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Bridging the Gap in the Funding Regime for Road Infrastructure in Nigeria

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1. INTRODUCTION

Transport costs are a significant part of the cost structure of the goods that a country produces or imports. If transport costs are unnecessarily high, then the country's products will not be competitive on international markets. Road transport costs include not only the cost of building and maintaining the road network, but also road user costs, which increases as roads deteriorate due to increased vehicle operating costs (e.g., maintenance and fuel consumption), the costs associated with increased time in transit, as well as the costs associated with road crashes, which amount to about 1% to 3% of a country's gross domestic product – GDP, as estimated by the Global Road Safety Facility (World Bank 2014).[1]

Research has revealed that timely maintenance is much less expensive than delayed maintenance.[2] If roads can receive maintenance at the appropriate time, then the overall cost of maintaining the roads is less than if roads deteriorate to the point that requires reconstruction rather than less expensive treatments such as surface dressings. For example, reconstruction costs in the order of five times as much per kilometer as an overlay, and 25 times as much as a bituminous surface dressing.[3] Consequently, it is imperative for the efficient operation of the road transport system that resources be available for timely road maintenance, as well as for the expansion of road networks with essential new or upgraded links that will

[1] World Bank (2014) "World Bank Global Road Safety Facility Overview." World Bank Group. http://go.worldbank.org/DPK74K6OV0 Accessed 28 October 2018.

[2] Louis de Villiers Roodt, "Maintenance engineering standards to fulfil the legal duty of road authorities towards safe roads" Dissertation presented for the Degree of Doctor of Philosophy Faculty of Engineering Stellenbosch University (2016) https://pdfs.semanticscholar.org/ce53/2edef7b983110ba117322c1325daadd0ac0d.pdf Accessed 31 October 2018.

[3] C Queiroz, A Uribe, D Blumenfeld, "Mechanisms for Financing Roads: A Review of International Practice" Inter-American Developmet Bank 2016. https://publications.iadb.org/publications/english/document/Mechanisms-for-Financing-Roads-A-Review-of-International-Practice.pdf Accessed 28 October 2018.

reduce traffic congestion, travel times and transport costs.

In order to have increased funding for transport infrastructure, some governments have increased public contribution to potential public-private partnership (PPP) road projects to make them attractive to private investors.[4] Such support may take the form of grants (or subsidies) to project construction, as well as operational grants or minimum revenue guarantees during the operational phase of the PPP project. Nevertheless, there are projects that will not be able to attract private financing and will have to be financed with only public funds. According to the World Economic Forum (2014),[5] governments need to develop a holistic and long - term strategy for operating and maintaining their physical assets that may represent a considerable financial burden for future taxpayers.

Accordingly, it is anticipated that many countries will be looking to modern Road User Charging (RUC) systems that would provide more funds for maintaining and expanding their road networks, both through purely public projects, or through some form of PPP arrangement.[6] In Western Europe, countries such as the UK, Spain, Italy and France have taken considerable advantage of private financing of road infrastructure, while countries such as Norway and Sweden still have a vast potential to explore.[7] In Central and Eastern Europe there has been mostly positive PPP experience in countries such as Hungary, Croatia, and Poland.[8] In Latin America, countries such as Argentina, Brazil, Chile, Colombia, Mexico and Peru have been able to attract substantial private investments to the road sector, as is also the case, for example, of China, India, and South Korea in Asia.[9] This brief explores funding mechanisms for road infrastructure in Nigeria in line with international practices.

2. Funding Regime for Road Infrastructure in Nigeria

Road infrastructure is a basic and critical factor that shapes the face of development in every economy. Road networks provide access to employment, social, health and education services, which are important to the socio economic development of any nation.

The Federal Roads Maintenance Agency Act, No. 7 2002 (FERMA) was enacted to among others ensure the efficient and effective

[4] World Bank Group (2016) Government Objectives: Benefits and Risks of PPPs. https://ppp.worldbank.org/public-private-partnership/overview/ppp-objectives Accessed 30 October 2019.

[5] World Economic Forum. 2014. Strategic Infrastructure: Steps to Operate and Maintain Infrastructure Efficiently and Effectively. Prepared in collaboration with The Boston Consulting Group. Abril 2014 (REF 180314). http://www3.weforum.org/docs/WEF_IU_StrategicInfrastructureSteps_Report_2014.pdf Accessed 28 October 2019.

