

The Scope for MDB Leverage and Innovation in Climate Finance

A background paper for “Mobilizing Climate Finance,” prepared
at the request of G20 Finance Ministers¹

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Introduction

The G-20 Finance Ministers have tasked the World Bank, working with other MDBs and the IMF, to examine “mobilizing sources of climate change financing, including public and private bilateral and multilateral as well as innovative sources,” in the context of the collective commitment by developed countries to provide additional climate resources for adaptation and mitigation activities in developing countries.² This note, prepared as background for the G20 submission, explores the potential for MDBs to increase the volume of climate financing by leveraging and intermediating resources, through two main avenues:

- I. **Leveraging shareholder capital** through the MDBs’ non-concessional windows, by **raising debt from capital markets** to finance climate investment; and
- II. **Mobilizing and “pooling” concessional flows to support climate investment** beyond the MDBs’ own balance sheets.

The note is organized along these two lines, with the aim of providing some insights into the feasibility for MDBs to mobilize resources to leverage a significantly larger volume of climate financing assistance.³

I. Leveraging Shareholder Capital

The financial model of MDBs’ non-concessional business comprises leveraging shareholder funds with borrowings from the capital markets in order to provide assistance to developing countries. The form of assistance varies across MDBs: for instance, IBRD provides financial assistance largely in the form of loans to sovereigns, while IFC provides loans and equity funding to the private sector, with the regional MDBs providing loans and equity funding to the public as well as private sector.

The founding charters of most MDBs limit outstanding development-related assets (i.e. loans + equity participations) to paid-in capital + reserves + callable capital. Operationally, however, the capital adequacy policies of MDBs impose significantly tighter constraints on the volume of

² The *Report of the U.N. Secretary-General’s High-level Advisory Group on Climate Change Financing* (November 2010) concluded that the MDBs “can play a significant multiplier role, leveraging large additional investment in a way that integrates climate action into development programmes.”

³ Related background papers, also prepared for the G-20, explore: (a) sources of public finance that can be applied to underpin climate finance; and (b) instruments to engage private finance.

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assistance, and in the case of some regional MDBs, additional restrictions on the volume of debt issuance can also act as a constraint on the volume of assistance. The more binding constraints of the MDBs' capital adequacy policies can be traced to the critical role of sufficient capital (relative to MDBs' portfolio risk) in the business model of providing low-cost development funding: sufficient capital not only underpins a AAA credit rating with the associated benefits in mobilizing large volumes of cheap debt but also enables MDBs to play a stabilizing role during credit downturns as a reliable funding source for developing countries.

The capital adequacy policies of MDBs, while varying in the details, typically require outstanding development-related assets to be backed by a minimum percentage of on-balance-sheet 'risk capital' (i.e., paid-in capital + reserves)⁴, which can vary between sovereign vs. private sector lending. While equity participations, being riskier, require significantly higher percentage of risk capital relative to the requirements for loans,⁵ the required percentage of risk capital for backing loans also varies across the MDBs depending upon varying borrower risk profile and concentration levels.

While many MDBs have seen the share of climate finance increase significantly in their lending activities over recent years, prior to the recent global economic and financial crisis, headroom was available within the capital structures of a number of MDBs that could potentially have been used to provide additional climate finance. (For example, in mid 2008, IBRD had about \$10 billion of capital beyond what was needed to back the risks of its loan book.) However, because of the crisis, this headroom is no longer available as the international community called upon the MDBs to expand their assistance substantially in an effort to forestall a worsening of the crisis and lay the foundations for a recovery. Even with all available capital deployed against these efforts, the crisis tested the financial capacity of the MDBs, with the resulting balance sheet stretching by the MDBs raising the prospect of a sharp contraction in their post-crisis lending capacity. To avoid this, shareholders have agreed to replenish the MDBs with additional capital. However, given key shareholders' own fiscal constraints, the amounts of additional capital for most MDBs are calibrated to the relatively modest aim of restoring the MDBs' capacity simply to meet post-crisis lending demand for existing needs, rather than creating room for newly identified financing requirements such as climate finance. (For example, in IBRD, the capital increase was sized to meet demand totaling \$136 billion of new lending commitments over 2009 – 2012 and thereafter return to the average pre-crisis lending levels of about \$15 billion per annum).

⁴ While most of the MDBs' capital adequacy policies focus on on-balance-sheet capital, i.e. paid-in capital and reserves, their capital adequacy is also bolstered, from the perspective of rating agencies, by the support of callable capital from shareholders, particularly those rated AA and above. The support from callable capital, however, is limited as it is not considered as part of economic capital.

⁵ Loans and guarantees create broadly similar credit exposures and hence are treated alike for capital adequacy purposes. As a result, increased usage of guarantees would not enable MDBs to achieve higher leverage on their shareholder capital. However, guarantees remain an attractive means of achieving more private sector leverage.

