# Managing Currency Risks to Scale Up SDG Investments in Developing Countries

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## Disclaimer

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## Executive Summary

The shortfall in financing the United Nations Sustainable Development Goals is estimated to be $4 trillion per year in developing countries. Much of the investment into sustainable development will need to come from international public and private investors. Often there is a currency mismatch because the projects are in local currency whereas investments are in foreign currency, which leads to the borrower in a developing country having to bear currency risk. On the other hand, if international investors invest in local currency, then they end up bearing the currency risk, which may discourage the investment from happening in the first place.

Currency risk has been consistently cited as one of the biggest hurdles to mobilizing investments for developing countries. The issue is further compounded in sectors that advance the SDGs such as renewable energy and infrastructure projects, which tend to have long investment horizons. On the flip side, the additional risk premium can also lead to attractive returns for investors with a long-term view and the ability to see through market cycles.

While there is a range of hedging tools that can be used to manage currency risk (such as onshore or deliverable forwards, offshore or non-deliverable forwards, futures, options, and onshore and offshore cross-currency swaps), many of these are often not available in developing countries. In addition to the limited access to hedging instruments, developing countries face several other challenges related to currency risk. Among these is the high cost of hedging for many developing countries (with the cost of hedging further increasing with the size and duration of the exposure being hedged). Other obstacles include a lack of counterparties available to execute hedges, underdeveloped or even non-existent local capital markets, and regulatory hurdles.

Considering these sizable impediments, this paper outlines key solutions—some are already being implemented while others are proposals—grouped into three categories that were primarily gathered based on discussions with key stakeholders in the ecosystem as part of a United Nations Global Investors for Sustainable Development (GISD) Alliance workstream on “Tackling Local Currency Risk”:

1. **Scaling up onshore solutions** by a) IFIs issuing local bonds, b) IFIs offering cross-currency swaps, c) co-lending or risk sharing by MDBs and DFIs, d) MDBs and DFIs moving from an originate-to-hold to an originate-to-distribute model, and e) scaling up full and partial credit guarantees.
2. **Lowering the cost of hedging** through a) dollar loans with principal indexed to local currency, b) tranching, c) proxy hedging, and d) scaling up subsidies for currency platforms; and
3. **Blended finance facilities** such as a) a bridge finance credit facility backed by an MDB, and b) a new facility to absorb local currency risk in bond issuance.

Out of the above solutions, the following have been identified as the most promising in terms of impact and scalability:

1. **IFIs issuing local currency bonds**
2. **Co-lending or risk sharing by MDBs and DFIs**
3. **MDBs and DFIs moving from an originate-to-hold to an originate-to-distribute model**
4. **A new facility to absorb local currency risk in bond issuance**

**For these solutions to reach the scale needed to meet investment needs, the UN GISD workstream makes the following key recommendations**:

- **Local governments need to play an integral role** by providing broad policy reforms where needed to help manage currency risks better through capacity building of governments, improving local capital market infrastructure, regulation, harmonizing reporting standards and principles, and supportive macroeconomic policies.
- **IFIs need to commit to keeping a share of assets in local currencies**, with the share rising with time, as the most common constraint identified for scaling up solutions to prevent local currency exposure from impeding international private investments is the risk appetite of IFIs.
- **A change in the risk management approach toward local currency exposure is needed**. Instead of attempting to hedge exposures at the individual currency level, which is expensive, it is better to manage the exposure across currencies as a portfolio, with diversification helping lower risk and the high interest rates in developing countries more than offsetting the currency devaluations in most circumstances.

For the last recommendation to take effect, a platform for holding and managing currency exposure is needed. The question that remains open for discussion as it was not addressed by the UN GISD workstream is who from within the international system is best placed to manage such a portfolio and what mechanisms would be best suited to do so.

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## I. Currency Risk as an Impediment to Investing in Developing Countries

The investment gap for SDGs in developing countries, estimated to be USD 4 trillion per annum, is widening and several SDG targets and indicators run the risk of regressing.[1] Attracting private international capital flows is critical to reverse this trend as local capital markets will be insufficient on their own to fill this gap. While it is difficult to assess the extent to which currency risk affects investments in projects as counterfactual data does not exist, it has been consistently cited as one of the most important reasons many international investors are reluctant to invest in developing countries.[2] Projects that advance the SDGs, such as in renewable energy and infrastructure, typically have long investment horizons that increase the currency risk. Currency risk is an important hurdle that limits investments in developing countries, especially LDCs and other fragile economies. Even in larger middle-income economies, such as Brazil and Colombia, where investors are comfortable taking the risk as they are relatively more liquid markets, it is difficult to hedge large volumes without increasing the cost of hedging further.

## II. What is Currency Risk?

Currency risk or foreign exchange risk (sometimes referred to as FX risk) is a financial risk that arises when a financial transaction is denominated in a currency other than the domestic currency of one of the transacting parties. While currency risk can take many forms, the main concern is typically *currency depreciation or devaluation*—or more accurately, unanticipated devaluation,[3]—which refers to an unfavorable change in the exchange rate between the domestic currency and the denominated currency before the date when the transaction is completed.[4] Other risks that concern investors and businesses are the *convertibility risk*, which is the case when a payment is received in a local currency but cannot be converted back to dollars (or another hard currency), and *transfer risk*, which is the case when funds cannot be repatriated due to capital controls or, more broadly, the inability to move currency in and out of a country freely.

Currency risk is often a product of political and macroeconomic factors—both domestic and international, particularly in the US since the dollar is the de facto reserve currency of the world. However, it's important to note that exposure to currencies does not entail only downside risk. Indeed, if the currency depreciation over a certain period is less than expected or it potentially appreciates, then exposure to the currency can result in a positive return as the interest rate earned in the currency can more than offset the depreciation.

## III. Related Risks That Arise from Currency Exposure

While exchange rate devaluation, convertibility, and transferability are the primary risks associated with transactions involving different currencies, a slew of other interrelated risks are involved as well, including:

- *Counterparty risk* is the likelihood or probability that one of those involved in a transaction might default or renege on its contractual obligation.
- *Transaction risk* exists in contractual cash flows (receivables and payables) when their values are subject to unanticipated changes in exchange rates due to a contract being denominated in a foreign currency.

- *Liquidity risk* is when the daily turnover of a currency is low or during periods of stress when it's difficult to trade any asset, resulting in either high transaction costs or inability to transact in the desired size without impacting the price. Liquidity risk can also arise when there is a lack of availability of counterparties to transact in the currency or provide needed hedging.
- *Operational risk* for foreign exchange involves problems with processing or settling a trade, pricing, or valuation.[5]
- *Credit risk* is the probability of a financial loss resulting from a borrower's failure to repay a loan, which is not directly related to currency exposure but may have been compounded by currency devaluation.
- *Interest rate risks* arise from changes in interest rates, which are not directly related to currencies but may be related as a sharp devaluation may lead a central bank to raise rates, leading to increased fiscal pressures.

## IV. Determinants of Exchange Rates: What Makes Currencies "Risky"?

In the medium to long term, monetary and fiscal policies are the most important determinants of the exchange rate, assuming the currency is flexible. The macroeconomic policy backdrop is an important driver of a country's economic growth in the medium term. In the long term, productivity trends and terms of trade can impact the exchange rate via several channels, including the real interest rate differential, current account trends, and capital flows.

Various theories have been put forward that incorporate all these factors in determining the long-run exchange rate of a country. The most prevalent of these theories is purchasing power parity (PPP), which stipulates that the exchange rate between two countries is in equilibrium if a basket of goods costs the same in both countries when converted at that exchange rate. In other words, an unanticipated increase (decrease) in inflation in one country should lead to the exchange rate adjusting weaker (stronger) such that in the new equilibrium the purchasing power parity is maintained.[6]

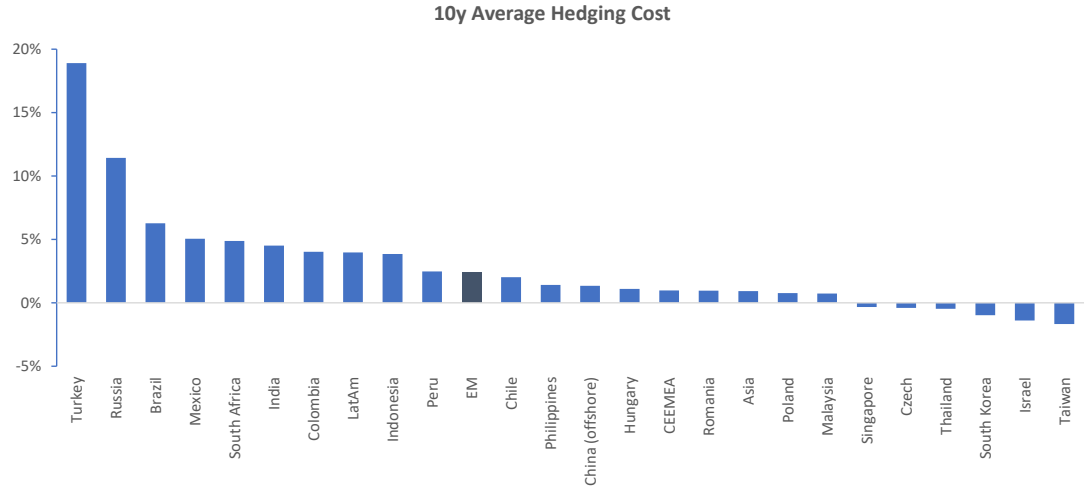
One of the main drivers behind the expected currency depreciation of currencies in developing economies against hard currencies such as the US dollar is inflation as it is likely to be higher in these countries due to their relatively stronger economic growth. In addition to the inflation differential between an emerging economy and the US, if the macroeconomic framework is not consistent and stable then it could lead to a risk premium getting priced leading to greater weakness than implied by PPP. Other factors such as lack of sufficient market liquidity could weigh on the currency further.

