



London
Stock Exchange Group

LSEG Africa Advisory Group

Report of Recommendations

**Developing offshore local currency
bond markets for Africa**



Foreword



Welcome to the launch of a series of report recommendations from London Stock Exchange Group (LSEG). They were conceived nearly three years ago with the founding of our LSEG Africa Advisory Group (LAAG), which was designed to provide a platform for regular and collective dialogue through which to develop stronger relations with senior decision-makers, regulators and business leaders across the continent. I'm honoured to have been LAAG's Chairman for the past year and to have seen at first hand its commitment to provide thought leadership on the direction of policy and activity.

Let me start by offering my personal gratitude to its members, who continue to work (on a pro bono basis) to identify ways in which African capital markets could be expanded and enhanced, with our help and support. The work was carried out in conjunction with academic input from Cambridge Judge Business School and the involvement of many other stakeholders in London and across Africa, so this has been a genuinely collaborative effort with one key objective in mind: to create mutually beneficial situations, in partnership with local market infrastructures, by which to increase global investment flows and create deep and sustainable capital markets for Africa.

I believe we all share that same mission and hope that by sharing these recommendations, we offer not only practical advice and constructive solutions, but can also, ultimately, influence policy through shared engagement – with your help.

Three years ago, LAAG started to look at some of the specific challenges (and opportunities) associated with structural and capacity constraints to growth in African markets. Based on prominence and urgency, five key topics and workstreams were shortlisted, and these now form the basis of these papers. In summary, they address capital raising challenges for SMEs, developing the green bond market for infrastructure projects and developing offshore local currency bond markets, as well as focusing on the importance of country market classification and corporate information dissemination.

We should be clear from the outset that, while no effort has been spared to ensure empirical grounding, our research and conclusions are not intended to be either exhaustive or all-inclusive. In many cases, the most appropriate actionable suggestions and policy recommendations are also not new. But we do see value in pulling them together and presenting them in this usable format.

In conclusion, our intention is that these reports should initiate discussion and of course, LSEG remains ready and able to play its role. We look forward to bringing you on board too and we will appreciate all further interest and feedback.

A handwritten signature in black ink that reads "Suneel Bakhshi".

Suneel Bakhshi
Chairman, International Advisory Groups
London Stock Exchange Group

Our thanks

We extend our thanks to the participating students from the University of Cambridge for their contributions to the research, carried out as part of the Cambridge Judge Business School MBA Students Project, GCP 2018.

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1. Executive summary

African countries have experienced strong GDP growth over the last two decades. For the continent to sustain this long-term growth trajectory, substantial investment is required in each economy, primarily in the infrastructure sector. Raising debt remains the most predictable source for financing Africa's economic and social transformation over the long term.

However, despite strong investment appetite and improvements in accessing domestic and international markets, African countries continue to face common challenges:

- **Poor articulation of transparent economic transformation plans linked to clear debt financing strategy**
- **Local capital markets lack the depth to meet the scale of infrastructure funding required**
- **Borrowing in hard currency to fund projects in the local currency leaves countries vulnerable to currency risk and increases debt default risk.**

One solution gaining significant traction involves raising debt finance offshore in local currencies, creating an ecosystem that develops a country's offshore local currency bond market (LBCM).

This paper provides a background to the development of offshore LCBMs; explores case studies of emerging market economies that have successfully developed these markets; characterises the current state of the market in Africa; and highlights the important role that multilateral development banks (MDBs) can play.

Based on the findings in this paper, a set of actionable recommendations has been proposed to support African policymakers to establish working offshore LCBMs:

- **Ensure support from policymakers**
- **Engage with MDBs**
- **Carry out non-deal roadshow events internationally to begin establishing investor demand for such products from African governments.**

2. Introduction

According to the World Economic Forum in 2017, Africa has maintained an average GDP growth rate of 5% for the past 16 years, outperforming the global average by about two percentage points per annum. However, Africa’s strong growth trajectory faces major developmental challenges, with the infrastructure financing deficit at an estimated US\$93bn per year and growing, according to the African Development Bank (AfDB).



The mobilisation of capital for major infrastructure projects is best supported by the existence of deep capital markets coupled with an intrinsic ecosystem, including specialist advisors and global investors. Debt capital markets are critical sources of capital, especially to help close the financing gap in sectors such as infrastructure and housing, where coupon payments can be financed by annuity revenue streams from rents, tolls and other such income. Debt markets create channels for domestic savings, such as those managed by pension funds and other institutional investors, to be put to productive use in the local economy.

Local capital markets within Africa have developed significantly over the last decade, creating more sophisticated market infrastructures and building the ecosystem with local market participants. However, they still face common challenges in order to support the infrastructure required.

“The size of infrastructure investment required in Africa significantly exceeds the sums that domestic capital markets are currently able to provide”

— **Local capital markets are not able to meet the scale of funding required for these countries**

The size of infrastructure investment required in Africa, as in other rapidly growing emerging markets countries, significantly exceeds the sums that domestic capital markets are currently able to provide. Given the size of the infrastructure funding gap, African countries have begun to look for financing internationally, where a diverse pool of global investors seek access to higher-yield emerging market debt. Many of these investors may not have direct access to African capital markets, being restricted by policy or technical considerations. This can be demonstrated by the recent flurry of issuances of African Sovereign Eurobonds on international capital markets and the consistent over-subscription of these offers. Additionally, since 2008, public debt levels in sub-Saharan African countries have been rising rapidly; the gross public debt to GDP ratio has more than doubled and has breached the 50% mark in several countries. If governments are seeking to raise more debt, doing so domestically may crowd out the private sector in the local market and reduce investment in other important sectors of the economy.

