

MANAGING FOREIGN EXCHANGE RATE RISK FOR TRANSFORMATIONAL CLIMATE SOLUTIONS

*A Transformational Change Learning
Partnership Resource*

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**TRANSFORMATIONAL CLIMATE
FINANCE GUIDANCE SERIES //**

TOPICS

- Climate Finance
- Transformational Climate Finance
- Foreign Exchange Risk

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SUMMARY

SOLUTION PROFILE

Managing currency and exchange rate fluctuation risks is vital to attracting the foreign public and private investment needed to implement climate solutions in developing countries at scale and achieve transformational impacts. This guidance provides an overview of key approaches that have already been used successfully around the world, as well as emerging innovations that may expand future options for unlocking foreign investment.

Status: Mature, with ongoing innovation to scale and diversify risk management strategies.

Primary Audience: Climate finance program and project design teams, climate finance experts and advocates working for international financial institution reform.

Relevant TCF Principles: 3: Unlock systemic change; 4: Provide de-risked solutions; 6: Work collaboratively to mobilize finance.

Currency exchange rate risks are a key barrier to large-scale foreign investment in climate solutions, such as renewable energy, in developing countries. In order to achieve the transformation required to meet Paris Agreement goals, low- and middle-income countries need trillions of dollars in additional investments, only a portion of which can be generated domestically. This means addressing foreign currency exchange rate risks is an urgent priority for mobilizing climate finance.

Fluctuations in the value of the local currency relative to the currency in which investments and loans are denominated (such as U.S. dollars)—and even the risk that this may occur—can significantly increase the cost of capital or hinder investments, while creating financial exposure for domestic project sponsors. The most vulnerable countries can face particularly large burdens.

Projects typically generate their revenue in the local currency, and countries sometimes experience large currency depreciations relative to the source currency of the investment. As a result, project sponsors—for example, a public sector energy utility or a small business that provides climate solution services—can end up having to pay as much as 2–5 times what they borrowed, in local currency terms. This creates massive opportunity costs and can lead to bankruptcies or loan defaults.

This guidance examines a variety of options for managing and reducing foreign exchange rate risk, with a view to unlocking the full transformational potential of climate finance. It has two main target audiences: program and project teams, and climate finance experts and advocates.

Program and project teams (e.g., from multilateral development banks, multilateral climate funds, philanthropic funds) increasingly need to consider currency and exchange rate risks as they design and develop climate finance programs and projects. This guidance can help them

understand different approaches available to them, and thereby support transformational change.

Climate finance experts and advocates, meanwhile, play a key role in driving innovation and scaling up facilities and mechanisms for managing currency and exchange rate risk. By learning about these approaches and promoting their use, they can help to unlock and increase foreign investment in climate solutions in developing countries, by both the public and private sectors.



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1. WHY MANAGING RISK IS CRUCIAL FOR TRANSFORMATIONAL CLIMATE FINANCE

The climate finance community is increasingly aware of the need for strategies to reduce perceived and actual risks that affect borrowing costs and hinder public and private investment in climate solutions. Among those risks, research over the past decade suggests, currency and exchange rate risk (represented by the cost of a currency hedge) is one of the largest barriers to the flow of foreign currency loans to developing countries to finance climate solutions.¹ For example, a 2014 study of renewable energy financing barriers in India and other emerging economies by the Climate Policy Initiative (CPI) found that mitigating currency risk for renewable energy projects could lower project costs by about 30 percent.

“Investors and economists often blame country risk for the higher investment returns—or higher interest rates in the case of loans—that are demanded in one country compared to another,” the authors wrote.² The term “country risk” actually covers several different risks, they added, from inflation to fiscal policies, deficits, and borrowing to economic conditions. However, they concluded, most of the country risk premium “is expressed in the cost of converting the currency over the life of the project, or the currency hedge.³ Inflation, government borrowing, and economic growth all affect the supply and demand for a currency and therefore, the exchange rate. In other words, for an investor, most of country risk is often currency risk.”

Developing country currencies, especially given inflationary pressures in their local economies, tend to have a bias towards depreciation in the long run. This poses a challenge for long-term private investors in the Global North, who seek returns in their own (hard) currencies. Bouts of sharp currency depreciation can also occur when countries lack foreign exchange reserves in hard currencies during an economic crisis.

