Nigeria's tech scene between coronavirus and infrastructure deficits

No. 305, 20 November 2020

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The African continent's largest economy is currently experiencing a dual crisis: the oil price decline and the coronavirus pandemic. While the decline in the price of oil is affecting its exports most of all, the fight against the pandemic is disrupting local consumption, especially in the form of lockdowns. While the current crisis is a reminder of Nigeria's continuing dependence on the oil industry, it also illustrates what potential lies in the local start-up scene. The coronavirus crisis and recommendations for physical distancing are currently boosting mobile money and online banking use. But the entire sector is grappling with the country's dilapidated and inadequate infrastructure – as are the remaining businesses. Given the current economic crisis and its impact on state finances, the infrastructure deficit problem might worsen in the coming years and diminish the potential of this sector.

Introduction

As the African continent's largest oil producer, Nigeria has taken a particularly hard hit from the coronavirus pandemic. It is suffering not just from a drop in crude oil prices but also from a slump in economic activity. All of that has come at a time when the Nigerian economy has not yet recovered from the fallout of the latest oil price collapse. The current crisis illustrates how much Nigeria still relies on the oil industry. But in the meantime, a dynamic services sector has developed in the shadow of that industry. At the heart of it lies the information and telecommunications sector. It has so far benefited from a growing domestic market and deregulation. The coronavirus pandemic and advice on distancing could give the sector a further boost. At the same time, the sector is struggling with the country's dilapidated and inadequate infrastructure, as are all other companies. These deficits affect the manufacture of products and the availability of digital services such as mobile money and online banking. Given the current economic crisis and its impact on state finances, the infrastructure deficit problem might worsen in the coming years and diminish the potential of this sector.

The coronavirus pandemic has triggered a further economic crisis

The consequences of the coronavirus crisis triggered a recession in Nigeria, the second one in five years. The pandemic is still spreading, and the lockdown imposed in early March has slowed the rate of increase only moderately. The spread of the virus has sharply accelerated since restrictions were eased again. Around 50 new infections are currently recorded each day (Figure 1). The pandemic has lost its momentum since the summer but many Nigerian daily newspapers are casting doubt on current figures. Nigeria is one of the African countries with the lowest testing rates. That makes it difficult to make an accurate assessment of the pandemic situation.

Figure 1: Progression of the pandemic in Nigeria

Absolute figures

Source: Johns Hopkins University, own rendition, as at 18 August 2020

Overall, the pandemic has had a moderate impact in terms of the number of deaths and in comparison with Europe and the US. Despite a milder progression, the economic impact is just as severe. For one thing, as the African continent's largest oil producer, Nigeria is taking an economic hit from the oil price decline. Sales of crude oil still account for 90% of all exports. For another, the containment measures, which have led to business closures and movement restrictions, have brought private consumption to a standstill. It represents around 60% of value added. The government has attempted to mitigate the economic slump with its Economic Stimulus Bill. Among other things, the stimulus programme includes tax relief, cash transfers and the distribution of food packages for the poorest.

But experts believe that the stimulus package will not be able to fully unfold its benefits because of the high proportion of the informal sector. They estimate that the informal sector's contribution to GDP represents around 65% of economic output. Roughly 90% of the working population is employed in the informal sector. Figures that describe the degree of neediness vary widely. By Nigeria's official standards, approximately 2.5 million households (around 11 million people) are classified as poor. The World Bank, on the other hand, estimates that 87 million people survive on less than USD 1.90 a day and therefore fall under the international poverty threshold.

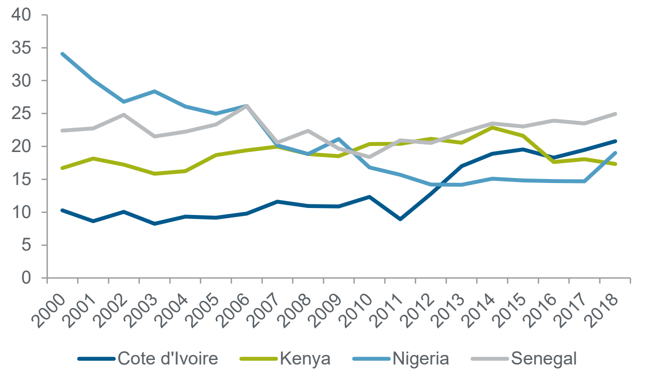
Because of this complex and difficult situation, the World Bank has forecast a recession of around 3% for this year. A return to weak economic growth of around 2% is expected for 2021 but this is much too low to increase the country's prosperity given its dynamic population growth. While the oil industry faces an uncertain future because of changes in the global market (driven by the trend to e-mobility and declining travel), start-ups and, in particular, the tech scene are opening up new opportunities for the country. However, the tech scene is grappling with a range of deficits, especially in the areas of energy and telecommunications infrastructure. These shortfalls affect the manufacture of products and the availability of digital services.