[6] C Queiroz, A K Izaguirre "Road Concessions and Government Support: Transition and Developing Economies." In Transportation Research Board 88th Annual Meeting Compendium of Papers. Transportation Research Board of the National Academies, Washington D.C., USA. http://pubsindex.trb.org/view.aspx?id=880575 Accessed 28 October 2019.

[7] Queiroz, A Uribe, D Blumenfeld, art. cit, p.5.

[8] *Ibid.*

[9] *Ibid.*

maintenance of all existing Federal trunk roads or such other roads as may be declared, from time to time, as Federal trunk roads by the National Assembly.[10] In addition, FERMA has the power to enter into road concession contracts for the purpose of executing relevant projects and set guidelines for the working of concessions contracts, etc.[11] Accordingly, the funding regime provided under the Act includes - the take-off grant from the Federal Government; annual subvention from the Federal Government as provided in the Appropriation Act; loans and grants-in-aid from federal, bilateral and multilateral agencies; rents, fees and other internally generated revenues from services provided by the Agency; alimonies collected from the toll gates; such monies accruing from road concessions; all other sum accruing to the Agency from time to time; 5% user's charge on pump price of petrol, diesel and of which 40% will accrue to FERMA and 60% to be utilized by the established State Roads Maintenance Agencies; and international vehicles transit charge as may be determined by the Hon. Minister of Transportation.[12]

However, notwithstanding the annual budgetary allocations for road construction in Nigeria, a substantial portion of the roads are in abysmal conditions. Thus it seems that the funds appropriated by the federal government for this purpose are insufficient to cater to the enormous infrastructure gap prevalent in the country. This is not unanticipated as the Nigerian government relies mostly on revenues from taxation, oil, and debts to fund its projects. However, as a result of the decline in oil prices as well as the issues concerning Nigeria's increasing debt, the federal government has in recent times, increased its focus on revenue from taxation.

Consequently, the Nigerian government has, over time, considered it essential to opt for public private partnership (PPP) to accelerate road availability in the country.[13] Essentially, a PPP is a mode of public finance initiative whereby the government leverages private financing to provide public needs.[14] Undoubtedly, this initiative is supported by several policies and legislations; for instance, the Companies Income Tax Act (CITA)[15] offers additional tax benefits to companies that undertake certain infrastructure projects. The Federal Government introduced the Infrastructure Tax Relief (ITR) in April 2012 through the Companies Income Tax (Exemption of Profits) Order, 2012. More recently, the Federal Government introduced the Road Infrastructure Development and Refurbishment Investment Tax Credit Scheme (RITCS) via the Executive Order 007 in January 2019.

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[10] Section 7 of the Federal Roads Maintenance Agency Act, No. 7 2002.
[11] Section 8(a) and (b) The Federal Roads Maintenance Agency Act, No. 7 2002
[12] Section 14 Federal Roads Maintenance Agency (Amendment) Act No. 18 2007.
[13] C Ezomike, O Isiadinso, Nigeria: Tax And Road Infrastructure Development In Nigeria: The Nexus. Andersen Tax LP (2019) http://www.mondaq.com/Nigeria/x/788430/Government+Contracts+Procurement+PPP/Tax+And+Road+Infrastructure+Development+In+Nigeria+The+Nexus Accessed 28 October 2019.
[14] *Ibid.*
[15] Section 34 Companies Income Tax Act. CAP C21 Laws of the Federation of Nigeria 2004, providing for rural investment allowance; section 40 (11) providing for relief for certain expenses by companies.

RITCS provides an avenue for private companies to embark on the construction of eligible road infrastructure projects in exchange for the recovery of 100% and an uplift of such companies' project costs through a tax credit mechanism.[16] Specifically, the Executive Order 007 of 2019 provides that the scheme shall be a public-private partnership intervention that shall enable the Federal Government to leverage on private sector funding for the construction or refurbishment of eligible road infrastructure projects in Nigeria; focus on the development of eligible road infrastructure projects in an efficient and effective manner that create value for money through private sector discipline; and guarantee participants in the scheme timely and full recovery of funds provided for the construction or refurbishment of eligible road infrastructure projects in the manner prescribed in the executive order.[17] While the ITR was supposed to be in effect for a period of five years, thus allowing companies to claim additional 30% of the cost they incurred in providing public infrastructure as allowable deduction in computing companies income tax, the 2019 Scheme seems to be more robust, as it provides that the scheme shall be in force for a period of 10 years.

