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A publication from the Financial Times

NIGERIA
Racing ahead with ambitious infrastructure plans

ENERGY
Powering up for future growth

TRANSPORT
Tackling road, rail and air bottlenecks

ICT
Getting wired up
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**Our infrastructure blueprint will spur significant change**

The Nigerian economy has recorded strong growth in the last decade due partly to sustained reforms and integration into the global economy. As is widely acknowledged, the country is on the right path to sustained growth. This strong growth is making our economy more prosperous and globally competitive as we work assiduously to translate it into improved living conditions for the citizenry.

However, our weak infrastructure base has stunted growth and reduced opportunities for job and wealth creation. With our rapidly growing population and urbanisation, the demand for infrastructural facilities is outpacing supply. This state of affairs is making our economy more prosperous and globally competitive as we work assiduously to translate it into improved living conditions for the citizenry. We are therefore privileged to present the National Integrated Infrastructure Master Plan (NIIMP) to the Nigerian public and, indeed, the world. I believe that its implementation over the next 30 years will transform our economy and drastically change the fortunes of our citizens. I have no doubt that the NIIMP, the country is on a predictable and irreversible path to collective prosperity.

Foreword

**Goodluck Jonathan**

Abubakar Sulaiman

“The importance of adequate and modern infrastructure to national development cannot be overemphasised”

The National Integrated Infrastructure Master Plan (NIIMP) is Nigeria’s blueprint for boosting and modernising the nation’s stock of infrastructure over the next 30 years. The National Planning Commission (NPC), in 2012, initiated the crafting of a long-term Infrastructure Development Plan, that will engender sustainable economic growth and development, in furtherance of President Goodluck Jonathan’s Transformation Agenda. The importance of adequate and modern infrastructure to national development cannot be overemphasised. The development of the NIIMP was anchored on the need to synchronise and harmonise the various Sectoral Infrastructure Development Plans into a single, comprehensive and coherent document that fully exploits the synergies and linkages and provides a clear investment framework for boosting investments in Nigeria’s infrastructure sector.

The NIIMP, therefore, is set to liberate the economy from the shackles of debilitating infrastructure bottleneck, and place it on a solid growth path. It provides the framework that will guide interventions, investments, as well as budgetary allocations to the sector in the next 30 years.

The NIIMP has taken stock of the existing infrastructure, and future stock requirements, including total resource requirements, across key sectors of the economy and has identified critical enablers for the promotion of private sector investment. It, invariably, presents a strong platform for public and private sector constructive engagement and donor support for boosting infrastructural development and empowering Nigerians.

The NIIMP provides the strategies, targets and priority projects, as well as total investment outlay for the first five years and scheduled timelines for deliverables. It also highlights financing options for funding infrastructural investments in Nigeria.

There is no doubt that the estimated resource requirement for NIIMP’s implementation is enormous. We are not unmindful of the challenges that lay ahead.

Looking forward, we are optimistic that, with the various bankable projects identified under the NIIMP and the increasing international and domestic investor confidence in the Nigerian economy, as evident from the inflow of foreign direct investment in the past decade, the NIIMP objectives are realisable.

I must acknowledge that a lot of work went into crafting of this document. The wide consultative process and participatory approach adopted in the articulation of the NIIMP will ensure that Nigerians own and participate actively in the implementation.

I thank all those who contributed to the successful formulation of the policy document, particularly the various technical working groups, representatives of the organised private sector – the business support group and government officials for their commitment and hard work. I also acknowledge the effort of the editorial committee, who painstakingly worked to ensure the final document is of implementable quality.

Finally, I must say that successful implementation of the NIIMP would, among others, require efficient allocation and utilisation of available resources, systematic and focused implementation of programmes and the provision of the enabling environment for private sector participation.

The NPC is committed to coordinating implementation of the NIIMP and the provision of necessary support to stakeholders.

Dr Abubakar O Sulaiman is Honourable Minister/ Deputy Chairman of the National Planning Commission

Dr Goodluck Jonathan is President of the Federal Republic of Nigeria

I have no doubt that with the NIIMP, the country is on a predictable and irreversible path to collective prosperity

Goodluck Jonathan
Building from the base up

Nigeria’s poor infrastructure has historically held back its economic development, but as This Is Africa reports, the arrival of private sector investment is changing all that.

Stand on a beach in Lagos and look offshore. On the horizon, you will see the shadows of dozens of ships, each waiting patiently to dock in the city’s sea port. Lagos is Nigeria’s commercial capital, and the port at Apapa is a trading hub for West Africa. Boats wait for days for their turn to dock. When they finally do, they unload their cargo onto trucks, which must queue for hours – drivers sweating, horns honking – before they clear Apapa’s desperately congested roads. It’s a painstaking, expensive business. Few places could give a better picture of the challenges posed by Nigeria’s vast infrastructure deficit.

Nigeria is a country of vast economic opportunity. It famously became the biggest economy in Africa in 2014, after an economic rebase almost doubled the size of its gross domestic product (GDP). At about $510bn, its economy is now bigger than South Africa’s (and among the top 30 in the world). Nigeria’s core stock of infrastructure is estimated at only 20.25 percent of GDP. “The level for middle income countries of this size should be around 70 per cent,” says Ousmane Dore, country director of the African Development Bank (AfDB) in Nigeria.

As in other African countries, poor construction, bad maintenance and underinvestment are among the reasons for that. But in Nigeria, the huge population exerts extra pressure. “The population has grown... but the energy stocks have not increased since the 80s,” argues Rimile Oyin-loye, CEO of The Infrastructure Bank.

Today, the nation generates about 4,000 MW, and has installed capacity of about 5,900 according to the last figures from the United States Energy Information Administration in 2011. Compare that with South Africa, the continent’s other major economy, which has an installed capacity of 44,000 MW, according to the Department of Energy, serving a population of 53 million.

The pains of poor infrastructure

The effects of that deficit on the macro economy and on the living conditions of Nigerians are stark. The country grew at 5.4 percent in 2013, but AfDB estimates that its expansion rates would be about 2 percent greater with adequate infrastructure in place.

“Our economy has been growing on average 6 percent annually for the last five years, yet more than 50 percent of the population has no access to electricity.”

Chinedu Nebo

Weak infrastructure exerts a huge burden on foreign and local businesses. Difficulties accessing markets via crumbling roads or clogged up ports, and vast expenditures on generators required to avoid blackouts, are regularly cited as being among the biggest challenges to investors in the country.

“The shortage of infrastructure means that a great deal of businesses are having to self-generate electricity at vast cost, which puts them at a competitive disadvantage,” explains Phillip Ibenacho, CEO of Seven Energy, which is investing heavily in the Nigerian power sector.

It also lowers the quality of life for millions of Nigerians. The majority of citizens, who cannot afford diesel generators, have no access to electricity. Because of poor roads and heavy traffic, Lagosians spend hours commuting distances that should take only minutes. Poor infrastructure causes the most dignity.