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The limited room for additional climate financing with existing MDB capacity is recognized in the Report of the UN Secretary-General's High-Level Advisory Group on Climate Financing (AGF). The report notes that the existing operations of MDBs already include a significant volume of climate finance in the wake of Gleneagles and Hokkaido G8 meetings. However, in the estimates of potential sources of climate financing flows the report does not include *additional* climate financing flows via the use of MDBs' existing lending headroom. The AGF report also notes that while additional climate financing could in theory be achieved by increasing the share of climate finance within the existing headroom constraints (and this has indeed been reflected to some extent in the GCI agreement or post-crisis lending plan of some MDBs such as the IDB and the EBRD),⁶ there may not be a sufficient mandate from the recent GCIs in general to justify an extraordinary use of MDB capital for climate purposes, given the developing country concerns related to 'green pressures' crowding out more traditional areas such as infrastructure, health care and education.

Nevertheless, the AGF report does highlight the ability of MDB leverage to multiply the other sources of public finance for meeting the climate financing needs. For example, it points out that "for every US\$10 billion in additional resources, multilateral development banks could deliver US\$30 billion to US\$40 billion in gross capital flows and significantly more by fostering private flows." While it may be considered premature to discuss a climate-focused capital increase for MDBs -- in particular given that the recent round of capital increases at MDBs still has a number of years to be fully subscribed, and many shareholders' fiscal situations remain constrained - -it may nevertheless be worth understanding how such a recapitalization could support climate finance, in case it becomes a desirable option at a later stage. The next section will explain in more detail the leverage that can be achieved by the non-concessional operations of MDBs and will identify some challenges associated with achieving this leverage via an MDB capital increase focused on additional climate change financing.

How much leverage via MDBs?

In order to provide a generic estimate of the achievable leverage that incorporates the varying capital requirement across MDBs and across asset types (i.e., whether the assistance is in the form of loans or equity participation), the following approach is adopted: first, we estimate the leverage achievable if all of the climate financing assistance by MDBs were to be regularly priced loans comparable to the current mix of loans on MDB balance sheets, based on a

⁶ In addition, since its latest GCI approved in 2009, ADB has processed about 85 projects, involving an investment of over \$8 billion, for which climate change mitigation and/or adaptation comprise at least a substantial component of the entire project investment. Examples include an energy efficiency project in Indonesia which will reduce emissions by about 330,000 tons each year and an urban mass rapid transit project in Vietnam which will support low-carbon transport.

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minimum capital requirement range of a quarter to a third of the loans.⁷ Second, we look at alternative uses of the income generated by the climate financing, and finally, we estimate the impact of equity participation on the achievable leverage.

Providing all MDB climate financing assistance in form of regularly-priced loans

Under the baseline assumption that the riskiness and pricing of climate financing loans would be comparable to the current mix of loans on MDB balance sheets, the minimum capital requirement across MDBs would range between 25-33%. In this scenario, every \$10 billion of additional paid-in capital⁸ in MDBs could be initially leveraged to support \$30-40 billion of outstanding loans, albeit over a period of time depending upon the operational capacity of MDBs and the volume of financing-ready climate projects.⁹ In addition, over the longer term the repayments from these loans would support further lending of \$3-4 billion per year thereafter (assuming an average loan maturity of about 10 years). Finally, the income from non-concessional climate financing operations could be used to further supplement the leverage achieved by the capital increase but as noted in the following paragraph, shareholders may prefer to use the income for alternative purposes (such as to achieve concessionality in loan pricing or grant financing).

Uses of Income

Current pricing of MDB loans is based on a cost-pass-through basis whereby the interest charges paid by borrowers are based on a mark-up (referred to as the lending spread) over the MDB's cost of borrowing from the capital markets.¹⁰ The lending spread typically covers the operating costs associated with the lending operations of the MDBs,¹¹ and assuming this approach is maintained for climate financing loans, the net income from climate financing operations would be largely based on the savings to the MDBs from not having to pay any charges on the paid-in capital from shareholders. The magnitude of the savings (also referred to as 'equity earnings')

⁷ A 25-33% range is a reasonable approximation for the minimum capital requirements imposed by the capital adequacy policies of the different MDBs for backing loans. The actual capital backing, and thereby leverage achievable, for climate financing loans would be a function of the riskiness associated with such loans.

⁸ Callable capital is not considered as risk capital in MDB capital adequacy policies, but callable capital may also be required along with paid-in capital for MDBs where other statutory/policy limits linked to callable capital may become binding due to the additional climate assistance.

⁹ This does not include additional leverage that could be achieved in the form of private financing, as recognized in the AGF report.

¹⁰ The mark-up is typically uniform for sovereign borrowers. For non-sovereign loans, the mark-up includes a risk-charge that varies by borrower riskiness.

¹¹ Operating costs include administrative costs as well as credit losses associated with lending.

