014).

210. *Id.*

211. Pub. L. No. 111-203, § 933(b), 124 Stat. 1376, 1884 (2010). Section 933(b) discusses a private right of action for money damages:

> it shall be sufficient, for purposes of pleading any required state of mind in relation to such action, that the complaint state with particularity facts giving rise to a strong inference that the credit rating agency knowingly or recklessly failed—
>
> (i) to conduct a reasonable investigation of the rated security with respect to the factual elements relied upon by its own methodology for evaluating credit risk; or
>
> (ii) to obtain reasonable verification of such factual elements (which verification may be based on a sampling technique that does not amount to an audit) from other sources that the credit rating agency considered to be competent and that were independent of the issuer and underwriter.

intended impact of this rule was that the CRAs would be disciplined by the threat of liability to produce higher-quality ratings because it would "encourage CRAs to invest in due diligence, to improve their methodology, and to better monitor the performance of their credit analysts."[212] Perversely, however, the rule could also have a negative impact on rating accuracy because CRAs are penalized by the rule for overly optimistic ratings, but *not* penalized for overly pessimistic ratings. Thus, to protect their reputations and avoid liability, CRAs might be incentivized to lower ratings "beyond a level justified by an issuer's fundamentals."[213] And indeed, research by Dimitrov, Palia, and Tang suggests that is precisely the effect of Dodd-Frank: CRAs were not incentivized by Dodd-Frank to provide rankings that are more accurate and informative, but instead the regulation led CRAs to "issue lower ratings, give more false warnings,[214] and issue downgrades that are less informative."[215]

Legal scholars also found concerns with Dodd-Frank's attempted CRA regulation. Mann, for example, noted the paradox in Dodd-Frank's effort to marginalize the credit ratings industry while at the same time "subjecting them to a range of regulatory oversight that

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Prior to Dodd-Frank, a plaintiff would have to show that the CRA acted with scienter (knowingly or willfully). *See* Ernst & Ernst v. Hochfelder, 425 U.S. 185, 193 & n.12 (1976) (holding that a private cause of action for damages under section 10(b) and SEC Rule 10b-5 will not lie in the absence of any allegation of scienter).

212. Valetin Dimitrov, Darius Palia & Leo Tang, Impact of the Dodd-Frank Act on Credit Ratings 2 (Apr. 2, 2014) (unpublished manuscript), https://ssrn.com/abstract=2444990 [https://perma.cc/JK5A-DJJB] (explaining the "disciplining hypothesis" of the new liability rule).

213. *See id.* (explaining the "reputation hypothesis").

214. A false warning is defined "as speculative grade rated issues that do not default within one year." *Id.* at 3. The authors find that the odds of a false warning are 1.84 times greater after the passage of Dodd-Frank (measuring from July 2010 to May 2012). *Id.*

215. *Id.* at 1. The authors discuss how the information level in credit ratings was measured by bond and stock market responses to ratings downgrades:

> Prior to the passage of Dodd-Frank, bond prices decrease on average by 1.023% following a rating downgrade; this compares to a decrease of 0.654% following the passage of Dodd-Frank. In contrast, the bond market's response to rating upgrades remains the same. Fourth, we find that the stock market also responds less to rating downgrades in the post-Dodd-Frank period. Stock prices decrease by 2.461% following a rating downgrade in the pre-Dodd-Frank period; in the post-Dodd-Frank period, the decrease is only 1.248%

Id. at 3.

underscored rating agencies' importance"[216] (and, as an unintended consequence, perpetuating a regulatory apparatus that was thought to have created barriers to entry). Congress "embraced a hodgepodge of broad and contradictory reforms in the hope that some combination of approaches would solve the problems, or at minimum absolve politicians from blame,"[217] and the Act ultimately failed to develop a competitive market for high-quality credit ratings.

Coffee likewise expressed skepticism that Dodd-Frank would have a meaningful impact on the market's reliance on ratings.[218] While the idea that reducing the regulatory power of the ratings agencies is "simple, sweeping, and requires no understanding of the institutional or regulatory context,"[219] he argued that reducing this power is likely to be a slow and confused process. What's more, tearing out the embedded reliance on credit ratings risks damaging the market structures built up around them. For example, Coffee describes the removal of Rule 436(g), which gave ratings agencies an exemption from liability as experts under section 11 of the Securities Act.[220] Section 11 attaches liability to experts for false or misleading statements in their expert opinions.[221] Rule 436(g) allowed the ratings agencies to avoid consenting to being "experts" for purposes of section 11, thus evading potential liability under the Act.[222] Congress specifically ended this workaround in the Dodd-Frank Act.[223] But CRAs refused to expose themselves to liability by declining to consent to their ratings' inclusion in bond registration statements. Because SEC

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216. Jeffrey Manns, *Downgrading Rating Agency Reform* 81 GEO. WASH. L. REV. 101, 120 (2013).

