



Infrastructure Financing in Africa: Five Key Themes for Sustainable Development

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Abstract

This paper reviews some of the key international actors in urban infrastructure financing in Africa and examines their practices and the regionally specific difficulties they face. It goes on to explore the potential for African-based investors to play a role. The challenges of local government involvement in securing infrastructure finance are also highlighted. Overall, this discussion raises significant questions for international development policy and for the current discourse, which prioritises both international private capital and local governments as key actors in addressing the urban infrastructure backlog (Ibid, 2021; Robinson et al, 2024). An alternative perspective is proposed, focusing on blended sources and transcalar assemblages of actors, notably acknowledging the continuing powerful role of national governments in securing infrastructure investment.

Keywords: *Infrastructure, Financing, Sustainable Development*

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Background to the Study

The infrastructure gap [1] in Africa is acknowledged as one of the most pressing barriers to sustainable economic development. There is also a well-demonstrated relationship between economic growth and the ratio of Gross Fixed Investment to Gross Domestic Product. Across the continent, there is a growing need for roads, energy systems and urban infrastructure such as water and sanitation to support rapidly expanding populations and economies. At the same time, global capital seeks stable core and core-plus assets in African markets for their investment portfolios and African countries seek infrastructure investment to expand their economies and urban living of its citizens. But this mutual demand for infrastructure investment is hampered by a set of domestic structural constraints. These include underdeveloped capital markets, low growth and low levels of liquidity as well as generally high levels of foreign debt and international currency restraints.

The same international investors also encounter increasingly impoverished urban populations in desperate need of urban services but with limited financial resources. Ultimately, investors in urban infrastructure do not have a clear view of either the latent risks to the costs of 'embedding' the asset or the risks related to securing financial returns. This has led to generally disappointing outcomes for private sector investment in African infrastructure and speaks to the need for innovative international modes of investment as well as domestically generated infrastructure financing solutions (Attridge, S. and Gouett, M.,2021). In this context, it is increasingly recognised that financing this infrastructure requires a blend of public and private project funding as well as innovative financing structures. The hope is that these would enable strong international and domestic partnerships to emerge in response to the economic situation in each region and sovereign state (Ibid, 2021; OECD, 2023).

The Role of Development Finance Institutions (DFIs) and Multilateral Development Banks (MDBs)

DFIs and multilateral banks, with their mandates to promote economic growth through private sector investment, are key to bridging Africa's infrastructure gap. These organisations straddle diverging, sometimes incompatible, objectives such as developmental impact, rate of mobilisation of private finance and their own financial viability.

Case Study: Financing the Tema Port Expansion

In 2016, the International Finance Corporation (IFC) of the World Bank Group led a US\$667 million syndicated loan (1) to Meridian Port Services (MPS), a company jointly owned by the Ghana Ports and Harbour Authority (30% equity) and Meridian Port Holdings (MPH). MPH comprises APM Terminals (35%) (2) and Bolloré Logistics (35%), now taken over by MSC shipping and rebranded as African Global Logistics. The port's authority provided the equity. The syndicated loan included the IFC, Industrial and Commercial Bank of China, Bank of China, Standard Bank of South Africa and the Dutch FMO bank. The financing was made available after MPH engaged the IFC to fund the port development.

Some concerns have been raised regarding the role of national political actors in the tendering process, the terms of the concession agreement awarded to MPS, particularly regarding potential tax benefits and the low level of government equity (and hence benefits?) in the project. Institutions like the African Development Bank (AfDB) and the World Bank's commercial arms, such as the International Finance Corporation (IFC), are essential intermediaries between global sovereign actors, private finance and African government and institutions. These intermediaries not only provide financing but also play a central role in 'de-risking' infrastructure investments. De-risking is critical for attracting private capital to higher-risk environments. High-risk environments exhibit unique institutional, technical or financial weaknesses that could lead to default on loan repayments. De-risking aims to create better-than-market-conditions through, for example, DFI financing of early stage project preparation, the provision of mechanisms such as guarantees and the creation of innovative blended finance solutions.