The additional risk premium can lead to investors earning attractive returns as the depreciation may be less than implied by the forward price of the currency which may be pricing in excessive risk premium. As such, for investors with long investment horizons and the ability to see through market cycles, investments in currencies of developing countries could be more of an opportunity than a risk.

## V. Tools to Manage Currency Risks

While there is a range of hedging tools that can be used, not all are available in developing economies. To hedge FX risk, the most straightforward approach is to transfer the risk to another party that is looking for exposure to the currency, for example, a corporation as part of its activities. However, there is no assurance of finding such a party to transfer risk, which means that other instruments are needed to hedge the risk perfectly. The more developed the domestic market, the easier it is to hedge, but invariably there is a cost borne by the party hedging its exposure. In many circumstances, the cost of hedging is prohibitive enough to discourage the transaction from taking place in the first place (Figure 1).[7] The main reason for the high cost of hedging is the higher interest rates that prevail in developing countries due to inflationary pressures that typically arise from the relatively strong economic growth that many of these countries experience.

Figure 1: On average, hedging currencies of developing countries used in the sample deduct 2 percentage points from a project's return




Data Source: Bloomberg and Refinitiv; As of July 2024

Many times, it's possible to hedge currency risk using the following derivative instruments:

- **Onshore or deliverable forwards:** An agreement made today between an investor and a bank (the hedging instrument provider) to exchange a specified amount of one currency for another at a predetermined rate on a future date. The cost of hedging, in this case, is the difference between the local interest rate implied by the forward price and the US rate for the same tenor, which can be high for many emerging markets and developing economies (see Figures 1 and 2) due to the higher inflation in these countries relative to advanced economies. Another issue is that most forward contracts go at most one year out, with liquidity typically dropping for longer tenors. Higher interest rates for developing countries, liquidity premiums, and maturity mismatches lead to the higher cost of currency hedging.
- **Offshore or non-deliverable forwards (NDFs):** As the name indicates, offshore contracts are executed offshore or outside the country, typically when there are restrictions on currency movements in and out of a country. The cash flow in a non-deliverable forward is the same as a deliverable forward except the notional amounts are not exchanged, instead, the contract is

settled in dollars based on the difference between the spot currency price and the contracted forward price.

- **Futures:** Similar to forward contracts, these are contracts to buy or sell a specific currency at a predetermined price on a set date. The difference is that they are standardized in nature and accessible on exchange markets, making them more suitable for smaller investors. The hedging cost is similar to that of a forward contract.

Figure 2: Hedging Costs for Emerging Market Currencies – Current and Historical Averages

| | | Level | 10-year | | Change | Average | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Today | High | Low | vs 10y Avg | 1y | 2y | 5y | 10y |
| | EM | 2.0% | 5.8% | 0.8% | -0.4% | 2.4% | 3.1% | 2.6% | 2.4% |
| | LatAm | 3.1% | 7.6% | 0.9% | -0.9% | 4.1% | 5.0% | 3.7% | 4.0% |
| | CEEMEA | 0.2% | 4.2% | -1.3% | -0.8% | 1.1% | 2.2% | 1.6% | 1.0% |
| | Asia | -1.5% | 3.8% | -1.9% | -2.4% | -1.5% | -1.3% | 0.1% | 0.9% |
| LatAm | Brazil | 4.0% | 13.7% | 0.2% | -2.3% | 4.1% | 5.8% | 4.8% | 6.3% |
| LatAm | Chile | 0.1% | 11.2% | -2.2% | -1.9% | 1.7% | 3.6% | 2.2% | 2.0% |
| LatAm | Colombia | 5.9% | 10.7% | -0.6% | 1.8% | 7.4% | 7.3% | 4.5% | 4.0% |
| LatAm | Mexico | 5.6% | 8.2% | 1.8% | 0.6% | 6.2% | 6.6% | 5.8% | 5.0% |
| LatAm | Peru | -0.1% | 14.6% | -3.3% | -2.6% | 1.0% | 2.0% | 1.4% | 2.5% |
| CEEMEA | Czech | -1.1% | 5.3% | -5.1% | -0.7% | 0.5% | 1.4% | 0.9% | -0.4% |
| CEEMEA | Hungary | 1.1% | 11.9% | -3.4% | 0.0% | 3.8% | 6.8% | 3.2% | 1.1% |
| CEEMEA | Israel | -2.0% | 0.1% | -3.9% | -0.6% | -1.6% | -1.9% | -1.5% | -1.4% |
| CEEMEA | Poland | 0.4% | 6.7% | -1.4% | -0.3% | 0.8% | 2.2% | 1.3% | 0.8% |
| CEEMEA | Romania | 0.2% | 8.5% | -1.3% | -0.7% | 0.3% | 1.3% | 1.8% | 0.9% |
| CEEMEA | Russia | 13.3% | 126.1% | 2.7% | 1.9% | 14.2% | 18.7% | 14.5% | 11.4% |
| CEEMEA | Turkey | 37.5% | 80.8% | 6.8% | 18.6% | 34.9% | 36.7% | 25.7% | 18.9% |
| CEEMEA | South Africa | 2.6% | 7.6% | 2.4% | -2.3% | 3.1% | 3.2% | 3.9% | 4.9% |
| Asia | China (offshore) | -2.5% | 8.8% | -3.4% | -3.8% | -2.4% | -2.3% | 0.2% | 1.3% |
| Asia | India | 1.2% | 8.6% | 0.6% | -3.3% | 1.4% | 2.1% | 3.3% | 4.5% |
| Asia | Indonesia | 0.7% | 14.0% | 0.1% | -3.1% | 0.6% | 0.7% | 2.2% | 3.9% |
| Asia | South Korea | -2.6% | 0.8% | -3.2% | -1.6% | -2.6% | -2.4% | -1.5% | -1.0% |
| Asia | Malaysia | -2.4% | 3.2% | -2.7% | -3.1% | -2.4% | -2.2% | -0.3% | 0.7% |
| Asia | Philippines | 0.2% | 3.5% | -0.3% | -1.2% | 0.4% | 0.6% | 1.0% | 1.4% |
| Asia | Singapore | -1.7% | 1.7% | -1.9% | -1.4% | -1.7% | -1.2% | -0.6% | -0.3% |
| Asia | Thailand | -2.3% | 6.4% | -5.3% | -1.9% | -2.8% | -3.1% | -1.2% | -0.5% |
| Asia | Taiwan | -3.9% | 0.4% | -4.9% | -2.2% | -4.3% | -3.9% | -2.0% | -1.7% |

Data Source: Bloomberg and Refinitiv; As of July 2024

- **Options:** Contracts offering investors the right (but not the obligation) to exchange currencies at a specified rate in the future. To hedge, an investor or a company needs to buy a dollar call against the currency they are hedging. The hedging cost in this case is the premium paid for the option. If they exist at all, options markets are highly illiquid for most currencies of developing countries, including for many middle-income countries. If the currency exposure remains in place beyond the maturity of the option, then the risk is the option may expire worthless while the risk remains in place.
- **Swaps:** These involve the exchange of loan principal and interest payments in one currency for another, with interest rates that can be either fixed or floating on either leg.

- **Onshore cross-currency swaps (CCS):** In contrast with currency forwards, cross-currency swaps tend to be of longer maturities, generally several years. While longer maturities allow for hedging over a longer period, the challenge is that the longer the maturity the less liquid the instrument becomes[8]. These instruments work well for hedging regular cashflows of a company or sovereign (e.g., for an outstanding bond) by swapping the interest rate or cashflows received in one currency to the desired currency. The cost of the swap is reflected in the form of the differential between the interest payments in the two currencies. Even in a perfectly hedged position, there may be some exposure to risks such as counterparty and operational risks.
- **Offshore cross-currency swaps:** Similar to offshore forwards, offshore cross-currency swaps are executed outside a country and are cash-settled.

