INFRASTRUCTURE DEVELOPMENT IN NIGERIA

ROAD MAP TO SUSTAINABLE DEVELOPMENT

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ABSTRACT

This paper presents a macroeconomic outlook on the benefits of a strong infrastructure base to the Nigerian economy.

It provides an informed perspective on the economic impact infrastructure development has on nation building. Though infrastructure linkage to an economy may come in a multiple of ways, it is often known to be complex and sometimes convoluted, creating both positive and negative add-on effects, due to the large flow of expenditure. Attention is given to the impact infrastructure has on economic growth.

Special focus is attributed to the Construction industry given its strategic position in bridging the gap between - a state of underdevelopment (economic-anorexia) and economic prosperity. A look at strategic procurement options through the use of Public Private Partnerships (PPP) as a viable alternative to Traditional procurement is also discussed.

The paper also attempts to provide an overview of the current state of infrastructure in Nigeria in relation to Nigeria's vision 2020.

To this end, it is hoped that this paper will stimulate further discussions amongst public sector officials, the financial sector and the construction industry.

Key words: Private-Public Partnership; External Risk; Policy reforms.

Objective:

The overall objective is to highlight the importance of infrastructure development to economic growth and the need for government to take a more strategic approach to tackling its dearth in Nigeria. Infrastructure development should be a key priority in the country's journey towards development.

Introduction

Infrastructure and Economic Development

Infrastructure contributes to economic development by increasing productivity and providing amenities which enhance the quality of life. The services generated as a result of an adequate infrastructure base will translate to an increase in aggregate output.

Two categories of derived benefits to direct investment are:

- Investment in infrastructure services, such as transportation (roads), electricity and water are intermediate inputs to production.
- Infrastructure services tend to raise productivity of other factors. Infrastructure is often termed the "unpaid factor of production". Investment in infrastructure in a given

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location often attracts additional flow of resources.

Both effects contribute to economic growth by stimulating aggregate supply as well as demand.

However, these contributions on aggregate output, take time for the benefits to be realized. In a paper by Canning and Fay (1993), it was concluded that developing countries showed a high rate of return on transport infrastructure comparable to those of developed countries. Conclusive evidence linked increased output to increased investment in transport infrastructure, but little evidence with that link being immediate (ibid). From the foregoing, it was concluded that infrastructure was not to be considered a factor of production, but rather a condition for higher rates of economic growth.

From the above, the outputs of infrastructure to economic growth are wide and far reaching. Far reaching that there impacts should never be underestimated. Ability to foster infrastructure development is best tackled at a strategic level from where the necessary energy lies to drive its implementation.

Strategic planning combined with a strong political will needs the right procurement approach to achieve long term results. Public-Private Partnerships will not only meet such goals but have been found to accelerate them. PPP allows governments to free up fiscal funds for use in other pressing areas.

Infrastructure Procurement Strategies

The huge cost associated with infrastructure investment could be overwhelming. To address this, a procurement strategy different from the traditional approach, seems a more optimal route to go. Traditional procurement[2] methods remain the major vehicle for procuring infrastructure projects within Nigerian and Africa in general. However there are risks inherent with them often in the areas of schedule completion delays and cost overruns. More long term strategic impact includes:

- Poor maintenance cultures of governments preclude efficient and adequate maintenance and operation of infrastructure.
- Financial risk: Excessive advance payment (mobilization) to contractors places a huge risk on public funds in light of weak public institutional capacity responsible for providing contractual oversight.
- Short term gains. Traditional approach provides minimal post construction service after the defect liability period (Uff, 2005).
- Long term revenue generation risks due to undercollection. High amongst inefficient government run infrastructures like the power sector. The result is inadequate funding for operations and maintenance. (V. Foster and C. Briceno-Garmendia, 2010)

Primarily because of the above, there has been a global move towards models which are able to optimally share risks with the private sector. The generic procurement term for this is defined as Public-Private Partnerships (PPP) – involving public bodies (governments) and private companies (Howes & Tah, 2003). This

[2] Traditional project procurement (design-bid-build) features the dominant role of the owner (in this case Public sector). Much of the risk is held by the owner from the project conceptual stage, through project finance up to operation, maintenance and ownership.

method started in Australia in the late 1980s[3] and found its way to the UK in the 1990s. The UK government in 1992 announced its support for a new policy known as Private Finance Initiative (PFI) encouraging public-private joint ventures and promotion of opportunities for private sector financing (Uff, 2005). Broken down further, it came in various forms such as BOOT[4]; BOT[5] DBFO[6] est.