DFIs deploy considerable resources to package and customise blended finance, promote public-private partnerships (PPPs), develop project pipelines and finance early stage project development. See the case study of Tema Port (Box). But their success, measured by their leverage ratios indicating the amount of private finance invested in proportion to the DFI's/MDB's own commitment, often depends on the appetite of the private sector for foreign direct investment (FDI) (Attridge & Gouett, 2021). This appetite is selective and variable across the African landscape. This makes DFIs a critical part of the solution requiring adaptation and innovation. They must continuously adapt to local and global financial and private sector investment trends, secure both domestic and international investment information, and forge effective partnerships, including with a range of national government actors. The landscape of large-scale infrastructure investment therefore cuts across scales and involves actors inside and outside of government (Robinson et al, 2024).

Private Public Partnerships, a now well established arrangement where private companies collaborate with government agencies to build and manage infrastructure, offer a flexible model suited to large-scale, capital-intensive projects. While promising, PPPs often struggle to implement due to political and financial risks. These include regulatory inconsistencies and financial barriers which make long-term commitments daunting for private investors.

Chaksukwa and Banik (2019) provide a critique of donor Aid by-passing domestic national institutional structures to avoiding "...high levels of political and administrative corruption and weak implementation capacity in recipient country bureaucracies." In addition to PPPs, there is also an emphasis on blended finance which combines concessional finance (often sovereign or donor-backed) with private investment to address, for example, Sustainable Development Goals.

Complexities and Barriers to Private Investment in African Infrastructure

Investment in African infrastructure by globally powerful private financial institutions seeking to 'fix' investment in core and core plus asset types for their portfolios, requires patience and a long-term perspective. This patience is often lacking, further weakening

interest in such cases. Having patience here refers to persistence with the length of time it takes to prepare a project ready for investment compared to shorter periods in other investment destinations (Mercer, 2018). The reasons for these delays may be political and institutional entanglements, legal and regulatory requirements, financial constraints or weak governance and procedural complexity and human capacities.

One important reason for the reluctance of global private financial institutions, despite the fact that these infrastructure assets may play an increasingly important role as liability-matching instruments, especially in life insurer portfolios, is the fact that capital regulatory charges are implemented on assets invested in private equity or on unrated debt. In the U.S. these can be as high as 30 percent. African infrastructure is seldom financed with rated debt instruments (Mercer, 2018). Related to this, another demotivating factor may be that the opportunity for refinancing in the course of a development project is not immediately visible to investors. African infrastructure projects, however, have one major advantage over many other emerging market regions, such as Latin America and the Caribbean: their significantly lower default rates. Africa's comparative success in this regard may be due to their infrastructure projects benefiting from foreign donor funding and DFI-led concessional loans. They also benefit from de-risking measures such as power pre-purchase agreements and revenue guarantees. Many projects are also US dollarised, minimising currency risk for the investor. Despite all this, foreign private investors often remain reluctant to take up African investment opportunities (Mercer, 2018).

China in Africa – Competing Interests

China has rapidly become one of Africa's largest infrastructure financiers through its Belt and Road Initiative. China has implemented 305 transport and storage projects in Africa valued at US\$47.3 billion in the 20 years from 2003 to 2023. However, the nature and consequences of its aid activities are generally poorly understood and often controversial (Dreher et al. 2021). Chinese infrastructure financing is criticised because it often comes with conditions that drive significant exports of Chinese materials and labour, arguably making it less favourable for local economic impact. This type of domestic demand stimulation, however, is only one part of the Chinese government's overseas strategy. It also uses aid and debt to facilitate infrastructure to enable the extraction of minerals and the supply of industrial inputs into China by setting up industrial production facilities offshore. This is done in partnership with local investors. Dreher et al (2021) demonstrate that the Chinese government financed the creation or expansion of more than 53 cement factories, steel mills, glass plants and other industrial input production facilities in 27 countries between 2000 and 2014 alone.

A further criticism is that, unlike Western DFI-led investments, which typically emphasise developmental outcomes and concessional finance, Chinese financing models are generally non-concessional, [2] raising justifiable concerns over debt sustainability, particularly in nations that are already financially vulnerable.

Research by Dreher et al (2021) shows that China's Official Development Assistance does in fact boost short-term economic growth in recipient countries. When comparing Chinese aid

with aid flows from the U.S., OECD-DAC and World Bank, they did not find Chinese aid inferior to aid from established donors on economic growth grounds. Nor did they find any evidence that Chinese aid undermines the economic growth effects of aid from Western donors. These criticisms, it could be argued, are primarily ideological and therefore may have implications in terms of the political alignment choices for African countries - choices between Western, north Atlantic-centred interests and BRICS. Indeed, Africa Policy Research Institute. (2024) "...examines the potential of leveraging geopolitical funds – such as China's Belt and Road Initiative (BRI), the European Union's Global Gateway Initiative (GGI) and the G7's Partnership for Global Infrastructure and Investment (PGI) – to mobilise private sector participation in trade infrastructure development across Africa" (Executive Summary).

