



INNOVATIVE FINANCING FOR DEVELOPMENT:

Scalable Business Models that
Produce Economic, Social, and
Environmental Outcomes

Innovative Financing Initiative
*An initiative of the Global
Development Incubator*
www.globaldevincubator.org

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EXECUTIVE SUMMARY

Innovative financing is the manifestation of two important trends in international development: an increased focus on programs that deliver results and a desire to support collaboration between the public and private sector. Innovative financing instruments complement traditional international resource flows—such as aid, foreign direct investment, and remittances—to mobilize additional resources for development and address specific market failures and institutional barriers. Innovative financing is an essential tool as the development community strives to eliminate poverty, raise living standards, and protect the environment.

This report aims to accelerate the growth of innovative finance by creating a common language and vision for leaders in both the public and private sector to use as they explore innovative financing opportunities. Thus far, a lack of clarity about what innovative financing is and how standards can help compare the performance of different mechanisms has inhibited broader participation in the sector and increased transaction costs associated with the creation of new products. We believe that this report can help by creating a common understanding of innovative financing, providing an overview of the market, and

identifying opportunities for public and private sector actors to make innovative financing commitments.

Innovative finance is not financial innovation. It encompasses a broad range of financial instruments and assets including securities and derivatives, results-based financing, and voluntary or compulsory contributions—all of which this report explores in more detail. Established financial instruments, such as guarantees and bonds, constitute nearly 65% of the innovative financing market; while new products dominate many conversations about innovative financing, most resources mobilized through innovative financing use existing products in new markets, or involve new investors. Our definition of the “innovation” aspect of innovative financing includes the introduction of new products, the extension of existing products to new markets, and the presence of new types of investors.

Within this broad definition, innovative financing has mobilized nearly \$100 billion and grown by approximately 11% per year between 2001 and 2013. This growth reflects the emergence of results-based financing as an important tool for achieving development outcomes and the capability of instruments such as bonds and investment funds to provide risk-adjusted returns for private

investors. Innovative financing instruments are emerging in a variety of additional development areas—a few examples include low-carbon infrastructure, mechanisms to improve access to finance, and tools to reduce the cost of life-saving commodities.

Successful innovative financing instruments address a specific market failure, catalyze political momentum to increase and coordinate the resources of multiple governments, and offer contractual certainty to investors. Often, innovative financing instruments reallocate risks from investors to institutions better positioned to bear the risk and, in the process, enable participation from mainstream investors. Instruments that have mobilized significant resources benefit from relatively simple financial structures and a proven track record that clearly describes the financial and social returns for investors.

The focus of innovative financing is shifting from the mobilization of resources through innovative fundraising approaches to the delivery of positive social and environmental outcomes through market-based instruments. We anticipate three primary drivers of growth in the innovative financing sector:

- Increased use of established financial instruments. Established instruments that investors can evaluate through existing risk frameworks, such as green bonds, will attract new participants including pension funds and institutional investors. Channeling the proceeds of these instruments to productive development goals will require new standards that specify how funds can be used most effectively.
- Expansion into new markets through growth of replicable products. Over the past ten years, the international development community has experimented with new instruments such as performance-based contracts. These instruments do not yet have the track record to attract institutional investors, but offer promising

opportunities to improve development outcomes in new sectors.

- Creation of new innovative financing products. Finally, we have seen the emergence of new products that are theoretically promising, but have not yet demonstrated results. While these products will remain a small portion of the market in the short-term, we encourage donor governments and other funders to continue experimenting with these products so they can mature into the next important asset class.

This report is the cornerstone of the Innovative Financing Initiative, a coordinated effort led by public and private institutions to facilitate more efficient markets by providing performance data on past investments, catalyzing investments through engagement with new actors, and developing and promoting new products through work with leading international development organizations. Building on past efforts to describe innovative finance schemes, we identify common characteristics of different initiatives, assess the market demand for new models, and propose mechanisms that can unlock the sector's potential. These proposed mechanisms include an innovative financing exchange to provide performance data and technical assistance, a marketing facility to expand the reach of established products, and an incubator to reduce the costs associated with creating new instruments.

The future we want—a future that meets the needs of people and the planet—will require an estimated trillions of dollars in investment over the next ten years. We will need to harness all possible sources of financing to address global economic, social, and environmental challenges. We hope to explore existing questions and promote new solutions with our partners, expert advisors, and other participants. If you are interested in joining the conversation, please contact us at innovativefinance@dalberg.com. We look forward to talking with you.



INTRODUCTION:

The Unrealized Potential of Innovative Financing

The public sector will require trillions of dollars in capital and significant expertise from the private sector to meet development objectives. The initial investments and ongoing costs needed to eradicate poverty, provide public goods (such as health and education), and manage the natural resource base for economic and social development will cost an estimated one trillion dollars per year or more.¹ Mitigating the effects of climate change and adapting to new climate realities will also require hundreds of billions of dollars. Resources required to achieve milestones set out by development agendas, including the Millennium Development Goals (MDGs) and their post-2015 successor, the Sustainable Development Goals (SDGs), will be lower than costs associated with adapting to and mitigating the effects of climate change, but will still likely exceed \$100 billion per year. The public sector does not have the resources to support all of these needs alone.

Governments, international institutions, and private actors recognize the magnitude of this challenge. They have begun to understand the limitations of existing approaches to international assistance and have made efforts

to improve aid effectiveness and engage the private sector through agreements such as the 2005 Paris Declaration on Aid Effectiveness, the 2008 Accra Agenda for Action, and the 2011 Busan Partnership for Effective Development Cooperation. Likewise, many private sector actors have made public commitments to promoting sustainability in their activities. For example, the 1260 signatories of the United Nations-supported Principles for Responsible Investment Initiative—including asset owners, investment managers, and service providers—have \$45 trillion dollars in assets under management.² This commitment and others reflect a growing recognition by the private sector of the rewards of promoting economic and social prosperity and environmental sustainability through their operations.

Innovative financing is critical to creating opportunities for public-private sector collaboration that will help address global challenges. Innovative financing has several benefits compared to traditional financial approaches. For example, it:

- Deploys significant, new private sector capital that would otherwise not participate in social investments. While not all of innovative financing capital is additional

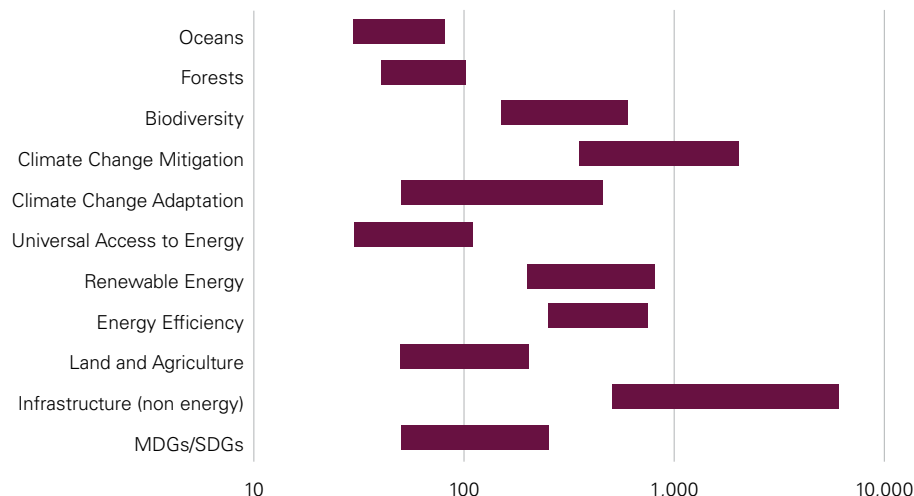
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1 These estimates are based on the literature review found in “Financing for sustainable development: Review of global investment requirement estimates,” UNTT Working Group on Sustainable Development Financing, 2013.

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2 See <http://www.unpri.org/about-pri/about-pri/> for more information (accessed September 2014).

Figure 1: A successful transition to sustainable development will require substantial resources

Estimates of annual investment needs for selected sustainable development sectors

USD billions



Notes: The x-axis is in logarithmic scale. There is significant overlap across sectors. MDGs/SDGs stand for the Millennium Development Goals and their post-2015 successors, the Sustainable Development Goals.

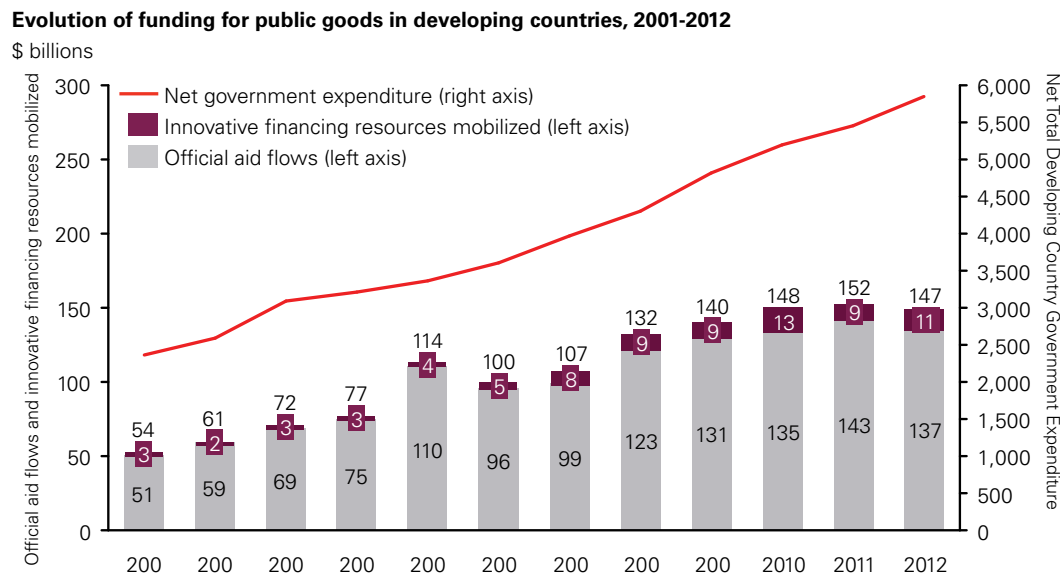
Source: UNTT Working Group on Sustainable Development Financing, "Financing for Sustainable Development: Review of global investment requirement estimates" 2013.

Box 1: Innovative Financing has evolved from mobilizing resources to private sector engagement

Policies and conferences**Prominent Initiatives**

Source: World Economic Social Survey 2012 "In Search of New Development Finance," Department of Economic and Social Affairs UN; "Delivering the Post-2015 Development Agenda: Options for a New Global Partnership," Center on International Cooperation 2013; Dalberg analysis.

Figure 2: Innovative financing is a small component of public assistance



Notes: Net Government expenditure does not include general budget support and loan disbursement to public sector; Official aid flows include Official Development Assistance and Others Official Flows; Innovative finance data is based on 278 innovative finance initiatives where volume data broken down by year was available. It assumes that innovative financing is additional to official aid.