217. *Id.* at 105.

218. John C. Coffee, Jr., *Ratings Reform: The Good, the Bad, and the Ugly*, 1 HARV. BUS. L. REV. 231, 231 (2011) [hereinafter *Ratings Reform*].

219. *Id.* at 264.

220. *See id.* at 264–65 (opining that the reaction of rating agencies to the repeal of Rule 436(g) illustrates the challenges inherent in reducing rating agencies' regulatory power and advocating instead for "incremental" reforms).

221. *See* 15 U.S.C. § 77k(a) (making liable for untruths and misleading omissions in registration statements "every accountant, engineer, or appraiser, or any person whose profession gives authority to a statement made by him" who prepared or certified the statement or a related report or valuation).

222. *See* 17 C.F.R. § 230.436(g)(1) (2010) (making ratings by nationally recognized statistical rating organizations not part of the registration statements certified by experts).

223. Section 939G states simply that "Rule 436(g), promulgated by the Securities and Exchange Commission under the Securities Act of 1933, shall have no force or effect." Dodd-Frank Act, Pub. L. No. 111-203, § 939G, 124 Stat. 1376, 1890 (2010).

rules required disclosure of the rating in the registration statement, debt markets briefly froze, and some offerings did not move forward while the SEC struggled to negotiate a compromise.

Partnoy also views the Dodd-Frank reforms as having "little or no impact" on the regulatory reliance on credit ratings, and that "therefore the same credit rating-related dangers, market distortions, and inefficient allocations of capital that led to the 2007–08 global financial crisis potentially remain today."[224] Dodd-Frank's reform were supposed to increase oversight and accountability, on the one hand, while reducing the importance of CRAs on the other. Both of these efforts have failed to produce meaningful results.

Accountability and oversight were to come from the increased transparency required under Dodd-Frank, moderated and enforced by the newly created Office of Credit Ratings within the SEC.[225] While the OCR has found numerous mistakes and methodological flaws that resulted in several erroneous ratings,[226] the OCR "hides the identity of the CRAs it investigates. It is not possible to determine which NRSROs committed the various violations."[227] Partnoy argues that the OCR is also limited by the SEC's massive workload, and should have been

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224. Frank Partnoy, *What's (Still) Wrong with Credit Ratings*, 92 WASH. L. REV. 1407, 1414 (2017). Partnoy and a co-author also raised concerns about Dodd-Frank not long after the SEC's initial rulemakings. *See* Aline Darbellay & Frank Partnoy, *Credit Rating Agencies and Regulatory Reform*, *in* RESEARCH HANDBOOK ON THE ECONOMICS OF CORPORATE LAW 286–87, 293 (Claire A. Hill & Brett H. McDonnell eds., 2012) (discussing concerns that Dodd-Frank reinforces the credit rating oligopoly and fails to address systemic issues such as conflicts of interest in CRAs, while leaving open questions on expert liability).

225. The Office of Credit Ratings (OCR) was established under Sec. 932(a)(8) of the Dodd-Frank Act, which requires the SEC to create the OCR

> to administer the rules of the Commission (i) with respect to the practices of nationally recognized statistical rating organizations in determining ratings, for the protection of users of credit ratings and in the public interest; (ii) to promote accuracy in credit ratings issued by nationally recognized statistical rating organizations; and (iii) to ensure that such ratings are not unduly influenced by conflicts of interest.

§ 932(a)(8), 124 Stat. at 1877.

226. *See, e.g.*, SEC, 2015 SUMMARY REPORT OF COMMISSION STAFF'S EXAMINATIONS OF EACH NATIONALLY RECOGNIZED STATISTICAL RATING ORGANIZATION 8 (2015) (finding that an NRSRO did not correctly apply their rating methodology).

227. Partnoy, *supra* note 224, at 1431.

created as a separate agency, rather than as an office within the already overburdened SEC.[228]

The promised accountability for poor quality ratings has likewise melted away in the light of market practice. As noted by Coffee, when the CRAs decided to take their ball and go home by declining to allow credit rating opinions to be added to registration statements—thereby creating potential liability under section 11—the SEC decided to effectively change the rules, contra Congress' wishes, so that CRAs would continue to play.[229] "Because of the SEC's munificence," Partnoy notes, "the credit rating agencies cannot be liable as experts under section 11, even though Dodd-Frank clearly provides that they should be."[230]

Finally, Dodd-Frank did not have a meaningful impact on the flawed methodologies used by CRAs. Although the CRAs revised their methodologies post-Dodd-Frank, Partnoy argues, the ratings still fail to recognize the human and financial system complexities that drive credit risks (and the underlying factors associated with credit risk), and instead "continue to rely on the simplistic categorization and addition of numerical assessments in different, overlapping categories."[231] To reference just one concern as an example, a company's competitive risk assessment is developed through analysis of the company by reference to one of six "Competitive Position Group Profiles,"[232] yet the groupings of companies in this way produces "baffling" results:

> [a] company in "paper packaging" is grouped with airlines, technology distributors, semiconductors, film and TV programming production, fiber-optic carriers, and offshore contract drilling (all "capital or asset focus"), whereas a company in "paper products" is

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228. *See id.* at 1432 (lamenting that although the SEC has the ability to bring enforcement actions pursuant to OCR findings, it cannot bring these actions due to its increased post-Dodd-Frank workload, which makes OCR ineffective).