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from not having to borrow from the capital markets would be a function of market interest rates. Assuming long term interest rates average 5% p.a., every \$10 billion of paid-in capital increase would, at first approximation, generate an annual income of \$500 million.¹² Assuming this income will be entirely dedicated to climate financing purposes, it could be put to use, based on shareholder preferences, on one or a combination of the following:

- *Grow the capital for climate financing:* Should all income be retained by the MDB to grow the capital for supporting climate financing operations, the volume of lending achieved as a result of leveraging the capital could also grow at the rate of 5% per year. For instance, the income on a \$10 billion paid-in capital increase could total to an amount exceeding \$5 billion over a 10-year period, which could be leveraged to support, over the 10-year period, more than \$15-20 billion of outstanding loans to supplement the initially leveraged volume of \$30-40 billion of outstanding loans.
- *Provide a rebate in pricing of climate financing loans:* The income could be used to achieve concessionality in pricing for climate financing loans.¹³ In effect, this would mean financing below-cost pricing with equity earnings. For instance, for a \$10 billion paid-in capital increase that were to be leveraged to outstanding loans of \$30-40 billion, the equity earnings of \$500 million per year could be used to reduce the pricing on the loans by 125 bp (for \$40 billion outstanding loans) to 165 bp (for \$30 billion outstanding loans), such that the MDB's net income from the climate financing operations would be zero. Given the current pricing level across MDBs, which varies around an approximate average of 60 basis points above Libor, the post-rebate pricing would be about 65 – 105 basis points *below* Libor.
- *Provide grant financing:* The income could be used to provide grant funding for deserving climate change projects/initiatives. For instance, a paid-in capital increase of \$10 billion could support, in addition to the initial leveraging of \$30-40 billion of outstanding loans, a grant financing program of about \$500 million per year.

Impact of including climate financing via equity participation

For MDBs whose support for climate financing could include equity participations (based on current operations, this would include IFC, EBRD, AsDB and AfDB, albeit within limitations imposed by charter/policy¹⁴), their capital adequacy policies require a capital backing of

¹² Should actual interest rates be lower or higher, the annual income too would be proportionately lower or higher.

¹³ Introducing concessional pricing in MDBs' otherwise non-concessional operations would also necessitate a robust control framework to avoid 'gaming', particularly in the absence of a clear definition of climate financing, because of the incentive created to label most projects as climate financing projects in order to be eligible for the rebate.

¹⁴ IFC and EBRD have sizeable equity participation limits relative to their capital. AsDB and AfDB have relatively smaller limits (10-15% of capital).

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Box 1: How do these leverage estimates compare with the AGF Report’s estimates?

The leverage estimates in the AGF report are broadly in line with the leverage estimates in this section. According to the AGF report, “for every US\$10 billion in additional resources, multilateral development banks could deliver US\$30 billion to US\$40 billion in gross capital flows and significantly more by fostering private flows.” While the figure of \$30-40 billion in the AGF estimates was based on a mix of concessional and non-concessional lending, and the \$30-40 billion figure in this section’s estimates is based on entirely non-concessional lending, the two estimates are similar if the use of income from non-concessional lending operations is also incorporated. In this section’s estimates, alternative uses of income are considered separately, with concessionality on loan pricing as one alternative (the other two being supplementing lending capacity over time and providing grant financing), whereas the AGF report’s estimates have assumptions about concessional lending and grant financing embedded in the original leverage estimates. So while the approaches are somewhat different, the conclusions are broadly similar.

70-100% for equity investments in line with the substantially riskier nature of the exposure. As a result of the higher capital backing required, the leverage achievable would decrease as the share of equity participation in the climate financing assistance increased. For instance, a 50:50 split between loans and equity participations would reduce the leverage achievable by nearly half compared to a loans-only approach, i.e. the volume of outstanding assistance that could be supported by a \$10 billion paid-in capital increase would decrease from \$30-40 billion of loans to approximately \$15-20 billion of loans and equity.¹⁵

The table below summarizes how much MDBs could leverage a \$10 billion paid-in capital increase under different assumptions with regard to the mix between loans and equity participation. It is important to note that while these estimates are generally scalable (i.e., a capital increase twice as large would result in twice the volume of assistance), they are indicative in nature, being based on ranges and averages to incorporate the range of capital adequacy policies across MDBs.

Table 1. Maximum outstanding assistance supported by a \$10 billion increase in paid-in capital*

All Loans	Equal share of loans and equity	All equity participations
\$30-40 bn	\$15-20 bn	\$10-13 bn

*Does not incorporate the additional leveraging potential from income retention.

¹⁵ Of course, equity investments are also associated with higher expected returns, and this should have a beneficial impact over the long term on lending capacity. However, given that actual equity returns can be highly volatile in the short-to-medium term, the impact of higher expected returns is not captured in this analysis.

Challenges associated with a climate-focused MDB capital increase

Impact of capital increase on shareholding

A key challenge in a climate-focused capital increase for MDBs would be how to accommodate such a capital increase within the shareholding structure of MDBs. Leveraging as a means of achieving a larger flow of funds from the developed (referred to as “Part I” in some MDBs) countries to the developing (Part II) countries would entail a capital contribution limited to the Part I countries. However, such a Part-I-only capital increase would normally result in the voting power of Part I countries increasing, with a corresponding decrease in the voting power of Part II countries, thus running contrary to the objectives of the ‘Voice and Representation Reforms’ at World Bank/IMF, which include increasing the voting power of Part II countries to reflect their growing weight in the global economy. At the regional MDBs too, a decrease in the voting power of regional member countries may be problematic.

