Green City Bonds Coalition

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

Join us
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
- $25^{tn}$ Fund managers, mutuals, foundations
  (SRI = $13tn global)
- 50-60% bonds
- Green/brown

US$8 trillion

US$45 trillion

US$22.5 trillion
Fast growth

Origin in DFI *earmarking* for SRI investors

Oversubscription usual

Green / brown

USD

<table>
<thead>
<tr>
<th>Year</th>
<th>Amount</th>
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<tbody>
<tr>
<td>2011</td>
<td>$1.2bn</td>
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<tr>
<td>2012</td>
<td>$3.1bn</td>
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<tr>
<td>2013</td>
<td>$11bn</td>
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<tr>
<td>2014</td>
<td>$36.6bn</td>
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Or $39bn if incl. RE project

2015 target: $100bn

- $35 bn
- $30 bn
- $25 bn
- $20 bn
- $15 bn
- $10 bn
- $5 bn
- $0 bn

Join us
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

Issuer benefits
- Investor diversification
- Investor engagement around purpose: “stickiness”
- Tenor
- Multi-asset scale
- Price???
2014 by issuer type

- Muni/Provincial / City: 13%
- Development Bank: 44%
- Corporate: 38%
- ABS: 5%
Majority of green bonds had 2\textsuperscript{nd} opinion in 2014

- Independent review: 65%
- EIB – no review: 16%
- No review: 19%
<table>
<thead>
<tr>
<th>Potential Green City Bond issuers</th>
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<tbody>
<tr>
<td><strong>Cities – GO bonds</strong></td>
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<tr>
<td>Gothenburg: $77m Sept 2013, $273m May 2014. Proceeds: electric vehicle system, water purification, district heating. Green credentials: 2nd opinion provided by CICERO</td>
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<tr>
<td>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</td>
</tr>
<tr>
<td>Johannesburg: $136m, 10yr, 1.5x, June 2014. Proceeds: renewable energy, energy efficiency, transport, waste management. Green credentials: “Aligned with World Bank”</td>
</tr>
<tr>
<td><strong>Governments or development banks</strong></td>
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<tr>
<td>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</td>
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<tr>
<td><strong>City entities, e.g. infra, water or transport bodies</strong></td>
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<tr>
<td><strong>NYSEF water bond</strong></td>
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<tr>
<td>DC Water: $350mn July 2014. Proceeds to construct tunnel to transport stormwater and sewage to wastewater treatment plant. Green credentials: 2nd opinion provided by Vigeo</td>
</tr>
<tr>
<td><strong>Corporations authorised by a City</strong></td>
</tr>
<tr>
<td>Public-private partnerships</td>
</tr>
<tr>
<td>Companies developing green infrastructure to City requirements</td>
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</tbody>
</table>
Standards & certification

$30tn Climate Bond Standards Board

Expert Committees: Green Property, Low-Carbon Transport, Bio-energy, Agriculture, Water

Industry Advisory Group

Indices
Opportunities = scale / liquidity

Expert groups = science-based definitions

- Renewable energy
  Energy storage

- Green buildings
  Green infra

- Industrial Efficiency

- Rail, BRTs, EVs

- Clean water, utilities

- Storm adaptation

- Waste management
  Methane reduction

- Agriculture, bioenergy
  Forestry
  Food supply chain

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**