Infrastructure in Colombia – Key investment considerations

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With you today

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Astaldi
Introduction to Colombian Infrastructure

- Private participation in the infrastructure market
- Current status of transport infrastructure
- Regional context

Concessions and Project Structures in Colombia

- Risk allocation
- Legal framework
- Project structure
Introduction

1. Overall economic development
   - Significant infrastructure investments required to promote internal trade and respond to market demands as the Colombian economy expands

2. Costly trade and deficient logistics
   - Moving goods from inland cities to a port can be more expensive than shipping them to a market halfway around the world

3. Increased public spending and private participation
   - Government has committed to increase spending on infrastructure projects and to facilitate private investment

4. Improvements in the social front and reduction of internal isolation
   - Socioeconomic inequalities within the country are the result of limited government presence and restricted access to essential goods and services
Infrastructure in Colombia
Private participation in infrastructure – key developments

- New national infrastructure agency set up
- Considerable interest from investors due to relative ease in obtaining financing
- Government and corporate bond issuances
- Increased government spending in infrastructure
- The PPP agenda is a key strategy to support economic growth. New PPP law ensures quality controls and solid bidding programs
- New PPP law approved
- Colombia spent roughly 1% of GDP ten years ago on infrastructure. Now the government plans to spend approximately 3% of GDP
- Oversee concessions through PPPs for design, construction, operation, and administration of infrastructure projects
Governments have favored short-term political agendas and infrastructure spending has been low in the past

**Current state**
- Importance of trade logistics and transportation industries
- Time and costs

**Looking forward**
- 4th generation concession program
- Regional and international participation interest

**Current state**
- Privatization of public ports
- Improvements through private funding

**Looking forward**
- Connectivity and access to cargo handling technologies
- Intermodal logistics

**Current state**
- Impact of PPPs
- Relevant player in the region

**Looking forward**
- Alternative airport in Bogotá
- Development of commercial and touristic areas

**Current state**
- Existing network available
- Minimal usage

**Looking forward**
- Increasing cargo capacity
- Opening to the private sector for investment initiates
Current state

- Ports are privatized since the 1990s due to failed public management and increasing demands from world trade.
- Private ports invest about $1bn a year in new terminals and on expansion of the existing facilities.

Looking forward

- Investments are required to improve connectivity between ports and inland channels as well as increase efficiencies in loading and unloading processes.
- Rollout programs to establish safer river transport in more remote areas of the country in efforts to create intermodal logistics and get merchandise to ports in more efficient ways.
Current state

- Largest airports in Colombia have been bid out under PPP contracts
- El Dorado International Airport is the largest Latin-American airport in terms of cargo movement and the third in terms of passenger traffic

Looking forward

- Plans to build an alternative airport in Bogota due to expected capacity shortage. Location has already been defined and finance structure is currently being determined
- Current projects up for tender to integrate and improve the North-eastern and Central-western airports located in highly commercial and tourist zones
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Current state of transport infrastructure – rail

**Current state**

- The rail network links seven of the country's 10 major cities; however, very little of it is used due to lack of maintenance and mismanaged operations.
- Short sections of railroad are used to haul coal and barrels of crude from the central region of the country to the Caribbean and Pacific ports.
- Little diversification of products transported by rail.

**Looking forward**

- Increase cargo movement through freight rail from the current 35m tons annually to 90m tons by 2018, reducing the cost of coal and barrels of crude.
- ANI has structured several public initiative projects in the railway sector expected to come out for procurement in the next years.
Infrastructure in Colombia