229. *See id.* at 1434–35 (citing Danielle Carbone, *The Impact of the Dodd-Frank Act's Credit Rating Agency Reform on Public Companies*, 24 INSIGHTS: THE CORP. & SEC. L. ADVISOR 1, 1–2 (2010)) (describing the "game of credit ratings chicken" where NRSROs stopped providing ratings and the SEC responded by not enforcing liability after Congress repealed Rule 436(g), which protected NRSROs from liability under section 11).

230. *Id.* at 1436.

231. *Id.* at 1445–46.

232. *Id.* at 1448. These are "services and product focus;" "product focus/scale driven;" "capital or asset focus;" "commodity focus/cost driven;" "commodity focus/scale driven;" or "national industries and utilities." *Id.* (citing STANDARD & POOR'S RATINGS SERV., CORPORATE METHODOLOGY 15, 16, 23 (2013)).

grouped with coal and consumable fuels, aluminum, and diversified chemicals (all "commodity focus/cost driven").[233]

This among many other concerns leads Partnoy to conclude that Dodd-Frank did not substantially improve credit ratings' informational value, that CRAs still need to make significant changes to their methodologies, and that so long as credit ratings have little informational value, "investors should not rely on credit ratings."[234]

The pathologies of the credit rating system are directly relevant to the business of sustainability ratings, and the lessons learned from attempted regulation of CRAs can help protect against the growth of these pathologies in the sustainability ratings industry. In the following Section, this Article builds on the history of CRAs and CRA regulation, the Article suggesting a structure for the regulation of the sustainability ratings industry that is based on allowing verifiers to pursue the carrot of reputation capital while remaining subject to the stick of securities liability.

B. The Virtues and Vices of Regulation

Like the US, the European Union (EU) has struggled with CRA regulation.[235] As the EU turns to verifier regulation, it again faces the challenge of creating rules that create adequate standard for verifiers without instantiating barriers to entry that will generate a regulatory license for verifiers. In a FAQ on green bonds regulation, the EU noted the need for reliable verification. In response to the question "How will investors know the bonds are really green?," the EU responded that its regulations will define requirements for external reviewers, while acknowledging the "crucial role" played by verifiers "in maintaining the integrity of the green bond market by assessing the greenness of each bond and the activities it funds."[236] And who will watch the watchers? The regulations "set out requirements for transparency, professional qualifications and avoiding conflicts of interest," and will ensure compliance with these regulations through the ESMA.[237] As

233. *Id.* at 1448–49.

234. *Id.* at 1471–72.

235. For example, a 2015 report noted that the EU's regulatory structure created a "two-tier market structure, in which small CRAs cannot compete on an equal footing with the large CRAs," and that "the criterion of 'relevant coverage' represents an effective barrier to entry." EUR. CT. OF AUDITORS, EU SUPERVISION OF CREDIT RATING AGENCIES—WELL ESTABLISHED BUT NOT YET FULLY EFFECTIVE 21 (2015).

236. *Questions and Answers*, *supra* note 191.

237. *Id.*

described below, verifiers will be required to "comply with requirements on qualifications, experience, record keeping, transparency, and conflict of interest management."[238]

The proposed EU green bond regulatory system demonstrates the importance of sustainability verification simply by how much real estate the regulation of external reviewers claims in the proposed rules.[239] The ESMA explains the importance of external verification by declaring that external reviewers' "rigorous assessments of an issuer's green bond framework" will "ensure reliability and alignment with the [EU's green bond definitions]."[240] The ESMA argues that the "best way of ensuring high quality assessments is to introduce a formal EU registration and supervision regime of these external reviewers" to "ensure that the entities conducting such assessments have adequate resources, are using robust methodologies and have measures in place to protect against conflicts of interest."[241]

Title III of the proposed EU green bond regulation sets out application requirements, organizational structure, process, and documentation requirements, and a structure for the creation and regulation of "competent authorities" to supervise the external reviewers.[242] The application process requires extensive disclosure from external reviewers, including detailed information on all of the key employees, a description of procedures and methodologies for conducting pre- and post-issuance reviews, and disclosure of conflicts of interest policies and procedures.[243] Registration as a reviewer is also subject to a seemingly murky process of merit qualification, where the ESMA will only register external reviewer applicants that not only possess the requisite qualifications, experience, and skill to perform the tasks required under the regulation, but are also "of sufficiently

