

DISCUSSION PAPER

Currency Risk in Project Finance

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In developed and developing countries alike, there is a very large need for infrastructure investment as existing infrastructure ages, economies develop and populations grow. According to the McKinsey Global Institute, in order to keep up with projected global GDP growth, the world will need to invest an estimated \$57 trillion between 2015 and 2030 (Dobbs et al., 2013). For most countries, relying on state budgets alone will not be sufficient to meet such large investment needs. Public-private partnerships (PPPs), in which governments work together with the private sector to develop and finance infrastructure, can therefore play an important role. In developing countries, international financing institutions (IFIs), such as the International Finance Corporation (IFC), and other multilateral development banks often help finance key infrastructure projects, predominantly through hard currency loans. Without the participation of IFIs, international commercial banks would typically be hesitant to participate in the financing of such projects. However, due to the nature of the international floating exchange rate regime, hard currency loans create currency risk, which in turn results in uncertainty and potential additional liabilities for the receiving countries. To avoid this situation, local currency financing would be preferable but may not always be available.

This paper analyzes the impacts of currency risk on infrastructure projects in developing markets and identifies ways that currency risk can be managed.

It then proposes a two-pronged strategy for IFIs to address the issue of currency risk, focusing on improving local capital markets and developing local currency financing solutions. Based on this strategy, the paper then analyzes various financial tools that IFIs can use to stimulate local currency financing in order to help countries meet their development goals while limiting their exposure to currency risk.

1. Currency risk in project finance

Hard currency loans can create a currency risk if revenues are in local currency. For example, a power plant in India may be financed in dollars, but if electricity tariffs are in rupees, this creates an asset-liability currency mismatch. If the rupee depreciates against the dollar by 10 per cent, revenues remain unchanged but the liabilities are now 10 per cent higher. One of the key challenges in project finance in emerging and frontier markets is to determine who should assume this currency risk.

In PPPs, an optimal risk allocation generally means that a risk should be allocated to the party that is best positioned to manage or bear that risk, or more specifically, the party that can accept the risk at the lowest costs. However, regarding currency risk in these markets, this optimal risk allocation may not be so straightforward. A typical private sector developer has no influence over the exchange rate.



Although the central bank has some control over the exchange rate through its monetary policies, the government's effective control of the exchange rate may be limited. As a result of the above, unhedged currency risk is largely unmanageable for the private sector and may be beyond the control of the government agency in charge of infrastructure development, which means that it may not be easily acceptable for either party.

Developers and investors have no control over the exchange rate and will therefore try to either manage the risk (see below for risk management strategies) or price the exchange rate risk in their rates/tariffs. As currency risk can also have an upside (or lower downside than expected), it could create a windfall for the developers/investors. From the lenders' perspective, beyond receiving interest payments on the principal, there is no potential for upside. Lenders will therefore typically not accept any significant currency risk and expect the developer to ensure that any currency risk the project may assume will not affect its debt service.

Given the inherent uncertainties in exchange rate risk and the lack of a predetermined logical risk allocation to either the government or the private sector, currency risk can be a difficult and sensitive topic in negotiations between the private sector developer and the government. Furthermore, the uncertainty that currency risk inherently carries

may undermine one of the key advantages of PPPs, which is the relative cost certainty achieved through long-term contracts. Besides the technical complexity of exchange rate risk and lack of cost certainty, there can also be an important perception issue: if the procuring agency—and therefore ultimately the public—directly bears the currency risk and observes how the local currency payment for the same service significantly increases year after year, it may conclude that the project's foreign financiers must be making excessive returns. In reality, the foreign financiers may be making a normal risk-adjusted return on their hard currency investments and/or loans.

2. Managing currency risk

There are a number of strategies to manage currency risk. However, it should be recognized upfront that these strategies are typically costly to one of the parties involved: the project developer, financiers, or government. When negotiating contracts with private sector developers, governments (or publicly owned utilities) need to acknowledge the real cost of hard currency financing, which includes both the cost of capital in hard currency and the cost of currency risk that the developer is expected to assume. Text box 1 contains a variety of currency risk strategies that can be used to manage currency risk.

