

A Powerful Case for Local Currency



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Utilities generally sell their power into domestic markets earning revenues in local currency, yet independent power projects (“IPP”s) in Sub-Saharan Africa are mostly financed in US dollars. The resulting exchange rate risk is borne by consumers and taxpayers. This article takes a look at that model and considers circumstances that might justify an alternative approach in certain cases¹.

The USD based IPP model

Historically Sub-Saharan African power projects had been financed mostly with a mix of concessional debt by multilaterals and host government funding. In the early 1990’s, prompted by the World Bank with a view to attracting private investment to the sector, the IPP framework emerged. The IPPs that were subsequently developed had financing requirements that could not be accommodated by domestic capital markets due to illiquidity and lack of long-term products.

As a result, long-term funding had to come from off-shore, mostly from development finance institutions (“DFI”s). The DFIs typically had no capacity to take exchange rate risk under their charters. As long-term hedging instruments for African currencies were not available either, the DFIs had no ability to offer their funding in local currency. Consequently hard currency financing became the norm and, with it, the need to allocate the resulting exchange rate risk. To ensure project bankability this risk had to be assumed by utilities and host governments. To achieve that, power purchase agreements (“PPA”s) between the IPPs and local utilities were denominated in, or effectively linked to, the US dollar².

Exchange rate risk in the power sector

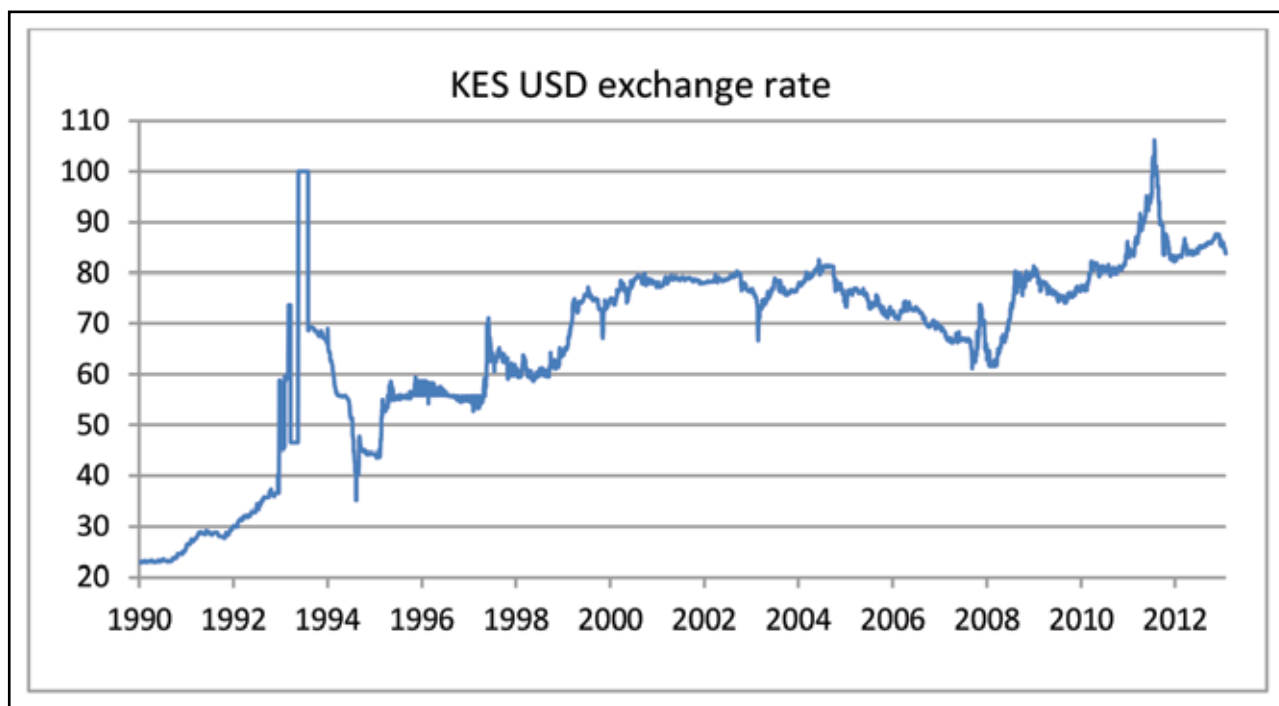
Sub-Saharan African currencies tend to depreciate against the US dollar over time. For example the Kenyan Shilling (“KES”)³ lost approximately 400% of its

¹ The observations on currency mismatches with regard to IPPs generally apply equally to public sector funded projects.

