




The Green Bond Principles

Beijing, September 2016



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1. Green Bond Global Market Overview and Green Bond Principles



Overview of the International Capital Market Association

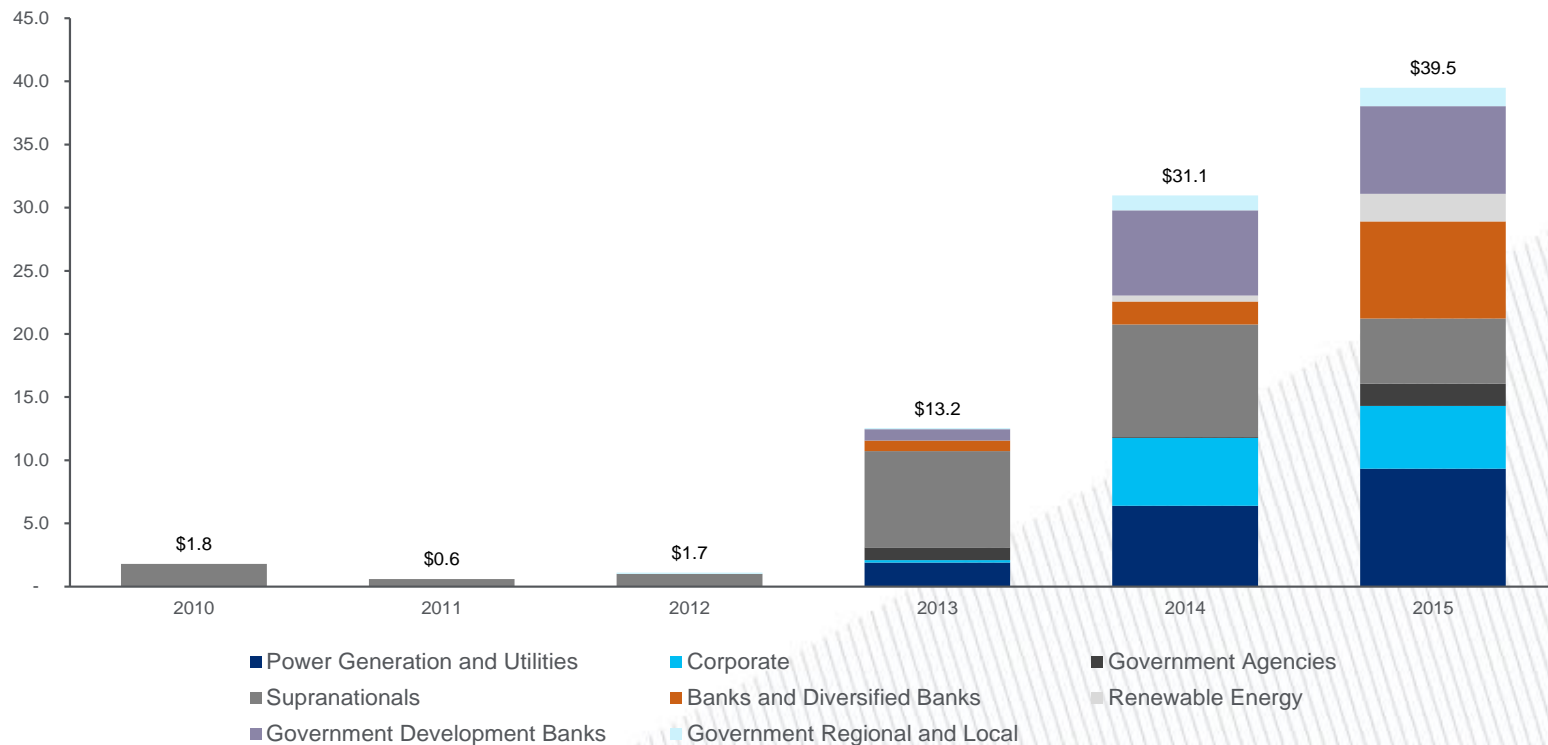
- **ICMA is a unique organisation and an influential voice for the global capital market.** ICMA's market conventions and standards have been the pillars of the international debt market for almost 50 years.
- ICMA represents members worldwide, who are active in the international capital market on a cross border basis; and is distinct from other trade associations in **representing both the buy-side and the sell-side of the industry**. ICMA has its head office in Zurich, where it was founded in 1969, with a subsidiary in London and representative offices in Paris and Hong Kong.
- Membership continues to grow and we currently have more than **500 members based in approximately 60 countries**. ICMA members include **global investment banks, commercial and regional banks, brokers, private banks, institutional asset managers, pension funds, central banks, sovereign wealth funds and other institutions with a pronounced interest in the securities market, such as supranational institutions, infrastructure providers, rating agencies and leading law firms...**

International Capital Market Association (ICMA)

GREEN BOND MARKET

- **Green Bonds enable capital-raising and investment for new and existing projects with environmental benefits.**

