INNOVATIVE FINANCE FOR DEVELOPMENT SOLUTIONS
INITIATIVES OF THE WORLD BANK GROUP

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1818 H Street, NW
Washington, D.C. 20433
U.S.A.
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What is Innovative Finance?

Innovative Finance can mean different things to different people. At the World Bank Group, we include under this heading any financing approach that helps to:

- Generate **additional** development funds by tapping new funding sources (that is, by looking beyond conventional mechanisms such as budget outlays from established donors and bonds from traditional international financial institutions) or by engaging new partners (such as emerging donors and actors in the private sector).
- Enhance the **efficiency** of financial flows, by reducing delivery time and/or costs, especially for emergency needs and in crisis situations.
- Make financial flows more **results-oriented**, by explicitly linking funding flows to measurable performance on the ground.

Most Innovative Finance involves combining available financial instruments into a new package or using them in a new context or setting, such as a new sector, country, or region. In some cases, the driving force behind the new financial mechanism is two-fold:
to raise new resources and to make the use of those resources more effective.

**Why is Innovative Finance needed in developing countries?**

Low- and middle-income countries need resources for essential development needs. They need these resources in a timely and predictable manner, and they need to maximize their use of them. Yet the current global economic crisis has increased the challenges of providing timely, predictable funding.

For much of the past decade, financial conditions for development assistance were quite favorable. Interest rates and interest-rate premiums were low, and from 2003 to 2007, global credit expanded twice as fast as nominal GDP. Using a range of new financial instruments, banks were able to leverage equity capital as never before, allowing them to fund significant parts of their loan portfolios through the capital and money markets. Partly as a result, developing countries enjoyed a sustained investment boom—but that boom came to an abrupt halt in the fall of 2008.

Going forward, the challenge is to restore healthy aid levels in the uncertain environment of the continued financial crisis, while finding new modalities that can complement official sources of aid and ones that can help ensure “the biggest bang for each buck.”

**How did Innovative Finance take off?**

At the United Nations Millennium Summit in September of 2000, 189 nations adopted the Millennium Declaration, which set eight Millennium Development Goals to be met by 2015. These goals brought together in a single platform many of the most important commitments made separately at international conferences during the previous decade.

To help assure the achievement of the Millennium Development Goals, a variety of development partners began searching for new sources of funding—for “innovative financing” to complement traditional Official Development Assistance. Development banks began issuing new types of bonds, ones that linked resource mobilization with specific development objectives: for instance, certain debt offerings for sustainable investments were tied to climate-change goals. Sovereign and private donors championed an array of initiatives.

Development Committee mandated the review of a number of mechanisms, including the International Finance Facility, solidarity taxes on airline tickets, voluntary contributions, debt buy-down arrangements, blending arrangements, Advance Market Commitments, commodity-linked repayments, inflation-indexed local-currency lending, and deferred repayment schemes. Many of these have been implemented in the years since.

At the same time that donors have been devising new financing mechanisms and instruments, developing countries themselves have been seeking not only increased financial flows but better, more sustainable, financial solutions—initiatives such as partnerships that mobilize private finance for the delivery of public services; risk-mitigation plans that increase incentives for private players to engage in productive sectors of low-income countries; and support for carbon-trading mechanisms.

**How important is Innovative Finance in the overall development picture?**

Compared to Official Development Assistance and traditional private-capital flows to developing countries, the funding from Innovative Finance instruments is as yet very small. But a huge untapped potential exists. In the United States, for example, Socially Responsible Investing (SRI)—investment decisions that take both the investor’s financial needs and societal concerns into account—has already reached US$2.15 trillion in assets, or about 10 percent of the total invested capital assets. A bigger share of SRI going into developing countries, along with higher penetration rates for other innovative finance instruments in developing countries, would greatly multiply the current amounts of finance. Another example is the Solidarity Tax on Airline Tickets. Instituted by France in 2006 and adopted by 17 other countries (with 15 more in the process of joining in), it raised an estimated US$600 million up to 2008, and has the potential to generate much more as additional countries implement the tax.

When evaluating the importance of Innovative Finance, one must consider not just the amounts of investment in absolute terms but also—and more important—the leveraging effects. For example, between 2000 and 2008 the World Bank Group issued about US$7.7 billion in guarantees to support investments in financial and productive sectors of developing countries. These guarantees leveraged total investments of almost US$20 billion—a leverage ratio of roughly 2.6.
Roles of Innovative Finance Instruments: Some Key Examples

Generating additional funds
- Emerging donors
- Socially responsible investing
- Solidarity taxes
- Carbon finance

Linking funds to results
- Results-Based Financing
- Advance Market Commitments

Making funds more efficient
- Local-currency bonds
- Frontloading of development aid
- Index-based risk financing
- Partial Risk Guarantees
II. WORLD BANK GROUP INITIATIVES IN INNOVATIVE FINANCE

Working with an array of development partners, the World Bank Group has pioneered new financing mechanisms and instruments in all three areas of Innovative Finance: generating additional funds, enhancing the efficiency of financial flows, and linking financial flows to results.

