

Long-Term Financing of Infrastructure: A Look at Non-Financial Constraints

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1. Introduction

The developing world suffers from an undersupply of infrastructure, constraining economic growth rates, leaving the world's most vulnerable communities without access to basic services, and hampering attempts to achieve broad-based poverty reduction. Currently some \$800-900 billion is invested in infrastructure every year¹. To keep pace with consumer and producer demand for infrastructure, developing countries must invest an estimated additional US\$1 trillion per annum through 2020. Assuring that infrastructure investments are low emitting and climate resilient will require an additional US\$200 to \$300 billion per year. The infrastructure financing gap increases to an estimated \$57 trillion in infrastructure investment between now and 2030 to keep up with projected global GDP growth².

Traditional sources of infrastructure finance are strained. Public budgets are overstretched, with little room for additional spending on infrastructure. Debt markets are retreating as banks, particularly those in Europe, which used to play a leading role in structured finance, are still recovering from the global financial crisis and adjusting to tighter regulatory requirements, including Basle III. International Financial Institutions including the World Bank, will have limited capital for the foreseeable future; but Overseas Development Assistance (ODA) has played a relatively modest role, having provided only 2.5-3 percent of total investments in infrastructure. Developing country capital markets lack the depth and breadth to provide the kind of long-term financing required for infrastructure. The bleak outlook for traditional financing means that governments must consider alternative financing models to leverage private capital into infrastructure.

The good news is that on aggregate, there is an abundance of savings and liquidity that could finance infrastructure. Global savings amounts to \$17trillion³, so only 10 percent of this would be sufficient to finance the infrastructure needed. Liquidity around the world also remains at historical highs: the sum of all debt and equity outstanding, according to the McKinsey Global Institute, is US\$212 trillion, or 356 percent of global GDP⁴. Moreover, FDI inflows to developing countries are projected to rebound by 17 percent to US\$697 billion in 2013 and reach close to US\$800 billion in

¹ *Infrastructure for Development: Meeting the Challenge*, background paper for Brookings-G24 High-Level Seminar, April 11, 2012,

² McKinsey Global Institute, 2013. Infrastructure productivity: how to save \$1 trillion a year.

³ World Development Indicators, online version, accessed 1/14/2013

⁴ McKinsey Global Institute, 2011. Mapping Global Capital Markets, online version, accessed 1/14/2013.

2014⁵ as global economic growth is anticipated to accelerate modestly. According to UNCTAD, FDI in infrastructure has been more resilient to the crisis, with investment levels rising, particularly in electricity, gas and water, as well as – to a lesser extent – construction and telecommunications.

On a sobering note however, the availability of liquidity and to a certain extent private capital cannot correct the sector and institutional deficiencies which often make investment in public infrastructure projects an unattractive proposition for private investors. This note summarizes the important non-financial factors that undermine the willingness of long-term investors to commit financing for infrastructure.

2. Non-financial constraints to Infrastructure Financing

Governments across the developing world recognize the need for a greater role of the private sector in financing infrastructure, and have introduced measures to improve the development of Public Private Partnerships (PPPs). However, a number of institutional, governance and viability issues remain. Most developing countries lack a comprehensive market-oriented infrastructure finance system, with clearly defined roles and responsibilities for the public and private sectors, and a clear and transparent system to provide public sector financial support to make infrastructure PPPs financially viable. There is a dearth of projects with sufficient economic, financial, technical and environmental Feasibility Studies (FSs) undertaken, resulting in a weak pipeline of bankable projects. And then there are risks stemming from government (in)action that private sector cannot mitigate – e.g., delays in land acquisition, failure to pay land acquisition compensation, failure to provide regulatory approval, issue licenses and permits, etc., failure to connect to existing infrastructure (roads, water supply) networks, delays in signing final contract. A lack of private investor confidence in governments' bidding practices makes them shy away from tendered PPPs, further compromising competitive bidding.

There is also now an emerging view that looking beyond what countries need to invest to rethinking *how* they invest can shift the debate on infrastructure policy from pessimism and paralysis to concrete action for improving infrastructure productivity – defined broadly to include making better choices about which projects to execute, streamlining the delivery of projects, and making the most of existing infrastructure.⁶ As the debate around this emerging framework unfolds, we take a look at three categories of non-financial -- institutional, political and viability -- constraints to infrastructure financing.

