Green City Bonds Coalition

Building a global bond market that will finance development of low carbon and climate resilient cities





Context: \$45 trillion of "interest"

\$88^{tn} assets under management

- \$30^{tn} Insurance
- \$27^{tn} Pension funds 19 out of 20 are public sector
- \$6^{tn} Sovereign wealth
- \$25th Fund managers, mutuals, foundations
- (SRI = \$13tn global)
- 50-60% bonds
- Green/brown



GLOBAL INVESTOR COALITION ON CLIMATE CHANGE







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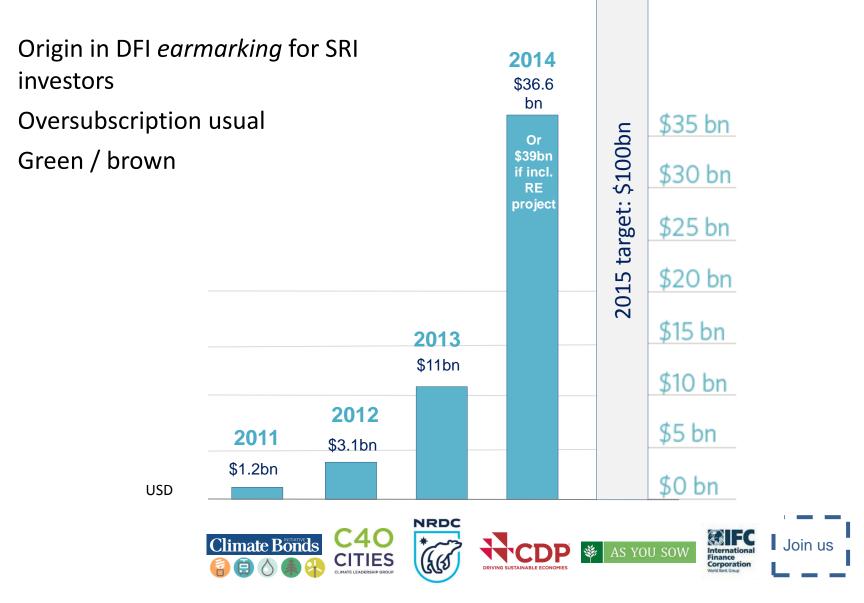