**Generating additional funds**

- **Programs to reduce carbon emissions.** The World Bank has played a key role in identifying and implementing projects in this realm, and supports 10 funds and facilities currently capitalized at more than US$2.5 billion. This represents additional funding, since it derives from private sources as opposed to official development aid. The Bank helped develop the Prototype Carbon Fund, which began operations in 2000—well before the Kyoto Protocol came into force. Projects since include the Community Development Carbon Fund, which leverages output-based aid to help implement carbon-finance projects with specific community and poverty-reduction outcomes; the International Finance Corporation’s (IFC’s) carbon-delivery guarantees, which give projects in developing countries better access to commercial carbon buyers; and the Carbon Partnership Facility, a large-scale, long-term mechanism that takes a broad, programmatic approach.

- **The Adaptation Fund (AF).** Under the Kyoto Protocol, the Adaptation Fund is designed to finance concrete climate-change adaptation projects and programs that are country driven and based on the needs, views, and priorities of eligible developing
country Parties to the Protocol. The Fund’s primary financing comes not from traditional development assistance, but from a 2 percent share of proceeds of Certified Emission Reductions (CERs) issued by the Clean Development Mechanism (CDM) under the Protocol. Its financial base is thus precedent-setting: an international source of finance arising from an international treaty. The Adaptation Fund currently holds about 5.2 million CERs. The World Bank’s role in the Fund includes managing the sales of CERs as well as managing the AF trust fund. Since the inaugural sales of CERs for the Adaptation Fund in May of 2009, the Bank has sold over 2.2 million CERs, generating approximately US$39 million for the Fund.

- **Funds from emerging sovereign donors.** Contributions from sovereign donors outside the Development Assistance Countries (DAC) to the International Development Association (IDA) and various trust funds totaled US$2.1 billion between 2000 and 2008. The support of several first-time non-DAC donors during the most recent IDA replenishment is particularly noteworthy; these included China, Cyprus, Egypt, Estonia, Latvia, Singapore, and Slovenia.

- **Public-Private Partnerships (PPPs).** The World Bank has helped establish a number of PPPs to extend the private sector’s engagement in the delivery of critical development services. For example, the Public-Private Infrastructure Advisory Facility (PPIAF), spearheaded and managed by the Bank, provides technical advisory services to infrastructure projects involving public-private partnerships, with a focus on developing countries.

### Making funds more efficient

- **The International Finance Facility for Immunisation (IFFIm).** The pilot IFFIm, pioneered by the UK and launched in 2006, is designed to provide upfront, predictable financing for immunization programs in low-income countries through the issuance of bonds based on long-term donor commitments. The IFFIm’s financial base consists of very long-term, legally binding grant obligations from its sovereign donors (to date, the UK, France, Italy, Spain, Sweden, Norway, the Netherlands, and South Africa; in September of 2009, Australia announced a pledge). Funds raised by the IFFIm allow the GAVI Alliance to provide targeted investments in immunization. To date, the IFFIm has raised US$2.3 billion on the capital markets. It has approved US$2 billion in programs, of which US$1.6 billion has been disbursed. The World
Bank played a key role in designing the IFFIm and is the Treasury Manager. Bank services include the development and execution of market-based financing strategies and funding operations, multi-donor grant and payment tracking, liquidity and investment management, risk monitoring and asset-liability management, and accounting and reporting. IFFIm finance is expected to prevent some 5 million child deaths between 2006 and 2015, and more than 5 million future adult deaths.

- **Local-currency bonds.** Development assistance in low-income countries has traditionally been denominated in the currency of the donor country, which has risks for borrowers (for example, currency fluctuations make it difficult to forecast debt burdens and plan for future expenses) and can make potential investors wary. New World Bank Group financing is helping to build up capital markets in many low-income countries: from 2000 to 2008, for example, the Bank Group committed the equivalent of more than US$5.7 billion in local-currency financing in 31 countries.

- **Guarantee instruments.** The World Bank Group offers three kinds of guarantees designed to help extend the reach of private financing by mitigating perceived risks such as political, regulatory, and foreign-exchange uncertainties, and encouraging private-sector involvement in developing countries. Partial Risk Guarantees (PRGs) ensure payment if a government or other public entity fails to perform its contractual obligations with respect to a private-sector project. Partial Credit Guarantees (PCGs) cover private lenders against all risks during a specific period of the financing term of debt for a public investment; they are designed to extend maturity and improve market terms. Policy Based Guarantees (PBGs) help improve governments’ access to capital markets in support of social, institutional, and structural policies and reforms. Twenty-eight approved guarantees to date, representing exposure to the Bank Group of about US$1.4 billion, have leveraged more than US$12 billion of private resources for projects worth US$28 billion.

- **Instruments that mitigate farmers’ risks.** The World Bank and the International Finance Corporation (IFC) pioneered weather insurance—insurance that makes payouts on the basis of objective indices such as rainfall or temperature, which serve as proxies for actual losses—by partnering with an Indian microfinance institution in 2003. Since then, private and public insurance companies in India and Africa have insured more than 2 million farmers against weather risks.
• **Instruments that mitigate country risks from natural disasters.** World Bank Catastrophe Deferred Drawdown Options (CAT DDO loans) provide immediate liquidity after a disaster. Regional catastrophe insurance pools such as the Caribbean Catastrophe Risk Insurance Facility (CCRIF), which the Bank helped establish, provide countries with significant savings on premiums and make immediate payouts after a disaster.

