

LATINLAWYER

The Guide to Infrastructure and Energy Investment

Editor
Claudette M Christian

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THE GUIDE TO INFRASTRUCTURE AND ENERGY INVESTMENT

Second Edition

Editor

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Part VI

Transport Infrastructure

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Creating More Sustainable Deal-Flow in LAC Transport

John Graham and Lori Kerr¹

Transport infrastructure, including roads, railways, ports and airports are critical to economic growth and social development in connecting people to jobs, education and services and by linking national economies to the global marketplace. Transport is an essential component of national economic backbones that make everything else happen. Not surprisingly, the modernisation of transport and logistics networks has risen to the top of political agendas in both developed and developing countries as policymakers have realised that national growth rates and job creation are at stake.

While it is difficult to generalise across the countries of Latin America and the Caribbean (LAC), the World Bank reports in a recent study that the LAC region invests the least across all infrastructure sectors among most emerging markets and developing economy (EMDE) peers, with investment (including public and private) as a percentage of gross domestic product (GDP) under 3 per cent while East Asia and the Pacific, South Asia, the Middle East and North Africa are all investing at rates of at least 5 per cent of GDP.² According to the study, the region suffers from 'mediocre transport services due to low-quality infrastructure, and an uncompetitive transport industry, resulting in costly freight transport, congested cities, and deep pockets of rural isolation.'³ In quantifying the transport infrastructure gap, the Global Infrastructure Hub of the G20 reviewed a subset of nine LAC countries and estimated investment needs for roads, airports, ports and railways alone at

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2 Rethinking Infrastructure in Latin America and the Caribbean: Spending Better to Achieve More. Marianne Fay, et.al. World Bank. p. 7. With the notable exception of Sub-Saharan Africa, which invests at 1.9 per cent of GDP as a region.

3 Ibid. p. 21.

US\$3.6 trillion prior to 2040 to accommodate future growth projections.⁴ If one were to consider the entire LAC region, the level of investment needed in the transport sector is an order of magnitude higher.

Given ever more constrained government budgets, the necessity to attract private sector capital to the transport sector is profound. Attracting private investment has become even more challenging of late due to a host of other issues, including the end of the commodities super-cycle, political forces rallying against open trade and a host of regional corruption scandals that have created paralysis in many government corridors, as well as with private investors. Major projects have been delayed and cancelled, which has postponed much-needed investment and economic stimulus, while discouraging investors. Not surprisingly, 2016 was marked by a substantial slowdown in new transport investment commitments region-wide, while the pipeline for new investment is hardly encouraging.

In spite of these challenges, the past few years have demonstrated that the LAC transport market is also a laboratory for innovative deal structures in certain countries. Following in the footsteps of Chilean and Mexican concession models that were consolidated a decade earlier and given the political consensus around the need for private participation in infrastructure, the last decade has seen a regional embrace of public-private partnership (PPP) models and intense waves of transport investment in countries such as Brazil, Peru and Colombia. During 2007–2016, over 200 roads, metros, ports and airports came to market in LAC under private sector modalities mobilising over US\$150 billion in private investment in the sector.⁵ During this same period, LAC produced a series of highly innovative transport deals, including a few groundbreaking transactions in the debt capital markets for projects in Brazil, Mexico, Peru and, most recently, Colombia. While investment totals are not enough to close the gap of trillions of dollars in transportation described above, there are positive lessons to be drawn from this period to increase private investment in the sector.

Looking forward, there is an opportunity for LAC governments to learn from the successes of the past decade and to create a deeper and more sustained wave of private sector investment in the transport sector. First, it is important to strengthen institutional capacity of governments to produce greater volumes of well-conceived, well-designed projects. Second, to draw in greater volumes of private debt financing, governments should adopt a more demand-driven approach to bankability that is attractive to debt capital markets. Third, as climate-change-related impacts are being experienced across the transport sector (and beyond), climate considerations should be integrated into the concept of bankability and such considerations mainstreamed in transport planning, design and implementation processes.

Producing greater volumes of well-conceived, well-designed projects

Similar to other basic infrastructure services, the transport sector relies heavily on governments to originate pipelines of attractive investments. Unlike the energy sector where self-generation and bilateral contracting are part of the landscape, the transport sector

4 Data were drawn from the Global Infrastructure Outlook 2017 country profiles of Argentina, Brazil, Chile, Colombia, Ecuador, Mexico, Paraguay, Peru and Uruguay.