Text Box 1: Currency risk management strategies

(Partial) Natural hedge

To reduce the asset-liability currency mismatch that occurs when using foreign currency financing for local service delivery, a developer may choose to sell a portion or all of the project's output to a country with the same currency as its liabilities. For example, the Nam Theun 2 hydropower project in Laos is partially financed by Thai banks through Thai baht-denominated loans and also exports a significant proportion of its energy production to Thailand (Multilateral Investment Guarantee Agency [MIGA], 2006). As a result, the Thai baht-denominated loans are not exposed to currency risk. A similar structure has been adopted by Bhutanese hydropower projects that export their production to India, where both debt and the power purchase agreement are in Indian rupees.

Local currency swap

Under a currency swap, two parties agree to exchange principal and/or interest payments of a loan in one currency for an equivalent loan in another currency. Such swaps allow lenders/borrowers and investors to hedge (a part of) their loans/investments. However, for some emerging and many frontier markets, currency swaps are not commercially available. The IFC can provide currency swaps for a number of these markets. Furthermore, the Currency Exchange Fund (TCX) is a special purpose fund that can provide currency hedge products for local borrowers in frontier and less liquid emerging markets.



Text Box 1: Currency risk management strategies (continued)

Exchange rate-indexed contracts

If a project's revenues are indexed to the exchange rate, a currency swap is effectively built in to the contract. As a result, the currency risk is transferred to the buyer, often a state utility or government entity. While this strategy solves the currency risk for the developer and financiers, it does not solve the issue for the buyer/government. For example, for highway concessions in Chile, the government has provided an exchange rate guarantee for the dollar-denominated financing component, which effectively translates the local currency payment mechanism into a hard currency payment mechanism (Lorenzen, Barrientos, & Babbar, 2001).

Foreign currency loan under peg

If a country's currency is pegged to a foreign currency, a developer could consider taking out a loan in the foreign currency, assuming that the peg is maintained. However, a currency risk continues to exist, as the peg may be undone. This risk ultimately depends on the underlying economic fundamentals and political will to support the peg. Pegs exist in many countries, including 13 African countries that use the CFA franc, which is pegged to the euro. Many Caribbean countries are pegged to the U.S. dollar, whereas Bhutan and Nepal's currencies are pegged to the Indian rupee.

As can be observed from the currency risk management strategies described in text box 1, most of these strategies are ultimately costly to the end user, as they will most likely need to pay for the service, either directly (through rates/tariffs) or indirectly (taxation). One way to avoid currency risk altogether is to only use local currency financing. However, given the often limited capacity of local currency financing markets, this approach may not be feasible without outside support. In the remainder of the paper, we will discuss ways that IFIs can help address the challenges of currency risk and local currency financing.

3. Local currency financing strategies for international financing institutions

IFIs actively participate in infrastructure projects with private sector involvement in emerging and frontier markets, predominantly by providing hard currency loans. Through their participation, IFIs help provide comfort to international commercial banks, which may result in additional infrastructure project financing. This is an important contribution to developing these countries, as very substantial investments in infrastructure are required. However, by providing hard currency loans, IFIs also create significant currency risk, as discussed above. Rather than providing hard currency loans—which are ultimately approximately as expensive as local currency loans when currency

risk is considered—this paper argues that IFIs should focus on 1) developing local capital markets and 2) supporting local currency financing of infrastructure projects, preferably through local and international commercial banks.

It is important to acknowledge that IFIs have already taken significant steps to support local markets. For example, to date IFC has provided over \$12 billion in local currency financing through loans, swaps, guarantees, risk-sharing facilities, and other structured and securitized products (IFC, 2014a). However, IFC's total disbursed loan portfolio of \$24.4 billion in 2014 contained only \$3.2 billion, or 13 per cent, in local currency-denominated products, with the remainder in U.S. dollars (\$18 billion) and euros (\$3.2 billion). Some of the projects supported by IFC do of course generate hard currency revenues, which in turn do not result in currency risk. Depending on the exact nature of the project (e.g., local electricity production versus oil export), local currency financing may be more appropriate. Considerable efforts are also being made to improve local capital markets. Nonetheless, by focusing specifically on their additionality and on addressing missing markets and repairing market failures in the first place, IFIs can create even more value by encouraging commercial banks to finance infrastructure projects in emerging markets.

Develop local capital markets

According to Thiam Hee Ng, a senior economist at the Asian Development Bank (ADB)'s Office



of Regional Economic Integration, liquidity is tightening across Asia, yielding great potential for local currency bond markets to fill the gap (Gilmore, 2014). IFIs can help develop local capital markets in general by providing support to government through upstream policy work on topics such as financial regulation, sound monetary and fiscal policies, strong and independent financial government institutions, improved market information, credit reporting systems, and collateral registries. This kind of support helps create a more robust financial system that is more likely to be able to provide the long-term financing required for infrastructure projects. This upstream work is essential and makes good use of IFIs' global exposure and knowledge base.