## VI. Limitations of the Current Set of Tools and Challenges in Finding Solutions

While the tools for mitigating currency risk described in the last section have been around for some time, they have not had much impact in encouraging sustainability-related investments in developing countries for several reasons:

- **High cost of hedging** for many developing countries, with the liquidity environment a function of global risk appetite (see Figure 1 and Table 1).
- Even for middle-income countries, the **access to hedges decreases**—and the hedging cost increases—**as the size and duration of the exposure** being hedged **increases**.
- In some countries, **few counterparties** are available to execute hedges, leaving investors vulnerable.
- **Domestic financial markets are either underdeveloped in developing countries or virtually non-existent** in Least Developed Countries (LDCs).

Finding solutions to these challenges is further complicated by:

- **Insufficient efforts**, including via regulations, **by governments in developing countries** to improve liquidity and develop the overall financial market infrastructure **to support investments in their local currencies.**
- **Reluctance of multilateral institutions such as MDBs and DFIs to take on currency risk** in any meaningful size with the vast majority of loans provided in a hard currency such as the dollar.[9] This is important because as this report shows, commercial solutions alone are not going to suffice and there is a need for public resources to address this problem by treating it as a global public good.

## VII. Innovative Approaches to Addressing Currency Risk

Given the limitations of the current set of tools and the regulatory environment, there is a need to look for possible pathways around this problem to catalyze SDG investments in developing countries. For this purpose, the United Nations Global Investors for Sustainable Development (GISD) Alliance launched a workstream on “Tackling Local Currency Risk”. As part of the workstream, GISD conducted 14 in-depth interviews with asset managers, multilateral development banks, governments, financial institutions, and other prominent players in the ecosystem to help

understand the potential ways to address currency risk, factoring in their perspectives and considerations.

Below is a list of ideas and solutions gathered as part of these interviews along with a literature review of the topic. The solutions have been divided into three broad categories covering solutions provided domestically, lowering the cost of hedging, and using blended finance facilities. Many of these solutions are already being used in practice or are in a pilot phase, while others are proposals needing further vetting before implementation. This section provides brief descriptions of the recommendations along with the potential issues that may be faced when implementing them and does not attempt to rank them in any way. The following section summarizes the recommendations in a table and provides more color on each one's scalability.

1. **Scaling up onshore or local solutions**

- **International Financial Institutions (IFIs) issue local currency bonds**: The idea is for MDBs and other IFIs to issue bonds denominated in the local currency domestically at a low interest rate, taking advantage of its high credit rating. They can then lend to domestic companies working on projects targeting SDGs at more attractive rates than these companies could get from the market.[10] Sound policies in a country can play a key role in bringing IFIs to the local markets to issue AAA-rated bonds, which in turn can help develop a local yield curve. For example, in Uzbekistan and Paraguay over time after repeat issuances, the countries were able to build an offshore curve with AAA risk.

  A few challenges that this approach presents are:

  - Governments and central banks are not always in favor of this approach as they fear it could crowd out other public and private issuers.
  - For foreign entities to issue in local markets, domestic regulations need to allow it. Georgia, for example, has passed supportive legislation but this is not an easy approach in most other countries as they lack appropriate regulations.[11]
  - The scale is a function of the limit on the amount of the balance sheet of the MDB that can be in local currencies as well as credit risk. At the very least, MDBs would need to keep a pre-determined fraction of their reserves in local currency and use these reserves for lending in the local currency. In other words, this approach requires MDBs to take more risks than they currently do and needs allocation of capital for such risks.
  - For this approach to be successful, the public sector needs to work hand-in-hand with the private sector as the latter can help create an active secondary market for the bonds issued. For example, the Dutch development bank, FMO, issued the first-ever Sierra Leonean Leone bond with the support of TCX.[12] Similarly, TCX played a role in the creation of the Uzbekistani som offshore curve mentioned above.

- **IFIs offer cross-currency swaps:** MDBs can set up onshore (or offshore depending on the currency) currency swaps whereby they accept local currency as payment from domestic borrowers who don't have access to these instruments and provide them with foreign currency to meet their offshore obligations. IFC has implemented this approach in practice.[13] The MDB can hedge its exposure by entering into a reverse swap or using short-

term currency forwards. In the latter case, it would be a maturity transformation for the borrower, i.e., longer-maturity debt products can be funded with the MDB providing the hedge, which it manages via short-term instruments on a rolling basis. The high rating of the MDBs should allow them to access even long-term cross-currency swaps. This approach can help kickstart the CCS market with the MDB providing liquidity and know-how to the local market.

A few issues that this approach presents are:

- It can work only in some middle-income countries as there is a need for reliable counterparties—such as international banks or large domestic banks—in these instruments, although central banks can be the counterparties as well.
- The government needs to be willing to allow it.
- The scale is limited by the counterparty, credit, and currency risk the MDB is willing to take and by the size feasible to execute in the domestic market.
- In the case of offshore swaps, the MDB would be taking convertibility risk and the hedges would be in the offshore market.
- The multiple legs, including the currency forward hedges, can add to the cost of the transaction for the domestic borrower.

- **Co-lending or risk sharing by IFIs:** MDBs can help develop domestic markets by collaborating and sharing the portfolio of credit risk with local banks, allowing the banks to increase the size of their loan book. The MDB can influence the sectors that receive borrowing in this way, thus they can focus on sectors supporting SDGs.

  A couple of issues with this approach are:

  - This entails MDBs taking local currency and credit risk. As such, the scale is a function of the amount of balance sheet the MDB is willing to put at risk.
  - MDBs would collaborate only with large, high-quality banks in domestic markets, which limits it to mostly middle-income countries.
  - Domestic regulations might be needed for these transactions to be allowed.

- **MDBs and DFIs move from originate-to-hold to originate-to-distribute**: The concept of co-lending can be extended beyond loans to assets. More specifically, MDBs need to transition from their traditional business model of “originate-to-hold” to “originate-to-distribute”.[14] This is a type of securitization in which MDBs sell part of their asset portfolio to other investors, thus scaling up capital mobilization as confirmed by a feasibility study conducted by FSD Africa.[15] Most institutional investors are interested in diversifying their portfolios. For domestic institutions, therefore, investing in infrastructure projects that have already been vetted by MDBs and would be co-owned by them is appealing from the standpoints of diversification and lower risk. Any added guarantees by MDBs would add an incentive to invest. Transferring some of the assets denominated in local currencies to domestic institutional investors avoids currency risk and can encourage MDBs to originate a greater

number of such deals in local currencies, especially since sharing the risks would free up more of their balance sheets.

The main issues with this approach are:

- Creating the right structure for the investment vehicle to let other investors participate without full ownership is not trivial.
- The asset terms need to be standardized, otherwise some of the co-investments may need to be done on a project-by-project basis adding to complexity.
- The preferred creditor status of MDBs may create a problem for investors because during credit events they would be treated as junior to MDBs.
- Historical investments by MDBs are likely predominantly in hard currencies, so the scale for now may be limited but can grow based on the risk appetite of MDBs.
- The scale is limited by the ability of MDBs to originate investments in local currencies and the portion of the assets under management of domestic institutional investors that can potentially be diverted to these activities.
- There is a limit to how much of the portfolio can be shared without diluting the role of MDBs.
- An approach needs to be agreed upon to decide whether to exit or help refinance in the event the investment runs into financing or other problems.

- **Guarantees provided by MDBs**
  - **Full credit guarantees:** This approach entails MDBs, donors, philanthropies, and DFIs de-risking investments to help attract private investors. An example is the African Local Currency Bond Fund guaranteed by KfW as part of the European Fund for Sustainable Development Plus.[16] If these guarantees are provided to a domestic bank or other commercial financiers, it increases the credit rating of the issuance and helps develop capital markets.

    The challenges with providing full guarantees are:

    - It's a significant amount of credit and currency risk for the IFI to take.
    - As such, they can be quite expensive especially if it is priced by a local entity as the funding cost will be based on the creditworthiness of that entity, not the IFI.
    - Unless the cost can be brought down, this approach is not scalable.
  - **Partial credit guarantees:** This is an approach to provide credit enhancement through partial credit guarantees that guarantee part of the principal or the junior debt tranche which allows for investments into senior debt as well. For example, the World Bank's RSF facility enables government-owned financial intermediaries to extend affordable first-loss credit enhancements to eligible local commercial financiers. This is an unconditional guarantee which helps increase the credit rating of the issuance and helps clients access capital markets.

    The challenge with partial guarantees is

- Similar to the full guarantee, the cost can be high. But if the volumes are large, then the price can be reduced. The MDB has to decide whether to treat the first-loss capital as a grant or returnable.

2. **Lower the cost of hedging**

- **Dollar loans with principal indexed to local currency**: In this approach, US dollar loans are made to emerging market governments or projects with a lending structure designed to appeal to global institutional investors. The loan is then structured and resold to international investors. For the local borrower, the principal of the loan is adjusted periodically based on a local currency index to reflect FX movements and interest rate differentials.[17] These loans contain a concessional component financed through public funds or a philanthropy that seeks to offset part of the currency risk to reduce losses.