Global South economies are often relatively small, and they have limited capital account convertibility. As a result, deep and liquid currency hedging markets do not exist for investors to offload their risks. For foreign investors, these situations create two concerns: (a) whether their investment will be repatriable in their currencies and, if so, (b) at what exchange rate.

When interest rates are rising and the cost of capital is increasing, it becomes even more important to address currency exchange rate risks. Investors tend to see developing markets as riskier, and they may be particularly risk-averse during times of global economic uncertainty. Notably, without strong investments in climate resilience, as climate change impacts intensify, the resulting losses and damages in developing countries could exacerbate currency exchange rate risks. This means that the next few years are crucial for innovating and scaling up foreign exchange risk mitigation mechanisms, to unlock public and private investment in climate solutions and keep these economies from experiencing even worse exchange rate volatility.

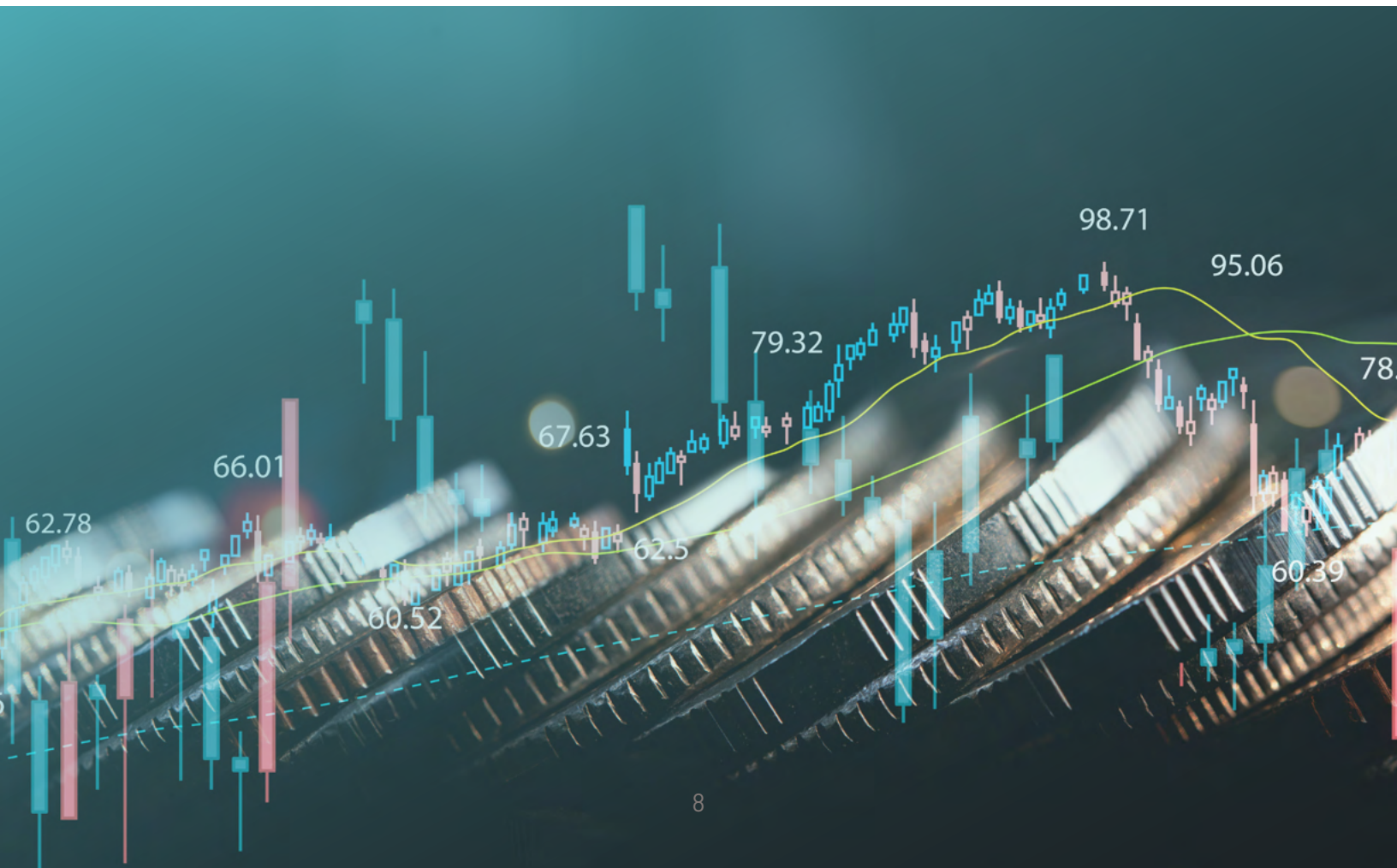
2. RELEVANT APPROACHES FOR MANAGING CURRENCY EXCHANGE RATE RISK

There are many different approaches that can be used to manage currency and exchange rate risk. This section provides a brief overview of some of the most relevant options for foreign public and private investments in climate solutions in developing countries.