Potential solutions (along with related issues that would need to be addressed) to respond to the above challenge include the following:

(i) Regular General Capital Increase (GCI) but with differentiation amongst Part I and Part II members as to the paid-in portion. The GCI would be structured so that subscriptions by Part I members would have a paid-in portion, subscriptions by Part II members would be all callable. In this approach, the existing shareholding is unaffected, but there would be no paid-in portion for Part II shareholders. Such an arrangement could be structured as a condition of subscription for shares under a climate-focused GCI in a way that is consistent with the MDB charters. Since this differentiation would likely constitute an extension of MDB discretion in setting conditions of subscription, an analysis of the MDB charters would be needed to ascertain if this solution would work for all of the MDBs. Legally, this solution would be the soundest and would limit paid-in capital to Part I shareholders without impacting voting power. It would however require Part II countries to contribute callable capital.

(ii) A Selective Capital Increase (SCI) with only Part I countries subscribing to non-voting shares. This solution would not impact voting power but may be problematic for some shareholders. (For example, some shareholders may require voting rights in order to be able to treat the subscription as equity). Consultation with members would be necessary to ensure this would be workable for all Part I members. In addition, this solution will only work if MDBs are legally able to issue non-voting shares under their charters. While most charters allow conditions to be set for each subscription of shares, some charters also require that a member be given one vote for each share of capital subscribed. Further work would be necessary to determine what flexibility there is for MDBs to pursue this option. The key question is whether Part I members could consent to forgo certain rights attaching to shares and agree that this

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subscription would only count as a subscription upon a withdrawal by a member or dissolution of the MDB.

(iii) A 'donation.' This would require Part I countries to donate money to MDBs, thereby increasing the reserves of the MDB allowing it to leverage the donor contributions. Legally this solution should work for MDBs as, even absent an express provision in its charter allowing it to accept donations, the doctrine of implied powers would allow the MDB to accept a donation if consistent with its purposes. However, under the Articles of Agreement of IBRD (and likely under the charters of other MDBs), a member would not be entitled to recover its donation upon a withdrawal from membership or dissolution of the MDB, which may make this option undesirable from the standpoint of potential donors. Moreover, the absence of callable capital in this approach could constrain the ability of MDBs to leverage, given the linkage between the statutory lending limits imposed by MDB charters and the volume of callable capital. These contributions would be recognized as income as long as they are unconditional, and to the extent that their use would be restricted to particular operations/activities, would need to be reflected as restricted income. As these funds are used as stipulated by the donors, thereby satisfying the restrictions, the funds will be recognized as unrestricted income and would be fully usable.

Use of leveraged funds for climate financing

A climate finance focused capital increase at MDBs would require a mechanism to ensure that the leveraged funds are used for financing climate projects in countries/regions desired by contributing shareholders. While 'earmarking' the leveraged funding for climate financing may not present problems,¹⁶ it is worth noting that the non-concessional operations of MDBs typically have very limited financing activity in low-income-countries (LICs), with the bulk of their operations based in the creditworthy middle-income-countries (MICs). To the extent that donors wished to direct funding to low-income countries, recapitalizing the non-concessional arms of MDBs would restrict achieving this goal. Moreover, while LICs are covered by the concessional arms of the MDBs based on donor financing, none of the concessional arms can leverage by raising debt in the capital market (see the following section on how the concessional arms can leverage their operations despite the inability to raise debt). Therefore, to the extent that Part 1 shareholders desire to direct the leveraged funds towards climate projects in LICs, the mismatch between the MIC-focus of non-concessional MDB arms (which offer the benefits of considerable leveraging) and the LIC-focus of concessional MDB arms (whose inability to raise

¹⁶ While earmarking use of funds for climate financing is consistent with some MDB charters (e.g., IBRD), at MDBs where the charter restrictions may be inconsistent with earmarking, potential alternatives to the earmarking include setting targets and/or reporting on share/amount of assistance for climate finance, without any formal earmarking, e.g. IADB's recent GCI includes a target for climate assistance.

debt from capital markets limits their leveraging ability) would need to be addressed and as a result other solutions may be more appropriate to fund the climate-finance in LICs.

The next section of this note provides information on how MDBs can support concessional flows to climate investments through pooling of external concessional flows beyond traditional balance-sheet capital.

II. Pooling Concessional Flows to Support Climate Investment

Given the limited scope for mobilizing additional financing through a capital increase in the near-term, MDBs must explore other alternatives for delivering climate finance. In this context, "pooled" financing arrangements that allow MDBs to mobilize and channel concessional flows through structured vehicles offer significant potential to address the challenge of climate finance. This section describes some of the benefits of these arrangements, highlights the funding and accomplishments to date of existing climate-focused pooled financing arrangements, and explores the scope for replicating the experience of pooled financing arrangements in other sectors to deliver scaled-up climate finance.

How pooled financing arrangements can help

Pooled financing arrangements offer a number of benefits, including:

- Allowing MDBs to mobilize resources off-balance sheet from multiple sources, including traditional sovereign donors as well as non-traditional donors, such as private foundations and emerging sovereign donors.
- Providing new ways for donors to contribute (beyond traditional grants), for example, in the form of legally-binding grant commitments, or loans featuring varying levels of concessionality.
- Structuring instruments in ways that (a) accommodate the different risk/return appetites of donors, and (b) provide instruments (e.g., grants, concessional loans, guarantees, etc.) that are tailored to the needs and circumstances of the widest variety of recipients.
- Offering significant economies of scale and scope, with attendant benefits in terms of outreach, impact, and sharing of knowledge and ideas among partners. The larger the pool, the greater the benefits in terms of administrative cost efficiency.