2.1 Institutional constraints

(i) Absence of credible PPP Frameworks. It is critical for governments to attract private financing on the basis of clear legislative provisions issued formally by the national government (typically by the Ministry of Finance), which spell out the roles and responsibilities of all key public sector ministries and agencies as well as the private sector, including investors, lenders, construction and operations contractors etc. However, there has been a lack of progress on establishment of appropriate laws and regulations based on internationally accepted norms to implement PPPs. Such frameworks would include details governing key aspects such as: (a) allowable project structures including BOT, BOO, BTO etc.; (b) capital structure and project financing arrangements; and (c) a transparent mechanism to allocate ODA/public finance support

⁵ World Investment and Political Risk 2012, MIGA.

⁶ McKinsey Global Institute, 2013. Infrastructure productivity: how to save \$1 trillion a year.

to PPP projects such as through Viability Gap Financing (VGF) to make well-prepared PPPs financially viable. Ideally, these legislative provisions would also be accompanied by guidance notes or implementing ordinances with instructions for public and private parties on how to execute, and comply with, the statutes laid out in the legislative documents. It may be recognized that new PPP legislation could also create confusion about the legal framework in force, especially when pre-existing legislation on investment, procurement and concessions is not entirely consistent with the new laws. Key related principles of full disclosure of conditions in the bidding process and clear rules on project cancellation and compensation therefore become very important. Overall, the PPP Framework serves as a blueprint to appropriately combine different sources of financing – public monies, ODA flows, and private investments – through PPPs, in line with their respective risk allocation. Related policies of importance include those related to the functioning and structure of markets, tax policy and trade policy⁷, and PPP legislations should appropriately align with these.

(ii) Insufficient capacity for project design and implementation. The key bottleneck to infrastructure development is not capital, but a severe lack of bankable projects which can attract private capital. Ministries leading the national PPP agenda (typically Ministries of Finance and/or Planning) with support from PPP Units (if in existence, and typically located in MOF) should work closely with line ministries to identify pilot PPP projects based on transparent criteria, and launch preparation activities, including conducting pre-feasibility studies and feasibility studies. In some cases, public procuring agencies do not have the in-house legal and transaction skills to negotiate successfully with private sector professionals. This can create unbalanced risk-sharing arrangements, or lock the public partner into fiscally unsustainable contracts. Transaction Advisors are key to preparation, and are best procured competitively from the private sector, particularly given that most developing countries have limited experience and expertise in preparing well-structured, viable PPPs. Governments should also plan in advance for land acquisition and initiate the process for budget allocations in a timely manner for this and other project preparatory work, including environmental and social safeguards work.

Misinformation about the state of existing infrastructure can also jeopardize project roll-out and cost recuperation for the private party. In particular, local authorities and sub-national PPP agencies are often at the forefront of project implementation and facilities maintenance but lack sufficient financial and human resources to discharge their tasks. The lack of progress in standardization of contracts compounds information asymmetry and increases costs and administrative burden of due diligence requirements. In addition, capacity bottlenecks are also acute for green infrastructure projects as private investors (notably institutional investors) lack information, publicly available data, knowledge and expertise on such projects.

A number of countries have launched Project Preparation Facilities (PPFs) to overcome some of these constraints and help identify a pipeline of future projects and optimize project preparation costs. However, the same lack of skills and experience in the public sectors of developing countries vis-à-vis developing PPPs constrains the ability of PPFs to deliver results on the ground (See Box 1 below).

⁷ UNCTAD, Jan 2013. Contribution to G20 Paper on Long-Term Financing for Infrastructure.

Box 1. Project Preparation Facilities in Africa: Can They Deliver?

A major impediment to infrastructure growth in Africa is the lack of well-packaged bankable projects. Project preparation facilities (PPFs) for infrastructure are therefore an essential component in the infrastructural ecosystem. However, PPFs are just one source of funding for project preparation, and account for only around 20-30% of the total, with the bulk being funded by bilateral donor support and development funds of the multilateral development banks (MDBs). According to the Infrastructure Consortium of Africa (ICA), of 67 identified potential and so-called project preparation facilities, only 17 really focus on infrastructure projects in Africa. The 17 core facilities, of which only 12 are active, have about US\$190m yet to be committed to infrastructure projects, indicating that availability of funding is not the key constraint to PPF operations in helping governments develop a pipeline of market-ready PPPs in Africa.