Source: Development initiatives, "Investments to End Poverty," 2013; OECD DAC Table 1; Innovative Financing Initiative Database; Dalberg analysis.

to either government official direct assistance (ODA) or private philanthropic contributions, successful mechanisms often channel resources to projects that would not otherwise receive them. For example, guarantees that enable investments in public goods (such as infrastructure) and impact investing funds support small and medium enterprises that might otherwise struggle to access capital.

- Transforms financial assets through financial structuring and intermediation to meet the needs of development programs by distributing risk, enhancing liquidity, reducing volatility, and avoiding timing mismatches. Innovative financing mechanisms channel funds from people and institutions that want to make investments, to projects that require more resources than traditional donors and philanthropies can provide. For example, green bonds and other thematic bonds provide capital to support investments in low-carbon infrastructure such as wind farms, sustainable forestry management, and urban infrastructure. In addition, innovative financing mechanisms such as the Pledge Guarantee for Health provide bridge financing for projects and institutions during the gap period between when resources are committed and resources are disbursed.
- Supports a cooperative public-private sector approach to scale socially beneficial operations that require

significant capital outlays and traditionally sit squarely in the realm of the public sector. In many sectors—such as health, financial services, and agriculture—private companies with the expertise to design, produce, market, and distribute new products are crucial to creating social change. Innovative financing mechanisms can adjust incentives to encourage private companies to make the investments necessary to create new products and enter new markets. For example, the pneumococcal advance market commitment sponsored by GAVI reallocated demand risk for pneumococcal vaccines in developing countries, which allowed pharmaceutical companies to produce more vaccines at scale and dramatically lower the vaccines' cost per dose.

Private sector actors have also benefited from innovative financing mechanisms. In addition to creating channels for private actors to deploy capital to support development, innovative financing mechanisms also offer private sector actors risk-adjusted financial returns and access to new markets. Bonds guaranteed by AAA rated international organizations and issued in currencies with low volatility offer a low-risk opportunity for both institutional and retail investors to buy low-risk assets while channelling resources to sectors that support positive development outcomes. Most microfinance investment funds and impact investing funds also aim to offer risk-adjusted market returns.

Guarantees can facilitate investments in new markets, while results-based financing and performance-based contracts create opportunities for private companies to profitably provide goods and services in markets they otherwise would not touch.

Despite its benefits, innovative financing remains a small component of public sector development assistance. While the public sector has expressed renewed interest in engaging the private sector, few successful partnerships have been formed. Innovative financing is a small component of ODA, and an even smaller percentage of government expenditures in developing countries and foreign direct investment.

Innovative financing is hampered by an inefficient market that constrains supply and diminishes demand. The cost of developing and deploying new mechanisms, the limited participation of investors beyond the traditional aid community, and the lack of effective feedback loops have thus far prevented innovative financing from reaching its potential. If the sector can recognize and surmount these barriers, it will be able to grow and create opportunities for bankable investments to drive new solutions to development challenges.

Within the development community, there is a clear need—and a professed desire—to collaborate on innovative financing. This report asks: how can private and public sector funders **collaborate to channel more resources** to achieve **development outcomes**? Beyond focusing on innovative financing as a source of capital that complements traditional assistance, the report focuses on how specific innovative financing mechanisms can support development goals. The report is the cornerstone of a larger initiative that mobilizes investors, companies, and policy-makers to use innovative financing approaches to achieve development goals.

A common language that appeals to actors in both the private and public sector will facilitate the growth of innovative financing. Through over 100 discussions with representatives of government agencies, banks, foundations, non-profits, and private companies, we have heard concerns that innovative financing advocates fail to understand the business models of private investors, fears that private companies will earn extraordinary profits at the expense of the world's poor, and disappointment at the lack of transparency and performance history within the market. This report, which was co-sponsored by a corporate foundation and a donor government, aims to address these issues directly by highlighting how novel instruments and initiatives can produce positive outcomes for both public and private actors.

This report intends to demonstrate how innovative financing can align with the strategic objectives of multinational corporations, financial institutions, international development agencies, and private foundations—and enable collaboration among these groups.

It is our hope that after reading this report:

- *Multinational corporations and financial institutions* will understand opportunities for investment and collaboration that support their business models and align with shareholder expectations.
- *International development agencies* will recognize the potential for innovative financing mechanisms to support engagement with the private sector and address specific global challenges.
- *Private foundations* will identify ways to engage with public and private institutions to mobilize resources, share information, and make strategic investments in novel ideas.



CHAPTER 1:

What is Innovative Financing?

Definition

Innovative financing means different things to different people. In our interviews, we heard two distinct dimensions of innovative financing. The first focuses on innovative financing as a source of capital that complements existing flows, particularly those from governments and philanthropies. Within this vision, innovative financing provides resources that are stable, predictable, and supplemental to official development assistance (ODA) from donor countries. The second dimension focuses on innovative financing as a deployment (or use) of capital. This dimension focuses on ways that innovative financing mechanisms can make development initiatives more effective and efficient by redistributing risk, increasing liquidity, and matching the duration of investments with project needs. Our definition of innovative financing mechanisms for development (“innovative financing”) encompasses both visions: approaches to mobilize resources and to increase the effectiveness and efficiency of financial flows that address global social and environmental challenges.

The innovative financing landscape is showing a shift from basic resource mobilization tools to a diverse range of solutions-driven financing instruments. In 2001, bonds and guarantees focused primarily on resource

mobilization by leveraging the balance sheets of international finance institutions. Instead of providing funding at the present time, public institutions either promised to repay loans in the future or accepted the risk that projects may not succeed, in order to encourage commercial investment. In recent years, however, instruments through which the private sector shares the risks and rewards from development have gained more traction. This balance can occur through an equity stake—which we often see in microfinance and investment funds—or through results-based financing mechanisms such as performance based contracts or awards and prizes. Within international development, which relies extensively on grant financing, this is an important paradigm shift.

Our description of the market considers three dimensions of existing innovative financing instruments: type of instrument, characteristics of the innovation, and financial function. We identified 14 different types of instruments that are frequently classified as innovative financing. For each type instrument, we found examples of instruments that successfully mobilized resources for a developing country, demonstrated innovation, and used financial solutions to support positive development outcomes. Figure 3 provides an overview of what these instruments

Figure 3: Innovative financing instruments introduce new products, expand into new markets, and attract new participants

	What is innovative?			How does it support development?		
	New Product	New Market	New Participants	Mobilize Resources	Financial Intermediations	Deliver Resources
Securities and Derivatives						
Bonds and Notes			X	X	X	
Guarantees		X	X		X	
Loans	X			X		
Microfinance Investment Funds		X	X		X	
Other Investment Funds		X		X	X	
Other Derivative Products	X	X		X	X	
Results-based Financing						
Advanced market commitments	X	X			X	
Awards and Prizes	X				X	
Development Impact Bonds	X					X
Performance-based contracts			X			X
Debt-swaps and buy-downs	X			X		
Voluntary contributions						
Carbon Auctions (voluntary)	X	X	X	X		
Consumer Donations			X	X		
Compulsory charges						
Taxes	X			X		

are, why we consider them innovative, and how they support international development.

Innovation is in the eye of the beholder. Innovative financing is innovative when it deploys proven approaches to **new markets** (including both new customers and new segments), introduces **novel approaches to established problems** (including new asset types), or attracts **new participants** to the market (such as commercially-oriented investors). For example, microfinance pioneers extended an established service to a new market and, eventually, new participants. Advance market commitments developed a new approach to create incentives for commercial suppliers to bring their products to market. Green bonds use an established product—bonds issued by companies and institutions—to channel capital from institutional investors to address a global challenge. Collectively, these mechanisms represent innovative ways of achieving development goals.

Innovative financing creates value by producing positive development outcomes. In our survey of innovative financing mechanisms, we identified three distinct channels by which innovative financing creates value: resource mobilization, financial intermediation, and resource delivery. While many schemes achieve two or three of these goals simultaneously—and almost all mobilize resources—this framework provides a high-level overview of the main channels:

- **Resource mobilization.** Innovative financing brings additional resources to bear for development challenges. The mobilization of resources includes mandatory mechanisms that capture the effects of negative externalities (e.g., Pigouvian taxes), voluntary mechanisms (e.g., lotteries), and mechanisms that combine commercial and philanthropic objectives (e.g., Product(Red)).
- **Financial intermediation.** Innovative financing creates efficiencies by distributing risks across many parties, enhancing liquidity, and pooling resources. The intermediation function includes the development of institutional capacity to reduce transaction costs (e.g., by pooling small investment opportunities) and to reduce or share financial and delivery risks (e.g., by promoting investment insurance).
- **Resource delivery.** Delivery refers to the allocation and expenditure of resources either as part of an investment or as direct funding for development programs. It includes initiatives that support a more effective deployment of resources by increasing the level of transparency (e.g., through commonly accepted metrics), creating and aligning incentives (e.g., through pay-for-performance contracts), and coordinating the activities of different actors.

Box 2: Definitions of innovative financing from leading institutions

World Bank

“Innovative financing involves non-traditional applications of solidarity, public private partnerships, and catalytic mechanisms that (i) support fundraising by tapping new sources and engaging investors beyond the financial dimension of transactions, as partners and stakeholders in development; or (ii) deliver financial solutions to development problems on the ground.”

—World Bank (2009), *Innovating Development Finance: From Financing Sources to Financial Solutions*.

Organisation for Economic Co-operation and Development (OECD)

“Innovative financing comprises mechanisms of raising funds or stimulating actions in support of international development that go beyond traditional spending approaches by either the official or private sectors, such as: 1) new approaches for pooling private and public revenue streams to scale up or develop activities for the benefit of partner countries; 2) new revenue streams (e.g.,

a new tax, charge, fee, bond raising, sale proceed or voluntary contribution scheme) earmarked to developmental activities on a multi-year basis; and 3) new incentives (financial guarantees, corporate social responsibility or other rewards or recognition) to address market failures or scale up ongoing developmental activities.”

—OECD (2009), *Innovative Financing to Fund Development: Progress and Prospects*.

Leading Group on Innovative Financing for Development

“An innovative development financing mechanism is a mechanism for raising funds for development. The mechanisms are complementary to Official Development Assistance. They are also predictable and stable. They are closely linked to the idea of global public goods and aimed at correcting the negative effects of globalization.”