**Linking funds to results**

• **The Advance Market Commitment (AMC) for vaccines.** The World Bank helped design, negotiate, and implement the pilot AMC, which was launched in 2009 to support the R&D, manufacture, and distribution of vaccines against pneumococcal disease and accelerate the creation of a viable market. Six donors (Italy, the UK, Canada, Russia, Norway, and the Bill & Melinda Gates Foundation) have committed US$1.5 billion to the pilot. The AMC will finance the purchase, up to a pre-determined price, of new vaccines needed in developing countries. The Bank has added the US$1.5 billion donor subsidy to the balance sheet of the International Bank for Reconstruction and Development (IBRD). In doing so, it has undertaken to make the scheduled donor payments available to the implementing agency, the GAVI Alliance, even if those payments are delayed or in default. The IBRD will provide standard financial management and administrative services regarding donor contributions, AMC commitments, and disbursements. It is estimated that the pilot AMC will prevent more than 7 million childhood deaths by 2030.

• **Results-Based Financing (RBF).** Results-Based Financing is an umbrella term for mechanisms, such as output-based aid and pay-for-performance, that provide incentives to enhance the performance of aid. In each case, a donor provides a financial or in-kind reward contingent on the recipient undertaking predetermined actions or achieving a predetermined goal. The World Bank has supported RBF mechanisms in a variety of countries and ways, ranging from performance-based contracts with NGOs in Rwanda, the Democratic Republic of Congo, Afghanistan, and Cambodia to the Progresa program in Mexico, which provided cash transfers to households that obtained basic health-care services, and successfully reached 90 percent of the target population. Along with the Norwegian Health Results Innovation Trust Fund, the Bank is currently supporting the governments of eight countries in designing, implementing, and evaluating national RBF efforts.
New resources for a cleaner world: instruments to reduce carbon emissions and provide funds for developing countries

Development Challenge: The impacts of projected changes in the world’s climate are expected to be far-reaching and most pronounced in poorer countries, adversely affecting virtually all aspects of social and economic life. This will require significant increases in support to mitigate climate change.

Innovative Finance Solution: In 2000—five years before the Kyoto Protocol to the United Nations Framework Convention on Climate Change entered into force—the World Bank with its partners established the first global carbon fund (the Prototype Carbon Fund or PCF) to create demand for carbon credits and to gain experience with the Kyoto mechanisms. This helped catalyze a nascent market for emission reductions. The PCF started with US$160 million. Since then, the World Bank has created funds and facilities capitalized at approximately $2.5 billion.

The Bank is endeavoring to strengthen the capacity of developing countries to benefit from the market for greenhouse-gas emission reductions, ensure that carbon finance contributes to sustainable development, and help build the market for emission reductions. Its pioneering carbon finance operations continue to play a role in leveraging new public and private investment and providing technical assistance for capacity building and project preparation.
Carbon finance refers to the use of the flexible mechanisms of the Kyoto Protocol. Registered projects resulting in greenhouse-gas emission reductions that are located in developing countries or economies in transition obtain carbon credits which can be traded in the market.

A few specific examples of the World Bank Group’s carbon-finance operations include:

- The Community Development Carbon Fund (CDCF), which leverages output-based aid to help implement carbon-finance projects with specific community and poverty-reduction outcomes.
- The Carbon Partnership Facility (CPF), one of the new facilities of the Bank’s carbon finance unit. This brings buyers and sellers together and strives for programmatic and sector-based approaches to support larger-scale and longer-term investment programs to reduce emissions.
- The Forest Carbon Partnership Facility (FCPF), which provides performance-based payments to developing countries to reduce emissions from deforestation and forest degradation. The FCPF is an example of a Bank-promoted initiative that brings carbon projects to countries, sectors, and activities that have not yet benefited from carbon finance.

**Key Advantages:** These mechanisms create incentives to reduce emissions and provide additional funding to help developing countries cope with climate change.

**Contact:** Alexandre Kossoy

**Further information:** [www.carbonfinance.org](http://www.carbonfinance.org)
2. **New climate-friendly investments:** Green Bonds and Cool Bonds

**Development challenge:** Immense amounts of funding are needed to address climate change. Mitigation efforts in developing countries could cost US$140 billion to US$175 billion annually over the next 20 years, with associated financing needs of US$265 billion to US$565 billion. Adaptation efforts could require some US$75 billion to US$100 billion annually from 2010 to 2050. Looking at these figures in view of current overall development assistance—roughly US$100 billion a year—highlights the magnitude of the challenge.

Fundraising efforts to date have been woefully inadequate, generating less than 5 percent of projected needs. Contributions from governments of high-income countries are affected by fragmentation and political and fiscal cycles. The Clean Development Mechanism (CDM) of the Kyoto Protocol—one source of mitigation finance for developing countries and of support for the Adaptation Fund established by the Parties to the Protocol—has had successes, but its fund-raising scope is limited. New sources must be tapped.

**Innovative Finance Solution:** Green Bonds and Cool Bonds.

*Green Bonds* are six-year notes that raise funds for mitigation and adaptation projects financed by the World Bank. They were designed in partnership with the financial group Skandinaviska Enskilda Banken in response to investor demand for an AAA-rated fixed-income product supporting projects that address climate change. The first bonds were issued in November of 2008, totaling 2.325 billion Swedish kroner (nearly US$300 million). More than US$1 billion has been raised through World Bank Green Bond issuances to date.

Mitigation projects supported by Green Bonds include the rehabilitation of power plants and transmission facilities; solar and wind installations; emission-
reducing technologies; alternative fuels and mass transport; energy-efficient buildings; and reforestation and avoided deforestation. Adaptation projects include protection against flooding; stress-resilient agricultural systems; and forest management and avoided deforestation.