2.1 Natural Hedging

Project developers can establish a “natural hedge” by ensuring that project revenues and costs are both in the same currency. Some renewable energy

projects have successfully used natural hedging strategies to transfer currency risks from private sector project developers to the public sector. For example, some wind and solar power projects in Latin American countries have structured both their power purchase agreements (PPAs) and financing in U.S. dollars, aligning revenue and debt service.⁴ In addition, counter-cyclical macroeconomic policies, or investments in assets or sectors that may have natural hedging properties (such as for some commodities) can help mitigate currency risk through the development of currency reserves.⁵



2.2 Indexing Project Cash Flows to Foreign Currency

This approach is a variant on the natural hedging strategy. Developing country governments can index a portion of their payments for services delivered by climate solutions (e.g., renewable energy output) to the relevant foreign currency. The government would thus assume the currency risk exposure, but it may be worthwhile if the overall cost of the services is significantly reduced. If the loan repayment cash flow is indexed to the US dollar, for instance, the project developer would have little exchange rate risk and lower financing and project costs.⁶ While this approach is not appropriate for all situations, it does mirror the current reality for many developing countries that import oil, coal, and natural gas (which are typically priced in U.S. dollars) and so benefit from access to capital in dollar terms. A 2021 benchmarking study by the Global Infrastructure Hub found several examples of long-term off-take agreements with state-owned companies indexed to foreign currencies, including for electricity in India, Indonesia, and Mexico, a metro in Colombia, and multiple energy contracts in Brazil.⁷

2.3 Currency Hedging with Financial Derivative Products

Programs and projects can sometimes use financial derivatives such as forward contracts, options, or currency swaps to hedge against exchange rate risk.⁸ These financial instruments can help lock in exchange rates at a predetermined level, reducing uncertainty. They can be particularly useful for larger projects with substantial risk exposure. In practice, however, these types of products are often prohibitively expensive in developing countries.

Some efforts have been made to make currency hedging derivatives more accessible for program and project-level investment in developing countries to support climate solutions.⁹ For example, several development finance institutions and other partners created the Currency Exchange Fund (TCX) to provide a hedge for currencies for which hedging derivatives are



not yet available in the private market.¹⁰ See Annex 1 for details. In another example, Brazil's Ministry of Finance and the Inter-American Development Bank are developing a new, large-scale foreign exchange hedging program to support currency swaps and other derivatives for green investments in Brazil, including climate adaptation and mitigation projects.¹¹

2.4 Currency Clauses in Contracts

In some cases, it may be possible to include currency adjustment clauses in project contracts such as PPAs that allow for periodic adjustments based on exchange rate fluctuations. This approach can help spread the risk among the parties involved in a project. However, such currency escalation clauses or “true-ups” can still saddle developing country governments and service off-takers with unsustainable risks and demands for foreign currencies to address rising foreign currency payments to project developers. For example, the South African Renewable Energy Independent Power Producer Programme (REIPPP) includes a limited PPA contract clause approach that includes an exchange rate adjustment mechanism during the procurement stage related to selected foreign currency costs.¹²

2.5 Sequencing Investments

For some programs or projects, it may be possible to stagger or sequence investments incrementally over time (rather than committing all capital upfront) to allow for adjusting investment levels as exchange rates change. For example, climate finance loan or investment funds could be disbursed in periodic tranches that are more aligned with the anticipated stages when the funds will be used.

Some additional risk management options may be available to project developers.

2.6 Political Risk Insurance

Political risk insurance can protect against government actions that could affect a project's financial stability, and thus indirectly mitigate currency risk as well. For example, the Africa Energy Guarantee Facility (AEGF) was established in 2018 by the European Investment Bank (EIB), the African Trade Insurance Agency (ATI), and Munich Re to insure qualifying energy access, renewable energy, and energy efficiency projects against non-payment due to political risk factors such as war, civil unrest, and currency inconvertibility.¹³

2.7 Diversification to Mitigate Currency Risk

This portfolio-level strategy can be useful by multinational climate solution project developers, such as renewable energy developers, to mitigate currency exchange risk. Project investors or developers diversify investments across multiple currencies and regions to spread out risk and reduce the impact of adverse exchange rate movements in one country on the overall portfolio.¹⁴ This strategy is less effective against trends or shocks that may affect multiple projects, countries or regions in a portfolio, such as in the case of a pandemic or regional drought.