The Green Bond Market as of end 2015



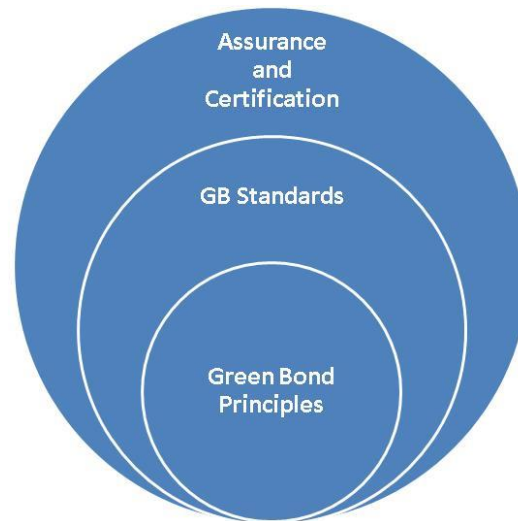
Source: Bloomberg, Citibank 2015

International Capital Market Association (ICMA)

THE GREEN BOND MARKET ECOSYSTEM

The Green Bond market involves the GBP, standards providers (such as the Climate Bond Initiative – CBI), certifiers and assurance providers (including accountancy firms, ESG analysts and academics).

The GBP provide the market's founding principles.



GREEN BOND PRINCIPLES

- **The Green Bond Principles (GBP)** are voluntary process guidelines that recommend transparency and disclosure and promote integrity in the Green Bond market
- **The GBP are based on four major principles:**
 1. Criteria for the Use of Proceeds
 2. Process for Project Evaluation and Selection
 3. Management of Proceeds
 4. Reporting on actual use of funds
- **The GBP are used by most in the market:**
 - Development Finance Institutions: WBG, IFC, EIB, EBRD, KfW, others
 - Governments/Regions: Massachusetts, Johannesburg, Ile-de-France, others
 - Corporations: EdF, Toyota, Engie, Unilever, others
- The text of the Green Bond Principles is available on the ICMA website
<http://www.icmagroup.org/Regulatory-Policy-and-Market-Practice/green-bonds/green-bond-principles/>

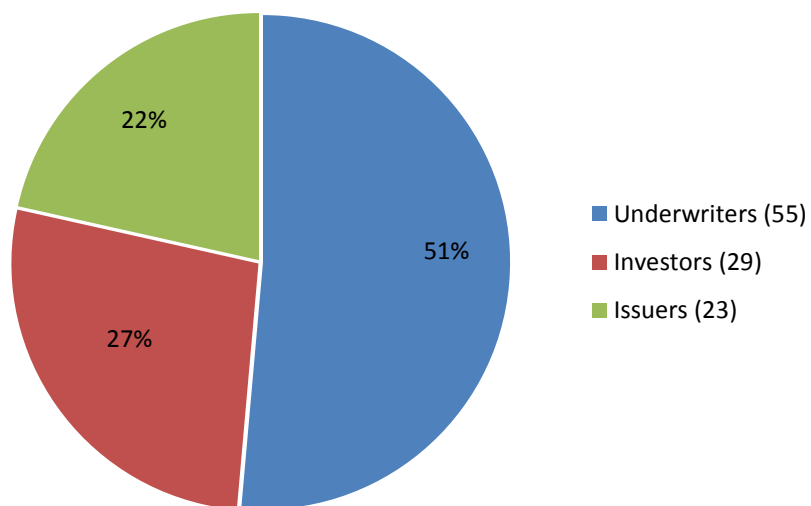
GREEN BOND PRINCIPLES ORGANISATION & GOVERNANCE

- GBP participation is on two levels:
 - Members are those that have participated in a green bond issuance
 - Observers are all others that wish to participate
- The GBP's Executive Committee is representative of the GB market:
 - **Issuers:** EDF, Engie, EBRD, EIB, IFC, Unibail-Rodamco, Unilever, World Bank
 - **Investors:** Actiam, Blackrock, CalSTRS, KfW, Natixis AM / Mirova, Standish Mellon AM, TIAA-CREF, Zurich Insurance
 - **Underwriters:** BAML, Citi, Credit Agricole CIB, HSBC, JPM, Morgan Stanley, Rabobank, SEB
- ICMA serves as Secretariat to the GBP advising on the governance and annual updates of the Green Bond Principles

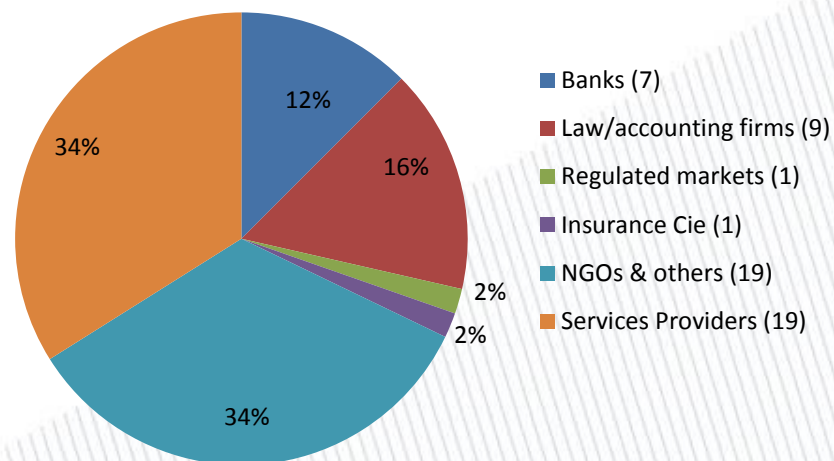
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GREEN BOND COMMUNITY (2016)

