

GREEN BONDS

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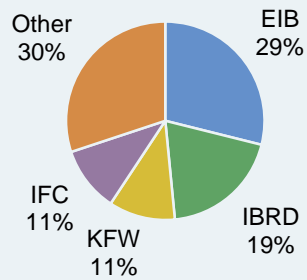
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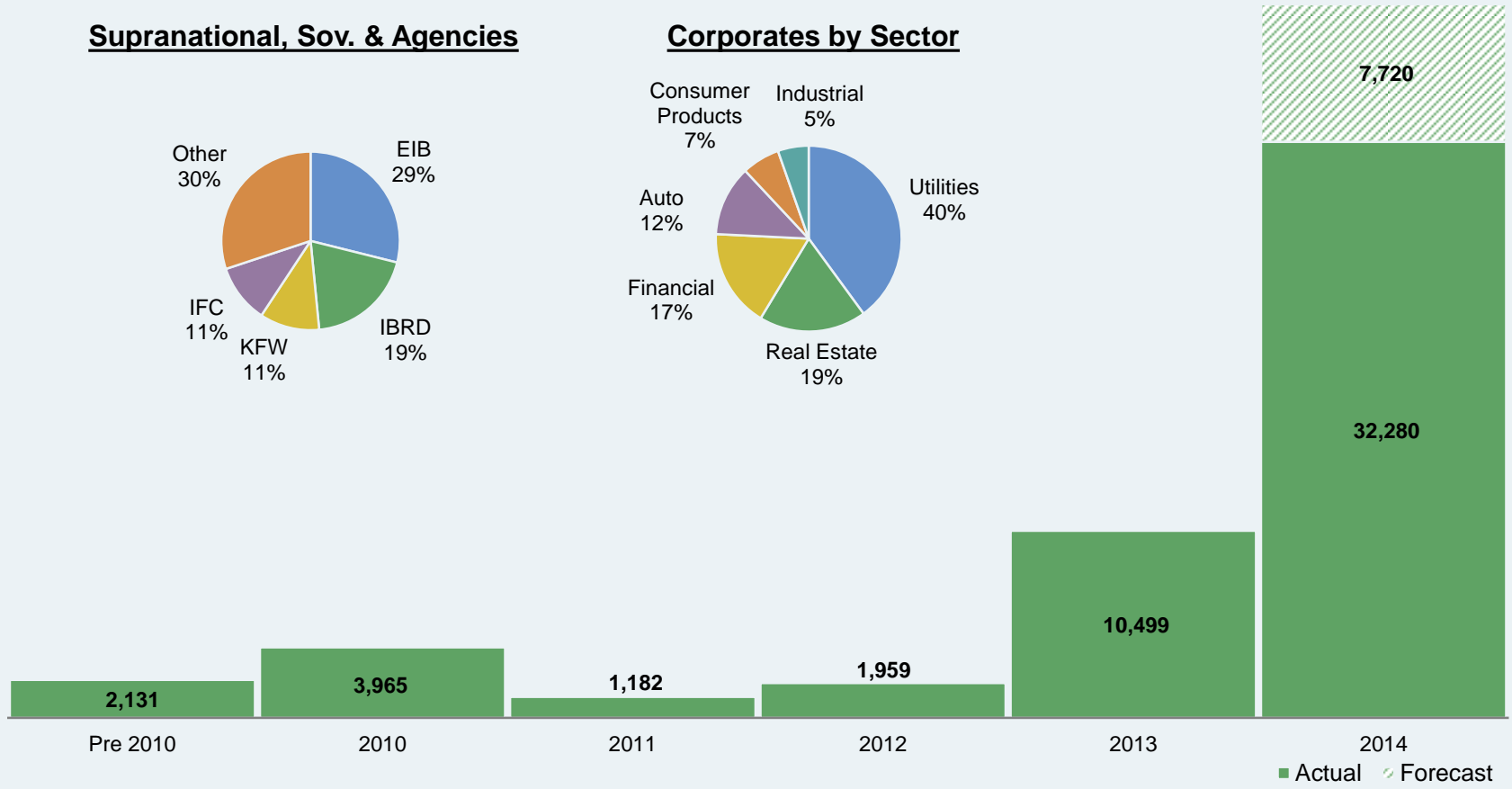
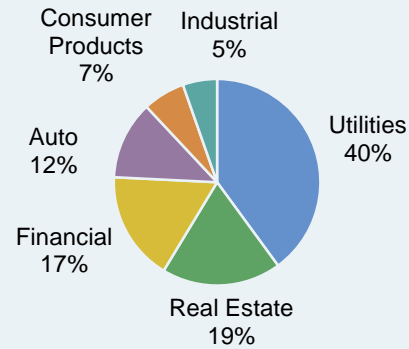
Growth of Green Bond Market