IFIs also support local financial intermediaries by directly providing credit and equity. Through these financial intermediaries, IFIs can extend longer-term local currency financing to local entrepreneurs and (infrastructure) projects. The mere act of providing local financing—thus avoiding currency risk for local entrepreneurs—is in itself commendable. However, it may also be a suboptimal use of IFIs' financial resources and an underuse of international commercial banks. Instead of providing direct financial support, IFIs should identify and address the missing markets and market failures that cause these financial intermediaries to not have access to sufficient capital in the first place. These may be linked to a variety of risks, including project, political and currency risks. By providing credit enhancements or guarantees to (international) commercial debt and equity providers, IFIs can leverage the private sector's resources and increase the overall access to local currency capital. IFIs already provide such guarantee products, but they typically represent a small proportion of the total balance sheet. For example, non-trade guarantees represented less than 2 per cent of IFC's total 2014 commitments (IFC, 2014a).

Besides increasing the total financial resources available to local financial intermediaries (and therefore to local entrepreneurs and projects), the above approach also helps create more comprehensive and efficient capital markets that may, over time, require lower levels of guarantees and hence can help countries transition

towards more sustainable financing solutions. By significantly rebalancing their portfolio toward credit enhancement and guarantee products, IFIs can create more value in emerging and frontier markets.

Support local currency financing

Although developing local capital markets is an essential step, it does not preclude direct financing of infrastructure projects by foreign financiers. This is particularly relevant when local capital markets are not sufficiently developed or simply do not have enough domestic savings to finance large infrastructure projects. Indeed, prudent regulations related to local bank portfolio diversification can limit the total pool of funds obtainable from local banks. For example, Nepal is said to have only enough domestic savings to finance a single medium-sized hydropower plant, but its needs are much higher. In cases such as these, foreign investment may be the only immediate solution to financing an infrastructure project. As mentioned earlier, IFIs often play a very important role in financing such projects through direct loans, which are largely in hard currency. These loans in turn create a currency risk. When providing these hard currency loans to local infrastructure projects, IFIs must acknowledge that the real cost of finance is approximately the same as local currency financing. The advantage of this type of IFI financing mainly comes in the form of potentially longer tenures and the “stamp of approval” effect, which may convince other (international) financiers to participate.

Related to the point made above regarding direct support to local financial intermediaries, direct lending or investment by IFIs to infrastructure projects may in fact be a suboptimal use of their financial resources. Following the outlined approach of replacing direct lending with guarantees, IFIs can leverage international commercial banks and make more efficient use of their own financial resources. Furthermore, as IFIs sometimes provide “concessional”—below market rate—financing, IFIs could use the value of this effective subsidy to absorb (some of) the currency risk, thus lowering the cost of currency risk to infrastructure projects.

Transition to new IFI financing approach

In order to adopt the above approach, in which direct lending is replaced with guarantee products,



IFIs will initially have to actively seek out commercial financial intermediaries to partner with, as missing markets and/or market failures have largely kept them from getting involved. As IFIs increasingly shift their focus from direct lending and financing to providing guarantee products, commercial banks will need to be informed and actively encouraged to take part in projects that previously would have been mainly financed by IFIs. Furthermore, governments and developers in emerging and frontier markets need to be advised on these shifting priorities in order to prepare them to more actively engage with (international and domestic) commercial banks. The guarantees to be provided by IFIs will ensure that the projects' residual risk profile (in terms of project, currency and political risk) is acceptable to commercial financiers. Typically, (international) financiers may be comfortable with project risk but will most likely need additional comfort on currency and political risk.

We will use the remainder of this paper to discuss various products and services IFIs can employ to efficiently develop local capital markets and support local currency financing.

4. Financial tools to stimulate local currency financing

IFIs have a wide range of financial tools available to them to support the development of local capital markets and to encourage local currency financing. The following recommendations can be customized to the particular needs of the target country in line with the current state of its capital markets.