A plan to plug the gap

This is a situation that Nigeria’s current government, led by President Good
lack Jonathan, recognises. Fixing it will be a monumental task, but one that the leadership says is ready to confront.

A new blueprint for infrastructure development devised by the National Planning Commission (NPC), the National Integrated Infrastructure Master Plan (NIIMP) estimates that $3tn will be required in the next 30 years to build and maintain adequate infrastructure supplies.

It lays out investment requirements for key infrastructural sectors including energy; transport; agriculture, water and mining; housing; telecommunications; information and communication technology; social infrastructure and security. Of those, energy and transport take the lion’s share of funding. They require $1tn (a third of the total) and $750bn respectively over the next three decades.

The government and development partners agree that public money can never plug that deficit alone, particularly now that falling oil revenues are putting pressure on public revenue. The answer, it is agreed, is in private investment. “The private financing of infrastructure is not nice to have, it is a ‘must have’. Without that, Nigeria’s infrastructure investment is going to be constrained and the country will grow more slowly than it is capable of growing,” says Mark Tomlinson, director of the UK Department for International Development-funded Nigeria Infrastructure Advisory Facility (NIAF).

The government has proved there is appetite for investment in Nigerian infrastructure by unlocking through a multi-billion dollar privatisation programme for energy generation and distribution assets. Completed in 2013, this is the largest power reform ever seen in sub-Saharan Africa. It aimed to improve the notoriously opaque management of the state’s power monopoly the Power Holding Company of Nigeria (PHCN), whose acronym entered common parlance and came to be justly referred to by many Nigerians as “Please Hold Candle Now”, and to make blackouts a thing of the past.

“It is a feat that looked impossible in the past... It wasn’t easy to pull off,” Mr Nebo says. He argues that it was made possible because, for the first time, there was political will for change. “It was achieved... through sheer determination, focus, and a comprehensive, integrated long-term plan across the entire value chain.”

The precedent is an important one, according to Mr Tomlinson. “It changes power development in Nigeria and gets it onto a much more encouraging trajectory.”

Investors are now being encouraged to enter through the value chain, from gas-to-power to the still publicly transmission sector. “If you are looking for a home [for foreign direct investment (FDI)] – then I would say power is... where you have the biggest opportunity,” says the country’s minister of industry, trade and investment, Okechukwu Agana. “In power alone, we have commitment of more than $60bn over the next five to eight years.”

Beyond the bright lights
That process has had a significant impact on thinking in other sectors, generating a greater focus on leveraging private investment for infrastructure development.

It has also taught different arms of government to work together more effectively, according to Mr Nebo: “[It] turned out to be a practical demonstration of what is achievable when different segments of government collaborate,” he explains.

Drawing on that experience, the NIIMP outlines private investment opportunities ranging from aviation and rail facilities, to agricultural processing and irrigation, to broadband fibre optics networks. Second to power, a focus on transportation infrastructure is absolutely crucial, all stakeholders agree. “Nigeria relies a lot on road infrastructure for economic development,” says the minister of works, Mike Onyeoma. “The development of rail lines is very important because of the huge population of our country. We need to leverage for mass transit...[to] reduce the pressure on the road.”

A pipeline commitment of $590bn is already secured for sectors excluding power, according to Mr Agana. “With an average return on investment of over 36 percent, that compares to over 6.5 percent globally,” he states. “So the opportunities in Nigeria are huge.”

Power to the PPP
Recognising the relative strengths of government and business, public private partnerships (PPPs) are being tabled as one model to deliver those critical investments. “Authorities in Nigeria increasingly believe in relying on PPPs to close the infrastructure gap,” says Jaime Ruiz-Cabero, a partner with the Boston Consulting Group (BCG).

Raising Nigeria’s investment profile by completing a few such projects, structured to international standards, will help pull the country on the map for international investors, says NSIA’s Mr Tomlinson. He cites the Second Niger Bridge, a $700mn project that is being financed by the Nigerian Sovereign Investment Authority (NSIA) and construction company Julius Berger, as an example.

“This has been turned around in 18 months from a project not able to be funded with private money, to something that is moving forward with a lot of international interest,” he says. “It will be a PPP done to international standards.”

Other such transport projects are also being prioritised. “[Road infrastructure] is a priority for the government. If we realise it would be too huge for the government to develop the sector alone,” says the minister of transport, Idris Umar. “We therefore need to partner with the private sector under [a] public private partnership arrangement to develop the sector.”

The Lekki Expressway, a toll road in Lagos that bypasses the city’s famous traffic, is one such example. Talks are now under way for investment in the Lagos-Badagros Expressway, a transport route of arterial importance. Another example is the Lagos metrorail line, designed to cut Lagos’s road congestion by 50% by 2030, with the Lagos State Government recently bought back the concession rights to Lekki Expressway from the Lekki-Epe Concession Company after it discussed hiking tariffs by 20 percent.

But in such difficulties lie further opportunities for investors. “Nigeria is well endowed when it comes to natural gas, which is the logical way to generate the bulk of its power needs, but there is a shortage of infrastructure for gas,” says Seven Energy’s Mr Ihenacho, pointing to opportunities in gas supply via pipelines and road. His company recently invested $100mn in gas-to-power infrastructure, in partnership with the NSIA.

For companies like his to prosper, the pricing of gas must be addressed by government. To date, it has not been competitive enough to incentivise investors to supply the domestic market. The government has gone some way towards tackling that by increasing the price of gas-to-power from $1.50/mcf to $2.50, but private investors say that will have to rise still further to make their business viable.

Deterring transmission networks can lose up to 38 percent of generated electricity and are preventing Nigeria from being lit up, even if more electricity is generated. They will also open up to private investment. Nigerian officials say. Not everything in the PPP arena is transpiring as planned; there can be issues that need straightening out and which can be subject to controversies. For instance, Lagos State Government recently bought back the concession rights to Lekki Expressway from the Lekki-Epe Concession Company after it discussed hiking tariffs by 20 percent.

But a growing number of states now...
Overview

A plan beyond politics

As Nigeria faces its experiences in the power sector, and gains a reputation for world-class public private partnerships, its government is hoping that more local and international capital will be forthcoming. Improving the energy supply “will guarantee industrialisation, with the natural consequence of generating more jobs and higher GDP,” says Mr Nebo. “This is expected to translate into higher standards of living and better social security for the populace.”

Better transport infrastructure will “facilitate manufacturing growth, and catalyse a retail boom,” says Mr Oyinloye. “Imagine the growth of the consumer market, as witnessed by the growth of the malls that we now have, if we had adequate infrastructure to move goods,” he says. “It would explode.”

There are miles left to run, but the $400M provides the country with an encouraging trajectory, not least because it commits the nation to ambitions bigger than those of any single government.

“Imagine that now the government has a plan and wants the private sector to invest along with them, there is no sector you look at where there are not opportunities,” Mr Oyinloye says. “There is a lot of interest in Nigeria, and in the next five years, if the current effort is anything to go by, we will have significantly reduced the deficit in the infrastructure space.”

Show me the money

One of the major milestones to investment in Nigerian infrastructure has been an absence of funding. Banks have not traditionally been keen to lend to the sector.