US\$8 trillion

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US\$8 trillion

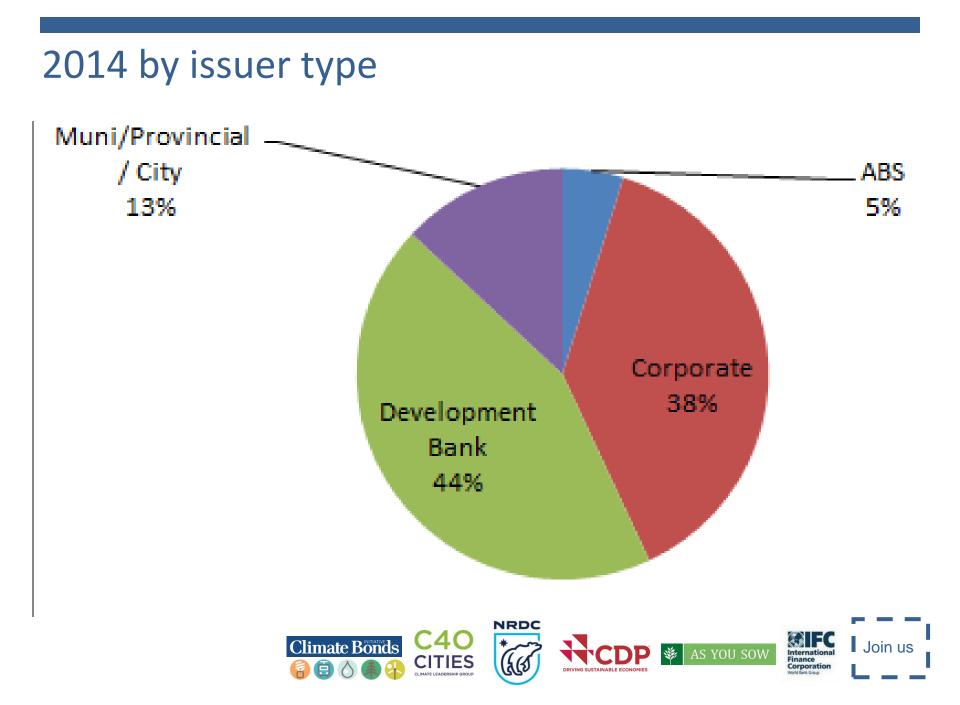
Fast growth



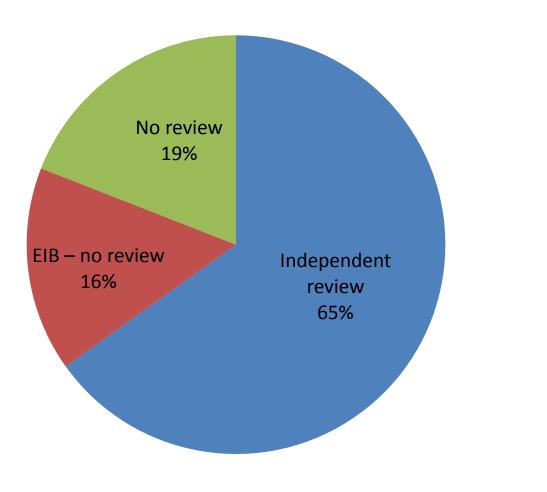
It's about Use of Proceeds

Proceeds to Green	 Earmarking purpose Reporting / transparency Independent review
Any entity	 Governments & DFIs Corporates – this year's growth area Asset backed: PPPs, banks, utilities, etc Municipalities
lssuer benefits	 Investor diversification Investor <i>engagement</i> around purpose: "stickiness" Tenor Multi-asset scale Price???





Majority of green bonds had 2nd opinion in 2014



pwc









Potential Green City Bond issuers

Cities – GO bonds	 Gothenburg: \$77m Sept 2013, \$273m May 2014. Proceeds: electric vehicle system, water purification, district heating. Green credentials: 2nd opinion provided by CICERO Ile de France (Paris): \$829 3x April 2014, \$466 5x March 2013. Proceeds: green social housing, energy efficiency in schools, green SME loans. Green credentials: 2nd opinion provided by CICERO Johannesburg: \$136m, 10yr, 1.5x, June 2014. Proceeds: renewable energy, energy efficiency, transport, waste management. Green credentials: "Aligned with World Bank"
Governments or development banks earmark funds for a City	• Where cities do not have bond-issuing powers, another institution, such as a national development bank or a government, issues Green City Bonds with proceeds earmarked for green projects in a City
City entities, e.g. infra, water or transport bodies	 NYSEF water bond DC Water: \$350mn July 2014. Proceeds to construct tunnel to transport stormwater and sewage to watewater treatment plant. Green credentials: 2nd opinion provided by Vigeo
Corporations authorised by a City	 Public-private partnerships Companies developing green infrastructure to City requirements

Standards & certification

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The maps





Opportunities = scale / liquidity

Expert groups = science-based definitions



Renewable energy Energy storage



Green buildings Green infra



Clean water, utilities

Storm adaptation



Waste management Methane reduction



Industrial Efficiency



Agriculture, bioenergy Forestry Food supply chain

Rail, BRTs, EVs

Reference: www.ClimateBonds.net/Taxonomy









How to issue a green bond

- 1. Creditworthiness
- 2. Identify pool of qualifying assets/projects: low hanging-fruit Use taxonomies to decide "what is green" Bring Treasury and Sustainability teams together
- 3. Verify green credentials

Self-declaration vs. independent reviews

- 4. Choose an underwriter
- 5. Investor marketing
- 6. Reporting on use of proceeds
 - Annual report: green impact + confirmation of use of proceeds
 - Reporting is currently bespoke. Focus on annual (continuing) voluntary disclosure
 - In the short-term, muni issuers repackage projects but not necessarily report. In the long term clear standard needed
 - For non-project finance, muni issuers can say how much was spent but hard to link and track specific outcomes

Eventually, pushed by sustainability goals and pulled by investors, embed in capital development process

Early US Market Issues and Pathways

Tax exempt vs. Non-Tax exempt

- DC went taxable due to demand and found competitive pricing
- Smaller tax exempts may save 10 bps but difficult so they pursue taxable bonds
- BABs are expired if they were around that would increase issuance rapidly; QECBs exist but not active due to onerous process; CREBs are limited

President's proposal

Obama is proposing Qualified Public Infrastructure Bonds

- If implemented, taxable offerings may generate interest from the European market
- Amortization structure and tenor different from corporate market



The Plan

1. Coalition expansion

- Would be issuers Investor associations Development and green banks
- Investment banks
- 2. Support program
 - How-to Toolkit
 - Workshop + seminars
 - Peer support matching
 - Creditworthiness support from green banks and development banks
 - Aggregation of infrequent issuers

3. Demonstration issuances

- **US** cities
- China: Beijing
- EU: Stockholm, Paris, Gothenburg China
- 4. Investor roundtables in major markets
- 5. Report to UN Secretary-General at Paris COP Dec 2015