Support local currency bond issuance

Fixed income securities such as bonds constitute a significant part of capital markets worldwide. While governments in many emerging markets have frequently used bonds to borrow from international capital markets, their use in raising capital for private sector infrastructure projects has been limited, in part due to country risks. This is especially the case for local currency bonds, as the additional currency risk, or the high cost of hedging, makes these debt instruments unattractive to international investors. Recognizing that bond financing can be an efficient and relatively

economical way to raise local currency capital (notwithstanding drawbacks such as inflexibility and expensive breakage), IFIs are providing different credit enhancement solutions to improve the risk-return profile of these securities. Through the guarantee of an AAA-rated institution such as the IFC, these bond issues can obtain a credit rating that is not only appealing to investors, but also helps decrease the cost of financing (i.e., yield).

When it comes to providing support to bond financing, IFIs should focus on local currency bond issues as opposed to foreign currency bonds. By increasing the available local currency offerings, IFIs not only eliminate currency risk but also play an important role in developing local capital markets. Through the issuance of local currency bonds, IFIs can help build the financial and regulatory environment that is necessary for a well-functioning, robust local capital market. During the issuing process, shortcomings of current market regulations can be identified and adjusted, building on international best practices.

Local currency bond issues also help extend the range of investable local financial instruments, which is key for increasing the participation of market players, as local investors need to have a sufficient variety of securities to be able to make efficient asset allocation decisions matching their risk-return profiles and time horizon. In addition, IFIs should aim to support deals with sufficient issue size to attract institutional investors and justify bond issue transaction costs. IFIs have the necessary capacity and international expertise to help establish a capital market environment that allows other international or domestic issuers to raise capital in local currency. Increased market participation results in better liquidity, which has many positive spillover effects on the domestic economy. Most importantly, the cost of financing will decrease for local companies and projects. For many, this will create the first opportunity to borrow directly from capital markets, as their size made tapping international capital markets previously impossible.

IFC's five-year Umuganda bond issued in Rwanda (2014, 12.25 per cent yield) is a recent example of IFIs issuing local currency bonds (IFC, 2015a). As per IFC's vice president and treasurer, Jingdong



Hua, the “Umuganda bond will support the development of the country’s capital markets so they can intermediate savings and private sector investment” (IFC, 2014b). A wide range of investors, both domestic and international, participated in the issue.

As explained above, under the approach proposed in this paper, IFIs could use their resources even more efficiently by providing the required guarantees to overcome missing markets and market failure and let commercial financial institutions issue future local currency bonds. An interesting example of this is IFC’s recently implemented guarantee program in Indonesia. In this program, financial support was offered through both direct loans for green-field projects and a 20 per cent credit guarantee for a 500 billion Indonesia rupiah bond (approximately \$39 million) (IFC, 2015b). For the later operation, IFC used only \$8 million of the total amount of resources designated for the program, while direct loans accounted for more than \$780 million. As the example also shows, guarantees typically still represent a small share of IFIs’ commitments, with the lion’s share still being direct lending. A more efficient use of IFIs’ resources would further increase the use of guarantees, potentially resulting in longer-tenor local currency bonds.

Support derivatives markets to provide local currency hedging instruments

Currency hedging instruments such as foreign exchange forwards and swaps play a substantial role in facilitating international transactions. As explained earlier, without appropriate hedging, exchange rate fluctuations can significantly affect the bankability of any infrastructure project that relies on foreign financing. However, in many markets, basic currency hedging instruments are not available. In other cases, some form of derivatives market may exist, but there is no meaningful liquidity to trade these securities. Alternatively, the market may be too thin, resulting in very large bid/offer spreads, making hedging uneconomical. On the one hand, this means that local businesses and financial institutions with access to international capital markets face a currency risk when sourcing foreign currency financing. On the other hand, without the

possibility to hedge their currency exposure, international investors and IFIs will be hesitant to make investments or lend in local currency.

The availability of foreign exchange derivatives is therefore essential for a well-functioning economy and capital market. IFIs should play an active role in facilitating the trading of these financial instruments by acting as market makers, providing pricing and sufficient liquidity in currency pairs for which trading would otherwise not take place or for which the market is too illiquid. The intervention would achieve significant short-term as well as long-term impacts, including a better-functioning local currency market with increased availability of (foreign-source) long-term financing for vital infrastructure projects.