Much of the problem lies not in the appetites to lend, but in the absence of bankable projects. “Nigerian banks are only waiting for bankable projects to put the money in,” Mr Oyinloye argues. In an effort to address that, The Infrastructure Bank has a mandate to provide advisory services to turn ideas into such bankable projects.

Where opportunities exist, lenders are increasingly confident, according to Seven Energy’s Mr Bonacho. “The history isn’t good, but there is a lot more willingness to lend to infrastructure than there used to be,” he says.

Other sources of domestic finance are becoming available. Growing pension assets are being targeted for infrastructure investment. The $1bn sovereign wealth fund – the NSIA – is already investing heavily in infrastructure. “These are resources that can be mobilised for infrastructure development,” says ADB’s Mr Dore. “Then there are infrastructure bonds and diaspora bonds. There are all mechanisms to plug the funding gap.”

Olusegun Aganga and Idris Umar

Nigeria’s minister of industry, trade and investment and the minister of transport

“When I talk about rail, it goes beyond that – warehousing, logistics, the whole ecosystem – so the opportunities in Nigeria are huge”

Interview by Courtney Friger

What do you think are the best opportunities for foreign investors to invest in Nigerian infrastructure? And what are your priorities in this area?

Mr Aganga: When you talk about infrastructure, you talk about the soft and hard infrastructure. Soft equals skills, education, health. Hard equals talking about the returns on investment. Therefore, which Nigeria is ranked number four in the world.

With an average return on investment of over 36 percent that compares to over 6.6 percent globally, so the opportunities in Nigeria are huge.

If you want me to focus on infrastructure – by the way, we have a pipeline commitment of at least $59bn in different sectors of the economy, excluding the commitments in the power sector – then power is one of the very important sectors.

So I would say that for foreign direct investors – if you are looking for a home, then power is one of the very important sectors for economic growth. It’s also where you have the biggest opportunity. And when I say power, I’m talking across the spectrum, power generation, power transmission, power distribution as well as the production of the turbines of the transmitters so (there are opportunities across the spectrum).

Then, of course, there’s a lot of investment opportunity in the roads sector, particularly where you have toll booths where the return on investment is quite high. We have a lot of investors indicate interest in this sector.

There’s also investment opportunity for rail. In fact, because we don’t have enough in this country. And, of course, rail is another area.

When I talk about rail, it goes beyond that – warehousing, logistics, the whole ecosystem so the opportunities in Nigeria are huge. We have them in all the sectors.

Mr Umar: From the transportation sector, we have a number of investment opportunities – in railway, inland waterways; we have opportunities in port development and port operations and of course road infrastructure.

So, developing the transport infrastructure is a big priority for the government?

Mr Umar: It’s a very big priority for the government. The federal government has put in a number of investments in that direction, but we realise it would be too huge and enormous on the government to develop the sector alone, we therefore need to partner with the private sector under a public-private partnership arrangement to develop and secure the sector.

Very soon, we will advertise for the expression of interest by the private investors for development of the railway system. There are a number of other opportunities for investment in the rail ways. We intend to partner with the private sector [for this].

We intend to modernise our existing stations and introduce commercial outlets in these stations. Again, we want to engage with the private sector. Transaction advisers have already worked on the framework and we hope to advertise the opportunities very soon. By Q1 of next year, the advertisement will be out; then subsequent evaluations will take place.

In the area of inland waterways, the Federal Government of Nigeria has invested heavily and there are opportunities for investors because we are building river ports. We have already concluded the construction of one; as soon as we finish the others, we are going to conces sion out to the private sector for operations. There are opportunities for them to develop greenfield [sites along the river] and other inland waterways across the country.

We are equally committed to the development of other ports – particularly deep-sea ports. We provide opportunities for the private sector to take advantage of, and to partner with us. We offer some of the highest returns on investment in the world – that’s a very big incentive.

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Olusegun Aganga

Federal minimalist, trade and investment

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Nigeria’s infrastructure investment opportunity

ECONOMIC OVERVIEW

170m
Nigeria is now Africa’s largest economy, having passed South Africa

5%
The country’s economy grew by more than 5% in 2013, and has been one of the continent’s fastest growing in the past decade

As Africa’s most populous nation, Nigeria’s demographics are a strong lure for investors

Nigeria is amongst Goldman Sachs’ “Next 11” group of countries, identified as having a high potential of becoming some of the world’s largest economies in the 21st century

Nigeria aims to be one of the world’s top 20 economies by 2020

THE INFRASTRUCTURE OPPORTUNITY

It is estimated that a total investment of $3tn will be required over the next 30 years to build and maintain infrastructure for Nigeria

The total investment of about $3tn over 2014-43 would comprise investments in

$1tn
Energy 33%

$715bn
Transport 23%

$350bn
Housing and regional development 11%

$270bn
Agriculture, water and mining 13%

$50bn
Vital registration and security 2%

$150bn
Social infrastructure 5%

$325bn
ICT 11%

$1tn
Social infrastructure 5%

$3tn
Nigeria’s infrastructure investment opportunity

$150bn
Energy 33%

Source: National Integrated Infrastructure Master Plan
Power

Keeping the lights on

Unreliable energy suppliers make life difficult for many Nigerian businesses but the rolling back of red tape to allow private sector investment is proving a game-changer.

By Edward Russell-Walling

Power infrastructure is fundamental to any economy, but in Nigeria its poor state has been acting as a brake for years. Now the government is revamping the sector by opening it up to private interests, creating investment opportunities not just in power generation and distribution, but also across the broader energy sector.

As power is transformed from a state-owned to a privately owned industry, the hope is it will become more efficient, transparent and profitable. Long starved of investment, it has struggled to keep the lights on, forcing many businesses and homeowners to invest in their own dirty and expensive diesel-powered generation.

"The lack of reliable electricity supply in Nigeria is one of the country’s biggest weaknesses," declared the McKinsey Global Institute in its recent report, Nigeria’s Renewal: Delivering Inclusive Growth in Africa's Largest Economy. The nation has no shortage of energy sources, including fossil fuels, water for hydroelectricity and, of course, sunshine for solar power. Yet its installed generation capacity is a modest 7,000MW (7GW) and power losses are limited to an even more modest 3,500MW to 4,000MW. It has recently hit losses of 2,300MW.

Some 70 percent of the installed capacity is gas-fired, with most of the rest coming from hydro. This dependence on gas brings other problems in its wake, and makes power’s future partly dependent on developments in the oil and gas sector.

Stifling business

In a survey by the World Bank, 83 percent of Nigerian companies complained that electricity was a major or very severe problem for their business. The main reasons for power shortages include a historical lack of infrastructure maintenance and poor management of load flows. But the most glaring cause is the limited availability of gas. Among other remedies, the gas pipeline network needs to be extended considerably. Inadequate maintenance extends to the transmission grid, where it is responsible for transmission losses of up to 30 percent.