Members of the GBP (107)



Observers of the GBP (56)



GREEN BOND PRINCIPLES, 2015 – HIGHLIGHTED CHANGES

- A high level definition of Green Bonds that focuses on the 4 pillars of the GBP
- Eligible project categories now include “climate adaptation” and “sustainable water management”
- Green project categories complemented by 4 key areas of concern “climate change, natural resources depletion, biodiversity conservation and/or pollution”
- Re-financing can be combined with financing
- Independent verification or audit encouraged for “the internal tracking method and the allocation of funds from proceeds”
- GBP welcomes and encourages initiatives “to help establish a model for impact reporting that others can adopt and/or adapt to their needs”

GREEN BOND PRINCIPLES – IMPACT REPORTING

- The GBP 2015 acknowledge that no established standards for impact reporting on Green Projects
- Welcome and encourage initiatives to help establish a model for impact reporting that issuers can adopt and/or adapt to their needs
- In the meanwhile, emphasis is on transparency, including disclosure of methodologies and key underlying assumptions
- Most significant development is contribution from informal working group of MDBs (AfDB, EIB, IFC, IBRD): [Proposal for a harmonized framework for impact reporting on Renewable Energy/Energy Efficiency projects](#)

GREEN BOND PRINCIPLES – ASSURANCE & CERTIFICATION

- GBP 2015 recommends that issuers use external assurance to confirm their alignment with the 4 pillars of GBP
- Emphasis on independent verification or audit of internal tracking method and the allocation of funds from proceeds
- The GBP are supportive of the certification of Green Bonds as they are defined by the GBP
- GBP do not opine on what is “green” except at high level of key areas of concern and broad project categories:
 - Renewable energy
 - Energy efficiency
 - Sustainable waste management
 - Sustainable land use
 - Biodiversity conservation
 - Clean transportation
 - Sustainable water management
 - Climate change adaptation
- Questions on economic model of assurance and certification at this stage of the market

GREEN BOND PRINCIPLES EVOLVE WITH THE INTERNATIONAL MARKET

- 2016 updates:
 - **Updated green investment categories**
 - Renewable energy; Energy efficiency; Pollution prevention and control; Sustainable management of living natural resources; Terrestrial and aquatic biodiversity conservation; Clean transportation; Sustainable water management; Climate change adaptation; Eco-efficient products, production technologies and processes
 - **Reporting**
 - Annual reporting of allocation of proceeds until full allocation, and standard frameworks for impact reporting.
 - GBP has new templates for external reviews and issuers can post completed reviews on ICMA's website for market information
 - **"Pure play" green bonds**
 - Environmental themed bonds issued by organisations that are mainly or entirely involved in environmentally sustainable activities, but that do not completely follow the GBP.
 - These issuers are encouraged to adopt the relevant best practices of the GBP
 - **Social Bonds**
 - Bonds financing projects with social objectives beyond the environment
 - Affordable basic infrastructure; Access to essential services; Affordable housing; Employment generation; SME financing and microfinance; Food security; Socioeconomic advancement

GREEN BOND PRINCIPLES AND OFFICIAL REGULATION

- Green bonds, like any other listed bonds, come under the scope of existing financial regulation both at the international and national levels.
- The GBP are therefore not replacing regulation in the market, but are providing additional and voluntary process guidelines that recommend transparency and disclosure for the green bond market.
- ICMA and the GBP Executive Committee welcome official sector involvement in the GBP update process to deepen existing information exchange and dialogue.

GREEN BOND PRINCIPLES - CMU

- Green bonds like any other listed bond come under the scope of existing financial regulation both at the EU and national levels
- The GBP are therefore not addressing an absence of financial regulation in the market, but are providing additional and voluntary process guidelines that recommend transparency and disclosure for the green bond market
- GBP are preferable to a normative approach leading for example to a green bond “label” formally recognized at a regulatory level. This would risk creating the perception of additional liabilities for issuers potentially dissuading them from entering the market
- ICMA and the GBP Excom consider that, if requested, the GBP process could be further expanded to observers from the official sector to deepen existing information exchange and dialogue.

UPDATE ON CHINA

- ICMA works very closely with PBOC, NAFMII, Beijing Financial Bureau, and Shanghai Stock Exchange, as well as other stakeholders including ICMA members who are active in Chinese market, to help develop the nascent domestic green bond market.
- ICMA is an active member at the Green Financing Committee (GFC), China Society of Finance and Banking, under PBOC.
- GBP was referred to as the international issuance standard and reference for Green Bonds in many research research papers on green bond market development in China.
- ICMA has been giving direct advices to regulators about key green bond rules and guidelines in China.

