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## Financing Infrastructure and Growth: Lessons and Experience

Ahmed Mansur

*Infrastructure Concession Regulatory Commission*

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# Financing Infrastructure and Growth – Lessons and Experience

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*Engineer Mansur Ahmed\**

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## **I. Introduction**

Infrastructure forms the foundation for all development in a country. Inadequate infrastructure restricts productivity and limits competitiveness. A 2008 Infrastructure Consortium for Africa (ICA) study identified the dearth of infrastructure, amongst many other constraints, as responsible for Nigeria's low level of performance in all the key economic performance variables. Indeed, Nigeria's diminished competitiveness (127 of 142)<sup>1</sup> could be directly attributed to the abysmal level of infrastructure development in the country. Nigeria's stock of basic infrastructure falls far short of the minimum required for meeting the demands of a 21st-century global economy.

The paper would address the issue of finance for infrastructure, the adequacy or otherwise of the traditional annual budgetary allocation, and alternative methods for funding infrastructure. The potentials of the stockmarket in filling the financing gap, option of Public Private Partnership (PPP) arrangement in upscaling our infrastructure will be examined. The paper covers an assessment of the merits and demerits of PPP, the PPP process and framework in Nigeria, and how Nigeria could benefit from the experiences of other jurisdictions.

## **II. Financing Infrastructure and Growth**

Traditionally, governments have been the sole financier of infrastructure projects and have often taken responsibility for implementation, operations and maintenance. The national budgets have, therefore, been the principal sources of financing infrastructure development. In Nigeria, it is the norm to wait for a capital infusion through the budget to rehabilitate or replace, rather than maintain the infrastructure. However, declining financial resources is making this option less feasible, thereby accelerating infrastructure deterioration.

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*\* Engineer Mansur Ahmed is currently the pioneer Director General and Chief Executive of the Infrastructure Concession Regulatory Commission (ICRC).*

<sup>1</sup> Global Competitiveness Report 2011 - 2012

A recent study<sup>2</sup> of the Federal Government of Nigeria identified the absence of integrated national planning framework for infrastructure delivery, lack of proper project preparation, dearth of capacity in public authorities and inappropriate funding mechanism, among other serious challenges, as the major causes of the delivery of suboptimal infrastructure in Nigeria. In particular, those of dearth of long term finance and inappropriate funding methods posed the most overwhelming challenge. In aggregate terms, the annual budget, which hitherto provided the funding for infrastructure in Nigeria has not only proved completely inadequate. This financing method might indeed be partly responsible for the dismal state of infrastructure in the country. The drip-feeding of projects by the annual budget, whereby limited funds available through the budget for capital works is spread across a large number of projects with the result that most are abandoned, few are completed often at multiples of the original cost and at scandalous extension in the completion time. It also has the greater potential for corrupt practices and increased expenditure on public infrastructure, which does not translate to increased stock of capital assets.

### **III. Alternatives for Funding Infrastructure**

Financing for day-to-day manufacturing, expansion and modernization projects usually embarked on by companies, significantly differ from the financing of infrastructure projects in many ways. The financing requirement for a large infrastructure project with lengthy construction periods and productive life, huge initial financial outlay, high project risk and low real return to investment can hardly be met by traditional budgetary financing or corporate financing. The usage of a 25-year loan to fund a project company has a limited appeal for a commercial bank that will prefer shorter term lending at much higher rates. Financing infrastructure projects from direct budgetary allocation has also proved equally unsatisfactory.

However, infrastructure development financing methods have constantly been evolving to meet requirement from initial feasibility and project initiation financing, through construction and longer terms operations. The approach that have recently been encountered in international project finance include monetary grants, venture capital and infrastructure funds, non-recourse or

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<sup>2</sup> Alternative funding Sources for Capital Projects: Report of the Technical Working Group on Infrastructure of the Nigerian Economic Management Team.

project finance, equity financing, debt financing, export credit finance, public finance and bond funding, project bond, guarantees or credit enhancement programs, non-monetary grants and joint ventures, and public private partnerships. But for the constraint of time and space, we will henceforth focus our discussion on the capital market instruments and PPPs.