—Leading Group on Innovative Financing for Development (2012), *FAQs: Innovative Financing*

Market Overview

Using our broad definition, innovative financing mechanisms have mobilized \$94 billion since 2000. To gain a better understanding of this market, we conducted a survey of nearly 350 financing mechanisms that have been recognized as innovative financing. In this survey, we identified four distinct clusters that encompass 14 different categories of instruments. Figure 4 provides an overview of the categories that constitute innovative financing. In this report, we use the term “amount mobilized” to compare different mechanisms. “Amount mobilized”—which accounts for the amount disbursed directly (for example, by an investment fund) or indirectly (for example, by a company as a result of a guarantee)—differs from “total amount committed,” which represents the amount originally promised by investors, or the total amount invested. For example, in the case of guarantees, “amount mobilized” represents the total contingent liability of the mechanisms, and in the case of investment funds, it represents the total assets under management. More information about our methodology, including a definition of each instrument category, is in Annex 1.³

Innovative financing is not financial innovation. The two asset classes that mobilize the most resources, bonds and guarantees, have existed for centuries. Bonds were first issued by city-states in renaissance Italy in the 14th century and insurance was first provided in 2500 BC to support the transport of goods in Babylonia.⁴ Even within the context of international development, bonds and guarantees are not new tools. The Multilateral Investment Guarantee Agency (MIGA) was established in 1988, for example, and the Asian Development Bank introduced partial risk guarantees in 1995. While the use of thematic bonds is relatively recent, the World Bank has been issuing general purpose bonds since 1947. Other instruments, such as microfinance funds and impact investing funds, represent new and innovative models for providing access to finance, but their underlying business models are also well established within the financial services industry.

Securities and derivatives constitute more than 80% of the amount mobilized between 2000 and 2013. The largest category within securities and derivatives is guarantees (\$36 billion, or 39% of the total), which reflects the public sector’s ability to leverage capital by providing credit enhancements. It also reflects the importance of MIGA, which is the largest single mechanism in the database and mobilized \$24 billion between 2000 and 2013 (26% of the total). Even when removing this large mechanism from the database, securities and derivatives mobilized \$53 billion

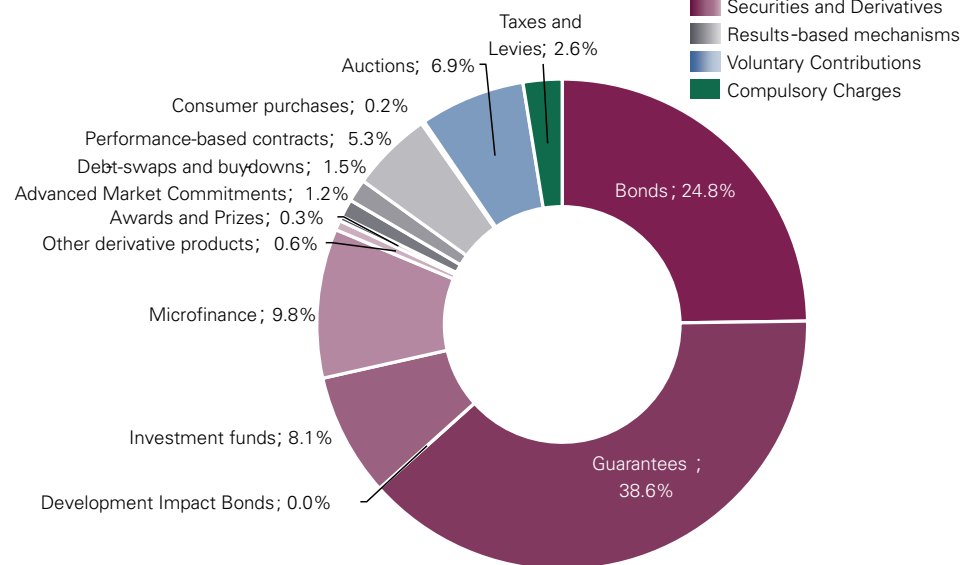
3 While our definition of innovative financing is broad, we decided to exclude some asset classes from our survey. We did not include bonds to fund infrastructure or public private partnerships (PPPs) that focus on infrastructure investment. In addition, we only considered mechanisms where resources were deployed in developing countries. For example, the Social Impact Bonds in the UK were intentionally excluded from our study because they mobilized resources from within the UK that were used within the UK.

4 World Economic Forum, *Rethinking Financial Innovation - Reducing Negative Outcomes While Retaining The Benefits*, 2012

Figure 4: Bonds and guarantees are the largest innovative financing mechanisms

Amount mobilized by innovative financing mechanisms, 2000-2013

Percent of total mobilized (n=278)



Source: Innovative Financing Initiative Database; Dalberg analysis.

from 2000 to 2013 (56% of the total). After guarantees, thematic bonds—which dedicate resources to specific development goals such as low-carbon infrastructure—have mobilized the most resources (\$23 billion or 25% of the total). Combined, these two asset classes make up over half of the total amount mobilized through innovative financing.

Results-based financing is the second largest category of mechanisms. Results-based financing refers to mechanisms which use incentive-based payments to increase the performance of investments and to transfer risk from the investor that funds the delivery of goods and services to the company or NGO that provides the goods and services. The mechanism is an explicit contract between the outcome funder and the delegated implementer who receives a payment. Most results-based financing mechanisms, such as performance based contracts (\$5 billion mobilized or 5% of the total) and advance market commitments (\$1 billion mobilized or 1% of the total) are direct contracts between the public sector and a private sector implementer. While small, results-based financing has grown rapidly from \$4 million in 2003 to \$1.3 billion in 2012 (80% per year on average). In addition, development impact bonds (DIBs) provide a new way to pool performance-based contracts and

facilitate private investment. While DIBs did not mobilize resources between 2000 and 2013, new opportunities are coming to market.⁵

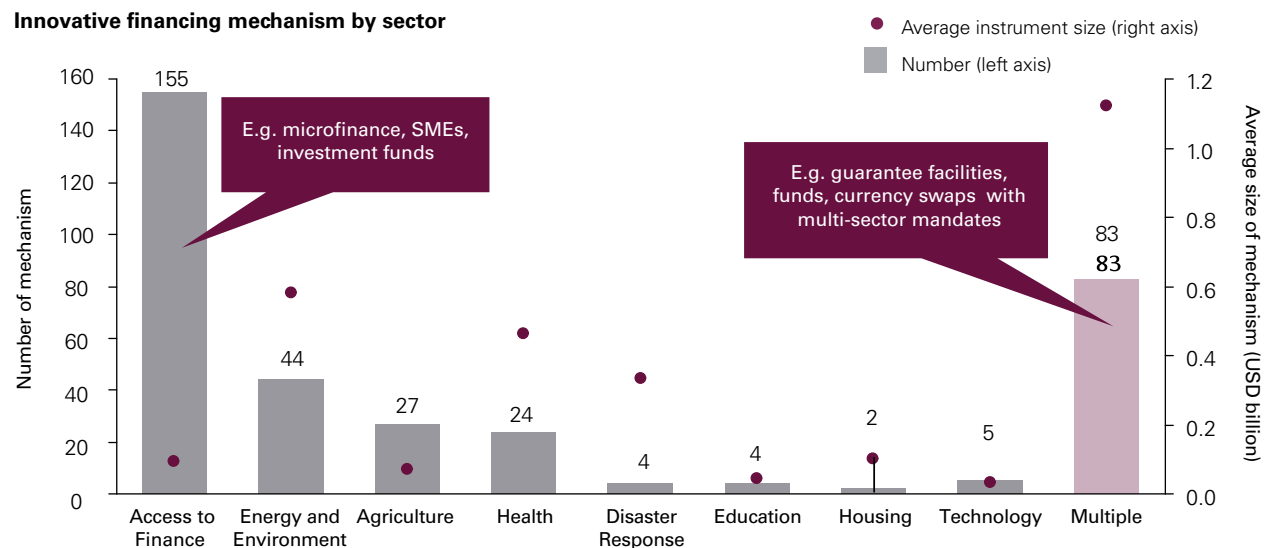
Voluntary and compulsory contributions contribute only 10% of the total innovative financing mechanisms.

The largest mechanism within this category is the voluntary carbon market in which companies purchase carbon credits to offset emissions. Other voluntary mechanisms, such as efforts to tie a percentage of companies' profits to global challenges, have limited scale and are difficult to replicate. For example, since 2001, Product(Red) has contributed \$215 million to the Global Fund—this amount represents less than 1% of total contributions to the fund.⁶ Within the category of compulsory contributions, the largest single example is the "solidarity levy on airline tickets," a small tax

5 For example, D. Capital launched a DIB to support malaria prevention and control in Mozambique in 2013. In 2014, UBS Optimus Foundation and the Children's Investment Fund Foundation recently approved funding for the first DIB in education, supporting the work of Educate Girls, an NGO operating in government-run schools in Rajasthan, to enroll and retain girls as well as improve learning outcomes for all children.

6 Global Fund Pledges and Contributions to Date, http://www.theglobalfund.org/documents/core/financial/Core_PledgesContributions_List_en

Figure 5: Innovative financing mechanisms have focused on a range of development challenges



on airline tickets in certain countries that mobilizes private sector funds to support UNITAID.⁷ It has raised \$1.9 billion, or 65% of UNITAID's funds, since its inception in 2006. An independent evaluation found that the levy has had no negative effects on airline revenue or profitability, air traffic, travel industry jobs, or tourism. While taxes and levies are established tools for transferring resources from the private sector to public purposes, novel mechanisms such as the solidarity levy have successfully given international development actors an additional and predictable revenue source.

Many innovative financing initiatives seek to effect change in various sectors, which indicates a desire by initiative sponsors to diversify exposure and highlights the need for cross-cutting solutions to address financial challenges shared by many sectors. Since 2000, innovative financing mechanisms have mobilized over \$30 billion to support investments in energy and environment (\$14 billion), access to finance (\$9 billion), and global health (\$7 billion), with an additional \$43 billion across multiple sectors. Innovative financing has had limited interaction with the agriculture, education, and water sectors.

Nearly all innovative financing mechanisms combine public sector resources with private sector resources and expertise. In terms of amount mobilized, both the public and private sectors have been important sources of capital. The largest category of innovative financing (\$44 billion) is public sector investments in the private sector through mechanisms such as guarantees, which mobilize investment, and results-based financing mechanisms, through which the public sector hires private companies to provide public goods. Public investments in the public sector (\$4 billion) occur through mechanisms such as debt-swaps and dedicated levies. The private sector provides capital (\$30 billion) to the public sector through voluntary and compulsory contributions and investments, such as bonds. The last category, private sector investments in the private sector (\$15 billion), captures resources from microfinance funds and impact investing funds.