*Cool Bonds* are five-year AAA notes issued by the International Bank for Reconstruction and Development (IBRD) and linked to Certified Emission Reductions (CERs) set up under the Kyoto Protocol. The first issuance, in June of 2008, was of US$25 million in Uridashi bonds—foreign bonds sold directly to Japanese household investors—whose ultimate returns will be linked to CERs generated by a Chinese hydro-power plant. The second issuance, in September of 2008, involved US$6.5 million in bonds linked to CERs from a Malaysian power plant. In both cases, investors are supporting demand for CERs from projects registered under the Protocol.

**Key Advantages:** Green and Cool Bonds are tied to carbon credits. Investors achieve three things at once: they help fight global warming, support World Bank Group efforts to fight poverty, and hedge their exposure to carbon credits. Cool Bonds, further, introduce the notion of tying bond returns to carbon credits and therefore of financing climate investments with front-loaded proceeds from carbon revenues.

**Contact:** Heike Reichelt

**Further Information:**

### 3. Helping countries cope with climate change: the Adaptation Fund

**Development Challenge:** Even if greenhouse-gas emissions are drastically reduced in the years ahead, the global annual average temperature is expected to rise by 2°C (compared with pre-industrial levels) by 2050. A warmer world will have more-extreme
weather: heavy rainfall, more-frequent and more-devastating droughts and floods, intense heat waves. Unless we have systems in place to reduce our vulnerability to such events, development progress will be threatened, if not reversed.

Such systems will come with a high price tag—for developing countries, on the order of US$75 billion to US$100 billion a year for each year between 2010 and 2050, according to the World Bank’s preliminary Economics of Adaptation to Climate Change (EACC) study. The highest costs will be incurred by the East Asia and Pacific Region, followed closely by Latin America, the Caribbean, and Sub-Saharan Africa—regions containing many of the world’s poorest countries, those least equipped to bear the costs.

**Innovative Finance Solution:** The Adaptation Fund, created by the international community to help fill the financing gap of developing countries that lack adequate resources to deal with climate change. The Parties to the Kyoto Protocol of the UN Framework Convention on Climate Change (UNFCCC) agreed in 2001 to establish the Fund. It draws on a unique means of financing: it is supported primarily by a 2 percent share of proceeds from sales of carbon credits issued for projects in developing countries. These carbon credits (Certified Emission Reductions or CERs) are issued under the Clean Development Mechanism (CDM), one of the three market-based mechanisms set up under the Kyoto Protocol. Each CER represents the reduction of one metric ton of CO₂ or equivalent emissions.

The World Bank serves as the Adaptation Fund’s Trustee. As such, it conducts sales of CERs on global markets on the Fund’s behalf, manages the proceeds in a Trust Fund at the Bank, and handles disbursements to adaptation projects and programs approved by the Adaptation Fund Board.

The Bank completed the inaugural sale of CERs for the Adaptation Fund in May of 2009, involving 600,000 CERs. Through January of 2010, the Bank has sold more than 2.2 million CERs for the Fund, generating approximately US$39 million. Based on current
estimates of CER issuances and prices, the Adaptation Fund could raise between US$100 million and US$200 million a year by 2012, when the first commitment period of the Kyoto Protocol expires.

**Key Advantages:** The Adaptation Fund has a unique source of financing—one that does not rely on traditional development aid. Although resources from CER issuances have been modest to date, the Bank’s CER monetization process seeks to optimize revenues and limit financial risk to the Fund, providing predictable flows for adaptation projects through a transparent and cost-effective sales program.

**Contact:** Jonathan Caldicott

**Further information:**

4. **Making funds available when they are most needed: frontloading aid for vaccines**

**Development Challenge:** Every year about 24 million children in low-income countries fail to receive critical vaccinations against measles, diphtheria, pertussis, Hepatitis B, polio, tetanus, yellow fever, and influenza, with some 2.5 million dying from preventable diseases.

The potential gains of immunization are even greater than these numbers might suggest. For some diseases, vaccination reduces risk not just for immunized people but also for un-immunized people who come into contact with them—an effect known as “herd immunity.” The benefits of herd immunity are highest for diseases that can be completely eradicated, such as smallpox and perhaps polio, and have also been shown to apply to pertussis, typhoid, and yellow fever. The potential for herd immunity is maximized through large-scale immunization campaigns that reach children within a short period of time. Because transmission of disease knows no borders, rapidly im-
munizing children in one country or province can help prevent disease elsewhere.

Additional benefits can be gained through large up-front immunization efforts. All socioeconomic sections of the target population can be more equitably covered, and “difficult-to-reach” people are more likely to be included. Moreover, health is a key factor in productivity and economic growth. High levels of disease and mortality increase health-care costs and can reduce saving and investment. But immunization campaigns are expensive, especially for new vaccines. As such, they can be beyond the reach of poor countries—creating a cruel irony, since the health savings from up-front vaccination campaigns undertaken in those countries today could substantially fund vaccinations for future generations.

**Innovative Finance Solution**: Frontloading aid—using future donor commitments to leverage funds on the capital markets, making more money available today. The pilot frontloading mechanism is the International Finance Facility for Immunisation (IFFIm), established in 2006 with some US$5 billion in assets in the form of legally-binding grants paid over 20 years from sovereign donors. The IFFIm rapidly accelerates the availability of funds for immunization, which is expected to expedite progress toward the health UN Millennium Development Goals; it also increases the predictability of funding. The first IFFIm bonds were issued in London in November 2006, raising US$1 billion from a broad range of investors. To date, IFFIm issuances have raised US$2.3 billion. The World Bank is the IFFIm’s Treasury Manager and serves as its financial adviser.