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238. *Id.*

239. Of the fifty pages of the proposed rules, rules governing the role and operation of external reviewers takes up more than half of the entire regulation. *See* EUR. COMM'N, PROPOSAL FOR A REGULATION OF THE EUROPEAN PARLIAMENT AND OF THE COUNCIL ON EUROPEAN GREEN BONDS 31 (2021), https://eur-lex.europa.eu/resource.html?uri=cellar:e77212e8-df07-11eb-895a-01aa75ed71a1.0001.02/DOC_1&format=PDF [https://perma.cc/X4S5-6VX7] (expounding on the role of external reviewers of green bonds in Title III and their supervision in Title IV, which together span thirty-two pages).

240. *See* EUR. SEC. & MKTS. AUTH., *supra* note 195.

241. *Id.*

242. *See* EUR. COMM'N, *supra* note 239, at 31–45.

243. *Id.* at 31 (Title III, Chapter I, Article 15(1)).

good repute."[244] External reviewers must also employ "appropriate systems, resources and procedures to comply with their obligations" under the rules, and, in a requirement that echoes the Sarbanes-Oxley Act,[245] must "monitor and evaluate the adequacy and effectiveness of their systems, resources and procedures . . . at least annually and take appropriate measures to address any deficiencies."[246]

The analysts employed by the reviewers must "have the necessary knowledge and experience for the duties assigned," and the ESMA is tasked with developing "regulatory technical standards specifying the criteria to assess the appropriateness of the knowledge and experience" of the analysts conducting the external review.[247] The regulation also imposes an obligation to create "a permanent and effective compliance function" that has sufficient resources and access to information to effectively monitor the external reviewer, does not monitor or assess its own performance, and is not compensated in relation to the business performance of the external reviewer.[248] The ESMA is again tasked with developing regulations and technical standards for external reviewer compliance professionals.[249] External reviewers are also subject to extensive confidentiality and conflicts of interest rules, which, among other things, require that the fees charged

244. *Id.* at 32 (Title III, Chapter I, Article 15(2)).

245. Sarbanes-Oxley's section 404 creates an obligation for public companies to

> state the responsibility of management for establishing and maintaining an adequate internal control structure and procedures for financial reporting; and [assess], as of the end of the most recent fiscal year of the issuer . . . the effectiveness of the internal control structure and procedures of the issuer for financial reporting.

Sarbanes-Oxley Act of 2002, Pub. L. No. 107-204, § 404, 116 Stat. 745, 789 (2002).

246. EUR. COMM'N, *supra* note 239, at 34 (Title III, Chapter II, Article 18). Article 22 also has specific internal controls rules, requiring external reviewers to "adopt and implement internal due diligence policies and procedures that ensure their business interests do not impair the independence or accuracy of the assessment activities," and to "adopt and implement sound administrative and accounting procedures, internal control mechanisms, and effective control and safeguard arrangements for information processing systems." *Id.* at 36 (Title III, Chapter II, Article 22). The ESMA is required to develop technical standards "specifying the criteria to assess the sound administrative and accounting procedures, internal control mechanisms, and effective control and safeguard arrangements for information processing systems . . . ." *Id.*

247. *Id.* at 34–35 (Title III, Chapter II, Article 20).

248. *Id.* at 35 (Title III, Chapter II, Article 21).

249. *Id.*

by external reviewers for verification may not depend on the outcome of the work performed.[250]

By imposing this regulation, the EU is providing an assurance that someone is indeed watching the watchers and given the general EU preference for regulation over litigation as an enforcement strategy,[251] the decision to pursue a standardized intermediary regulatory solution is not surprising. In the U.S., however, private litigation plays a much more important role in regulating intermediary behavior,[252] and the virtue of verification enforcement based on market mechanisms—reputational capital development and class action securities claims—provides an alternative that avoids the development of a regulatory license, as the EU regulatory structure would tend to germinate.

C. The Development of Reputational Capital in the Verification Market

1. Issuers

To minimize the risk of securities fraud claims, issuers are advised to avoid factual errors by applying the same rigor to obtaining impact measures as they would to other disclosed data, such as financial information, and ensuring that the impact data matches what has been disclosed to regulators (and as reported on regulators' websites).[253] Issuers should also use established metrics, such as those produced by the Sustainability Accounting Standards Board, and provide detail on the parameters of the metrics.[254] Such efforts will be assisted by the EU

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250. *See id.* at 38–39 (Title III, Chapter II, Article 27) (detailing proposed conflicts of interests and confidentiality rules for external reviewers).