For currency pairs that currently cannot be hedged, IFIs should help create hedging products. An example of this is the TCX. Its mandate is to develop better-functioning capital markets in developing countries by providing currency risk management products for exotic currencies (TCX, 2013). However, its services are only available to its investors (mainly IFIs) and their clients and the country limits can easily be exceeded by one single large transaction. One of its main principles is additionality, so TCX only gets involved if no adequately priced commercial alternative is available. Also, its services can only be used for hedging purposes, not for speculation. If IFIs indeed start using their considerable financial resources to replace direct lending by guarantees that may also cover currency risk, they will need to simultaneously help grow initiatives like TCX.

Support domestic financial institutions in accessing long-term liquidity

Availability of easily accessible, affordable financing is an essential requirement for economic development and stable growth. In emerging and frontier markets, bank loans typically constitute the main source of financing for the private sector. However, due to the asset liability mismatch (short-term deposits, long-term liabilities), commercial banks may struggle to provide long-term financing as typically required for infrastructure projects. This mismatch challenge is all the more real for banks in emerging and frontier markets, resulting in the availability of only relatively short loan maturities.



Furthermore, local banks' low credit rating and the volatile domestic economic and political environment make longer-term international financing expensive and sometimes simply inaccessible. Even if some type of borrowing from foreign sources is possible, the financial institution may struggle to hedge the underlying currency risk.

Infrastructure projects require exactly the type of financing that banks in emerging markets typically lack the most: large size with long-term maturity. Along with high domestic interest rates, this may help explain the continuous reliance on IFIs when it comes to infrastructure project finance. IFIs' assistance has definitely helped realize numerous vital pieces of infrastructure, providing much-needed economic boost and meaningful social impact. However, direct IFI financing to these projects inevitably creates competition for local financial institutions, which under ideal circumstances would provide the lending to avoid currency risk.

IFIs should therefore redirect their support in a way that reinforces local capital markets, and more specifically domestic banks, so that they are able to fill their important role as local currency lenders in the infrastructure space. IFIs could address the issue of unavailability of long-term financing to local banks by offering solutions that are specifically aimed at remedying this lack of long-term liquidity. Their intervention could be in the form of a direct credit line to local banks for infrastructure projects. However, it would be more efficient and therefore preferable to provide the required guarantees to enhance the ability of local banks to raise capital from international markets. This would not only solve the long-term financing issues, but would also encourage local banks to build in-house expertise and know-how while improving their international reach and credibility. Building sufficient in-house expertise and a dedicated project finance desk requires experienced staff, who need to be recruited and provided with sufficiently interesting perspectives. For a local bank (as well as international banks acting locally) to justify investing in developing such a team requires a solid project pipeline, which in turn depends on a long-term commitment by both IFIs and governments to use local financing for infrastructure project development. If this commitment exists and local

banks can indeed raise international financing to develop their project finance portfolio, international commercial banks can gain more exposure to local banks, hence improving overall international capital markets.

Develop and provide credit enhancements

As explained in the previous sections, guarantees and credit enhancement can play an important role in IFIs' strategy to develop local capital markets and increase local currency financing. These mechanisms can help transfer specific risks from investors and lenders to guarantee providers. Through the intelligent use of guarantees and credit enhancements, projects can be de-risked, making them more attractive for both domestic and international financiers. Ultimately, the question for IFIs should be what exact risks need to be transferred through these instruments to meet domestic and international financiers' requirements to finance infrastructure projects in emerging and frontier markets. IFIs should strive to identify these risks and where necessary and appropriate provide guarantees for them. If properly implemented, IFIs would not be required to provide direct lending and can focus only on addressing missing markets and market failures.

In order to identify what risks should be transferred, a distinction can be made between currency risk, political risk, and project risks, with the latter being defined as any risk that is not currency or political risk. An example of project risk would be the variation in annual energy production from a solar power plant or higher than anticipated operating costs of a toll road.

Currency risk

International financiers can use the existing currency hedging instruments described above to provide local currency financing to project developers and local financial intermediaries. As the effective cost of hard currency borrowing (hard currency interest rate plus cost of hedging) is typically close to the cost of local currency borrowing, projects should be financially feasible under the effective cost of borrowing. If no hedging instruments exist for a given currency pair, or if it has insufficient liquidity and depth, IFIs should support the development of such derivatives, as



explained earlier. If a project is of particular social and/or economic importance, a government or IFI could consider assuming some of the currency risk to lower the ultimate cost of financing. However, for either the host government or IFIs to provide a (partial) guarantee for the currency risk can turn out to be very expensive due to the inherent uncertainties in currency markets. Instead of providing a full-fledged exchange rate guarantee, it may be a more efficient and prudent use of public resources to provide a contribution toward to the cost of currency hedging. While lowering the cost of financing to the considered project, this approach strictly limits the budget liability to the government or IFI.

