The Post-2012 Finance Architecture: How can Market Mechanisms fit in?

The CDM and Future Flexible Mechanisms Post-2012
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KFW: A Brief Introduction…

- Promotional bank of the Federal Republic of Germany
- Founded in 1948 for implementation of Marshall Plan
- We finance investment in Germany and Europe
- We provide international project and export finance
- We provide support for developing countries
- Focus areas: environment and energy efficiency

<table>
<thead>
<tr>
<th>2007 (partly estimates)</th>
<th>KFW</th>
<th>European Investment Bank</th>
<th>World Bank</th>
</tr>
</thead>
<tbody>
<tr>
<td>Geographical Focus</td>
<td>domestic &amp; international</td>
<td>regional</td>
<td>international</td>
</tr>
<tr>
<td>Balance Sheet</td>
<td>354 billion €</td>
<td>305 billion €</td>
<td>90 billion €</td>
</tr>
<tr>
<td>New Loans</td>
<td>75 billion €</td>
<td>43 billion €</td>
<td>20 billion €</td>
</tr>
<tr>
<td>Employees</td>
<td>3,700</td>
<td>1,500</td>
<td>10,000</td>
</tr>
</tbody>
</table>
What Needs to be Achieved?

- Leverage private sector investment for large scale deployment of climate friendly technologies
- Provide economic framework for decades of successful operation of climate friendly technologies (e.g. CCS)
- Getting appropriate national policies in place: pave the road towards a unified global carbon market
- Achieve results which are monitorable, reportable and verifiable

⇒ Make climate friendly technologies the „new business as usual“
McKinsey 2.0 Additional Investment: By Sector

Capital investment by sector incremental to business-as-usual for the abatement potential identified

€ billions per year; annual value in period

<table>
<thead>
<tr>
<th>Sector</th>
<th>2011–2015</th>
<th>2016–2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>Power</td>
<td>52</td>
<td>96</td>
</tr>
<tr>
<td>Petroleum and gas</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Cement</td>
<td>-9</td>
<td>-5</td>
</tr>
<tr>
<td>Iron and steel</td>
<td>23</td>
<td>31</td>
</tr>
<tr>
<td>Chemicals</td>
<td>24</td>
<td>24</td>
</tr>
<tr>
<td>Other Industry</td>
<td>24</td>
<td>36</td>
</tr>
<tr>
<td>Transport</td>
<td>48</td>
<td>126</td>
</tr>
<tr>
<td>Buildings</td>
<td>124</td>
<td>169</td>
</tr>
<tr>
<td>Waste</td>
<td>9</td>
<td>14</td>
</tr>
<tr>
<td>Forestry</td>
<td>15</td>
<td>31</td>
</tr>
<tr>
<td>Agriculture</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td><strong>Total</strong></td>
<td><strong>317</strong></td>
<td><strong>532</strong></td>
</tr>
</tbody>
</table>
McKinsey 2.0 Additional Investment: By Region

Capital investment by region incremental to business-as-usual for the abatement potential identified
€ billions per year; annual value in period

<table>
<thead>
<tr>
<th>Region</th>
<th>2011–2015</th>
<th>2016–2020</th>
</tr>
</thead>
<tbody>
<tr>
<td>North America*</td>
<td>69</td>
<td>110</td>
</tr>
<tr>
<td>Western Europe**</td>
<td>54</td>
<td>86</td>
</tr>
<tr>
<td>Eastern Europe***</td>
<td>20</td>
<td>27</td>
</tr>
<tr>
<td>OECD Pacific</td>
<td>31</td>
<td>40</td>
</tr>
<tr>
<td>Latin America</td>
<td>16</td>
<td>32</td>
</tr>
<tr>
<td>Rest of developing Asia</td>
<td>19</td>
<td>45</td>
</tr>
<tr>
<td>Africa</td>
<td>12</td>
<td>22</td>
</tr>
<tr>
<td>China</td>
<td>57</td>
<td>101</td>
</tr>
<tr>
<td>India</td>
<td>8</td>
<td>25</td>
</tr>
<tr>
<td>Middle East</td>
<td>15</td>
<td>24</td>
</tr>
<tr>
<td>Global Air &amp; Sea Transport</td>
<td>15</td>
<td>10</td>
</tr>
<tr>
<td>Total</td>
<td>317</td>
<td>532</td>
</tr>
</tbody>
</table>
Principles for a Climate Finance Architecture: Scale, Speed, Results