3. UNLOCKING TRANSFORMATIONAL CLIMATE FINANCE AT SCALE

Given the salience of currency exchange risk as a barrier to scaling global public and private finance to climate solutions in developing countries, more attention is needed to advance innovative solutions in managing this risk by international finance institutions (IFIs) and donor countries.

3.1 Role of Multilateral Institutions, including MDBs

International institutions and civil society organizations increasingly recognize the important role that IFIs, including MDBs, can play in providing more systemic approaches to managing currency

exchange rate risk.¹⁵ IFI partnerships with developing country central banks and national development banks may be particularly promising for developing more systemic approaches for managing currency risks, leveraging IFI resources to unlock private and public financing and ensuring that developing countries do not carry the full costs of currency risk.

3.2 Role of Donor Countries

Donor countries will have an important role to play in equipping IFIs to address currency exchange risk at scale, enabling them to support innovative solutions such as the Exchange Rate Coverage Facility



(see Annex 2 for an example of a blended finance product that also can draw on carbon credits and philanthropic and other private capital). For example, G20 countries could work together to expand the use of currency swaps to support long-term markets for currency hedges, building on insights from currency swaps used between some developed countries and emerging economies during the pandemic.¹⁶

4. INSIGHTS AND EFFECTIVE PRACTICES

4.1 Stress Testing

Program and project teams can conduct stress testing and scenario analysis to assess the potential impact of extreme currency fluctuations on program or project finances.¹⁷ This can help inform the design of more robust currency risk mitigation strategies.

4.2 Currency Risk Management Policy and Team

Program and project teams can consider developing and implementing a clear currency risk management policy that outlines the specific strategies and instruments to be used, as well as risk tolerance levels and triggers.¹⁸ Establishing a currency risk

management team, supported by relevant experts, can help ensure a program or project maintains ongoing attention to mitigating currency exchange risk.

4.3 Forecasting and Monitoring

Program and project teams can establish systems to continuously monitor exchange rates and economic conditions in the host country to inform understanding of how exchange rate changes may affect project implementation. Robust forecasting mechanisms can also be used to anticipate and proactively manage potential currency risks, enhancing the transformational potential of climate programs in countries.¹⁹



ANNEX 1: THE CURRENCY EXCHANGE FUND (TCX)

••• SUMMARY

••• **TCX provides currency risk hedging products for foreign investments in developing countries where commercial hedging products are not available. TCX has played an important role in addressing currency risk for investments in micro-finance funds and investments in small and medium-sized enterprises (SMEs), including for off-grid renewable energy projects.**

••• **Geographic focus: Global**
••• **Inception Date: 2007**
••• **Website: www.tcxfund.com**

TCX is a global development finance initiative supported by investments from major multilateral and bilateral development finance institutions, as well as the Dutch, Swiss, British, French and German governments, and the European Commission. It protects borrowers in emerging economies and developing country markets from currency risk by facilitating local currency lending from development finance institutions.

TCX offers derivative instruments—cross-currency swaps and FX forwards (agreements to exchange a pair of currencies at a set rate on a future date)—in currencies not covered by commercial parties. These hedging products protect borrowers from possibilities of default linked to high currency volatility. TCX has a strategic focus on developing local currency climate finance and supports lending towards renewable energy projects and other climate solutions.

How It Works

Access to TCX hedging products is granted to TCX investors, their clients, parties introduced by TCX investors, and trading counterparties, such as broker-dealers. Procedures and trading capacity with TCX are different according to the type of counterparty involved.

The TCX 2022 Impact Report includes an example of how the exchange can work for a renewable energy project. In 2016, a company called Easy Solar was set up in Sierra Leone and started offering solar solutions, such as lanterns and larger stand-alone solar systems, to businesses and households across



the country. With assets in local currency and debt offered in U.S. dollars, Easy Solar faced severe exposure to currency risk.