Political risk

Political risk is particularly relevant for emerging and frontier markets. It can be defined as the risk an investment's returns could suffer as a result of political changes or instability in a country. Examples include expropriation, war, riots and breach of contract by a government agency. Many IFIs are comfortable assuming political risk in the projects they finance. In their direct lending conditions, the cost of insurance against these risks is typically already included. International commercial banks, on the other hand, are much more hesitant to assume political risks in emerging and frontier markets. To accommodate commercial lenders and investors, IFIs already offer political risk insurance and guarantee instruments. The Multilateral Investment Guarantee Agency (MIGA, part of the World Bank Group), for example, provides international commercial equity and debt providers the opportunity to cover against a number of political risks (MIGA, 2015). The African Development Bank and ADB provide similar products, as do some international commercial insurers such as AON. Although increasingly important in project finance, these guarantees still remain underused compared to traditional direct lending. Furthermore, country limits may also restrict their use.

Project risk

Finally, project risks include all other risk categories, such as operating, construction and financing risk. Insurers can provide insurance for

various project risks. For example, GuarantCo specifically focuses on local currency lending to private sector projects, providing partial risk guarantees that can cover various risks, such as completion risk and liquidity risk. IFIs also offer products that can cover project risk. An example is the World Bank's partial credit guarantees, which can cover private lenders against all risks (both project and political) for a public investment.

An interesting example of how credit guarantees can be used to stimulate local currency financing is the Lower Solu hydropower project in Nepal. The project's debt is financed through a consortium of international and local banks, with the local banks supported by a GuarantCo credit guarantee covering 90 per cent of the \$28.2 million local currency debt (GuarantCo, 2014). Without the GuarantCo guarantee, local banks would not have been able to offer long-term debt to the project. The international consortium of mainly development banks led by FMO did not require additional guarantees.

Varying risk mitigation requirements

Different players have different needs. To strengthen local capital markets and local currency financing, these players' particular requirements must be met. For example, for local financial institutions it is more important to address project risk rather than currency and political risk. This may be intuitive, as local banks are typically funded locally and (have to) accept de facto the political risk of the country in which they operate. International commercial banks, on the other hand, may not require project risk insurance, as they may be comfortable and familiar with the type of project considered, but would benefit from political risk insurance and currency hedging.

In order for the above-outlined approach to be successful, IFIs will need to work closely with international and domestic financiers to identify what risks are currently causing market failures and what exact credit enhancement and guarantees are required to address them.

Provide other forms of assistance

Aside from financial tools, IFIs are providing and should continue to provide other forms of



assistance to help develop local capital markets and local currency financing. For example, supporting local capital markets by creating a framework and issuance process to encourage local currency bond issues can be an important form of non-financial assistance. IFC has done some interesting work in this area by setting up domestic medium-term note programs across different countries.

IFIs can also stimulate sharing of best practices in capital market regulations from developed countries by organizing training and workshops. For local investors, co-investing alongside equity and debt infrastructure funds can be an important learning experience, exposing them to international best practices in project assessment.

IFIs can also encourage behavioural change. For example, the Inter-American Development Bank (IDB) has been promoting a savings culture in countries like Dominican Republic (IDB, 2015) and the Latin American migrant community in the United States. For the latter, IDB has demonstrated that remittances constitute an important source of funds for project financing for the respective country of origin. In fact, the IDB created a remittances and savings group that is specialized in designing products to incentivize the channeling of these monetary flows towards financial products.

5. Conclusions

Currency risk remains a big challenge for project developers in emerging and frontier markets. This paper has reviewed a number of currency risk managing strategies, only to conclude that ultimately currency risk is inherently expensive. As of today, IFIs contribute to the persistence of currency risk by issuing large volumes of hard currency loans to infrastructure projects in emerging and frontier markets.

An obvious way to solve the issue of currency risk in project finance is to provide more local currency financing. This paper has outlined a two-pronged strategy for IFIs help reduce infrastructure projects' reliance on foreign currency financing. First, IFIs should focus on developing local capital markets, hence strengthening and deepening the financial systems of developing countries. Second, IFIs should support local currency financing to

infrastructure projects. However, to implement both strategies, IFIs should not rely on direct lending to local financial intermediaries and infrastructure projects. Instead, IFIs should identify and address missing markets and market failures that undermine efficient local capital markets and local currency financing. This includes making sure that currency hedging instruments are sufficiently available to commercial investors and providing guarantees where necessary. Following this approach, IFIs can use their financial resources more efficiently by leveraging private capital.

