FX Hedging Facility

The Lab
India Innovation Lab for Green Finance

The Government of India has set targets to achieve 175 GW of installed renewable energy capacity by 2022. To meet this target, around USD 189 billion of investment will be required from 2016 to 2022. It would be extremely difficult to meet this investment requirement through domestic investment only.

Foreign investment is a potential source of significantly more finance for renewable energy in India.

The FX Hedging Facility is a customizable currency hedging product that lowers currency hedging costs by targeting a particular tranche of currency risk called tail risk, thereby allowing allocation of risks to suitable parties, and also provides the most efficient way of subsidizing currency risk.

However, currency risk, which is unexpected devaluations when using a foreign currency, is a major deterrent to many foreign investors, resulting in reduced investments in the country due to the higher perception of risk, and necessitating the use of a currency hedge (or foreign exchange swap) to protect against the devaluations, which can add significant costs to transactions.

A simple way to reduce the cost of currency hedging is to provide a direct subsidy to a market swap. However, this may not be an efficient use of the subsidy. Moreover, the subsidy is non-recoverable even if the currency does not depreciate as much as expected.

If currency risk is broken down into different tranches, then there may be a stronger argument to subsidize the foreign exchange (FX) tail risk, as the FX Hedging Facility does, rather than partially subsidizing the overall currency risk, as is the case for subsidized cross currency swaps.

In a sample transaction, where the user is willing to cover currency depreciation up to 4.5% per year on fixed annual foreign currency payments, the FX Hedging Facility possesses the following benefits compared to a commercial cross currency swap:

- **Elimination of counterparty credit risk and liquidity risk:** The transaction structure and the upfront availability of the guarantee fee can reduce the cost of currency hedging. With the upfront payment of the FX tail risk premium, there is no need for exchanging annual payments. Thus, the credit risk premium, which otherwise gets charged in a currency swap, gets eliminated. In addition, the cost of liquidity risk is reduced.
- **Better targeting of public grants:** The FX Hedging Facility is a more efficient use of public grants, or subsidy, as it covers or targets only extreme currency depreciation.
- **Additional benefits to donors or users:** If the currency depreciation is lower than expected, then the upside benefit remains with the FX Hedging Facility, which can be transferred to the donors or user later. This is a more optimal use of donor capital as compared to what would have been required in a commercial currency swap.

The FX Hedging Facility has the potential to reduce the cost of currency hedging by ~30% and mobilize a minimum of ~$9 of foreign investment per dollar of donor grant, with more than 50% probability that donor grant will be fully recovered.

As a result, in our sample transaction, the FX Hedging Facility has a leverage factor of 9 with more than 50% probability that the entire subsidy will be recovered, while the same reduction in cost of currency hedging by directly subsidizing a cross currency swap has a leverage factor of 6 with no option of any recovery of subsidy.

The FX Hedging Facility is at an advanced conceptual phase with a high-level transaction structure and pricing already defined. A commercial bank has shown interest to become the guarantor of the FX tail risk component of the product.

Multiple potential users of the Facility have shown interest to execute pilots of this product. These include foreign private equity investors, led by Hudson Clean Energy Partners, interested in investing USD 500 million in utility-scale renewable energy projects. Potential users may also include foreign debt transactions, such as to provide loans to distributed renewable energy and energy efficiency projects.

The next step would be to seek donor funding for the FX Hedging Facility, which will hold the guarantee fee upfront to be paid to the guarantor.

DESIGN

The FX Hedging Facility can be structured for both debt and equity, depending on the user's requirements, assuming that these requirements closely follow the structure below.[1]

The generic design would involve a risk capital facility ("hedging facility") backed by an FX tail risk guarantee.

- The hedging facility will hold the FX tail risk guarantee fee to be paid to the guarantor upfront.
- This facility will keep the upside benefit shared by the user.
- Beyond this depreciation rate, and up to a user specified upper limit, the coverage will be provided by the FX tail risk guarantee.

The upside benefit due to currency depreciation being lower than expected will remain with the hedging facility, and can be returned either to the donor or the user after the tenor of the transaction.

The transaction requires two separate contract agreements by the project developer/investor:

a. One agreement with the hedging facility to cover currency risk up until the customizable annual currency depreciation rate; and
b. Another agreement with an FX tail risk guarantor to cover currency risk beyond that rate till an upper limit, which is P99.7 in our sample transaction.[2]

The equivalent cost of currency depreciation from 0% to the set rate (4.5% in our sample transaction) to maintain the risk capital for the mentioned risk coverage translates into an annualized cost of 528 bps. The cost of the FX tail risk guarantee was calculated as 134 bps on annualized basis.

The India Innovation Lab for Green Finance is a public-private initiative in India that brings together experts from government, financial institutions, renewable energy, and infrastructure development to identify, develop, and accelerate innovative investment vehicles for green growth in India.

Analytical and secretariat work of the India Lab has been funded by Shakti Sustainable Energy Foundation, the David and Lucile Packard Foundation, and the UK Government. Climate Policy Initiative's team in Delhi serves as Lab Secretariat and analytical provider.

1 We recognize that there may be many variations on our sample transaction, resulting in different leverage and recovery outcomes. If the user requirements do not follow the basic principles of our design, it will require further analytical work.

2 For example, based on CPI analysis, in the year 2017, P99.7 means that there is a 99.7% probability that the INR-USD exchange rate would be 87.64 or lower.