



Moving Forward: The Aftermath of Copenhagen for Green Investment

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One thing seems to be certain after Copenhagen: there is still a long way to go before we get a price on carbon emissions that can drive a vibrant and self-sustaining market for clean-energy investment, and before we get binding commitments on greenhouse gas emissions reductions at the national and international levels. In the meantime, it will be important to figure out how to use the limited amount of public finance available to mitigate political, market, and technology risks so as to attract large-scale, private funding for clean energy investment.

Institutional investors are viewed as potential saviors since they have significant resources available for investment and many have announced their intentions to help finance climate-change mitigation and adaptation activities. The big questions are whether they are really willing to jump in and invest at a meaningful scale, and, if so, what it will take to unlock their billions?

One of the outcomes of Copenhagen has been the recognition that there are significant limits to public financing and that private financing will be vital to any meaningful transformational investment in the mitigation and adaptation arenas. Pension funds are viewed as one source of this long-term private financing. However, these funds have fiduciary responsibilities and will invest in greenhouse gas mitigation activities only if they can do so in accordance with these responsibilities. Also, as voiced publicly by many heads of pension funds, the funds will invest in opportunities whose rewards properly reflect the risks. To foster a significant scale-up of these investments and the necessary financing, clear and reliable policies are essential.

A Range of Options Going Forward

Should people take the opportunity now to test some potential investment ideas that could be scaled up later once necessary legislation is enacted? Many ideas are being advanced as to how to

leverage public money to attract more private investments (United Nations Environment Programme and Partners, 2009) and (Kidney et al., 2009). Smaller-scale investments or prototype projects could be a way to test the feasibility of different ideas, ranging from lower-risk investments such as green bonds to the higher risk-seeking instruments. For example, as an issuer of debt securities, the World Bank Treasury has mainly focused on fixed income products to finance public investment while the International Finance Corporation (IFC) has a broad range of products—ranging from debt to equity—available for private sector investment. Several investment forms that are being explored (Reichelt, 2009; World Bank Treasury, 2010), or could be worth investigating, include:

- Plain vanilla AAAA-rated, green-bond investments in which the investors have the possibility to support green projects. These investments represent a promising first step in forming ideas about how to finance mitigation projects and have attracted great interest among institutional investors looking to support climate change solutions within their high-grade fixed income investments. The World Bank green bond issuance has reached almost \$1.5 billion with 15 green bonds in several currencies. Some initial hurdles, such as (i) liquidity and secondary market trading, (ii) establishing enough issuers of green bonds to create an index, and (iii) establishing different credit ratings to cater to investors willing to take on more credit risk, will likely be overcome as more institutions issue green bonds, such as the upcoming IFC green bonds and the European Investment Bank's Climate Awareness Bonds issued in 2007 and 2009.
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- Second-generation fixed income products. For investors interested in sovereign debt issued by emerging market countries, such products might be an interesting alternative. These instruments look at the need of a country with the right policies in place to foster a climate change agenda in areas such as energy efficiency or transportation. A current initiative, in partnership with government officials in two emerging markets pilot countries, is looking at possibilities for governments to finance energy efficiency activities through structures linked to green investments, such as "energy efficiency bonds." The World Bank, through its convening power and partnership with member countries, can play an important role in working with clients from different regions. Currency, structure, credit, and political risk need to be accounted for investors to achieve acceptable risk-adjusted returns; there may also be some appetite for securitized products, such as forest bonds and index-linked green bonds.

These first-step initiatives, though promising, are far from taking us to the massive scale of investment needed. Given the magnitude of the problem, new means of financing and appropriate investment products have to be explored. Public funds can play a vital role to mobilize private financing to get to the necessary scale.

The Need for Public Funds to Mobilize Private Financing

The financing needs for low-carbon investment are large relative to the financing currently available. We believe that viable private sector projects should be able to attract the requisite financing, and the instruments mentioned above can help mobilize that funding. However, the necessary investments often carry—or are perceived to carry—much higher risks than can be mitigated by the market. Sometimes the problem is a lack of familiarity with a particular emerging market and concerns about contract enforcement, currency, and other sovereign risks. Market mechanisms exist in many cases to mitigate such risks and the multilateral development banks have significant experience in structuring viable financing packages to provide the necessary comfort.

In other cases, the available risk-reward profiles simply do not match private expectations and cannot subsequently attract the levels of financing needed. There can be many reasons for this: technology costs may not have come down the cost curve; appropriate domestic regulatory support may not yet be in place; the project cannot rely on a carbon revenue stream to boost cash flows and returns; and, there may be additional costs associated with being a first mover in market—costs that subsequent entrants may not face.

In such cases, even if institutional investors or other sources of investment were available, either directly or through the multilateral development banks, the private sector may still not venture forth into emerging markets in the scale required. This is where public finance can help fill the gap to cover transitional risks and costs, thus unlocking significant private financing flows toward low-carbon investment.

Project developers and investors will need some sense of certainty with regard to the public finance parameters that will apply before they expend resources and effort to build the necessary project pipeline. In this regard, a key priority should be to define the “rules of the road” for the “fast-start” financing announced in Copenhagen.

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Biographies

Couro Kane-Janus is a senior investment strategist, responsible for developing investment strategies and advising various internal and external clients of the World Bank Treasury on asset allocation and related policy matters. In addition, Couro gives advisory support to Central Banks on reserves management issues and Sovereign Wealth Funds, including oil funds, on asset allocation and investment strategies. She is currently focusing on the development of products with different risk-return characteristics to help mobilize large scale financing for climate change. Couro joined the World Bank in October 2005.

Before joining the Bank, she worked as a consultant in statistical arbitrage and equity derivatives at HypoVereinsbank in Germany. Couro holds a PhD in Applied Mathematics and was a post doctoral fellow at California Institute of Technology, Pasadena.

Shilpa Patel leads IFC's Climate Change unit, supporting the corporation's climate change agenda and commitment to increase its climate-friendly lending.

Ms. Patel has focused on building IFC's analytical capacity to better understand the climate change impacts of its activities, and expanding IFC's cleaner production initiatives. She is the key architect of IFC's portfolio GHG accounting initiative, and is currently working on developing metrics to better assess development and climate change trade-offs in developing countries.

Prior to this, Ms. Patel led IFC's Sustainability Business Innovator, an incubator for innovative business models, products and instruments to harness the power of the private sector in delivering environmental and social benefits. She contributed to the creation of IFC's Cleaner Production program and oversaw IFC's carbon finance activities, including the development of new financial instruments for private sector participation in carbon trading.

Ms. Patel joined IFC in 1997, and has managed IFC's investment activities in the Chemicals and in the Health and Education sectors. Prior to moving to IFC, she worked at the World Bank on

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private sector development across a number of regions and economies in transition. She has also held the position of Adjunct Professor at Georgetown University's McDonough School of Business, where she taught courses on Project Finance.