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Transnational Corporations and the Infrastructure Challenge

World Investment Report 2008

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UNCTAD
Main Messages I

- Investment in infrastructure is essential for developing countries’ economic growth and the living standards of the population.

- There is a large gap between infrastructure needs and available capital and capabilities in developing countries: TNCs, among others, can help bridge this gap.

- Since 1990 there has been a significant rise in FDI and other types of investment in infrastructure, both globally and in developing countries.

- The universe of infrastructure TNCs has grown rapidly since 1990, including a significant number of developing country TNCs.
Main Messages II

- The impact of TNC participation on infrastructure industries in developing countries has been mixed. The improvements are greatest in telecommunications and transportation; but the gains are less clear cut in electricity and water, with concerns about universal access.

- Developing host country Governments are increasingly open to infrastructure TNCs, but barriers exist to further participation.

- Leveraging TNC participation in infrastructure in host countries has implications for national policies and institutions. Need for a proper regulatory framework.

  Involving TNCs in infrastructure places more, rather than less, responsibility on public officials. The state has an important role to play.

- Development partners can help, for instance in terms of infrastructure funding and capacity building.
Why investment in infrastructure is important

- Efficient infrastructure services are crucial for developing countries’ competitiveness and economic growth.

- Access to affordable infrastructure services, such as electricity and drinking water, is an important determinant of the living standards of a country’s population. Infrastructure development is indispensable to attain the MDGs.

- The needs are huge and the gaps enormous: 3 - 4% of GDP is spent by developing countries on infrastructure; 7 - 9% would be necessary to achieve broad economic growth and poverty reduction.

- In Africa for instance the investment needs (new facilities and maintenance) are estimated at $40 billion per year, and the financing gap at more than 50%.
## Infrastructure needs in Sub - Saharan Africa

### Table 1. Sub-Saharan Africa: estimated annual infrastructure investment needs in selected industries, 2006–2015

(Annual average, in billions of dollars)

<table>
<thead>
<tr>
<th>Item</th>
<th>Electricity</th>
<th>Telecom</th>
<th>Roads</th>
<th>Rail</th>
<th>Water</th>
<th>Sewage</th>
<th>Total</th>
<th>Financing gap</th>
</tr>
</thead>
<tbody>
<tr>
<td>New investment</td>
<td>5.5</td>
<td>3.2</td>
<td>9.8</td>
<td>-</td>
<td>1.8</td>
<td>2.7</td>
<td>22.8</td>
<td>23.5</td>
</tr>
<tr>
<td>Operation and maintenance</td>
<td>3.3</td>
<td>2.0</td>
<td>7.4</td>
<td>0.8</td>
<td>1.4</td>
<td>2.1</td>
<td>17.2</td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>8.8</td>
<td>5.2</td>
<td>17.2</td>
<td>0.8</td>
<td>3.2</td>
<td>4.8</td>
<td>40.0</td>
<td>23.5</td>
</tr>
</tbody>
</table>


- Based on the estimated annual investment needs of $40 billion to achieve the sub-region’s MDG poverty reduction targets by 2015.
- Excluding investment needs for irrigations.
- Identifiable financing sources total $16.5 billion altogether, $8 billion from internally generated funds, $5 billion external funding and $3.5 billion from international financial institutions, loans and ODA.
The rise of FDI in infrastructure industries

- FDI stock in infrastructure rose significantly between 1990 and 2006, both globally (30-fold to $786 billion) as well as in developing countries (29-fold to $199 billion).

- There was a peak in FDI flows in infrastructure industries around the year 2000, largely because of M&As in infrastructure.

- Since 2000 infrastructure FDI flows have flattened, but remain far higher than in the early 1990s.

- In addition to FDI infrastructure TNCs also invested in developing countries through concession agreements (such as build-operate-own projects), management contracts, etc. Thus total foreign investment in infrastructure is appreciably larger than FDI alone.
### Foreign investment in infrastructure in developing countries

**Table 3. Foreign investment commitments in the infrastructure industries of developing economies, by host region, 1996–2006**

(Millions of dollars and per cent)

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Value ($ million)</td>
<td>Share in total developing economies (%)</td>
<td>Value ($ million)</td>
<td>Share in total developing economies (%)</td>
</tr>
<tr>
<td>Africa</td>
<td>19 691</td>
<td>12.1</td>
<td>25 473</td>
<td>30.4</td>
</tr>
<tr>
<td>Asia and Oceania</td>
<td>33 332</td>
<td>20.5</td>
<td>31 404</td>
<td>37.4</td>
</tr>
<tr>
<td>Latin America and the Caribbean</td>
<td>109 383</td>
<td>67.4</td>
<td>27 038</td>
<td>32.2</td>
</tr>
<tr>
<td>Total for developing countries</td>
<td>162 407</td>
<td>100.0</td>
<td>83 915</td>
<td>100.0</td>
</tr>
</tbody>
</table>