251. *See* John C. Coffee, Jr., *Litigation Governance: Taking Accountability Seriously*, 110 COLUM. L. REV. 288, 345 (2010) (observing that Europe prefers legislative regulation and eschews enforcement via litigation, fearing that judicial review is "antidemocratic").

252. *See id.* at 344–45 (elaborating on the U.S.'s embrace of the "private attorney general" model of enforcement, which purports to check government power by permitting private action on rights when the government is hindered by special interests).

253. FRANKLIN et al., *supra* note 53, at 4.

254. *Id.* For example, the disclosure could include information on: expected vs. historical impacts ("[m]any positive impact reports in the context of a green bond refer to the annualized positive impact that they expect based on a project or operating improvement being fully in place (i.e., run-rate), rather than the historically achieved positive impact); whether the projects are completed, funded, or committed; and whether the reporting encompasses the full balance sheet or merely selected projects (issuers should recognize "any material ways in which their non-green bond business

Sustainable Finance Disclosure Regulation (SFDR) and similar regulations.

The key problem with the creation of a regulatory license is in how it distorts the incentives of issuers. If verification is simply a regulatory cost for entering the market, and the verification itself provides little informational value to purchasers, issuers are incentivized to minimize the cost of verification while obtaining a positive verification from a SPO provider. As with the CRA market, if green bond verification is simply a transaction cost, verifiers will begin competing on price and positive verification, rather than on price and informational value. To remedy this concern, this Article in Part IV.D proposes securities liability under section 11 of the Securities Act of 1933 as a means of properly aligning the issuers incentives to seek information quality.

With issuers' incentives aligned with investors' need for high-quality information on green bond commitments, issuers will select verifiers and SPO providers with better reputations. In turn, verifiers will be incentivized to work to acquire reputational capital through high-quality verification.

2. Underwriters

As noted above, issuers are keen to avoid statements in their offering documents that could create securities liability, even at the expense of their green commitments. But even if there were no credible securities enforcement mechanism for green commitments, reputational constraints may act as a check on misstatements and omissions in connection with green bond offerings. Kraakman, for example, argues that "even without legal liability, accountants, underwriters, and other intermediaries in the securities market would presumably screen against fraudulent transactions in order to safeguard their reputations."[255] The effectiveness of a reputational constraint relies on the interest and ability of investors to select offerings based on the

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activities undercut their positive impacts and clearly describe the scope of their positive impact report to avoid misleading by omission").

255. Kraakman, *supra* note 144, at 61. Coffee is skeptical that underwriters will always "strive diligently to preserve [their] credibility," and suggests that "the anecdotal evidence has recently been overwhelming that gatekeepers may be undermotivated to protect their reputations." John C. Coffee, *The Acquiescent Gatekeeper: Reputational Intermediaries, Auditor Independence and the Governance of Accounting* 3 (Colum. L. & Econ. Stud., Working Paper No. 191, 2001), https://scholarship.law.columbia.edu/faculty_scholarship/1249 [https://perma.cc/K3KD-CEZQ].

reputation of the underwriter (and, accordingly, punishing underwriters who support poor-quality offerings). Historically, investors have relied on banks to perform diligence as well as to provide ongoing monitoring of issuers; in the case of sovereign bonds, as an example, defaults on bonds have alerted investors to the risk that the bank may not be willing or able to adequately perform a monitoring and advising function with issuers, and bond offerings supported by the same bank "appeared riskier to investors and their prices fell in response."[256] Such results have supported a "certification hypothesis," in which "underwriters can help to reduce information asymmetries between investors and the issuing firm by certifying issuer quality though their reputation."[257] Under this theory, underwriters are incentivized to invest in building and maintaining a reputation with investors because the "underwriters' business model is based on repeated interaction with investors."[258] And indeed, researchers have identified higher offering prices for issuances with high-reputation underwriters, indicating that "reputation acts to certify the value of a debt issue to investors."[259] As a general matter, these findings suggest that underwriter reputation can support verifiers' reputation in green bond offerings.

A difficulty with this hypothesis, however, is that underwriters can be assumed to have less pronounced information asymmetries with a standard bond issuance compared to a green bond issuance. A green bond issuance will have all the potential issuer/underwriter informational asymmetries of a standard bond offering, but with the added challenge of evaluating the "greenness" of the bond offering. Second-party opinions from green bond verifiers are necessary because

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256. Sasha Indarte, Bad News Bankers: Underwriter Reputation and Contagion in Pre-1914 Sovereign Debt Markets 29 (Apr. 5, 2021) (unpublished manuscript), https://rodneywhitecenter.wharton.upenn.edu/wp-content/uploads/2021/06/15-21.Indarte.pdf [https://perma.cc/3ZVQ-E33F]. For more recent evidence of the importance of bank reputation effects, see Douglas O. Cook, Carolin D. Schellhorn & Lewis J. Spellman, *Lender Certification Premiums*, 27 J. BANKING & FIN. 1561, 1577–78 (2003) (finding that lenders exact a certification premium as part of their lending rate that is commensurate with their reputation).