Most securities aim to provide risk-adjusted market returns.⁸ While mechanisms that offer below-market returns remain an important part of the innovative financing landscape, mechanisms that target risk-adjusted returns are increasingly prominent. Bonds, which make up 30% of the amount mobilized by innovative financing securities,

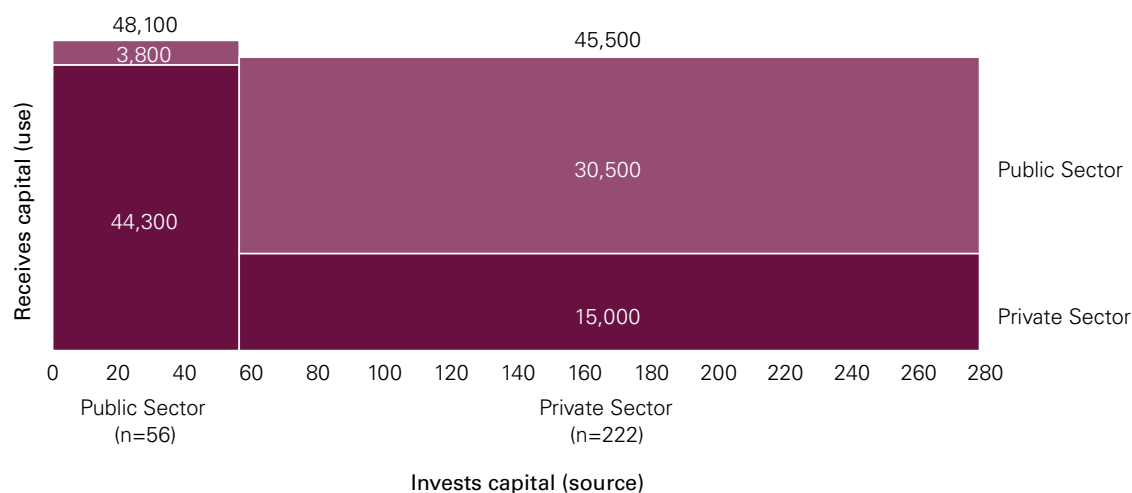
7 Nine countries have implemented the air ticket levy: Cameroon, Chile, Congo, France, Madagascar, Mali, Mauritius, Niger and the Republic of Korea.

8 It is too early to determine the actual financial returns of many innovative financing mechanisms. For this survey, we used targeted returns.

Figure 6: Most innovative financing mechanisms support transfers between the public and private sectors

Private sector participation in innovative financing mechanisms, 2000-2013

Number of mechanisms (x-axis) and amount mobilized, USD million (y-axis) (n=278)

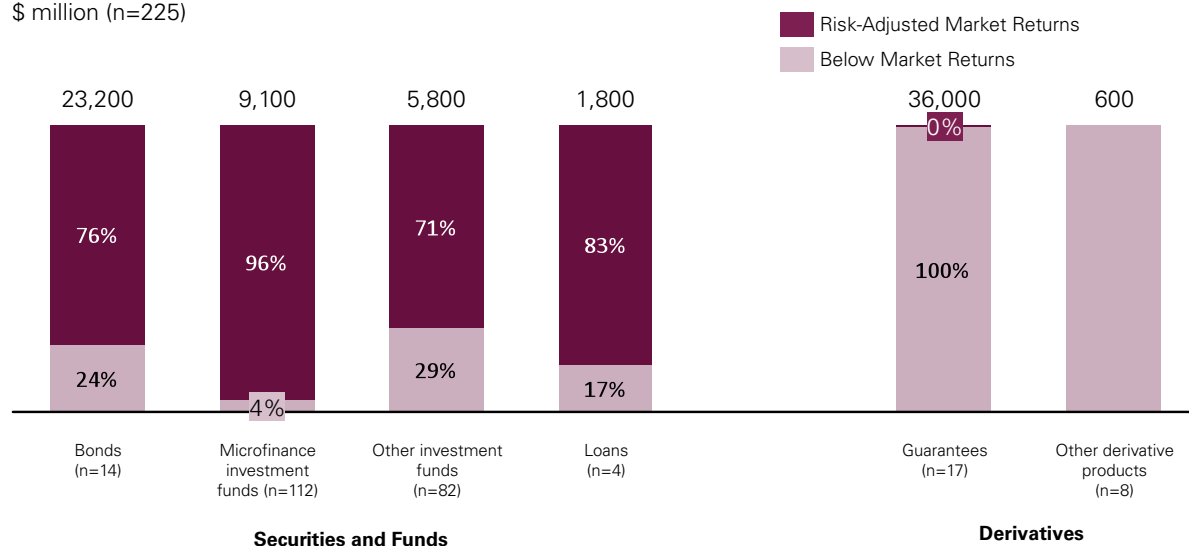


Source: Innovative Financing Initiative Database; Dalberg analysis.

Figure 7: The majority of instruments target risk-adjusted market returns

Target Financial Performance for Securities, Funds and Derivatives, 2000-2013

\$ million (n=225)

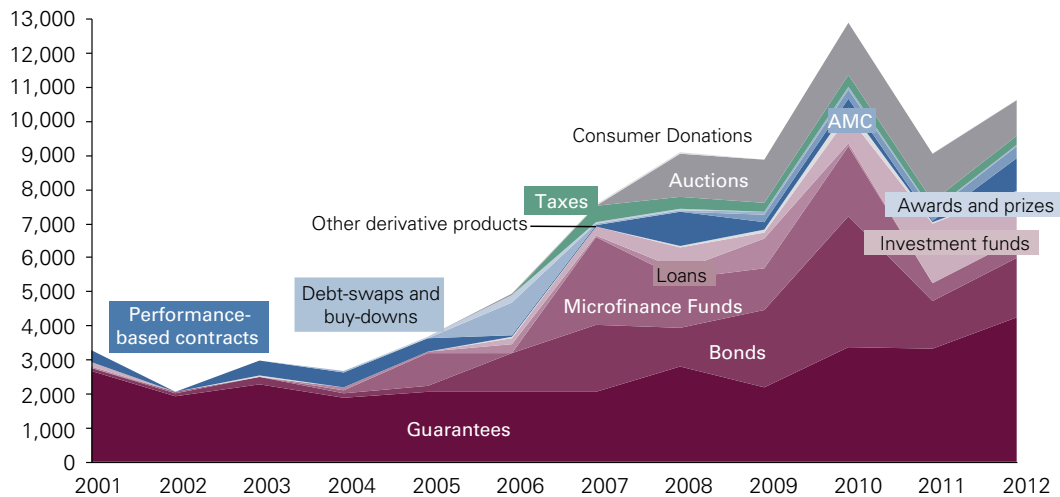


Source: Innovative Financing Initiative Database; Dalberg analysis.

Figure 8: Innovative financing has grown through the introduction of new instruments

Annual amount mobilized, 2001–2012

\$ millions (n=278)



Note: Annual mobilized data was not available for 141 instruments. For these instruments, we assumed that the entire amount mobilized was mobilized in the launch year.

Source: Innovative Financing Initiative Database; Dalberg analysis.

are typically guaranteed by AAA rated international organizations. Returns vary with the issuing currency, and the majority of bonds are issued in currencies with low volatility. Derivative products, including guarantees, tend to offer below-market returns, but this is difficult to assess because of the dominant role of the public sector.

Trends and Evolutions of Innovative Financing Mechanisms

Since 2001, innovative financing for development has experienced 11% annual growth. Starting at approximately \$2 billion in 2001, the market has grown to nearly \$9 billion in 2012.⁹ As shown in Figure 8, this reflects the emergence of new instruments within the universe of innovative financing, rather than the growth of existing instruments. In particular, the emergence of microfinance funds, thematic bonds, and auctions - such as the voluntary carbon market - has driven most of the growth.

Market-based mechanisms that target risk-adjusted returns have grown since 2001.¹⁰ While mechanisms that target below-market returns remain an important compo-

nent of the landscape (53% of the total in 2012), there is an increased focus on opportunities that target both social and financial returns. There are two aspects of this trend. The first aspect, from an investor perspective, is the emergence of investments that offer risk-adjusted market returns. This includes low-risk investments, such as green bonds that are backed by development bank balance sheets, and more risky propositions, such as microfinance funds and impact investment funds. The second aspect, from an implementer perspective, is the emergence of results-based financing opportunities in which private companies and NGOs compete to provide social goods.

The innovative financing market is still evolving—some models have proven to be successful, some are ripe for scaling, and others are still new ideas in the testing stage. Proven models, such as guarantees and bonds, have easily replicated and scaled structures, benefiting from clear standards for assessing risk and determining payment terms; many have established track records. Models that are ripe for scaling, such as performance-based contracts, are also easy to create, but do not have enough performance data to establish a mature asset class. Newer ideas, such as AMCs and DIBs, are still being developed and will require substantial support from concessional donors before they can attract private capital and scale beyond the pilot stage.

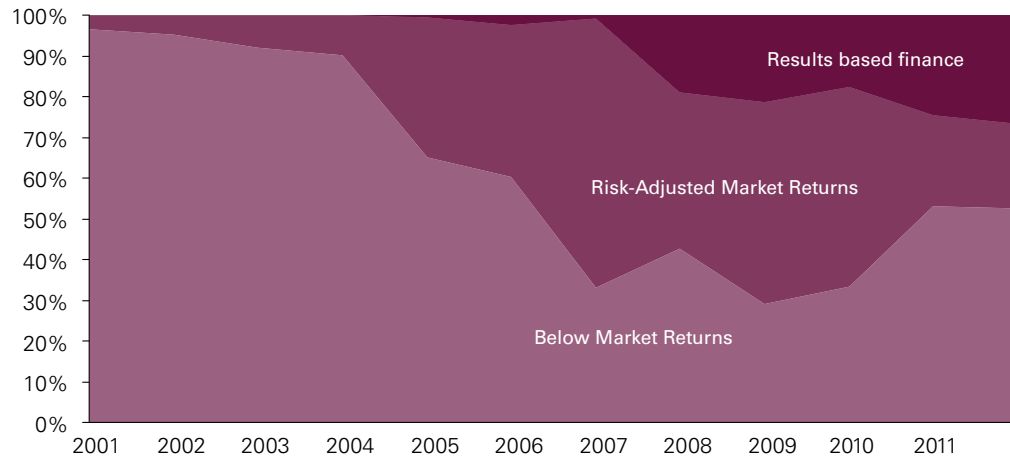
⁹ These calculations reflect a conservative estimate based on 137 mechanisms for which annual amounts were available.

¹⁰ Debt-swaps and buy-downs, donations as part of consumer purchases, and taxes were excluded from this analysis.