While having a direct effect on economic growth, these power sector shortcomings also deter foreign direct investment, and major investment in generation, power plants and substations is required. Realising that private sector involvement is at least part of the solution, the government has made a bold start by privatising much of the industry.

The heavily over-staffed Power Holding Company of Nigeria has been broken up and majority stakes in five out of six generation and 10 out of 11 distribution companies have been sold off separately. All else being equal, winners were those offering the highest loss reduction proposals, and most were well-connected Nigerian interests, some with foreign technical partners such as Siemens and Manila Electric. The sale of a number of new state-sponsored power stations, so-called National Integrated Power Projects or NIPPs, some still under construction, is ongoing.

The Transmission Company of Nigeria (TCN) is currently being managed by Canada’s Manitoba Hydro. Part of its job is to see that TCN’s two main departments, the System Operator and the Market Operator, become autonomous. Once the TCN itself is in better financial health, it too will be privatised.

Sustainable energy

Renewable energy (excluding hydro) does not yet loom large in the government’s planning. However, the African Development Bank (AfDB) believes it has a role to play, particularly in extending electricity to rural areas. In an infrastructure action plan compiled at the request of the Nigerian government, the bank advocates the immediate development of 10MW of wind energy capacity in rural and remote areas, with another 10MW of solar power. It also recommends a longer-term goal of generating 1,000MW of electricity supply from biomass.

Right now, the sector remains suspend- ed between the old regime and the new. The plan was to switch quickly to a Transitional Electricity Market (TEM), with electricity trading and no centrally administered balancing mechanism, before moving into a more fully liberalised phase. But the new owners have found that losses from transmission and theft were higher, and gas supplies lower, than they had anticipated, and payments through the system are not flowing as they should.

Government has paid off the accu- mulated monies owed to gas suppliers by means of a long-term debt structure, but consumer electricity tariffs need to urgent- ly be increased before the TEM begins. For obvious political reasons, this is unlikely to happen before February’s general elections.

The outlook remains positive, nonethe- less. "People say that the system is broken, but it has been broken for many years and this is the first real attempt to fix it," says Victor Williams, head of corporate and investment banking at Stanbic IBTC Bank, the Nigerian subsidiary of South Africa’s Stan- dard Bank and an adviser or lender on vari- ous infrastructure deals. "It’s an attempt to move the challenges and opportunities into private sector hands, and has proceeded with relative transparency."

Integrated policy

Once the new regime kicks in, the invest- ment opportunities will be many and vari- ous. The recently published National Inte- grated Infrastructure Master Plan (NIIMP) has an ambitious target to grow generat- ing capacity from today’s 7GW to 350GW by 2043. Interim goals are a more realistic, but still very demanding, 20GW by 2018 and 40GW by 2020.

To help reach these targets, some 70 licences for Independent Power Producers (IPPs) have been issued for private sector interests to build, own and operate generation plants. Some of these are designed to be off-grid solutions, delivering power directly to customers. The outdated trans- mission network, including power lines and substations, is in need of renewal and extension if it is to act as a bottleneck for increased generation. The plan is to add 6.577km of 330kV transmission lines and 1,344km of 132kV lines.

Distribution capacity also needs to be increased, with government insisting that priority is given to supplying industri- al users and reducing distribution losses. A wave of capex and maintenance in- vestment is likely to start once the new regime kicks in. "As soon as the regulator announces that TEM has started, it will see investment in the power sector acceler- ate," predicts David Humphrey, Standard Bank’s global head of power. "This will be a major achievement, paving the way for a virtuous circle of higher revenues, debt servicing and higher profits."

While the government favours, and is getting, as much indigenous participation as possible, foreign investors in the sector already include Zambian Copperbelt Ener- gy and Sahara India Parivar. GE is building a local plant at Calabar for manufacturing for the oil and gas production sector (see p27).

Among the hands-on professional inves- tors operating on power projects in Af- rica Infrastructure Investment Managers (AIIM) and Blackstone, via its Black Rhino vehicle (see p26 and p27).

Olusola Lawson, AIIM’s regional di- rector for west Africa, believes that the current problems will be solved, not over- night, perhaps, but in time. "There is cur- rently a great deal of enthusiasm for the developers, but the generation companies may not be sufficient to fill the gaps."

"And the generators won’t spend the considerable amounts required unless they can be sure that the off-takers will pay," he notes.

Gas prices

The regulated price of gas has been raised try to encourage more supply. But it does not yet incentivise gas producers to invest in the transport infrastructure needed to bring the gas to market, says Mr Lawson. "Pricing needs to move to a..."
Domestic oil refinery

Crude oil production is slated to grow from 2.5 mbpd to 4 mbpd over the next 10 years, while the capacity and utilisation of the country’s petroleum resources is increased. “Some 70 percent of the government’s revenues come from oil exports, and this was the first time when the oil sector had grown by more than the oil sector,” says Yaw Afriyie, a client manager at Africa Matters, a consultative company that advised government, “however, there had been a lot of talk about building refineries.”

The long-delayed Petroleum Corporation’s dilapidated old refineries must be fixed, at the same time as new ones are built. New private-sector facilities are being mooted in Bayels and Kogi states, and recently signed an agreement with En- dowed Technology and Producers’ lack of faith in a viable gas market. Nigeria is also obliged to export considerable quantities to its neighbours, Ghana, Togo and Benin, via the West African Gas Pipeline (a commitment that some feel is too low).

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So, in the short- to-medium term, while Transmission is, no doubt, a critical part of investments required to bring about the desired improvements to transmission infrastructure, we must also address the need to diversify and widen the energy mix. That definitely is the way to go. Dependency on a single technology source has not served us well. Nigeria has an exploitable quantity of natural resources for hydro, coal, solar, wind, and biomass. Nigeria sits on a wide expanse of land and being in the tropics, the high intensity of the sun is a great energy asset. We have begun to put it to good use for solar power. The potential of solar energy available to us has been quantified at about 20 percent, and that's still with major gaps in our infrastructure," he says, alluding to deficiencies in Nigeria's power and transport grids. Indeed, Nigeria surpassed dominant business beacon South Africa in April 2014, after a government statistical revision nearly doubled its GDP. The rebased, International Monetary Fund-endorsed figures placed Nigeria's output at $510bn, over South Africa's $353bn, containing previously unaccounted for commercial activity – proving greater diversification to the oil rich economy of Africa’s most populous nation. This supported the Nigerian government's ambitious goal to become one of the world's 20 largest economies by 2020. Increased maintenance and capacity expansions are needed.

Construction and maintenance of Nigeria's estimated 200km road system is shared between the federal, state, and local governments – the Federal Ministry of Works responsible at the federal level. According to the 2014 NIMF, federal roads make up 18 percent (circa 35,000km), state roads 15 percent (circa 17,000km) and local government roads 67 percent (circa 35,000km) of Nigeria's total road network. Only around 65,000km of the country's road system is paved and approximately 30 percent of federal roads are characterised as "poor condition.

The government of Nigeria continues to strengthen commitments and resources to upgrade its road and rail network. The estimated price tag for Nigeria's grand plans for its road and rail network of $775bn will require funding well beyond what the state can provide, opening the way for a swathe of public private partnerships.