There are two key gaps vis-à-vis developing and implementing private sector-originated projects in Africa: (i) the non-financial, capacity gap for governments negotiating with private sector sponsors. This first gap is major due to the limited ability of public sector officials to develop bankable projects for market bidding. PPFs offer very limited support in this area. More generally, they have not focused on this critical early stage of project development, including project identification, and clear legislation on how private finances will flow into the project as well as transparent provisions to make projects financially viable; and (ii) the lack of long-term debt finance for private sector sponsors who have obtained the rights to develop projects and have undertaken early stage development work at their own risk.

Source: Infrastructure Consortium for Africa, November 2012. Tunnels of Funds Overview of the Assessment of Project Preparation Facilities for Infrastructure in Africa.

(iii) Poor accountability, performance-, and contract-management. In order for PPPs to generate the expected benefits for both private and public parties, it is important to define performance-based specifications in PPP contracts and to put in place related monitoring mechanisms. Developing countries working to establish their PPP markets have little experience in performance monitoring and contract management in early days, and need support in defining indicators and benchmarks for assessing contractual results. On a related note, it is also important to actively consult and engage with end-users in monitoring service quality. These efforts should dovetail with proactive communications strategies to raise awareness of the service provided as an accountability tool vis-à-vis the concerned government as well as the private contractor/operator. In several countries, projects have been derailed because of a lack of public support, which is often manifested through protests and service boycotts.

(iv) Lack of credit culture in public infrastructure operations. The establishment of credit culture in public sector operations is emerging as an important priority for governments across the world. The shift towards increased emphasis on creditworthiness in State Owned Enterprises (SOEs), public infrastructure utilities and corporations is essential to access financial markets directly through bond rating and debt issuance, including through revenue-backed bonds and other instruments, based on their own creditworthiness, financial viability and sustainability. But many national and subnational governments have weak credit culture limiting their ability to borrow directly on national or international capital markets at an attractive price. Municipalities and state governments lack credit ratings or ability to mobilize credit enhancements. The absence of solid debt monitoring systems and poor debt management capacity among local governments has contributed to private lenders' reluctance to make unsecured lending to the governments. Defaults on loans, particularly by local governments appear to be due to an unwillingness rather than the inability to repay – such as in Indonesia, where a large number of local water supply utility

companies (PDAM) are in arrears as local governments continue to accumulate cash reserves; or the Philippines, where incoming local governments are unwilling to honor the debt of the previous administration⁸.

(v) Coordination across levels of government. Close coordination between infrastructure institutions across and within levels of government is imperative for effective infrastructure provision. Ideally, all infrastructure organizations across sectors should share a common view of the socioeconomic goals for infrastructure which are enforced through formal mechanisms, including those that ensure that these organizations interact effectively. However, few developing countries like Rwanda that not heavily encumbered by legacy systems have the distinction of well-coordinated infrastructure.⁹

In much of the developing world, urbanization and fiscal decentralization have shifted much of the responsibility for infrastructure and utility investment to local governments. Importantly, approximately half of all infrastructure assets remain within municipal areas. However, fiscal transfers and local tax revenues have not grown commensurately with the increased responsibility vested in local authorities, and for most cities in the developing world revenues from basic service provision fail to recover costs. For example, in water supply and sanitation, only eight out of twenty large cities in India recover operations and management costs through user fees. None recover capital expenditure let alone depreciation. Underinvestment and the continued dependence on state and national transfers remains the norm for urban infrastructure throughout the developing world although it is well recognized that decentralization is most fruitful when local decision-makers bear the financial and political cost with respect to design, finance, operation and maintenance of projects. But government capacity limitations in the design, monitoring and enforcement of contracts are often most acute at local levels. In addition, jurisdictional issues exacerbate the complexity of planning and financing for municipal projects, which often cover multiple jurisdictions. In many instances, there is a misalignment between planning and budgeting processes and timelines. Budget cycles are mostly input-based, and do not link annual budgeting to long-term plans. Local governments also tend to allocate a significant part of their budgets to salaries to overstuffed local bureaucracies, thus limiting the funds available for long-term infrastructure improvements. Municipal governments need to orient themselves towards budgeting for capital improvements, emphasizing revenue generation, developing adequate asset replacement or rehabilitation programs and linking budgeting with improved performance in the interest of financial sustainability. In short, all these call for greater coordination within and across levels of government.