257. Christian Andres, André Betzer & Peter Limbach, *Underwriter Reputation and the Quality of Certification: Evidence from High-Yield Bonds*, 40 J. BANKING & FIN. 97, 98 (2014) (citing James R. Booth & Richard L. Smith, *Capital Raising, Underwriting, and the Certification Hypothesis*, 15 J. FIN. ECON. 261 (1986)).

258. *Id.*

259. Miles Livingston & Robert E. Miller, *Investment Bank Reputation and the Underwriting of Nonconvertible Debt*, FIN. MGMT., Summer 2000, at 21.

they are experts in evaluating an offering against the GBP; underwriters do not have this expertise, and instead are themselves faced with an information asymmetry with respect to the green bond verifier. As a result, one should be cautious about how much weight should be given to underwriter reputation, given that they are not as capable of conducting diligence on, for example, green impact disclosures as they might be with the issuer's financial disclosures.

On the other hand, underwriters will be able to evaluate the quality of green bond verifiers over time, and therefore may be able to increasingly rely on reputational constraints of the verifiers. Because underwriters are repeat players in the debt markets and have the ability to steer an issuer to higher quality verifiers, they should be able to help facilitate the development of a reputation market among verifiers. This question will undoubtedly be the basis of future research on both underwriter and verifier reputation in green bond offerings.

3. Verifiers

Reliance in the sustainability verification industry may be more important than for CRAs (and so reduction less of a goal) if we believe that the information asymmetries are greater in the green bond market. Sustainability is not a quality ranking, like CRAs, but merely a categorization. Are there different incentives? Note that you can't offer graduated ratings as an inducement to issuers—you are either in or out. But verifiers will still face pressure, just like CRAs, to put issuers in the "in" group, just like CRAs may face pressure to keep issuers in the "investment-grade" category.[260]

Note also that the stakes are high with getting it wrong. Just as with CRAs, there could be systemic risk with green bond failures, though the failures are less likely to be financial systems but perhaps danger to ecological systems.

As noted earlier, competition for regulatory capital will likely drive consolidation of the market if the market is constructed to allow for competition for reputation rather than competition on price and easy grading. It is not clear, on the other hand, that regulation of the kind the EU is proposing will drive consolidation, although that seems to have occurred with CRAs and seems a natural consequence of a struggle for market share over a regulatory license market, just as it is a natural consequence of competition. Either case may result in hard-

260. *See* 23 U.S.C. § 601(a)(4) (defining "investment-grade rating" as BBB minus, Baa3, bbb minus, BBB (low), or higher, which indicates a low risk of default).

won gains that incumbents may strive to protect through the erection of regulatory constraints that serve as barriers to entry to the market. This suggests that not only should regulators exercise caution in creation regulation that may develop a regulatory license, but also that, even if the market is initially designed as a reputation-driven market, successful verifiers may seek to protect their gains through regulation; the caution against barrier-creating regulation thus persists as long as there is a market to regulate.

4. Verification certifiers

CBI, an industry group that helps set standards for climate bonds and for the sustainability industry generally, also has a role to play in the development of reputational capital.[261] First, CBI can help provide a backstop for green bond verifiers by naming and shaming companies that fail to live up to their green bond commitments. Because green bond indexes often rely on CBI's list of approved green bonds in determining which bonds to include, CBI "offers a first line of defense against charges of greenwashing."[262] While CBI has historically not publicly named and shamed issuers who fail to live up to their commitments, recently CBI began to identify such issuers, as Visa, Con Edison, Boston Properties, and several foreign issuers were informed by CBI that they had failed to meet its transparency and environmental impact standards.[263]

CBI is an industry group and does not have direct regulatory authority over verifiers and SPO providers, but they do play an important role in developing standards for verifiers and in adding an additional layer of reputational equity to the verification process.[264] It is unclear how CBI will determine compliance with its standards. If it ascertains non-compliance through its own occasional auditing, rather than relying on information from verifiers, it could also serve as a

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261. *See Standard*, CLIMATE BONDS INITIATIVE, https://www.climatebonds.net/standard [https://perma.cc/EP3K-DNTH].

262. David Caleb Mutua, *Visa, Con Edison Green Bonds Fail to Meet Standards, CBI Says*, BLOOMBERG (May 24, 2022, 2:00 AM), https://www.bloomberg.com/news/articles/2022-05-24/visa-con-edison-green-bonds-fail-to-meet-standards-cbi-says [https://perma.cc/76CH-6PB5].

263. *See id.* (chronicling the first time in its thirteen-year history that CBI identified issuers that failed to meet its standards).

