Managing the Risks of Dollar-Linked Tariffs for Renewable Energy in India and Other Developing Countries

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India recently announced plans to use dollar-linked tariffs for solar power in order to attract investment and cut costs. India has an ambitious target of 100 GW of solar power by 2022, but also has a limited budget and a shortage of debt at attractive terms and interest rates with which to achieve these targets.

The hope is that dollar-linked tariffs might provide cheaper and longer-term dollar-based foreign debt, and increase the capital available for renewable energy projects. This could reduce the delivered cost for solar energy by up to 30%, and make it more competitive with conventional power.

However, one risk of dollar-linked tariffs is unexpected currency devaluation. Exchange rates can be volatile. A successful design of dollar-linked tariffs requires risk management strategies to hedge against these exchange rate fluctuations. Otherwise, extreme devaluations in currencies may put a lot of pressure on the power purchasers that have committed to pay these dollar-linked tariffs.

For example, dollar-linked tariffs were used extensively in the 1990s, by India and other developing countries, in order to provide much needed foreign debt at attractive terms to infrastructure projects, including power projects. But, many of these dollar-linked tariffs proved to be politically unviable because the currency devaluation risk was eventually passed on through the power off-takers to the end consumers, raising their cost of electricity in an extreme and unexpected manner.

One way to manage this risk of exchange rate fluctuations is to buy a currency hedging product in the market. However, this may not always be ideal, for two reasons. First, market-based currency hedges may not be available. Second, market-based hedges may be so costly as to nullify the cost savings of attractive foreign debt over domestic debt. For example, in the case of India, 10-year foreign debt may be available for 5.5%, but a market hedge at 7% increases the eventual rate to 12.5%, making it nearly as expensive as domestic debt.

Another, potentially cheaper way to manage exchange rate fluctuations is through a government-sponsored foreign exchange hedging facility. There are several reasons why a government might want to bear currency risk. First, it may have some influence over foreign exchange rates because it can influence the macroeconomic conditions which drive them. Second, in supporting the local currency (INR) devaluation risk for renewable energy financing, it may be offsetting risks associated with future purchases of imported fossil fuel-based power which are paid for in USD.

In a recent report, Climate Policy Initiative modeled a possible government-sponsored foreign exchange hedging facility for India, and examined its expected costs and risks. We found the following for a 10-year, dollar-linked loan.

The cost of covering the expected devaluation in local Indian currency INR with a government-sponsored foreign exchange hedging facility is approximately 3.5%, which is 50% lower than the cost

with a market hedge. This expected cost can either be absorbed by the facility or passed onto the counterparty (the project developer or the off-taker). Eventually, this could reduce the cost of renewable energy by up to 20% and the cost of government support by more than 50%. This is a promising option for covering the risk of expected currency devaluation.

However, the government should also be aware of the risk of unexpected currency devaluation. One way to protect against unexpected and extreme currency movements is for the government to cover the risk through a sovereign guarantee. A capital buffer (or reserve) is one option for this. This capital buffer could be supported by the Indian National Clean Energy Fund (NCEF), or by grant capital from multilateral development banks, such as the Asian Development Bank (ADB) or the World Bank.

However, an adequate capital buffer may need to be large, with the size growing with higher risk coverage. For example, to reach India's sovereign credit rating of BBB-, which is the gold standard for foreign lenders, the buffer needs to be approximately 30% of the original loan.

Coming back to the Indian government's dollar-linked tariff scheme, it does appear to account for the expected devaluation in INR, by creating a fund that is supported by an approximately 1 INR per unit surcharge on the tariff. This is good news.

But our analysis also shows that it does not account for the risk of unexpected devaluation. The surcharge is just enough to cover the expected devaluation, and does not appear to provide coverage for the volatility in exchange rates. In fact, this surcharge would barely cover India's sovereign credit rating for less than half the duration of the underlying power purchase agreement. This is bad news. It appears the government's dollar-linked tariff scheme might follow in the footsteps of the politically unviable and controversial schemes of the 1990s.

We recommend that the Indian government further explore how to manage the risk of unexpected devaluation under the dollar-linked tariff scheme. Properly managing this risk is key to ensuring that the dollar-linked tariffs achieve their objective of providing renewable energy at competitive rates.