Financing Infrastructure in Brazil: prospects and challenges

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BNDES Brazilian Development Bank
Scenarios

Worldwide slowdown

Limited fiscal Instruments

Monetary Instruments
  . QE 3 (US)
  . ECB (Euro Zone)

Scenario 1: Limited worldwide growth; China at cruise speed

  Favorable Trading Terms and High exchange rate
  Maintenance of private credit
  Stability in investments

Scenario 2: “double dip”

  Unfavorable Trading Terms and Low exchange rate
  Drop in private credit
  Drop in investments
Real variation of GDP (moving average - 4 years)
Advanced economies vs. Emerging economies

Short term: emerging countries affected by the crisis
Long term: solid path to growth

Forecast

And where is Brazil in this context?

- Social inclusion sustains dynamic domestic market;
- Robust banking system that is not exposed to problematic assets/countries;
- Investment growing above consumption;
- Several investment opportunities: Oil & Gas, Infrastructure, Energy, PAC 2, Competitive sectors, 2014 World Cup, 2016 Olympic Games;
- The government is capable of a solution: fiscal and monetary instruments, as well as regulatory and financial instruments.
A strong domestic market with lower unemployment...

![Graph showing unemployment rate from September 2003 to September 2011. The unemployment rate decreased from 13.0% in September 2003 to 6.0% in September 2011.]

Source: IBGE
... And improved distribution of income

Population per Income Bracket (%)

Source: FGV and Ministry of Finance.
Investments remain on the rise even though at a slower pace

Forecast for Rate of Investment 2010-2014 (% of GDP)

Source: IBGE and APE/BNDES.
# Investment perspectives: preliminary results

**Source:** APE/BNDES

**US$/R$ = 1.75**

Oil & Gas and the Domestic Market lead investments in Industry

Electric Power leads investments in Infrastructure

<table>
<thead>
<tr>
<th>Sectors</th>
<th>Effective 2006-2009</th>
<th>Perspectives 2012-2015</th>
<th>Total growth %</th>
<th>Annual growth % year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Industry</td>
<td>224</td>
<td>350</td>
<td>56.6</td>
<td>7.8</td>
</tr>
<tr>
<td>Infrastructure</td>
<td>147</td>
<td>224</td>
<td>52.7</td>
<td>7.3</td>
</tr>
<tr>
<td>Total</td>
<td>371</td>
<td>575</td>
<td>55.1</td>
<td>7.6</td>
</tr>
</tbody>
</table>

Source: APE/BNDES  US$/R$ = 1.75
Some challenges must be overcome in the long term

**Long-term Agenda**

- Increase the rate of domestic savings;
- Diversify sources of long-term funding;
- Foster innovation and sustainability;
- **Solid and growing investment in infrastructure;**
- Training/education of the workforce to maintain significant gains in productivity;
- Improve competitiveness of Brazilian industry
Infrastructure
*Investments have been growing steadily*

**Investments in Infrastructure (US$ billion, 2010 prices)**

Source: Ministry of Finance (based on information from the Brazilian Association of Infrastructure and Basic Industry (ABDIB).

*ABDIB forecasts*.
BNDES support for infrastructure is expanding

BNDES disbursements and approvals for Infrastructure

*Data accumulated over the last 12 months up to September 2011 (US$ bn)

<table>
<thead>
<tr>
<th>Year</th>
<th>Disbursements</th>
<th>Approvals</th>
</tr>
</thead>
<tbody>
<tr>
<td>2006</td>
<td>9.0</td>
<td>12.8</td>
</tr>
<tr>
<td>2007</td>
<td>14.6</td>
<td>26.1</td>
</tr>
<tr>
<td>2008</td>
<td>20.1</td>
<td>25.3</td>
</tr>
<tr>
<td>2009</td>
<td>27.8</td>
<td>33.8</td>
</tr>
<tr>
<td>2010</td>
<td>30.0</td>
<td>40.2</td>
</tr>
<tr>
<td>2011</td>
<td>30.4</td>
<td>35.5</td>
</tr>
</tbody>
</table>

Source: BNDES.

US$/R$ = 1.75
The BNDES’ participation in infrastructure credit
Outstanding achievements...

BNDES role in PAC (Portfolio):
Consultations to contracted Projects up to September 2011
US$ million

448 projects

<table>
<thead>
<tr>
<th>Energy</th>
<th>US$ 74,103</th>
</tr>
</thead>
<tbody>
<tr>
<td>Transmission</td>
<td>5,229</td>
</tr>
<tr>
<td>Oil &amp; Gas</td>
<td>25,759</td>
</tr>
<tr>
<td>Generation</td>
<td>41,917</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Logistics</th>
<th>US$ 15.259</th>
</tr>
</thead>
<tbody>
<tr>
<td>Railways</td>
<td>1,735</td>
</tr>
<tr>
<td>Highways</td>
<td>2,825</td>
</tr>
<tr>
<td>Merchant Navy</td>
<td>10,699</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Social and Urban</th>
<th>US$ 6.046</th>
</tr>
</thead>
<tbody>
<tr>
<td>Urbanization</td>
<td>345</td>
</tr>
<tr>
<td>Subways</td>
<td>1,163</td>
</tr>
<tr>
<td>Sanitation</td>
<td>4,538</td>
</tr>
</tbody>
</table>