UPDATE ON CHINA (Cont'd)

- The GBP is already welcoming Chinese organisations as part of its membership.
 - Organizations such as the Green Finance Committee have applied and been admitted as GBP Observers and have access to key GBP activities and newsflow.
- The first green bond issuance by Chinese financial institution - the Agricultural Bank of China, listed at London Stock Exchange, followed the GBP completely.
- ICMA is also a member involved in the G20 Green Finance Study Group led by Bank of England and PBOC, to harmonize the global green bond standards.

UPDATE ON CHINA (Cont'd)

- ICMA has been endorsed by the UK-China Economic and Financial Dialogue to establish working groups with both NAFMII and GFC to focus the efforts on developing the Chinese green bond market.
 - “43(iii) – Both sides welcome the continued development of China's capital markets, and the efforts made by both International Capital Market Association (ICMA) and National Association of Financial Market Institutional Investors (NAFMII) to facilitate exchanges and cooperation of both markets, including the publication by the ICMA-NAFMII working group of a comparative analysis of primary debt capital market practices in the international and Chinese inter-bank markets. This working group will continue to assist the development of all aspects of China's onshore bond market, including green finance, as well as to help drive the harmonization between the onshore and offshore market.”
 - “44 - Both sides support cooperation between ICMA and the Green Finance Committee of China Society for Finance and Banking on developing consistent global green bond standards, and will work towards further opening up of green capital markets for global investors.”

GREEN BOND PRINCIPLES – FUTURE CONTRIBUTION

- The GBP can make the following key contributions to the development of the Chinese Green Bond market
 - Provide an essential international reference point for the ongoing reflection on the establishment of a Chinese Green Bond market;
 - Help ensure over time the compatibility between the future Chinese Green Bond market, and the existing international market for Green Bonds;
 - Act as a bridge to the more than 130 institutions that support the GBP, many of which are likely key future participants in the Chinese green bond market.

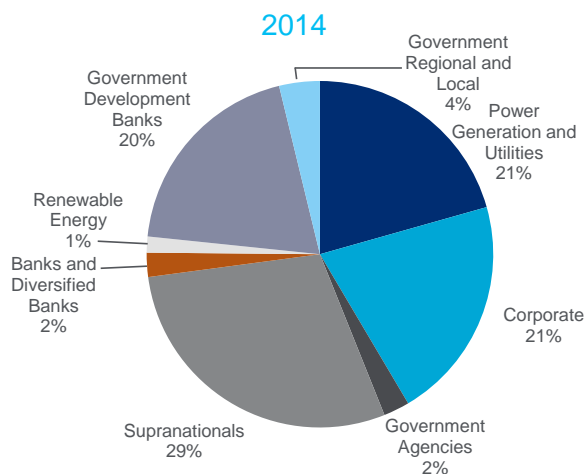
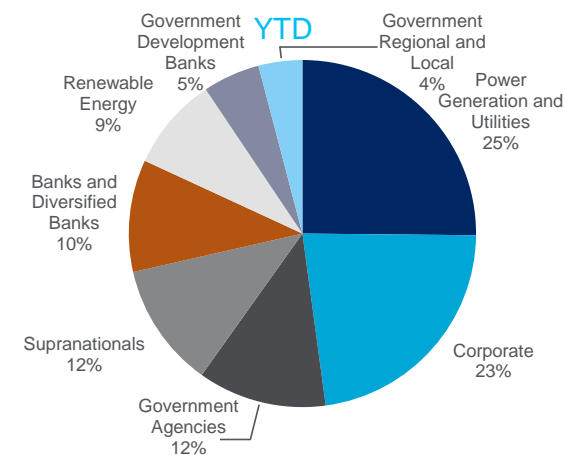
2. Market Dynamics and Key Developments

International Capital Market Association (ICMA)

Green Bonds Are Issued by Public and Private Entities

In 2015, the green bond market has seen increased activity from a wider range of issuers over the past few years.