November 2007 – to present (\$mm)

Supranational, Sov. & Agencies



Corporates by Sector



Source: J.P. Morgan as of October 30, 2014

*Includes use of proceeds Green Bonds and the Toyota ABS

U.S. Municipal Issuance to Date

November 2007 – to present (\$mm)					
Issue Date	Issuer	Currency	Amount (mm)	Maturity	Underwriters
11-Jun-13	Massachusetts GO	USD	100	1-Aug-33	BAML
4-Jun-14	New York State EFC	USD	213.635	Varies	JPM, Loop Capital
15-Jul-14	DC Water	USD	350	2114	Barclays, GS
12-Sep-14	Massachusetts GO	USD	350	1-Aug-25	MS
29-Sep-14	MIT	USD	370	1-Jul-38	JPM, BCLY, MS
01-Oct-14	State of California	USD	200	1-Oct-37	BAML, CITI, Wells Fargo
28-Oct-14	Hartford, CT	USD	140	2042	JPM
13-Nov-14	Martha Vineyard Land Bank	USD	35	*	RBC

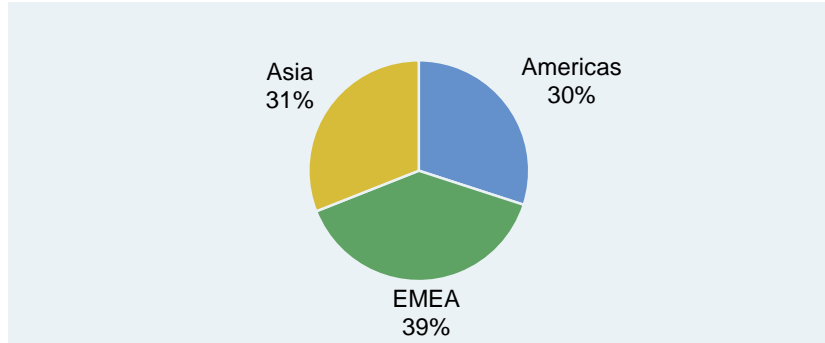
Source: JPM and Bloomberg

* yet to price

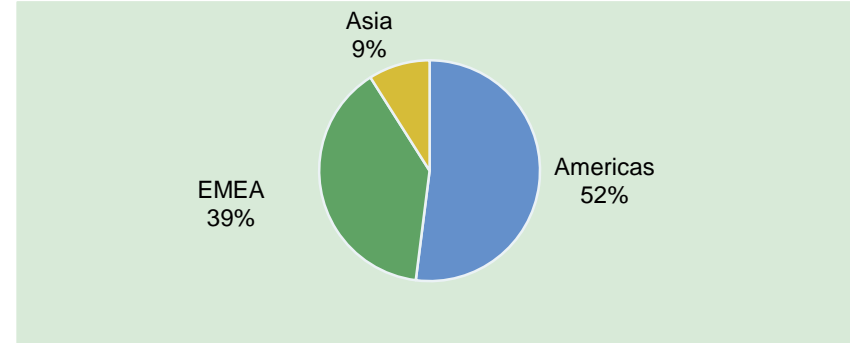
Benefit of Issuing Green: Investor Diversification

- **What is the benefit of issuing green?** By targeting SRI investors, issuers benefit from diversification
 - Shift in investor types from Central Banks and Official Institutions to Asset Managers and Insurance/Pension Funds
 - Geographic growth from Asia predominance to Europe, particularly Scandinavia
 - Increase in number of investors per deal (e.g., 25 → 35) as SRI ticket sizes typically tend to be smaller