² Since 1990 over 20 IPPs have been developed in SSA, and all are financed at least partially with hard currency debt.

³ Many of the examples given apply to Kenya. Kenya has been very successful in attracting IPPs and its relatively liquid capital markets are more able to provide local currency financing than many other SSA countries.

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value against the US dollar since 1990. With the exchange rate risk allocated to the host country, depreciations and the resulting increase in local currency terms of US dollar denominated obligations must be fully absorbed by the system. While costly, the exchange rate induced hikes in debt servicing costs might be manageable if depreciation occurred gradually and steadily. However, as currencies in Sub-Saharan Africa exhibit very high volatility, the pace, timing and steepness of depreciations are hard to predict and can be dramatic.

For example, as also illustrated by the graph⁴, in the period between 1995 and 2005, the KES lost 75% of its total value and the average annual depreciation was 6%. However, in the years 1996, 1998 and 2000, annual depreciation was 24%, 15% and 18% respectively. Besides the cost impact of actual losses as they occur, these patterns contribute to uncertainty and unpredictability. Often, sharp depreciations are purely the result of external shocks. For example, the

shilling lost 15% in the last quarter of 2008 following the Lehman crisis. In the course of 2011, it lost up to 20%, which was largely attributed to the EU debt crisis. In the US dollar PPA model, the costs of such depreciations are in one way or the other shouldered by taxpayers and consumers in the host country.

Kenya has adopted a much applauded model which allows the utility to transfer exchange rate related increases in costs directly to consumers through tariff increases. This contributes to cost-reflectiveness of the tariff and to financial sustainability of the utility. However it also leads to erratic tariff increases that must be absorbed by households and companies. Tariff surcharges to cover exchange rate losses have peaked at 11-12% in single months in times of crisis⁵. Electricity costs often represent a large portion of household and firm expenditures and any tariff surcharges will likely have a material impact on budgets and economic activity⁶.

⁴ The spike in 1993 concerns the (lead up to) replacement of a dual exchange rate system by a free float.

⁵ The tariff in Kenya includes a variable Foreign Exchange Rate Fluctuation Adjustment (FERFA), to cover exchange rate losses suffered by the utility. Between 11/2008 and 3/2013, the FERFA averaged 5.7% of the aggregate tariff for domestic users assuming average consumption. It peaked at 12.5% in October and November 2011 and again at 11% in late 2012.

⁶ If fossil fuels are (a large) part of the energy mix, the FX charge impact is compounded by the rising cost of fuel imports. The tariff in Kenya includes a variable Fuel Cost Charge (FCC), to cover fuel import costs of the generators. Between 11/2008 and 3/2013, the FCC averaged 33% of the aggregate tariff for domestic users assuming average consumption.

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These consequences are no fault of the utility or government. Faced with the need to manage the exchange rate risk, a choice must be made between transferring the cost to consumers and absorbing the cost itself, putting pressure on the utility's or the state's finances. It is unfortunate that the requirement to absorb losses is typically greatest at a time that the currency is at its weakest and accordingly that government and consumers are probably experiencing stressful economic times. It is also ironic that higher tariffs and increased government expenditure have an inflationary impact and therefore contribute to further currency weakness and losses, fuelling a cycle of permanent instability of the system.

FX crises

There are many examples of how exchange rate risk can unfold. Recent focus has been on the impact of the 2008 financial crisis on former Soviet countries where foreign currency lending had been excessive, driven by the lure of low nominal Euro interest rates. The significance of this crisis lies also in the response of the regulatory community. The avoidance of excessive foreign currency lending and the need to develop domestic capital markets is placed firmly on the global reform agenda, as evidenced by the G20 Action Plan and the 2010 ERSB recommendations on FX lending⁷.

