Bloomberg Barclays MSCI Green Bond Index Consultation

This consultation may or may not lead to the adoption of any or all of the proposals contained in this presentation. Feedback will remain confidential.

June 2019

Recap of index rules

Index Criteria	
PRINCIPLE 1	**USE OF PROCEEDS:** Detailed taxonomy of eligible projects
PRINCIPLE 2	**PROJECT SELECTION & EVALUATION:** Process for determining eligible projects
PRINCIPLE 3	**MANAGEMENT OF PROCEEDS:** Process for earmarking proceeds for eligible projects
PRINCIPLE 4	**ONGOING REPORTING:** Annual reporting of use of proceeds and impacts

Executive Summary

Agenda

- Consult on Different Bond Structures and their Eligibility Criteria
  - Green Mortgage Backed Securities
  - Pure Play Bonds
- Consult on "Green" Definitions
  - Sustainable Biomass
  - Large Water Storage Dams
- Get view on additional questions

Timelines

Launch of the Consultation	28th June 2019
Time to Provide Feedback	One Month
Close of Consultation Period	29th July 2019
Announcement regarding consultation results	26th August 2019

Consultation Agenda

Proposals on Bond Structure

A. Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities

B. Revise Treatment of Pure Play Bonds

Proposals on Minimum Environmental Standards

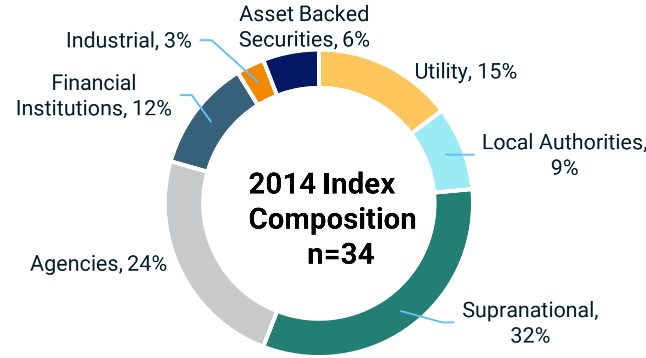
C. Biomass Should be Sustainably Sourced

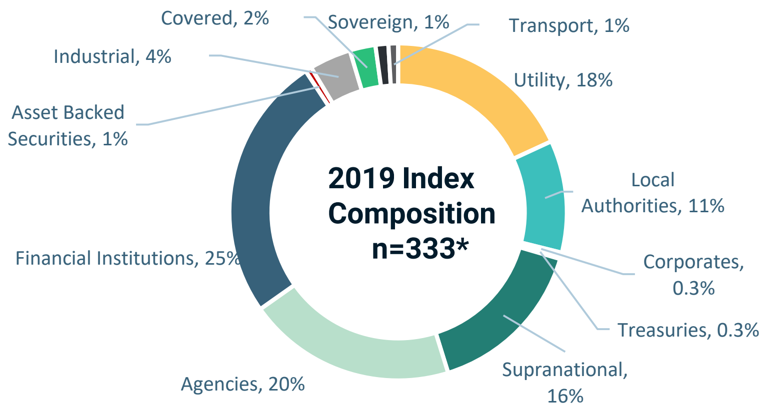
D. Enhance Criteria for Large Dams for Sustainable Water projects

E. Additional Questions for Feedback

Consultation Goals

- Maintain the Index as a **global benchmark** of the green bond market
- Keep the Index **adaptable to the new types** of issuers
- Account for **different types of green bonds** (for e.g. securitized bonds)
- Account for **changes in the Green Bond Principles by ICMA**
- Account for the **evolving definitions of "green"** products and services
- Discuss Index alignment with **different green bond standards**, particularly the recent EU green bond standard





*As of April 31, 2019

Regions with green bond standards/schemes

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Consultation Agenda

Proposals on Bond Structure

A. Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities

B. Revise Treatment of Pure Play Bonds

Proposals on Minimum Environmental Standards

C. Biomass Should be Sustainably Sourced

D. Enhance Criteria for Large Dams for Sustainable Water projects

E. Additional Questions for Feedback

A. Develop Specific Criteria for Inclusion of Green MBS

PROPOSAL: Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities (MBS)