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These benefits can be enhanced through innovative financing by using *structures* that:

- Leverage traditional finance by shifting risk (and/or return) characteristics amongst participants;
- Front-load financing (also called time shifting);
- "Pull" solutions into markets by overcoming some failure in those markets; and
- Fill a gap within a market and complete the financial chain.

Existing climate-focused pooled financing arrangements

MDBs have mobilized climate funding through two main types of pooled financing arrangements: financial intermediary funds and targeted investment vehicles. (Carbon funds are not noted here because they primarily provide results-based payments rather than upfront financing for climate investment).¹⁷ This section illustrates how these vehicles have delivered some of the benefits outlined above.

Climate-specific financial intermediary funds

There are six multi-donor financial intermediary funds that focus on climate issues: the Global Environment Facility (GEF) and its two related funds (Special Climate Change Fund, or SCCF, and Least Developed Countries Fund, or LDCF), the two Climate Investment Funds (Clean Technology Fund, or CTF, and Strategic Climate Fund, or SCF), and the Adaptation Fund.¹⁸ The World Bank serves as trustee to all six Funds; some of these include the participation of the Bank and other MDBs as implementing agencies. Cumulative pledges and contributions to these six Funds (including CER proceeds) total US\$15.1 billion. The total resource envelope (including investment income and net of restricted resources) currently stands at US\$8.5 billion. The majority of these funds are designed to support climate change mitigation; as a result, middle-income countries have been the primary beneficiaries, receiving about 80 percent of funding approvals for the six funds. Box 2 highlights some of the key accomplishments of these funds.

¹⁷ See World Bank, *Mobilizing Climate Finance*, October 2010

¹⁸ These data do not include the Guyana Rainforest Investment Fund as it involves one donor and one recipient.

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Through these climate-specific funds, the MDBs have been able to mobilize resources from a range of sources and in innovative ways that target the specific barriers and challenges of climate finance.¹⁹ Some examples are highlighted below.

(i) Donor contributions in the form of concessional loans. The CTF has pioneered an innovative approach to donor funding by enabling donors to contribute to the pool through long-term, concessional loans, rather than through conventional grants. To date, France and Germany have made concessional loans to the CTF totaling €703 m (see Box 2).

This approach mirrors the one used by the AfDB's Enhanced Private Sector Assistance Initiative, or specifically the Accelerated Co-financing Facility for Africa (ACFA), through which JICA has provided joint co-financing support for AfDB's sovereign projects. ACFA has provided US\$ 484m of funding alongside UA (or SDR) 885 m of AfDB Group financing.

This approach could also be potentially broadened to enable climate-specific funds to tap other donors with foreign-exchange reserves that they are willing to allocate to climate lending.

(ii) Funding through monetization of offsets. The Adaptation Fund (AF) established under the Kyoto Protocol is the first fund to be financed by an international revenue source: two percent of Certified Emission Reductions (CERS) issued under the Clean Development Mechanism are channeled to the account of the AF. To date, the World Bank has monetized over 9 million tonnes of CERs for the AF, raising nearly \$170 million (see Box 2).

iii) Private foundation giving. A small but growing share of the contributions of private foundations has targeted climate change: U.S. foundations (which comprise about three-quarters of global foundation giving) gave about \$338 million for international climate change purposes in 2007, or about 6 percent of their estimated international giving. About 39 percent of this amount was donated through global programs; one-quarter funded policy work (World Bank (2010c), p. 14). Foundation giving for climate change has focused in particular on helping low-income populations, both by improving their resilience to climate change and by supporting mitigation efforts, in sectors such as sustainable forestry and agriculture. Many of these efforts, such as the Global Alliance for Clean Cookstoves, have used a partnership model where participants contribute in a range of ways, both financially and in-kind. MDBs have worked actively with these foundations, both by managing global programs and by supporting partnerships financially and through knowledge-sharing and convening of stakeholders.

¹⁹ See "Financial Intermediary Funds: An Information Note" (SecM2011-0294), World Bank, May 17, 2011.

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Box 2: Climate-specific financial intermediary funds

Global Environment Facility

The Global Environment Facility (GEF), a multilateral financial mechanism established in 1991, is the largest source of grant and concessional finance for mitigation. It has invested \$3 billion to support climate change mitigation projects in developing countries and economies in transition. This funding has been used to leverage additional funds through project co-financing. Much of this grant funding is offered to support knowledge products, although some has been used for risk mitigation. For example, the Africa Rift Geothermal Energy Development Program offers insurance against geological exploration risk through a Risk Mitigation Fund financed by \$13 million from GEF (IDA (2010), p. 17). GEF's interventions in the area of mitigation focus on reducing barriers to the development of low-carbon technologies through demonstration and commercialization. As part of its program for Sustainable Forest Management (SFM)/REDD+, the GEF has created a separate \$250 million funding envelope as an incentive mechanism for developing countries to invest up to \$750 million of their allocations from biodiversity, climate change and land degradation into comprehensive SFM/REDD+ projects and programs. (Global Environment Facility (2010), p. 5)

The GEF also administers two special adaptation-focused funds with \$270 million in resources: the Least Developed Countries Fund (LDCF) for development and implementation of National Adaptation Programs of Action (NAPAs) in Least Developed Countries; and the Special Climate Change Fund (SCCF), which supports adaptation and mitigation projects (including technology transfer) in all developing countries. The LDCF and SCCF build on the experience of GEF's Strategic Priority on Adaptation (SPA), a US\$50 million allocation from the GEF Trust Fund provided in 2001 to support pilot and demonstration projects for adaptation planning and assessment, and to integrate them into national policy and sustainable development planning. MDBs and several UN agencies serve as implementing agencies for these funds.