#### **IV. The Capital Market**

The capital market in Nigeria is well positioned to fill the resource gap created by the limitations of the traditional budgetary allocation. It could do this through the issuance of some medium to longer term instruments such as bonds, long-term corporate/commercial bonds, infrastructure bonds or such other instruments of longer term maturities as would provide suitable funding for infrastructure projects. The proceeds could then be applied for the development of critical infrastructure. For instance, Development Finance Institutions (DFI), such as the Bank of Industry could issue bonds on behalf of Federal Government of Nigeria (FGN) and directly lend to banks to finance projects. The FGN takes credit risk while banks bear the project risks, and bondholders do not take any credit or project risks. On the other hand, DFIs could issue bond with the FGN or the Central Bank of Nigeria (CBN) guarantee and lend directly to project executors. Here, the FGN or the CBN takes credit risk and DFIs bear project/performance risk. Another variant would be where a Consortium of Banks issue bond with CBN guarantee and lend directly to project executors, with the FGN or CBN bearing the credit risk, while the consortium of banks bear project/performance risks.

Indeed, the FGN, through the CBN has already taken a number of steps previously to provide access to funding at concessional rates and to galvanize private sector interest in the power and agriculture sectors. For instance, under the ₦500 billion Real Sector Intervention Fund, the CBN has invested ₦500 billion in debentures issued by the Bank of Industry (BOI), the proceeds of which are for on-lending through deposit money banks (DMBs) to qualified borrowers at concessional interest rate of not more than 7 per cent, and for tenors of 10-15 years. The target borrowers are those from the power, small-scale manufacturing and airline sectors that meet well-defined eligibility criteria, power projects of the State and Federal Governments are covered under this facility subject to their being as commercially viable on which banks are willing to take credit risk.

The major concern here is not so much of the ability of capital market in providing long-term capital for infrastructure development, but breadth and depth of such intervention. Apart from the limited absorptive capacity of the domestic capital market, and the rising FGN Yield Curve, there is the limitation placed on domestic borrowing by the Fiscal Responsibility Act 2007. Section 4.1(1) (a) provides only for concessional borrowing by all tiers of government, except in special cases where approval would need to be sought from the National Assembly. It is my submission that the current dismal state of the Nigeria's infrastructure provides a special case for the intervention of the National Assembly.

In addition, the limited absorptive capacity of the domestic capital market could be improved through harnessing the pension funds in Nigeria, which currently stands at over \$12 billion with an increase of 30 per cent annually. Due to their long maturities, stable earnings and diversification, pension funds are suitable and tailor-made for infrastructure development. The limitation here appear to be that investment can only be in structured and regulated instruments that are rated and possibly listed on a recognized exchange to mitigate risks. In addition, the securities should have clear maturity, and periodic/terminal payout. This is an area the National Assembly can assist through appropriate expedited legislation to make infrastructure a separate asset class with specific asset allocation. Such other reform programs as the tax waiver granted corporations and sub-nationals in March 2010 to facilitate more investments in the capital markets, and the policy reform in the insurance industry, would further inject more investments in the capital market.

## **V. Public Private Partnership (PPP)**

According to KPMG, PPPs involve *"The design, build, finance and operate, by the private sector, of assets and services that the government has traditionally procured and provided to the community and which have previously been funded by taxpayers. In return, the private sector generates revenue either from the levying of tariffs on users or the receipt of periodic service payments from the government over the life of the PPP agreement"*

It is, therefore, a co-operative venture for the provision of infrastructure or services, built on the expertise of each partner that best meets clearly defined public needs, through the most appropriate allocation of resources, risks, and rewards. The public sector maintains ownership, oversight and quality assessment

role, while the private sector is more closely involved in the actual delivery of the service or project. This has become the method of choice by governments throughout the world for scaling-up infrastructure and providing goods and services for their economies. In industrialised economies, there is a growing commoditisation and privatisation of public services, undertaken through the establishment of public private partnerships. This is for a very good reason. Besides filling the resource gap in project delivery and operation, PPP arrangements do engender acceleration of project delivery, promote faster implementation of projects, and reduced whole life costs of project. Besides, it offers better risk allocation between public and private sectors, offers better and sustainable incentive to perform, engender accountability in fund utilisation, and improve the overall quality of service. Evidence abound that it leads to the generation of additional revenue and overall value for money for the economy.

A typical private partner consists of a design company, construction contractor, facility management operator, maintenance company, debt provider and third-party equity investors, constituted into a SPV/E. The private partner is also known as Project Company, consortium, concessionaire or contractor.