In 2021, Easy Solar was interested in tapping a \$5 million loan from the Energy Inclusion Facility's Off-Grid Energy Access Fund (OGEF). TCX hedged the OGEF loan to Easy Solar, indexing the loan to the Leone (local currency) and essentially turning a U.S. dollar loan into a local currency loan. This approach ensured that currency fluctuations would not affect Easy Solar's loan service repayments.

Soon after the deal was signed, the Leone started depreciating massively, losing over 60 percent of its value in 2022 alone. Without the currency hedge, Easy Solar would have had to either raise more equity to compensate for the losses—very difficult in that context—or shut down. Instead, it was able to continue delivering off-grid solar energy solutions.

Results and Impact

In 2022, TCX reduced the risk of \$1.38 billion in new development finance loans to emerging and frontier countries across 43 currencies in 428 transactions. This was primarily driven by transactions to provide local currency to micro, small and medium-sized enterprises. This included hedging of over \$330 million of financing for investments in Sub-Saharan Africa in 20 different currencies, with over 60 percent going to Tanzania, Botswana, and Uganda.

Activities in the energy sector, especially in Sub-Saharan Africa, continue to grow, albeit with small steps. In 2022, TCX hedged 22 transactions for a total of \$64 million that will fund renewable energy and energy efficiency projects in countries such as Sierra Leone, Tanzania, Kenya, Peru, and Colombia. Moreover, by providing hedging products where previously no markets existed, the TCX has operated as a market maker, encouraging other participants to enter markets.

Source: TCX. 2023. "Impact Report 2022." Amsterdam. The Currency Exchange Fund. <https://www.tcxfund.com/impact-report-2022/>.

ANNEX 2: CLEAN ENERGY EXCHANGE RATE COVERAGE FACILITY (ERCF)

• SUMMARY

• Innovative proposal for a global facility to de-risk currency exchange rate mismatches for clean energy projects in developing countries, leveraging carbon credits and international development finance institutions.

• *Geographic focus:* Global, with a focus on middle- and low-income countries

• *Inception:* Concept note released in 2022

• *Website:* <https://www.energypolicy.columbia.edu/publications/policy-note-scaling-clean-energy-through-climate-finance-innovation>

Researchers affiliated with Columbia University (working with the World Bank and the World Economic Forum) have proposed an innovative blended finance facility to address currency exchange rate risk in developing countries for clean energy projects. Supported by a blend of domestic and international resources (including project carbon credits, official development assistance, and international private capital), the facility could issue foreign exchange risk protection mechanisms to international lenders to catalyze financing for clean energy projects, helping fill the gap in hedging products available in developing countries, while also protecting local consumers from currency-related price escalations.



Description

The Clean Energy Exchange Rate Coverage Facility (ERCF) would be structured as a “blended finance” facility with funding from three types of sources: (1) carbon credits, (2) investments from MDBs and other development finance institutions, and (3) other sources of international capital.

The ERCF would only disburse if and to the extent of an actual depreciation relative to an agreed reference rate (generating the “shortfall”); the ERCF in this way differs from traditional hedging and swap products. Each funding source would cover only a share of actual depreciations under a pre-established waterfall.

A pre-agreed number of carbon credits would be allocated to the ERCF by the clean energy project receiving currency risk hedging. The credits would then be converted into hard currency from the

facility through a long-term carbon credit purchase arrangement. These resources could be backstopped by other funds, such as MDB climate or carbon funds, which could provide a guaranteed price floor to generate the required revenues for the ERCF.

The ERCF combines key attributes of World Bank guarantee programs by equipping local project sponsors, with the support from the host country government, to attract international financing for climate solutions. Concessional funding from the World Bank, other MDBs and development agencies, and climate-focused philanthropies would be blended with contributions by the host government (e.g., through any required counter-guarantees in respect of MDB guarantees to the facility) and local project partners (i.e., through the assignment of the project’s carbon credits).