- Make full use of existing implementation capacity
- Use of bilateral, regional and other multilateral channels (Article 11 of Convention / KP)
- Start implementation by 2013, minimise „lock-in“
- Alignment of climate finance with ongoing development efforts
- Leveraging of private capital, avoid crowding out commercial finance products
- Differentiated portfolio of finance products in each field (mitigation, technology transfer and adaptation)
Advantages of International Financial Cooperation Approaches

<table>
<thead>
<tr>
<th>Multilateral</th>
<th>Bilateral</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scale of individual funds</td>
<td>Decades of implementation experience</td>
</tr>
<tr>
<td>Uniformity of available products</td>
<td>Speed and flexibility</td>
</tr>
<tr>
<td>Ease of coordination of activities in developing countries</td>
<td>Acceptance by donor country tax payers and parliamentarians</td>
</tr>
<tr>
<td>One-stop shop for developing countries</td>
<td>Cooperation of equals, exchange of national policy and know-how</td>
</tr>
</tbody>
</table>
Option 1: Conventional Multilateral Funds

Option 2: Global Climate Bank

Option 3: Climate Finance Clearing House

National Budgets & International Sources of Finance

Sources

Trustees

Implementing Bodies

Developing Countries: National Budgets, Programmes, Projects, Companies, Civil Society
Advantages of Climate Finance Clearing House

- Facilitates bundling of bilateral, regional and multilateral funding channels, pursuant Art. 11 of Conv. & KP
- Permits the combination of the major advantages of multilateral and bilateral cooperation
- Coordinates rather than disrupts existing development finance cooperation
- Makes full use of each system’s competitive strengths
- Provides framework for complementary financing approaches and products
- Ensures full transparency and accountability
Examples From Wish List for Mitigation and Technology Transfer

**Concessional loans for:**
- national renewable energy investment plans
- rehabilitation of fossil fuel power plants
- incremental costs of super-efficient coal fired power plants
- nuclear power plants
- waste incineration projects
- power T&D infrastructure
- LNG infrastructure and NG pipelines

**Grant money for:**
- CCS technology deployment purchase and retirement of CERs or ERUs
- national and regional tenders for renewable electricity generation
- information and capacity building campaigns
- forest protection or reforestation trust funds
- public R & D in developing countries
- purchase of IPR and license agreements

**Insurance for geothermal exploration risks or windparks**

**Guarantees for commercial loans**

**Equity and mezzanine finance for project finance and technology development**
Roles of the Public & Private Sectors in Financing Technology Development

Source: UNFCCC, 2008
Leverage of Private Capital by Public Funding

Ratio of Induced Investment over Exogenous Economic Incentive:

- UNFCCC FF & I Study (2007): 4 for CDM in 2006
- UNEP SEFI Public Finance Mechanisms (PFMs): 3...15
- KFW Energy Efficient Housing in Germany (2008): 5 (3-12)
- Private households exhibit higher leverage factors: 5...50
- Analogy to energy savings pay back times in industry: 0,5...5
- No automatic positive leverage factor of public finance: can be ≤0
- Removal of non-economic implementation barriers can be crucial: potentially very high leverage factors

⇒ Leverage factor depends on sector, country and program design
Conclusions (I)

- Leverage factor of private investment by public finance can range from $\leq 0$ to low single digit numbers to high values $>10$: depends on sector, country and program design.
- Emission mitigation costs (not the investment costs) have to be absorbed by the private sector and consumers (somewhere)
- The required net transfer of money between regions, sectors and groups can be achieved via the public and/or private sector
- Public finance is essential to remove implementation barriers, demonstrate technologies, mitigate country and policy risks,…
- Design of climate finance architecture and its subsequent capitalisation needs critically depend on design of transfer mechanisms like CDM, no-lose-targets, linked ETS, AAU trading
Conclusions (II)

- CDM is one out of several possible transfer instruments to finance emission reductions in developing countries
- CDM Strengths: focus on projects links well to private sector, direct link to UNFCCC system and obligations
- CDM Weaknesses: unflexible and slow process, potentially an obstacle to domestic climate policies in developing countries
- Future of CDM fundamentally depends on decisions on
  - reform of the CDM (post-Copenhagen)
  - types of developing country commitments (Copenhagen)
  - type and role of other transfer mechanisms (Copenhagen)
- There is more than one viable solution to the problem
Questions for the Discussion

- How to make full use of the private sector creativity and efficiency: CDM & JI, emission & white certificate trading, energy taxation, …?

- What are the advantages and disadvantages of integrating national climate policies and measures with international transfer mechanisms?

- How to sequentially reduce interdependencies from pre-Copenhagen negotiations: types of targets, levels of targets, transfer mechanisms, finance needs, climate finance architecture?
Thank you for Your Attention!

Further information:

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