Even with this scheme in place, FERMA has reiterated recently that poor funding is one of the major challenges face by the Agency.[18] And in a Stakeholders Forum held by the Agency to seek other sources of Funding, the Agency sought for the National Assembly to ensure the implementation of the five percent (5%) user charge on pump price of petrol and international vehicle transit charge accruing to FERMA.[19]

Additionally, Minister of Works, Babatunde Fashola (SAN), has proposed floating a N10tn national infrastructure bond; to create and maintain a pool of funds to meet the funding gap and challenges associated with construction and completion of road infrastructure in Nigeria. The Minister posits that it would be a viable alternative funding option for the completion of ongoing road infrastructure; proposing that the bond should be secured by the Federal Government to attract the pension fund managers as well as the members of the public.[20]

In light of the aforementioned, it is imperative to explore alternative funding for road infrastructure in other jurisdictions.

3. Mechanisms for Financing Roads: A Review of International Practice

As established, Roads are a crucial component of the nation´s infrastructure. It is

[16] C Ezomike, O Isiadinso, *art cit.*

[17] Paragraph 1(2) Executive Order No. 007 of 2019. https://pwcnigeria.typepad.com/files/executive-order.-no.-007-of-2019.pdf Accessed 28 October 2019.

[18] FERMA News: FERMA MD briefs Senate Committee on Funding Challenges. https://ferma.gov.ng/news/ferma-md-briefs-senate-committee-on-funding-challenges/ Accessed 28 October 2019.

[19] FERMA News: FERMA Conveys Stakeholders Forum to Seek Other Sources of Funding. https://ferma.gov.ng/news/ferma-conveys-stakeholders-forum-to-seek-other-sources-of-funding/ Accessed 28 October 2019.

[20] The Punch Newspaper 25 October 2019, "FG plans N10tn infrastructure bond, eyes pension funds" https://punchng.com/fg-plans-n10tn-infrastructure-bond-eyes-pension-funds/ Accessed 28 October 2019.

unquestionable that their development and their operation and maintenance enhances the economy, improves productivity and generates employment. Society benefits from the nation´s roads, not only as direct users but also as consumers of shipped goods. The OECD average investment levels in land-based transport were estimated to be about 1% of Gross Domestic Product (GDP) for 2011.[21] Similar studies carried out by PIARC (Evaluation and Funding of Road Maintenance in PIARC Member Countries, 2005) would indicate an expenditure of about 0.4% of GDP on road maintenance alone. These are indicative of the levels of investment, which are required of governments in order to have adequate transport systems. The development and maintenance of an efficient road network requires a sufficient level of funding on an annual basis. This is a particular challenge in the current situation, when economic crisis and austerity in many countries have severely constrained the availability of public funding.[22] In addition, the development of all transport infrastructure, including roads, has become more challenging. There are more concerns now, and the issue of sustainability has become more critical in the public and political domains.

Therefore, some rationalization of the existing funding formulas in other jurisdictions is required; as well as the survey of new methods of funding.

A. Australia

Under Australia's federal system, state and local governments are tasked with the responsibility for road construction and maintenance. However, the federal government provides funding assistance under various programmes.[23] The federal government also collects a fuel excise tax, a Goods and Services Tax (GST) on fuel and vehicle sales, luxury car tax and a road user charge that applies to heavy vehicles based on fuel consumption; while state governments collect vehicle registration fees, vehicle stamp duties and tolls. Federal revenue from road transport-related activities is added to the general revenue pool and is not earmarked for road infrastructure expenditure.[24] Rather, expenditure under the various funding programmes is appropriated as part of the annual budget process. In addition to federal, state, and local revenue, private sector investment through Public Private Partnerships (PPP) is also a source of funding for some roads, and three states maintain networks of toll roads.[25]

B. Canada

Under Canada's Constitution Act, the provinces and territories have exclusive jurisdiction over the building and maintenance of national highways. Local and municipal roads are under the jurisdiction of municipal governments. The federal government administers a number of federal

[21] Conference of European Directors of Roads, "Funding formulas for roads: Inventory and Assessment 2017 https://www.cedr.eu/download/Publications/2017/TR2017-04-Funding-formulas-for-roads.pdf Accessed 28 October 2019.