— **Accessing international markets in hard currency, to fund projects in the local currency, leaves countries vulnerable to currency risk and impacts debt-servicing ability**

One potential problem with raising capital on international markets is the currency exposure. Borrowing in non-local currency to fund projects that are financed and generate returns in the local currency creates an unwelcome mismatch. This can be costly, particularly when currency movements become volatile.

One of the lessons from the Asian financial crisis in 1997 is that a currency mismatch triggers major economic turmoil. As the dollar appreciates, not only will the cost of servicing dollar debt increase, but borrowers will also have to post more domestic currency as collateral. For an emerging market borrower, the combination of intensified fiscal pressures and exchange rate depreciation inflates debt levels, which, in the context of lower growth and credit rating downgrades, have also increased the exposure and vulnerability of these economies. These vulnerabilities can be attributed to exposure to hard currency-denominated debt, predominantly raised from international markets. This reinforces the need to foster LCBMs and offshore local currency financing development to alleviate the refinancing risk and reduce foreign exchange exposures, and to prevent such crises happening in the future.

While historical experience does not stipulate that higher debt to GDP ratio increases risk of default, the debt-servicing ability does (e.g. Ecuador defaulted with 27% debt to GDP in 2008). This emphasises how important it is that governments deliver responsible debt-servicing strategies.

— **The lack of transparency and credible debt strategies from governments has led to a lack of investor awareness and trust in the opportunities that exist**

Despite the importance of raising debt to finance infrastructure requirements, many governments have not articulated credible implementation plans based on macroeconomic deliverables, which ensure transparency, accountability and effective change. This in turn has led to a lack of confidence in the market on the part of investors and general stakeholders and helps to accentuate negative market perceptions of African debt strategies. Additionally, where governments are not proactive in engaging with global investors, there is a lack of awareness of the opportunities that exist for investors to potentially diversify their portfolio with exposure to Africa.

Based on these challenges, one solution that has been generating interest from the governments of emerging market economies has been the potential to raise capital in local currencies, both in onshore markets where governments can tap local institutional investors and in offshore markets where they have greater access to a global investor base.

A local currency bond is one that is denominated in a country’s local currency (such as the Nigerian naira or Kenyan shilling), instead of being issued in hard currency (usually US dollars). An international investor will take on the currency risk, instead of the issuer, and will have to convert hard currency to the local currency prior to buying and when selling the security (normally hedging risk through products such as non-deliverable forwards).

There is a long history preceding the prominence of LCBMs in emerging market economies. Analysis of emerging market debt figures from 2016 reveals that the equivalent of US\$48.5tn was raised in local currencies, compared with US\$7tn in hard currency, a stable and continuing trend within emerging market countries. Foreign investor holdings of local currency debt have seen a significant increase since 2011. Particularly since 2013, there has been a substantial rise in offshore local currency bond issuances by emerging markets economies. The leading examples are China, India and Indonesia, which have continually ranked among the fastest-growing economies globally.

“Particularly since 2013, there has been a substantial rise in offshore local currency bond issuances by emerging market economies”

3. Benefits of offshore LCBMs

For authorities:

- Reducing a country's dependency on foreign currency and the potential impacts of external shocks, including higher debt servicing costs with monetary policy normalisation
- Promoting the development of domestic bond markets. Taking China as an example, after the peak of Chinese offshore local currency debt issuance in 2014, reforms to the onshore markets, coupled with increased global investor familiarity with local currency bonds, helped to boost the attractiveness of those markets and made it easier for foreign investors to tap directly into the local market
- Attracting foreign direct investment inflows by tapping a greater pool of investors
- Showcasing a country's strong credentials to a global audience by issuing on an international market
- Reducing the crowding out of the local private sector (pension funds, banks and retail investors) and increasing the crowding in of international capital
- Increasing currency familiarity for international investors and increasing demand for onshore African securities following exposure to local currency products on international markets
- Reducing the need for precautionary reserve holdings. Lower foreign currency exposure requires lower precautionary reserve holdings. It also stabilises the reserve amount, which reduces the risk of exchange rate fluctuation of the local currency.

For issuers:

- Reducing currency mismatch. LCBMs reduce the issuer's dependency on foreign currency movements that could lead to substantial losses for the issuer, particularly for institutions that have local currency revenue streams
 - Diversifying the creditor base. Issuing offshore provides access to a broad, global investor base
 - Raising international credibility. Issuers listing in international markets receive substantially more coverage, boosting their reputation and raising their international profile
 - Potentially lower costs than raising capital in onshore markets (see the example of Brazil on page 11) or through bank lending. The development of a yield curve, coupled with strong demand for offshore local currency bonds, reduces the cost of borrowing when compared with domestic financing.
- For investors:**
- Ease of access to local currency sovereign debt. Less cumbersome registration and requirements than the onshore market (investors may not have access to African markets)
 - Higher yields than securities in developed markets
 - Benefiting from the cumulative positive effect of emerging market nations with stronger economic growth by providing exposure to local currency (potential currency appreciation)
 - Diversifying risk in their portfolio in terms of region and currency
 - Cheaper trade settlement costs.