Global geopolitical dynamics together with differences of approach and institutional requirements amongst these different donors/investors, coupled with a dearth of detailed official Chinese data on its infrastructure financing in Africa, results in diverse understandings of costs and benefits from Chinese investment. These factors add to the complexities of African infrastructure financing, even as many African countries must balance the benefits of critical infrastructure improvements with the long-term implications of high foreign debt.

South African Financial Institution in Africa

South African finance providers have become increasingly active in the African infrastructure market. For example, Old Mutual Alternative Investments (Pty) Ltd (OMAI)[3] considers itself "...one of Africa's leading private alternative investment managers" [4] managing infrastructure investments, through a subsidiary, African Infrastructure Investment Managers (Pty) Ltd (AIIM)[5]. AIIM has US\$7.4 billion under management in 23 active funds and 266 portfolio companies. With offices in South Africa, Nigeria, Kenya and Côte d'Ivoire, AIIM's track record extends across seven African infrastructure funds, investing equity in African infrastructure projects such as renewable energy, baseload power generation, toll roads, ports, digital infrastructure and PPP assets.

Ninety One Asset Limited, a South African asset management company listed on both the London and South African stock exchanges, is another large scale example. In 2022 it had US\$159 billion under management. It reports that it manages the Emerging Africa Infrastructure Fund (EAIF) and that it is fully integrated into Ninety One's African private credit investment platform. It markets the Fund, seeks projects, evaluates loan applications, including due diligence, manages transaction administration and monitors the loan portfolio. These examples demonstrate the growing involvement of the South African financial services sector in Africa and its role in investing and mobilising investment on the continent. Speculatively, South African finance and DFI may play a crucial intermediation role with domestic African financial institutions due to its geopolitical position, proximity and potentially better knowledge of African institutional and local business practices.

Domestic Financing and the Role of African Non-Bank Financial Institutions and Capital Markets

Domestic non-bank financial institutions, such as pension funds, are increasingly viewed as vital contributors to long-term infrastructure funding. In addition, African capital markets, including both bond and equity markets, are becoming crucial sources of domestic financing.

The fiscus of African countries is grossly inadequate to meet the ever-widening infrastructure gap.[6] It is also generally recognised that domestic sources should be preferred for infrastructure financing. This is mainly because the alternative of foreign hard currency borrowing would result in an additional external debt burden on already vulnerable African domestic economies as there is seldom any direct foreign exchange revenue generation associated with these investments. Moreover, a structural inflation differential and currency devaluation between sub-Saharan African economies and developed country lenders exposes the borrowing country (and city governments) to serious exchange rate risks.

Regarding external debt, the AfDB reports that Africa's total external debt increased from US\$1.12 trillion in 2022 to US\$1.152 trillion at the end-2023. Global interest rates are at their highest level in 40 years and many bond debt securities issued by African countries are reaching maturity. Africa paid out US\$163 billion just to service debts in 2024, up sharply from US\$61 billion in 2010. Median public debt to GDP ratios in African countries rose from 61 percent before the COVID pandemic to 65 percent in 2023. In addition, according to the AfDB, the structure of African debt has also changed considerably. Bilateral (largely concessional) debt now represents 27 percent versus 52 percent in 2000, whereas commercial debt accounts for 43 percent of total debt, up from 20 percent in 2000[7]. The African Development Bank reports that another debt-related problem is in the “Africa premium” that African Countries must pay when they access global capital markets despite data showing that default rates in Africa are lower than in other parts of the world[8].

The following table provides a comparison of external and domestic debt stock for Ghana, Malawi, and Tanzania using recent data from Joint World Bank IMF Debt Sustainability Analysis reports published on June 24 for Ghana and Tanzania and November 2023 for Malawi. Percentage indicates percentage of GDP.

Table 1.