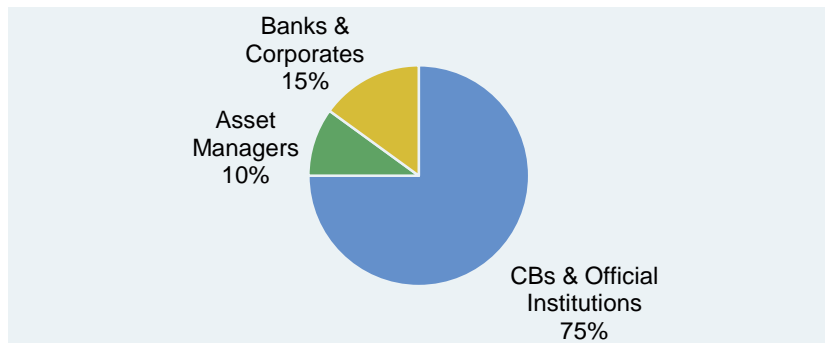
AFDB \$1.0bn 5y Benchmark Bond (26 Orders) - Region



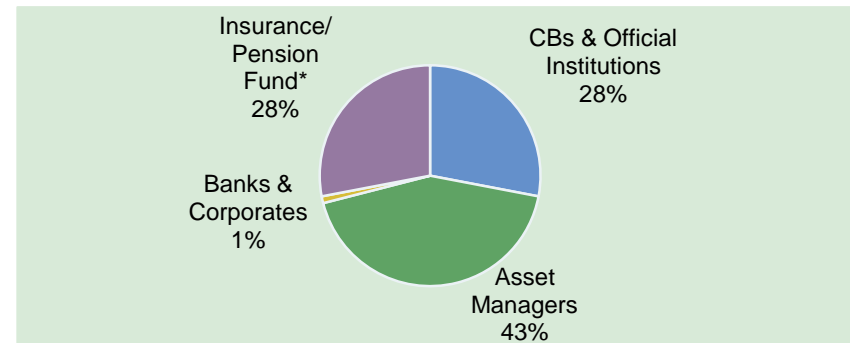
AFDB \$500m 3y Green Bond (~35+ Orders) - Region



AFDB \$1.0bn 5y Benchmark Bond (26 Orders) - Type



AFDB \$500m 3y Green Bond (~35+ Orders) - Type



Benchmark Bond: AFDB 0.875% 3/24/18 (Issued 1/16/13)
 Green Bond: AFDB 0.750% 10/18/16 (Issued 10/10/13)
 Source: African Development Bank

* A new investor type with Green Bonds
 Source: African Development Bank

Green Bond Principles (GBP)

What are the Green Bond Principles?

- The GBP were developed with guidance from issuers, investors and environmental groups to serve as voluntary guidelines covering the recommended process for the development and issuance of Green Bonds
- The transparency and disclosure recommended by the GBP are intended to provide the informational basis for the market to increase capital allocation to environmentally beneficial purposes without any single authority or gate keeper
- Four banks served as the drafting committee for GBP – Bank of America Merrill Lynch, Citi, Crédit Agricole and JPMorgan Chase. A consortium of 25 investment banks have announced support of the GBP
- ICMA was appointed to serve as a secretariat whose administrative duties include facilitating information exchange with issuers, investors, underwriters, and other stakeholders such as non-profit environmental organizations, nongovernment organizations, academics and other thought leaders

Types of Green Bonds

1. **Green Use of Proceeds Bond:** a standard recourse-to-the-issuer debt obligation for which the proceeds shall be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process that will be linked to the issuer's lending and investment operations for projects
2. **Green Use of Proceeds Revenue Bond:** a non-recourse-to-the-issuer debt obligation in which the credit exposure is to the pledged cash flows of the revenue streams, fees, taxes etc., and the Use of Proceeds of the bond goes to related or unrelated Green Project(s)
3. **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
4. **Green Securitized Bond:** a bond collateralized by one or more specific projects, including but not limited to covered bonds, ABS, and other structures. The first source of repayment is generally the cash flows of the assets

Green Bond Principles Recommended Process

Stage 1: Use of Proceeds

- Declare the eligible Green Project categories (including indirectly through financial intermediaries) in the Use of Proceeds section of the legal documentation for the security
- Recommended that all designated categories provide clear environmental benefits that can be described, quantified and assessed, where feasible

Stage 2: Process for Project Evaluation and Selection

- Outline the investment decision-making process to be followed in determining the eligibility of an individual investment using Green Bond proceeds
- If possible, work to establish impact objectives from the projects selected