Bridging the transport gap

During the 2014 US-Africa Leaders Summit, Nigeria’s Aliko Dangote – Africa’s richest man – made a compelling reference to the challenges and potential of his country’s economy. “We’ve become Africa’s largest economy, projected to grow at 7 percent, and that’s still with major gaps in our infrastructure,” he says, alluding to deficiencies in Nigeria’s power and transport grids.

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According to the Nigerian Federal Ministry of Works, total losses to the country’s...
Nigeria has made strong commitments toward road and rail infrastructure improvements. In its Vision 20:2020 (released 2009) and 2014 NIIMP to upgrade road and rail, so you can imagine the upside for rail.”

On the rail side, a first sign of progress was the 2012 reopening of the long non-operational 1,126km Lagos-Kano Western train line. After more than a decade, Nigerians can travel to one of 17 stops for fares of about $1 to $36, depending on the distance. Beyond this modest achievement, it is estimated the country's transport system will require $37.5bn of inflows in overall infrastructure upgrades, and to meet and maintain its strategic infrastructure goals over the next 30 years, according to the NIIMP and recent government statements. In the shorter term, $55bn is required for transport upgrades, compared with other core infrastructure sectors.

A number of road-related projects have recently been completed, are under way, or are slated. In Lagos, Nigeria's dominant commercial hub, the Lekki-Ikoyi bridge was recently completed, is the futuristic, 298bn naira suspension bridge (Nigeria’s first) connects the affluent neighborhood of Ikoyi to Lagos mainland. Funded by the Lagos State Government, re-modelled to be paid by tolls, it was constructed by Julius Berger – Nigeria’s largest engineering company with origins in Germany. According to the Ministry of Works, approximately 180 road upgrade projects are ongoing across Nigeria, with 62 under way. Building has started on six bridges for Lagos’ Eko Atlantic project, a 10 square kilometre planned district, and Nigeria’s Badagry Expressway, section of the Trans-West African Coastal Highway connecting Lagos to Dakar Senegal, has been under upgrade from four lanes to 10 since 2009.

The Ministry of Works has also flagged and approved four PPP projects:

- The Second Niger Bridge
- The Muritala Mohamed International Airport Expressway
- The Lagos-Badagry Road, and
- The Ogun-Jabba Road

Apropos Nigeria’s rail upgrades, the Lagos-Kano modernisation that re-opened the country’s north-south train line is 85 percent physically complete, according to the National Railway Corporation. Construction on the Badagry Expressway also includes work on the new Lagos Mass Transit system. The Lagos Metropolitan Area Transport Authority has proposed seven lines in the network: Red, Blue, Green, Yellow, Purple, Brown and Orange. Work on the Red and Blue lines began in 2009, awarded to China Civil Engineering Construction Company (CCECC) for a reported $1.5bn. In November 2014, CCECC was also awarded $12bn to build the 1,402km Lagos-Calabar railway, linking Nigeria’s two coastal cities.

Per Nigeria’s 2014 NIIMP efforts are under way to restore rail activity in the following areas:

- Kaduna Intra-city mass transit
- Intercity passenger service (Lagos-Kano; Ogbia-Kano; Lagos-Ilorin; Minna-Kaduna; Kano-Niger) and
- Freight service – Lafarge cement traffic (Lagos to Badain, Ogunbo, Borni and Minna); flour mills traffic (Lagos-Kano); sand traffic (Otorhunpe-Makurdi); container movement (Lagos-Kano); and wheat movement (Lagos-Kano)

Investor opportunities

While commitments in Nigeria’s Vision 20:2020 and 2014 NIIMP to upgrade road and rail are ambitious, the structure and financing for doing so is not disjointed. “The intentions of the government are definitely there, but there are also a number of inconsistencies in how these forward projects will be finance and implemented,” says Stanbic Bank’s Mr Omisore. “The ability to fund infrastructure on the government’s balance sheet has been, and will continue to be a significant challenge. The decline in oil prices that accounts for the majority of government revenues has only increase the challenge,” according to Mr Omisore.

“Beyond that, the government has been able to tap the Chinese for certain projects and is engaging a number of private sector players on the PPP level. The reality, however, is the regulatory framework to implement these PPP structures has not been fully developed.”

Mr Omisore noted there is also the option to borrow money from the capital markets – Nigeria recently issued $1.5bn in sovereign government bonds – but given the numbers required for overall infrastructure needs as well as other key areas, it will not be enough to fill the gap.

Diverse funding

For now, the Nigerian NIIMP proposes funding its $3 trillion, 30-year infrastructure estimate through 52 percent public and 48 percent private funding. On the public side, the government of Nigeria plans to use a combination of public debt and other government-controlled sources such as its sovereign wealth fund, or pension funds. It proposes engaging PPPs for the necessary private sector funding and participation.

Feasibility studies are under way for at least 17 new railway developments aimed at linking major industrial, agricultural, mining, commercial and economic sites across the nation. The government of Nigeria also signed a memorandum of understanding with GE to develop and localise up to 200 locomotives in Nigeria, according to GE’s Mr Abybo.

Road infrastructure projects in the pipeline include and listed by the Ministry of Works, open for PPP investment include, but are not limited to, the following:

- The Lagos-Kaisa Road (414km)
- The Benue River Construction Bridge (1km).
- The Kainha-Sokoto Road (631km)

The Federal Ministry of Works has targeted a number of road projects for brownfield or greenfield participation, encouraging investors to visit www.works.gov.gn for continuing information.
Visitors to Nigeria are often observed to comment on the sorry state of the country’s airports. The government, though, has ambitious plans to remodel, renovate and upgrade its aviation sector and transform it into an efficient, profitable, self-sustaining business to remodel, renovate and upgrade its aviation sector and transform it into an efficient, profitable, self-sustaining business.

The National Integrated Infrastructure Plan (NIIMP) sets out the government’s blueprint for the aviation sector. This includes modernising and upgrading infrastructure and equipment such as terminal buildings, control towers, conveyor belts, instrument landing systems, communication equipment and runway lighting, as well as skills development and training. It is also working to improve airport and airline security with the aim of aligning to international standards by 2023.

The proposals have been welcomed by business. “The aviation sector in Nigeria offers substantial growth opportunities for private sector companies investing in the largest economy in sub-Saharan Africa,” says Mr Buday. “The public sector recognises that for the country to continue with its robust growth, a continued liberal aviation approach is mandatory to meet the future needs of both cargo and passenger traffic. A growing population with increasing disposable income means the demand for air capacity will shortly outstrip the current supply, which is already stretched.”

The sector has the potential to inject even more dynamism into Nigeria’s rapidly growing economy. As the International Air Transport Association report, Economic Benefits from Air Transport in Nigeria (produced in conjunction with Oxford Economics), points out, the country’s integration into the global air transport network will transform the economy’s possibilities by opening up foreign markets to its exports; lowering transport costs; and encouraging local businesses to invest and specialise in areas that play to the country’s strengths.

