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Outline

• Description of the Paris Climate Bonds

• Price Discovery

• Summary
Paris Climate Bond Context – Observed Market Failures

**Availability of debt solutions for emerging market projects**
- Limited capacity of international banks to provide loans to emerging market projects, constraining competition and leading to higher than necessary pricing or lack of availability of debt finance.

**Crowding in finance from Institutional Investors**
- Despite the appeal of emerging market bond yields, institutional investors have limited capacity to invest in developing country climate solutions due to the absence of an asset class that guarantees results.

**Aligning results to multilateral standards**
- Addresses the market failure in which the low value of UNFCCC-issued emissions certificates impedes ongoing use as collateral in financing transactions.
Climate Finance Definition

The Paris Climate Bond utilizes the following definition as a guiding principle of design:

Climate finance refers to any financial instrument or investment – including equity, debt, grant, purchase & sale or risk management tool (for example: investment guarantee, insurance product or commodity, credit or interest rate derivative, etc.) – issued under contract to a firm, facility, person, project or agency, public or private, in exchange for the delivery of positive climate externalities that are real, verified and additional to business as usual, whereby such positive externalities result in the creation of transferrable property rights recognized within international, regional, national and sub-national legal frameworks*.

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Description of Paris Climate Bonds

Phase 1 - Project Finance Company Established to Make PCB Loans

Key elements

- Simple finance structure set up with a new Project Finance Company as an orphan SPV
- The Project Finance Company is financed with senior debt and junior debt/equity, raised in USD or GBP
- The Project Finance Company purchases foreign currency and makes loans to the Eligible Energy Projects in local currency. For example, ZAR or INR for South Africa and India respectively
- As the Project Finance Company makes more loans under the control of an asset manager, Equity providers may increase their investment and senior debt may become available
- Once the portfolio reaches a sufficient scale, the structure will move to Phase 2, allowing the equity investors to recycle funds
- Or the Project Finance Company has the option to sell individual bonds as an alternative
Description of Paris Climate Bonds

Phase 2 - Project Finance Company Loans are Refinanced via Sale to the Investment Vehicle(s)

Key elements

- Investment Vehicle company issues various tranches of debt and equity denominated in USD
- Investment Vehicle, with the USD raised, purchases ZAR and INR denominated assets out from the Project Finance Company
- Project Finance Company and continues to make new loans until the portfolio is fully ramped
- As foreign currency loans are repaid in ZAR and INR, the Investment Vehicle manages risk on foreign currency cash flows for USD in accordance with its risk management policy
- Credit rating contingent on rating all underlying projects and getting sufficient diversity
Outline

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## Price Discovery – Example South Africa

<table>
<thead>
<tr>
<th>Item</th>
<th>Swap Rate</th>
<th>Credit Spread</th>
<th>All-in Rate</th>
</tr>
</thead>
<tbody>
<tr>
<td>Current market for non-recourse project loans (approx.)</td>
<td>800 bps</td>
<td>400 bps</td>
<td>1,200 bps</td>
</tr>
<tr>
<td>Eskom ZAR (2026 maturity)</td>
<td>825 bps</td>
<td>145 bps</td>
<td>970 bps</td>
</tr>
<tr>
<td>Eskom USD (2025 maturity)</td>
<td>220 bps</td>
<td>450 bps</td>
<td>670 bps</td>
</tr>
<tr>
<td>RSA ZAR</td>
<td>815 bps</td>
<td>60 bps</td>
<td>875 bps</td>
</tr>
<tr>
<td>RSA USD (2025 maturity)</td>
<td>220 bps</td>
<td>240 bps</td>
<td>460 bps</td>
</tr>
</tbody>
</table>

Notes: Mid-yields on 09/01/2017 based on Bloomberg pricing
Outline

• Description of the Paris Climate Bonds
• Price Discovery
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## Benefits of Paris Climate Bonds

<table>
<thead>
<tr>
<th>Category</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>New &amp; Additional Finance</strong></td>
<td>• Creates asset class allowing international debt capital markets to invest in emerging market renewable energy &amp; reduces financial burden on public sector agencies.</td>
</tr>
<tr>
<td><strong>Correcting Major Market Failure</strong></td>
<td>• Emerging markets benefit from access to more efficient capital market solutions (i.e. financing conveyor), leading to lower cost and longer tenor debt solutions.</td>
</tr>
<tr>
<td><strong>Sustainable Business Model</strong></td>
<td>• As real default rates are observed, amount of credit enhancement (from public funds) can progressively reduce. Level of concessionality reduced to absolute minimum via adjustment of equity returns.</td>
</tr>
<tr>
<td><strong>Certainty of Mitigation Outcomes</strong></td>
<td>• Parties to the Paris Agreement have certainty on additionality of projects and verification &amp; enforcement of mitigation outcomes; leading to greater confidence in and reliance on such mechanisms.</td>
</tr>
<tr>
<td><strong>Private Sector Finance</strong></td>
<td>• Step change in the environmental integrity of green finance with clearer rules, leading to enhanced participation of private sector.</td>
</tr>
</tbody>
</table>

Commercial in Confidence
Paris Climate Bonds
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