4. Case studies: emerging markets with established offshore LCBMs

India, China, Indonesia, Brazil, Colombia and Russia are all countries that have offered international bonds in respective local currencies to attract foreign investors who are seeking to diversify their currency portfolio, but are deterred by local capital controls and are more comfortable with international law, disclosure requirements and clearing mechanisms.



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Indian Masala bonds have been issued in London alone, raising more than US\$7bn from multiple Indian issuers

The case studies below examine the Indian, Indonesian and Brazilian markets and their reasons for developing offshore LCBMs. Each of these countries provides a different perspective, with unique market-specific reasons for developing offshore LCBMs to help support their development strategy. These experiences may be relevant for African countries considering similar policies.

(Note: while China has been a global leader in developing offshore LCBMs through the 'Dim sum bond' market, its ultimate objective – to internationalise the renminbi and make it a globally recognised foreign reserve currency – may not apply to African markets, so no case study is provided. China remains the only emerging market sovereign to issue a listed offshore local currency bond when it raised RMB3bn (US\$458m) through an offering on London Stock Exchange in 2016.)

4.1. India: Masala bonds (offshore INR-denominated bonds)

In 2013, the Indian rupee fell to a record low against the US dollar due to capital flight which was spurred by a severe current account deficit and the tapering of quantitative easing by the US Federal Reserve. Given India's exposure to hard currency debt, this sparked a conversation between the Indian government and the International Finance Corporation (IFC) on the

development of the local debt market and ways of supporting capital market development in Indian rupees, both onshore and offshore. They decided that IFC would launch rupee bond programmes in both the onshore and offshore markets, with supporting policy from Indian regulators (such as the Reserve Bank of India) to provide rupee financing sources for IFC projects in India, as well as helping to develop Indian markets by creating an AAA yield curve.

The birth of the Masala bond programme allowed rupee-denominated bonds to be issued in offshore markets, with the yield curve developed for potential Indian issuers (100–190 basis points lower than the yields of Indian government bonds for similar maturities). IFC's expertise in offshore LCBMs, and the comfort that it provided to potential institutional investors, played a pivotal role in developing this market. This was supported by strong policy amendments by India's government.

The first rupee-linked offshore bond was launched in 2013 with maturities of three, five and seven years, followed by a second phase in 2014, all listed in London. To date, IFC has issued tenors ranging from three to fifteen years. The proceeds of the bonds were invested in the local economy to support the financing of infrastructure projects. All the issuances were oversubscribed and attracted a diverse global investor base across Europe, the US and Asia. One observation was that investors from the US and Europe were most interested in the three- to five-year maturing bonds, but the varied tenors served to attract a diverse range of investors to create the necessary financial market.

Following IFC's development of the yield curve for offshore INR issuance, multiple issuers tapped the Masala bond market (predominantly with an AAA or AA rating), including large Indian public sector companies, housing corporations and non-banking financial companies. In 2015, the first green offshore rupee bond was issued with a tenor of five years, with the proceeds from this

“All the issuances were oversubscribed and attracted a diverse global investor base across Europe, the US and Asia”

4. Case studies: emerging markets with established offshore LCBMs (continued)

bond invested in renewable energy and energy-efficient projects focused on solar and wind technology.

In London alone, more than 45 Masala bonds have so far raised more than US\$7bn from multiple Indian issuers, establishing the market as a crucial source of financing for Indian infrastructure. Examples of the uses of proceeds from the various Indian issuers of Masala bonds include:

- **National Thermal Power Corporation: financing the capital expenditure of ongoing and/or new power projects and the renovation and modernisation of power stations in India**
- **National Highways Authorities of India: funding India's highways infrastructure projects**
- **Housing Development Finance Corporation: used for the housing finance business, as well as for general corporate purposes, to help diversify the global investor base.**

Insights from the development of an offshore LCBM in India

i. A key motivation for corporates, particularly those that can raise capital domestically at competitive prices, is the prospect of diversifying funding risks across different markets; these firms welcome the possibilities of different sources for raising capital. Historically, issuers have also been willing to pay a risk premium of 50–80 basis points to establish their names and presence in international capital markets. Over time, as the market has been established with more regular issuances, the pricing has tightened and it will continue to do so, increasing the product's attractiveness to repeat and new potential issuers.

ii. Within the onshore market, quasi-government entities are able to borrow at rates a few basis points above the sovereign. Some corporates have received a lower coupon (9.1%) on their Masala bonds than on their onshore one (10.25%).

iii. Regulations have restricted the non-banking sector from borrowing from banks over a ceiling exposure amount. This segment is most interested in pursuing funding from varying sources to fund growth. Infrastructure funding needs will usually be greater than the imposed ceiling; hence, seeking capital from the offshore LCBM has promoted the growth of the market.

iv. India's withholding tax is 10% in general for foreign investors, but a temporary tax concession to stimulate

the nascent Masala bond market reduced it to 5% on this market, so foreign investors benefited from a 5% discount. In September 2018, the government provided a further incentive to kick-start the market by removing withholding tax entirely for Masala bond investors until the end of 2019.

v. To establish the market and increase investor participation, the reduction of the tenor from five years to three years increased investors' interest in the bond, as they were more comfortable forecasting currency exposure and government policy over this period. Over time, investors' appetite for longer tenor securities has increased, with strong demand for 15-year Masala bond debt – a positive sign for the market based on investor outlook for the economy.