IFFIm funds support immunization programs and new vaccines provided to countries by the GAVI Alliance, a public-private global-health partnership. US$1.6 billion has already been disbursed to support vaccine purchase and delivery to 70 developing countries, for programs including the pentavalent vaccine (five shots in one, protecting against diphtheria, tetanus, pertussis, Hepatitis B, and Hib), the Yellow Fever Initiative, the Global Poliomyelitis Eradication Campaign, and the Maternal and Neonatal Tetanus Elimination Campaign.
Key Advantages: With funding made available sooner, not only can more people be vaccinated, but they can receive the vaccines in an optimal time frame: through large up-front campaigns in multiple countries. Since some of the targeted vaccines have herd-immunity effects, the ultimate benefits could reach far beyond the immunized populations, with widespread health and economic advantages for both current and future generations.

Contact: David Crush

5. Building up capital markets in developing countries: World Bank Group local-currency initiatives

Development Challenge: Over the past 10 years, emerging-market countries have transformed the structure of their government debt portfolios, with a sustained increase in the share of domestic debt. This has mitigated their dependence on external funding sources and their exposure to currency risk, in many cases helping them to weather the recent financial turmoil. The challenge for these countries is to build on the progress they have made.

Currency markets in many developing countries, however, remain risky, and lack liquid, long-term investment instruments. Regular institutional investment in local-currency debt in these countries suffers due to volatile exchange rates, the risk of currency devaluation, lack of access, poor market infrastructure, and other impediments. International investors require greater returns to compensate for taking these risks, often making local-currency financing prohibitively expensive, if accessible at all. Consequently, public- and private-sector participants must often borrow in foreign currencies, whether from donors or through the capital markets, exposing themselves to currency risk. Even entrepreneurs and households taking out microloans may have to borrow in foreign currency.
Why is this a problem? If the debt burden is in a different currency than the expected cash flows needed to repay the loan, debtors must contend with currency fluctuations that are impossible to predict. They therefore cannot plan for future expenses, and risk defaulting on the loan. Sovereign borrowers repay their foreign-currency bonds mostly from tax income, which is, of course, in local currency; the discrepancy means that their future debt burden is unknown in local terms. Private companies receive their income, other than payments from exporters, in local currency. Their future debt burden is similarly unknown; investment decisions are then hard to make, and economic success depends partly on volatile foreign-exchange markets.

**Innovative Finance Solution:** The World Bank has made financing available in a growing number of local currencies through currency-conversion options embedded in International Bank for Reconstruction and Development (IBRD) loans, stand-alone currency hedging transactions to manage currency risk on existing IBRD loans or debt owed to other creditors, IBRD loans tied to local-currency bonds, and local-currency guarantees. It is prepared to offer local-currency solutions in more than 20 currencies. Since 2006, the Bank has conducted currency hedging operations worth the equivalent of US$1.4 billion in Colombian pesos, Mexican pesos, and South African rand. And in Uruguay, for example—a country without a liquid swap market—the Bank provided local-currency financing by linking an IBRD loan to a back-to-back bond issuance in Uruguayan pesos. In Africa, it helped strengthen infrastructure projects by providing guarantees in South African rand, so that debt currency would match revenue currency.

The World Bank Treasury assists in local-market development through its own funding program. Throughout its history in the capital markets, Treasury has issued in more than 50 currencies, in many cases serving as a catalyst for the development of these markets.
IFC has provided local currency through three products—local-currency bond issues, structured finance products (issued mainly to microfinance clients and small and medium enterprises), and derivatives-based local-currency loans. From 2000 to 2008, the IFC committed the equivalent of over US$6 billion in local-currency loans on 221 projects in 31 currencies. In 2007 and 2008, it committed loans using derivatives for the first time in Ghanaian cedi, Kenyan shillings, Nigerian naira, Romanian leu, Vietnamese dong, and Zambian kwacha.

For a broad overview: between 1995 and 2008, development banks raised US$52 billion through local-currency bond issues. The World Bank Group accounted for US$15.76 billion, or some 30 percent, of this amount.

**Key Advantages:** Stronger local-currency markets can lower the costs of borrowing, thus supporting development. They reduce financing and investment mismatches and their associated risks.

**Contact:** Diane Cashman (World Bank), Lee Meddin (IFC), John R. Borthwick (IFC)

**Further Information:** http://treasury.worldbank.org/ and http://www.ifc.org/structuredfinance

6. **Saving livelihoods as well as lives: financing Ethiopian weather risk**

**Development Challenge:** Mechanisms to manage agricultural risk have been around as long as agriculture itself, yet by and large they have proved insufficient. Humanitarian interventions in the wake of crises are indispensable, but they are by definition after-the-fact responses and can encounter problems such as uncertain funding from international donors, difficulty in assuring timely delivery of aid, and leakages to the non-needy.

Ethiopia is an extreme case in point: 80 percent of the population engages in agriculture, making them highly vulnerable to the country’s chronic and severe droughts. The government’s Productive Safety Net Program provides aid to the “chronically food insecure”—the poorest people, who are in peril no matter what the weather. The “transiently food insecure”—those who can feed themselves under normal condi-
Emergency responses—meant to help them during extreme droughts—are typically too slow to prevent them from having to sell crucial assets such as livestock and equipment; they then become part of the chronically food insecure.