Start-ups in the context of infrastructure deficits

Although the young population and growing middle class have provided an incentive for many investors, the large infrastructure deficits and erratic economic policy have represented investment barriers that cannot be underestimated, especially for the many small and medium-sized enterprises. The oil crisis of 2015 and the current dual crisis (oil price collapse and pandemic) are further challenging the growth model. Per-capita income and the middle class are shrinking because of this year's recession and the recent weak growth rates. The large infrastructure deficits constitute a further barrier to investment. They are explained by the lack of investment in the past 10 years (Figure 2).

Figure 2: Private and public investment

As a percentage of GDP



Source: Macrobond, own rendition.

Compared with the other major African economies, Nigeria has fallen behind in investment, even failing to capitalise on the phase of higher oil prices for investment. The nation's infrastructure deficits lie primarily in the energy, telecommunications and transport sectors. The energy supply is patchy and erratic. Only around 4,000 MW of the 12,500 MW total electricity capacity installed across the country is available. That is roughly equal to the installed capacity of the German state of Rhineland Palatinate. The reason behind this is insufficient grid capacity and lack of regulation. Only around 45% of the population is even connected to the grid. The remainder must resort to other, usually more expensive sources of power such as generators. Generators are also necessary in times of power outages.

Nigeria's digital infrastructure presents a similar picture. The total length of fibreglass cable infrastructure is around 64,400 km, roughly half that of Algeria or South Africa. Around three years ago, the Nigerian Communication Commission noted that implementing the 4G and 5G network needed for establishing the internet will require doubling the number of telecommunications masts. The country is still a long way from achieving this goal.

Blackouts, start-ups and incubators

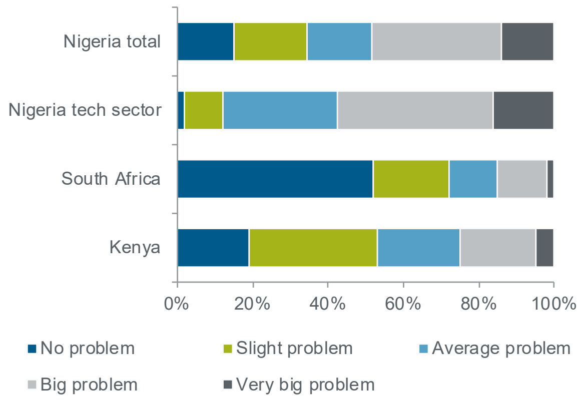
The problems described above mainly affect the tech sector, which is the focus of policy-making. In order to reduce the influence of the resource economy, policymakers are pursuing a strategy of broadening the economic structure. Information and communications technology (ICT) already generates around 13.8% of GDP. The mega trend towards digitalisation can further support this development, especially since it has received considerable impetus from the coronavirus crisis. The business closures during the lockdown have moved part of consumption online. Jumia, Nigeria's largest online trader, reported year-on-year turnover growth of around 30% for the first quarter. The company and market observers attributed the rapid growth in sales figures to the coronavirus pandemic. Nigeria's growing and dynamic start-up and technology sector is addressing many existing problems in the distribution of goods and services. Making household deliveries during the lockdown, particularly in the middle and upper class, is only one example.

The start-up and technology sector is believed to harbour great potential particularly because of the dynamic population growth and the very young and, therefore, tech-savvy society. Furthermore, moving to digital services is easier because consumers are not yet accustomed to analogue services, many of which did not even exist previously. But the existing infrastructure problems are slowing down growth. This is illustrated not just by the World Bank's current Doing Business Index but also by a study undertaken by the Center for Global Development (Figure 3). It has revealed that the tech sector in particular, which includes start-ups in the areas of fintech, e-commerce, consulting and software, for example, are battling with unreliable electricity supply. More than half the surveyed businesses reported that they have problems with electricity supply more than 25 times a month.

