Evaluating Investor Risk in Infrastructure Projects

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Mobilizing Private Investment in Low-Carbon, Climate-Resilient Infrastructure
OECD Expert Meeting - Session IV
Agenda

• S&P Infrastructure Ratings
• Key Issues in Infrastructure Investments
• S&P’s Assessment of Regulatory Risk in Renewable Energy Projects
• S&P’s Assessment of Counterparty Risk in Infrastructure Projects
• Mitigating Investors’ Risks
  - Credit Enhancements
  - EU Project Bond Initiative
S&P first rated project finance transactions 20 years ago. Since then, we have issued more than 500 ratings and currently rate more than $115 billion of project finance debt globally.

Ratings on power assets continue to dominate the global ratings portfolio.

Global Project Finance Regional Distribution*

- North America (57%)
- Europe, Middle East, Africa (24%)
- Latin America (13%)
- Asia-Pacific (6%)

*As of Oct. 21, 2011

Global Project Finance Sector Distribution*

- Power (45%)
- Public Finance Initiative (PFI) (21%)
- Transport (17%)
- Natural resources/mining (6%)
- Industrial (2%)
- Leisure and gaming (7%)
- Oil and gas (7%)

*As of Oct. 21, 2011

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While the ratings distribution on the global portfolio has moved down the scale, the distribution of ratings remains skewed toward investment grade.

The ratings outlook distribution points to relative ratings stability in the portfolio.

Global Project Finance Rating Distribution

*Dates represent current and previously published report card data.

Global Project Finance Outlook Distribution

*Dates represent current and previously published report card data.
Key Issues in Infrastructure Investments

According to the findings of Standard & Poor’s & Parhelion’s Climate Finance Roundtable:

- Illegitimate Policy Changes;
- Institutional and Property Rights;
- Enforcement Risk;
- Longevity Risk;
- Risk/Reward Imbalance;
- Transaction Cost Risk;
- Human and Operational Risk;
- Economic/Commodity Price Volatility.

- Multitude Risk (multiple projects in a number of countries and/or employing multiple technologies)

- Aggregation/Commoditization Risk
  (difficulty in aggregating and/or commoditizing individual transactions into large-scale investment vehicles).

Probability

*Longevity Risk, in which regulations are only in force for a short period compared with investors’ time horizons and capital commitment, adversely affecting continuity and stability, was highlighted by the round table participants to be the most severe.*
A sustainable regulatory system balances the promotion of renewable energy against the costs to the government and consumers:

- **Size:** We view FITs and other incentives that are considerably above market cost to be at the greatest risk of cutbacks, especially in times of economic stress and budgetary controls.

- **Affordability:** Countries in which subsidies represent a higher proportion of GDP are the most at risk of regulatory changes.

- **Control mechanisms:** The absence of caps on installed capacity allows for uncontrolled growth, which then translates into subsidy payments that may be too high.

- **Grid management:** Ineffective management of the electricity grid may increase the cost of back-up energy supplies considerably.
S&P's Assessment of Counterparty Risk in Infrastructure Projects

Counterparty risk results from reliance on suppliers, construction companies, operators and concession grantors

<table>
<thead>
<tr>
<th>Counterparty</th>
<th>Type of Contract Obligation</th>
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</thead>
<tbody>
<tr>
<td></td>
<td>Revenue (concession or off-taker)</td>
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<tr>
<td>Irreplaceable</td>
<td>Construction</td>
</tr>
<tr>
<td></td>
<td>Equipment supplier</td>
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<tr>
<td></td>
<td>Operations and maintenance</td>
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<tr>
<td></td>
<td>Raw material supply</td>
</tr>
<tr>
<td></td>
<td>CDA is equated to counterparties’ ICRs or credit estimates</td>
</tr>
<tr>
<td>Replaceable (Subpart VI.C)</td>
<td>CDA is linked to basket of off-take counterparties (Subpart VII.A.1)</td>
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<tr>
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<td>CDA uplifted by up to two categories from counterparty ICR, reflecting credit enhancement and type of construction (Subpart VII.B &amp; table 3)</td>
</tr>
<tr>
<td></td>
<td>CDA uplifted by up to two categories from counterparty ICR, reflecting credit enhancement and availability of viable alternate suppliers (Subpart VII.C &amp; table 5)</td>
</tr>
<tr>
<td></td>
<td>No CDA assigned, as de-linked subject to number of alternate parties and credit support equal to one month’s fees (Subpart VII.D)</td>
</tr>
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<td>CDA is de-linked or uplifted by up to two notches from counterparty ICR, reflecting availability of viable alternate suppliers (Subpart VII.E &amp; table 6)</td>
</tr>
</tbody>
</table>

**EXCEPTIONS**

<table>
<thead>
<tr>
<th>Counterparty with regulatory or legal support</th>
<th>Type of Contract Obligation</th>
</tr>
</thead>
<tbody>
<tr>
<td>CDAs may be raised for counterparties rated ‘BB’ and lower (¶139 &amp; table 2)</td>
<td>N/A</td>
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<td>N/A</td>
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<tr>
<th>Unwilling counterparty</th>
<th>Type of Contract Obligation</th>
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<tbody>
<tr>
<td>CDA capped at one category lower than the counterparty ICR, subject to a maximum ‘bbb+’ (Subpart VII.A.3)</td>
<td>N/A</td>
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</table>

CDA--Counterparty Dependency Assessment. ICR--Issuer Credit Rating. N/A--Not applicable.
Credit Enhancement to Support Transition to a Low-Carbon Economy

Barriers for large scale low-carbon investments - small secondary debt market, absence of liquid, investment grade asset-backed securities

Higher risk
BBB

Rating risk
Indicative credit rating
A

Lower risk
AAA

Project backed bonds with no credit enhancement
Most existing project bonds fall within this range

Private or public credit enhancement is needed to create project-backed bonds with an A-rating

Bonds backed by government or multilateral guarantees

Source: Accenture, Barclays Capital “Carbon capital: Financing the low carbon economy”, 2011
EU Project Bond Initiative – Moving the Market Forward?

- **EU Project Bond Proposal**
  - Funded or Unfunded Sub-debt for up to 20% of the Total Project Debt issuance financed by the European Investment Bank
  - Funded is permanent sub-debt loan day one
  - Unfunded is on demand liquidity facility

- **S&P’s View:**
  - devil is in the detail but,
  - It cannot make a weak project good and
  - has the capacity to enhance the debt rating

- **EU Project Bond Proposal**
  Funded or Unfunded Sub-Debt for up to 20% of the total debt issue used in conjunction with bond or bank debt
Related Criteria and Research

- Can Capital Markets Bridge The Climate Change Financing Gap?, October 4, 2011
- Credit FAQ: How Europe's Initiative to Stimulate Infrastructure Project Bond Financing Could Affect Ratings, May 16, 2011
- Project Finance Construction And Operations Counterparty Methodology, Dec 20, 2011
- Updated Project Finance Summary Debt Rating Criteria, Sept. 18, 2007