4.2. Indonesia: Komodo bonds (offshore Indonesian rupiah bonds)

Like India, Indonesia is one of the fastest-growing economies in the G20, expanding by over 5% per annum, and is expected to be a major destination for global investment flows. One driver of this positive outlook is the government's significant investment in infrastructure development, a key pillar of its reform agenda. The World Bank anticipates that Indonesia will need US\$500bn of infrastructure investment over the next five years to build the necessary roads, ports and bridges. However, it is estimated that the state budget can only sustain Rp900tn per year (US\$63bn), leaving a significant funding gap that would need to be filled by external methods of financing.

Komodo bonds are Indonesian rupiah-denominated bonds sold on offshore markets. The market was established by large multilateral development banks (MDBs), such as the Inter-American Development Bank (IADB) and the European Bank for Reconstruction & Development (EBRD), which issued Komodo bonds to finance their projects in Indonesia. They were followed by banks such as Barclays and HSBC that have raised offshore rupiah debt to finance operations in Indonesia.

An important landmark that spurred the development of the Komodo bond market occurred in 2017, when sovereign debt issued from Indonesia was rated as investment grade by all major credit rating agencies. This allowed the country to fund its infrastructure gap at a cheaper rate than in the past, while still offering an attractive yield to investors. It was supported by strong



4x

The first Komodo bond issued in London was four times oversubscribed – a sign of foreign investors' confidence in Indonesia's economy

monetary policy from the Bank of Indonesia, which committed to stabilise net government debt levels and reduce the budget deficit in order to ensure the stability of the rupiah.

That year, Indonesian state-run toll road operator Jasa Marga, which benefited from the sovereign credit rating increase to investment grade, was the first to issue a Komodo bond in London. It raised Rp4tn (approx. US\$298m) with a carrying coupon rate of 7.5% and maturity of three years. The issuance was four times oversubscribed, marking foreign investors' enthusiasm and confidence in Indonesia's economy. In February 2018, Indonesian state-controlled construction company Wijaya Karya listed its Komodo Bonds in London. The bond raised Rp4.5tn (approx. US\$326m) with a tenor of three years and yield of 7.7%. The market appetite established by the MDBs, and the yield curve established through regular repeat issuances by MDBs, banks and corporates, helped to ensure efficient pricing of these bonds.

The issuance of a global rupiah bond on an offshore market signalled Indonesia's appetite for foreign investment to the international investment community, with the majority of investors coming from Asia, Europe, the Middle East and the US. As of January 2018, there were 16 active Indonesian rupiah-denominated bonds in London and multiple potential state-owned enterprises looking to tap the market in the near future. For example, Perusahaan Listrik Indonesia has established a medium-term note (MTN) programme in London and is looking to raise the equivalent of US\$2bn in 2018.

Insights from the development of an offshore LCBM in Indonesia

i. The major credit rating agencies' declaration that Indonesia's rating is now at investment grade benefited the development of the rupiah LCBM. Certain institutional investors are only allowed to invest in investment grade debt, so this increased the investor pool, as those interested in capturing some of the growth observed in Indonesia could now do so through Komodo bonds.

ii. State-owned enterprises have been successfully seeking to raise funds from the international market to fund their infrastructure needs at yields and tenors that are attractive to investors. The yields are greater than what they would receive from similar structures from developed countries and most investors are comfortable with the three-year horizon. If the Komodo bond market follows a similar trajectory to the Masala bond market, the tenor of the bonds will increase as investors become more comfortable taking on longer-term debt.

4.3. The Brazilian real market

The reduction of Brazil's hard currency-denominated debt, and the resulting foreign exchange exposure, was a key underlying motivation for offshore local currency denomination issues. Between 2005 and 2008, Brazil was one of the biggest debtor nations among the emerging markets countries. In response, the country started shifting towards longer maturity, local currency denominated bonds to guard against abrupt currency fluctuations, and to lower financing costs. Issuing in local currency (Brazilian reals) in offshore markets was comparatively cheaper for the Brazilian government, even when pricing in the currency risk for investors. The difference in the coupon rate of Brazilian real- and US dollar-denominated bonds in the offshore markets is not substantial and has been decreasing over time, pushing down funding costs through real-denominated bond issues.

Additionally, for the Brazilian market, the comparatively higher domestic interest rates drove up domestic financial costs for issuers for onshore local currency debt, encouraging Brazil to tap offshore markets to lower its overall cost of debt financing. Yield movements of dollar-denominated and real-denominated bonds have usually moved in tandem, driven by monetary policy. As of 2015, more than a quarter of Brazilian companies issuing offshore bonds (46 out of 166) sold local currency denominations.