PPP procurement strategies could come through bilateral or multilateral funding assistance such as the World Bank, European Commission in collaboration with the private sector. Countries can benefit tremendously through such schemes. In return, the nation will enjoy access to strong infrastructure base, which has a multiplying effect on development and aggregate output. Such as:

- Increased agriculture output of farmers through improved roads
- creation of a sea ports
- Rail links.
- Electrical generation, transmission and distribution.
- Water and irrigation projects
- Increase quality of life of its citizens
- Urbanization of different areas.

PPP allows for the finance and operational burden to be transferred from the public to the private sector. In return government is able to focus on strategic areas like policy making, planning and demand risk. This is important as governments have better leverage on demand through attractive policies. Governments are known to be better managers of such risk and control it more effectively (KMPG, 2007).

Risk factors affecting Private investments

However, certain reforms have to be in place to attract private investment. External risks appear to be the main risk preventing organizations / financial institutions from investing in long concession contracts in Africa.

To attract private investors, the right business climate must be available. Governments need to identify and reduce external threats; otherwise they become the main bottleneck to flow of investment.

There are those that are widely known and are listed below:

- Political risk
- Economic risk
- Social risk
- Technology risk
- Legal risk

Political risk:

(a) Confiscation, Expropriation and Nationalisation - Creeping expropriation, series of acts that over time have an expropriatory effect. Government must be able to demonstrate, through a reformed legal system, limits to their influence and power. This will promote investor confidence and flow of capital.

(b) Breach of Contract - Breach or repudiation of a contractual agreement with the investor/lenders by host government.

(c) Regulation imposing requirements. Government's ability to impose new regulations that could have negative

[3] Source: http://en.wikipedia.org/wiki/Private_Finance_Initiative
[4] BOOT – Build Operate Own Transfer
[5] BOT – Build Operate Transfer
[6] DBFO – Design Build Finance and Operate (Procurement Strategy)

effect on business decisions of private investors.

Economic risk:

(a) Currency fluctuations: This could be a major factor especially in concession contracts spanning many years. Having a steady economy to mitigate such risk is essential. Use of currency devaluation adjustment factors is another. Other mitigating actions include the use of forward exchange rate agreements on future transactions (Howes & Tah, 2003).

Social risk:

(a) Real and perceived inequalities amongst various social strata within a country pose threats to stability. Stability of government through the address of social needs reduces the burden on private sectors to bridge that gap. Corporate Social Responsibility has its limits and should not be exploited.

Technology risk:

(a) Poor technology base: Poor power infrastructure and access to technical resource could have impact on project construction schedule and operating cost. This could pose high risk on a company's projected ROI[7].

Legal risk:

(a) The legal framework of the country must appear transparent and be known to be quick and fair in addressing legal issues.

(b) Arbitration and conflict resolutions methods must be of international standards and widely accepted.

These risk factors may appear low in frequency of occurrence but their impacts are usually high; sometimes to the demise of organizations and strategic objectives. As such, they are to be adequately addressed to encourage private participation in infrastructure development programs. Institutional reforms will help mitigate such risks. These risks are not insurmountable but require strong political will from governments to reduce their likelihood of occurrence.