  In terms of challenges,

  - This is an imperfect approach as losses can exceed the concession provided and unless a significant portion of the currency losses are absorbed by the donor, this approach is not very different from concessional loans in dollars that are currently provided by MDBs to EMDEs.
  - The scale is limited by the donors' ability to provide concessions.

- **Tranching**: This approach was initially proposed by the Climate Policy Initiative through the India Innovation Lab in 2016 to promote foreign investments in renewable energy projects in India, although it was never implemented.[18] The structure proposed was a customizable currency hedging facility backed by an FX tail risk guarantee. The hedging facility covers a fixed pre-determined depreciation rate and beyond this level, the tail risk guarantee kicks in. Other designs are also possible. For example, the user of the facility could take the first tranche—i.e., exposed to depreciation up to a pre-defined limit, another entity such as the local government can take on the next tranche, and beyond the limit of the second tranche, MDBs or another guarantor can provide protection for a fee. Another proposal with a slightly different take is an exchange rate facility proposed by Benoit et al. which envisions covering currency risk with carbon credits generated from the projects being funded in addition to counting on the support of MDBs and philanthropies.[19]

  The challenge in implementing this approach is

  - The cost of providing the tail hedge is a function of the depreciation limit the borrower is willing to absorb—the tighter the limit, the higher the fee.
  - Scalability depends on the extent of the tail risk MDBs are willing to take.

- **Proxy hedging**: In developing countries that face high hedging costs due to high domestic interest rates, one approach that is used by some of the debt management teams is "proxy hedging". The idea is to hedge using a basket of currencies that correlates well with the domestic currency but with a lower hedging cost due to lower interest rates in those countries compared with domestic interest rates.[20]

  The issues in this approach are:

- The inherent risk in this approach is that if there is an idiosyncratic event in the country, then the correlation may break and the hedge may be ineffective, or worse, it could add to losses. In other words, there is a significant basis risk in this approach.
- It can only work in a few countries with high interest rates, although it is more likely to work in developing countries with difficulties in accessing hedges.

- **Scale up subsidies for platforms:** Increasing public funds available for the capital base of platforms such as TCX (see the box outlining the case study), which provide hedges in currencies that commercial banks don't provide could be another way forward.[21] TCX's business model is based on achieving economies of scale via portfolio diversification and the ability to aggregate, repackage, and sell currency risk to the private sector. The mandate of TCX can be expanded to include more currencies.

  A couple of issues with this approach are:

  - While the platform provides access to financing where it was not previously available, the cost of the currency hedge is typically high as the forward currency price can be quite high in frontier countries due to a combination of high interest rates, low liquidity, and demand for hedges typically exceeding supply, which may prevent them from taking the loan in the first place. As such, a large amount of subsidy may be needed to make this approach more scalable.
  - The scale of hedging is limited by the ability of the platform to divest away the currency risk by finding investors willing to take the risk.

  A similar approach to funding a platform and using it to provide currency hedges has been proposed by the Bridgetown Initiative 2.0.[22] As part of this initiative, it was shown that the risk premium in hedges tends to be overpriced,[23] allowing such a platform to lower the cost of hedging considerably.

  The issues with this approach are:

  - A new platform capitalized and managed by one or more MDBs would need to be set up to test out this approach.
  - Even if the hedging cost is lowered, the cost borne by the borrower may still be high, limiting the scale without additional subsidies.

3. **Blended finance facilities**

- **Bridge finance credit facility backed by an MDB**: A novel blended finance facility is being set up by the Brazilian Treasury, Inter-American Development Bank (IDB), and other donors to provide cheaper funding and a currency hedging program for transition projects that also attract international investors.[24] IDB will intermediate between the central bank and international banks, passing on the AAA pricing and more favorable terms to the central bank. The end investors using the instruments for hedging will benefit from better pricing, access to longer tenors, and higher volumes, as well as more favorable terms (no collateral). This will be done through a Long-Term FX Liquidity Facility which is a low-cost credit line that will provide bridge financing to green projects with inflation-indexed revenues that face temporary cash flow shortfalls servicing foreign debt due to depreciation. In case of a

sharp currency depreciation, the investors could use the credit facility to pay the dollar-denominated debt. It is expected that after the depreciation, over time, the revenues will increase due to inflation, allowing for the payback of the facility.[25]

Some of the issues with this approach are:

- The assumption that over time revenues increase due to inflation is necessary for the facility to work as designed and it needs to bear out.
- Needs risk appetite from MDBs to be able to absorb credit as well as currency risk
- An agreement is needed between MDB and the central bank of each country where structures are set up on who absorbs the losses
- The extent of worst-case losses may vary by country and make it unviable in some.

- **Facility to absorb local FX risk in bond issuance:** In this structure (Figure 3), an intermediary (such as an MDB) absorbs currency risk in a domestic bond issuance, especially a bond targeted to meet SDGs (e.g., green bond), allowing an international investor to buy a dollar bond.[26] As a result, neither the issuer nor the investor has to bear the currency risk. By doing this across multiple countries, the facility becomes a portfolio of currencies of developing countries.

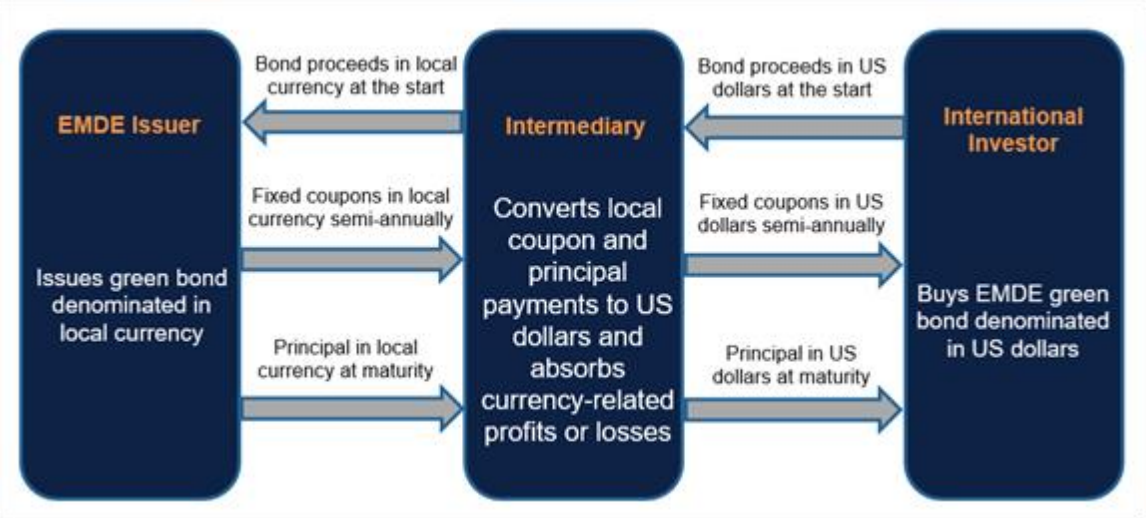
  The idea behind this approach is that a diversified portfolio of currencies is much less volatile than individual currencies, which combined with G10 FX hedges can lower the risk against dollar strengthening. Figures 4, 5, 6, and 7 demonstrate the benefits of diversification by comparing the volatility of individual currencies with a basket of currencies due to the low cross-correlations among the currencies. Figures 8 and 9 highlight the negative correlation of a well-diversified basket of EMDE currencies with the US dollar to the extent that the two are mirror images of each other: EMDE currencies almost always depreciate when the US dollar appreciates, and vice versa. This leads to Figure 10, which shows how well a basket of EMDE currencies correlates with the euro, arguing for the latter to be used as a hedge, which can then be seen to be quite effective in Figure 11.

  In addition to diversification and hedging with G10 currencies, overlaying the carry cushion (i.e., interest rate differential between local and dollar rates) can help generate a positive return for the portfolio held by the intermediary. In effect, the IFI is providing insurance against currency devaluation without a fee which is being offset by the return generated by the local currency portfolio. The structure needs IFIs to act as the intermediary because of their ability to form a portfolio of global emerging market currencies and they possess the expertise needed to manage such a portfolio. Moreover, the structure fits in with the mission of MDBs to prioritize development goals and ties in with calls for MDB reform.[27] Although complex, it's a highly scalable structure. However, it needs MDBs or other IFIs acting as intermediaries to have the risk appetite, capital, and a long investment horizon to look through market cycles.