**Memorandum items:**

- **LDC**
  - 1996–2000: 5 778 (3.6%)
  - 2001–2006: 7 234 (8.6%)
- **South-East Europe and CIS**
  - 1996–2000: 9 203
  - 2001–2006: 8 478
- **New EU members**
  - 1996–2000: 23 628

**Source:** UNCTAD, World Investment Report 2008: Transnational Corporations and the Infrastructure Challenge, table III.7
Foreign investment in infrastructure in LDCs

Table 4. Industry composition of foreign investment commitments in the infrastructure industries of LDCs, 1996–2006
(Millions of dollars and per cent)

<table>
<thead>
<tr>
<th>Infrastructure industry</th>
<th>Value ($ million)</th>
<th>Share in LDC total (%)</th>
<th>Share of LDCs in developing and transition total (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>All infrastructure</td>
<td>13 013</td>
<td>100.0</td>
<td>4.9</td>
</tr>
<tr>
<td>Energy</td>
<td>4 569</td>
<td>35.1</td>
<td>4.2</td>
</tr>
<tr>
<td>Telecom</td>
<td>6 394</td>
<td>49.1</td>
<td>6.4</td>
</tr>
<tr>
<td>Transport</td>
<td>2 017</td>
<td>15.5</td>
<td>4.5</td>
</tr>
<tr>
<td>Water</td>
<td>32</td>
<td>0.2</td>
<td>0.3</td>
</tr>
</tbody>
</table>

## Largest TNCs in Infrastructure 2006*

*Companies from developing economies (in green) now key players*

<table>
<thead>
<tr>
<th>Rank</th>
<th>Electricity</th>
<th>Natural gas</th>
<th>Telecommunications</th>
<th>Transport</th>
<th>Water and sewage</th>
<th>More than one infrastructure industry</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>Electricité de France</td>
<td>Gaz de France</td>
<td>Vodafone Group</td>
<td>Grupo Ferrovial</td>
<td>Veolia Environnement</td>
<td>Suez</td>
</tr>
<tr>
<td>2</td>
<td>E.On</td>
<td>Spectra Energy Corp.</td>
<td>Telefónica</td>
<td>Abertis</td>
<td>Grupo Agbar</td>
<td>Hutchison Whampoa</td>
</tr>
<tr>
<td>3</td>
<td>Endesa</td>
<td>Centrica</td>
<td>Deutsche Telekom</td>
<td>AP Moller-Maersk</td>
<td>Waste Management Inc</td>
<td>RWE Group</td>
</tr>
<tr>
<td>4</td>
<td>Vattenfall</td>
<td>Gas Natural</td>
<td>France Télécom</td>
<td>DP World</td>
<td>Shanks Group</td>
<td>Bouygues</td>
</tr>
<tr>
<td>5</td>
<td>National Grid</td>
<td>Transcanada Corp.</td>
<td>Vivendi Inc</td>
<td>China Ocean Shipping</td>
<td>Waste Services Inc</td>
<td>YTL Power</td>
</tr>
<tr>
<td>6</td>
<td>AES Corp.</td>
<td>Enbridge Inc</td>
<td>Liberty Global Inc</td>
<td>Canadian National Railways Co.</td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td>Fortum</td>
<td>Sempra Energy</td>
<td>TeliaSonera</td>
<td>Skanska</td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td>Duke Energy Corp.</td>
<td>El Paso Corp.</td>
<td>SingTel</td>
<td>PSA International</td>
<td>Clean Harbors Inc</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td>EDP Energias de Portugal</td>
<td>Hunting Plc</td>
<td>Telenor</td>
<td>Hochtief</td>
<td></td>
<td></td>
</tr>
<tr>
<td>10</td>
<td>International Power Plc</td>
<td>Williams Companies</td>
<td>Nortel Networks</td>
<td>Vinci</td>
<td></td>
<td></td>
</tr>
<tr>
<td>11</td>
<td>CLP Holdings</td>
<td>Hong Kong &amp; China Gas Co.</td>
<td>KPN</td>
<td>Macquarie Airports</td>
<td></td>
<td></td>
</tr>
<tr>
<td>12</td>
<td>Iberdrola</td>
<td>Distragaz ’D’</td>
<td>BT Group</td>
<td>Deutsche Bahn</td>
<td></td>
<td></td>
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<tr>
<td>13</td>
<td>Unión Fenosa</td>
<td>Canadian Utilities Ltd.</td>
<td>Verizon Communications</td>
<td>Orient Overseas International</td>
<td></td>
<td></td>
</tr>
<tr>
<td>14</td>
<td>PPL Corp.</td>
<td>Iwatani International Corp.</td>
<td>SES</td>
<td>Grupo ACS</td>
<td></td>
<td></td>
</tr>
<tr>
<td>15</td>
<td>Atel - Aare Tessin</td>
<td>..</td>
<td>Telecom Italia</td>
<td>Obrascon Huarte Lain</td>
<td></td>
<td></td>
</tr>
<tr>
<td>16</td>
<td>Public Service Enterprise Group</td>
<td>..</td>
<td>América Móvil</td>
<td>Kansas City Southern</td>
<td></td>
<td></td>
</tr>
<tr>
<td>17</td>
<td>Keppel Corp.</td>
<td>..</td>
<td>Mobile Telecommunications Co.</td>
<td>Canadian Pacific Railway</td>
<td></td>
<td></td>
</tr>
<tr>
<td>18</td>
<td>Cofide-CIR Group</td>
<td>..</td>
<td>TDC A/S</td>
<td>First Group</td>
<td></td>
<td></td>
</tr>
<tr>
<td>19</td>
<td>Edison International</td>
<td>..</td>
<td>Portugal Telecom</td>
<td>BBA Aviation</td>
<td></td>
<td></td>
</tr>
<tr>
<td>20</td>
<td>Enel</td>
<td>..</td>
<td>Tele2</td>
<td>China Communications Construction Co.</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