It is estimated that a 30 percent improvement in connectivity relative to GDP would see a N20bn per annum increase in its long-term GDP. Improved connectivity gives Nigeria-based businesses greater access to foreign markets. It also makes it easier for firms to invest outside their home country. Furthermore, it allows firms to exploit the speed and reliability of air transport to ship components between plants in different locations.

In addition to building passenger connectivity, important work is being done to improve cargo facilities. This is essential for the growing large-scale commercial farming sector if it is to compete in the global market for perishable agricultural produce including fresh fruit, vegetables, plants and flowers.

The development of air freight is also important to investors such as Mr Hodara. He says: “Developments in air freight have all been significant, especially in high-risk areas. The present cargo facilities could be better used for passenger traffic, especially in high-risk areas. The present cargo facilities could be better used for passenger traffic. The present cargo facilities could be better used for passenger traffic. The present cargo facilities could be better used for passenger traffic. The present cargo facilities could be better used for passenger traffic. The present cargo facilities could be better used for passenger traffic."
Engaged with wealth creation

Mobile phone access has grown exponentially in Nigeria, but the government wants this digital drive expanded into industrial growth that can sustain a knowledge-based economy

By Edward Russell-Walling

The information and communications technology (ICT) sector is a primary magnet for foreign direct investment (FDI) in most countries, and Nigeria has been no exception. But there remains considerable scope for expanding and improving telecommunications infrastructure, increasing mobile penetration and rolling out internet and broadband services. For a roadmap for the government’s ambitions in ICT has been drawn up in the recently published National Integrated Infrastructure Master Plan (NIIMP). One driver is the desire to build the capacity to support a knowledge-based economy. Another is to increase ICT’s contribution to GDP from 6.5 percent to 15 percent in 2043 (increasing locally from 4.5 percent over the same period).

The government wants to digitise all its own activities and services by 2023, compared with the present level of about 25 percent. It wishes to use ICT as a wealth creation platform, creating jobs and entrepreneurial opportunities. And it hopes to establish Nigeria as a regional hub for call centres and other ICT-based services. For that to happen, the telecommunications infrastructure needs to be considerably bigger and much more reliable. The telecommunications sector now accounts for one quarter of all Nigeria’s FDI. Indeed, since the industry was liberalised in 2011, it has been dominated by foreign mobile players. While there is no competition in the fixed line sector, about 30 fixed wireless operators entered the market after 2011. Having said that, the national landline operator, Nitel, has seen its business eroded and various attempts to privatise it have failed. The government recently put it and its mobile subsidiary, Merit, back on the market.

Merit has a negligible share of the mobile market, which is dominated by four GSM operators, three of them foreign. The local market leader is MTN, which is owned by South Africa’s MTN, and is that company’s largest subsidiary anywhere. The next two are Airtel and mix. Nigeria has more internet users than subscribers. According to one Airtel official.

Infrastructure

Mobile operators in Nigeria have finally started to focus on the attractions of sharing and outsourcing transmission towers, reducing operating expenses and freeing up capital to concentrate on operations. While this was happening elsewhere in sub-Saharan Africa, Nigerian operators were reluctant to part with such a core part of their businesses. In July 2014, however, Etisalat sold its Nigerian towers infrastructure to BHS Towers, and the floodgates opened.

BHS is now the largest owner and manager of towers in Africa, including in Côte d’Ivoire and Cameroon. It is listed on the Nigerian Stock Exchange but owned mainly by private investment groups. Since it raised another $2mn in equity in November 2014, its shareholders have included Francisco’s Wendel, Goldman Sachs, Emerging Capital Partners, Korea Investment Corporation and African Infrastructure Investment Managers.

BHS then announced a joint venture with MTN, to take over operational control of its Nigerian towers. American Tower Corp has since entered the fray, acquiring Airtel’s towers.

With a third, private equity-backed operator in the market, Helios Towers Africa, this sector is likely to become highly competitive.

Rural gaps in service

The African Development Bank notes that the percentage of the Nigerian population living within range of a GSM signal has been expanding, from 60 percent in 2006 to nearly 70 percent in 2009, though it has no later figures. While nearly all urban areas are fully covered, about half the rural population is within reach of a signal. So there is still a certain amount of scope to expand mobile voice penetration. The NIMP declares that the priority is to ensure provision of universal access and delivery of quality services. “Of prime importance are basic services, which includes voice/data services and last mile connectivity for broadband internet access,” it says.

Internet growth

With internet penetration, the picture is more mixed. Nigeria has more internet users than any other African country, about 32 percent of the continent’s total, according to the NIMP, but it comes only fifth in terms of market penetration, with only 30 percent of the population using the internet, and most of those for basic e-commerce services, according to the GSMA country overview report. While there is a minimum speed of 1.5mbps so, since many service providers are not consistently offering up to 256bps, most areas are significantly underserved.

Only 49 percent of registered businesses in Nigeria have a website, according to McKinsey, which estimates that the internet contributes less than 1 percent of the country’s GDP, a quarter of the contribution in Senegal.

More attention is now being paid to mobile data. The GSMA says that smartphone penetration is still nascent in Nigeria, at around 10 percent to 15 percent of subscribers, which is not far off 3G penetration of 15 percent. However, it says, this masks a “more interesting” use of data at the lower end of the market, where the mobile internet is currently mostly occupied by feature phones. Its breakdown of devices used for internet visits shows 42 percent by feature phone, 30 percent by desktop and 28 percent by smartphone.

4G networks have been launched in Lagos, Abuja and Bauchi, but are not yet widely available. The lack of fibre optic infrastructure in metropolitan areas presents a significant opportunity to expand data and broadband services, according to one Airtel official.

Broadband shortfall

At present, the infrastructure stock needs considerable expansion if the country is to reach its goal of providing broadband access to 80 percent of the population by 2018. In the short term, Nigeria plans to quadruple the number of base stations and add 10,000km of fibre. In the latter stages of the NIMP, the incremental number of base stations will decline in favour of fibre.

This type of broadband investment will account for a large chunk of the plans’ projected ICT infrastructure costs — $325bn over the next 30 years. It stipulates the need to access $12.8bn annually over the next 10 years, though this will rise over time. A substantial part of this is expected to be provided by the private sector.

That is why communications minister Omobola Johnson recently attended the December opening of the Nigeria parliament at ITU Telecom World 2014 in Doha. She was mainly there to pitch the national broadband initiative to an audience of foreign investors. She told them that Nigeria was an exciting, dynamic and high-growth market, with the highest population in Africa, which made it more attractive to invest in.

She disclosed that, while more than 50 percent of FDI capital invested in Nigeria from 2007 to 2013 went into capital-intensive resource sectors, nearly 50 percent of FDI projects were service-oriented. “Telecommunications has experienced particularly strong growth, attracting about 24 percent of FDI projects,” she told the gathering.

Ms Johnson added that guidance and support for any inward investment was available from the Nigerian Communications Commission and its Universal Service Provision Fund, the National Information Technology Development Agency, the National Broadcasting Commission and, of course, her own ministry.