A snapshot of road infrastructure

Infrastructure investment as a percentage of GDP

<table>
<thead>
<tr>
<th>Year</th>
<th>Investments in Communications</th>
<th>Investments in Energy</th>
<th>Investments in Roads and Transportation</th>
</tr>
</thead>
<tbody>
<tr>
<td>1993</td>
<td>0.9%</td>
<td>2.8%</td>
<td>0.5%</td>
</tr>
<tr>
<td>1994</td>
<td>1.0%</td>
<td>3.5%</td>
<td>0.7%</td>
</tr>
<tr>
<td>1995</td>
<td>0.7%</td>
<td>1.4%</td>
<td>1.1%</td>
</tr>
<tr>
<td>1996</td>
<td>1.1%</td>
<td>2.7%</td>
<td>0.5%</td>
</tr>
<tr>
<td>1997</td>
<td>1.2%</td>
<td>4.0%</td>
<td>1.0%</td>
</tr>
<tr>
<td>1998</td>
<td>0.7%</td>
<td>3.8%</td>
<td>0.5%</td>
</tr>
<tr>
<td>1999</td>
<td>1.0%</td>
<td>3.8%</td>
<td>0.4%</td>
</tr>
<tr>
<td>2000</td>
<td>0.7%</td>
<td>4.9%</td>
<td>1.3%</td>
</tr>
<tr>
<td>2001</td>
<td>1.0%</td>
<td></td>
<td>0.7%</td>
</tr>
<tr>
<td>2002</td>
<td>0.4%</td>
<td></td>
<td>0.2%</td>
</tr>
<tr>
<td>2003</td>
<td>0.2%</td>
<td></td>
<td>0.7%</td>
</tr>
<tr>
<td>2004</td>
<td>2.3%</td>
<td></td>
<td>0.7%</td>
</tr>
<tr>
<td>2005</td>
<td>3.5%</td>
<td></td>
<td>0.0%</td>
</tr>
<tr>
<td>2006</td>
<td>4.0%</td>
<td></td>
<td>1.0%</td>
</tr>
<tr>
<td>2007</td>
<td>3.8%</td>
<td></td>
<td>2.0%</td>
</tr>
<tr>
<td>2008</td>
<td>4.2%</td>
<td></td>
<td>3.0%</td>
</tr>
<tr>
<td>2009</td>
<td>5.0%</td>
<td></td>
<td>4.0%</td>
</tr>
<tr>
<td>2010</td>
<td>5.0%</td>
<td></td>
<td>6.0%</td>
</tr>
</tbody>
</table>

Quality of road infrastructure

<table>
<thead>
<tr>
<th>Country</th>
<th>Ranking</th>
</tr>
</thead>
<tbody>
<tr>
<td>Spain</td>
<td>13</td>
</tr>
<tr>
<td>Canada</td>
<td>16</td>
</tr>
<tr>
<td>Panama</td>
<td>19</td>
</tr>
<tr>
<td>United States</td>
<td>20</td>
</tr>
<tr>
<td>Chile</td>
<td>23</td>
</tr>
<tr>
<td>El Salvador</td>
<td>52</td>
</tr>
<tr>
<td>Jamaica</td>
<td>83</td>
</tr>
<tr>
<td>Guatemala</td>
<td>91</td>
</tr>
<tr>
<td>Colombia</td>
<td>126</td>
</tr>
<tr>
<td>Costa Rica</td>
<td>131</td>
</tr>
<tr>
<td>Haiti</td>
<td>143</td>
</tr>
</tbody>
</table>
Current state

- Colombia uses roads for more than 80% of its internal transportation of goods and people
- Current road conditions along with the country’s topography result in longer travel times and costly transportation fares

Looking forward

- 40 upcoming concessions to be awarded in the form of PPP at individual values ranging from $400m to $1bn in capital expenditures
- This one of the largest concession programs in the world and has attracted the attention of leading infrastructure developers from Europe, Latin America, and Asia
## Infrastructure in Colombia

### Regional context

<table>
<thead>
<tr>
<th>Country</th>
<th>Details</th>
</tr>
</thead>
</table>
| Brazil | - The Brazilian economy is estimated to grow by 2.5% in 2014-15, aided by investments in public sector infrastructure and increased energy sector production  
- The current administration faces a sensitive policy choice between promoting growth by increasing public investments and containing inflation to preserve financial stability  
- Bilateral economic relations with China continue to deepen, moderating dependence on US economic cycles |
| Mexico | - The government unveiled a plan to invest in infrastructure projects in the upcoming five years, which could start boosting construction in 2014  
- Recent approval of energy and utility sector reforms begin to have a positive effect over the medium-term, improving economic projections of the country  
- Establish closer ties to the US and pursue business-friendly policies remain key areas of focus |
| Peru | - Peru remains vulnerable to shifts in China’s economic performance and commodity prices; however, the country’s expanded growth base and available fiscal resources may mitigate external shocks  
- Current administration remains committed to maintaining a business-friendly environment  
- Social problems surrounding the mining sector, the implementation of infrastructure projects and violent resistance in confronting informal mining activities are some of the challenges that the current administration continues to face |
| Chile | - Economic activity is expected to expand at a faster rate later in 2014, supported by an improved external growth outlook and a recovery of investment activity once the new administration takes over  
- Michelle Bachelet, with a simple majority in both houses of Congress, took office in March 2014  
- Changes to the income tax regime and redefinition of the energy matrix in favor of fostering the development of the hydroelectricity sector and boosting power production are also on the policy agenda |
Concessions and Project Structures in Colombia

Presented by: Stephane Villeneuve
Infrastructure in Colombia

General context of concessions

01

Colombia concession market has significantly evolved from the first projects conducted in the early 90s:

- Risk allocation
- Investment pool depth
- Legal framework

02

There are 2 broad types of concessions in Colombia:

- ‘Traditional’, government-launched PPPs
- Private Initiatives

03

4th generation road concession projects provide a representative framework of key considerations for market players:

- Risk allocation
- Legal Framework
- Project Structure

04

The 3 items of the last bullet will be discussed in the following slides.
**Risk matrix – highways and roads**

<table>
<thead>
<tr>
<th><strong>Concessionaire (“C”)</strong></th>
<th><strong>ANI</strong></th>
<th><strong>Shared</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Construction</td>
<td>Traffic (Minimum expected revenue at end of contract)</td>
<td></td>
</tr>
<tr>
<td>O&amp;M (except the traffic risk)</td>
<td>Changes in toll’s tariffs, location and collection methods</td>
<td></td>
</tr>
<tr>
<td>Regulatory (except for changes in toll’s tariffs, location and collection methods)</td>
<td>Governmental contributions</td>
<td></td>
</tr>
<tr>
<td>Change in law (except when project’s expected profits are impacted above certain thresholds)*</td>
<td>Force Majeure (non-insured events)</td>
<td></td>
</tr>
<tr>
<td>Financing</td>
<td>Additional expenses/investments resulting from:</td>
<td></td>
</tr>
<tr>
<td>Environmental (except for certain cost overruns)</td>
<td>- Environmental compensations</td>
<td></td>
</tr>
<tr>
<td>Real estate (except for certain cost overruns)</td>
<td>- Land acquisition</td>
<td></td>
</tr>
<tr>
<td>Networks (public utilities, pipe lines, etc.) (except for certain cost overruns)</td>
<td>- Networks relocation</td>
<td></td>
</tr>
<tr>
<td>Force Majeure (except for non-insured events)</td>
<td>Change in law (when project’s expected profits are impacted above certain thresholds) *(1).</td>
<td></td>
</tr>
</tbody>
</table>

Note: *(1) Change in law formula may vary in each concession.*
## Infrastructure in Colombia

### Risk matrix – highways and roads (continued)

<table>
<thead>
<tr>
<th>Risk</th>
<th>Effect</th>
<th>ANI</th>
<th>Concessionaire</th>
</tr>
</thead>
<tbody>
<tr>
<td>Land management - availability</td>
<td>Delays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Land acquisition</td>
<td>Cost overruns</td>
<td>$X^{(1)}$</td>
<td>$X^{(1)}$</td>
</tr>
<tr>
<td>Expropriation</td>
<td>Cost overruns</td>
<td>$X^{(2)}$</td>
<td>$X^{(2)}$</td>
</tr>
<tr>
<td>Permitting management</td>
<td>Delays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Environmental Compensations</td>
<td>Cost overruns</td>
<td>$X^{(4)}$</td>
<td>$X^{(4)}$</td>
</tr>
</tbody>
</table>

Note: (1) Sharing formula
(2) Sharing formula
(3) Compensation means the environmental tariff that the concessionaire shall pay in consideration of the usage/deterioration of natural resources (e.g. water, forests).
(4) Sharing formula
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Cost sharing – highways and roads

**Real Estate**

(Land acquisition cost overruns)

- **0 to 120%**: concessionaire
- **120 to 200%**: 30% concessionaire and 70% ANI
- **200% and up**: ANI

**Environmental**

(Compensations cost overruns)

- **0 to 120%**: concessionaire
- **120 to 200%**: 30% concessionaire and 70% ANI
- **200% and up**: ANI

**Networks**

(Networks relocation cost overruns)

- **0 to 120%**: concessionaire
- **120 to 200%**: 30% concessionaire and 70% ANI
- **200% and up**: ANI
### Infrastructure in Colombia

#### Project structure – contractual damages

<table>
<thead>
<tr>
<th>Damages</th>
<th>General Rule in Colombia</th>
</tr>
</thead>
<tbody>
<tr>
<td>Consequential</td>
<td>✗</td>
</tr>
<tr>
<td>Indirect</td>
<td>✗</td>
</tr>
<tr>
<td>Punitive</td>
<td>✗</td>
</tr>
</tbody>
</table>

**ProvenDamages:**

(i) Damages ("Daño emergente")