**Innovative Finance Solution:** Index-based risk financing—a tool that uses contracts with global firms or banks to hedge against specific hazards or events. Data on these hazards is regionally tracked, and payouts are triggered when deviations from historic averages reach pre-set levels—for instance, when rainfall drops significantly below the norm.

The first government-level index-based insurance was piloted in Ethiopia in 2006, spearheaded by the UN’s World Food Programme (WFP) with technical assistance from the World Bank. Twenty-six weather stations throughout the country monitored rainfall daily, providing data to the French reinsurance company Axa Re. Had a drought ensued, Axa Re would have paid US$7.1 million, to be disbursed in cash to as many as 300,000 farmers. The stations thus served as an early-warning system to trigger aid in the initial stages of a drought—up to four months sooner than traditional crisis aid—which would have enabled farmers to plant alternate crops and/or avoid selling off assets to survive.

Rainfall in 2006 was above average, so no payout was triggered; however, the pilot demonstrated the concept’s feasibility, and scale-up is underway. In 2006 the World Bank approved a US$25 million grant under a Risk Financing Facility to improve contingency planning and early warning and add capacity; more than 50 rainfall-monitoring stations are now in place. In 2007 the WFP and the World Bank developed software (known as LEAP, for Livelihoods, Early Assessment, Protection) to enhance the monitoring system. In 2010 the Bank added a grant of US$50 million, earmarked for distribution if the early-warning systems,
including the weather indices, indicate a drought. Other partners, such as the UK’s Department for International Development and the US Agency for International Development, are also pledging resources. In all, these funds could reach up to 7 million people in the transitory food insecure group.

**Key Advantages:** The Ethiopian index-based risk financing program makes the government’s Productive Safety Net Program sustainable, by helping families avoid falling into chronic food insecurity. Because payouts are made on a regional, not a case-by-case, basis, the mechanism involves fewer transaction costs than many other interventions, and avoids false claims. Weather risk is transferred from low-income households to global risk-takers.

**Contact:** Will Wiseman

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7. **Helping countries cope with disasters before they happen: the Caribbean Catastrophe Risk Insurance Facility**

**Development Challenge:** Natural disasters impose disproportionate human and economic losses on the developing world. In a sample of large natural disasters between 1980 and 2004, fatalities per event were orders of magnitude higher in low- and middle-income countries than in high-income countries. Post-disaster emergency relief, though important for humanitarian reasons, is insufficient for recovery.

The cost of catastrophe insurance is usually much higher than the pure risk premium, mainly because of the cost to the insurer of backup capital to cover claims for events affecting multiple communities; over the long term, premiums can cost more than losses. Between 1970 and 1999, for example, catastrophe insurance premiums in the Caribbean were about 1.5 percent of GDP, but average losses per year (insured and uninsured) were only about 0.5 percent of GDP. This helps explain why only 1 percent of households...
and businesses in low-income countries have catastrophe insurance. People rely instead on family and public support, which may not be forthcoming when whole countries or regions are affected. They can be forced to take out high-interest loans (or default on existing loans), sell assets, or take other steps that propel them into poverty.

The Caribbean contains many small developing states, and is prone to both earthquakes and hurricanes. Single events can devastate entire economies. Given the potential of climate change and sea-level rise to exacerbate hurricane hazards, catastrophe risk is a high priority for Caribbean governments in their pursuit of sustainable development.

**Innovative Finance Solution:** With new modeling techniques for estimating and pricing the risks of natural disasters, along with new insurance instruments, the donor community can help the poor cope with the economic repercussions of disasters before they happen.

In 2005, at the request of a group of Caribbean governments, the World Bank and other partners began work that led to the establishment in 2007 of the Caribbean Catastrophe Risk Insurance Facility (CCRIF)—the world’s first regional insurance fund. The CCRIF offers index-based insurance—insurance under which payouts are based on an objective, local index (such as one tracking earthquake data or hurricane wind speeds) that serves as a proxy for actual loss. Donors provided start-up funds, and the Bank later arranged a US$20 million reinsurance “cat swap” that transferred a portion of risk to capital markets. By pooling their risk, the 16 member countries have saved about 40 percent compared to premium costs had they negotiated individually on commercial markets. Because the insurer does not need to tally the damage after a catastrophe, payouts are immediate: for example, after the January earthquake CCRIF made a US$7.75 million payment to Haiti.
**Key Advantages:** Donor-supported risk-transfer programs leverage disaster-aid budgets and free recipient countries from the vagaries of post-disaster aid (although countries can still seek donor money after an event); recipients and donors alike stand to gain. The programs can be coupled with preventive measures, such as weather-forecast models.

**Contact:** Francis Ghesquiere

**Further information:** www.ccrif.org

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8. **Dealing with risky business environments: safeguarding investments in Afghanistan**

**Development Challenge:** Investors recognize that political factors matter at least as much as economic fundamentals. They are attuned to frameworks for measuring and mitigating political and regulatory risks, particularly in developing and emerging market countries experiencing political instability. Examples of these risks include war and civil disturbance, breach of contract, and confiscation and expropriation of assets.

Afghanistan is a prime example. After a quarter century of conflict, the country faces extensive reconstruction needs. Investment opportunities exist across a range of sectors, especially in construction, agribusiness, manufacturing, and mining. Yet the continuing instability means that investors face significant political and regulatory risks.