5 World Bank Private Participation in Infrastructure (PPI) Database. (Custom query on LAC transport sector 2007-2016.)

largely relies on governments to plan capacity additions and originate projects. Although there has been an upswing in unsolicited proposals and private initiatives in recent years, the responsibility for creating fundamentally sound deal flow in the transport sector will continue to fall predominantly on the shoulders of governments.

Many LAC governments have already laid the groundwork for concession and PPP programmes with legal and regulatory frameworks designed to channel more private investment into the transport sector. However, now that these foundations are in place, governments are faced with the longer-term task of producing continuous pipelines of bankable projects year after year in order to address the mediocre performance of the transport sector and the daunting gap in investment. Progress on these fronts hinges first on the critical matter of institutional capacity and the ability of transport and PPP authorities to perform better at prioritising, planning, appraising, vetting and, ultimately, structuring projects that are attractive to private sector investors.

First, there is no substitute for strong in-house capacity including well-qualified staff in critical ministries with experience in both the public and private transportation markets. As PPPs become more prevalent and require a greater level of interaction between private investors and public authorities, having deep technical capacities on both sides of the table is becoming increasingly significant. It would be difficult to overestimate the importance of internal capacity-building within governments as fundamental to successfully addressing the transportation infrastructure gap.

Along with a deeper bench of in-house government capacity, investment in well-qualified advisory to produce solid commercial, technical, legal and environmental and social inputs is also critical. Further, it is imperative that government advisory teams have reasonable implementation timelines so that these key inputs can be appropriately investigated, designed, digested, discussed (including with the private sector) and completed. An unfortunate phenomenon of velocity versus quality has arisen, particularly in more recent years, whereby projects are often rushed through early development stages in order to achieve political ribbon-cutting. Unfortunately, this pressure weakens the vetting process on project fundamentals and can produce unintended consequences in the form of early cancellations, disputes, renegotiations and, in some cases, terminated projects.

The Peruvian government's recent cancellation of the Chinchero Airport in Cuzco demonstrates some of the practical challenges related to institutional capacity. Uncertainty related to contractual fundamentals, which created a substantial proposed increase in government financing for the project led to contract disputes, and, ultimately, cancellation of the project in May 2017. While the airport will be re-auctioned, execution will be delayed and there is potential for ongoing litigation. Instances such as this create a chilling effect, particularly on private investors.

Finally, it is difficult to address institutional capacity in the transport sector without mention of transparency and corruption. Transport has not been spared from the recent corruption scandals in LAC, which have frozen transport pipelines in many countries. Public authorities are hesitant to take the personal and professional risks necessary to carry out the normal business of authorising and managing project execution, while many private sector investors have also adopted a much more cautious approach as well. The result is less project volume, and it is not yet clear whether governments will have the institutional

wherewithal to address corruption problems without handicapping the sector with new layers of bureaucracy.

In addressing the need for institutional capacity and solid project fundamentals on a reasonable timeline under transparent conditions, development finance institutions, including multilateral and regional development banks, and bilateral agencies (together, DFIs), as well as the international donor community have an increasingly important role to play. Governments in LAC are chronically budget- and time-constrained, so advisory support and technical assistance from these entities can make a critical difference to both the quality and integrity of early development phases.

The DFI universe has come forth with a series of initiatives designed to enhance ‘upstream’ efficiency and effectiveness. The World Bank Group, Inter-American Development Bank and CAF Development Bank of Latin America have all created strategies and products for early-stage advisory, including technical, legal and environmental and social aspects. The long-term availability of this support cannot be underestimated, as the needs are recurring and this support at upstream stages helps governments create robust transport pipelines.

As an example of success in planning, appraising, selecting and structuring bankable transportation investments, the Chilean government has achieved high-quality and well-maintained systems of ports, airports, urban infrastructure and highways using a private sector concessions model for transport infrastructure. Supported by DFIs at various stages of development and implementation, success can be attributed to the strength of Chile’s institutions and the capacity of its public administration.⁶ The experience and capabilities of the Ministry of Public Works, in particular, in prioritising, preparing and executing projects has led to significant private investment in the transport sector that has delivered good-quality assets and strong value-for-money.

Taking a demand-driven approach to attracting funding from debt capital markets

A second area where LAC governments can take practical steps to closing the transport infrastructure gap is to adopt a more demand-driven approach to bankability that responds to the risk appetite of debt capital markets. According to the World Bank, assets under management by OECD institutional investors are on the order of US\$80 trillion with an additional US\$5 trillion under management in EMDEs.⁷ For governments that are able to structure transport projects to this audience, the rewards could be huge.