264. *See* CLIMATE BONDS INITIATIVE, *supra* note 261, at 3–5 (outlining the standards for CBI certification, which bond and loan issuers may voluntarily seek).

means of ensuring verifier quality and providing useful information to issuers as they select SPO providers.

V. THE IMPOSITION OF SECURITIES LIABILITY FOR VERIFIERS (AND ISSUERS)

The policy prescription that the market should be lightly regulated to avoid the creation of a regulatory license is not provocative. But it is also relatively toothless, and on its own is unlikely to generate the kind of incentives that will protect against greenwashing and weak verification. This Part offers a second, buttressing policy prescription: the potential for Securities Act liability for verifiers (and by extension, issuers). Exposing verifiers to securities liability is more controversial, but as this Part will argue, is also essential to creating the appropriate market incentives that will ensure high-quality verification.

Section 11 provides that experts may be liable for material misstatements and omissions in registration statements in the opinions they provide to investors.[265] Experts are not liable for other misstatements or omissions in the registration statement, and even for the opinion, experts may make use of a "due diligence" defense[266] in which the expert is shielded from liability if the expert had

> after reasonable investigation, reasonable ground to believe and did believe, at the time such part of the registration statement became effective, that the statements therein were true and that there was no omission to state a material fact required to be stated therein or necessary to make the statements therein not misleading . . . .[267]

Auditors are already subject to section 11 liability through the application of these sections, but, coupled with the due diligence defense, the application of liability through section 11 is relatively gentle and restrained. Ultimately, auditors are expected to perform

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265. Section 11 liability attaches to misstatements and omissions made by

> every accountant, engineer, or appraiser, or any person whose profession gives authority to a statement made by him, who has with his consent been named as having prepared or certified any part of the registration statement, or as having prepared or certified any report or valuation which is used in connection with the registration statement, with respect to the statement in such registration statement, report, or valuation, which purports to have been prepared or certified by him.

15 U.S.C. § 77k(a)(4).

266. For a discussion of the due diligence defense as applied to opinions, see William K. Sjostrom, Jr., *The Due Diligence Defense Under Section 11 of the Securities Act of 1933*, 44 BRANDEIS L.J. 549, 596 (2006).

267. § 77k(b)(3).

with the customary care and attention as is to be reasonably expected from the profession, and section 11's due diligence defense does not impose "a standard higher than that recognized in their profession."[268]

The SEC need not be involved if investors would simply require, as a matter of deal practice, that verifiers should include their second-party opinions as part of a registration statement. This is not a legal requirement, but if investors are serious about wanted to ensure the quality of verification, they can require this to be part of the offering documents, and therefore subject to section 11 liability. Since this would be an expert opinion, the verifiers would only be subject to liability based on their own section; they would not have liability for parts of the document that they do not control.

The imposition of section 11 liability to SPO providers is strong medicine, but several justifications support the use of section 11 as a disciplining mechanism. First, the statute's language was expressly designed to govern the very kind of expert advice provided by SPO providers. The language of section 11 provides liability for misstatements and omissions for "any person whose profession gives authority to a statement made by him, who has with his consent been named as having prepared or certified . . . any report or valuation which is used in connection with the registration statement . . . ."[269] If an SPO provider is not a person whose profession gives authority to their opinion, then of what good or use is the opinion? And because SPOs are used in connection with a registered offering, they seem to already satisfy the conditions required under section 11.

Practitioners have recognized this potential for lability. A Latham & Watkins client alert notes, for example, that "any such expert can in turn be held liable under U.S. securities law to the extent the applicable disclosure is materially misleading," and suggests that "[t]o avoid any possibility of unexpected liability or the need for a consent, it is advisable to avoid naming the SPO provider in a registered offering."[270]

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268. *See* Escott v. BarChris Constr. Corp., 283 F. Supp. 643, 703 (S.D.N.Y. 1968) (finding that accountants need not meet a standard higher than that recognized in the profession to establish a due diligence defense).

269. § 77k(a)(4).

270. AARON FRANKLIN, PAUL DAVIES, PAUL DUDEK, JACK MATHEWS & KRISTINA WYATT, BLOOMBERG L., GREEN BOND SECOND PARTY OPINIONS: LEGAL AND PRACTICE CONSIDERATIONS 5 (2020), https://www.lw.com/admin/upload/SiteAttachments/GreenBondSecondPartyOpinionsECO48234.pdf [https://perma.cc/9ZFR-4XZS].