Green Bonds: By issuer type 2014 to 2015



Illustrative Green Bond Issuers



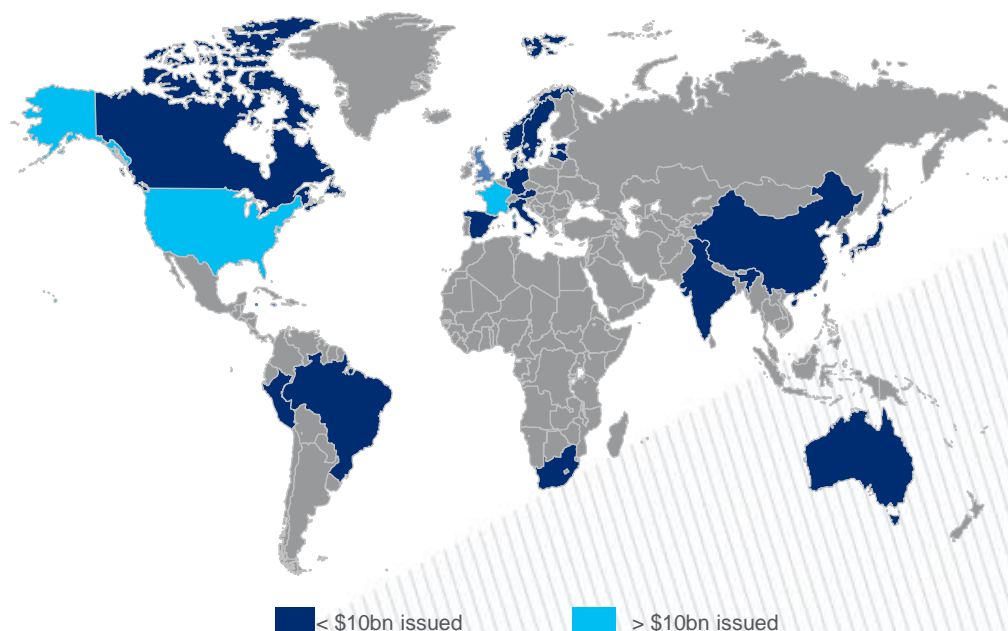
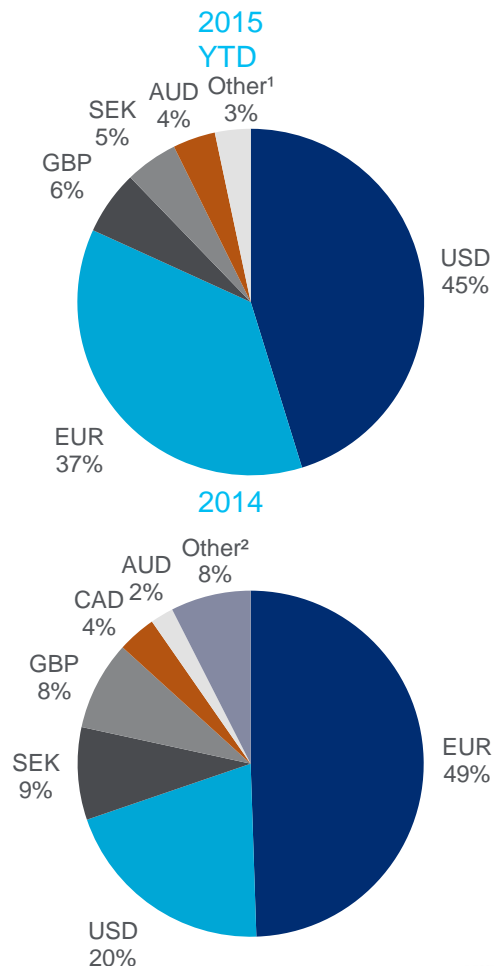
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The Green Bond Market is Becoming Increasingly More Global

The globalization of green bonds can be viewed from two perspectives: the currency and the location of the issuer.

Green Bonds: by Currency 2014 to 2015 YTD

Green Bonds have been Issued by Organizations in Many Countries



- The bulk of green issuance continues to be in USD and EUR, however development banks have been increasingly issuing new green bond transactions in local currencies

Source: Bloomberg.