Over the past decades, the project finance market in LAC has been driven by international commercial banks and DFIs that have provided long-dated, limited-recourse project financing. Concessions have been structured by governments according to their own risk preferences – often with limited feedback from the private sector – which has left sponsors and lenders to deal with risk allocation that has proven challenging and expensive.

However, debt markets are changing. As commercial lending terms and conditions have become more conservative (including drastically reduced tenors) due to expensive capital requirements under Basel III and Basel IV, it is becoming harder to ignore domestic

⁶ Gaps and Governance Standards of Public Infrastructure in Chile, OECD, March 2017.

⁷ World Bank, PPIAF, 2015.

and international capital markets as complementary sources for project debt. Commercial banks simply do not want – or cannot afford – to hold long-term project exposure on their balance sheets, while yield-hungry institutional investors are willing to support the sector if risk allocation can be structured to meet creditworthiness criteria and credit rating thresholds.

In the past few years, institutional investors, supported by underwritings by global investment banks, have emerged as financing partners for large infrastructure projects in LAC. A handful of highly innovative transport financings (including in US dollars and local currencies) have been brought to the international debt capital markets, including 144a/Reg S transactions in Mexico, Peru and, most recently, Colombia. Local institutional investors have also produced a few benchmark transactions, such as local currency transport issuances in Peru and Brazil. Coupled with the arrival of regionally focused infrastructure debt funds tapping institutional capital, there are significant pools of potential debt funding from institutional sources if governments can get deal structures right for those audiences.

To capitalise on these changing market dynamics, governments need to adopt a demand-driven approach to these debt financiers. Institutional investors are highly risk averse, and long-term, low-risk, stable returns are a prerequisite for capital commitment. When governments allocate high levels of risk to the private sector under concessions, including foreign exchange, demand, construction and early termination, interest from institutional sources is rarely piqued. Therefore, an expanded concept of bankability is in order and approaches to fundamental risk issues should be reconsidered.

Foreign exchange risk

As one of the most complex risks for creditors, governments need to consider providing explicit foreign exchange mitigation. Some transport projects such as international ports and airports may benefit from the natural hedge of a hard currency revenue stream. However, for the vast majority of transport projects, revenue streams are in local currency and currency-matching becomes a major obstacle. When traditional bank sources of debt financing are insufficient, governments need to provide hard currency-indexed revenue streams, foreign exchange risk management products or other currency mitigation structures to appeal to debt capital markets.

Drawing on lessons from the power sector, projects structured around power purchase agreements that are indexed to the US dollar have appealed to a broader audience of debt financiers. For example, the recent Argentine renewables programme (RenovAR) demonstrates how US dollar-linked revenue payments can enhance appetite of creditors. While the initial deals under the RenovAR programme will likely be financed by DFIs and commercial banks, debt capital markets investors are exhibiting increasing interest in the programme, and the Argentine government is considering using similar structures for other sectors in order to attract a broader pool of investors to the local infrastructure space. If transport financings are going to be attractive in relation to regional transactions in the power sector, foreign exchange risk needs to be mitigated accordingly.

Demand risk

Closely related to the mitigation of foreign exchange risk, demand profiles for transport projects also need to be de-risked, especially to create interest from debt capital markets. The

first generations of LAC transport projects, which were sustainable without demand-side risk mitigation, were concessioned some time ago. Newer generations of PPPs represent assets that are in need of government support in order to be viable. Aside from international airports and large gateway port terminals that earn hard currency, governments need to de-risk revenue streams through fiscal support mechanisms, such as direct subsidies, availability payments, minimum revenue guarantees and other demand support structures. Transport authorities that continue to transfer unmitigated demand risk to the private sector (particularly in greenfield assets) will find limited appetite, especially from institutional investors.

Construction risk

Construction risk is another area where institutional investors have difficulties. While these risks have traditionally been allocated entirely to the private sector, governments can create more attractive risk profiles for institutional investors by providing more fulsome risk cover for aspects such as land and site acquisition, geological risk, utilities relocation and archaeological risks. Governments can also enhance bankability when construction progress is accounted for in early termination formulas so that executed works are recognised along the construction life cycle.

