Climate change concerns: the need for standardization of a second opinion on green bonds

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Abstract. Most investors may not concern with the level of the second opinion of the green bond. In fact, there is a direct effect on these differences. However, the green level would affect the climate change issues directly. The objective of this paper is to propose a standardization of green bond’s second opinion. This would ease the investors to see the differences in green bond levels. The research employed a qualitative method based on the second opinion of green bond reports from independent reviewers. The result showed that the standardization of green bond’s second opinion may ease investors to see the green bond levels. This should affect the price level or image of the green bond itself. Issuers must increase green bond levels to get demands from investors in the future, which also affect climate change issues.

1. Introduction
A green bond attaches to green issues that support to reduce the Green House Gases (GHG). This actually has different levels of impact on the green level. The second party’s opinion can play an important role to determine how green the level of the bond is. Investors would like to invest in a green bond that has a high level of green to create a good image of the company.

The second opinion is given by an independent review institution that provides the level of green of the project bond. However, different institutions have different methods and opinion standards. Therefore, it is quite difficult to compare the opinions of green bond from different independent institutions. Climate change issues may be affected by the opinion of the green bond. A higher quality of green bond opinion will result in a larger contribution to mitigating the Greenhouse Gases (GHG). This would mitigate the climate change issues.

In 2017, Sustainalytics became the biggest review of green bond for 65. United States was the biggest green bond issuance of USD 48,106 million, mostly reviewed by CICERO (Fannie Mae USD 31,548 million). In fact, the big three market shares in 2017 were Sustainalytics (20.5%), CICERO (17.9%), and Vigeo Eiris (6.2%) [1].

This paper strives to propose the standardization for a green bond opinion. It would start from current practices of green bond opinion by the independent review. Then, literature reviews of current opinion would be compared. The study employed the descriptive method of analysis.

2. Literature review
Climate Bond Initiative (CBI) defines that the purpose of second party opinion is,

To provide an assessment of the issuer’s green bond framework, analyzing the “greenness” of eligible projects/assets.
The greener opinion would result in positive impacts on climate change issues. However, not all opinions lead to a different degree of the green bond. The main issue is to give information on green level to investors. In addition, related parties can track how the green mechanism operated for this green bond. Furthermore, in practice, there are three different types of independent review for a pre-issuance opinion. They are [2]:

- Third Party Assurance provided by audit firms to check whether the green bond aligns with the Green Bond Principle and Climate Bond Standard.
- Second Party Opinion provided by service providers to analyze how green of the green bond project.
- Green bond rating provided by Rating Agencies to give a rating of the green bond based on Green Bond Principles.

Not all green bonds have these three types of reviews. They should have a second opinion to analyze the level of green of the projects and programs. Some green bonds are only covered by third-party assurance or green bond rating. Even some green bonds are not covered by an independent review. There is no clear regulation on who should give the second opinions. In addition, investors seem to ignore this issue.

Basically, there are two main references for green bond, which are Green Bond Principles (GBP) and the Climate Bond Initiative that issues Climate Bond Standards (CBS). Table 1 shows some differences between these standards. Most independent reviews refer to GBP as it has many members. Meanwhile, to issue or to be labeled as a climate bond, independent reviews must have a certificate issued by CBI. Then, they have to comply with CBS, which is described in detail.

| Description         | Green Bond Principles                  | Climate Bond Initiative                                      |
|---------------------|----------------------------------------|-------------------------------------------------------------|
| Recognition         | Global                                 | By certified approver based on taxonomy                      |
| Output              | Principles of green bond               | CBI produces (a) a standard for GB certification, (b) a green taxonomy, and (c) a GB list |
| Representativeness  | Nearly 250 members and observers and consensus | A buy side view as reflected by the composition of its Climate Bond Standard Board (CBSB) |
| Defining Green      | High-level guidance on green through its Eligible Project Categories | Detailed guidance through a green taxonomy                     |
| Market Guidance     | Available                               | Certification for independent “accredited verifiers” Cover for GBP |
| List                | Specific                                |                                                              |