This paper calls for a paradigm shift in IFIs' approach to financing infrastructure projects in emerging and frontier markets. By providing the right financial instruments and guarantees instead of direct loans, IFIs can help local financial intermediaries access long-term liquidity while encouraging private sector financiers to provide local currency financing to projects that they may previously have considered too risky for them. As local capital markets mature, private financiers' confidence grows and countries develop, IFIs can gradually reduce their involvement and shift their resources to where they are most needed, thus further amplifying their impact on emerging and frontier markets.

While implementing this approach, IFIs will have to work closely with commercial financial intermediaries and host governments to inform and prepare them for the changing international financing landscape. Each country will be different, though, as their needs will depend on, among other things, the maturity of local capital markets, existence of currency hedging instruments and availability of domestic savings.

The above approach will be challenging, as it represents a significant departure from IFIs' current practice of predominantly direct lending. However, IFIs have been able to adjust to a changing landscape in the past. Furthermore, the arrival of new IFIs such as the Asian Infrastructure Investment Bank may put pressure on existing IFIs to provide better solutions to currency risk. Ultimately, IFIs should use their special position within the international financial system to provide services and products that commercial financial intermediaries cannot provide.



6. Bibliography

- The Currency Exchange Fund (TCX). (2013). *Local currency matters*. Retrieved from <https://www.tcxfund.com/local-currency-matters>
- Dobbs, R., Pohl, H., Lin, D.-Y., Mischke, J., Garemo, N., Hexter, J., Nanavatty, R. (2013). *Infrastructure productivity: How to save \$1 trillion a year*. McKinsey Global Institute.
- Gilmore, S. (2014, May 3). Local currency bonds needed to fill Asia's infrastructure financing gap. *Emerging Markets*. Retrieved from <http://www.emergingmarkets.org/Article/3337340/Local-currency-bonds-needed-to-fill-Asias-infrastructure-financing-gap.html>
- GuarantCo. (2014). GuarantCo provides \$28.2m guarantee for Essel Clean Solu [Press release]. Retrieved from [http://www.guarantco.com/news/guarantco-provides-\\$28.2m-guarantee-for-essel-clean-solu.aspx](http://www.guarantco.com/news/guarantco-provides-$28.2m-guarantee-for-essel-clean-solu.aspx)
- Inter-American Development Bank (IDB). (2015). DR-M1036 : *Promoting a savings culture through CCTs programs*. Retrieved from <http://www.iadb.org/en/projects/project-description-title,1303.html?id=ATN%2FME-13176-DR>
- International Finance Corporation (IFC). (2014a). *Big challenges. Big solutions*. IFC annual report 2014. Retrieved from http://www.ifc.org/wps/wcm/connect/0edb7a004572ddb38bb6bb9916182e35/AR2014_Report.pdf?MOD=AJPERES.
- International Finance Corporation (IFC). (2014b). IFC's "Umuganda" bond marks first international issuance in Rwanda's capital markets [Press release]. Retrieved from <http://ifcext.ifc.org/ifcext/pressroom/IFCPressRoom.nsf/0/9548E38CE030958F85257CDA00424FC1>
- International Finance Corporation (IFC). (2015a). *Creating opportunities in domestic capital markets*. Retrieved from <http://www.ifc.org/wps/wcm/connect/15b85f80473f4971932bff57143498e5/Rwanda+Conf+Jan+2015+Factsheet.pdf?MOD=AJPERES>.
- International Finance Corporation (IFC). (2015b). *IFC: A global leader in local capital market development* (IFC Issue Brief). Retrieved from http://www.ifc.org/wps/wcm/connect/25dfa6004f36e75e9c28de032730e94e/SM2015_IFCIssueBrief_Capital+Market+Development.pdf?MOD=AJPERES.
- Lorenzen, C.C., Barrientos, M.E., & Babbar, S. (2001). *Toll road concessions: The Chilean experience* (PFG discussion paper series, no. 124). Washington, DC: World Bank.
- Multilateral Investment Guarantee Agency (MIGA). (2006). *Hydropower in Asia: The Nam Theun 2 project*. Retrieved from <https://www.miga.org/documents/NT206.pdf>.

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