Adaptation Fund

The Adaptation Fund (AF) was envisaged under the Kyoto Protocol to assist developing countries that are particularly vulnerable to the adverse effects of climate change in meeting the costs of adaptation, and in financing concrete, country-driven adaptation projects and programs. Institutionally, the GEF serves as the Secretariat for the AF and the World Bank acts as its Trustee. The AF is distinct from other international climate financing mechanisms in that it: a) allows for direct access by developing countries to its resources; b) is financed predominantly by CERs; and c) has a governance structure with an overall majority of developing countries, including special seats for country groups that are recognized as particularly vulnerable to climate change. The size of the fund, which will depend on the value and volume of CERs, is expected to be in the range of \$300-400m, including CER proceeds as well as funding from other sources.

Climate Investment Funds

The Climate Investment Funds (CIFs) are helping developing countries pilot low-emissions and climate-resilient development. Launched in 2008, the CIFs have mobilized over \$6.3 billion in donor pledges and approved grants and concessional loans to over 40 countries through five implementing MDBs (AfDB, ADB, EBRD, IDB and WBG), which provide substantial co-financing and oversight. By pooling different sources of funding to share risk among investors, the CIFs lower the overall cost of borrowing for recipients. Recipient countries also benefit from sharing of experience, for example through the development of low-carbon investment plans. The CIFs are comprised of two distinct funds:

The Clean Technology Fund (CTF) finances the acceleration of transformation to low carbon growth paths through the cost-effective mitigation of greenhouse gas emissions. The CTF Trust Fund Committee has endorsed \$4.35 billion in thirteen country and regional investment plans, leveraging over \$40 billion for renewable energy, energy efficiency, and transportation investments in middle-income countries. The CTF accepts contributions in the form of grants, capital contributions and concessional loans with IDA-like terms (at 0.75% interest, 20 years maturity and 10 years grace on principal repayments). It provides grants, concessional loans, and other financial products, like guarantees. No cross subsidies among the contributors are allowed. Outgoing financing from the CTF can be no more concessional than incoming financing.

The Strategic Climate Fund (SCF) comprises three targeted programs with dedicated funding to provide financing to pilot new approaches with the potential for scaling up: the Pilot Program for Climate Resilience (PPCR) has pilots underway in nine countries; the Forest Investment Program (FIP) has eight pilots totaling \$542 million in Brazil, Burkina Faso, Democratic Republic of Congo, Ghana, Indonesia, Laos, Mexico,

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By enabling a range of donors to contribute in both traditional and non-traditional ways, the Funds described in this section have expanded the pool of resources dedicated to climate finance, in turn facilitating additional co-financing of climate investment by MDBs. Lower all-in financing costs, resulting from the blending of concessional terms with standard MDB terms, improve the viability of low-carbon and climate-resilient investments.

Targeted investment vehicles

The IFC has developed an investment vehicle to finance emerging-market sustainable energy investment. *The Global Climate Partnership Fund (GCPF)* is a collective debt investment vehicle (proposed for up to US\$500 million) that will provide financing mainly for on-lending to small and medium-sized enterprises and households in sustainable energy projects through financial institutions (FIs) and, to a lesser extent, directly to renewable energy/energy efficiency projects. The fund will have flexibility to invest in all emerging markets, but will focus on large emitters. The Fund is intended to have four tranches: (i) junior C shares, (ii) mezzanine B shares, (iii) senior A shares, and (iv) senior notes. It was established as a Specialized Investment Fund (SICAV-SIF) under Luxemburg law in December 2009, promoted by KfW Entwicklungsbank and administered by Deutsche Bank. Germany and Denmark have invested €22.5 million and €5 million, respectively, for C shares. KfW, IFC and one other development finance institution are expected to invest up to US\$75 million each in A and B shares. Tranching the pool in this way, and sharing the risks and returns accordingly, helps mobilize funding from investors whose investment parameters would not otherwise enable them to invest in emerging-market clean-energy projects.