Source: ICMA, 2018[3]

The only independent agent that gives an explanation on how to rank the green opinion is CICERO. This would ease investors and related parties to read the green level of the green bond. CICERO starts to have green shades in 2015. They categorized it into four types [4]:

- Dark green, focusing on long-term projects for climate change and long vision of low carbon such as environmentally-friendly wind turbine.
- Medium green, which has long-term projects, but not quite there yet, such as plug-in hybrid busses.
- Light green, which does not have a long-term vision but it has environmentally-friendly projects and solutions
- Brown green, which is in opposition to long-term projects for low carbon and climate resilience, such as new infrastructure for coal.
This category would be interesting as investors should only focus on dark green opinion as they focus to reduce GHG in the future. Unfortunately, there is no survey on how effective this opinion would be to investors’ decision in investing in the green bond.

While Vigeo Eiris gives an opinion based on three dimensions of Environment, Social and Governance (ESG), each dimension has four levels (advanced, good, limited, and weak). Advanced level means a strong commitment to maintaining social responsibility. Good level means a convincing commitment with a reasonable level of risk management. Limited level refers to partially achieved with a weak level of risk management. Finally, weak level means that there is no evidence to solve issues and weak of management level.

3. Research method
The research employs the qualitative method based on the second opinion of independent reviews in 2018. It would be effective to exclusively analyze the updated green bond report, and how they assess the green bond opinion. Totally, there are two third-party assurances, five-second party opinions, and two green bond ratings. However, the green bond should only be rated by independent reviews that are second party opinion. In fact, other institutions can give an opinion with additional service assurance.

| Type                | Total |
|---------------------|-------|
| Third-party assurance | 2     |
| Second-party opinion | 5     |
| Green bond rating    | 2     |

The research is conducted by analysing the second opinion report of the green bond. Assessment method is also evaluated among independent reviews and then the proposal of green bond opinion is constructed based on the best method and approach.

4. Analysis of green bond opinion
The analysis starts from each opinion of an independent review that has been discussed and grouped in the literature review. However, this paper focuses only on second party opinion. However, in fact, such other types of opinion as third-party assurance and green bond rating are also used. This refers to https://www.climatebonds.net specifying that green bonds also have a source of the opinion of their green bonds.

CICERO has the criteria to determine the green level, whether it is dark, medium or light green. From table 3, it can be seen that all projects can be generalized in one opinion. However, this can be biased as there is no weight for each category contribution. As there is no score calculation and range for each, the determination of overall opinion can be subjective. For example, the Stockholm Environment Institute actually can get a dark green opinion but they get medium green instead. Components of dark green are more dominant than medium green.
Table 3. CICERO projects and opinions

| No | Projects                                           | Opinion                        | Overall Opinion   |
|----|---------------------------------------------------|--------------------------------|-------------------|
| 1  | Stockholm Environment Institute                   | Medium green                   | Medium green      |
|    | New property with LEED                            | Medium green                   |                   |
|    | Energy efficiency of the building                 | Medium to dark green           |                   |
|    | Solar energy                                      | Dark green                     |                   |
|    | Electric transportation                           | Dark green                     |                   |
|    | Biological diversity                              | Dark green                     |                   |
| 2  | Landshypotek Bank                                 | Dark to medium green           | Dark green        |
|    | Investments in sustainable forest management      |                                |                   |
|    | Renewable energy                                  | Dark green                     |                   |
|    | Energy efficient buildings                         | Medium green                   |                   |
| 3  | Stena Metall                                      | Dark green                     | Dark green        |
|    | Waste recycling                                   |                                |                   |
| 4  | Indonesia                                         | Medium green                   | Medium green      |
|    | Renewable Energy                                  | Dark green                     |                   |
|    | Energy efficiency of infrastructure               | Light to medium green          |                   |
|    | Climate change support                            | Dark green                     |                   |
|    | Transportation upgrade                            | Medium to dark green           |                   |
|    | Improving waste management                        | Medium to dark green           |                   |
|    | Sustainable management of natural resources       | Light to dark green            |                   |
|    | Green tourism                                     | Medium to dark green           |                   |
|    | Developing green buildings                         | Light green                    |                   |