Background:

- We refer to MBS that are structured to **improve the energy efficiency** of the underlying collateral/property as **Green MBS**
- In Green MBS, about **5-10% of the proceeds of the green MBS are used for energy efficiency** improvements in the property. The remaining **90-95% proceeds fund the whole property**
- The issuer **provides a discount on the loan** to the borrower in the green MBS structure, thereby incentivizing energy efficiency improvements
- Currently Green MBS are Index-ineligible since only **5-10% proceeds are "green" i.e. for energy efficiency purposes**
- However, these products are **"impact" based** and **mandate energy efficiency** in properties that would otherwise not qualify as green

Questions:

Green MBS **raise a broader question** on **whether we want to include impact based products or products that are already green.**

Do you agree that we **need to develop a specific criteria for inclusion of green MBS, to be included at full weight?**

A. Develop Specific Criteria for Inclusion of Green MBS

PROPOSAL: Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities (MBS)

Potential index impact:

- There are 19 Fannie Mae green bonds that could potentially enter the Index if we implement proposal that makes green MBS eligible for the Index, mandating an energy efficiency improvement of 15-30%

- These bonds would add USD 6.6 billion in market value to the Index (about 2% by market value of the current Index value)

- Freddie Mac has launched a Green MBS in June 2019, where borrowers must reduce energy or water consumption by a total of 30%, with a minimum of 15% of those efficiencies found through energy improvements. We are still to study Index impact of inclusion of such bonds

B. Revise Treatment of Pure Play Bonds

PROPOSAL: Remove the exemption on Principles 2 and 3 for pure play bonds

The Green Bond Principles

Background:

- In its 2017 update to the Green Bond Principles, **International Capital Market Association (ICMA) clarified that "pure play" bonds may not follow the core components** of the Green Bond Principles.
- In order to **maintain consistency with the Green Bond Principles** by ICMA, and to reflect market consensus, we are proposing to remove of the exemption of Principles 2 (Project Selection & Evaluation) and 3 (Management of Proceeds) for pure play green bonds.

Question:

Do you agree with aligning Index rules with ICMA and removing the exemption on Principles 2 and 3 for pure play bonds?

Potential index impact:

As of June 1, 2019, there were four pure play general purpose bonds on the Green Bond Index amounting to 1.15% of issuers on the Index and 0.45% in terms of index weight.

Consultation Agenda

Questions on Bond Structure

A. Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities

B. Revise Treatment of Pure Play Bonds

Proposals on Minimum Environmental Standards

C. Biomass Should be Sustainably Sourced

D. Enhance Criteria for Large Dams for Sustainable Water projects

E. Additional Questions for Feedback

Consultation Goals

Enhance the Minimum Environmental Standards that Bonds on the Index need to Adhere to:

- Enhance methodologies to include only those bonds that **contribute to climate change mitigation, minimization of pollution and biodiversity conservation**
- **Minimize negative environmental impacts** that could occur through projects funded by the bonds on the Index
- Discuss **areas of alignment with the EU taxonomy** on sustainable finance and look at incorporating the “do no significant harm criteria” of the taxonomy

C. Biomass Should Be Sustainably Sourced

PROPOSAL: Enhance criteria for biomass based power generation to explicitly mention that biomass should be sourced from sustainable sources (e.g.: FSC, PEFC, SBP certified; municipal, agricultural or industrial waste) & exclude natural forest and peat

Background:

- Biomass sourced from unsustainable sources (for e.g.: peat, natural forest) is likely to have negative externalities associated with deforestation and land degradation*
- Biomass sourced from sustainable sources like FSC, PEFC, SBP certified forests or residue like municipal waste or agricultural waste is likely to reduce dependence on virgin forests for fuel
- The current methodology does not specify the source of biomass to be used as renewable energy. All biomass is eligible as a renewable source of fuel, which may result in unsustainable sources of the fuel being funded through green bonds

**Source: International Union for Conservation of Nature*

Question:

Do you agree with the proposal to include only sustainable biomass projects in the Index?