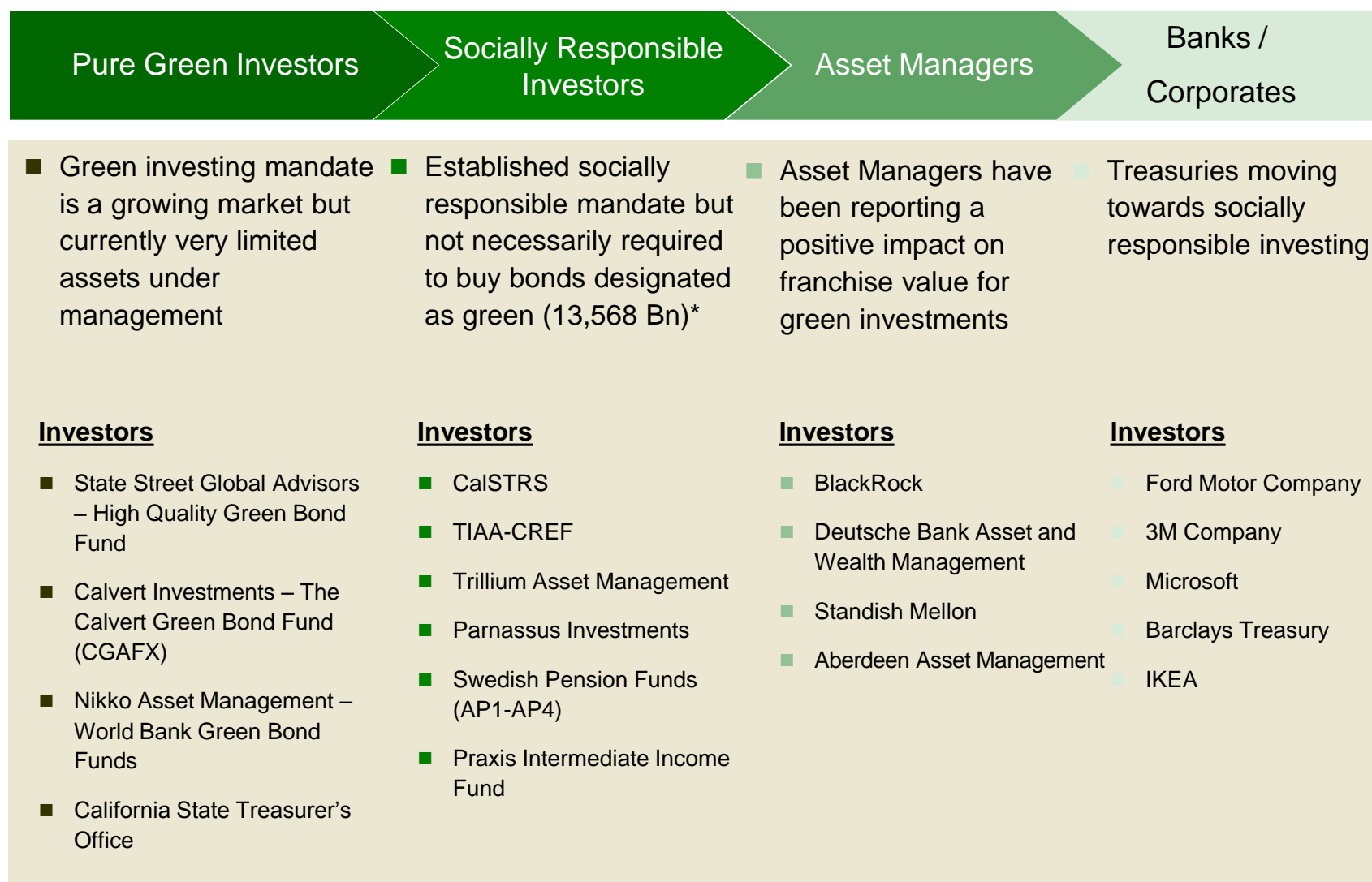
Stage 3: Management of Proceeds

- Proceeds should be moved to a sub-portfolio or otherwise tracked by the issuer and attested to by a formal internal process
- While bonds are outstanding, balance should be periodically reduced by amounts of investments made during period
- Recommend to make known the intended types of eligible instruments for the balance of unallocated proceeds

Stage 4: Reporting

- Report at least annually on the specific investments made from the Green Bond proceeds (in addition to disclosure of Use of Proceeds and the eligible investments for unallocated proceeds)
- Report on quantitative and/or qualitative performance indicator metrics, where feasible, to measure the impact of the investments

How Green is Green?



The list above is only a small sample of investors. We respect our investors confidentiality and only include those who have offered their name in public press releases

*Source: Global Sustainable Investment Review 2012, GSIA