Source: Secondary Data

Vigeo Eiris has a different method to determine the green level. They group into Environment, Social, and Governance (ESG) aspects (table 4). Then, they also analyzed each group, but only giving the description, not supposed to provide opinions like CICERO. This is similar to DNV GL, which refers to CBS as well as ISS Oekom that refers to GBP. Different narratives are given by Sustainalytics and Carbon that have an emphasis on some descriptions of opinion.

The green bond rating has a different approach. In addition to giving an opinion on the green level, they also give an opinion on other aspects such as Moodys that adds other indicators. They weight the overall score (40% use of proceeds, 20% ongoing reporting, 15% organization, 15% management of proceeds, and 10% disclosure on the use of proceeds). It ranks in 5 scales (poor (GB5), fair (GB4), good (GB3), very good (GB2) and excellent (GB1)). The example of the opinion is A GB1 (Excellent) Green Bond Assessment (GBA) on Zuercher Kantonalbank's (ZKB, Aaa stable). The initial green bond offering primarily reflects some considerations [5].

In fact, there is no detailed explanation on how the issuing company can get that opinion. Other bond ratings such as S&P have different methods to give an opinion by adding transparency and governance indicators (see figure 1).
### Table 4. Vigeo Eiris projects and opinion

| No | Projects                          | Analysis                                                                 |
|----|-----------------------------------|--------------------------------------------------------------------------|
| 1  | Engie                             | Environment - limited                                                    |
|    | Renewable Energy Projects         | The definition is clear and the content is relevant                     |
|    | Energy Efficiency Projects        | The definition is clear and the content is relevant                     |
|    | Natural Resources Preservation Projects | The definition is clear and the content is relevant                    |
| 2  | French Republic -2018             | -                                                                       |
| 3  | NYK                               | Environment - good                                                      |
|    | LNG-fuelled vessels               | Partially relevant with to environmental objectives                     |
|    | LNG Bunkering Vessels (LBV)       | Partially relevant with to environmental objectives                     |
|    | Ballast Water Management System   | Clearly defined, measurable, relevant and precise, with quantified objectives |
|    | SOx scrubber system               | Clearly defined, measurable, relevant and precise, with quantified objectives |
| 4  | Enel                              | Environment- Advanced                                                  |
|    | Renewable Energy Projects         | The definition is clear and the content is relevant                     |
|    | Transmission, Distribution and Smart Grid Projects | The definition is clear and the content is relevant |
|    | Other Projects                    | The definition is clear and the content is relevant                     |
| 5  | Iberdrola                         | Environment- Advanced                                                  |
|    | Renewable energy projects         | The definition is clear and the content is relevant                     |
| 6  | Agus Andinas                      | Environment- limited                                                   |
|    | Drinking Water Supply             | -                                                                       |
|    | Resilient Infrastructure          | -                                                                       |
|    | Sanitation                        | -                                                                       |
| 7  | TLFF                              | -                                                                       |
| 8  | French Republic -2017             | Environment- Advanced                                                  |
|    | Buildings                         | The definition is clear and the content is relevant                     |
|    | Transport                         | The definition is clear and the content is relevant                     |
|    | Energy                            | The definition is clear and the content is relevant                     |
|    | Living Resources & Biodiversity   | The definition is clear and the content is relevant                     |
|    | Adaptation                        | The definition is clear and the content is relevant                     |
|    | Pollution control & Eco-efficiency| The definition is clear and the content is relevant                     |

Some examples of bond rating in 2018 are (a) Bazalgette Finance plc: E1/95 (b) YGreene Energy: E1/76 (c) Landsea Group: E1/84 (d) CS Servicios: E1/83 and (e) Modern land China: E1/84. Most of the ratings get E1 with a minimum of 76 scores. S&P has value for each component but the weight is not stated.

