From Zero to Hero
lessons and experiences from the growth of the Chinese green bond market

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Which is green?

1. [Image of renewable energy source]
2. [Image of hydroelectric dam]
3. [Image of coal-fired power plant]

Climate Bonds Initiative
What is a green bond?

- Use of proceeds
- Process for evaluation and selection
- Management of proceeds
- Post-issuance reporting

Green Bond External Review

International Green Bond Definitions
- Green Bond Principles
- Climate Bonds Standards
A global green bond market in 2017

- **Top 10 countries (>3bn)**
  - **China Total issuance**: $37.1bn
  - **Spain**: $5.6bn
  - **France**: $22.0bn
  - **Netherlands**: $4.3bn
  - **Sweden**: $5.3bn
  - **Germany**: $9.6bn
  - **India**: $4.2bn
  - **Other country**: $22.9bn (aligned), $14.2bn (not aligned)

- **Canada**: $3.4bn
- **United States**: $42.4bn
- **Mexico**: $4bn

**Map Legend**
- **Supranational**: $9.2bn
- **Other country**: $36.8bn
- **USA**: $22.9bn
- **China**: $14.2bn

**Graph**
- **2014**: $30bn
- **2015**: $40bn
- **2016**: $50bn
- **2017**: $60bn

**Source**: Climate Bonds Initiative
Issuer type: US vs China

**United States**: 34% Non-Financial Corporate, 26% Local Government, 37% Government-Backed Entity, 3% Commercial Bank and other financial institutions.

**China**: 28% Non-Financial Corporate, 15% Policy Bank, 10% Government-backed, 47% Commercial Bank and other financial institutions.
The Troika that has been driving the China green market

- Xi Administration’s commitment to develop the “Ecological Civilization”
- People’s Bank of China (PBoC)
- National Development and Reform Commission (NDRC)
- China Securities Regulatory Commission (CSRC)
- National Association of Financial Market Institutional Investors (NAFMII)
- Stock exchanges
- Green bond indices
- Green bond verification agencies
Challenges: harmonization of green bond definitions

Only 62% of green bonds from China are in line with international definitions

Bonds fail to meet international definitions because:

1. Differences in green eligibility definitions
2. More than 5% of proceeds allocated to working capital
3. Lack of disclosure

Graph:
- China’s issuance (only aligned with China’s definitions)
- China’s issuance (aligned with both China and international definitions)
- Other country’s issuance (aligned with international definition)
Key deals: retail green bond

China Development Bank

- CNY 5bn ($763.2m), CNY 600m of the bond is available to individual investors
- Expected environmental impacts:
  - Reduction in BOD 365 t/a;
  - TSS 5787 t/a;
  - TN 761 t/a;
  - TP 60 t/a;
  - ....

Retail Green Bond

- Coupon rate 4.5%
- Tax exemption

Raise Environmental Awareness

Increase individual green investors base
Key deals: one belt one road and opportunities for green bonds

Industrial and Commercial Bank of China’s (ICBC)

- USD2.15bn in 3 tranches
- Listed on Luxembourg Green Exchange
- “One Belt One Road Green Climate Bond”
- European investors took over 70% of the deal

Opportunities:
Key deals: green investment overseas

Geely Auto (London Taxi Company)

- USD 400million
- Listed on Singapore Stock Exchange
- 90% allocated to Asian investors
- 6 times oversubscribed
Key deals: dual recourse green bond

Bank of China

- USD 500m
- Listed on London Stock Exchange
- Dual recourse structure

**Green Bond**

Use of proceeds:
- Water
- Clean transport
- Clean energy

**Asset Pool**

Constituents in the Climate-aligned Bond Index

- Credit enhancement
- Invest in green bonds
- Lower climate risks on balance sheet
Key deals: moving to green

Three Gorges Finance II (Cayman Islands) Limited

- EUR 650 million
- Listed on Irish Stock Exchange

<table>
<thead>
<tr>
<th>Sector</th>
<th>Location</th>
<th>Project</th>
<th>Use of Proceeds (€ Mil.)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Green Energy</td>
<td>Germany</td>
<td>Offshore Wind</td>
<td>€400</td>
</tr>
<tr>
<td>Green Energy</td>
<td>Portugal</td>
<td>Onshore Wind</td>
<td>€250</td>
</tr>
</tbody>
</table>

- Expected climate impact: reduction of 2.21 million tons of CO2
- Can a brown company issue green bonds?
Next steps – what to expect in 2018?

1. Harmonization of green bond definitions
   • Domestic: PBoC and NDRC
   • International: EIB and PBoC

2. Opportunities: greening the one belt one road

3. Local government financing vehicles (LGFVs)
   • What is a LGFV?
   • Longer investment horizon
   • Green Finance Pilot Zones will accelerate green bonds issuance from local government and LGFVs
Next steps – what to expect in 2018?

4. Green securitization

5. Hong Kong, the next powerhouse for green bond market
   • Bond Connect scheme
   • The largest government green bond programme just released
   • Incentives for green bond issuing

6. More green bond based financial products
   • Green bond fund and ETF
Thank you!

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