[22] *Ibid at p.4*
[23] *Ibid at p.12.*
[24] *Ibid.*
[25] *Ibid.*

funds to assist with road infrastructure projects, many of which are structured through bilateral cost-sharing agreements with specific provinces, territories or municipal governments for specific projects. Most of the monies for these various funds come from consolidated revenue, which is then allocated through a budgetary process. However, part of the federal gas tax revenue is earmarked for municipal infrastructure projects under the Federal Gas Tax Fund.[26] Provincially, the general practice is not to tie fuel taxes to highway or road infrastructure projects. In most provinces, expenditure on highway infrastructure projects is allocated under a government budget from the general revenue rather than from a particular tax source. Public-private partnerships have also been utilized to fund major road infrastructure projects.[27]

In the Federal Level, there is no dedicated federal tax that only supports building and/or maintenance of national highways or roads. As noted above, although highways are the responsibility of the provinces and territories, the federal government has a long history of providing assistance for highway construction in Canada. Federal taxes, including the excise tax on gasoline and diesel fuel, go into the general coffers and help sustain a number of federal programs. Federally funded infrastructure programs that assist in funding highways and roads, are primarily structured through bilateral cost-sharing agreements with specific provinces and territories. The majority of these infrastructure funds are administered by Infrastructure Canada (IC)[28]. In 2017, IC announced a new $120bn plan over a ten year period, which covers all modes of transport. Further, in 2007, the federal government of Canada launched a Building Canada Plan, which aimed to provide $ 33 billion in stable, flexible and predictable funding to provinces, territories and municipalities, allowing them to plan for the longer-term and address their ongoing infrastructure needs. A new Building Canada Plan was launched in 2014, with a budget of approximately $14bn over a ten year period.[29] The main sources of federal funding are

i. Federal Gas Tax Fund - Two billion of the approximately five billion dollars in revenue the federal government receives annually from the Federal Gas Tax is allocated to the Federal Gas Tax Fund. The Fund supports municipal infrastructure projects, which can include building and maintaining local municipal roads. According to Infrastructure Canada, every municipality in Canada receives a portion of the Fund.[30]

ii. Building Canada Fund - this works by making investments in public infrastructure owned by provincial, territorial and municipal governments, and in certain cases,

[26] *Ibid at p.13.*
[27] *Ibid.*
[28] Infrastructure Canada, https://www.infrastructure.gc.ca/contact/index-eng.html Accessed 28 October 2019.
[29] Funding formulas for roads: Inventory and Assessment 2017, *art. cit*, p. 13.
[30] The federal Gas Tax Fund – National. https://www.infrastructure.gc.ca/plan/gtf-fte-b2019-nat-eng.html Accessed 31 October 2019.

private sector and non-profit organizations. Funding is allocated to each province and territory based on population. The Building Canada Fund is a cost-shared contribution program with a maximum federal contribution to any single project being 50 per cent. The Fund's aim is to build a stronger Canadian economy by investing in infrastructure projects that contribute to increased trade, efficient movement of goods and people, and economic growth.[31]

iii. Provincial-Territorial Base Fund – this is a Canadian$2.275 billion fund that provides predictable funding to provinces and territories to address core infrastructure priorities. It requires the recipient to sign a Provincial Territorial Base Fund Agreement with the Government of Canada. According to Infrastructure Canada, to receive funding, provinces and territories must submit a capital plan containing a list of initiatives for federal cost-sharing. The plan includes a brief description of each initiative, the eligible category of investment and the total eligible cost. The federal government will contribute up to 50 per cent of the plan's eligible costs for provinces and up to 75 per cent for territories.[32]

C. South Africa

The South African National Roads Agency SOC Limited (SANRAL), an independent statutory company whose sole shareholder and owner is the South African government, is in charge of all matters affecting the country's national road network.[33] These include the financing, management, control, planning, development, maintenance, and rehabilitation of national roads. Over 80% of South Africa's national roads are non-toll roads funded largely through government appropriations. The rest are toll roads, over 10% of which are under the direct management of SANRAL, and funded in large part through a mix of toll revenues and capital market borrowings. The latter are generated by auctioning government guaranteed and nonguaranteed bonds. SANRAL has also made limited use of funding for its toll-road projects from additional sources, including direct foreign investment and loans backed by export credit agencies. [34]The remaining toll roads are funded through thirty-year concessions to private investors, who build, manage, and maintain the toll roads for the term of their contract. The South African National Roads Agency and National Roads Act envisages various sources of funding for SANRAL, including capital investments or loans made by the state; revenue generated from fuel taxes in accordance with any applicable law; loans; interest from cash balances or