## **VI. The Nigerian PPP Framework**

The Infrastructure Concession Regulatory Commission (ICRC) was inaugurated in November 2008 as a way of addressing the huge infrastructure deficit in Nigeria and the decrepit state of the existing infrastructure. The Act, which established the Infrastructure Concession Regulatory Commission (ICRC), also empowers Federal Ministries, Departments and Agencies (MDAs) to utilise Public Private Partnerships (PPP) as a procurement vehicle of choice, where suitable, to rapidly turn around the country's infrastructural inadequacy. The Act envisages the ICRC to serve as the primary driver agency to catalyse and facilitate engagement of the private sector by Ministries, Departments and Agencies (MDAs) of the Federal Government in initiating, developing and implementing PPP projects in a fit-for-purpose, transparent, competitive and sustainable manner that would ensure value for money for the Nigerian economy, while putting in place world-class infrastructure for use by Nigerians. The Commission also has the additional task of creating an enabling environment for the private sector to enter into partnerships with Government in the financing, operation and management of infrastructure and allied services.

Since inauguration, the Commission has developed the National Policy on PPP (N4P) and associated operational guidelines, which provide best practice guidelines and procedures for the effective development and competitive procurement of PPP projects. In carrying out its mandate, ICRC has worked closely with MDAs of states in the process of building and regulating a world-class and internationally competitive PPP market in Nigeria. Currently, there are 20 projects that this engagement will be bringing into the market by 2012. In accordance with its mandate, the Commission has taken custody of and reviewed some major concessions entered into by the Federal Government before its inauguration. It has developed a robust database of concessions already entered into by the FGN through the MDAs. In addition, ICRC has established a framework for addressing the complex issues arising from these "legacy concessions", and has intervened in a number of disputes between the MDAs and their private sector partners with a view to getting the parties to negotiate a mutually acceptable resolution.

Other areas that the Commission has recorded considerable successes include promoting the development of funding sources and instruments with long tenor for financing infrastructure projects in the country. ICRC is also working with the national planning authorities to integrate infrastructure provision into the national planning framework as sustainable infrastructure development must be anchored on a coherent and consistent economic planning framework. Furthermore, in close collaboration with the National Planning Commission (NPC), priority projects have been fully incorporated in the National Implementation Plan of Vision 20:2020.

Although the ICRC Act limits the Commission's jurisdiction to federal projects, the Board recognises that aligning the states' PPP framework with the federal framework will be an important pre-condition for the development of a coherent and robust national PPP market in Nigeria. It is likely to deepen the capacity of PPP practitioners in the country and enhance the attractiveness of the Nigerian projects in an increasingly competitive global PPP market. Thus, the ICRC, established collaborative relationship with the PPP agencies in Lagos, Cross River, Niger, Benue, Rivers, Kaduna and Bayelsa states and will continue to encourage such linkages with other states and assist them when required to establish or strengthen their PPP institutions.

The efforts have not been without some challenges. Getting the MDAs and the private sector partners to abide by the new PPP Policy Guidelines has been a great challenge. In collaboration with the office of the Head of the Civil Service of the Federation, the Commission is currently championing the establishment of PPP Units in key infrastructure MDAs. Conceptually, these PPP Units will become and remain the reservoir of institutional knowledge for PPPs in the MDAs.

## **VII. Experiences from Other Jurisdictions**

Driving infrastructure development, notably mobilising financial resources for infrastructure projects, has been challenging in many countries. Many countries have mobilised resources to finance in infrastructure in different ways.

### **BRAZIL**

The infrastructure base of Brazil was built through funding from the stock market and through PPPs. This was made possible by a relatively sophisticated financial sector, with a large banking sector including some banks with extensive foreign operations. Derivatives markets, particularly for foreign currency, are also well developed. The stock market, with total capitalisation around  $\frac{3}{4}$  of GDP<sup>3</sup>, has grown dramatically in recent years. Recognising private sector constraints on infrastructure investment, particularly given the run-up to Brazil's hosting of the World Cup in 2014 (and now of the Olympics two years later), the Brazilian government in 2007 created the Growth Acceleration Program (PAC for its initials in Portuguese). The program, aimed at increasing growth and reducing poverty, requires US\$251 billion in additional infrastructure and other investment over four years, to be financed by the government (US\$34 billion) as well as public enterprises and the private sector. Among other measures, it exempts from some federal taxation certain capital and primary goods related to infrastructure investment and construction, and will eventually create a tax-exempt National Investment Fund to finance infrastructure projects.

Long-term lending tends to come from the Banco Nacional de Desenvolvimento Econômico e Social (BNDES), a publicly-owned development bank. BNDES not only provides loans directly to companies investing in infrastructure, but also provides guarantees and securities underwriting, and itself buys bonds placed by some companies. BNDES secures financing from retained earnings and some

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<sup>3</sup> Financing Infrastructure in India: Macroeconomic Lessons and Emerging Market. Case Studies. James P. Walsh, Chanhon Park and Jiangyan Y. August 2011



foreign funding (including from bilateral and multilateral lenders), but also from various tax and workers' funds and, in recent years, debt issued under the auspices of the Brazilian government.