Key Indicators	Ghana (end 2023)	Malawi (2022)	Tanzania (2023)
Total Public and Publicly guaranteed (PPG) debt to GDP ratio	82.9%	76%	46.7%
Total External debt to GDP	44.3%	35%	29.6%
Multilateral debt (included in Total external debt)	12.9%	22%	18.6%
Bilateral debt - (included in Total debt)	7.5%	4%	2.9%
EXIM China and India and Saudi Arabia, and Iran (in Tanzania) (included in Bilateral debt)	2.6%	4%	2%
Bonds and Commercial external Public Debt (included in Total external debt)	25.5%	9%	8.1%
Total Domestic public debt to GDP ratio	38.6%	40.8% ^[9]	17.2%
Real GDP growth	2.9%	1.6%	6.1% (average of past 10 year)
Inflation rate	54% (December 2022)	30.3%	5.3%
FDI (percentage of GDP)	2.05% (December 2022)	0.4%	2.5%

Sources:

- i. Ghana Joint World Bank – IMF Debt Sustainability Analysis (June 2024)
- ii. Malawi Joint World Bank – IMF Debt Sustainability Analysis (November 2023)
- iii. Tanzania Joint World Bank – IMF Debt Sustainability Analysis (June 2024)
- iv. See also African Development Bank Country Strategy papers for the three countries.

The pressure is on African countries to design creative infrastructure financing solutions within their domestic financial architecture while also implementing the structural adjustment advocated by the World Bank and IMF. This includes mobilising domestic financial resources. In this regard, Kunal Sen (2023) emphasises that domestic investment is almost completely determined by domestic savings. Sen (2023) points out that “Among developing regions, sub-Saharan Africa has one of the lowest rates of savings – an average of

19 percent in 2010–2021. In the same period, in East Asia, the savings rate was 37 percent, which explains to a large extent why East Asia has the highest investment rates among developing regions” (p.94).

Evidently important supply-side measures for mobilising long-term capital for domestic investment includes, for example, advancing the opportunity of fintech to mobilise savings, enhancing pension funds as a potential source of long-term investible funds, and the development of domestic capital markets – which are mostly underdeveloped across Africa. Issues such as low market liquidity and limited participation of corporate entities highlight the need for financial reform to build investor confidence (Sen, 2023). In sum, development of innovative domestic financing for infrastructure investment is vital for African countries to avoid exacerbating external debt in foreign currencies. Strengthening domestic financial instruments, such as infrastructure bonds and innovative instruments like green and diaspora bonds, could play a transformative role in infrastructure financing across the continent. An example of domestic African innovation and commitment of local financial agencies to infrastructure investment is the financing of the Kenyatta Drive project in Malawi (Robinson et al, 2024, p.17).

The Malawi National Pension Fund in Malawi, the National Social Security Fund and the National Housing Corporation in Tanzania and the Social Security and National Insurance Trust (SSNIT) in Ghana have all played important roles as both sources of urban infrastructure financing and as domestic intermediaries between project partners. This assists them to prepare and package projects in which they aim to invest (Robinson et al 2024, p17). They have a measure of financial liquidity, legal and political mandates, local knowledge, networks and privileged access to government authorities and local and international private and foreign investors. These are key ingredients for effective financing of African infrastructure.

Revisiting the Role of Local Government

The AfDB's Urban and Municipal Development Fund is one of several initiatives designed by DFIs to support local governments to secure infrastructure finance. These initiatives face significant challenges including administrative, legal and regulatory constraints on local government agencies, limited local city level revenue generation and inadequate creditworthiness. Furthermore, in many African contexts, decentralisation initiatives have been weakly implemented or strongly resisted by central government actors (it is largely central government departments that control urban planning and development and the central government fiscus that secures and approves infrastructure finance). While it is widely assumed that strengthening local financing frameworks — such as facilitating credit ratings for municipal borrowing or promoting project-ready pipelines — could help cities address their unique infrastructure needs, this is seldom possible given the political reality (Haas et al, 2023; Loffler et al, 2023)

Project financing is also difficult to secure because of the types of infrastructure projects that need financing in rapidly growing and poorly resourced urban areas. The first type of project

includes those of a public goods nature such as parks and city roads with limited cost recovery potential and needing recourse to taxes to service debt. The second is projects with both public (shared) and private good characteristics such as water, wastewater and solid waste. Revenue streams from water consumption can occasionally be used to partially service debt but additional tax revenues would usually be necessary. Electricity supply may also be considered in this category as it is often not subject to full cost recovery pricing. The third type of investment is for purely private revenue projects like toll roads as well as energy and information and communication technology (ICT) where the recourse is directly to user payments (Roland Hunter, interview, November 2024).