[31] Infrastructure Canada's Funding Programs. https://www.infrastructure.gc.ca/prog/programs-infc-summary-eng.html Accessed 28 October 2019.
[31] *Ibid at p. 75.*
[32] *Ibid.*

[33] National Funding of Road Infrastructure (2014) The Law Library of Congress, Global Legal Research Center https://www.loc.gov/law/help/infrastructure-funding/infrastructure-funding.pdf Accessed 28 October 2019.
[34] *Ibid at p. 75.*

investments; revenue generated from participation in joint ventures; revenue generated from the sale of assets; revenue generated from tolls; revenue generated from collecting fines; revenue generated from developing, leasing, or managing assets; revenue generated from any fees collected; parliamentary appropriations; and revenue generated from grants, donations, or inheritances.[35]

4. Conclusion

Inadequate infrastructure is a constraint on growth worldwide, particularly in developing countries but also in developed ones. In some countries, the level of infrastructure is often inadequate to meet demand, and the result is often congestion and lack of effectiveness. Infrastructure services are also frequently of low quality or reliability, while many areas are simply not served. This poor infrastructure supply and performance is both a problem and an opportunity for governments: first, most countries simply are not spending enough to provide the infrastructure needed to support the economy; secondly, poor planning and coordination, weak analysis underpinning project selection, competing political objectives, and other considerations, sometimes mean that limited resources are often spent on the wrong projects; finally, infrastructure assets are often poorly maintained, thereby increasing life cycle costs and reducing benefits.

Thus the positive impact of infrastructure on economic growth cannot be emphasized. Road Infrastructure affects productivity and output directly as part of GDP formation and as an input to the production function of other sectors.

As established, the main challenge facing road infrastructure in Nigeria is inadequate funding; accordingly, the African Economic Outlook 2018[36], provides for potential new funding sources for African Infrastructure, to include –

i. **Pension funds** - Pension funds are potentially an extremely valuable unexploited source for infrastructure funding. Pension savings enjoy high liquidity, but the funds are risk-averse. Even though returns can be high, these funds amount to only a small share of Africa infrastructure investment.

ii. **Foreign direct investment (FDI)** – FDIs are one of the least unstable forms of investment, it accounts for 70% of private capital flows to Africa. Although most flows are into mineral resources (including oil and gas), there are some potential for infrastructure at this stage, such as PPP arrangements in the power

[35] Section 34 of the South African National Roads Agency Limited and National Roads Act No. 7 of 1998.

[36] African Development Bank: African Economic Outlook 2018. https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Economic_Outlook_2018_-_EN.pdf Accessed 28 October 2019.

sector as well as road infrastructures.

iii. **International bond markets** - The entry of Africa into the Eurobond market has increased from the original highly successful Ghana bond issue in 2007. This is driven by low international interest rates, and in the region by low public debt and rapid domestic growth. The Eurobond market offers a niche for infrastructure funding.

iv. **Infrastructure-related funds** - The Africa50 Infrastructure Fund has 25 shareholders with African investment connections, including AfDB subscriptions of $830 million to the initial share capital. Established to facilitate infrastructure development in Africa, the fund acts as a bridge between public and private sectors, with private companies taking the lead in project structuring. It invests as a strategic minority investor, leveraging funds from other investors. The first investment will be for a solar-photovoltaic independent power producer in Nigeria.[37] Given the importance of road infrastructures, the infrastructure-related funds represents an incredibly useful source to generate funds.

v. **Infrastructure projects as an asset class to attract institutional investors -** Infrastructure debt has not yet been widely considered a major asset by investors in Africa. But some countries on the continent are using a plethora of financing mechanisms to support investments in infrastructure, and the successful new approaches should be maximized. They include creating an "infrastructure asset" class to attract institutional investors and the enhanced use of guarantees by government or DFIs that can lower perceived private sector risk and crowd in funding.[38]

Further, in addition to ensuring financing, it is imperative to create the right conditions to - ensure a sustainable system; adopt a pragmatic approach in strategically prioritizing infrastructure; Focus on maintenance and the productivity of infrastructure - this is especially important as some of the losses in infrastructure are due to lack of maintenance, as maintenance can prevent those losses and avoid larger spending for major repairs, rehabilitation, or new construction; establish self-sustaining funding mechanisms; Strengthen the governance and institutional framework and ensure that monies allocated for projects are provided; and attract more private funding to infrastructure project.

[37] *Ibid, p. 102-103*

[38] *Ibid, p. 106*