“As of January 2018, there were 16 active rupiah-denominated bonds in London”

5. The current state of local currency financing in Africa

Africa's infrastructure investment deficit currently stands at more than US\$93bn per year.



1997

The year that the South African government first allowed financing in rand by issuing bonds in the Euro-Rand market and using the swaps market

Leveraging the strong interest in emerging market debt from global investors, African economies have started to look beyond their traditional sources of funding (which include foreign aid and bank loans) to narrow this infrastructure investment gap and have looked to tap debt capital markets. African capital markets have developed significantly in terms of sophistication and participation over the last decade. However, they still do not have the capacity to raise sufficient capital to meet the near US\$100bn required per year to finance essential infrastructure development. Additionally, in Africa, bond markets are still nascent and debt outstanding relative to GDP is in many respects quite low. LCBMs may offer an alternative tool to raise debt for African corporates and take the burden away from bank financing.

It is worth noting that LCBM development in South Africa dates to 1997, when the government allowed financing in South African rand (ZAR) by issuing bonds in the Euro-Rand market and using the swaps market. This was in response to requests from borrowers in the region who had been seeking financing in the local currency. This subsequently spurred the approval of other African currencies as lending currencies. Hence, Africa is not unfamiliar with offshore local currency bond financing; 33 offshore local currency bonds are listed by African issuers, predominantly from South Africa.

According to studies, there are few local African markets that have the scale for international investors to get involved directly in domestic markets, as many sub-Saharan African capital markets still do not fit within investors' risk criteria. Offshore LCBMs offer easier access for global investors and are a bigger and more affordable source of funding; they can enable relatively smaller African markets to close the gap to countries like South Africa, which have higher levels of foreign participation in their local currency securities.

There have been numerous initiatives over the past decade by leading MDBs, in collaboration with African governments, to develop LCBMs. The majority of these initiatives have been focused on developing onshore LCBMs to help deepen domestic capital markets and increase participation of global investors in these markets. However, there have also been attempts to replicate the Indian model and promote the development of offshore LCBMs.

The role of MDBs

MDBs, led by IFC and AfDB, continue to play a critical role in developing onshore and offshore LCBMs in Africa, given their ability to mobilise private-public sector local currency funding to fund their projects in the continent.

AfDB has launched the African Domestic Bond Fund, a listed vehicle that invests in onshore African local currency debt, to reduce the continent's dependency on hard currency debt while promoting the depth of local capital markets through increased inflows from a wider investor base. IFC, in conjunction with Standard Chartered Bank, launched the Pan African Domestic Medium Term Note Programme in 2012. The Programme was initially focused on Botswana, Ghana, Kenya, South Africa, Uganda and Zambia, with a view to



100%

Nigeria's first Naija bond was entirely locally subscribed by Nigerian pension funds, asset managers and banks

launching in other African countries in the future. These MDBs have also launched country-specific initiatives for promoting LCBMs. Four examples are given below.

IFC's Naija bond (onshore LCBM)

IFC issued Nigeria's first Nigerian naira (NGN) denominated bond (the Naija bond) on the Nigerian Stock Exchange in 2013. The NGN12bn (US\$76m) bond was also the first placement by a non-resident issuer in Nigeria's domestic capital markets. The Naija bond was 100% locally subscribed by Nigerian pension funds, asset managers and banks.

The overall success of the IFC Naija bond in accessing domestic investors can be attributed to the collaborative efforts of the Nigerian government and regulatory authorities, market participants and IFC. The IFC Naija bond fitted with the goals of the Nigerian government and authorities, namely to deepen domestic capital markets and grow the local corporate bond market. In turn, the Securities and Exchange Commission, the Central Bank of Nigeria and the National Pension Commission made certain concessions, forbearances, waivers and exemptions in IFC's favour. For instance, in the case of the onshore bond, the Central Bank of Nigeria allowed IFC to enter into dollar/naira cross-currency interest rate swaps with Nigerian banks as counterparties. It also permitted IFC to bring in US dollars to satisfy its naira obligations. These made it more attractive for IFC to issue the bonds.

Other exemptions, such as qualifying the Naija bond as securities in which pension funds could invest, were beneficial in attracting large investors such as the National Pension Commission, which in 2013 had NGN3.82tn in investible pension assets. Furthermore, the government's decision to grant tax waivers on all bonds and debt instruments issued by all tiers of government and

corporate entities made it attractive to domestic investors, as income from these bonds was exempt from personal income tax and corporate income tax.

AfDB's NGN MTN Programme (onshore LCBM)

In 2014, AfDB established a NGN160bn (US\$1bn) MTN Programme, following approval from the Securities and Exchange Commission. It successfully raised NGN12.95bn (US\$80m), which was the largest ever issuance as well as the longest maturity instrument (seven years) in its asset class to be introduced to the Nigerian market. The bond was widely accepted as evidenced by the diverse category of investors to whom the securities were distributed, including pension funds, asset managers, banks and insurance companies. Investor participation was 100% local.