  The issues that this approach may face are:

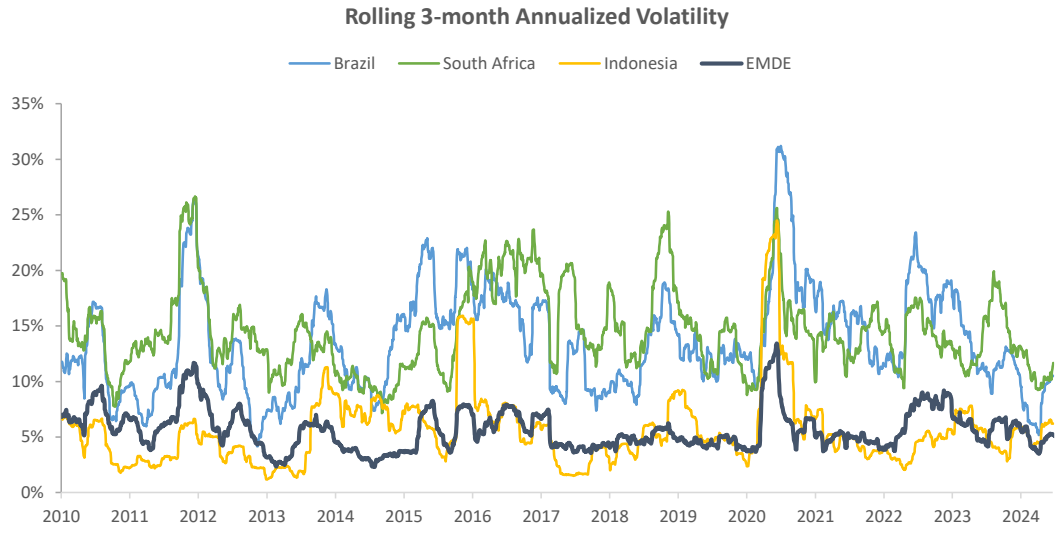
- A facility capitalized by IFIs needs to be set up and managed by an entity with expertise in managing a portfolio of currencies, which requires IFIs to have risk appetite, capital,[28] and a long investment horizon.
- The structure may also need assurance by the government regarding the transferability of the cashflows as they would need to be made offshore.

Figure 3: Structure to Eliminate FX Risk for Issuer and Investor




Source: Gautam Jain, "A Potential Path for Alleviating Currency Risk in Emerging Market Green Bonds," Center on Global Energy Policy, Columbia University, September 7, 2023

Figure 4: EMDE FX Volatility Tends to be Lower Than Currencies from LatAm and CEEMEA



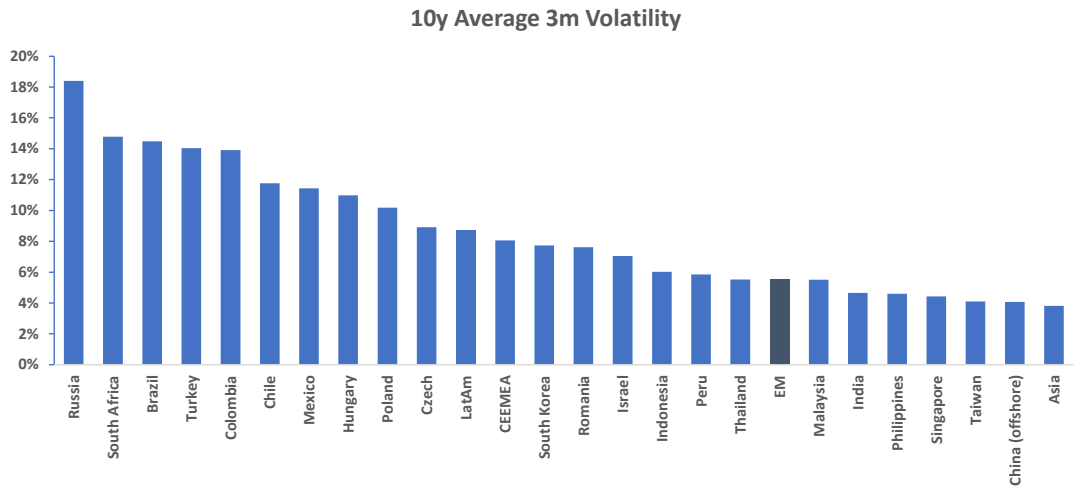

Data Source: Bloomberg and Refinitiv; As of July 2024

Figure 5: Emerging Market Currencies' Volatility – Current and Historical Averages

| | | Level | 10-year | | 2y Beta | Average | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Today | High | Low | to EM | 1y | 2y | 5y | 10y |
| | EM | 5.5% | 13.4% | 2.3% | 1.0 | 5.4% | 6.2% | 5.9% | 5.5% |
| | LatAm | 10.0% | 21.1% | 3.5% | 1.5 | 8.1% | 9.3% | 9.5% | 8.7% |
| | CEEMEA | 6.8% | 18.2% | 3.2% | 1.5 | 7.5% | 8.7% | 8.4% | 8.1% |
| | Asia | 3.0% | 8.0% | 2.0% | 0.5 | 3.9% | 4.4% | 3.9% | 3.8% |
| LatAm | Brazil | 13.5% | 31.2% | 5.2% | 2.4 | 9.7% | 12.8% | 14.8% | 14.5% |
| LatAm | Chile | 13.3% | 31.6% | 4.6% | 3.2 | 13.2% | 16.8% | 14.2% | 11.8% |
| LatAm | Colombia | 13.5% | 29.6% | 5.4% | 2.8 | 12.4% | 15.8% | 14.7% | 13.9% |
| LatAm | Mexico | 17.0% | 35.7% | 3.3% | 0.2 | 10.3% | 10.1% | 11.7% | 11.4% |
| LatAm | Peru | 5.9% | 15.9% | 1.9% | 0.5 | 7.0% | 6.9% | 7.4% | 5.9% |
| CEEMEA | Czech | 7.2% | 26.6% | 3.3% | 1.3 | 7.8% | 9.2% | 9.7% | 8.9% |
| CEEMEA | Hungary | 9.4% | 23.5% | 5.8% | 2.5 | 10.6% | 13.2% | 12.6% | 11.0% |
| CEEMEA | Israel | 7.9% | 15.3% | 2.7% | 0.5 | 10.4% | 10.6% | 8.3% | 7.1% |
| CEEMEA | Poland | 10.3% | 21.7% | 4.0% | 1.9 | 9.6% | 10.7% | 10.9% | 10.2% |
| CEEMEA | Romania | 5.7% | 16.7% | 3.9% | 1.5 | 6.4% | 7.9% | 7.2% | 7.6% |
| CEEMEA | Russia | 14.1% | 99.2% | 4.7% | 6.7 | 14.2% | 21.5% | 20.4% | 18.4% |
| CEEMEA | Turkey | 4.5% | 76.4% | 1.3% | 0.3 | 8.6% | 7.7% | 14.3% | 14.0% |
| CEEMEA | South Africa | 12.4% | 25.6% | 7.1% | 0.7 | 13.2% | 13.2% | 13.9% | 14.8% |
| Asia | China (offshore) | 2.0% | 10.2% | 0.8% | 1.0 | 3.5% | 5.0% | 4.4% | 4.1% |
| Asia | India | 1.5% | 9.1% | 1.1% | 0.8 | 2.0% | 3.3% | 4.3% | 4.7% |
| Asia | Indonesia | 6.4% | 24.5% | 1.5% | 0.0 | 5.0% | 5.4% | 6.1% | 6.0% |
| Asia | South Korea | 6.6% | 14.6% | 3.6% | 0.7 | 8.3% | 9.1% | 7.8% | 7.7% |
| Asia | Malaysia | 3.1% | 17.8% | 1.8% | 0.1 | 5.4% | 5.7% | 4.8% | 5.5% |
| Asia | Philippines | 4.2% | 8.2% | 1.3% | 0.4 | 5.0% | 5.7% | 4.9% | 4.6% |
| Asia | Singapore | 3.2% | 9.1% | 2.0% | 0.5 | 4.1% | 4.7% | 4.3% | 4.4% |
| Asia | Thailand | 5.3% | 12.2% | 2.3% | 0.7 | 7.2% | 8.1% | 6.6% | 5.5% |
| Asia | Taiwan | 3.6% | 8.2% | 1.4% | 0.3 | 4.5% | 4.8% | 4.0% | 4.1% |

Data Source: Bloomberg and Refinitiv; As of July 2024

Figure 6: EMDE FX Volatility is Lower Than Individual Currencies That are Free Floating