Early termination risk

As a final practical point to consider with a view to attracting debt capital markets, governments need to provide market-friendly early termination regimes. Inadequate or unclear early termination frameworks are a non-starter for most debt providers, especially institutional investors, so governments seeking to attract these financiers need to provide termination regimes linked to predictable and verifiable formulas and reasonable timelines for payment. Commercial banks and DFIs may be able to structure these risks with sponsors (often through expensive guarantees and risk cover), but the institutional market has less appetite for bespoke solutions to early termination risk and prefer that these risks are allocated to the host government.

The government of Colombia's Fourth Generation Highway Programme (4G Programme) illustrates a forward-thinking approach to risk allocation and designing a transport infrastructure programme that is attractive to debt capital markets. Through a deep process of review and stakeholder engagement, the National Infrastructure Agency arrived at a PPP model that was based on sound legal, regulatory and fiscal frameworks and included many of the risk enhancements described above. This includes a de-risked traffic profile, the addition of US dollar-denominated revenues, completion risk mitigation through construction cost sub-limits for critical items (such as land, network relocation and environmental issues) and, finally, an early termination regime that is structured to cover outstanding debt. The enhanced bankability of the 4G Programme opened the door to wide participation from the domestic and international financial community including offshore debt capital markets transactions such as global bond issuances for the Pacifico Tres and Costera highways, which were underwritten by Goldman Sachs and placed in the 144a/Reg S market. The 4G Programme is an example of how expanding the concept of bankability can create conditions that are attractive to debt capital markets.

Last, in addition to project-level features to attract debt capital markets as outlined above, host governments need to ensure that tax and other regulatory restrictions do not directly or indirectly impede participation of institutional investors in the sector. Moreover, national development banks (alongside DFIs) can also play a catalytic role by providing risk mitigation products to crowd-in more private sector investment, especially institutional investors. National development banks are most powerful when they cover market inadequacies in private sector financing rather than providing sub-market funding or covering structural gaps in concession and legal frameworks.

Mainstreaming climate change considerations as a critical bankability element

Following on the theme of bankability, an emerging aspect that has come to the fore is that of climate change. Understanding the impacts of a changing climate on both sector planning, as well as on asset-level bankability is critical. The Task Force on Climate Related Financial Disclosures (TCFD) provides a useful approach for considering climate-related risks and opportunities along with potential associated financial impacts. Direct near-term – or acute – physical risks, including increased intensity and occurrence of severe weather events such as hurricanes and flooding, are perhaps the easiest to appreciate. However, other longer-term – or chronic – physical risks, such as gradually warming temperatures and rising sea levels, as well as transition-related risks, including evolving customer behaviour patterns and potential changes to regulatory frameworks should also be integrated into the due diligence processes at the planning stages, as well as into investors' assessments of specific projects. Climate change is a uniquely challenging proposition as there is still little awareness around what will happen, when and to what extent, nor is there widespread understanding of climate-related risks and potential impacts to infrastructure assets over the short, medium and long term. At this juncture, integrating climate change considerations into upstream planning and design, as well as into downstream capital allocation decisions are not yet mainstreamed and are still at a stage of relative infancy.

Upstream, governments must be cognisant of how a changing climate may impact demand forecasts that underpin the need for additional capacity. As an illustrative example, for transport infrastructure (such as roads, rail and airports) that serves or connects population centres to tourist destinations, to what extent will climate change impact traffic levels? Will those tourist destinations remain attractive (or become more attractive) as temperatures continue to climb? Will gradual sea-level rise render beaches underwater or, even in the nearer-term, will more frequent and more severe hurricanes truncate tourist seasons? In considering the port sector (as well as air cargo), how will climate change impact the shipment of goods? Will weather events disrupt traditional shipping origins and destinations? Will global supply chains be impacted by extreme weather events or by water stress issues, thus affecting shipping volumes? Climate-related risks such as these can fundamentally alter the demand underpinnings of transport projects and need to be incorporated into demand modelling and scenario testing at an early stage. And how these risks might translate into revenue-generation vulnerabilities or volatilities for each specific transport asset also need to be considered.