Figure 9: Innovative financing increasingly targets market returns

Resources mobilized for outcome-based solutions, 2000-2012

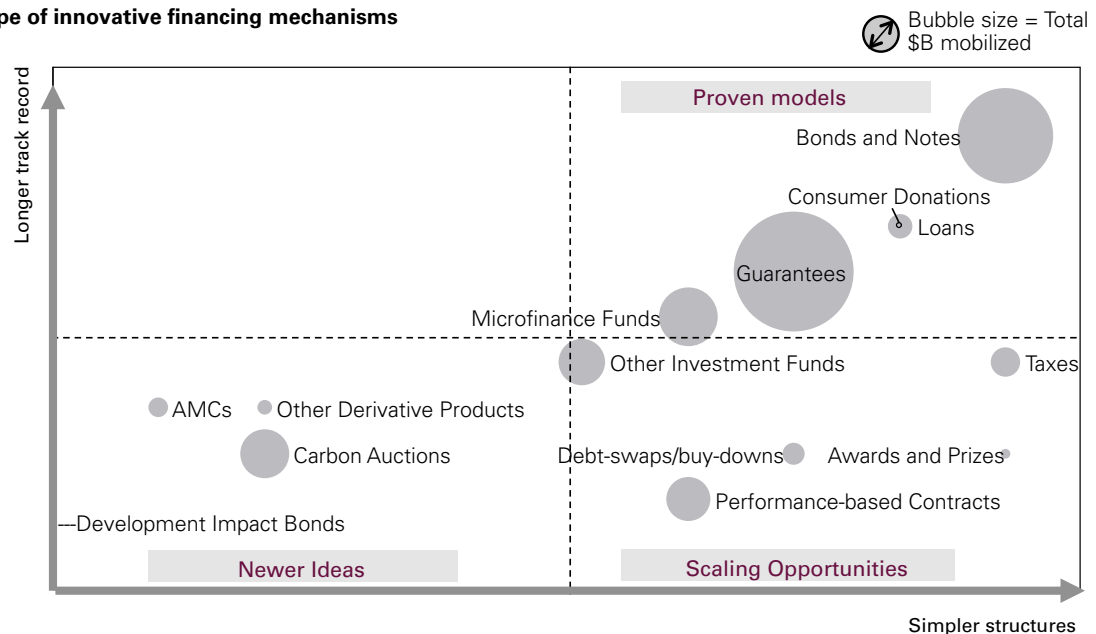
\$ million (n=137)



Note: Debt-swaps and buy-downs, Donations as part of consumer purchases, and Taxes were excluded from this analysis

Source: Innovative Financing Initiative Database; Dalberg analysis.

Figure 10: Established instruments rely on standards and mobilize more resources

Landscape of innovative financing mechanisms

Note: No known Development Impact Bonds have been successfully issued to date although many are under development.

Source: Innovative Financing Initiative Database; Dalberg analysis.

Box 3: Characteristics of different market segments

	Newer Ideas	Opportunities to Scale	Proven Models
Funds mobilized to date	Less than USD 100 million or only one instrument	Between USD 100 million and USD one billion from multiple instruments	Greater than USD one billion from multiple instruments
Track record	Little or none	One or more clear success stories since 2006	In use before 2006
Complexity	Technically difficult to structure	Structure may be complex, but there are existing templates	Simpler structures or many pre-existing templates
R&D cost	High R&D cost and lengthy development runway	Moderate R&D cost and development runway	Relatively low R&D cost and quick to launch
Stakeholder coordination	Multiple stakeholders required for success, across public/private/civil sectors	Multiple stakeholders required for success	Coordination needed for a few stakeholders or stakeholders within only one group
Applicability	Potentially limited to only certain applications	Many applications but still limited number demonstrated so far	Has been applied to many sectors and asset classes
Examples	<ul style="list-style-type: none"> • AMC (AMC for Pneumococcal) • DIBs (Malaria in Mozambique Performance Note) 	<ul style="list-style-type: none"> • Impact Investing Funds (The Global Health Investment Fund) • Performance-Based Contracts (Mexico PES) 	<ul style="list-style-type: none"> • Microfinance • Bond (WB Green Bond) • Guarantees (DCA Guarantees)



CHAPTER 2:

How Does Innovative Financing Create Value?

Innovative financing mechanisms are tools to address specific market failures and institutional barriers that hinder global development. Innovative financing mechanisms encompass a broad range of structures that can allow investors, company managers, and government officials to develop new strategies to address development challenges. However, not all innovative financing mechanisms are appropriate for every challenge. This chapter highlights how different types of innovative financing solutions can produce positive outcomes and address specific barriers.

Innovative financing instruments have been used to produce a range of development outcomes. Innovative financing has provided people in developing countries access to goods, services, and capital. Microfinance alone, for example, has provided loans to nearly a billion people in 2012.¹¹

For private companies, innovative financing has been a source of capital as well as a mechanism to create markets. Guarantees enable investments, while performance-based contracts create opportunities to deliver services. Financial intermediaries have benefited primarily through access to markets. For example, the market for green bonds is on

track to grow to \$40 billion in 2014 through bonds issued both by governments and corporations.¹²

National governments and international donors have benefited from innovative financing that funds public goods, such as low-carbon infrastructure. Finally, innovative financing has also increased value for money within international development, allowing donor agencies to achieve more with the same—or fewer—resources. Figure 11 provides an overview of how different innovative financing mechanisms produce different outcomes for different actors. Bonds, for example, provide capital for international donors, new markets for financial intermediaries, and both capital and public goods for national governments. The outcomes of various innovative financing mechanisms are described in more detail below.

Outcomes for Consumers and Private Companies

Innovative financing has provided consumers with access to essential goods and services and has provided companies with access to markets. Successful innovative financing mechanisms remove barriers to entry and enable commercial investments in new products and markets.

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11 Source: MixMarket.com (accessed May 2014).

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12 Green Bonds Market Outlook 2014, Bloomberg New Energy Finance, <http://about.bnef.com/white-papers/green-bonds-market-outlook-2014/> (accessed June 2014)

Figure 11: Innovative financing instruments produce a range of outcomes

Outcomes of selected innovative financing instruments for different stakeholders

		Customers/ Beneficiaries	Private Companies	Financial Intermediaries	National Governments	International Donors
Proven Models	Bonds			▲	💰 🏠	💰
	Guarantees		💰	▲		
	Microfinance	💰 🧑		▲		
Opportunities to Achieve Scale	Performance-Based Contracts		▲		🏠	📞
	Taxes and Levies	💰 🧑				💰
Experiments and New Ideas	Advance Market Commitments	💰	▲			🏠 📞
	Development Impact Bonds	💰 🧑	▲		🏠	📞
	Impact Investing Funds		💰	▲		🏠

Access to Goods
 Access to Services
 Access to Capital
 Access to Markets
 Public Goods
 Value for Money

Note: The outcomes for proven models have been demonstrated while outcomes for replication opportunities and new ideas are more theoretical.

Source: Dalberg analysis.

Typical barriers include: business models that are below scale to be sustainably viable, market failures (such as lack of information) that prevent the cost-effective delivery of services, lack of facilities to manage and reallocate risk, and inefficient markets that create high transaction costs. Innovative financing mechanisms address these problems through resource mobilization, (e.g., driving investments as the microfinance industry became commercially sustainable), financial intermediation, (e.g., reallocating the business risk associated with producing health commodities), and improved resource delivery (e.g., sharing information about new products such as product-linked savings accounts.)

Case study 1: Access to essential health commodities through Advance Market Commitments accelerates the flow of capital to public goods that are not economically viable without public support.

How it works: In an advance market commitment (AMC), a buyer—typically a government or international organization—agrees to a predetermined purchase price for a good or service with a provider—typically a private company. Originally, AMCs were conceived as a means to encourage companies to invest in research and development for new products, but it has also been used to increase production for an existing product. Under the Pneumococcal AMC, for example, donors pledged \$1.5 billion to fund the subsidized purchase of 2 billion doses of pneumococcal conjugate

Pneumococcal AMC

AMC

Start Year:	2009
Amount Mobilized:	\$1.5 billion pledged \$652 billion disbursed to date
Investors:	<ul style="list-style-type: none"> Italy (\$635 million) UK (\$485 million) Canada (\$200 million) The Russian Federation (\$80 million) Norway (\$50 million) The Bill & Melinda Gates Foundation (\$50 million)
Why is it innovative:	The AMC created incentives for vaccine research and production for developing countries as donors commit funds to guarantee the price of the vaccines once they have been developed.

vaccine (PCV) beginning in 2009.¹³ In exchange for this subsidy, manufacturers agreed to sell PCVs to low-income countries at a price no greater than \$3.50 for the next ten years. As a point of comparison, the Pneumococcal AMC's prices for PCV are over 90% lower than those in high-income markets.

¹³ As of December 2013, \$652 million had been disbursed, which is the number used to calculate amount mobilized in the database.

How it achieves outcomes: An effectively designed AMC creates value for consumers by making essential goods available and by lowering prices, and creates value for producers by creating a market for the good. Ideally, the pre-determined price for the good or service would be calibrated so that the provider has incentives to produce the good but does not earn excessive profits—but this calibration is difficult to achieve in practice. For example, the designers of the Pneumococcal AMC did not (and could not) know the necessary capital expenditure and unit costs of scaling up production of the vaccine when they set the upfront subsidy and purchase price. As a result, they established prices that they believed would attract suppliers to the market while maximizing value for money.¹⁴

The Pneumococcal AMC was the first attempt to use an AMC to accelerate the introduction of a vaccine in developing countries. Since its launch, two suppliers - GlaxoSmithKline (GSK) and Pfizer - have produced and distributed 82 million doses of PCV to 24 low-income countries. While precise return data is not available, an independent evaluation found that manufacturers likely earn returns that are at or above 10-20% per year, which is consistent with historic industry performance.¹⁵

The AMC combined long-term commitments and temporary subsidies to lower prices and create a market for health commodities. Since its launch, participating suppliers have expanded capacity and additional manufacturers have expressed interest in joining the initiative. It is impossible to know if the opportunity to provide the vaccine to millions of people in new markets would have been enough to entice low-cost manufacturers to participate without the advance guarantee that vaccines would be purchased.

How it can be replicated: Beyond the pneumococcal example, few AMCs have been considered as successful in furthering development goals.¹⁶ An AMC is a useful innovative financing tool when private suppliers of goods or services are involved, when providing the good or service requires a high fixed-cost investment, and when demand risk makes private companies reluctant to make the upfront investment. However, when only these three criteria exist, the AMC funder would typically find it more efficient to

offer a more traditional forward contract or a volume guarantee with a single supplier. For example, power-purchase agreements, in which a power purchaser (often a state-owned utility) agrees to purchase energy from a power utility for the next 10-20 years, are common tools for financing electricity generating investments, including renewable energy. Unlike advance market commitments, power-purchase agreements do not aim to create a market with multiple participants.

The more complex advance market commitment structure is useful when the funders want to create a market in addition to providing a good and service. Specifically, AMCs are well-suited for challenges with the following characteristics: first, when private suppliers are not willing to be or cannot be transparent about their costs. As a result, it is difficult to determine the fair price that will attract new suppliers to the market. Second, when payers can calculate a financial benefit that allows them to set a price based on benefits and not costs. This allows the donor that issues the AMC to determine the ceiling of how much it is willing to pay to induce market entry. Finally, AMCs are appropriate when there is a benefit in having multiple companies compete for the market rather than a funder partnering with one or two organizations upfront. For some development challenges, such as providing health commodities, donors will want to work with multiple suppliers to avoid being dependent on a single supplier. In other circumstances, such as providing electricity, the nature of the product requires a limited number of suppliers.

Outcomes for National Governments

Innovative financing has attracted private resources to fund development projects and public goods.

Successful innovative financing mechanisms create incentives for private companies to invest in projects that benefit people in developing countries, in particular people at the base of the pyramid. These incentives include: enhancing profit margins by blending capital from socially motivated investors with more profit-oriented organizations, enhancing credit by shifting project risk to organizations with more creditworthy balance sheets, and creating marketing opportunities by being associated with socially responsible investments. We provide examples of different mechanisms that provide these incentives for private companies below.