* Ranked by foreign assets
The Universe of Infrastructure TNCs is Changing

- Rising number of private and state-owned TNCs
- Rising role of TNCs from the South
  - Especially in ports and telecommunications
  - Significant in LDCs
  - Sometimes investment in infrastructure and extractive industries is complementary
- Rise of new financiers in infrastructure industries:
  - Private equity firms
  - Sovereign wealth funds

Chinese and Indian investments in infrastructure in Africa, up to April 2008
What might infrastructure TNCs offer developing countries?

- **Capital injections**
  - Infrastructure projects are often capital-intensive
  - Financial constraints are a key barrier for developing countries’ investment in infrastructure
    
    *E.g. In sub-Saharan Africa, some $40 billion of investment per year in new and existing infrastructure through 2015 is required, but only $16.5 billion is likely to be forthcoming.*
    
    *But TNCs can complement (not replace) other sources of finance.*
    
    *In the 1990s, expectations from TNCs were often overly optimistic, leading to reduced public investment and a major shortfall in overall investment in infrastructure in a number of developing countries.*

- **Technology and knowledge/know-how**
  - Many infrastructure projects are technologically and organizationally challenging
  - TNCs may bring both hard and soft technology

*...but the scope for/extent of TNC participation varies by industry and region*
Impact on infrastructure services and implications for universal access

- TNCs have made a difference in the quantity and quality of infrastructure services in developing countries
  - but there can be both benefits (e.g. extension of services to more customers) and costs (e.g. TNCs might drive local firms out of the industry).
  - Industry characteristics and host country regulation play a role.

- Overall improvements are greatest and most common in telecommunications and transportation (e.g. ports)

- In electricity and water the impact of TNC is more mixed and TNC participation is limited.

- In order for TNCs to recover their investment costs, price increases may occur, which particularly affects access for the poor (in particular in the case of water and electricity) and raises concerns about universal access.
Barriers faced by Developing Countries in Attracting TNCs in infrastructure

- Least developed countries (LDCs) do not attract a lot of investment from infrastructure TNCs. e.g.:
  - LDCs had less than 1% of world infrastructure FDI stocks, …and 5% of the total foreign commitments in infrastructure in developing and transition economies over the period 1996-2006

- Barriers affecting LDCs and other developing countries include:
  - Industry characteristics (usually very capital intensive and complex projects; assets last a long time, involve significant sunk costs, are location specific high risk undertakings (commercial and non-commercial risks))
  - Local markets are small
  - There is competition with other regions (including developed and large emerging economies)
  - There is a lack of domestic capacity to manage projects with private sector participation and secure development gains
Leveraging TNC Participation in Infrastructure
*Policy Challenges and Options*

**Host country national policies and institutions**

- Creating strong, transparent and accountable institutional and regulatory frameworks (competition)
- Sequencing of reform
- Building capabilities (to assess options, negotiate with TNC, deal with public-private partnerships, etc.)

**Development partner policies**

- ODA to infrastructure
  - Better use of available funds
  - Readiness to take risk
- More capacity-building
  - Evaluating options
  - Negotiations with TNCs
  - Role for the UN
- Risk-mitigation targeted to low-income countries
- Support to regional projects

Involving TNCs in infrastructure places more, rather than less, responsibility on public officials. The state has an important role to play.
The financial crisis and infrastructure finance

- A post scriptum to the WIR 08
- Credit crunch and its impact on financing infrastructure projects
- Impact of the crisis on company profits
- Impact of the crisis on ODA

The need for concerted efforts and policy measures (as suggested above) is even more crucial in this time of financial and economic crises.
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