## CHILE

Chile experience with infrastructure development is perhaps, one of the best examples for private investment in infrastructure<sup>4</sup>. This is, perhaps due to its macroeconomic and political stability, it is extremely well-developed e-government services, clear information on policy changes, transparency and openness of statistics publications, and dialogue and decision-making process. In 2010, WEF<sup>5</sup> report on private infrastructure financing in Latin America gave it the top ranking above any other country in the region.

Chile ranked 49<sup>th</sup> in the world in the World Bank's 2010 Doing Business Report, and was rated above average for starting a foreign business in the *Investing Across Borders Report*. The financial sector, which has developed in tandem with Chile's privatised pension system, is relatively well developed, with a stock market capitalisation of around 144 percent of GDP, a reasonably well developed corporate bond market, and a liquid market in interest rate derivatives.

Following privatisation of the public sector in 1981, workers were given 'recognition bonds' proportional to their contributions to the public system, and opened accounts in the new investment firms, called AFPs, upon which a proportion of their salaries was deposited each month. Contributions to pension funds are made automatically. AFPs charge management fees in exchange for investing clients' funds and provide regular reports on performance. Upon retirement, regulations do not allow workers to take lump-sum payouts: a substantial portion of the account must be turned into an annuity, which is indexed to inflation. This annuity requirement, in turn, has led to substantial growth in Chile's insurance industry, which until the 2007 pension reform was effectively used in the administration of the country's retirement program. These funds formed the capital base for the country's infrastructure development.

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<sup>4</sup> A 2010 World Economic Forum report

<sup>5</sup> World Economic Forum

**SOUTH KOREA**

Infrastructure investment has been a crucial component of Korea's long standing export- driven growth strategy. During the 1960s, infrastructure investment accounted for about one third of gross fixed capital formation. In the past, Korea's financial system was poorly developed, so infrastructure finance was heavily dependent on public and foreign sources. Though infrastructure investment declined as a share of total investment since then, during the 2000s, infrastructure still accounted for 11 per cent of gross investment.

In the 1990s, as financial sophistication increased, the Korean government took measures to increase private participation in infrastructure, though this was initially limited in size and sectoral coverage. Some of the measures included partial VAT rebates when facilities were completed, capped public guarantees, early completion bonuses and permission for excess profit resulting from lower than expected construction costs, and compensation for certain losses such as those due to exchange rate movements. This program was successful and the ratio of private to public investment in infrastructure increased to 18.4 percent in 2008.

The government later allowed the creation of private equity infrastructure funds. These funds were intended to support further private investment in infrastructure and improve the pool of management and operation skills by encouraging more active project management. These funds allow investors to provide equity to green field infrastructure projects as well as through recycling equity currently tied up in near-complete or operating infrastructure projects. One of the largest currently in operation, the Macquarie Korean Infrastructure Fund (KIF), has around US\$ 1.7 billion under management, and is listed in Seoul and London. Institutional investors comprise 62 percent of shareholders, with domestic (12 percent) and foreign retail (26 percent) investors holding the remaining shares

**VIII. Lessons from Nigeria's PPP Experiences**

In the course of developing viable PPP projects that would attract credible investors and financiers with MDAs, we have learnt from the experiences of other emerging countries like India, South Africa and Malaysia that have adopted sound PPP frameworks to significantly scale-up their national infrastructure.

First, PPP projects that have been most successful the world over, have been characterised by thorough planning, detailed studies and analyses of lifecycle costs and revenues, good communication, strong commitment from all parties and are guided by open and transparent procedures. These procedures commence with proper project preparation and clarity in the specification of output requirements. The conduct of a thorough needs analysis of the service to be delivered and a careful consideration of all available options for delivering the service should be the first necessary steps. This must be determined by a thorough feasibility study that must also test the affordability and value-for-money of the project. It is necessary to identify all potential risks that may threaten the success of the project and determine, which party in the partnership would bear which risks. This would ensure that the rewards conferred on partners are commensurate with the risks they bear. It is also important to consider all relevant stakeholders, including communities, labour and the environment, whose interests may be affected by the project and ensure that all key stakeholders' interests are adequately addressed. Finally, in selecting private sector partners, it is imperative that an open and competitive procurement procedure is followed. The important lessons from these, are that successful PPP projects require a significant investment in time and resources to prepare an open and competitive procurement process will more likely ensure selection of the right partners.