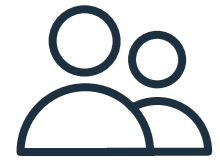
AfDB launched a seven-year, semi-annual fixed rate coupon, introducing a new instrument into the domestic market and adding another issuance into the supranational asset class. The bank successfully raised NGN12.95bn (approx. US\$80m), issuing at a discount of about 75 basis points below the comparable reference point on the government yield curve (Federal Government of Nigeria, 27 January 2022) to price at 11.25%.

The issuances allowed the bank to lend to its borrowers in local currencies, thereby eliminating their currency risks, and to participate in the development of African capital markets by providing a new investment product to local institutional investors. The bonds were structured to match the underlying projects to which the bank will lend the proceeds. This issuance was AfDB's third domestic bond issue in Africa outside of South Africa; it previously issued two local currency bonds in Uganda in August 2012 and May 2013.

“Offshore LCBMs can enable relatively smaller African markets to close the gap to countries like South Africa”

“The IFC Naija bond fitted with the goals of the Nigerian government and authorities: to deepen domestic capital markets and grow the local corporate bond market”

5. The current state of local currency financing in Africa (continued)



77.9%

The proportion of interest in AfDB's first offshore Naira bond that was generated from fund and asset managers

Offshore Naira bond (offshore LCBM)

AfDB launched its inaugural offshore Naira bond in 2007, clearable through Euroclear and Clearstream. The one-year bond had a face value of NGN127.80m (US\$100m) and a fixed coupon of 9.25%. The bond led to the first cross-currency interest rate swap executed by a domestic Nigerian bank.

In addition, the bond was the first investment grade money market instrument offering non-residents exposure to Nigeria while allowing trading flexibility and settlement through international clearing houses. The bond saw 100% international participation from the US (52%), the UK (31%), continental Europe (15%) and the Middle East (2%). Looking at investor type, 77.9% of interest was generated from fund and asset managers.

IFC's Rwandan Umuganda and Twigire bonds (onshore and offshore LCBMs)

In 2014, IFC sold its first Rwandan franc (RWF) bond, raising the equivalent of US\$22m after receiving bids worth more than twice that amount. The five-year Umuganda bond was issued at a yield of 12.25%.

The onshore issuance was succeeded by an offshore one just a year later. In 2015, IFC issued an RWF3.5bn (US\$5m) bond on international markets, becoming East Africa's first offshore local currency bond. Dubbed Twigire, the three-year bond with a 9% coupon was a pilot project where the funds would be held as part of IFC's global currency holdings. The bond attracted many international investors and the proceeds were to be used to fund private sector projects run by IFC in Rwanda.

Euroclear's decision to include RWF as a new denomination currency in its settlement system also facilitated the issuance of this offshore bond. Both these issuances are expected to result in the further development of Rwanda's domestic capital market and to attract more international investors to invest in the country.

According to IFC's treasurer, there are now several sources of local currency financing for Rwanda. Despite the small transaction size of the offshore bond transaction, its significance stems from the linkage of international investors to domestic investment in the private sector in Rwanda and the likelihood that future issuances will follow the pilot project. Rwanda could be the leading African country to follow the successes of the Indian market, and to establish a yield curve for local issuers to tap the offshore market.

“Rwanda could be the leading African country to follow the successes of the Indian market, and to establish a yield curve for local issuers to tap the offshore market”

6. Recommendations

While African governments, in collaboration with MDBs, have launched numerous initiatives to develop onshore LCBMs, there have been far fewer aimed at developing offshore LCBMs for Africa, in stark contrast to Asian markets.

Given the benefits of developing offshore LCBMs that have been established in this paper, the following recommendations are suggested.

6.1. Ensure support from policymakers

As demonstrated by emerging market economies in Asia, the successful establishment of offshore LCBMs has been underpinned by a specific government-wide strategy to promote such markets. This includes buy-in from all relevant stakeholders within the market, including the central bank, ministry of finance, debt management office, capital markets authority and other relevant regulators.

The reform process requires a sustained effort by authorities both at a high level, to remove roadblocks, and at a technical level. Without a supportive framework to develop LCBMs, and the necessary legislation in place (particularly on the ability to trade local currency in offshore markets), it is not possible to develop a long-term, stable market to access a new source of infrastructure funding for African economies. Positioning LCBM development as part of broader programmes, such as public sector or public financial management reforms, may also ensure the sustainability of the project.

Policymakers within each emerging market economy that has developed a successful offshore LCBM have issued, or are in the process of issuing, clear policies around the issuances of such instruments, including the types of issuers that can tap the market, maturity of bonds, use of proceeds, development of hedging products, repatriation of funds, which types of investors can access the market, pricing limitations (yield), size of issuance, and tax treatment. Policies within each country are unique and based on specific market conditions, but African countries can learn from the experiences of others and tailor their regulation according to the market-specific needs.