Payments by the ERCF to cover a shortfall due to a currency depreciation would be fully funded blended

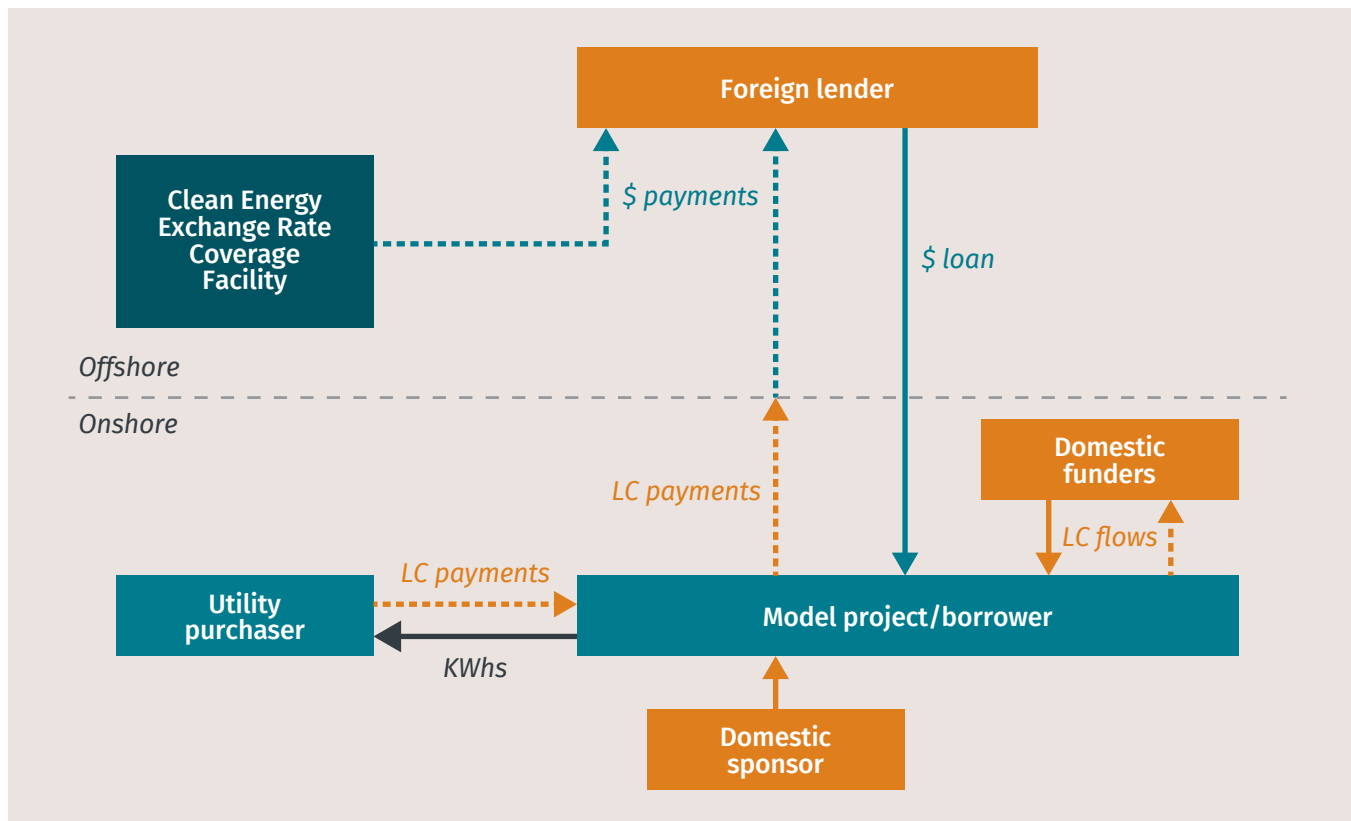


FIGURE 1. ERCF Coverage to the Foreign Lender

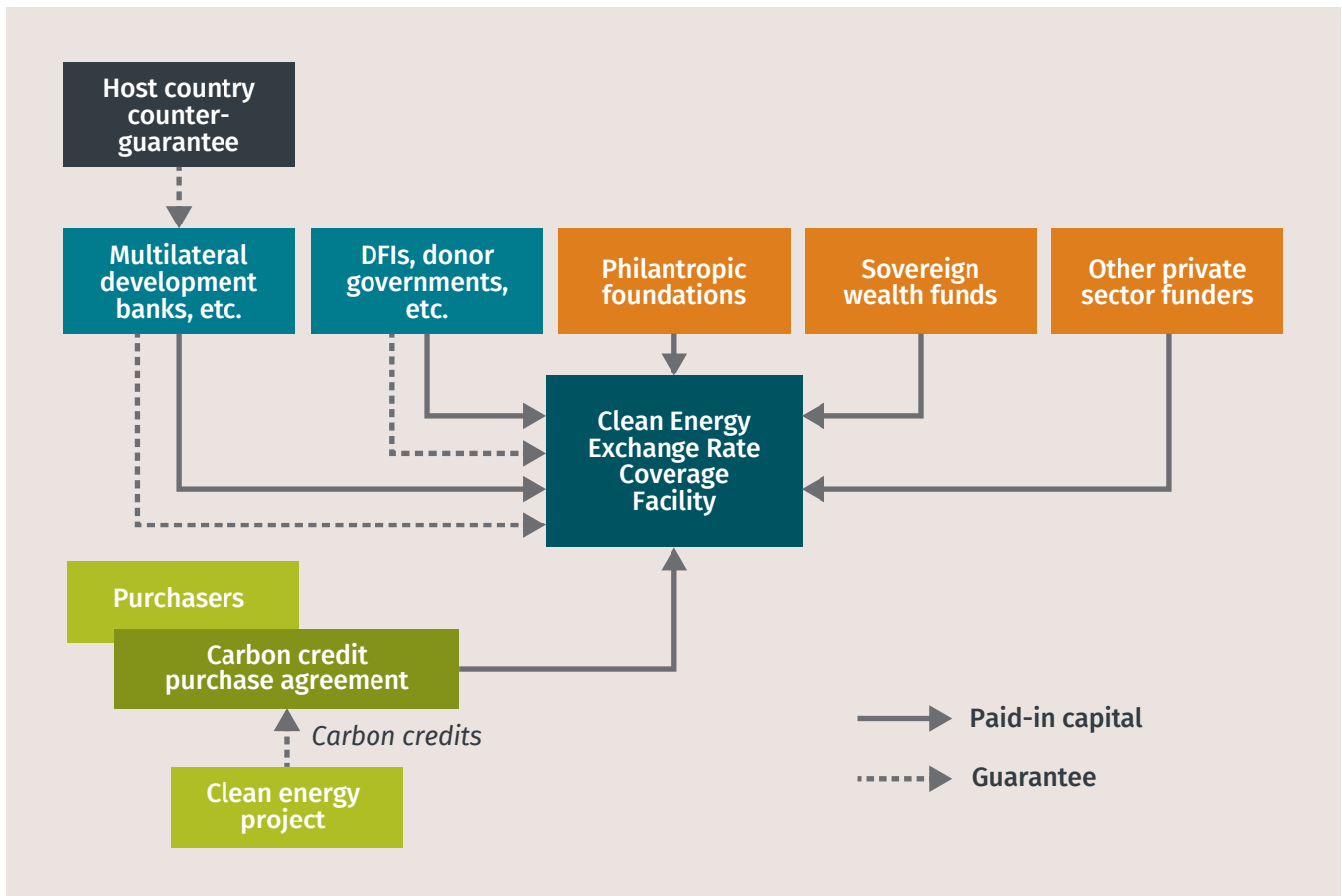


FIGURE 2. ERCF Financing Structure

funding sources outlined above. Accordingly, funding to the facility from all contributors must be structured to be sufficiently robust to cover potential shortfalls and provide lenders with strong investment-grade protection. ERCF funding arrangements could be reviewed and assessed by an appropriate rating agency. Approaches may need to vary depending on the type of funder. For example, a guarantee from the World Bank covering the 15-year shortfall period may be sufficient, but a similar contingent obligation for some other funders may not be adequate to meet investment-grade requirements. While the facility is structured to cover worst-case currency depreciation scenarios for projects, that is not likely to occur for all currencies covered by the ERCF and could enable some portfolio-level risk mitigation.

Source: Benoit, P., J. Elkind, L. Beltran, J. Roche, E. Mehlum, O. Lelouch, and C.S. Sinha. 2022. "Scaling Clean Energy through Climate Finance Innovation." Policy Note. New York. Center on Global Energy Policy, Columbia University. <https://www.energypolicy.columbia.edu/publications/policy-note-scaling-clean-energy-through-climate-finance-innovation/>.

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THE CLIMATE INVESTMENT FUNDS

The Climate Investment Funds (CIF) was established in 2008 to mobilize resources and trigger investments for low carbon, climate resilient development in select middle and low income countries. Fourteen contributor countries have pledged over US\$11 billion to the funds. To date CIF committed capital has generated an additional US\$62 billion in co-financing for mitigation and adaptation interventions at an unprecedented scale in 72 recipient countries. CIF's large-scale, low-cost, long-term financing lowers the risk and cost of climate financing. It tests new business models, builds track records in unproven markets, and boosts investor confidence to unlock additional sources of finance. The CIF is one of the largest active climate finance mechanisms in the world.



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