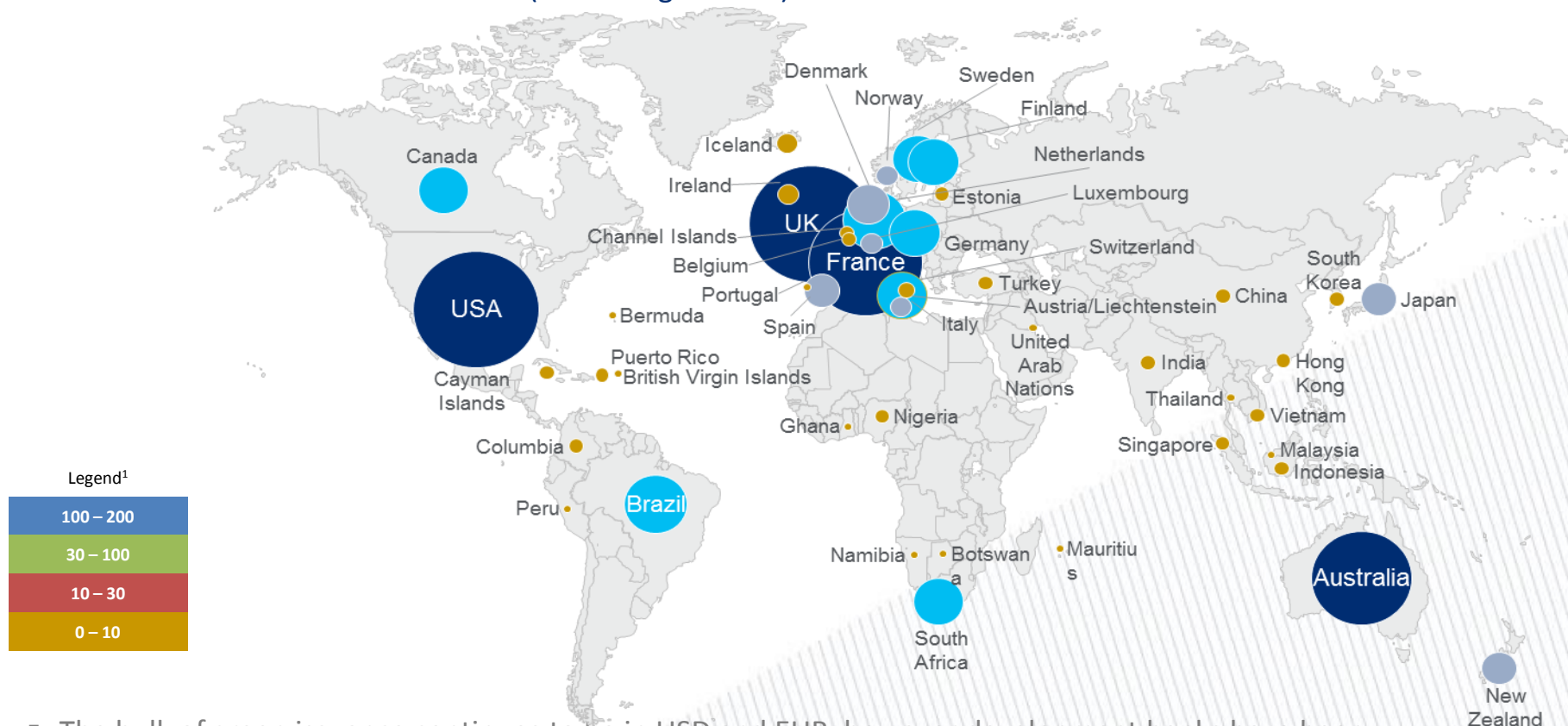
1. Other¹ includes: BRL, CAD, CHF, CNY, COP, HUF, IDR, INR, JPY, MXN, MYR, NOK, NZD, PEN, PLN, RUB, TRY and ZAR.
2. Other² includes: BRL, CHF, CNY, COP, HUF, IDR, INR, JPY, MXN, MYR, NOK, NZD, PEN, PLN, RUB, TRY and ZAR.

International Capital Market Association (ICMA)

Additional Detail on Globalization

Early market has been led by issuers in U.S., UK, France and Australia, but there is great potential in China, India and globally

Global Distribution of Green SRI Investors (UN PRI Signatories)



- The bulk of green issuance continues to be in USD and EUR, however development banks have been increasingly issuing new green bond transactions in local currencies

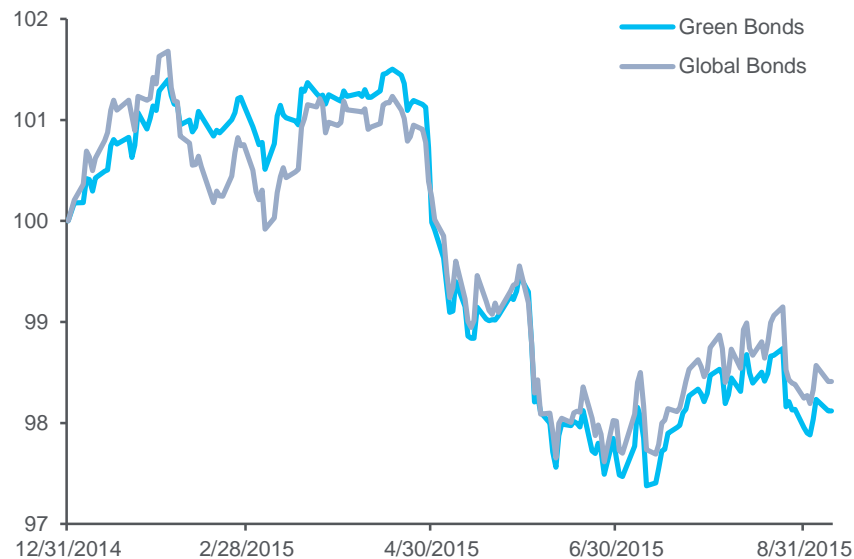
Source: J.P. Morgan.

1. Count of signatories, only includes Asset Owners and Investment Managers (excludes Professional Service Partners)

Green Bonds Perform Inline with Global Bonds

Green Bond performance continues to be inline with global investment-grade bonds despite having the added benefit of being used for environmental sustainability purposes.

Green Bond Performance relative to Global Bonds ¹



Liquidity and the Secondary Market

- Green Bond Principles allows many green investors to identify qualifying green bond investment opportunities
- The lack of secondary liquidity prevents some asset managers from participating
- Pricing green vs non-green: No identifiable difference to date
- Strict definitions and green standards can act as a barrier to entry to some issuers due to higher cost to comply and delays in seeking approvals.
- Certain investors have also found:
 - Less liquidity with issues of less than Euro 250m issue size
 - Less liquidity in US \$ secured issues
 - Occasionally, less liquidity with \$ corporates

Source: FactSet.