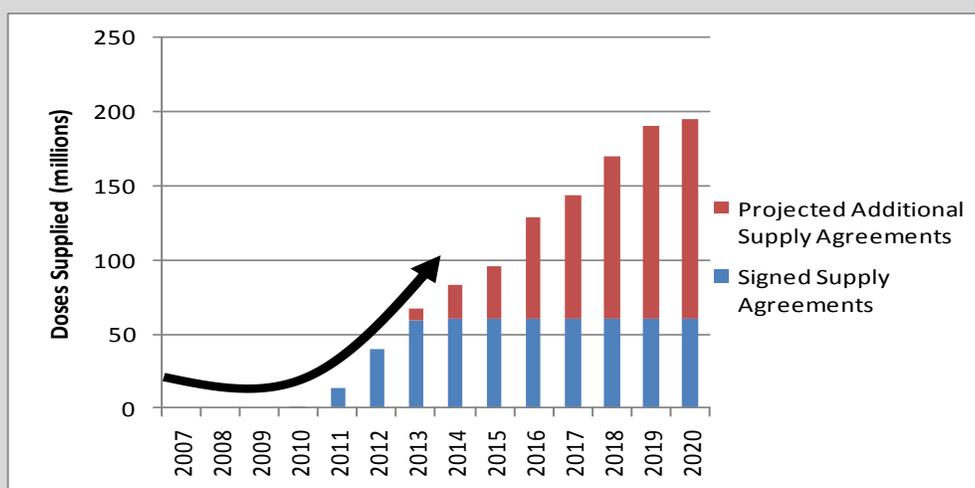
Examples of pooled arrangements in other sectors

Pilot Advanced Market Commitment for vaccines against pneumococcal diseases (AMC)

The Pilot Advance Market Commitment (AMC) structure is a “pull” mechanism designed to incentivize private sector pharmaceutical companies to produce and sell vaccines for markets in which they would otherwise not enter, by guaranteeing a minimum level of demand and a stable product price for a set period of time. Drawdowns under long-term, legally-binding donor commitments are structured to accommodate the disbursement schedule of the AMC. The AMC is an example of pooling to bring together the resources of traditional donor countries with an emerging donor country (Russia) and a foundation (the Bill & Melinda Gates Foundation) to achieve a coordinated project and objective of meaningful scale (Box 3).

Box 3. Pilot Advance Market Commitment (AMC) for vaccines against pneumococcal diseases

The Pilot AMC has mobilized private-sector investment in critical immunizations for the developing world by offering long-term, results-based payment contracts to private sector manufacturers to produce and deliver pneumococcal vaccines to markets that they had considered too risky. From a nonexistent market to a current contracted market of 60 million doses of per year (and rising), the AMC has been successful in pooling \$1.5 billion of traditional donor funds to engage significant investment of private sector funds.



The International Finance Facility for Immunisation (IFFIm)

The International Finance Facility for Immunisation (IFFIm) “front-loads” financing needed for immunization programs in the poorest countries. Using legally binding, long term, donor commitments to issue bonds, IFFIm makes more money available *now* for vaccine purchase and delivery. The benefit of frontloading funds to vaccinate children is felt (leveraged) well beyond the initial reduction in child mortality (see Box 4).

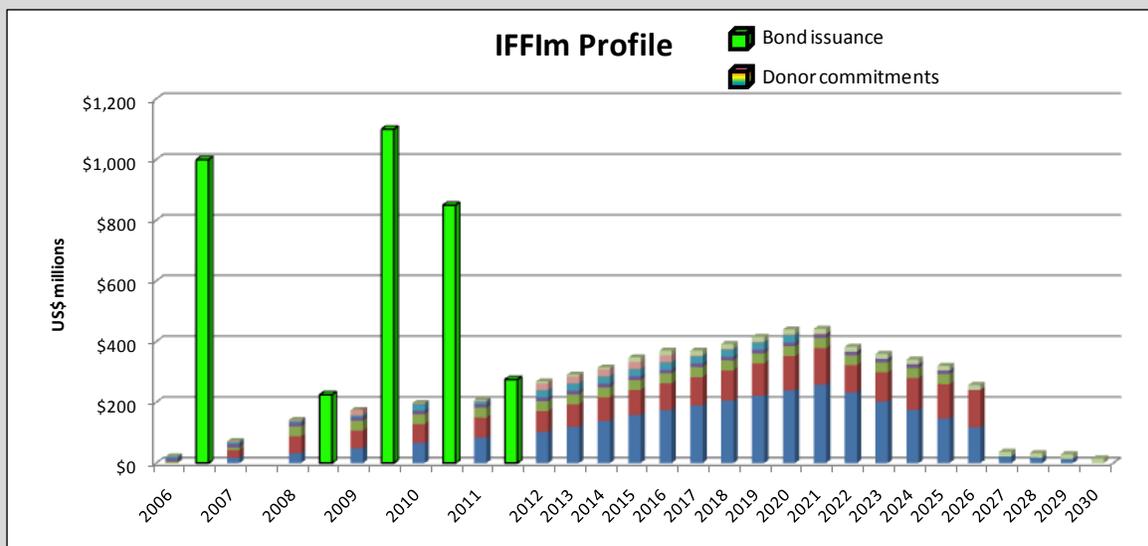
The scope for replicating pooled arrangements to deliver climate finance

The applicability of “pull” and front-loading mechanisms like AMC and IFFIm to climate finance merits further analysis, given their power to mobilize private investment while deferring donor funding. As in the case of immunizations, these mechanisms can be used to remove obstacles to private sector investment--notably, the shortage of bankable revenue streams enabling sponsors of low-carbon investments to secure loan funding. For example, building on