The Asian crisis of the late 1990s and the Argentinian peso crisis also demonstrate the potential impact of sustained hard currency borrowing. In the Asian crisis the currency depreciation faced by countries like Thailand, Malaysia, Indonesia and the Philippines was around 35%. The World Bank⁸ observed that the currency denomination of electricity payments was a key determinant of the impact of the crisis. In Indonesia and the Philippines, where wholesale electricity tariffs for IPPs had been denominated in hard currency, the cost of utilities' off-take obligations ballooned. In Malaysia however, where these payments had been denominated in local currency, the cost of private power rose by less than 10%. Accordingly, in countries where the sector was USD funded the crisis

led to defaults and restructurings. In Argentina in 2002, the peso devaluated by some 70%. In its effort to control inflation the government froze tariffs, effectively forcing utilities to default under their USD PPAs.

While these crises each feature unique circumstances, they both illustrate the downside of placing unlimited exchange rate risk on host governments.

Reasons to reconsider?

Exchange rate risk is a harmful by-product of the reliance on off-shore savings to finance African infrastructure development. As Africa's infrastructure needs are expected to substantially outstretch its savings and financing capacity for the foreseeable future, this dependency will remain. And, in the absence of viable alternatives the associated exchange rate risk must also be endured. However, while many constraints that led to the prevailing model persist, efforts to reduce dependencies have also been made. We identify two categories:

Improved access to domestic financing and savings capacities

1. Local debt markets are deepening with banks providing greater volumes and longer tenors. This trend is supported by the development of capital markets and growth in domestic sovereign and corporate bond issues⁹. The issuance by national generator KenGen in 2009 of a 10 year Kenyan Shilling bond that was substantially oversubscribed is an illustration of what is possible.
2. The wider availability of sovereign credit ratings for Sub-Saharan African countries, increasing from 4 in 2002 to 20 in 2012, also supports corporate bond markets as they contribute to price discovery and liquidity. The push to develop local currency bond markets has received new impetus from the Global Reform agenda¹⁰, which highlights the importance of local currency bond markets in absorbing capital flow shocks and reducing currency risk.
3. Multilaterals like the African Development Bank and the IFC are increasingly issuing bonds in local markets, providing an alternative source of long-term local

⁷ Recommendations of the European System Risk Board of 21 September 2011 on lending in foreign currencies.

⁸ Private Sector Note No. 146 - The East Asian Financial Crisis - Fallout for Private Power Projects.

⁹ In Kenya, bonds represented half of total government debt issues in 2002 (the other half T-Bills), but 80% in 2012. Corporate bonds were 0,1% of GDP over 1990-2000 and 0,5% over 2000-2010 (IMFWP 13/12).

¹⁰ The importance of local currency bond markets is stressed in the "G-20 Action Plan to Support the Development of Corporate Bond Markets" and the FSB Report on "Financial Stability Issues in Emerging Market and Developing Economies".

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currency funding for their clients while developing markets by stretching the yield curve and setting new benchmarks.

- The specialised vehicle GuarantCo¹¹, facilitates long-term local currency funding for infrastructure projects by domestic lenders and bondholders. Applying credit enhancement guarantees, GuarantCo can assist domestic institutions in increasing single obligor limits and extending loan tenors, thereby enabling them to meet the needs of infrastructure projects.

Improved management of exchange rate risk

- TCX Fund was established by the DFI community to hedge long term local currency risk in frontier markets. By hedging the long-term local currency loan activity of a geographically spread shareholder base, TCX Fund achieves significant diversification and economies of scale. TCX enables the DFI lenders to provide local currency loans in currencies and tenors where previously they could only offer US dollar funding.
- Certain domestic hedge markets have deepened with more players offering longer swap tenors. This presents an opportunity for local banks and international hedge providers, like TCX, to jointly syndicate hedge deals, accommodating larger volumes where TCX can take the longer end of a hedge beyond the appetite of the local banks.