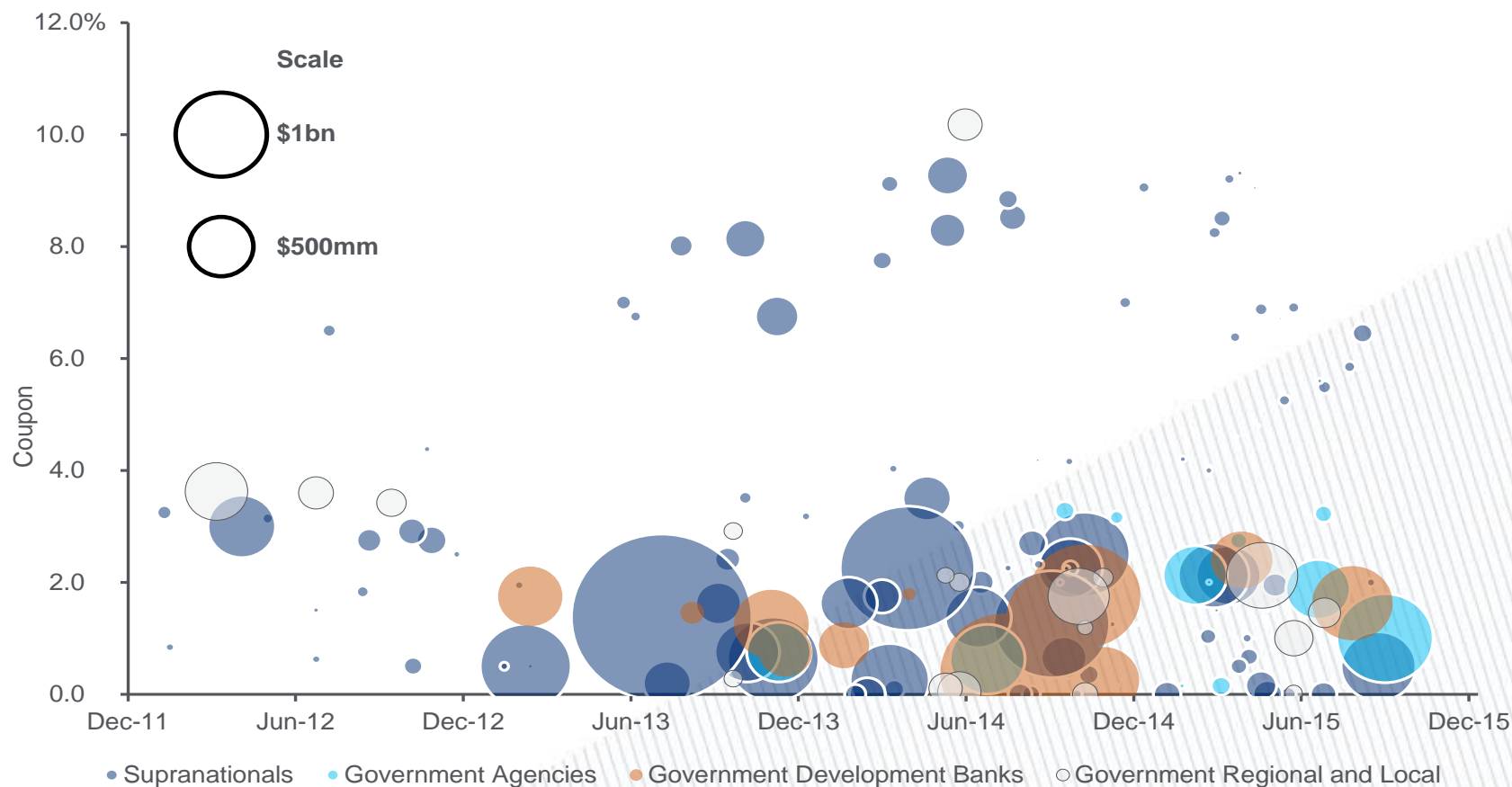
1. Green Bonds use the Bank of America Green Bond Index (MLGREN) and Global Bonds use the Bank of America Global Broad Market Index (MLGBMI) and are indexed.

International Capital Market Association (ICMA)

SSA Bonds: Wide Range of Deal Size and Coupons

The majority of SSA green bonds have been large scale, low coupon, low risk bonds, however, there are many examples of higher risk, higher coupon, higher risk bonds as well.