Second, PPP projects that are selected from a coherent infrastructure investment programme, which is an integral part of a national development plan tend to add greater value to and enhance overall national development more than projects that are conceived by private proponents outside the national plan and proposed to the public sector as unsolicited projects. Thus, it is preferable that unsolicited projects be the exception rather than the rule and where such unsolicited projects are found acceptable, they must be subjected to a thorough review and analysis to ensure that they are consistent with the national plan. Further, they must also be subjected to same tests as internally-generated projects with regards to affordability, value-for-money, risk/reward balance and competitiveness.

Third, PPP contract agreements involve long-term commitments. They are also complex, often involving many parties and significant risks. They must, therefore, be approached with great care, due diligence and a deep sense of responsibility and accountability, especially on the part of public sector officials who must

recognize that they are acting under public trust. This is particularly pertinent, since officials involved in negotiating a particular contract are no longer in service when the agreements begin to fall into dispute. It is also important that senior public functionaries should endeavour to refrain from undue interference in contractual negotiations between public officials and their private sector partners. Such interference often makes it difficult to hold public officers accountable for any failed contracts.

Finally, PPP arrangements involving long-term relationships (10 to 30 years), must be approached by both partners with absolute seriousness. This is because despite every effort to plan and prepare these projects professionally and analyze potential risks, it will not always be possible to anticipate all risks or mitigate them effectively. It is, therefore, imperative that both parties approach the contract with a spirit of genuine partnership, a commitment to work for a win-win situation and to always seek an outcome that ensures that the interests of all parties are recognized and pursued in an equitable manner. This requires a level of openness and transparency in negotiations in which there is full disclosure and sharing of information and concerns. It also requires high level of professional competence and skills in all aspects of the transaction: technical, legal, financial, among others. Thus, this indicates the need for public sector agency to engage competent and experienced transaction advisers.

While the foregoing lessons have all been fully incorporated in the National PPP Policy and guidelines, the experience in the past years clearly indicate an urgent need for MDAs and private sector partners, to recognize and imbibe these lessons PPP is to be used to attract significant private sector investment in scaling up infrastructure in the country. First, it is absolutely vital that all PPP projects be developed and procured in line with the National Policy on PPP (N4P) and MDAs are encouraged to consult ICRC at the earliest stages for necessary guidance and support. It is also important that MDAs make adequate provisions in their annual budgets for the cost of project development which should be in the range of 3 – 5 per cent of the estimated project cost. Further, MDAs are advised to consult the Commission with regards to all unsolicited projects, which they consider of interest before engaging the proponents for further discussions or make any commitments.

## **IX. Conclusion**

Undoubtedly, Nigeria's infrastructure deficit has stymied its economic growth, restricted productivity and limited its competitiveness. It has impacted negatively on the cost of doing business, investment and capital inflow into the country. The domestic financial markets, which are largely rudimentary, exhibit paucity of long term finance, and compel reliance on government resources for funding infrastructure. This development leads to repeated cycle of underperformance and continued deterioration of existing infrastructure.

Indeed, the private sector has large pools of resources from which they can seek funding, which governments may not have access to, or the capacity to access, including both local and international financial markets. As a result, private sector involvement in infrastructure provision has been widely considered and implemented as a preferred method of financing infrastructure provision globally. Governments all over the world have come to recognize that the collaboration between public and private sectors is crucial to securing dependable and sustainable funding for infrastructure and reducing the pressure on fiscal budgets. Perhaps, it was in realization of this global trend that the Federal Government of Nigeria recently enacted the Infrastructure Concession Regulatory Commission Act 2005, to provide the framework for private sector participation in the provision of public infrastructure.

The infrastructure market in Nigeria is vast and wholly undeveloped and unexploited. The sectors that PPP initiatives are likely to play a significant role include roads and highways, light railways, ports, airports, dams, bridges and tunnels. Others are electricity, oil and gas pipelines, water and sanitation and telecommunications sub-sectors.

The financial sector including the capital market could contribute by exploring the emerging opportunity as either debt funders or equity funders for infrastructure development and operation. Opportunities also exist in the provision of PPP advisory services to the public sector agencies or the special purpose entities created by the private sector to deliver infrastructure. Attractive returns in the form of fee for PPP consultancy services, interest charges on debt, commissions and profits are available to those who identify this emerging opportunity and take advantage of it. In particular, banks, pension funds, corporations, insurance companies, the capital market, high net worth individuals

and others who could move in early will invariably dominate the market and determine the ground rules for others to follow.