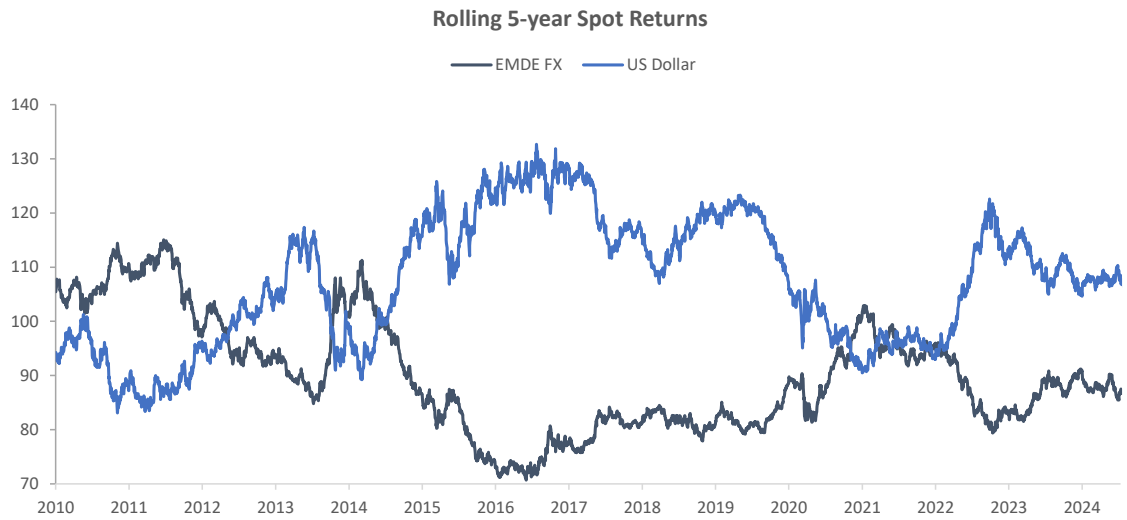

Data Source: Bloomberg and Refinitiv; As of July 2024

Figure 7: Correlation of Individual Currencies with EMDE FX Basket – Current and Historical

| | | Level | 10-year | | Change | Average | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Today | High | Low | vs 10y Avg | 1y | 2y | 5y | 10y |
| | EM | 100.0% | 100.0% | 100.0% | 0.0% | 100.0% | 100.0% | 100.0% | 100.0% |
| | LatAm | 87.4% | 92.9% | 74.9% | 1.8% | 82.8% | 84.5% | 87.1% | 85.6% |
| | CEEMEA | 92.7% | 96.2% | 72.6% | 3.6% | 91.4% | 91.5% | 91.2% | 89.1% |
| | Asia | 89.5% | 94.2% | 76.0% | 2.9% | 88.6% | 87.4% | 86.2% | 86.6% |
| LatAm | Brazil | 71.8% | 81.4% | 31.3% | 9.6% | 60.6% | 58.5% | 64.9% | 62.3% |
| LatAm | Chile | 61.0% | 83.8% | 47.1% | -5.9% | 59.6% | 66.3% | 66.1% | 66.8% |
| LatAm | Colombia | 62.5% | 83.9% | 36.9% | -5.9% | 60.1% | 62.3% | 67.0% | 68.4% |
| LatAm | Mexico | 71.2% | 88.5% | 42.5% | 3.9% | 66.1% | 66.9% | 71.6% | 67.3% |
| LatAm | Peru | 69.4% | 81.1% | 24.0% | 18.4% | 61.1% | 57.2% | 52.6% | 51.0% |
| CEEMEA | Czech | 75.2% | 90.4% | 38.3% | 1.8% | 78.3% | 80.1% | 81.0% | 73.4% |
| CEEMEA | Hungary | 75.0% | 88.7% | 48.4% | 2.4% | 70.2% | 70.6% | 71.7% | 72.6% |
| CEEMEA | Israel | 55.7% | 71.5% | 13.5% | 2.6% | 61.1% | 63.2% | 52.3% | 53.1% |
| CEEMEA | Poland | 76.2% | 89.3% | 50.1% | -2.2% | 75.3% | 79.6% | 79.9% | 78.4% |
| CEEMEA | Romania | 83.2% | 86.5% | 45.3% | 10.7% | 80.4% | 82.4% | 77.6% | 72.6% |
| CEEMEA | Russia | 28.4% | 74.2% | 0.3% | -17.7% | 26.1% | 21.4% | 43.0% | 46.1% |
| CEEMEA | Turkey | 4.0% | 71.5% | -11.0% | -34.3% | -4.5% | 5.1% | 22.0% | 38.3% |
| CEEMEA | South Africa | 70.2% | 86.3% | 65.8% | -5.9% | 72.3% | 74.0% | 75.3% | 76.1% |
| Asia | China (offshore) | 61.3% | 75.6% | 12.1% | 5.9% | 61.1% | 62.5% | 63.6% | 55.5% |
| Asia | India | 53.5% | 74.8% | 28.7% | 1.7% | 59.9% | 59.1% | 48.6% | 51.8% |
| Asia | Indonesia | 62.3% | 77.6% | 37.0% | 4.7% | 59.5% | 55.9% | 57.6% | 57.6% |
| Asia | South Korea | 82.7% | 85.6% | 54.9% | 9.4% | 79.5% | 77.9% | 74.4% | 73.3% |
| Asia | Malaysia | 66.5% | 83.8% | 46.1% | 1.8% | 63.1% | 58.6% | 62.7% | 64.7% |
| Asia | Philippines | 53.2% | 72.1% | 17.7% | 5.2% | 53.3% | 51.9% | 49.8% | 48.0% |
| Asia | Singapore | 89.2% | 90.1% | 69.4% | 4.5% | 87.3% | 87.3% | 85.7% | 84.7% |
| Asia | Thailand | 75.9% | 78.3% | 40.8% | 11.5% | 74.2% | 73.0% | 63.7% | 64.4% |
| Asia | Taiwan | 72.7% | 82.4% | 33.1% | 9.6% | 68.0% | 63.5% | 57.4% | 63.1% |

Data Source: Bloomberg and Refinitiv; As of July 2024

Figure 8: EMDE FX Correlate Well (Negatively) with US Dollar



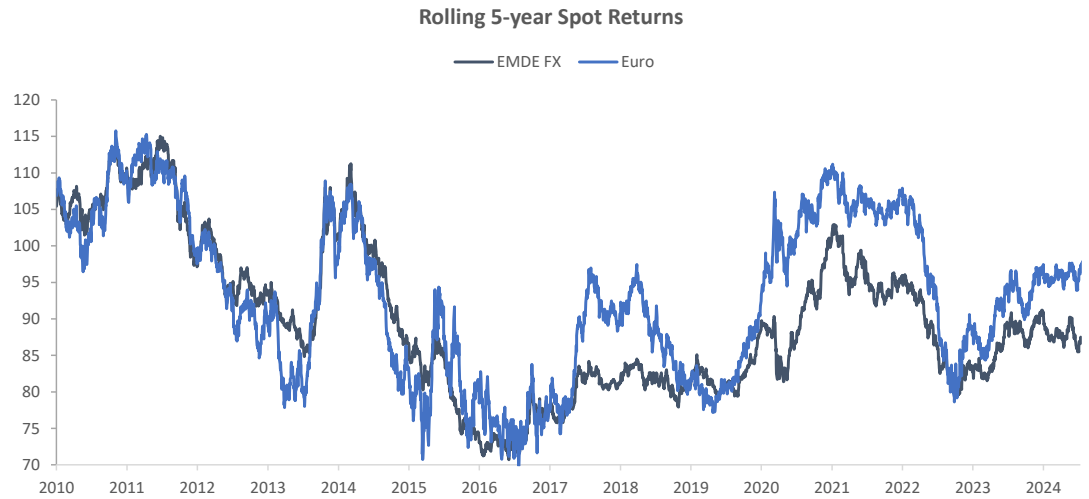

Data Source: Bloomberg and Refinitiv; As of July 2024

Figure 9: Correlation of EMDE Currency Basket with US Dollar – Current and Historical Averages

| | | Level | 10-year | | Change | Average | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | Today | High | Low | vs 10y Avg | 1y | 2y | 5y | 10y |
| | EM | -83.9% | -89.1% | -42.7% | -8.2% | -82.4% | -85.0% | -79.8% | -75.8% |
| | LatAm | -57.0% | -70.3% | -9.0% | -11.4% | -46.9% | -53.9% | -52.4% | -45.6% |
| | CEEMEA | -90.8% | -91.5% | -78.3% | -2.7% | -89.1% | -89.5% | -88.4% | -88.1% |
| | Asia | -78.9% | -82.7% | -23.9% | -17.1% | -78.7% | -78.8% | -69.5% | -61.9% |
| LatAm | Brazil | -45.9% | -57.5% | 0.7% | -15.5% | -31.0% | -31.6% | -36.1% | -30.3% |
| LatAm | Chile | -41.6% | -61.0% | -2.4% | -4.4% | -33.9% | -44.4% | -42.1% | -37.2% |
| LatAm | Colombia | -38.1% | -63.4% | -6.5% | -2.4% | -33.2% | -39.7% | -37.3% | -35.7% |
| LatAm | Mexico | -40.5% | -74.0% | 12.6% | -3.7% | -35.3% | -43.6% | -47.3% | -36.8% |
| LatAm | Peru | -58.6% | -58.9% | -0.2% | -28.7% | -45.5% | -42.4% | -31.7% | -29.9% |
| CEEMEA | Czech | -85.4% | -96.4% | -72.3% | 3.4% | -85.5% | -85.6% | -86.6% | -88.8% |
| CEEMEA | Hungary | -79.7% | -92.9% | -59.3% | 0.4% | -68.1% | -69.5% | -76.4% | -80.0% |
| CEEMEA | Israel | -48.3% | -66.5% | 3.4% | 0.4% | -51.9% | -54.2% | -45.1% | -48.8% |
| CEEMEA | Poland | -81.3% | -92.4% | -64.7% | 2.9% | -81.4% | -83.4% | -84.8% | -84.1% |
| CEEMEA | Romania | -96.3% | -97.1% | -78.4% | -4.2% | -94.0% | -93.8% | -94.4% | -92.1% |
| CEEMEA | Russia | -26.2% | -52.6% | 6.9% | -3.2% | -19.7% | -17.3% | -28.8% | -23.1% |
| CEEMEA | Turkey | -1.1% | -49.7% | 3.4% | 23.1% | -1.7% | -8.5% | -18.9% | -24.3% |
| CEEMEA | South Africa | -49.6% | -70.7% | -5.5% | -2.1% | -57.9% | -60.7% | -51.8% | -47.5% |
| Asia | China (offshore) | -60.3% | -71.7% | 8.3% | -15.1% | -63.4% | -62.1% | -52.4% | -45.2% |
| Asia | India | -44.9% | -59.8% | 15.9% | -16.6% | -46.9% | -50.3% | -34.3% | -28.3% |
| Asia | Indonesia | -43.6% | -57.1% | 6.5% | -10.4% | -41.2% | -39.7% | -38.9% | -33.3% |
| Asia | South Korea | -77.4% | -77.8% | -29.0% | -22.7% | -69.9% | -70.7% | -61.9% | -54.7% |
| Asia | Malaysia | -54.3% | -78.6% | -11.5% | -9.3% | -53.3% | -50.2% | -49.8% | -45.0% |
| Asia | Philippines | -38.9% | -61.5% | 8.1% | -11.1% | -46.4% | -46.5% | -35.8% | -27.8% |
| Asia | Singapore | -91.3% | -91.6% | -49.4% | -12.6% | -89.0% | -88.6% | -83.5% | -78.7% |
| Asia | Thailand | -64.1% | -72.2% | -13.2% | -14.0% | -65.0% | -64.0% | -53.6% | -50.0% |
| Asia | Taiwan | -72.9% | -72.9% | -19.2% | -26.9% | -64.7% | -62.1% | -48.8% | -45.9% |