**Innovative Finance Solutions:** The Multilateral Investment Guarantee Agency’s (MIGA’s) Temporary Business Interruption (TBI) insurance, and the Afghanistan Investment Guarantee Facility (AIGF), which is managed by MIGA.

MIGA insures foreign direct investments against the risks of currency inconvertibility and transfer restrictions; expropriation; war, civil disturbance, and terrorism; breach of contract; and failure to honor sovereign financial guarantees. Last year MIGA expanded its war and civil disturbance coverage to offer the option of Temporary Business Interruption coverage.
MIGA’s traditional war and civil disturbance coverage protects against losses from a total abandonment of the business and requires a complete “walk-away” by the investor. TBI, on the other hand, lets investors shut down for as little as 30 days and as much as a year, during which time it pays continuing expenses, such as payroll and debt service. It also covers extraordinary expenses needed to resume operations, such as renting replacement equipment or moving the project to a safer area. Perhaps most important, it compensates for lost business income, based on the company’s historical earnings.

The AIGF was set up in 2004 to encourage foreign direct investment in Afghanistan. It insures new cross-border investments as well as expansions and privatizations of existing projects. The AIGF includes innovative features specifically designed to facilitate the development of the local private sector. For example, a portion of AIGF funds can be used to insure transactions that do not involve a foreign equity partner, but instead involve loans to local Afghani businesses from a foreign financial institution or a local branch of a foreign bank.

Since 2006, MIGA has issued US$78.2 million in guarantee coverage for investments in Afghanistan. According to IMF estimates, a MIGA-backed telecommunications project totaling US$85 million represented a third of all flows of foreign direct investment into the country from March of 2006 to March of 2007 (the Afghan calendar year).

Key Advantages: MIGA is the only global multilateral organization that insures against political risk, bringing otherwise wary investors into some of the environments where investment is most needed. Because its TBI insurance covers short-term shutdowns, it gives investors the opportunity to rebuild rather than walk away. The AIGF primarily facilitates the small and medium-size investments especially needed in Afghanistan, and includes features to help shore up the Afghani private sector.

Contact: Rebecca Post
Further information: www.miga.org
9. Creating private-sector incentives to produce vaccines for developing countries: The advance market commitment to fight pneumococcal disease

Development challenge: Pneumococcal disease kills some 1.6 million people, mainly children, each year. More than 90 percent of these deaths occur in developing countries. A pneumococcal vaccine has been part of regular immunizations in developed countries since 2000, but the major strains of the disease in developing countries are resistant to the current vaccine. And historically it takes 15 to 20 years before new vaccines are developed and made available and affordable in developing countries, a lag resulting in large part from market uncertainties and perceptions of insufficient demand.

Innovative Finance Solution: Advance Market Commitments (AMCs)—a mechanism to help make critically needed products available and affordable in developing countries by reducing investment uncertainty. AMCs focus on cases where market failure, access to finance, or high capital costs have been limiting investment by potential providers. AMCs are designed to help markets scale up and become sustainable. Donors commit to fund an AMC with set specifications, including price and market size, and enter into a supply agreement with a manufacturer approved by an independent body. The AMC thus makes a product affordable to recipient countries while giving manufacturers incentives to develop and produce it. Once AMC funding is depleted, the manufacturer continues to provide the product at an established price for a specified period of time.

The pilot AMC is for pneumococcal vaccines. It was formally launched in June of 2009 with a US$1.5 billion donor subsidy from five governments—Italy, the UK, Canada, Russia, and Norway—and the Bill & Melinda Gates Foundation. The GAVI Alliance has committed US$1.3 billion through 2015, and recipient countries will contribute a small co-payment toward the vaccine. The World Bank is providing fiduciary, financial-management, and administrative services.
and holds donor payments on its balance sheet, thereby assuming the financial risk of donor payments. After the payments are made, the Bank will pass them through to the GAVI Alliance. The World Health Organization has established technical criteria that the vaccine must meet; UNICEF will handle procurement and distribution.

Health experts estimate that by 2020, AMC funds will have helped immunize nearly 700 million children against pneumococcal disease and directly prevented about 2.8 million deaths. Effects from the acceleration of the vaccine could prevent another 4.9 million deaths.

**Key Advantages:** AMCs give the private sector sound business incentives to engage in research, development, production, and distribution of products critically needed in developing countries, and ensure that the products are affordable. The current pneumococcal vaccine is sold at over US$60 per dose in developed countries, but owing to the AMC, the long-term price for the vaccine in developing countries will be just US$3.50 per dose. Although the only AMC to date involves the health sector, AMCs could potentially be used in other development circumstances where private companies are hesitant to invest in R&D, production capacity, or distribution.

**Contact:** David Crush

**Further information:**

10. **Giving funding a greater impact on the ground: how Results-Based Financing is making Rwanda’s health systems healthier**

**Development Challenge:** One of the biggest development problems is the fragility of systems in low-income countries. This is particularly true of health systems. Rwanda provides a stark example: with a population of 9 million, it has only 40 hospitals, 401 health centers, and one doctor for every 50,000 in-
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habitants. Many people lack access to care, and the quality of care, when available at all, is often poor.

**Innovative Finance Solution:** Results-Based Financing (RBF), a range of mechanisms designed to enhance the performance of aid by tying payments to measurable outcomes. RBF mechanisms include output-based aid, provider payment incentives, performance-based inter-fiscal transfers, and incentives, such as Conditional Cash Transfers, for households to adopt health-promoting behaviors. In each case the funding entity offers a financial or in-kind reward that is contingent on the recipient undertaking predetermined actions or meeting set goals.