75% Approved/Contracted
92% Approved/Contracted
98% Approved/Contracted

Source: BNDES

US$/R$ = 1.75
Diversification: Between 2010 and 2013, new renewable sources will increase the potential to generate energy by 6,807 MW. Biomass and wind parks projects stand out.
Infrastructure projects that stand apart in 2011 - 2014

Forecast investment amounts

- **Hydroelectric plants on Madeira River** – US$ 13.4 billion
- **Angra III** nuclear plant – US$ 6 billion
- **Belo Monte** hydroelectric plant – US$ 14.9 billion
- **Tapajós** hydroelectric complex – US$ 14.3 billion
- **Wind energy projects** – US$ 4.6 billion

US$/R$ = 1.75
Large-scale events require heavy investment

The 2014 World Cup expects to aggregate **US$105 billion** to Brazil’s GDP by **2019** (i.e. + **0.4%** p.a.)

- Investments in infrastructure
- Extra spending from tourism
- Increase in household consumption
- Recirculation of money in the economy
- Increase in tourism and the use of stadiums after the World Cup

**+0.4** in the accumulated GDP 2010-2019

**US$ 7.2 billion in direct investments to hold the Olympic Games**

Source: Ministry of Sports and the Dossier on Olympic candidates.
Challenges for the infrastructure sector

- Electric Energy;
- Airports;
- Urban Mobility;
- 2014 World Cup;
- 2016 Olympic Games.

<table>
<thead>
<tr>
<th>PAC 2 Projects (US$ bn)</th>
<th>2011 - 2014</th>
<th>After 2014</th>
<th>Total</th>
</tr>
</thead>
<tbody>
<tr>
<td>PAC Better City</td>
<td>32.6</td>
<td>-</td>
<td>32.6</td>
</tr>
<tr>
<td>PAC Citizens' Community</td>
<td>13.1</td>
<td>-</td>
<td>13.1</td>
</tr>
<tr>
<td>PAC My House, My Life</td>
<td>159.0</td>
<td>-</td>
<td>159.0</td>
</tr>
<tr>
<td>PAC Water &amp; Electricity for all</td>
<td>17.5</td>
<td>-</td>
<td>17.5</td>
</tr>
<tr>
<td>PAC Transport</td>
<td>59.7</td>
<td>2.6</td>
<td>62.3</td>
</tr>
<tr>
<td>PAC Energy</td>
<td>263.8</td>
<td>358.2</td>
<td>622.0</td>
</tr>
<tr>
<td>Total</td>
<td>545.7</td>
<td>360.8</td>
<td>906.5</td>
</tr>
</tbody>
</table>

US$/R$ = 1.75
Complexity of infrastructure projects require long term planning and commitment

Brazilian demand for infrastructure will be rising over the next 10 years

Complex projects require complex solutions

Long-term projects requires sophisticated institutional and financial engineering and partnerships with the private sector

Development Banks like the BNDES have been and will be of strategic importance, but the private financial industry must step in
The Brazilian Financial Industry is sophisticated but still operating mainly for the short term.

Anbima, Bovespa-BMF and Febraban are fully aware of the urgent need to move towards the long term.

Open areas for advances:

- Project scouting, development and execution
- PPPs
- Insurance and Guarantee
- Project Finance
- Equity Funds
Brazil must grow and diversify its sources of long-term financing

Sources of long-term financing for industry and infrastructure

Média 2001/10

2001
Retained Earnings
BNDES
Foreign Fundraising
Shares
Debentures

2002

2003

2004

2005

2006

2007

2008

2009

2010p

Source: BNDES based on companies’ balance sheets
Long term financing: strong reliance on BNDES

The BNDES’ Disbursements and Approvals

*Data accumulated over the last 12 months up to September 2011 (US$ bn)

BNDES holds 2/3 of Brazilian credit stock over 5 years

Source: BNDES.

*excluding Petrobras’ capitalization.

US$/R$ = 1.75
Recent and upcoming policies are and will be aiming at private sector “crowding in”

Tax incentives for primary issuance and secondary trading of corporate debt instruments:

- Tax advantages applied to debentures issued by SPEs in connection with specific infrastructure projects;
- Exemption of banking reserves requirements within the Brazilian Central Bank for the latest long-term debt instrument “Letras Financeiras” (Financial notes);
- Announcement of the creation of a large Liquidity Fund for corporate securities; and others.

BNDES is engaged in this endeavour:

- Acquisition of debentures in primary issuance offers and subsequent secondary market trading;
- Complementary participation in the Liquidity Fund for Corporate Securities;
- BNDES will also lend the securities in its portfolio to financial institutions in the role of market-makers;
- Changes in its operating policies.
In a context of worldwide economic slowdown, investments in infrastructure is of strategic importance for maintaining Brazil growth trajectory.

Success will depend on public and private sectors converging decisions and actions towards the full development of a strong long term financing industry in Brazil.
Brazil’s Agenda

Long-term Goals

- Generating jobs and reducing social and regional inequalities;
- Innovation and an increase in industrial competitiveness;
- Investments with socio-environmental sustainability;
- Increase in domestic savings and the creation of alternatives for long-term financing.