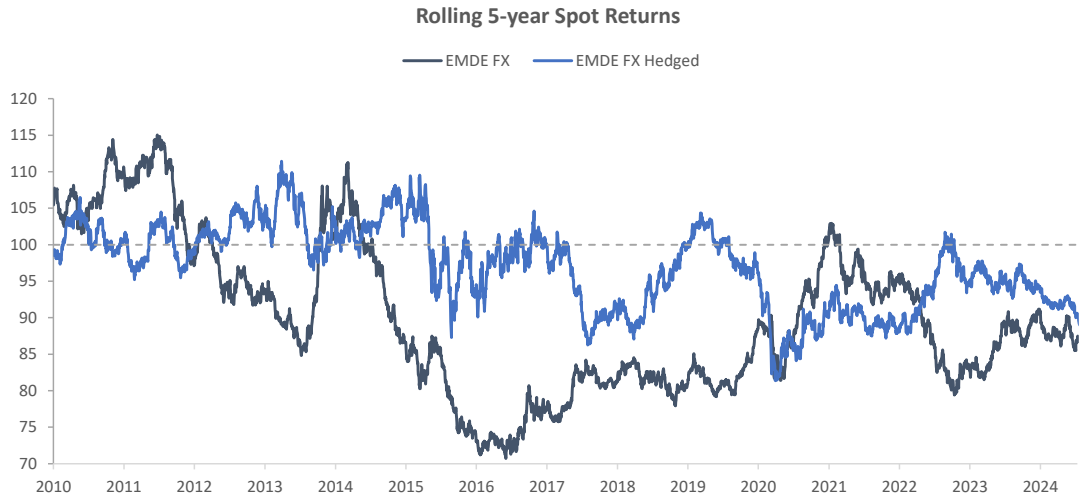
Data Source: Bloomberg and Refinitiv; As of July 2024

Figure 10: EMDE FX Correlates Well with the Euro and More Broadly with G10 FX




Data Source: Bloomberg and Refinitiv; As of July 2024

Figure 11: G10 FX is a Very Effective Hedge to EMDE FX




Data Source: Bloomberg and Refinitiv; As of July 2024

## Case Study: Currency Hedging Provided by a Platform with Risk Capital from DFIs

TCX is an initiative capitalized by Development Finance Institutions (DFIs) that offers borrowers in emerging and frontier markets protection from currency risk by facilitating local currency hedging.[i] TCX's investors do not expect the fund to maximize financial return, but to maximize volumes of currency risk hedged at a reasonable price. TCX offers derivative instruments—cross-currency swaps and FX forwards—in currencies, tenors, and sizes where commercial alternatives are absent or inadequate. It is currently used by development banks, EMDE and DM governments, and private banks as a joint currency pool for risk-sharing purposes. Currently, the subsidy provided by donors through TCX is short-term and only for small-sized projects.

TCX has in effect mobilized investments toward emerging and frontier markets through pooled and diversified risk. The returns for investors can be quite high when the investment is in local currencies versus the dollar, assuming the local currency does not depreciate by much more than expected. The investors are typically those who hold a positive view of the currency (relative to the expected depreciation) and the macroeconomic backdrop of the country and are interested in facilitating the building of infrastructure in the country, which further strengthens the local currency and capital market development. The ultimate objective is to enable access for borrowers to the best possible solutions for their financing needs.

However, the scale remains limited, partly due to mandate restrictions, with TCX providing hedges totaling only USD 2.3 billion in 2023.[ii] Moreover, while TCX is able to provide access to hedges in many countries where previously this was not possible, the cost of hedging tends to be high, which discourages some borrowers from embarking on projects in the first place.

[i] Organization for Economic Cooperation and Development (2016), "Currency Exchange Fund (TCX), TCX Investment Management Company BV." Paris: Organization for Economic Cooperation and Development Publishing. https://www.oecd.org/dac/peer-reviews/Currency-Exchange-Fund.pdf.

[ii] TCX Investment Management Company (2024), "TCX Impact Report 2023." https://www.tcxfund.com/wp-content/uploads/2024/05/TCX-Impact-Report-2023.pdf.

## VIII. Highlighting the Most Scalable Solutions

To better grasp which of the recommendations in the previous section are the most appealing, Figure 12 below hones in on the aspect of whether they can be scaled or not.

Figure 12: Rating Recommendations Based on Scalability

| Approach | Scalability Potential | Constraints to Scalability |
|---|---|---|
| **Onshore Solutions** | | |
| **IFIs issue local bonds** | HIgh | • Governments as it crowds out public and private issuers<br>• Risk appetite of IFIs to take credit and currency risk |
| **IFIs offer cross-currency swaps** | Medium | • Needs reliable counterparties so works only in large EMs<br>• Risk appetite of IFIs to take credit and currency risk<br>• Governments/Central banks need to allow it<br>• If offshore swap, convertibility risk needs to be covered |
| **Co-lending by IFIs** | High | • Risk appetite of IFIs to take credit and currency risk<br>• Collaborate with high-quality banks, limiting to large EMs |
| **IFIs move to originate-and-distribute** | High | • Asset terms need to be standardized or project-by-project<br>• Historical investments limited to hard currency<br>• Risk appetite of IFIs to take credit and currency risk<br>• Preferred creditor status of MDBs may discourage investors |
| **IFIs provide credit enhancements** | Low | • High cost to IFI because based on entity's creditworthiness<br>• Unless cost can be brought down, difficult to scale |
| **Lowering Hedging Cost** | | |
| **USD loan with principal indexed to local FX** | Low | • Imperfect approach as losses can exceed the concession<br>• Limited by the amount of concession that can be provided |
| **Tranching** | Low | • Tighter the depreciation limit, higher the fee<br>• Extent of the tail risk IFIs can absorb limits scalability |
| **Proxy hedging** | Low | • If there is an idiosyncratic event, then hedge is ineffective<br>• Can only work in a few countries with high interest rates |
| **Subsidize currency platforms** | Medium | • Hedging based on forward price is expensive, limiting use<br>• Subsidy needed but the IFIs' capacity for it is limited |
| **Blended Finance Facilities** | | |
| **Bridge finance credit facility backed by an MDB** | Medium | • Risk appetite of IFIs to take credit and currency risk<br>• Agreement with central bank, limiting to large EMs<br>• Structrue needs to be set up on a country-by-country basis |
| **Facility to absorb local FX risk in bond issuance** | High | • Risk appetite and ability of IFIs to manage FX portfolio<br>• Support of government needed to cover transfer risk |

As the figure shows, **among the most promising approaches are those involving co-lending and originate-and-distribute approaches in domestic markets by IFIs. Issuing local currency bonds by IFIs, especially in countries with less developed capital markets, can also be very effective. Another highly scalable mechanism to crowd in private international investors is the one in which**

**these institutions provide currency guarantees in bond issuances denominated in local currencies, taking the risk away from the developing country as well as the investors**.