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Building the infrastructure that is right for Nigeria’s future is not going to come cheap. It will require a total investment of $37bn over the next three years, and the public and private sector will have to share the load.

That number comes from the National Integrated Master Plan (NIMP). Some think it may be on the high side, if not in terms of what is needed then at least in terms of what can be raised. For the first five years, the annual investments required look more manageable. According to the plan, they will need to rise from $9bn-$10bn (or 2 percent of GDP) in 2014/18.

Where will the money come from? Returning to the NIMP projections, it estimates that the private sector accounts for around 46 percent of Nigeria’s infrastructure investment, and that this will rise slightly to 48 percent by 2028 as more state assets are transferred to private ownership. This spending goes on assets that are already privately owned, such as telecoms base-stations and privately owned schools and hospitals.

The remainder – $86bn for the first five years – will need to be financed from a mix of public and private sources. Federal and state government budgets could raise up to $11bn from public current accounts over the next five years, depending on whether or not oil revenues hold up.

If the government sustained its current debt-to-GDP ratio of about 20 percent over the 2014/18 period, it could raise an extra $75bn in public debt. In 2013 it successfully raised $1bn in the Eurobond markets, specifically for investment in power and gas projects. Infrastructure bonds, as used by India, Kenya and the US, for example, could provide a viable solution, while diversifying funding sources. However, these too would be subject to limitations on how much the government could borrow.

Other public sources include the sovereign wealth fund, the Nigeria Sovereign Investment Authority, one of whose three ringfenced funds is the Nigeria Infrastructure Fund. The plan takes the view that $8bn could be available from the fund. Public-private partnerships could account for another $11bn to $25bn, as long as projects were suited to this structure.

Another $5bn might be available from public pension funds which, presumably, might be persuaded to divert some of their assets in this direction. The pensioners regulator recently increased the permissible limit for pension investments in infrastructure bonds from 15 percent to 20 percent of the fund. The pensions industry, with some $20bn in assets, has shown no sign of getting anywhere near those limits, remaining heavily invested in government bonds and real estate.

In the private sector, some of the larger industrial interests are wealthy enough to have been able to fund infrastructure projects and acquisitions internally. Apart from that, the overwhelming source of funding has been debt. The downside is that it has been short-term, expensive bank debt. Nigerian banks have been very active in the recent privatization of the power industry, lending between $1.5bn and $2bn, according to some sources, with banks such as First Bank of Nigeria and UBA leading the way.

What is needed is deeper, more liquid capital markets, to provide longer-term but less expensive finance. International investors, who would bring liquidity, have been less drawn to traded Nigerian debt than to its equity markets. More international issuance by the sovereign would help establish a yield curve, off the back of which more local corporates would be able to raise funds.

There is also a role for the Nigerian Stock Exchange. "Most of the largest companies in Nigeria are not listed," notes Eugene Anineh, CEO of Lagos stockbrokers Nova Securities. Now, the government has announced that it wants to list $10bn worth of assets on the opening of the Nigerian Exchange (NGX) at the end of this year.

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Seeding tomorrow’s growth

Black Rhino brings together the resources of the biggest alternative asset manager and the insights of Africa’s richest man to invest in greenfield African energy projects with the sort of timelines unavailable to smaller backers.

BY EDWARD RUSSELL-WALLING

Private equity

Foreign investors in Africa either need to know their way around or they need a partner who does. As the world’s biggest alternative asset manager, Blackstone has found the perfect ally – Nigerian industrialist Alliko Dangote (picture below), Africa’s richest man. Together, they plan to invest $5bn in sub-Saharan energy infrastructure projects.

New York-based Blackstone has a longer investment horizon than most of its private equity peers and unusually, for the past decade, has been investing in certain projects at the greenfield development stage. To that end, it runs specialist “development platform” teams who seek out embryonic projects and help to develop and finance them through to construction and operation. This model also allows Blackstone’s investors to pick and choose which projects they want to invest in. The $300m-plus-a-year infrastructure fund, which reduces the time taken to find investors with the risk appetite for a specific project, because lack of infrastructure is holding back GDP growth in Africa, speed is a must, Blackstone believes.

These development platforms have become more regionally and sectorally specialised, and the platform for African energy projects is 100% owned subsidiary Black Rhino. As Blackstone and Dangote each commit $2.5bn over the next five years, Black Rhino will handle the investment process.

Black Rhino, set up in 2012, is led by CEO Brian Herlihy, who founded Seacomin, the successful African undersea fibre cable project. Mr Herlihy points out that greenfield investment is very resource-intensive, requiring good relationships with host governments and a full-time on-the-ground presence.

Black Rhino is concentrating on a small number of African countries, those in which GDP growth or, more specifically, energy development expertise, is its priority. Mr Herlihy says. “Our projects are not opportunistic – they are more about helping our partners complete their pipelines. There are always more deals coming up for inspection. Dangote, for example, is continually asked to consider a substantial number of projects, at presidential as well as at other levels.”

The deals of most interest are those in power generation, and fuel and gas transportation and storage, both major constraints on future GDP growth in Africa. “All fuel is tracked from ports to country locations – it’s unsustainable,” Mr Herlihy adds.

Among projects in development with RBH are fuel pipelines from Djibouti to Addis Ababa (projected cost $1.5bn) and from Mozambique to Zambia ($1.8bn). Other opportunities are now being considered in Nigeria. One is an offshore gas aggregation pipeline, still in the design stage, and another would carry refined product from Dangote’s planned Lekki refinery (projected cost $750m in the next eight to 10 years).

The creditworthiness of off-takers is more challenging in Africa, but the risks should be rewarded by above-average returns. These are supported by long-term contracts in place.
Chinese Premier Li Keqiang Goodluck Jonathan and Nigerian President Umaru Musa Yar’Adua, undid the oil-for-infrastructure deals and cancelled by fiat most of the arrangements, though, was soon undone.

This eventually culminated in what were dubbed the oil-for-infrastructure deals and marked the beginning of what was hoped would be a new era of economic cooperation. The arrangement, though, was soon undone.

The next Nigerian government, headed by Olusegun Obasanjo, visited China twice to explore economic bilateral opportunities. This eventually culminated in what were dubbed the oil-for-infrastructure deals and cancelled by fiat most of the agreements reached by his predecessor.

His successor, Goodluck Jonathan, restored confidence to the Nigeria-China bilateral relationship. His foreign relations strategy can be summarised as one of consistency, commitment, and cooperation in an effort to sustain Nigeria’s economic growth.

Full relations resumed around 2010 when the Chinese invested about $40bn in Nigeria, mainly in infrastructure or related activities.

One of the boldest initiatives by the Chinese was the Lekki Free Trade Zone. Located in Lagos, Nigeria’s former capital, the Chinese began with $267m as take-off grant for the development of the first phase. The project is now on the cusp of reaching its second phase.

The entire neighbourhood of the Lekki Free Trade Zone – the largest of its type embarked upon by China outside its borders, has become aware with complementary economic activities, largely sponsored by local businesses.