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Box 4. The International Finance Facility for Immunisation (IFFIm)

IFFIm was able to front-load \$1 billion of future donor commitments in the first year of operations, which would have taken nearly 7 years to raise otherwise. It followed that success with an additional \$2.4 billion in the next 4 years that would not have been available for a further decade. The early investment of this \$3.4 billion into vaccinating children will have a tremendous leveraging effect for those recipient countries.



the experience of other countries which have dramatically expanded renewable energy generation capacity,²⁰ pull mechanisms could be constructed to support feed-in tariffs (FiTs) for renewable energy generation in developing countries, providing a fixed payment (per unit of renewable energy delivered) over a set number of years. FiTs not only enable payments to be deferred over a long period, they are also output-based and provide for straightforward monitoring, reporting and verification (MRV), because payments are made only upon verification of service delivery.

Pooled funding mechanisms could also be explored as vehicles for delivering large, upfront capital investments for investments where a compelling case can be made for early action. Based on the IFFIm model, long-term, legally-binding commitments by donors could provide a payment stream backstopping the issuance of climate bonds, whose proceeds could fund urgent climate investments—for adaptation as well as mitigation. As in the case of immunizations,

²⁰ FiTs have driven 75% of solar PV capacity and 45% of wind capacity worldwide as of 2008. Source: Deutsche Bank Climate Change Advisors, "Get FiT Program," April 2010, p. 6. http://www.dbadvisors.com/content/media/GET_FIT_-_042610_FINAL.pdf

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frontloading of funds to achieve a climate objective may provide leveraging benefits, as the cost of addressing climate change impacts will grow the longer the problem is unchecked.

The donor-supported revenue streams provided under such mechanisms could be combined with other revenue streams and assets to enhance both the financial viability of the investments they support and the sustainability of the funding mechanisms. For example, a pull mechanism offering long-term offtake contracts for the delivery of renewable energy, through long-term payment commitments from donors, would provide a high-quality, bankable revenue stream. This could be combined with locally-generated revenues (e.g. from electricity sales), which could be credit-enhanced or aligned with broader reforms to level the playing field for renewables (e.g. reduction of fossil-fuel subsidies), further reducing investment risk and helping to level the playing field for low-carbon investment. To enhance the sustainability of funding for these mechanisms, potential beneficiaries could be required, as a condition of participation, to share their rights to emission reduction credits generated through supported investments. Although in the current market, these credits may not provide a bankable source of revenue, they could ultimately provide resources for replenishment.

Challenges

Although pooling of resources provides substantial scope for increasing climate financing, it is not a silver bullet, for several reasons.

- First, resources committed to pooled financing arrangements may not necessarily be additional to other sources of funding; in some cases, they may represent reallocations from other climate-related activities.
- Second, pooled financing arrangements have not yet been able to attract large sums from non-traditional donors. The challenge here is to provide compelling value propositions that clearly demonstrate value for money.
- Third, one size does not fit all. Mechanisms such as IFFIm (that have proven effective in delivering financing for immunization programs) could be structured to address climate finance needs only if there is a compelling case for front-loading, and if donors are able to make the long-term, legally-binding commitments required under such schemes.

Addressing these challenges will require continued focus by the MDBs on aligning donor preferences and interests with the needs of the beneficiaries, and on achieving demonstrable results on the ground.

III. Conclusions

Leveraging shareholder capital and mobilizing and “pooling” concessional flows are two potential avenues through which MDBs can leverage and intermediate resources to ultimately increase the volume of climate financing.

Given the current constraints on MDB capital (even with the recent capital increases), room for additional climate finance within the existing headroom is limited. The option of recapitalizing MDBs to support a significant amount of additional climate change financing is more for future than a current consideration. In case such an option does become of interest, it is estimated that MDBs could indeed leverage a paid-in capital contribution by up to 3 to 4 times initially and by additional lending over the long term by recycling loan repayments. Furthermore, income generated by such operations could be used to further grow lending, to buy down pricing relative to MDBs current charges or to provide grants. The extent of leverage is largely driven by the form of climate financing (i.e. loans permit greater leveraging than do equity participations), the pricing associated with the climate financing loans (non-concessional financing allows greater leveraging than concessional), and the creditworthiness of the beneficiaries.

In the near term, the MDBs are looking to pooled financing arrangements, many of which have proven to be useful in mobilizing concessional flows from new sources and in new ways, and in channeling these flows in ways that are tailored to the needs and circumstances of recipients. These arrangements can also produce significant economies of scale and scope. In this context, some of the challenges include scaling up successful pooled financing arrangements for climate finance; examining whether and how such arrangements used in sectors like health may be adapted to meeting the climate financing challenge; and continuing to push the frontier by developing new and innovative structures that can tap new sources of financing, maximize leverage, continue to encourage transformative investments, and deliver results.

The experience gained by the MDBs and their clients and donors from implementing these financing arrangements should provide helpful lessons for the development community as it considers how to develop the Green Climate Fund and other future climate change initiatives. Rigorous monitoring, evaluation and continuous learning – about what works, what doesn’t and why – is a critical priority, particularly in an inherently innovative area such as climate. This is an important public good in which MDBs must continue to invest.

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