Taking lessons learned from the development of LCBMs for Asian countries, the following are policies that African economies could look to introduce to ensure the success of their markets:

- **Introduce tax incentives.** Authorities need to proactively review the tax system surrounding the issuance of offshore local currency bonds. Imposing a significant withholding tax (as exists in Kenya, for example) deters investors from entering the market. Given the use of these funds for infrastructure investments, it may be beneficial to offer temporary tax concessions to develop nascent markets (avoiding the issuer bearing the cost, as is the case in Indonesia) and encourage wider market participation
- **Efficient and transparent hedging tools for investors.** The ability for foreign investors to hedge against currency risks, using hedging instruments such as non-deliverable forwards (NDFs) or guarantee products, is a critical factor that enables them to select local currency financing over hard currency financing. In the case of the Indian Masala bond, NDFs were used to hedge against currency exposure to rupees. The cost of using hedging techniques needs to be minimised to ensure that the yield to foreign investors remains attractive to them. Examples of this can already be seen in Africa, where the Central Bank of Nigeria allowed IFC to enter into dollar/naira cross-currency interest rate swaps, with Nigerian banks as counterparties, to develop the Naija bond market
- **Increase currency security by linking to international settlement platforms.** The establishment of a direct link with international settlement platforms (such as the Euroclear/Clearstream settlement systems) that are used by many foreign investors will increase convenience and efficiency for foreign investors when settling trades. It should be noted that the admission of the RWF into the Euroclear system was one of the factors that facilitated the issuance of the Twigire bond
- **Maintain an active dialogue with market participants.** The continued interaction by policymakers (as in the example of the Reserve Bank of India) with market participants such as investors, issuers, international exchanges and legal advisors, and clear communication on amendments to rules, helps to ensure confidence in the market.

6. Recommendations (continued)

6.2. Engage with MDBs

MDBs have played a critical role in establishing and ensuring the continuity of offshore LCBMs. Their roles span multiple areas, providing the platform for governments, parastatals and corporates, among others, to access the market. These areas include:

- Issuance of offshore local currency bonds, and working closely with international stock exchanges, to develop an AAA yield curve over various tenors
- Providing advice to regulators, authorities and market participants on the steps to develop such markets, based on their extensive experience
- Helping first-time issuers access the markets and ensuring they are connected to all the relevant institutions
- Working with governments to understand their specific needs and set them on the right trajectory to develop an offshore LCBM (e.g. understand what hedging products are needed)
- Establishing international investor confidence in such markets and encouraging these investors to access local currency debts for the first time by taking a 'toe-in-the-water' approach. This familiarises investors with local credits, standards and documentation.

As such, MDBs are frequent issuers of local currency debt, both in domestic and international capital markets. As alluded to earlier, many MDBs have tried to establish offshore LCBMs for Africa, in countries including South Africa, Nigeria and Rwanda.

AfDB is also a repeat issuer in offshore markets, including in local currencies from Ghana, Nigeria and Zimbabwe. However, without a formalised strategy in collaboration with African governments to launch offshore LCBMs, these markets may not be accessible for other issuers within the respective countries to meet their financing requirements and may only be accessible for MDBs.

6.3. Carry out non-deal roadshow events internationally to begin establishing investor demand for such products by African governments

Clear communication to build and foster credibility among market participants should be maintained at all stages of the reform process and beyond. A communication strategy that lays out the authorities' reform objectives, and their strategy to upgrade and deepen their bond market, is critical to build market confidence. As the market develops, maintaining confidence will also hinge on the clarity and predictability of policies and reform initiatives. This issue is particularly relevant to build and maintain investor relations and create the investor base for the government bond market.

Popularising the positive attributes of African bonds through roadshows will also help. Working together with global financial centres that understand African markets may be critical to attract long-term investors, such as pension and insurance funds that are seeking to diversify their portfolios.

As such, we recommend that African governments should consider carrying out non-deal roadshows internationally. As India and China have already shown, such roadshows would not only raise the market's profile, but also validate foreign investor demand for the local currency bond asset class.

“We recommend that African governments should consider carrying out non-deal roadshows internationally”

Bibliography

AfDB & ADB & ASEA (2017). Local currency bond issuance on African Capital Markets

AfDB. (2018). <https://www.afdb.org/en/news-and-events/african-development-bank-approves-zar-140-million-loan-to-support-african-local-currency-bond-fund-17813/>

AFMI. (2015). <https://www.africanbondmarkets.org/en/news-events/article/update-1-ifc-raises-5-mln-in-first-rwandan-franc-offshore-bond-71877/>

African Development Bank. (2018). African Economic Outlook. Available: https://www.afdb.org/fileadmin/uploads/afdb/Documents/Publications/African_Economic_Outlook_2018_-_EN.pdf

Briceño-Garmendia, Cecilia; Shkaratan, Maria. (2011). Kenya's Infrastructure: A Continental Perspective

Cassimon, Danny and Essers, Dennis. (2012). Washing away Original Sin: Vulnerability to Crisis and the Role of Local Currency Bo. Research Gate. Available: https://www.researchgate.net/publication/263963213_Washing_away_Original_Sin_Vulnerability_to_Crisis_and_the_Role_of_Local_Currency_Bonds_in_Sub-Saharan_Africa

Dafe, Florence; Essers, Dennis; Volz, Ulrich. (2017) Localising Sovereign Debt: The Rise of Local Currency Bond Markets in Sub Saharan Africa (No. 202 ISSN 1753-5816)

Essers, Dennis; Blommestein, Hans; Cassimon, Danny; Ibarlucea Flores, Perla. (2014). Local currency bond market development in Sub Saharan Africa: A stock taking exercise and analysis of key drivers (Working Paper/2014.08 ISSN 2294-8643)