A comparison among independent reviews can be seen in table 5. Some issues here are described in the followings:

- **No scale of green rating**
  - Compliance, implying that some independent review only stated the compliance to GBP or CBS, but not stated how green is the bond, as in the case of DNV GL, and ISS Oekom. Some give emphasis on the opinion, as in the case of Sustainalytics and Carbon Trust.
  - Group scale, implying that this independent review gives the scale of opinion rating but it is stated in the group, as in the case of Vigeo Eiris.

- **Other components included in the green evaluation**

- **This opinion attached to Agency ratings such as Moody and S&P.**

- **No clear weight**

- **Most independent reviews do not state the weight of the green component calculation.**
Not transparent
Only S&P gives the value of each component for green evaluation.

Figure 1. S&P Method of Green Evaluation
Source: S&P Global, 2017 [6]

Table 5. Comparison of opinion and proposal

| No | Review          | Opinion                          | Proposal                                                      |
|----|-----------------|----------------------------------|---------------------------------------------------------------|
| 1  | CICERO          | Scale, narrative                 | 1. Level: high, medium, low                                   |
| 2  | Vigeo Eiris     | Group, narrative                 | 2. The number to impact to reduce of Greenhouse Gases (GHG).  |
| 3  | Sustainalytics  | Narrative with emphasis, GBP     | 3. Weight for project size contribution.                      |
| 4  | DNV GL          | Compliance with CBS              |                                                               |
| 5  | ISS Oekom       | Compliance with GBP              |                                                               |
| 6  | Carbon Trust    | Narrative with emphasis, GBP     |                                                               |
| 7  | Moody           | Rating of green, clear weight    |                                                               |
| 8  | S&P             | Rating of green, score, weight issue |                                                               |
| 9  | KPMG            | Assurance                        |                                                               |
| 0  | Deloitte        | Accountant report                |                                                               |

From the aforementioned information, a proposal for green opinion is given (stated in the right side table 5). The discussion is presented as follows:

- Level of green
  These criteria can refer to CICERO which has three levels of green, dark, medium and light green. This proposal uses terms of high, medium and low green. The issuer should refer to high green which can mitigate the GHG effects. Ranges of green level can be as follows: Low: 0-60, Middle: >60-80, and High: >80-100.

- If one proposal consists of more than one project there must be a weight based on the value of fund allocation. Overall, the score can determine which should be grouped into the green opinion. From this, the transparency issue can be minimized as each project can be seen as the green level contribution. A case in example is how to determine an overall score for the green level (see table 6).
Table 6. Calculation for many projects

| Project | Opinion | Score | Weight based on value allocation (%) | Point |
|---------|---------|-------|--------------------------------------|-------|
| Project A | High    | 90    | 60                                   | 54    |
| Project B | Medium  | 70    | 30                                   | 21    |
| Project C | Low     | 40    | 10                                   | 4     |
| Project D | High    | 30    | 10                                   | 3     |
| **Overall Score** |   |       |                                       | **82** |

From the aforementioned information, the overall scores can be grouped into the high green level. If each issuer concerns with the higher level of green bond, this directly will be able to reduce GHG and climate change issues would be mitigated.

5. Conclusion

Different opinion standards form independent reviews can result in misleading and biased information on the green level of the project for mitigating GHG. The level of green opinion can show how green the project is by the contribution to the mitigation of GHG. Many independent reviews do not provide the green opinion level.

The proposed green opinion level can be a good standard for independent reviews. It is based on independent reviews that have opinion scales and detailed calculation and information for the green assessment opinion level. The other independent reviews are also added to give complete calculation on the green bond level. Therefore, climate change issues would be beneficial if there is a standardization of green opinion.

References

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