The Clean Development Mechanism Re-engineered

The Clean Development Mechanism (CDM) remains the only instrument that has been capable of delivering cash flow at scale to investments with emissions reduction benefits in developing countries. Although cash flows have largely dried up, the need for earning operational premiums on assets with lower emission profiles than their traditional investment alternatives is intact. Cash flows must not be confused with financing, and although sometimes labeled ‘results-based financing’ (which in isolation is a contradiction in terms as finance is ex ante while results are ex post), the CDM experience has shown that unless someone guarantees the result – in CDM the ‘emissions reduction outcome’ – the market will adopt a ‘wait-and-see’ approach and abstain from participating financially on the basis of prospective cash flows. New mechanisms, like the CDM, that deliver new and untried benefits are therefore at a significant risk of attracting no financing at all. This, too, is true for the new mechanisms established in the Paris Agreement, which is to deliver ‘ITMOs’ (Internationally Transferred Mitigation Outcomes) yet to be defined (with net mitigation impacts).

The CDM experience provides a basis for engineering such mechanism, or indeed reengineering the CDM itself, to make it a viable mitigation financing tool, providing receipts for payments in the form of certified emission reductions (CER). Two solutions are presented, both of which secure new financing for projects that deliver real and measurable emissions reduction benefits on the basis of prospective revenues from emissions reduction: one introduces up-front securitization of the emissions reductions; the other builds on a defined value of the CERs without the need for a carbon price or a market for trading.

Most of us use simple heuristics as a mental shortcut to ease the cognitive load of making a decision. The problem is once one gets used to a heuristic, it is used to make momentous decisions or none at all — when analysis points to conflict one is at risk of rejecting the obvious in order to stay with the heuristic. The same can be said about the way the CDM has come to be viewed. Its structure can be optimized, but despite the inescapable decline of the carbon market and mounting calls by Parties for change, only surgical changes have been undertaken so far.

Evidence for setting straight the CDM heuristic has been around for a long time. Simply put CERs are not project finance and do not address project capital needs when most needed — upfront. CER based returns are available only after a project is operational. That is why only one third of registered CDM projects went as far as to get their carefully calculated CERs issued. Despite these fundamentals many staunch believers in the CDM continue to hold on to the idea that ‘if only demand could be recreated by establishing a price on carbon all would be good’. Would it really?

CDM demand is on life support at the moment with only a few sovereign and multilateral buying programmes that tender or buy and cancel CERs on the part of philanthropic sponsors. Most CERs change hands at market prices below the cost to issue them and investment board rooms, once hyped on the CDM, go to great lengths to avoid the three letter acronym.

On the other hand the CDM is a unique instrument in the landscape of climate finance — not because of its ability to link to international carbon markets or how it has effectively engaged the private sector in low carbon projects. The CDM is unique because it represents the only ‘cash flow instrument’ in the climate finance toolbox for emerging economies. Recognized by half of all of INDCs submitted, it can complement project financing and directly catalyze (when not then indirectly) a shift in private capital and investment flows toward low carbon development. It does this with internationally recognized high quality measurements protocols and is undisputed in tracking GHGs mitigation outcomes.

This working paper takes an essential look at the CDM and proposes a way to transform it into a true climate finance instrument based on its prospective cash flow. Two elementary solutions to improving the CDM are offered:

1) a ‘re-engineered CDM’ with an securitization model added that allows the cash flows offered by Emission Reduction Purchase Agreements (ERPs) to function as a project finance instrument, and

2) a ‘risk internalization device’ that creates up-front securities and frontloads payments for emission reductions, enabling it to contribute to project financing and turns CERs into “receipts for payments” in a true ‘results based finance’ model.