This leads to a second justification: the strong medicine is ultimately fairly benign when taken in context of the apportionment of risk among the issuer and the SPO provider. As noted above, legal counsel may suggest omitting the SPO provider's name from the registration statement to limit liability. But counsel would not suggest omitting the SPO provider's name to protect the provider, but rather because "[s]uch liability may be passed on to the issuer to the extent required under the terms of any indemnities included in the issuer's engagement with the SPO provider."[271] This both decreases the risk for SPOs and blunts the argument that the imposition of section 11 exposes them to so much risk that they would not be willing to participate in the verification business. They are passing the risk along to issuers. But this may still be a beneficial risk allocation from the perspective of investors because it would create incentives for issuers to select SPOs that have reputations for high quality, thereby encouraging the development of reputational capital.

Finally, the due diligence defense also provides an important limiting effect on the potential for liability for SPOs under section 11. As an added benefit, because the defense is tied to the performance of standards recognized by the profession, the availability of a due diligence defense will naturally encourage development of standardized practices for SPO providers. These standardized practices will help reduce information and search costs among issuers, while also providing SPO providers clearer policies and procedures by which they can benchmark their own practices.

A potential concern with this proposal is that it seems to bypass more direct regulation of issuers. Why could the ICMA not simply require issuers to explicitly state their green bond commitments in their issuance documents in order to receive green bond certification under the GBP? Such a policy prescription would seem to go too far, at least with respect to U.S. securities regulations, because of the particular structure of issuer liability under section 11 of the Securities Act of 1933. Section 11 exposes issuers to strict liability for misstatements in the registration statement; unlike the expertised portion of the registration statement (and, if this Article's prescription were adopted, the second-party opinion prepared by verifiers), there is no due diligence defense available. Such a direct impact on the risk profile for issuers would dramatically chill the market for green bond issuances. Fewer green projects would result as issuers determine that the costs

271. *Id.*

and risks of green bond issuance are simply not worth the benefits. This Article's proposal, by contrast, shifts the liability balance by focusing on the verifiers, thereby impacting the issuer's liability calculation only indirectly, while providing incentives for the issuer to seek out higher-quality SPOs.

The requirement of an expert opinion could come in two ways: either the requirement could be imposed by the SEC, or the market could impose the requirement of an expert opinion. The mere fact that SPOs are not offered as expert opinions as part of registration statements suggests that a market solution is not likely to be forthcoming. If there is to be action taken on the issue, it should come soon, before verifiers begin to work towards the development of a regulatory license. This risk is heightened by the fact that some verifiers are sister businesses to credit ratings agencies, which are already capable of exerting significant lobbying power.[272] It is likely that verifiers will try to create a system that imposes qualifications barriers, like has already begun in the EU. These barriers are to the verifiers' advantage, but are likely to result in the same low-quality information provided by CRAs.

A potential solution, then, is a kind of catch-22: if the SEC requires—through a formal rulemaking or perhaps even nudging the market through a staff bulletin—that expert opinions in the form of SPOs be subject to section 11 liability, this will effectively create a kind of SEC-mandated regulatory license. Unlike what has occurred with CRAs, however, in which the regulatory license enables CRAs to provide ratings with slack (or no) informational value because they do not suffer reputational costs, the imposition of section 11 liability would reinforce the development of reputational capital, allowing verifiers to compete on the quality of information. And, it would do so without the apparatus required under the EU system, which may be both beyond the budgetary capacity of the SEC, given its already-expanding range of responsibilities (including potential rules on climate change disclosure), and risks creating a regulatory license without the strong incentives for reputational quality that a litigation-enforced market would provide.

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272. *See* Partnoy, *supra* note 224, at 1417 (stating that lobbying efforts by rating agencies led to the changes in section 11 liability and the Regulation FD ratings agency exception).

CONCLUSION

The sustainability verification industry, which provides green, sustainability, and social bond certification, SPOs, and ratings, plays an essential role in facilitating sustainable finance markets. The industry has not received the attention it merits, and this Article offers an initial investigation into the role and potential regulation of sustainability verification. The long history of regulation of CRAs provides a useful caution as governments begin to contemplate regulation of sustainability verifiers. Although the EU has begun to construct a robust regulatory structure, such a structure may ultimately warp the incentives of issuers and verifiers and result in the creation of a regulatory license, following the path of CRAs. This Article has proposed a different solution: a market developed through the acquisition of reputational capital, reinforced through the possibility of Securities Act liability for issuers and verifiers. Such a solution has the advantage of aligning verifier incentives with investors' desire for high-quality verification without encouraging the development of a regulatory license.

Yet many questions remain, providing scholars with multiple avenues of inquiry. Among other important issues not discussed here include the contractual terms of the engagement agreement between issuers and verifiers, the role of investors in verifier selection, and the potential segmentation of the verification market along various dimensions, such as municipal or sovereign debt versus corporate debt or specialization for certain types of bonds (such as social bonds, which, compared to green bonds, may require different expertise in evaluating their impact). The issues raised in this Article and the role and regulation of sustainability verifiers will only increase in importance as the market for green, social, and sustainability bonds continues to grow into the trillions.