Potential index impact:

About 3% of bonds could be potentially impacted by this rule (as of June 1, 2019). We propose to grandfather such bonds and implement this rule on a forward looking basis

D. Enhance the Criteria for Large Dams from Sustainable Water Projects

PROPOSAL: Enhance "sustainable water" criteria to exclude large scale storage dams/reservoirs on rivers (in line with hydro criteria)

Background:

- The large hydropower criteria was introduced in the 2016 enhancement to the methodology, where dams over 15 meters in height were qualified as "large" dams and need to adhere to IFC performance standards or achieve a score of 3 or more in the Hydropower Sustainability Assessment Protocol
- A similar principle can be applied to dams made for water storage and supply, where dams over 15 meters in height should adhere to the IFC performance standards to maintain consistency with the hydropower criteria
- Currently, the methodology is silent about dams constructed for water supply.

Question:

Do you agree with the proposal to enhance the criteria for large water storage dams?

Potential index impact:

About 3% of bonds could be potentially impacted by this rule (as of June 1, 2019). We propose to grandfather such bonds and implement this rule on a forward looking basis

E. Additional Questions for Feedback

Which areas would you look at for alignment between EU taxonomy and the Index?

EU Taxonomy	Index view
▪ Transportation: Only **zero emission** rail and passenger vehicles, zero emission freight transport that is not dedicated to fossil fuels are eligible	▪ **Hybrid** vehicles or public mass transport that involve a component of fossil fuel usage (e.g Bus Rapid Transport) are eligible and hence **less than 2% by number of bonds on the Index** would meet EU requirements, as of June 1, 2019
▪ Energy efficiency: initiatives are limited to **Best Available Technology (BAT)** defined by the EU Joint Research Centre	▪ Energy efficiency initiatives are not based on BAT but are based on sectors funded (e.g. improvements in rail transport, buildings, demand side management), **less than 1% by number of bonds on the Index** would meet EU requirements, as of June 1, 2019
▪ Real estate: For building renovation, **30% energy consumption/carbon emission decrease is** mandated	▪ Most buildings related energy efficiency projects on the Index target 15-30% improvement ▪ Hence, **about 5% by number of bonds on the Index** would meet EU requirements as of June 28, 2019

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E. Additional Questions for Feedback

Which areas would you look at for alignment between EU taxonomy and the Index?

Question:

Should the Index methodology move towards alignment with the EU taxonomy?

Potential Index Impact of aligning the Index with EU taxonomy:

- ~21% by market value of the Index is likely to meet EU taxonomy criteria
  As of June 28, 2019
- The bonds that meet would EU taxonomy are primarily those funding renewable energy and some funding green buildings. Very few bonds meet the other criteria set by the EU, as of June 2019

E. Additional Questions for Feedback

Would you agree that CNY denominated bonds should be assessed as per Index methodology?

- Bloomberg has been adding **Chinese currency denominated bonds to the Global Agg Index in a phased manner**
- **Chinese government bonds and bonds by China's three policy banks (Agricultural Development Bank of China, China Development Bank and Export-Import Bank of China) are eligible for inclusion**
- Only bonds denominated in **CNY** are eligible
- Consequently, eligible Chinese green bonds will be added to the green bond Index under the current methodology

- Currently the **Chinese green bonds are subject to the same global eligibility criteria** as other bonds on the Index

- The Index criteria is more stringent than the Chinese green bond guidelines, set by People' Bank of China
- Hence, with increasing Chinese issuance, green bonds that meet local China criteria may not be eligible for the Index due to substantial differences in criteria

E. Additional Questions for Feedback

Would you agree that CNY denominated bonds should be assessed as per Index methodology?

China green bond guidelines currently qualify the below projects that do not meet Index green bond criteria:

- **Ultra supercritical or supercritical coal** based CHP generator units with a capacity of no less than 300 MW
- Construction and operation projects conducting **coal washing** and processing
- **Clean fuel /gasoline** meeting certain standards is eligible
- **Hydropower construction and generation** which meets requirements of Opinion of Energy Work 2014 and other related documents. The ecologic and environmental protection and resettlement action plan of the project should be assessed and approved
- Construction of **freight railway lines and terminals**

Question:

As CNY-denominated bonds are added to the Global Aggregate index, would you agree that these bonds should be assessed as per current Index methodology? Or, do you believe that we should make special exceptions for Chinese bonds that align to local standards, and include them in the Index?