Closely related to demand-side issues, climate change also has implications for project-level technical design. For example, ports in the Caribbean, Central America and Mexico are currently designed to account for heretofore 'average' frequency and physical

impacts of severe weather. However, ports in these geographies face increasing risk of more frequent hurricanes and tropical storms and greater associated storm surge and flooding, as well as longer-term vulnerabilities to sea-level rise given coastal locations. These risks are already creating the need to carry-out expensive retro-fitting to adapt existing port assets to become more climate resilient. For airports, extreme temperatures can affect airplane performance and carried loads necessitating longer runways. For all transport infrastructure, adapting to climate change could impose unplanned operational and capital expenditures, which could negatively impact cashflows, and possibly exacerbate potential issues when coupled with revenue vulnerabilities and volatilities reference above. As such, for all new transport infrastructure being contemplated, governments need to design new assets according to changing climate realities. As transport projects have generational asset life and as precise climate impacts are uncertain, design standards need to be robust to adapt to and be resilient in the face of climate change risks while transport concessions need to provide flexibility for concessionaires to make necessary investments or changes in operations to respond to evolving climate change trends.

An example of a LAC infrastructure authority taking a forward-looking view towards climate is the Port Authority of Manzanillo in the State of Colima, Mexico. The Authority undertook a comprehensive climate risk study and prepared an associated Adaptation Plan with widespread stakeholder engagement that is to be mainstreamed with existing plans and processes with private operators of the terminals at the Port of Manzanillo. Understanding that issues such as terminal flooding, severe storm impacts and sedimentation are critical climate change impacts that affect technical, commercial and financial performance, the Port Authority's mainstreamed approach to climate issues represents how forward-looking authorities can respond to both business and climate needs by engaging with the private sector.

As a particularly relevant issue for regional governments, fundamental alterations in demand, costs or design changes brought about by climate-related risks and impacts can create budgetary issues. For example, governments that have committed resources to support project economics over the life of a concession through demand-side support could see these obligations balloon. Further, climate-related design changes could create millions of dollars in increased costs that were unforeseen at the outset of the project. When climate change implications are not considered upstream as an integrated due diligence matter, governments may find themselves in a position of committing substantial fiscal resources to support projects that no longer make economic sense. This could lead to disputes, renegotiation and in extreme circumstances cancellation or termination.

Relating back to mobilising debt capital markets, the TCFD issued its final report in June 2017 after a comprehensive review of approaches to account for climate-related issues in capital allocation decisions. Framed as a voluntary disclosure regime, interest in understanding and disclosing matters related to climate change have gained significant traction in the institutional investor community throughout the world. This means that institutional investors, among many other types of investors and financiers, will increasingly require analysis and disclosure of material climate-related risks prior to making large outlays of capital for infrastructure investments, as well as throughout investment life. To that end, governments and concessionaires will be increasingly compelled to expand traditional project-level risk matrices to include climate change issues and associated implications on

business operations, including revenues, expenditures, assets and liabilities, and capital and financing of the infrastructure asset posed for funding. LAC governments that get ahead of this trend stand a better chance of attracting debt capital markets that are becoming an more attuned and demanding with respect to climate-related impacts.

Closing

In closing, although this discussion has focused on prescriptive actions for governments, DFIs and the private sector can also step in to support these efforts. DFIs are critical in providing expertise and early-stage funding necessary to enhance government institutional capacity, as well as expanding the provision of credit enhancement products to catalyse broader participation in the transport sector from institutional investors. DFIs also play a particularly important role in supporting government efforts towards better climate-related policies.

For its part, given that enormous levels of private sector investment will be required in the transport sector, private sector actors can also help create bankable pipelines by working with governments on project identification and providing feedback on bankability issues. Moreover, the private sector can innovate on adaptive and resilient design as well as support mainstreaming and disclosure of climate-related risks and opportunities.

Public and private sector creativity and resources will be needed to structure and fund the trillions in investment necessary to bridge the regional transportation gap. Governments that strengthen their institutional capacity to produce more robust project pipelines, adopt a more demand-driven approach to bankability that is attractive to debt capital markets and mainstream climate change considerations will be in a much more advantageous position to expand private investment in LAC transport.

Appendix 1

About the Authors

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John Graham is a principal industry specialist with the global transport group of the infrastructure and natural resources department of the International Finance Corporation (IFC). As a principal industry specialist, he leads sector issues related to transport, as well as the origination, analysis, negotiation and execution of project finance transactions in the transportation space. Previously, Mr Graham was a principal investment officer at the structured and corporate finance department of the Inter-American Development Bank (IADB). Outside of his professional duties, Mr Graham is an adjunct professor at Georgetown University in Washington, DC teaching international project finance and investment at the MS/MBA level for the Edmund A Walsh School of Foreign Service. Mr Graham holds a bachelor's degree in finance from the University of Illinois at Urbana-Champaign and a master's degree from the Georgetown University School of Foreign Service.

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