The Global Green Bond Market: reaching an annual global market of USD 1 trillion

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Kiev
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Why we need to care
We know what to do, and the Capital is there

“All infrastructure has to now be green. And rivers of capital need to flow to assets and projects that are the right ones for the 2050 world we have to build.”

Christiana Figueres, UNFCCC
Demand is there...

- USD 60tn AuM represented at UN Climate Summit NYC 2015

- Insurers pledge to increase climate investments by factor 10 by 2020

- Paris Green Bonds Statement: USD 11 tn asking for more green paper

- Investors supported by EU HLEG on Sustainable Finance & FSB’s TCFD
Labelled green bonds: 78% up in 2017...proving investor demand

USD 161.4bn total issuance

Over 1,500 green bond issues

40 countries, all continents

249 issuers (156 new)

USD 10.7bn – largest bond (French sov. GB)

3 sovereign GB: France, Fiji, Nigeria

6 April 2018
Global development

Top 10 countries (>USD 6.5bn):
- United States: USD 82.6bn
- Canada: USD 8.4bn
- Mexico: USD 6.7bn
- Spain: USD 10.2bn
- France: USD 43.8bn
- Netherlands: USD 14.6bn
- Sweden: USD 12.9bn
- Germany: USD 25.9bn
- Norway: USD 4.6bn
- Belgium: USD 5.6bn
- Italy: USD 5.9bn
- Japan: USD 6.1bn
- India: USD 6.6bn
- China: USD 48.8bn
- Australia: USD 4.7bn

Supranational: USD 55.1bn
The top 10

The US, China and France dominate 2017 issuance

<table>
<thead>
<tr>
<th>Country</th>
<th>2017 Issuance</th>
<th>Cumulative Issuance</th>
</tr>
</thead>
<tbody>
<tr>
<td>United States</td>
<td>40</td>
<td>70</td>
</tr>
<tr>
<td>China</td>
<td>20</td>
<td>40</td>
</tr>
<tr>
<td>France</td>
<td>30</td>
<td>60</td>
</tr>
<tr>
<td>Germany</td>
<td>15</td>
<td>35</td>
</tr>
<tr>
<td>Supranational</td>
<td>10</td>
<td>20</td>
</tr>
<tr>
<td>Spain</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Sweden</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Netherlands</td>
<td>3</td>
<td>5</td>
</tr>
<tr>
<td>India</td>
<td>2</td>
<td>4</td>
</tr>
<tr>
<td>Mexico</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Canada</td>
<td>2</td>
<td>3</td>
</tr>
<tr>
<td>Other</td>
<td>10</td>
<td>15</td>
</tr>
</tbody>
</table>
... and supply is diversifying

Emerging Markets  
Q1 2017

- USD5.3bn
- 20%  
- 18%
- 4%
- 7%
- 7%

Emerging Markets  
Q1 2018

- USD8.4bn
- 30%
- 16%
- 8%
- 13%
- 33%
Varied use of proceeds

- Buildings
- Energy
- Water
- Transport

- Waste
- Land Use
- Industry
- Adaptation
We’ve moved beyond green bonds

<table>
<thead>
<tr>
<th>Bonds</th>
<th>RMBS &amp; ABS</th>
<th>Covered bonds</th>
<th>Loans</th>
</tr>
</thead>
<tbody>
<tr>
<td>Debt funds</td>
<td>Green equity funds</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Green infra funds</td>
<td>Sustainable Agri funds</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Green indices & ETFs

Green incentives: subsidies, tax breaks, preferential treatment, capital weighting

Green credit support services
We now need

National and regional pipelines of deals

Clever incentives

Bridging structures that allow developed country funds to invest in EMs

Brown balance sheets financing green

Green tagging of bank loans

A USD1tr market by 2020!!
Rules drive green bond markets

Use of proceeds
Process for Project Selection
Management of Proceeds
Reporting

Chinese regulations & definitions

EU Taxonomy and Green Bonds Standards

India Green Bond Regulations

ASEAN Green Bond guidelines

Morocco, Indonesia, Singapore, Japan, Peru, Chile

Canada, Argentina
Green Finance Development in China

**Green Credit Guidelines**: requirements for banking sector to manage environmental and social risks and increase green lending.

**The Green Finance Committee**: a committee dedicated to the mission of green finance development - 220 members.

**Green Bond Guidelines**: guidance for robust growth of China’s green bond market.

**National Guidelines** for Establishing the Green Financial System by seven ministries: 35 measures to build green financial system.