Both for an individual project and for the sector as a whole, funding in local currency presents immediate and long-term structural advantages over US dollar funding. The substantial financing requirements of the sector cannot be met by local currency sources alone. However, the mentioned sources of local currency, by themselves or collectively, can account for at least a substantial portion of most projects' funding needs.

The fact that a substantial component of most projects' expenditure is generally in hard currency, does in principle not impact this analysis. The choice of funding currency should be primarily driven by the source of revenue. The hard currency required to finance expenditures can generally be purchased on spot markets or, to the extent funding is sourced from off-shore lenders, will generally be provided by these lenders under synthetic local currency loan structures¹².

Is hard currency funding cheaper?

There are several dimensions to this question. One is that exchange rate risk can be easily misunderstood and underestimated. Local currency rates, whether sourced from domestic capital markets or from off-shore DFIs that have hedged with TCX, reflect inflation rates and depreciation risk. Interest rate differences between local currency and USD funding are therefore a measure of expected loss. To make a valid comparison, hard currency interest rates should therefore be increased with expected annual depreciation levels to arrive at the real interest rates. The potentially debilitating impact of possible shock devaluations, of constant volatility in earnings and consumer tariffs, of increased uncertainty and of reduced system resilience, should also be quantified. In other words, while nominal local currency rates may appear higher, when factoring in all consequences of the hard currency alternative, the analysis and conclusions reached are most likely very different.

Conclusion

The funding of African energy projects with foreign currency burdens the host country with the need to manage and absorb exchange rate risk. Where currencies tend to depreciate heavily and movements are very volatile, the associated cost and uncertainty can be substantial, adding pressure to utilities and consumers alike. Fortunately, due to the advancements made in hedge markets and domestic capital markets, local currency can now be considered and accessed for most African power projects. An increased share of local currency financing contributes to greater resilience and stability of the individual projects concerned and of the country's energy system as a whole. Associated benefits are an improved investment climate, a deepening of domestic capital markets and a more stable macro-economic performance.

While considering all options to minimize currency risk is a prudent strategy for any power project, an especially compelling case can be made for sustainable local currency financing structures for renewable projects. See the box on the next page.

¹¹ GuarantCo was established by the Private Infrastructure Development Group (PIDG), a consortium of donor agencies from the UK, the Netherlands, Switzerland and Sweden.

¹² "Synthetic" refers to a local currency loan that is *denominated* in local currency and hedged by TCX Fund or another source, while all disbursements and debt service payments are done in hard currency.

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Local currency and renewables. A stable fit.

The potential and the need for renewable development in Africa are well documented¹³. Cited key benefits are the modularity of renewables that can accommodate rural off-grid solutions, the vast wind, geothermal and solar resources available and the continuing decrease of development costs of renewable technologies.

In the context of exchange rate risk, another key benefit is the removal of exchange rate volatility through the fuel channel, often a significant source of volatility for thermal projects. Financing a renewable project with local currency would eliminate that other main source of project volatility. The result would be substantially more reliable and stable cash flows through the life of the project.

A further benefit of renewables in this context is their potentially modest size. While sources of local currency

funding and hedging are increasing, in absolute capacity they remain wholly insufficient to meet all investment requirements of the sector. However, the funding requirements for a smaller renewable project (say 0-50MW), should be well within reach of local currency sources, whether they are domestic bank and bond markets or off-shore funding hedged with TCX, or a combination of such sources.

Renewable policies could be designed to promote a push towards local currency PPAs and tariffs that can (also) accommodate local currency financing. This would result in projects that are not only environmentally sustainable but also financially far more stable and resilient. The reduction in tariff volatility would imply greater certainty for utilities and consumers. Besides, the increased demand for local currency funding from a budding renewable sector, would contribute to the further deepening of domestic local capital markets and to improved financing conditions for the sector. ●

¹³ UNEP Finance Initiative report February 2012: "Financing Renewable Energy in Developing Countries"



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