Potential Index Impact:

The number of bonds that would be impacted are limited: As of June 2019, three green bonds by China Development Bank issued in 2017 for CNY 25 billion would potentially become eligible for the Index if we treat CNY bonds according to the Chinese guidelines

E. Additional Questions for Feedback

What should be the aim of the energy efficiency criteria?

Background:

- Given the broad nature of energy efficiency projects funded, we frequently receive client and issuer questions around exclusion of certain bonds for energy efficiency. E.g. Repsol, Terna

- Some of the challenges with projects funding energy efficiency are:
    - It is difficult for issuers to define the percentage of efficiency gain that may be achieved prior to project implementation
    - Issuers issue green bonds for energy efficiency in sectors that are not “green” (e.g. oil and gas)
    - It is difficult to determine if an efficiency project is “business as usual (BAU)” for a sector or if it goes beyond BAU requirements

- Hence, in order to define the energy efficiency criteria more clearly, we would like to request feedback on the aim of the energy efficiency criteria

E. Additional Questions for Feedback

What should be the aim of the energy efficiency criteria?

- Currently, the Index **energy efficiency criteria includes**:

  a. Increasing efficiency of industrial operation, industrial automation & controls, and optimization systems

  b. Increasing efficiency of power management, power distribution, power storage and demand-side management

  c. Pumped storage hydro projects that meet specific criteria

  d. Reducing fuel consumption of transport (e.g. electric and hybrid vehicles)

  e. Sustainable transportation infrastructure (e.g. urban mass transit, efficiency improvements of public transportation fleets)

  f. Devices and systems to be used in environmentally sustainable buildings

  g. Not eligible: Corporate operational energy efficiency efforts, such as efficiency gains in manufacturing, transporting, or distributing standard products or services

E. Additional Questions for Feedback

What should be the aim of the energy efficiency criteria?

Question:

What should be the aim of the energy efficiency criteria?	**Advantages/Disadvantages**
▪ Fund limited sectors defined in the methodology. E.g. fund public transport, buildings energy efficiency, smart grids.	▪ **Adv:** Clear methodology, non controversial sectors ▪ **Disadv:** Limited as type of issuers and bonds grow
▪ Fund only energy efficiency projects that will achieve carbon reduction in line with the Science Based Targets across all sectors i.e. **projects aligned to Science Based Targets**	▪ **Adv:** Index will include only bonds funding contribution to low carbon transition, inclusive of different sectors ▪ **Disadv:** Some bonds may fund sectors that are not inherently green and may have other negative externalities (e.g. biodiversity loss)
▪ Develop a **middle path** and fund: ▪ **Efficiency increase & carbon reduction aligned to SBT** ▪ **Exclude negative externalities** like potential biodiversity loss. This will be assessed on a case by case basis	▪ **Adv:** Index will include only bonds funding low carbon transition, inclusive of different sectors ▪ **Disadv:** judgement on negative externalities maybe subjective in some cases

THANK YOU

Appendix

A. Develop Specific Criteria for Inclusion of Green MBS

PROPOSAL: Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities (MBS)

Background:

- Green MBS are **different from corporate green bonds**. Green MBS are structured to **improve the energy efficiency** of the underlying collateral/property
- Typically, through a green MBS, an improvement of X% in energy efficiency is **mandated by the issuer**
- About **5-10% of the proceeds of the green MBS are used for energy efficiency** improvements in the property. The remaining **90-95% proceeds fund the whole property**
- The issuer **provides a discount on the loan** to the borrower in the green MBS structure, thereby incentivizing energy efficiency improvements
- In 2018 and 2017, Fannie Mae was the single largest issuer of green MBS, issuing over 20 billion USD each year

Current Index methodology:

- Currently, only tranches that are at least 90% **secured by "green properties"** are considered eligible (defined as certified properties, or properties that fall within the top 15% in energy efficiency in their home markets)
- "Green incentive" MBS are **ineligible** as per Index methodology
- This is because the **Index requires 90% proceeds to be used for "green" purposes whereas the green MBS use only 5-10% proceeds for energy efficiency** or green purposes