In Rwanda, two NGOs tried to increase performance in health centers and hospitals by raising the salaries of health-care workers. They failed. Then, in 2002, they linked increased salaries to health-facility outputs or results by creating bonus payments for each defined service that was delivered—for instance, a birth in a facility, or a fully vaccinated child. One NGO also experimented with quality-of-care impact. A bilateral agency started a third RBF pilot program in 2005, called Performance-Based Financing, or PBF. All three pilots showed significant results.

Inspired by these results, in 2006 the Rwandan government created a national RBF program, which was designed and implemented by the Ministry of Health in collaboration with and with strong support from the World Bank and other development partners. An impact evaluation two years later showed significant increases in assisted births, early-childhood preventive-care visits, and the number of people using health services, along with striking improvements in the quality of care. Recent evaluations also showed that the RBF program, in synergy with a national community health insurance scheme and other interventions, has made a significant contribution to improved health outcomes. The next phase of RBF in Rwanda, expected to have even greater results, is the community RBF model, which is supported by the World Bank, the Global Fund, and the US Agency for International Development. The Norwegian Health Results Innovation Grant, which is managed by the
World Bank, is supporting eight additional pilot RBF schemes (including an extension of work in Rwanda) with impact evaluations.

**Key Advantages:** RBF promotes improved management of resources, greater accountability from providers, and increased efficiency and equity of service delivery. It shifts the emphasis of recipient governments—and of donors—from distributing resources to organizing systems differently; development gains are thus more likely to be sustained.

**Contact:** Darren Dorkin (RBF), Gayle Martin (Rwanda)
**Further information:** http://www.rbfhealth.org

11. **Blending loans and grants: IDA buy-downs to fight polio in Pakistan and Nigeria**

**Development challenge:** In many instances, developing countries are faced with bearing the cost of public goods that have regional or global benefits. The countries themselves do not reap the benefits beyond their own borders, nor can they easily be compensated for them. This is likely to lead to under-provision of the good. Examples include vaccinations for communicable diseases: immunizing people—thereby not just reducing disease within the country but also reducing transmission elsewhere—is an action with a substantial global benefit, but it may have a lower priority from the perspective of a country with very limited financial capacity (and many competing claims on that capacity) than it does from a global perspective.

**Innovative Finance Solution:** Buy-downs of International Development Association credits (loans). IDA credits are a frequent means of financing regional and global public goods, such as vaccination campaigns. An IDA buy-down combines a loan to a developing country with a donor commitment to pay (“buy down”) part or all of the loan once predefined results have been achieved and verified, thus reducing country
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debt while encouraging countries to undertake desirable activities.

IDA buy-downs were piloted in Pakistan and Nigeria in 2003 to support polio-eradication campaigns, under a partnership involving the World Bank, the Bill & Melinda Gates Foundation, the United Nations Foundation, Rotary International, and the U.S. Centers for Disease Control. Initial donor funding of US$50 million was subsequently increased to US$145.8 million, which is expected to buy down or leverage about US$316 million in IDA credits.

Most areas of Pakistan, and the vast majority of the nationwide population, are now polio-free; epidemiological evidence suggests that cases declined from 117 in 2008 to 89 in 2009. The first and second IDA credit buy-down cycles in Pakistan have been completed, and the third IDA credit is active. Progress in Nigeria, which accounts for about a fifth of the world’s polio cases, has been slower, but in recent years reported cases of the virus have begun to decline there as well. Over the past six months, evidence indicates that transmission of the Wild Polio Virus (WPV) 1 has fallen in the high-risk northern states and is now at the lowest level recorded since reliable surveillance began. The country is immunizing more children with potent, safe vaccines; more health workers have been trained; and new strategies to mobilize communities have been deployed. The first IDA credit in Nigeria has received two supplements that are still active; the total has not been bought down.

Key Advantages: Buy-downs mobilize loans that can ultimately become grant money for causes that benefit entire regions or the global good. The developing country receives needed funds up-front and has the assurance that, with successful implementation, a donor will reduce or cancel the debt. A buy-down thus reduces country debt while encouraging and helping that country to engage in a desirable activity it might not otherwise undertake. Experience with the pilot buy-downs suggests that the tool can also help governments achieve purely national targets, creating internal incentives for improved monitoring and evaluation and more clearly defined accountability.

Contacts: Darren Dorkin (Buy-downs); Dinesh Nair (Nigeria); Kumari Vinodhani Navaratne (Pakistan)
Instruments that generate additional resources:

- Solidarity taxes and contributions from emerging sovereign donors raised an estimated total of **US$11.7 billion** combined.
- Carbon finance generated **US$1.6 billion**.
- Socially Responsible Investing contributed **US$1.3 billion**.

Instruments that make funding flows more efficient:

- The IFFIm—the pilot for frontloading Official Development Assistance—greatly accelerated the availability of **US$1.2 billion**.
- Local Currency Bonds raised **US$40.1 billion**.
- Partial Risk Guarantees, Partial Credit Guarantees, and Policy Based Guarantees leveraged more than **US$12 billion**.
- Weather Index-Based Insurance covered more than **3 million** rural people between 2003 and 2009.

Instruments that make funding more effective, by linking funding to results:

- Results-Based Financing accounted for **US$3.7 billion**.
- Advance Market Commitments accounted for **US$1.5 billion**.