The problems in electricity supply encourage the emergence of what are referred to as tech hubs or incubators. In addition to offering a reliable electricity supply, such facilities provide access to knowledge, capital and networking through other founders. Seventy incubators of this kind are currently active in Nigeria, more than in any other African country.

Figure 3: Energy supply

In per cent



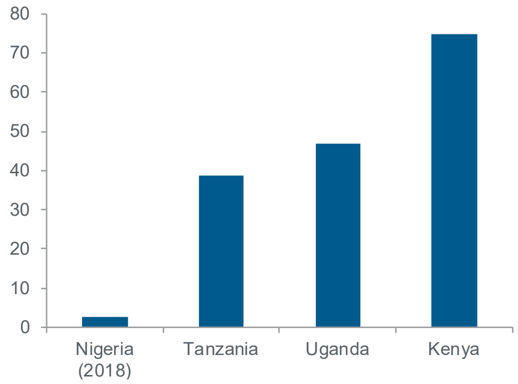
Source: Center for Global Development, own rendition

The coronavirus pandemic has given the mobile money market a boost

Compared with other African countries such as Kenya, Uganda or Tanzania, for example, the use of mobile money is not yet very widespread in Nigeria (Figure 4).

Figure 4: Mobile money users

In percentage shares of the working-age population



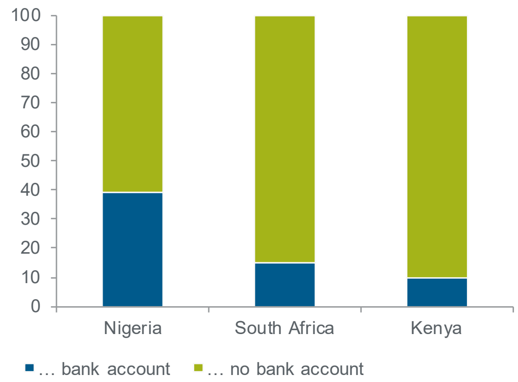
Source: Center for Global Development, EFInA, own rendition

This is partly due to the fact that the development of mobile money and internet banking has so far been promoted primarily by Nigerian banks. A 2018 study by Enhancing Financial Innovation & Access (EFInA), a financial sector development organisation, shows that around 90% of the users of mobile financial services previously had or still have a bank account. Another reason the mobile money market is relatively small compared with the large population is lack of regulation. Other African countries such as Kenya, for example, were faster in creating the legal foundations. It was not until last year that the Central Bank of Nigeria allowed non-banks such as telephone companies to process payment transactions.

Nigeria is set for a boom in the mobile money market, as it has around 70 million mobile phone users, many of whom so far do not have a bank account. The share of what is referred to as the ‘unbanked population’, the proportion of the population without access to financial services, is around 40%, which is also roughly equal to 40% of the working age population (Figure 5).

Figure 5: Population without access to financial services

In percentage shares of the working-age population



Source: Globally Findex Databank, own rendition

Asked why they prefer to use online or mobile financial services, the main incentives people state are account keeping fees and the distance to a bank branch (EFInA 2018). The current pandemic is another obvious reason they prefer to use mobile or online services. Online shopping and contactless payment are important aspects of infection prevention. This is particularly important given the poor public hygiene practices and health infrastructure. Thus, a recent World Bank survey found that around 30% of Nigerian households had no direct access to water supply and a further 30% complained about unreliable water supply. In such an environment there is a great desire for contactless payment, particularly among the burgeoning middle class with its growing demands. The country’s large telecommunications companies MFN and Spectranet, in particular, see the current situation as an opportunity to expand their mobile money and online banking business. Apart from changing payment preferences, rising turnover in online trade and the emergence of new mobility providers such as Uber or Bolt are important drivers of the mobile money market.

Summary

Despite positive developments in the start-up and tech sector, the country’s economic situation remains fragile because of the dual crisis. Multiple factors will determine when the recovery will start. A flattening of infections is generally regarded as an important building block for an economic recovery. There is no way of telling when the pandemic will peter out in Nigeria and globally. An effective vaccine would be important for the recovery, although it would surely not become available to Africa first. The current crisis and the oil price decline, however, have created major challenges for the government, which will hardly be able to raise sufficient financial resources for the investment needed in the years ahead. Without economic growth and necessary investment, the start-up and tech sector will not be able to sufficiently exploit Nigeria’s great potential.