Case study 2: Capital for investments in low-carbon infrastructure through green bonds.

How it works: The World Bank first issued green bonds in 2008 to finance investments in low-carbon infrastructure,

14 See the pneumococcal AMC process and design evaluation (<http://www.gavialliance.org/results/evaluations/pneumococcal-amc-process-design-evaluation/>) for a more detailed discussion of the challenges of designing the pneumococcal AMC.

15 (Chau, 2013)

16 In addition to the Pneumococcal AMC, there has been discussions of using an AMC for rural energy in Rwanda and bioenergy in Sri Lanka.

World Bank Green Bonds	
	 WORLD BANK GROUP
Start Year:	2008
Amount Mobilized:	\$4.4 billion
Investors:	<ul style="list-style-type: none"> • Institutional investors (e.g., Blackrock, Calvert Investments, Nikko Asset Management) Pension Funds • DFIs • Government backed funds
Why is it innovative:	Green bonds provide an instrument through which investors who are concerned with the effects of climate change can make a difference by specifically supporting climate change related projects.

such as renewable energy infrastructure and energy efficiency improvements. In the past five years, green bonds have grown considerably. According to Standard & Poor, government and corporations issued \$10.4 billion in green bonds in 2013. A recent report by Bloomberg New Energy Finance points out that the market is growing fast; at its current pace, total volume of green bonds will surpass \$40 billion by the end of 2014.

Green bonds have grown quickly because they can be evaluated using standard risk models, provide a risk-adjusted return that meets investor expectations, and offer investors the opportunity to be associated with a positive environmental outcome.¹⁷ To date, institutions with excellent credit ratings and strong balance sheets have issued green bonds. Notably, the yield for green bonds is the same as traditional bonds offered by the same institution that are not dedicated to low-carbon infrastructure.

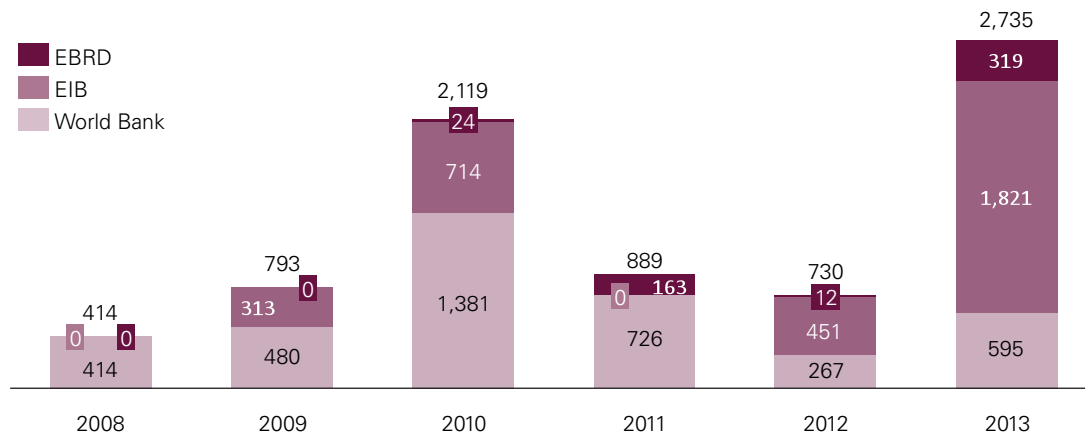
How it achieves outcomes: Green bonds have successfully channeled capital to low-carbon infrastructure, which supports climate change mitigation and adaptation. Furthermore, the use of green bonds by multinational corporations suggests that this mechanism will scale beyond the public sector and become a mainstream investment product.

While the mainstreaming of green bonds is an impressive achievement, given the lack of standards about what constitutes a green investment, it is unclear how multinational corporations will use the proceeds of these bonds. This uncertainty presents a significant investment risk and, if left unaddressed, might limit green bonds' effectiveness to raise funds that support development goals in the future. Based on an independent review with the Center for

Figure 12: The market for green bonds is growing

Growth in green bonds issued by select international finance institutions, 2008–2013

\$ million



Source: Innovative Finance Initiative Database; Dalberg analysis.

¹⁷ For example, a two-year green bond issued by the World Bank in August 2013 had an issue yield equivalent to a spread of +8.3 basis points over a comparable U.S. Treasury.

Table 1: Comparison of World Bank and Green Bond Principles Criteria

Category	Example	World Bank Criteria	Green Bond Principles Usage Guidelines*
Mitigation	Solar and wind electricity generation (Renewable energy)	✓	✓
	New technologies to reduce greenhouse gas emissions	✓	
	Rehabilitation of power plants to reduce emissions	✓	
	Increased transport efficiency	✓	
	Waste management and construction of energy-efficient buildings	✓	
	Reforestation and avoided deforestation	✓	
	Clean Drinking Water		✓
Adaptation	Protection against flooding	✓	
	Food security improvements and sustainable agriculture	✓	✓
	Sustainable forest management	✓	✓
	Biodiversity conservation		✓

*Green Bond Principles use of proceeds is not limited to these examples.

Source: World Bank, Green Bond Principles (2014); Dalberg analysis.

International Climate and Environmental Research at the University of Oslo (CICERO), the World Bank identified criteria for projects that can be financed through green bonds to mitigate the effects of climate change and help countries adapt to the effects of climate change. In addition, 24 banks have signed green bond principles that provide voluntary guidelines on the use of proceeds, process for project evaluation, management of proceeds, and reporting.¹⁸ As shown in Table 1, the criteria for green bonds is very broad. In addition, while individual institutions monitor the use of green bond proceeds and evaluate the effects, there are no standard mechanisms to verify that the bonds are actually used to finance green projects or to compare the environmental benefits of different bonds.

How it can be replicated: Green bonds demonstrate the potential of using the balance sheets of international finance institutions to channel capital to global priorities. The concept does not need to be limited to environmental projects. It can be used when there is a need for investment in global priorities that surpasses the current resources of

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 18 As of May 2014, the following institutions are members of the Green Bond Principles: Banca IMI S.p.A., Banco Bilbao Vizcaya Argentaria (BBVA), Banco Santander S.A., Bank of America Merrill Lynch, Barclays Plc, BlackRock, Inc., BNP Paribas, California State Teachers' Retirement System (CalSTRS), Citi, Crédit Agricole CIB, Danske Bank A/S, DNB, HSBC Bank Plc, International Financial Corporation (IFC), JP Morgan Chase & Co, KBC Bank NV, Mitsubishi UFJ Securities International Plc, Natixis, Natixis Asset Management—Mirova, Nomura International Plc, Nordea Bank Finland Oyj, RBC Europe Ltd, Société Générale CIB, Standish Mellon Asset Management Company LLC, The Royal Bank of Scotland plc (RBS), TIAA-CREF, Westpac Institutional Bank, World Bank.

the public sector; and (2) the investments will generate adequate cash flows through either profits or accrued savings to repay the principal and interest on the bonds.

A similar approach was used by the International Finance Facility for Immunisation (IFFIm) to mobilize resources and streamline the deployment of funds for vaccines. Similar to sovereign bonds, the IFFIm governments make a legally binding commitment to repay bonds sold to institutional and individual investors. To date, the IFFIm has raised \$4.5 billion at costs similar to those of the World Bank, proving that this structure can efficiently raise capital.

Case study 3: Capital for investments in technology innovations through impact investing

How it works: Since the term was first used in 2007, impact investing has emerged as an innovative approach to producing both social and financial returns. Impact investing is an approach to select, manage, and measure the impact of investments that produce a social and environmental good. As shown in Figure 1, most impact investing focuses on sectors that produce social returns such as agriculture, healthcare, and financial services. Impact investing channels investments in established asset classes such as private equity, debt, convertible debt instruments, and guarantees, with a focus on companies in either growth or venture stages.¹⁹

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 19 (World Economic Forum, 2013)

Global Health Investment Fund	
Start Year:	2013
Amount Mobilized:	\$108 Million
Investors:	<ul style="list-style-type: none"> • High-net-worth Individuals • Foundations (Bill and Melinda Gates Foundation, Children's Investment Fund Foundation) • Institutional investors (AXA Investment Managers, JPMorgan Chase & Co., Storebrand) • Strategic investors (GlaxoSmithKline (GSK), Merck & Co, The Pfizer Foundation) • Government-backed funds (German Development Bank (KfW), and Swedish International Development Cooperation Agency (Sida))
Why is it innovative:	GHIF mobilized resources by combining government and private guarantees to leverage private investment for research for new vaccines.

Impact investing can also attract capital to promising innovations, such as research and development for health vaccines. The Global Health Investment Fund, for example, uses public and philanthropic guarantees to attract private investors (including high net worth individuals, institutional investors, and strategic investors) to fund medical research and development that will lead to the eradication of preventable diseases in low-income countries. It offers investors a fixed return of 2% per year, as well as 80% of any return made by the fund, and a partial guarantee from the Bill and Melinda Gates Foundation and Sida for up to 60% of their invested capital.

How it achieves outcomes: The fund has successfully raised \$108 million, but it is too early to assess if it will deliver new technologies. As of August 2014, it has made two investments: a \$8 million investment in a tuberculosis diagnostics technology and a \$5 million investment in a new oral cholera vaccine.

How it can be replicated: Impact investing encompasses a broad range of approaches and can be used whenever an investor wants to focus on social, environmental, economic, and financial returns. Within the context of innovative financing, it is particularly useful for:

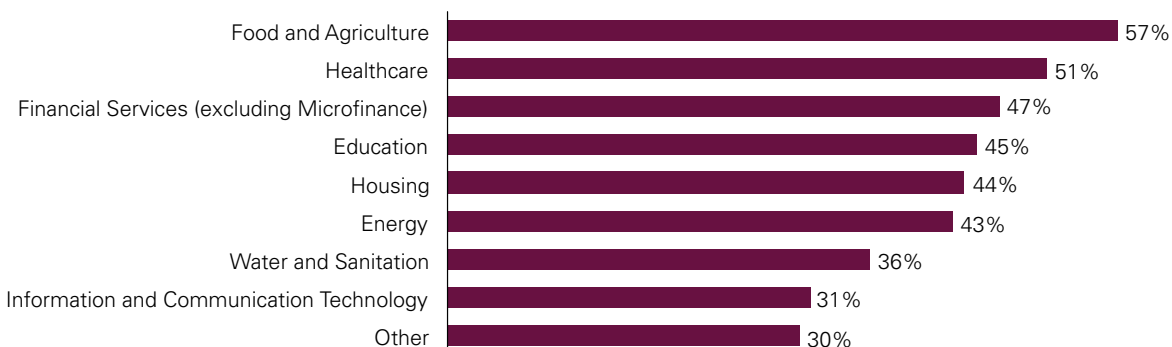
- Providing capital to companies that struggle to access capital, but produce important benefits for broader society. For example, small and medium enterprises are important drivers of employment but frequently struggle to raise the capital necessary to grow.
- Providing capital to early stage ventures that support innovation. Impact investors can combine social and financial returns by focusing investments on innovative approaches to global challenges, such as the Global Health Investment Fund's focus on new vaccines.