- How to interpret: Coupon on y-axis, date on x-axis, bubble size based on size of issuance, bubble color based on issuer industry

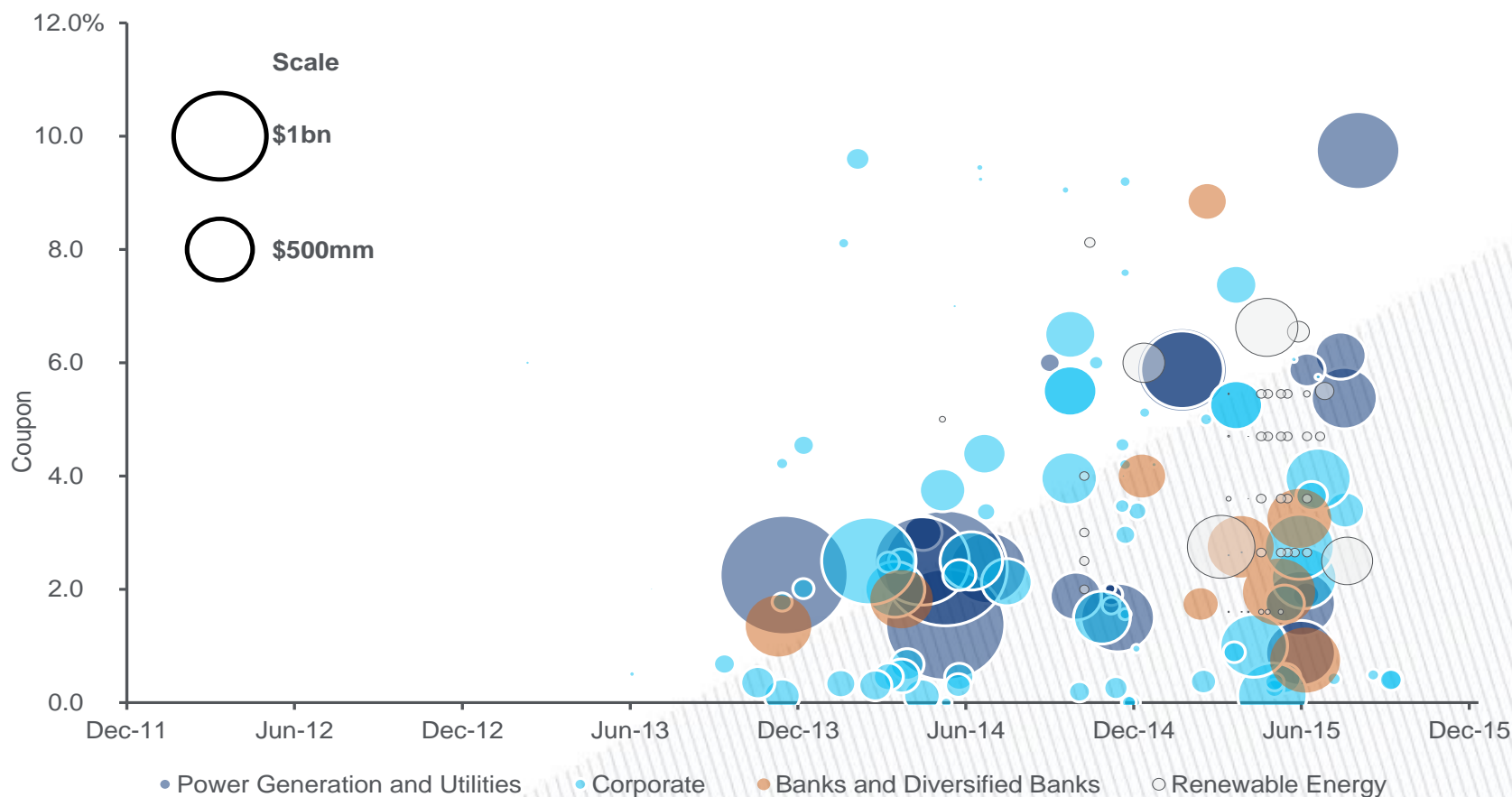


International Capital Market Association (ICMA)

Corporate Bonds: Also a Wide Range of Deal Size and Coupons

The majority of corporate green bonds have been large scale, low coupon, low risk bonds, however, there are many examples of higher risk, higher coupon, higher risk bonds as well.

- How to interpret: Coupon on y-axis, date on x-axis, bubble size based on size of issuance, bubble color based on issuer industry



International Capital Market Association (ICMA)

Major Investors in Green Bonds

The success of a Green Bond is often judged in part by support from the 'deep green' investors. Below is an overview of both well-known & niche buyers.

Illustrative Green Bond Investors:



Green Bond Investors Expectations

In general, as the green bond market grows investors are developing a better understanding of what level of **transparency** they want from the issuers of green bonds.

Some investors have a **dedicated SRI/Green Portfolio** while others who have a particular interest in green bonds purchase these from a general fund.

Some investors may have a preference for Green bonds to adhere to **voluntary standards** such as the **Green Bond Principles**.

To avoid the risk of green washing, investors are increasingly interested in **impact reporting** over the life of a green bond.

Investors have begun to add **ESG (Environmental Social Governance)** as a key component of their credit / equity research reports. At times their investment decision is linked to the issuers overall ESG score.

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