(vi) Coordination of regional and cross-border investments. Multi-country/regional infrastructure projects are increasingly important for Middle Income Countries (MICs) to take advantage of regional economies of scale and cross-country resources. Examples include cross-border power transmission, international road and rail corridors, gas pipelines and fiber optic links as well as large scale power generation projects and flood control infrastructure located in one country which impact others. However, financing regional projects is difficult due to their unique regulatory, contracting and political risks and the complexity of project design. As noted in the submission to the G20 by the MDB Working Group on Infrastructure¹⁰ in June 2011, MDBs have an

⁸ Standards & Poor's, Global Credit Portal, RatingsDirect, various years.

⁹ McKinsey Global Institute, 2013. Infrastructure productivity: how to save \$1 trillion a year.

¹⁰ African Development Bank, Asian Development Bank, European Investment Bank, Inter---American Development Bank, Islamic Development Bank, and the World Bank Group.

important role to play in helping leverage private financing for regional infrastructure projects. As part of this agenda, helping establish regional PPP markets to support cross-border investments into PPPs would strategically complement MDB efforts to support large regional publically funded projects with partial risk guarantees or project financing packages. Such regional coordination would minimize legislation-related distortions across countries within regions. In particular, commonality in regulations and procedures will significantly lower transaction costs to investors as they raise financing for multiple projects/investments across different countries, increase competition, and provide greater opportunities for government-to-government learning as policymakers implement similar provisions in their respective legislative contexts – and ultimately enable greater cross-border flows of private capital into infrastructure.

Developing regional PPP markets would require: (a) regional coordination of country-specific policies, emphasizing common standards of PPP regulations within country contexts to facilitate greater cross border private investments in infrastructure; (b) provision of technical support to individual countries in developing policies and mechanisms for private financing of infrastructure, as well as helping implement transactions; (c) coordination of the regional infrastructure financing dialogue, as well as initiatives undertaken by various regional bodies; and (d) established dialogue with the private sector to solicit ideas and seek technical support.

(vii) *Stakeholder consultation.* Developing infrastructure needs to respond to specific needs. All stakeholder consultation is required to ensure that all different stakeholders have been consulted, dissenting views taken into account and adequate plans been put in place. PPPs in particular need careful management of perceptions as they can often elicit emotional reactions particularly when related to infrastructure assets that are considered of a national importance or strategic relevance.

2.2 *Political constraints*

(i) Lack of political ownership and commitment. Private financing of infrastructure, and PPPs in particular, requires a strong and consistent political driver and support from the highest levels of the government. Successful infrastructure finance and PPP programs require a high degree of active and unequivocal political support to set the tone and urgency of the PPP agenda. The G20 is uniquely positioned to raise the profile of the infrastructure finance agenda, provide a framework within which the countries can move forward with shared goals, and develop an operational workprogram to provide support to developing country governments with PPP implementation.

(ii) Lack of political commitment to spearhead major systemic changes required for implementing PPPs. A clear separation of political and technical responsibilities for infrastructure is called for; politicians and government leaders set policy goals but should let technical experts create the specific projects and plans to meet these goals. There is a lack commitment to clarify specific key institutional roles and responsibilities. Procuring authorities, PPP units, the central budget authority, the supreme audit institution and sector regulators should be entrusted with clear mandates and sufficient resources to ensure a prudent procurement process and clear lines of accountability. A common problem is the duplication of responsibilities, leading to bureaucratic bloating and unnecessary delays in the project cycle. Coordination mechanisms, such as inter-ministerial project committees, can help overcome this issue. The independence of regulatory bodies for infrastructure sub-sectors is also critical for building confidence in regulatory decisions. In too many cases, political considerations undermine decisions such as licensing and tariff-setting (which directly affects cost recovery for private investors), precisely when the political machinery should credibly constrain such behavior. There is also a lack of political commitment to ensure that the involved government units are accountable in take the necessary steps to move the project

forward (e.g., appropriate and timely allocation of land, cleaning up institutional bottlenecks such as involvement of SOEs, identification of project sponsor agency legally authorized to make decisions regarding the project, etc.).

(iii) Regulation and competition policy. Regulatory failings represent the top concern of foreign direct investors according to a MIGA/EIU Survey of global investors in developing countries conducted in 2012. Economic regulation of tariffs and service quality requires independent authority, institutional integrity and capacity to monitor and enforce contractual obligations. Appropriate changes to regulatory regimes can yield disproportional increases in investment levels. For instance, according to OECD, price-cap regulation, when combined with regulatory independence boosts investment especially in electricity and telecommunications. In contrast, setting of access prices themselves can both deter investment if the price is too low or create overinvestment if it is too high.