Case study 4: Credit enhancements to support economic development through guarantees

How it works: Political risk insurance issued by public institutions is an important component of international development. The World Bank Multilateral Investment Agency (MIGA) promotes foreign direct investment by insuring projects against losses related to currency inconvertibility,

Figure 13: Impact investing focuses on social sectors

Investment focus of impact investing funds, by sector Percent of Survey Respondents



Note: Respondents chose all that apply.
Source: GIIN, J.P. Morgan (January 2013).

World Bank: Multilateral Investment Agency (MIGA)



Start Year:	1988
Amount Mobilized:	\$30 Billion
Investors:	<ul style="list-style-type: none"> • Issued by the World Bank • Reinsurance provided by insurance companies when necessary
Why is it innovative:	MIGA mitigates political risks that prevent private sector investment in developing countries by providing political risk insurance.

How it achieves outcomes: MIGA's mission is to promote investment in emerging markets. It creates value by lowering the cost of borrowing compared to commercial offerings or by creating new instruments, such as long-tenor loans. By bearing some of the risk of cross-border investments, it supports investments in emerging markets that create jobs and drive economic growth. It can achieve this goal directly through its own operations or indirectly by exposing the mispricing of risk and demonstrating that private sector insurers can profitably offer insurance in emerging markets through products that go beyond commercial risk.

expropriation, war and civil disturbance, and non-honoring of financial obligations.

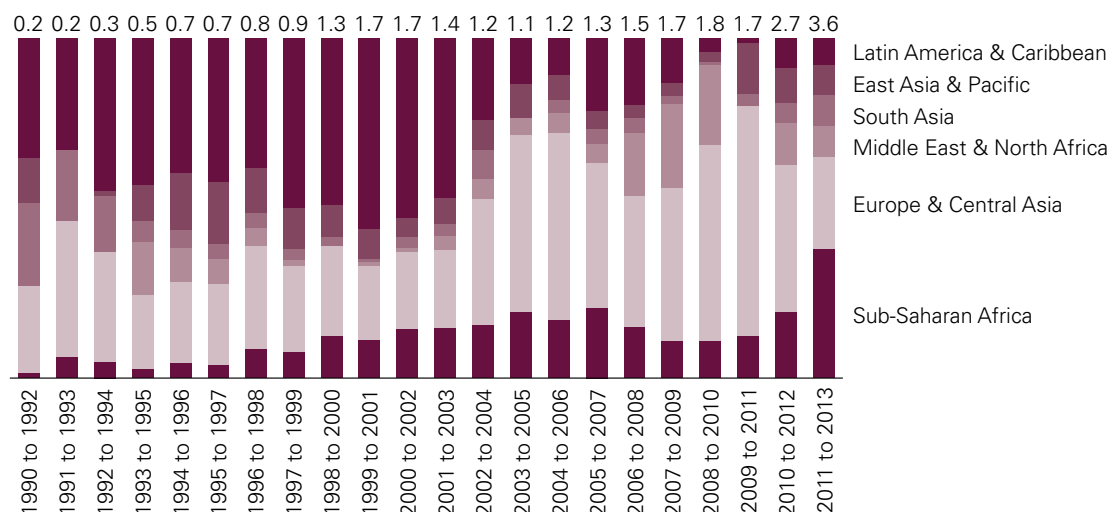
While MIGA is an important facilitator of finance, it is not a novel institution and providing political risk insurance is not a new idea. Since providing its first guarantee in 1990, MIGA has issued over 1,100 guarantees that total \$30 billion.²⁰ Over time, its exposure has shifted from Latin America and the Caribbean to Sub-Saharan Africa, reflecting both a change in policy as well as new market opportunities.

According to an independent evaluation, MIGA channeled an estimated \$56 billion of investments in high- and medium-risk countries between 1990 and 2007. Its guarantees are important mechanisms that allow investments in emerging countries to be approved by credit and risk committees.

How it can be replicated: It is not clear that MIGA offers a replicable model. MIGA, through its association with the World Bank, is a unique institution that has the ability to apply enormous political pressure when assessing claims. It has paid only six claims in its history. It is profitable. While these characteristics suggest good risk management, they

Figure 14: MIGA exposure has shifted to Sub-Saharan Africa

MIGA Gross Exposure by Region, 1990-2013 \$ billion, 3-year rolling average



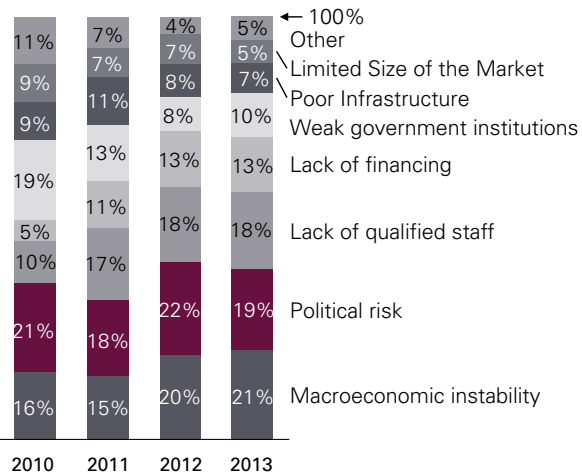
Source: MIGA Project Database; Dalberg analysis.

²⁰ MIGA 2013 Annual Report. http://www.miga.org/documents/Annual_Report13.pdf

Figure 15: Political risk is perceived as a barrier to investment and demand for investment insurance is growing

Major constraints to foreign investments over the next three years, 2010–2013

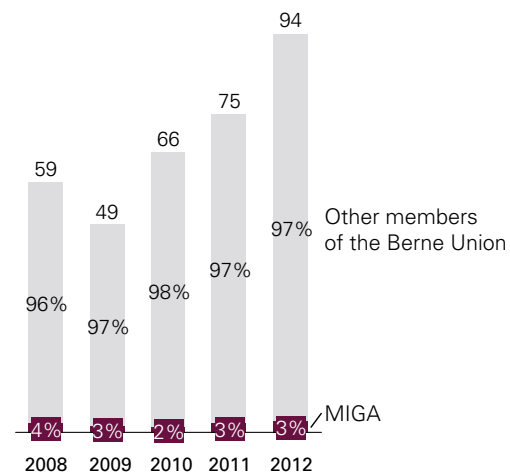
Percent



Source: World Investment and Political Risk, 2013; MIGA; Dalberg analysis.

New Investment Insurance Volumes, Berne Union, 2008–2012

\$ billion

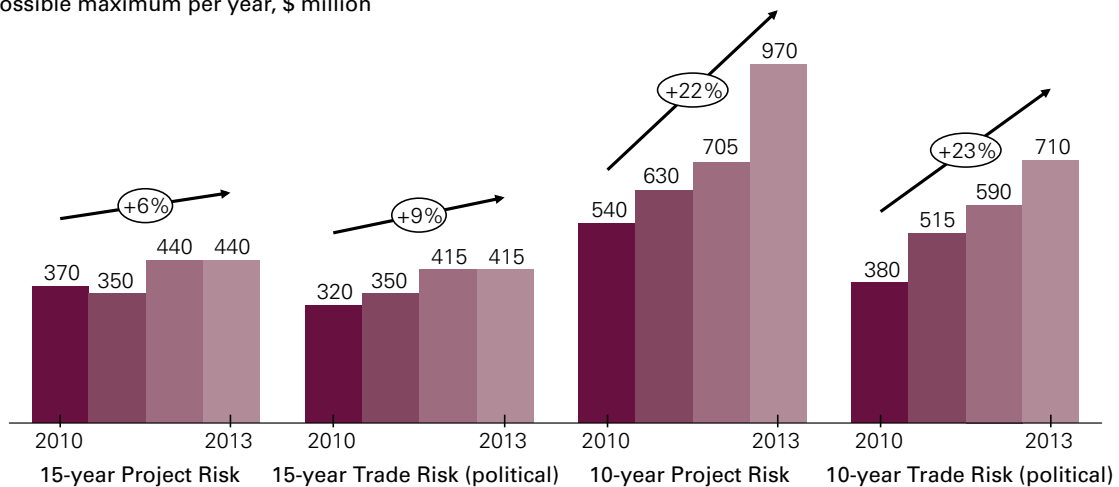


Source: Berne Union, 2008–2012 Statistics; MIGA Annual Report 2013 and 2012; Dalberg analysis.

Figure 16: Long-term political risk insurance is becoming more widely available

Political Risk Market Capacity by Tenor, 2010–2013

Total possible maximum per year, \$ million



Source: Gallagher London, PRI Report and Market Updates 2010 to 2013; Dalberg analysis.

also reflect the influence that the World Bank can have in resolving disputes before they become formal claims.

Nevertheless, given the high demand for political risk insurance, it is an opportunity for new market entrants. The tenor of guarantees offered by private re-insurers are extending and are approaching those offered by MIGA. As shown in Figure 16, the maximum amount insured per risk has increased in recent years. This change could serve as a model for private sector provision of other financial intermediation services within the development space.

Outcomes for International Donors

Innovative financing makes donors' delivery of international assistance more effective and efficient. Financial markets function because the price of an asset communicates information about its value. There is no analogous concept in development, however. It is difficult to assess the value of an education program, less pollution, or better health outcomes. Structures that enable collaboration between development funders and service providers align incentives by assigning a value to development outcomes and creating a market to provide those services. As a result, intended beneficiaries have more influence over the services they receive and the private sector is more likely to compete to deliver social goods and create more efficient solutions.

Case Study 5: New business models that create opportunities for community development through development impact bonds

How it works: Development impact bonds (DIBs) pool multiple performance-based contracts and turn social problems into investible opportunities. They differ from standard grant mechanisms because investor returns are based on the achievement of a pre-determined outcome. Despite its label, DIBs are not bonds. While they have capped returns like fixed-income investments, DIBs also share characteristics with equity investments since neither the principal nor coupon payments are guaranteed.

While there is no standard structure, DIBs frequently involve investors that provide capital at the beginning of the project, outcome funders that provide financing if the project succeeds, and a fund manager that allocates capital to achieve development goals. Critically, they also include a framework for monitoring and evaluation to determine if the service provider is successful. Figure 17 provides one possible structure. In this structure for a three-year bond without a coupon, only 50% of the principal is guaranteed.

If the projects funded achieve the predetermined metrics at bond maturity, the outcome funder will repay the investor the full principal with a 5% annualized return. The manager of the SPV and the service provider would also receive performance bonuses in addition to upfront payments.

How it achieves outcomes: DIBs are still in a nascent stage. Few have mobilized resources and internationally oriented DIBs do not have long enough track records to assess outcomes. They seek, however, to align incentives between various actors, promote risk transparency, and encourage innovation.