Franklin Templeton Investments. (2017). Opportunities in Emerging-Market Local Currency Bonds. Available: <https://www.franklintempleton.co.uk/downloads/Servlet?docid=iyhcbjhl>

FTSE Russell Country Classification. (2018). <http://www.ftse.com/products/indices/country-classification>

Gasore, Ben. The New Times. (2015). <http://www.newtimes.co.rw/section/read/185980>

GI Hub Infrastructure Outlook. <https://outlook.gihub.org/countries/Kenya>

Government of Kenya (Vision 2030). www.vision2030.go.ke
H+K Strategies South Africa. (2015). <https://www.jse.co.za/articles/ifc-launches-green-bond-on-the-jse>

Heathcote, Chris. (2017). WBG

http://african-exchanges.org/sites/default/files/publications/afdb_local_bond_issuance

<http://blogs.worldbank.org/ppps/forecasting-infrastructure-investment-needs-50-countries-7-sectors-through-2040>

<http://blogs.worldbank.org/ppps/global-infrastructure-project-pipeline-linking-private-investors-public-infrastructure-projects>

<http://pubdocs.worldbank.org/en/905971515361291303/Global-Economic-Prospect-2018-1-11-11/11/world-economic-outlook-update-january-2018>

http://www.ifc.org/wps/wcm/connect/REGION_EXT_Content/Regions/Sub-Saharan+Africa/Investments/Infrastructure/

<http://www.imf.org/en/Publications/WEO/Issues/2018/01/11/world-economic-outlook-update-january-2018>

http://www3.weforum.org/docs/WEF_Africa_Competitiveness_Report_2013.pdf

IFC. (2012). IFC launches Pan-African bond program to support local capital markets https://www.ifc.org/wps/wcm/connect/news_ext_content/ifc_external_corporate_site/news+and+events/news/ifc_launches_pan_african_bond

IFC. (2013). <https://ifcextapps.ifc.org/ifcext/presroom/ifcpresroom.nsf/0/A0AFA018ED58AA1285257B090062590C?OpenDocument>

IFC. (2016). Infrastructure Finance – Colombia and FDN: Lessons on infrastructure lending from Colombia

IFC. (2018). Infrastructure in Africa

IFC Naira. (2013). <https://www.ifc.org/wps/wcm/connect/885afe004e46e660ac11ac7a9dd66321/Naira+Local+Currency+Bond+Presentation+Jan+2013.pdf?MOD=AJPERES>

IMF & OECD & EBRD & WB. (2013). Local Currency Bond Markets – A Diagnostic Framework

IMF & OECD & EBRD & WB. (2016). Staff Note for the G20 IFAWG – Development of Local Currency Bond Markets, Overview of recent developments and key themes Seoul, Korea

IMF & OECD & EBRD & WB. (2016). Staff Note for the G20 IFAWG – Development of Local Currency Bond Markets, Overview of recent developments and key themes (Seoul, Korea)

IMF & OECD & EBRD & WB. (2017). Staff Note for the G20 IFAWG – Recent development of Local Currency Bond Markets in Emerging Economies (Seoul, Korea)

IMF. (2017). Kenya : First Review Under the Twenty-Four Month Stand-By Arrangement and the Arrangement Under the Standby Credit Facility and Requests for Waivers of Applicability, Rephasing of Disbursements, and Modification of Performance Criterion

International Finance Corporation. (2017). MASALA BOND PROGRAM – NURTURING A LOCAL CURRENCY BOND MARKET. Available: <https://www.ifc.org/wps/wcm/connect/04bf3fee-b4f2-4511-8a7d-d021f8f7321e/EMCompass+Note+28+Masala+Bond+Program+FINAL.pdf?MOD=AJPERES>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

International Monetary Fund. (2016). STAFF NOTE FOR THE G20 IFAWG DEVELOPMENT OF LOCAL CURRENCY BOND MARKETS OVERVIEW OF RECENT DEVELOPMENTS AND KEY THEMES SEOUL, KOREA. Available: <https://www.imf.org/external/mp/g20/pdf/2016/121416.pdf>

Torre, Andrew. (2017). The road to Africa's future growth is paved with electronic payments. World Economic Forum. Available: <https://www.weforum.org/agenda/2017/05/the-road-to-africas-future-growth-is-paved-with-electronic-payments/>

UN Policy Brief – Finance Africa's Infrastructure Development. (2015). http://www.un.org/en/africa/osaa/pdf/policybriefs/2015_financing_infrastructure.pdf

World Bank Group. (2014). A Multipronged Integrated Approach to the Development of Securities Markets: The Deep Dive

World Bank Group. (2017). Kenya Economic Update, December 2017: Poised to Bounce Back?

World Bank Group. (2018). Global Economic Prospects

World Economic Forum. (2013). Africa Competitiveness Report 2013

World Economic Forum. (2018). Africa Competitiveness Report 2018

Yahoo Finance. (2015). <https://uk.finance.yahoo.com/news/ifc-raises-5-mln-first-rwandan-franc-offshore-161651381--sector.html?guccounter=1>



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