Importantly, there remains a lack of competition for the market and competition in the market. Governments should ensure there is sufficient competition for the infrastructure market by putting in place a competitive tender process. As bid preparation costs can be important, investors are unlikely to seek opportunities in countries with a record of flawed tendering processes. Especially in cases where state-owned utility providers have traditionally held monopoly power in infrastructure provision, governments should ensure a level playing field in the tendering process so that non-incumbent operators can enter the market. Even when private companies manage to secure contracts, inadequate public consultation or a weak understanding of the market can derail operations and lead to costly renegotiations or even cancellations. Competition within the market is equally important. In cases where market operators are few and SOEs dominate infrastructure provision, unbundling of production, transmission and distribution can both enhance SOE efficiency and increase opportunities for private participation. Financial disclosure of SOEs and functional separation of infrastructure networks can help to identify in which areas profits or losses are made, shedding light on what operations the SOE is best-suited to shoulder as opposed to the functions that would be best left to private actors or PPPs¹¹.

(iv) Political risk and government practices. Government behavior – such as historical handling of contract disputes, expropriation and rules governing repatriation of capital – affect the levels of investment in infrastructure. World Bank research shows that infrastructure investment levels are highly sensitive to sovereign risks, especially in brownfield investments and those sectors and project types with higher retail risk. Indeed, foreign investors ranked political risk as the most significant constraint to investing in developing countries on a recent MIGA survey. Significantly, both sovereign default risk and expropriation – among other political risks – remain dominant issues for foreign investors deciding their investment plans. These political risk factors can outweigh prevailing market pull opportunities¹², including prospects for capitalizing on regional growth and integration opportunities (e.g. ports developments linking into transportation networks being established in Latin America), and should be addressed with suitable political risk-mitigating instruments.

(v) Management of Unsolicited Bids. The pragmatic reality is that a significant number of PPPs in the developing world, particularly Africa are privately initiated. Governments in such settings need advice on structuring a clear transparent framework to respond to private sector unsolicited

¹¹ OECD January 2013. *Non-financial Impediments to Attracting Private Investment in Infrastructure*. Contribution to G20 Paper on Long-Term Financing for Infrastructure.

¹² UNCTAD, Jan 2013. Contribution to G20 Paper on Long-Term Financing for Infrastructure.

deals, while at the same time managing perceptions of favoritism in environments with limited track record of demonstrated success with PPPs. For example, in Brazil government has begun to develop strategies to deal with unsolicited bids that encourage innovation from the private sector, can be speedily implemented but at the same time ensure transparent procurement processes. Furthermore, changes are required in the rules by governments and IFIs to allow for such solicited processes. Currently, most PPPs and donor-supported PPPs require competitively tendered or government initiated procurement processes, exacerbating the logjam between what government can realistically do and what they are advised to do.

2.3 *Viability constraints*

(i) Absence of mechanisms to make PPPs financially viable. Infrastructure PPPs in developing countries typically have high socio-economic rates of return but are not financially viable, as expected revenues are unable to cover project costs based on existing tariffs and projected usage. Limited cost-recovery prospects through user fees have constrained private sector interest, underscoring the need to close the financial viability gap of reasonable magnitudes, using public resources. Governments therefore need to develop clear, transparent market-based VGF mechanisms to channel public sector resources toward well-prepared infrastructure PPPs to improve the projects' financial viability. VGF programs should be designed to strategically complement existing legislative and institutional provision supporting PPPs, and channel VGF support to only those PPPs that are (i) economically worthy but financially not viable; and (ii) prepared to internationally acceptable standards, thereby helping improve the quality of project preparation and moving the pipeline of PPPs to market.

(ii) Lack of understanding of instruments supporting PPPs. There are number of risk-mitigating and viability-enhancing instruments being implemented around the world to correct project-specific weaknesses, each designed to meet different ends. However, a lack of understanding of the nature of these instruments and the project-specific deficiencies they correct often results in their improper and suboptimal deployment, and loss of government credibility vis-à-vis private markets.

More broadly, governments should ensure that incentives, pricing and regulations are aligned to attract financing. Subsidies financed by donor agencies for green investments – through, for example, concessionary finance windows of infrastructure funds, viability gap financing, budget transfers, government-backed guarantees and output-based aid – should be designed and scaled to cover the additional risks and costs of green technologies and investments.