Proposal:

- Develop **specific criteria for inclusion of green MBS in the Index**
- For that, we will need to:
  - **Define the energy efficiency improvements** we are targeting through the green MBS
  - Define the **percentage of proceeds that should be allocated towards energy efficiency**. This will be a deviation to the current Index rule where a minimum of 90% proceeds are allocated towards "green" projects

A. Develop Specific Criteria for Inclusion of Green MBS

PROPOSAL: Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities (MBS)

RATIONALE IN FAVOR OF PROPOSAL:

- Green MBS may help **improve the overall energy efficiency** of the residential housing market.
- The **environmental gains** of refurbishing / retrofitting older properties may outweigh the gains of financing newer, more efficient properties.
- It is in the nature of mortgages to include the value of the property. The **current criteria are less applicable to MBS** and exclude this growing market segment.
- Adapting our criteria to include Green MBS would **allow for "best of breed"** green impact or green incentive products, rather than excluding this sector entirely.

POTENTIAL DRAWBACKS OF PROPOSAL:

- **Only 5-10% of proceeds** are dedicated for green projects, whereas the rest of the proceeds are funding a mortgage. This is different conceptually from the initial intent of the green bond Index.
- While the rest of the green bond Index would be comprised of bonds that have at least 90% proceeds towards "green" projects, a green MBS portfolio would finance a **substantial component of "non green" assets** i.e. multi-family residential properties.
- This may **dilute the "greenness"** of the Index

Other views:

- **EU Taxonomy**: Renovations to existing buildings are eligible if 30% reduction in energy use/carbon emissions is observed

A. Develop Specific Criteria for Inclusion of Green MBS

PROPOSAL: Develop Specific Criteria for Inclusion of Green Mortgage Backed Securities (MBS)

Points to consider:

- Should the green bond market be accessible for all types of participants, or is it okay to exclude certain types of issuers? The Green Bond Index was originally designed the Index for corporates, financial institutions and supranationals.
- Do we think that such “green incentive” products should be included? Or will this dilute the quality of the index?
- Is there a risk of green washing if only 5-10% proceeds are for actual green purposes, and the rest of the proceeds are for funding a property that is not “green” by Index standards?
- Is it more important that the asset meet a high environmental standard or that it show a high level of improvement?
- What level of improvement is acceptable? E.g. 30% standard from EU, a 15% minimum standard as per Fannie Mae and Freddie Mac or 30% standard to include the highest impact bonds ?

B. Revise Treatment of Pure Play Bonds

PROPOSAL: Remove the exemption on Principles 2 and 3 for pure play bonds

The Green Bond Principles

Rationale:

- In its 2017 update to the Green Bond Principles, International Capital Market Association (ICMA) clarified that "pure play" bonds may not follow the core components of the Green Bond Principles.
- For example, a bond by a wind turbine manufacturer may be considered as "pure play" but may be used to fund corporate activities of the issuer or "non-green" acquisitions instead of actual wind farms, defeating the spirit of Principle 1 of the Green Bond Principles.
- Hence, ICMA clarified that bonds issued by companies whose business activities are exclusively focused on the green economy (pure play) are only considered as green bonds if they are explicitly aligned with the Green Bond Principles.

Current Index methodology:

- General purpose bonds issued by "pure play" issuers (defined as defined as a legal entity with greater than 90% of activities (as measured by revenues) within one or more of the eligible environmental categories) are currently exempted from criteria pertaining to "Principle 2: Process for Green Project Selection" and "Principle 3: Management of Proceeds".
- However they are required to report their activities on an annual basis ("Principle 4: Ongoing Reporting") and may be removed from the index if the issuer is no longer considered "pure play".

Proposal:

- In order to maintain consistency with the Green Bond Principles by ICMA, and to reflect market consensus, we are proposing to remove of the exemption of Principles 2 (Project Selection & Evaluation) and 3 (Management of Proceeds) for pure play green bonds.

Bonds potentially impacted:

- We propose introducing this new rule on a going-forward basis to minimize index turnover
- As of June 1, 2019, there were four pure play general purpose bonds on the Green Bond Index amounting to 1.15% of issuers on the Index and 0.45% in terms of index weight.

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