The common thread in the above-mentioned recommendations to be able to scale is the need to rethink the risk appetite of IFIs, particularly MDBs. Reforming the MDBs is not a new topic as a G20 panel reviewed MDBs in 2022 and recommended that they increase their risk tolerance and expand the use of financial innovation, estimating that MDBs can raise their investment capacity by $1 trillion without impacting their AAA credit rating.[29] It was also the topic du jour at the June 2023 Paris Summit for a New Global Financial Pact and the 2023 G20 Summit in India.[30] Figure 12 shows that the ability to close the investment gap to meet sustainability development goals is deeply interconnected with the ability to reform the MDBs.

## IX. Structural Improvements Needed

The last two sections provided recommendations specifically to address the currency devaluation risk. This section goes into structural changes that could be made by governments and other stakeholders to support the development of a reliable and liquid domestic capital market, lowering the currency risk considerably.

1. **Institutional integrity:** Beyond the devaluation risk, the currency transfer and convertibility risks also act as a bottleneck, especially in LDCs. The World Bank's Multilateral Investment Guarantee Agency (MIGA) provides currency inconvertibility and transfer restriction coverage but at a cost.[31] While it's useful to have access to this facility, the fee may discourage investments. Developing robust fiscal and monetary policy frameworks by these countries is necessary to avert the need for such a hedge. The burden of creating institutions with integrity falls on the governments of developing countries, which can go a long way with the support and guidance of IFIs with expertise and experience in the area.
2. **Education:** Governments need to build the capacity of Debt Management Offices on the risks and hedging costs so that the borrower can better understand what they will have to pay, helping them to make informed choices. Borrowers often have limited or no knowledge of the tools available for managing risks and can benefit from technical assistance. These could include MDBs holding workshops, for example, to explain how cross-currency swaps work to help develop local markets.
3. **Local capital market infrastructure:** Governments should help develop domestic markets and build onshore interest rate curves that are transparent and easily accessible on platforms such as Bloomberg. The domestic infrastructure has to be able to offer hedges beyond what platforms such as TCX can do. Many DFIs cannot provide local currency loans because they have restrictions that require them to segregate. Moreover, to facilitate transparency, central banks should work on increasing their credibility by having a consistent macroeconomic framework to avoid situations where there are 2-3 different exchange rates available in the market which makes hedging more costly and difficult. To create a liquid currency market including the ability to hedge, it is important for local authorities to support the development of local banks and broker-dealers, among other institutions, to act as counterparties in currency transactions and hedges.

4. **Regulation:** Implementing appropriate regulations can help attract investors, for instance, by allowing foreigners to open bank accounts so that they can source from the local capital market and non-banking market including pension funds, asset managers, and other high net-worth individuals. Regulation can also facilitate MDBs to set up bond programs borrow in local currency (up to a certain percentage or volume) and manage money in a local instrument. For example, Georgia introduced legislation to de-dollarize their economy and attract foreign investors, MDBs, and DFIs to their domestic capital market. A step further would be to allow local bonds to be settled internationally through clearing houses like Euroclear and Clearstream as the countries that do tend to see a much greater participation of international investors in their domestic bond markets.
5. **Reporting standards and principles:** It is important to harmonize requirements amongst DFIs, MDBs, and donors such that the exclusionary criteria for projects, reporting, and disclosures of impact are aligned. Doing so could potentially lead to the creation of a common platform shared by these entities, allowing for maximum diversification among currencies, leading not just to the lowering of currency risk but potentially allowing for generating financial returns on the portfolio.
6. **Macroeconomic policy management:** Sometimes there is a disconnect between onshore and offshore rates that can make local currency lending difficult because there is excess liquidity in the country's banking system. The bank lends the money but it does not go towards local currency market development. Governments can address this by implementing consistent macroeconomic policies.
7. **Credit Rating Agencies:** Updating credit rating methodologies by the agencies with more accurate underlying data can help improve the assessment of real risks and assess currency risk appropriately, rather than overstating it. This applies to all entities taking currency risk, including multilateral development banks.

## X. Tying It All Together: Key Recommendations

Given the magnitude of the shortfall in SDG investments in developing countries, which is of the order of trillions of dollars per year, it is clear that public entities cannot fund this gap on their own—developing countries' governments have limited fiscal space, especially post-pandemic, and the combined balance sheets of IFIs pale in comparison to the need. Nevertheless, the public sector still has a crucial role to play in facilitating and encouraging private investments necessary to close the gap by addressing some of the bottlenecks restraining capital from flowing into these countries. To do so, here are the key recommendations that were garnered based on the working group discussions and the interviews conducted as part of the UN GISD workstream on "Tackling Local Currency Risk":

- **Local policymakers need to provide stable policies and help develop domestic capital markets to encourage investments from international investors**: In addition to having stable macroeconomic policies and building institutional integrity and credibility, local governments need to develop regulatory frameworks to support the development of domestic capital markets and a business-friendly environment that can enable an easier path for international investments. In the long run, this will reduce local interest rates which in turn lower nominal

costs. MDBs already provide technical assistance to support these efforts—e.g., the International Monetary Fund via its Article IV consultations—but greater engagement and coordination may be needed, especially in the case of the least developed countries. While governance can be an issue in many developing countries, it should be clear that without a proactive effort by local policymakers—including toward minimizing transfer and convertibility risk—it will be difficult to substantially scale up investments toward meeting SDGs as needed.

- **MDBs and DFIs should commit to keeping a certain percentage of their assets in local currencies with the share increasing with time**: The most common constraint identified for scaling up solutions to prevent local currency exposure from impeding international private investments is the risk appetite of IFIs. MDBs and DFIs tend to lend in hard currencies, which can become problematic for developing economies. Depreciating currencies can lead to the value of the loan to increase in local currency terms. Many countries may opt not to take the loan in the first place, even if it is at a concessional rate, to avoid the problem. Even beyond simple loans, as highlighted in the section on scalable solutions, one of the main constraints is the risk limits of IFIs, especially in local currencies (see Figure 12). By allowing for a greater share of the portfolios to be in local currencies, MDBs can transition from an originate-to-hold to an originate-to-distribute model at a greater scale than otherwise.
- **Create a publicly-funded local currency facility to pool currency risk exposures**: One of the main reasons behind the strong risk aversion towards local currency exposure is the prevalent approach of attempting to hedge at the individual currency level, which is expensive and inefficient as shown in this report. Instead, the risk could be managed much more effectively using a portfolio approach that avails of diversification across currencies and deploys G10 currency hedges. Doing so would not only lower the risk but could result in a positive return from the portfolio under many circumstances even after factoring in potential devaluations by taking advantage of the high interest rates in developing countries instead of paying the same when hedging the currency—i.e., flipping it from being a cost to a gain. In other words, a facility could be created that pools currency exposures from borrowers or investors who are interested in off-loading it. Such a facility could be the most scalable approach as it can be self-sustaining by managing the pool of currencies with a long investment horizon to look through market cycles. However, such an approach would entail a major role for the public sector as commercial solutions are not sufficient to address the challenge. Instead, the facility would need to be capitalized by public resources with the idea of managing currency exposures as an international public good. Indeed, this is the approach suggested in the recommendation for IFIs to absorb the currency risk in green bond issuance denominated in local currencies. The same strategy can be also applied to manage currency exposure associated with some of the other promising solutions—such as local currency bond issuance, co-lending, and originating-and-distributing. Moreover, when managing the risk, it is important to isolate currency risk from other risks, including credit or default risk, counterparty risk, etc., which will be more effective than attempting to manage the combined risks of exposure to a developing country.

While the role of local governments and the approach to managing the currency risk comes out quite clearly in our analysis, the entity or platform best suited for the purpose still needs to be defined. Given the pressure to reform the MDBs, could their risk appetite be sufficiently increased to take on currency risk in a material enough size? If so, at what level of local currency exposure

does the desire and need to maintain the highest credit rating start acting as a hard limit? Should there be a reinsurance mechanism for keeping the risk for MDBs at a manageable level? Is it better to manage the risk in a separate platform using a public-private partnership approach since the private sector would be better at managing a risk portfolio funded by public resources, as suggested in this report? Should different IFIs pool their currency risk together so that it results in greater diversification and a higher probability of generating positive returns?

The objective of the analysis presented in this report is to facilitate brainstorming across stakeholders—including governments, IFIs, and investors—about these questions to arrive at the best mechanism to manage currency risk to catalyze an increase in international private capital to support SDGs in developing countries.

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[8] Multilateral development banks (MDBs) use such swaps often as they can access them with long-term maturities because of their AAA rating. This is usually done through creditworthy counterparties (such as international banks, regional banks, domestic banks, or the central bank in a country). International counterparties are ideal to minimize counterparty risk. When the swap is done with large domestic banks, a positive externality emerges in the form of knowledge transfer from the MDBs to local markets.

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attract additional foreign direct investments for green projects." IDB will enter long-dated cross-currency swaps (up to 25 years) and long-dated options with international banks in offshore markets. Afterward, it will conclude the transactions with the Brazil Central Bank, which will do the same transactions with local FIs. The local FIs will hedge the local projects for currency risk while taking the credit risk.

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