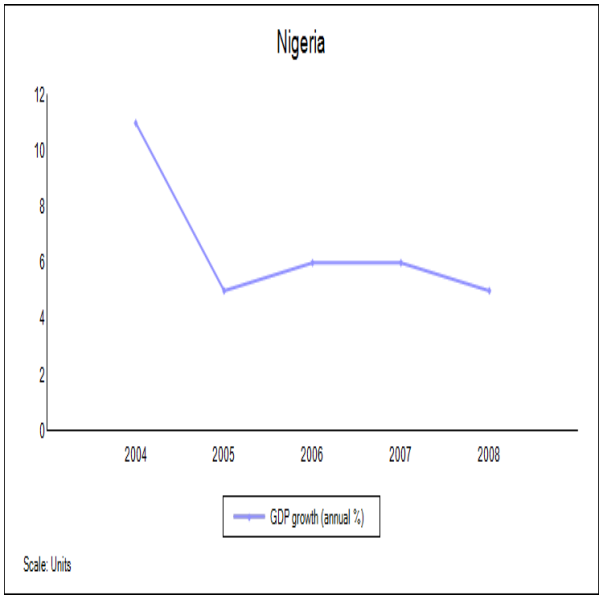
Nigeria's Current Infrastructure Base

According to Nigeria National Bureau of Statistics, Construction accounted for 1.7% of GDP in 2007 and only 1.95% of GDP[8] over the last decade. This contribution to GDP is meager in comparison with other developing countries (e.g. South East Asian countries). According a 2007 KPMG report citation, Asian Development Bank (ADB) came out with a study suggesting investment in infrastructure should contribute a minimum of 6%[9] to GDP in developing economies to sustain growth. This is well in excess of what Nigeria's infrastructure industry contributes currently. From 2004 - 2009, movement in Nigeria's economy has cycled between 5% and 11% (2004 – 2008), averaging out at 6.6% over the period (World Bank, 2009).

[7] ROI – Return on Investment

[8] Nigerian National Bureau of Statistics: http://www.nigerianstat.gov.ng/

[9] KPMG (2007a) - http://www.kpmg.com/Global/IssuesAndInsights/ArticlesAndPublications/Pages/Trends-globalreal-estate.aspx



Source: World Bank Group, 2009

Based on the ADB report, in order to sustain Nigeria's current annual growth of 6%, Nigeria has to do more in the area of infrastructure development. Failure will result in the country recording drastic decline in GDP in the years to come due to lack of infrastructure to support growth demands.

Gap Analysis: Nigeria vs Asian countries.

Comparing Nigeria with S/East Asia`s annual investment in infrastructure (as a percentage of GDP), puts the Country years behind in attaining any meaningful stride towards development.

Gap Analysis

Benchmarking against ADB's recommended annual contribution of 6%, Nigeria's infrastructure spending contributed a meager 1.9% / annum to GDP over the last decade. This is comparatively low to make any meaningful impact.

To bridge the gap using simple regression analysis, infrastructure spending (as a percentage of GDP) must increase to 18% to bridge the gap (with Asia) in 15 years and 24% in 10 years.

Discussions:

From the analysis, in order for Nigeria to attain or surpass average growth rates of Asian countries, contribution of infrastructure to GDP has to increase by a factor of 9 in "tangible"[10] spending (i.e. from↑ 1.9% to 18% / annum) over 15 years; and to achieve that over 10 years, it will require increased infrastructure spending by a factor of 12 (i.e. from 1.9%[11] to 24%) per annum[12].

From the foregoing Nigeria has an up-hill battle towards development and need to embark upon some major strategic reform programs which puts infrastructure development top on its list of sectors that need urgent attention. Failure to do so will be detrimental to development and pose significant risk to the country's vision 2020 program.

Lack of infrastructure development has huge negative impact on a country's economy and quality of life. It basically stunts growth in every sector through its knock-on effect. Agriculture; manufacturing and energy are just a few of the areas identified.

[10] Tangible: Infrastructure asset (roads; power stations etc) that meet specified and internationally accepted minimum conditions of satisfaction in line with business intent of the investment.

[11] 1.9% is approximately $4 billion /annum.

[12] Developing countries are expected to have the construction sector contribute a much larger input to GDP because it amounts to a significant amount of investment during a country's development. Some developing countries have be known to have the construction sector contribute as much as 20% to GDP (Myers, 2007)

Conclusion / Recommendation

Nigeria's growth rate has begun to experience a significant decline since the highs of 11% recorded in 2004. 2008 figures of 5% speak volumes. It could be argued that the global boom periods and recession had a part to play. Nonetheless, from the foregoing, it is clear that inadequate infrastructure is also a contributing factor. Lack of adequate power; roads and similar infrastructure will continue to hamper economic development in the country.

