

Risk-Sharing Guarantee Facility to address cost of capital for renewables in developing economies

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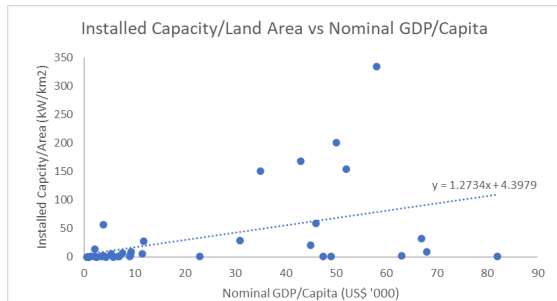
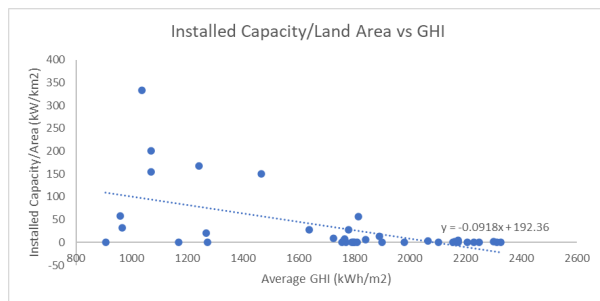
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Concept summary

In conjunction with the International Solar Alliance (ISA), CPI conducted a market readiness analysis of 40+ ISA member countries and found that the relatively high cost of capital in developing countries is a significant barrier to mobilizing funding for renewable energy projects. A Risk Sharing Guarantee Facility could help reduce these costs and catalyze investments.

Context & Barriers

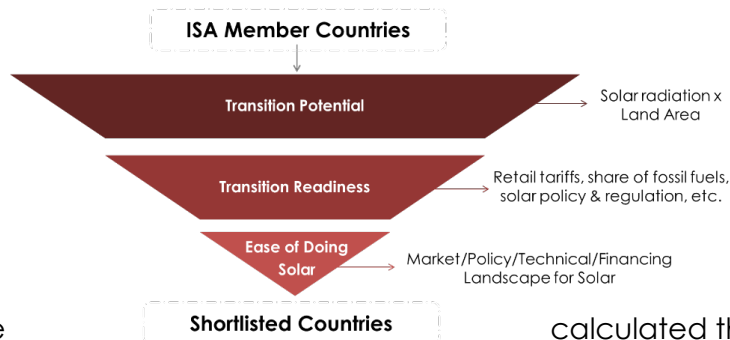
In our research of over 40 developed & developing countries, we found that countries with higher GDP per capita had higher solar installed capacities, but countries with lower



solar installed capacity (and lower GDP per capita) had higher average GHI (an indicator of solar potential).

Risk vs. Return

We believe climate investments have been skewed towards high-income countries as lower-income countries entail higher risk, or perceived risk. To study the relationship between risk and return for climate projects, we created a “Climate Investment Risk Score,” and ranked countries on this parameter. To calculate this score, we considered the sovereign credit risk, political risk, and off-taker risk.



As a next step, we calculated the required rate of return from a climate project in these shortlisted countries. We used the capital asset pricing model and adjusted it for expected climate investment risk in the country.

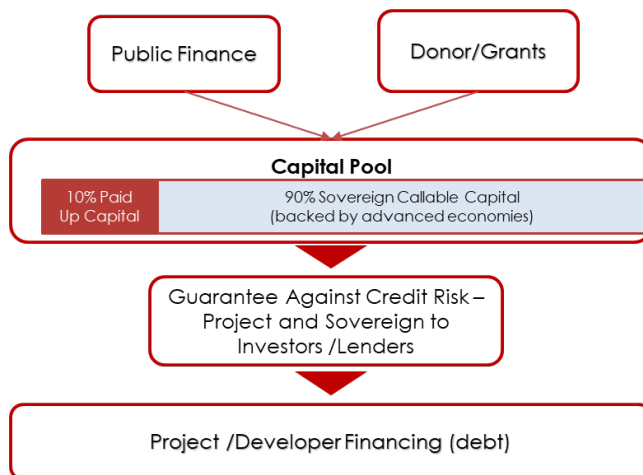
The results indicate that, evaluation of climate projects in line with other commercial projects escalates return requirements, restricting capital flow to emerging markets & hindering global decarbonization.

Proposed Risk-Sharing Facility



There is a need for an unbundled risk mitigation facility to reduce risk premiums for climate projects in emerging markets.

Further to this, our recommendation is to transfer the political risk to existing institutions like MIGA and the foreign exchange risk to TCX or a similar facility and establish an entity to manage the credit risk – sovereign & off-taker – by providing a partial guarantee. The following graphic illustrates the instrument mechanics.



To execute the solar targets announced by governments in the shortlisted set of countries, a total of ~US\$175 billion of capital will be needed, of which 70% or ~US\$120 billion would be debt. With an average default rate of ~11%, and guarantee coverage of 50%, a US\$6.6 billion Guarantee Facility is proposed – capitalized at 10% with the balance as callable capital. This results in a (direct) leverage of 250x for the total capital mobilized.

The Facility's Potential: Impact of Credit Guarantee on Risk Premium

Assuming that the Guarantor would be a supranational agency with a AAA rating, sovereign credit risk and off-taker risk scores were recalibrated, keeping political risk score the same. With this, we arrived at the enhanced climate investment risk score, which was then used in the regression to recalculate the climate investment risk premiums.

For the sample set of countries, the average reduction in risk premium is ~6% and the average improvement in rating is 5-6 notches – the impact is more for the riskier countries and they would benefit more.