**Five Green Finance Pilot Zone**: Guangdong, Guizhou, Jiangxi and Zhejiang and Xinjiang.

**Global leadership**: G20 Green Finance Study Group, UK-China Green Finance Task Force, Greening the Belt and Road, etc.
Moving towards harmonisation

**Governance**

**Climate Bonds Standard Board**
Investor groups representing EUR34tn AUM.

**Technical & Industry Working Groups**
+300 NGOs, academics, development banks, institutions, investors, banks and corporates

**Scientific Community**
Latest findings from IEA, IPCC & Potsdam Institute
Climate Bonds Certification

1. Prepare the bond
   - Identify assets that meet the relevant sector criteria and compile supporting information
   - Create Green Bond Framework setting out how proceeds of the bond will be used

2. Engage a verifier
   - Engage an Approved Verifier for pre- and post-issuance Certification
   - Provide them with relevant information
   - Receive a Verifier’s Report giving assurance that Climate Bonds Standard requirements are met

3. Get Certified & issue a Certified Climate Bond
   - Submit the Verifier’s Report and Information Form to the Climate Bonds Initiative
   - Receive a decision on pre-issuance Certification
   - Issue your bond, using the Certified Climate Bond mark

4. Confirm the Certification post-issuance
   - Within 12 months of issuance, submit the Verifiers post-issuance report
   - Receive notification of post-issuance certification

5. Report annually
   - Prepare a simple report each year for term of the bond
   - Provide it to bond holders and Climate Bonds Initiative
Practical tools for market development

**CHALLENGES**

1. Lack of capacity within regulatory agencies
2. Insufficient demand for green bonds among local investors
3. Lack of supporting regulation
4. Lack of qualified verifiers
5. Insufficient pipeline of eligible assets

**Building Capacity**

1. How to create pipelines of green bond projects and prepare issuers
2. Guidance and case studies to develop regulatory frameworks
3. How to integrate ESG risk and impact assessment at all stages of issuance

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**Drivers of green bond market development**

<table>
<thead>
<tr>
<th>1</th>
<th>Opportunities identified by policymaker/regulars</th>
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</thead>
<tbody>
<tr>
<td>2</td>
<td>Initiative taken by local financial institutions</td>
</tr>
<tr>
<td>3</td>
<td>Major environmental concerns requiring urgent financing solutions</td>
</tr>
<tr>
<td>4</td>
<td>Initiatives taken by stock exchanges</td>
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<tr>
<td>5</td>
<td>Initiative taken by local municipality, province or city</td>
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</tbody>
</table>

**Regulators**

1. Set up green bond guidelines and harmonise definitions
2. Simplify approval processes for green bond issuance
3. Utilise financial technology (FinTech) to increase green bonds liquidity

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Climate Bonds Initiative
The role of sovereigns

First to market: Poland (2016) and France (2017) – Fiji, Belgium, Nigeria

Benefits:
1. Raising capital to finance infrastructure in line with its NDCs
2. Attracting new investors
3. Providing policy certainty
4. Improving collaboration between ministries

Impact of Sovereign green bonds:
1. Kick-starting a domestic market
2. Providing scale and liquidity to the green bond market
3. Using signalling power to other green bond market players
4. Diversifying the green bond market/tapping into new investor segments
The role of stock exchanges

1. Developing green bond guidelines
2. Promoting transparency and common practices
3. Establishing green bond lists or segments for investors
4. Supporting green bond indices or ETFs for investors to track performance
5. Fostering market education and assisting investors in understanding wider climate risks and opportunities.

Luxembourg Green Exchange (LGX), London Stock Exchange (LSE), Borsa Italiana (BI), The Nigerian Stock Exchange (NSE) and Johannesburg Stock Exchange (JSE)
Our Super Seven Trends for 2018

1. **More sovereign issuance from developed and emerging economies:** 2016/17 pioneers as case studies to encourage new entrants.

2. **Progress on common international standards and definitions,** with the launch of a European Taxonomy for sustainable finance expected in 1H2018.

3. **Sub-sovereigns to continue to push the market forward,** led by US Municipals.

4. **Regulators to keep innovating** with more guidelines, regulations and incentives.

5. **Pressure on the banking sector to lift green lending,** plus investor demands on large corporate emitters for more brown-to-green financing.

6. **Increased linkages between green bonds / finance and SDGs.**

7. **Our 2018 forecast:** USD250-300bn (> 60% growth on 2017), reaching USD1tn in 2020.
www.climatebonds.net