With the advent of PPP, governments can no longer hide under the disguise of inadequate funds being their major handicap. These procurement options that offer the benefits of two worlds are being used all over the world to meet global infrastructure demands. Global proliferation of PPP continues and will continue in the years to come. There is no reason why Nigeria should be any different. A number of countries are taking advantage of Public-Private Partnership opportunities to meet their ever growing infrastructure needs. Sectors which have benefited from PPP globally include: schools; hospitals; transportation and power. Coming home, Nigeria's MMA2[13] is a good example. Traditional procurement methods of the past have failed and with growing competition for limited state funds, the need to embrace more dynamic procurement options (PPP) has never been greater.

The PPP platform allows for risk transfer to the private sector in an optimal way. Rightfully so, considering the private sector have shown, over time, to be better managers of risks and resources. Government should focus more on areas where they have comparative advantage – such as policy making and planning. Funding, development and operations of assets should be left to sectors that are more innovative and efficient in managing them. This will bring about long term social-economic benefits while reducing overdependence on old and unproductive infrastructure.

Race to development

To attain significant accelerated development over the next 10 -15 years, Nigeria will have to expand its infrastructure development funding in tangible capacities by 24% of GDP over 10 years or 18% of GDP over 15 years to catch-up with most Asian[14] countries. This of course is based on the assumptions that Asian countries will maintain a modest growth rate of

[13] MMA2 is a PPP model in the form of a DBFO scheme introduced by the Nigerian Government in 2002 for development of local airport in Lagos, Nigeria. The first major 3P project in Nigeria (Babalakin, 2008)

[14] A good Asian comparison to Nigeria is Indonesia. Several analyses have drawn attention to the remarkable and instructive contrast between the economic performance of Nigeria and Indonesia over the past forty years. In 1965, both countries were very poor, raw material-based ex-colonial nations, with similar GDPs of $4-5 billion, and very large populations, both in the neighbourhood of 100 million. Both were in the early stages of becoming major oil exporters, and over the period since then had earned roughly similar amounts from oil shipments. However, while non-oil exports in 1965 were similar in both countries, at about $500 million, Indonesia's non-oil exports today are some $30 billion, while Nigeria's still have not even reached $1 billion. Meanwhile, Indonesia's total GDP has grown to $225 billion – five times the size of Nigeria's. Indonesia **generates seven times more electric power than Nigeria** (King, 2003). Nigeria's GDP per capita, the broadest measure of wealth, has marginally increased over the last fifty years to $2,300 (2008 est.), compared to that of Indonesia $3,900 (2008 est.). Indonesia's, which started at about the same level, has in contrast increased significantly over the period, despite their current population which stands at ~ 240 million. Nigeria's at 150 million is lagging in per capital income by a factor of 1.6. This divergence in performance is attributed to Indonesia's commitment at an early stage to private sector-oriented economic restructuring, better trade policy and more financially sustainable fiscal policy.

6%/annum with spending on infrastructure remaining in the average 6% range.

While Nigeria's economy continues to grow, strategic investment in infrastructure is an important element of that growth and must be encouraged by government. Government, on the other hand, need to concede that they lack the resource to acquire the infrastructure base required to support or sustain economic development. Though there are risks associated with increased spending over a short period on the overall macro economy (e.g. inflation), this can however be mitigated through tactful and well orchestrated spending without compromising macroeconomic fabric of the country.

However, to encourage private investors, an enabling business climate must subsist, while external risks are better managed.

Putting things in perspective and going by the outcome of the analysis, Nigeria runs the risk of failing to become amongst the top 20 economies by 2020. Going by the country's current strategic plans articulated development program, attaining economic development and being amongst the top twenty economies remains a herculean task. The cost of investing to the point of infrastructure spending contributing 24% to GDP[15] is enormous and will be a huge challenge. Going by Nigeria's current earnings from oil and non-oil sectors, it's unlikely that the resources are available to realistically aim at being counted amongst the top 20 economies by year 2020. Going by current rate of infrastructure development and its contribution to GDP, a more realistic target puts Nigeria's journey more along an attainable date of 2050 (i.e. in reaching current benchmarked targets).

While the country's journey towards vision 2020 is noble, the government needs to focus strongly on institutional policy changes and sector reforms. This is essential towards improving the investment climate capable of attracting private investors at the level that can meaningfully aim at meeting its strategic program over a more attainable time line.

[15] Nigeria's Nominal 2008 GDP was $183.1 billion (EDC, 2010)

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