Pro-poor city investments, characterised by a need for tax revenue support, would generally be in the first two categories above. Other than mobile telephony infrastructure, purely private financing is not always possible in African cities for the third type of project because the private sector requires market and risk-related returns on its investments and secured revenue streams. These revenue streams and returns cannot be assured in cities where income levels are low and variable. It is also often difficult to implement user pay arrangements which exclude general public use (Ibid, November 2024). Even when finance is available for sub-national infrastructure investment, accessing long-term finance remains difficult for African cities. Faced with inadequate revenues they rely on national government fiscal transfers and on utility infrastructure constructed and managed by regional or national agencies for electricity, roads, and water. Fiscal transfers are often far from adequate for infrastructure provision and often fall short of what is needed for on-going operation and maintenance. Furthermore, decisions regarding expenditure allocation by national governments are intrinsically inadequately aligned with realities on the ground because they are dependent on the timing of transfers from national treasuries. State agencies which provide and manage key utilities and infrastructure are often responsible for the most profitable of these, and subject also to central government political control (Hickey, 2023). This situation manifests an entanglement of institutional, legal, capacity and data constraints aggravated by inter-governmental power relations, timing and mandates. The case for devolution and effective coordination is strongly made by many DFIs and agencies. African cities' 'fiscally fragmented' financing (Cirolia, 2020) and political entanglements require unique transcalar solutions for urban infrastructure financing, including transnational actors, central governments, and utility companies alongside local authorities.

Conclusion: The Road Ahead for Africa's Infrastructure Finance

Africa's infrastructure finance landscape is evolving, with DFIs, private investors and MDBs increasingly collaborating to address the continent's development challenges. Effective infrastructure financing is central to Africa's development trajectory, making it imperative that domestic African policymakers, investors and DFIs work together to realise sustainable infrastructure that supports both current needs and future growth. Low economic growth coupled to inadequate tax collection, rising external debt and low tax-to-GDP ratios in African countries contribute to limited fiscal capacity for infrastructure financing. This combination creates a challenging financial landscape for sustainable infrastructure investment as many countries are forced to rely on external debt to fund essential urban

infrastructure without reliable revenue streams. Expansion of urban services must be coupled with enhanced tax collection, particularly from land and property owners.

In addition, underdevelopment of domestic DFIs and African capital markets with low liquidity and limited corporate bond offerings impede the mobilisation of domestic financing. These will need to be supported and developed together with local domestic innovative financing instruments, such as infrastructure bonds and green bonds. This is essential for reducing dependency on foreign currency debt and fostering sustainable infrastructure investment. Regarding urban infrastructure investment, national governments often control key funding decisions and cities are constrained from adequately meeting growing infrastructure demands. Devolution may be an ideal state but, based on insights developed in this review and evidence from the wider Making Africa Urban research project, arrangements for financing of urban infrastructure may be better advised to embrace a national sovereign responsibility encompassing transcalar institutions across transnational actors, national capital, central government and local authorities. These observations underscore the multifaceted and interdependent challenges in financing Africa's infrastructure, suggesting the potential for national financial markets, strategic partnerships and improved central government fiscal frameworks to meet infrastructure demands sustainably.

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See also the overview report Infrastructure in Africa (2024). *The author of this blog and the footnotes* in both documents

The Gap itself is measured and presented in the annual report of the Infrastructure Consortium Africa's Infrastructure Financing Trends in Africa – 2019-2020. *The gap is estimated to range between USD 59 and 9.6 Billion in 2020 up 53 to 90 Billion USD in 2019.* Table 3.1, p. 34. The Africa Policy Research Institute policy (APRI) brief, Trade infrastructure financing in Africa: an exploration of geopolitical funds for private sector participation, reports a gap of USD 68-109 billion - Africa Policy Research Institute. (2024).

The World Bank's Africa's Time for Transformation (2010). The World Bank IFC document Infrastructure in Africa: How Institutional Reform can attract more Private Investment (2023) provide a comprehensive overview of the infrastructure gap.

The government's recourse to high-cost domestic borrowing to finance fiscal deficits has pushed domestic debt upwards, reaching 40.8 percent of GDP in 2022. Rising interest costs have not only increased the fiscal burden (absorbing 36.8 percent of domestic revenue in FY2022/23) but have also strained liquidity on the domestic market.” World Bank/IMF Debt Sustainability Report (Nov 2023, p. 4)

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