(ii) Loss of profits ("Lucro cesante")
### Infrastructure in Colombia

#### Project structure – liability under government contracts

<table>
<thead>
<tr>
<th>Limits on Liability</th>
<th>General Rule</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to a fix amount</td>
<td>✗</td>
</tr>
<tr>
<td>Up to the amount of penalties/fines (including penalty clause “cláusula penal”) (1)</td>
<td>✗</td>
</tr>
<tr>
<td>Up to contract’s value</td>
<td>✗</td>
</tr>
<tr>
<td>Up to insurance bonds</td>
<td>✗</td>
</tr>
<tr>
<td>Up to certain contract phase (e.g. construction phase, operation phase)</td>
<td>✗</td>
</tr>
<tr>
<td>Up to proven damages</td>
<td>✓</td>
</tr>
</tbody>
</table>

Note: (1) Penalty clause elements: (i) value: usually 20% of the contract value, (ii) collection: easy to collect since it does not require to prove damages, and usually will match with the performance bond, (iii) CAP: its value does not constitute a liability CAP (i.e. ANI may seek for additional damages).
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Project structure - overview

- **ANI**
- **Parent Company** (Only when required)
  - [30%] Liability exposure under the security bond
  - **Parental Guarantee**
- **Newco**
  - **Financial Agreement**
- **Banks**
- **EPC Contractor**
  - EPC Agreement

- **X**
- **Y**
- **Z**

Joint and several liability under the concession contract

[30%] Liability exposure under the security bond
## Infrastructure in Colombia

### Payment scheme – highways and roads

<table>
<thead>
<tr>
<th>Source</th>
<th>Payment Conditions</th>
<th>Comments</th>
</tr>
</thead>
<tbody>
<tr>
<td>i. Governmental contributions</td>
<td>Subject to infrastructure availability</td>
<td>■ Availability will be defined in terms of phases/units, service levels, quality standards.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ There are no fixed payments (i.e. may vary depending on service levels and quality standards compliance).</td>
</tr>
<tr>
<td>ii. Tolls</td>
<td></td>
<td></td>
</tr>
<tr>
<td>iii. Minimum expected traffic revenue</td>
<td>At the end of the contract</td>
<td>■ Formula specific to each project.</td>
</tr>
<tr>
<td>iv. Early termination payment</td>
<td>At the termination of the contract</td>
<td>■ Formula specific to each project.</td>
</tr>
<tr>
<td></td>
<td></td>
<td>■ Payment shall even apply under concessionaire’s event of default.</td>
</tr>
</tbody>
</table>
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Project structure – lessons learned

- Legal framework without ‘formal’ cap on liability makes it paramount to assess and price risk from construction all the way to the end of the maintenance operation.

- Potential exposure of parent company must be weighted against risk profile of each project.

- Joint and several liability with no formal cap makes it even more crucial to identify the best partners for each project.

- General terms of this analysis apply to various types of projects, including for projects launched under private initiative, which is the topic of the next slides.
Private initiatives are key mechanism for the development of Colombian infrastructure.

A powerful tool for investors and constructors:
- Identification in advance of project
- Definition of key parameters jointly with customer
- Advantage of exclusivity.

Private initiatives however require a very well defined strategy. Experience gained on the presentation of the Bogota Tramway is instructive in this regard.

The following topics will be covered in the next slides:
- Brief definition of process
- Key considerations
- Lessons learned.
Private participation in infrastructure – process

- Proponent identifies need for infrastructure from discussions with local stakeholders.

- Presentation of pre-feasibility study marks the beginning of the procurement process:
  - Pre-feasibility gives exclusivity to proponent until acceptance or refusal by competent authorities.

- In case of pre-feasibility acceptance, proponent maintains exclusivity during feasibility stage.

- At the conclusion of the feasibility stage, pending acceptance by competent authorities, either the project goes to tender or through a simplified procurement process, depending on the level of public subsidies required.
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Private participation in infrastructure – key considerations

- Law 1508 limits to 20% of the total project amount the level of public subsidies that can be asked for any project:
  - Limit applies to the entire project life
  - Could act as an impediment for the development of various types of infrastructure.

- Time is often of the essence in delivering a pre-feasibility to lock-in a project, availability of all resources (technical, financial, etc.) at the start of the process is advisable.

- Local partners are essential in contributing to all aspects of the pre-feasibility.

- Identification of projects requires significant work in country, as proponents cannot rely on complete registries of projects.
Properly identify client as well as the authority that will assess and eventually approve the pre-feasibility. This sounds obvious, but it is anything but.

- Example of Bogota Tramway when Transmilenio was finally named as the competent approval authority after much uncertainty.

Plan on having the adequate funds from the beginning to perform both the pre-feasibility and the feasibility. Do not count on industry players joining your team after your pre-feasibility is accepted to pay for the work.

Choose projects where the government subsidy-limit will not be a factor, and better still, aim at having a subsidy-free project whenever possible.