The Guangdong Free Trade Zone is a similar facility, located in the south western part of Nigeria and driven largely by Chinese entrepreneurs working in partnership with the locals.

Data taken from the Financial Times’ Analyse Africa database (www.analyseafrica.com)

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Nigeria ranked 20th in Africa in 2016.

Indicator name: The most problematic factors for doing business: Inadequate supply of infrastructure.

Source: Global Competitiveness Report

Unit type: Percentage

Nigeria | 22.3 | 21.2 | 21.2 | 19.9 | 17.6 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5 | 17.5

An inadequate supply of infrastructure was cited as the most problematic factor for doing business in Nigeria. This percentage response was the highest in Africa.

Indicator name: General infrastructure (2011 onwards methodology)

Source: The Global Innovation Index

Unit type: Rating 0 to 100

Nigeria | 16.1 | 16.1 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8 | 15.8

Nigeria ranked 20th in Africa in 2013.

Mutual trust reaps big rewards

From tentative steps toward building trading ties, a modern upturn in economic relations between Nigeria and China began in 1984, when the Nigerian government, under its then president, General Olusegun Obasanjo, visited China twice to explore economic bilateral opportunities. The arrangement, though, was soon undone.

The China Railway Construction Corporation is a major investor, while the China Africa Fund Investment Limited is a Nigerian business promoter.

His successor, Goodluck Jonathan, restored confidence to the Nigeria-China bilateral relationship. His foreign relations strategy can be summarised as one of consistency, commitment, and cooperation in an effort to sustain Nigeria’s economic growth.

Full relations resumed around 2010 when the Chinese invested about $40bn in Nigeria, mainly in infrastructure or related activities.

One of the boldest initiatives by the Chinese was the Lekki Free Trade Zone. Located in Lagos, Nigeria’s former capital, the Chinese began with $267m as take-off grant for the development of the first phase. The project is now on the cusp of reaching its second phase. The entire neighbourhood of the Lekki Free Trade Zone – the largest of its type embarked upon by China outside its borders, has become aware with complementary economic activities, largely sponsored by local businesses.

The Guangdong Free Trade Zone is a similar facility, located in the south western part of Nigeria and driven largely by Chinese entrepreneurs working in partnership with the locals.

The Living Spring Free Trade Zone of China is a lead promoter, together with the Ogun State Government of Nigeria. These infrastructures are creating opportunities for local growth.

The decision of the China National Oil Corporation to acquire an equity stake in Nigeria’s Oil Prospecting License 246, is probably one of the biggest initiatives made by China to strengthen its foothold. Energy consultancy group Wood Mackenzie estimates the oil field has condensate reserves in excess of 60m barrels and natural gas reserves of 2.5tn cubic feet.

Nigeria, with a population of 170 million people, is not yet able to supply constant electricity from the national grid to more than 100 million citizens. The state of affairs in the telecommunications, health delivery, agriculture and human capacity development are comparable to the electricity index.

In addressing shortfalls in infrastructure, China, with its reliable funding arrangements, is able to spread its reach across all the sectors of the Nigerian economy, moving rapidly in circumstances in which Western counterparts would dwindle.

For example, Huawei Technologies of China invested more than $100m producing telephones, handsets and other global mobile communication services, while China Civil Engineering Construction Company has built various roads and rail developments.

Chinese cement equipment and engineering service the China National Materials Corporation, at Seson, embarked on the construction of three turnkey cement producing plants, in cooperation with Nigerian business mogul Aliko Dangote. Elsewhere, Chinese influence is felt via Sepco, which specialises in building power plants and constructed the Papalanto Thermal Power Station.

Addax Petroleum, formerly owned by a Canadian investor, is now owned by Sinopec. China’s determination to pursue its own timetable, even when expediency suggests caution, is underscored by another recent deal. With less than three months until Nigeria’s general elections in February 2015, China has signed a $12bn contract to build a 1,402km coastal rail line from Lagos to Calabar. When completed, it will allow goods and services to be transported within the entire southern part of Nigeria and may become the groundswell for the economic transformation of the region.

Collaboration between the two countries remains promising, but success will be largely dependent on transparency from both sides.
Telecommunications

Indicator name: Annual investment in telecommunications
Source: African Development Indicators (World Bank)
Unit type: USD Millions

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In 2013, Nigeria ranked 30th in Africa. There has been average annual growth of 51.22% from 2006 to 2014.

Indicator name: Mobile cellular subscriptions
Source: World Development Indicators (World Bank)
Unit type: Subscriptions

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<td>4,952</td>
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<td>13,130</td>
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Nigeria has seen average annual growth from 2007 to 2011 of 8.9% in mobile communication revenue.

Transport

Indicator name: Air transport, passengers carried
Source: World Bank
Unit type: Passengers

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<td>3,65</td>
<td>3,92</td>
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Nigeria ranked 23rd in Africa in 2013.

Indicator name: Air transport, passengers carried
Source: World Bank
Unit type: Passengers

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<td>2.48</td>
<td>2.71</td>
<td>2.88</td>
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<td>2.88</td>
<td>3.26</td>
<td>3.65</td>
<td>3.92</td>
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Nigeria ranked 30th in Africa in 2013.

Indicator name: Quality of roads
Source: Global Competitiveness Report
Unit type: Rating 1 to 7

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<td>5.95</td>
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Nigeria ranked 23rd in Africa in 2013.

Indicator name: Quality of roads
Source: Global Competitiveness Report
Unit type: Rating 1 to 7

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<td>1.66</td>
<td>1.67</td>
<td>1.68</td>
<td>1.69</td>
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Nigeria ranked 24th in Africa in 2015.
### Sea

**Indicator name:** Container port traffic (TEU: 20 foot equivalent units)  
**Source:** World Bank  
**Unit type:** Containers

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<td>Nigeria</td>
<td>588,478</td>
<td>512,610</td>
<td>72,500</td>
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<td>101,007</td>
<td>106,764</td>
<td>111,035</td>
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Nigeria ranked 22nd in Africa in 2012. It has experienced year on year growth since 2008. Average annual growth from 2008 to 2012 was 11.25%.

**Indicator name:** Quality of port infrastructure  
**Source:** Global Competitiveness Report  
**Unit type:** Rating 1 to 7

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<td>3.31</td>
<td>3.55</td>
<td>3.44</td>
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### Logistics

**Indicator name:** Quality of trade and transport-related infrastructure  
**Source:** Logistics Performance Index (World Bank)  
**Unit type:** Rating 1 to 5

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<td>2.43</td>
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Nigeria ranked 7th in Africa in 2014.

**Indicator name:** Logistics competence: Competence and quality of logistics services (e.g. transport operators, customs brokers)  
**Source:** Logistics Performance Index  
**Unit type:** Rating 1 to 5

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Nigeria ranked 35th in Africa in 2014.

### Electric output

**Indicator name:** Electricity production (kWh)  
**Source:** World Development Indicators  
**Unit type:** Kilowatt-hours (Billions)

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