- **Aligning incentives.** The dynamics of international development differ from many markets because the entity that pays for a good or service—typically a donor or philanthropy—is different from the entity that enjoys the good or service—typically a recipient government or individual. This situation limits the information available to the funder and impedes an efficient market. A DIB's structure transfers the risk of providing the service from the funder to the service provider and investor. As a result, DIBs work best for new approaches to providing goods and services. If the service provider and investor have a new way of achieving the outcome, they can potentially earn more than if they funded the same project through grants. As a result, for the DIB market to grow, it will have to resemble a venture capital model in which well-informed and experienced investors have the ability to evaluate these new innovations.
- **Promoting transparency.** The investors and outcome funders negotiate terms that reflect the probability of success (from the investor's perspective) and the ability to extract potential efficiencies (from the outcome funder's perspective).²¹ By establishing a price for the bond, beliefs about perceived risk are made transparent, because both the output funder and the investor need to calculate the level of risk.
- **Encouraging innovation.** The output funder does not specify the method for achieving the desired outcome, which allows the service provider to deploy innovative approaches and to tailor the intervention to local situations. The implementer may, however, receive assistance from the investor, for example, through performance management systems or feedback loops; after all, it is in the investor's interest to help the implementer succeed so that the investor receives his premium.

21 Both of these factors are difficult to estimate ex-ante and create ambiguity in the negotiation process.

The diagram illustrates the SIB structure with the following components and flows:

- Investor**: Provides an **Initial Payment** of 100 to the **Special Purpose Vehicle**. It receives a **Guaranteed Payment** of 50 and a **Contingent Payment** of 66 from the **Special Purpose Vehicle**.
- Special Purpose Vehicle**: Acts as the central entity, receiving the initial payment and distributing payments to the **Service Provider(s)** and **Outcome Funder**.
- Service Provider(s)**: Receives a **Guaranteed Payment** of 95 and a **Contingent Payment** of 5 from the **Special Purpose Vehicle**. It generates **Positive Externalities**.
- Outcome Funder**: Provides a **Guaranteed Payment** of 50 and a **Contingent Payment** of 75 to the **Special Purpose Vehicle**. It also receives **Monetizable Savings and Social Benefits** from the **Service Provider(s)**.
- Guarantor (if necessary)**: Provides **Credit Enhancement** to the **Special Purpose Vehicle**.

Legend: Green arrow = Initial Payment; Black arrow = Guaranteed Payment; Dotted arrow = Contingent Payment.

3 YEAR | ZERO COUPON

Note: Cash flows are for illustrative purposes only. Some DIBs have no guaranteed payments.
Source: Dalberg analysis.

investment up-front (unless the investor has a lower cost of capital than the outcome funder, which is unlikely). Even social impact investors who merely aim to preserve capital will require interest rates that compensate them for the risk of a service provider failing to achieve the outcome targets.

CHAPTER 3:

What Are The Next Steps For Innovative Financing?

Opportunities

The focus of innovative financing is shifting from mobilizing resources to delivering positive social and environmental outcomes through market-based instruments. In the past ten years, the growth of the innovative financing sector has come from the emergence of new mechanisms such as thematic bonds, microfinance, and results-based financing. These mechanisms are market-based structures that effectively align incentives and increase focus on tangible outcomes.

Based on historic growth rates, we project innovative financing will grow to \$24 billion per year by 2020.²²

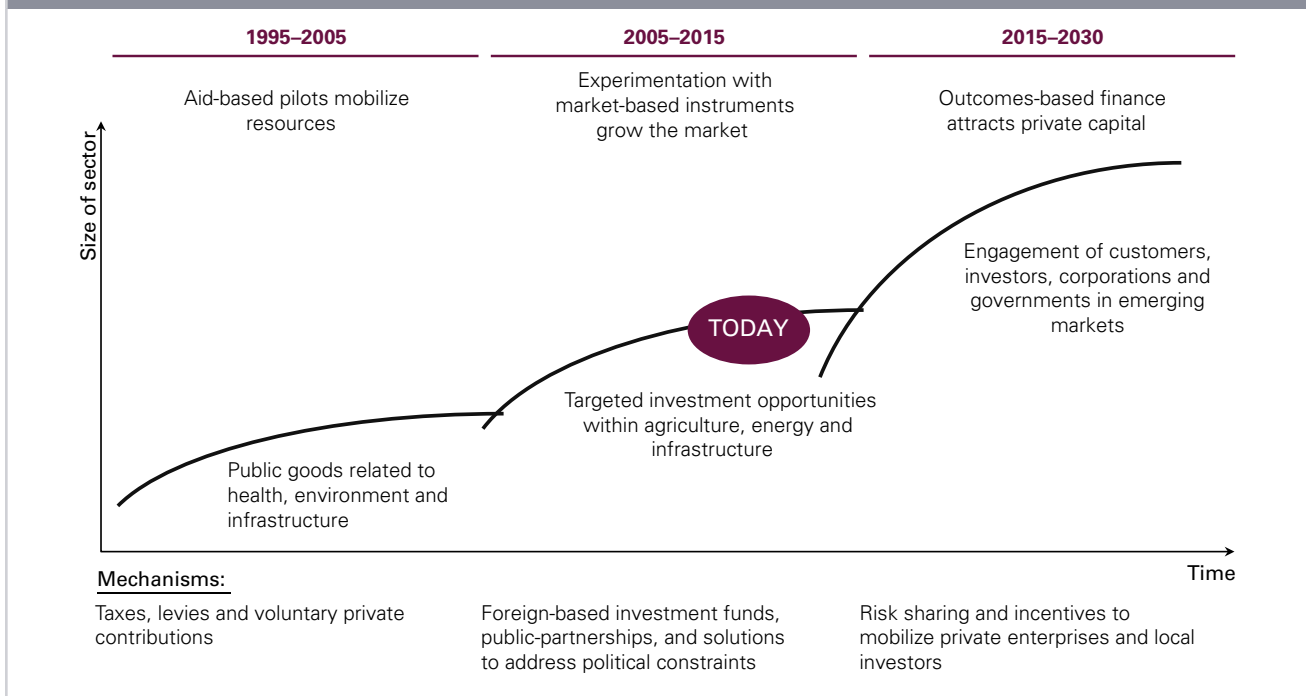
This estimate is likely conservative, given increasing pressure from governments, investors, and citizens to produce tangible environmental and social results. Additionally, our estimate does not include the recent increase in activity by corporates that issue green bonds, the potential for investment in infrastructure, or the potentially rapid rise of new

donors, such as those in China. Most importantly, it does not reflect efforts to relax the constraints affecting the innovative financing market (discussed below). Nevertheless, the estimate accounts for several trends that will likely shape the innovative financing sector between now and 2020, such as:

- Increased use of established instruments by new participants. Innovative financing mechanisms that have already received widespread acceptance, such as guarantees and thematic bonds, will grow as commercial investors and private companies incorporate them into their capital allocation strategies. There is a need to establish standards around how these products can be used. Based on our experience with microfinance, we have seen that while commercial investors enable long-term sustainability, their involvement can also have unintended consequences such as providing capital to projects or individuals who will not be able to repay the loan or distorting markets. Establishing guidelines for how green bonds—or other thematic bonds—can use proceeds to produce positive environmental outcomes will likely reduce the chance that these funds are used inappropriately.

22 We expect an annual average growth rate for the entire sector of approximately 12% per year, but can vary from 3% per year for derivative products excluding guarantees to 17% per year for performance based contracts. Growth rates and other assumptions used to make projections for each type of instruments are included in Annex 1.

Figure 18: The focus of innovative financing is changing



- Expansion of successful pilots into new markets. The public sector can build on mechanisms that worked in one sector, and deploy them in new sectors. Promising mechanisms of this sort include advance market commitments, results-based financing, and impact investing. There is a need for investors—particularly investors with a dual social and financial mandate—to sponsor opportunities in new markets.
- Continued innovation within development by creating new products. The public sector will continue to develop and promote newer mechanisms such as development impact bonds. The creation of these types of mechanisms is an important part of the innovative financing market.

Constraints

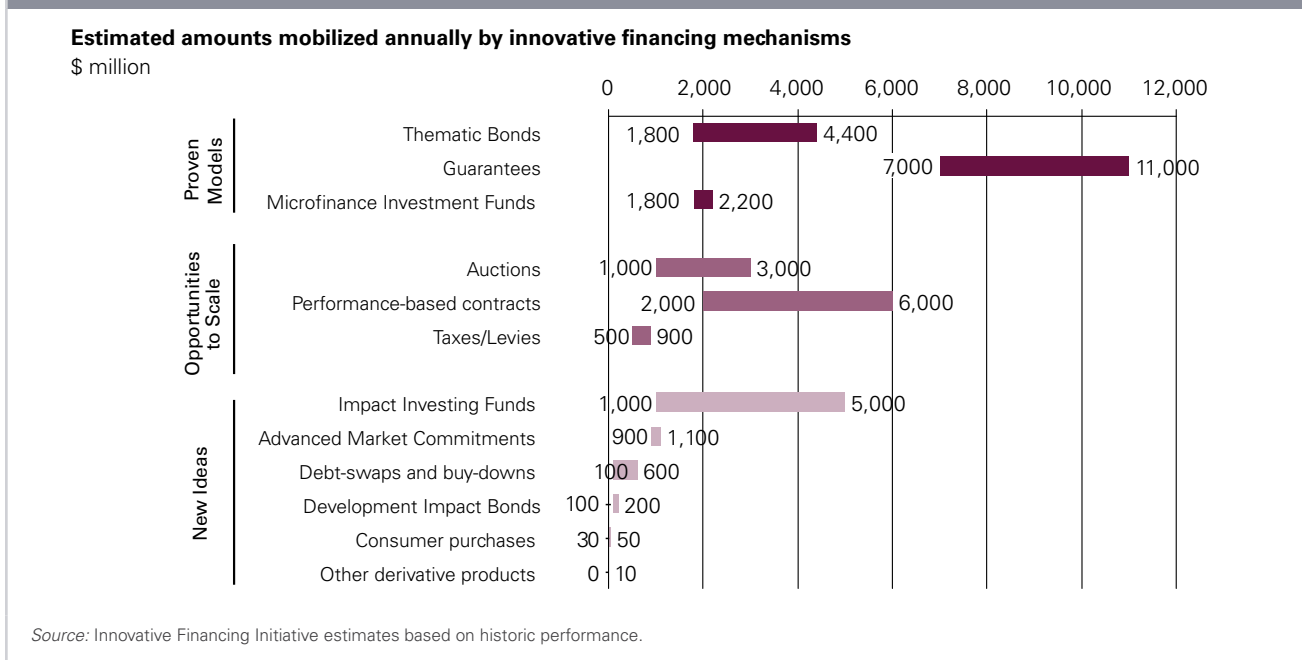
The current innovative financing market structure impedes potential growth. Constraints limit the supply of finance, weaken demand for new mechanisms or expansion of existing mechanisms to new markets, and impede the matchmaking between the two. Addressing these constraints could increase the market size substantially from the currently projected \$24 billion per year growth trajectory. In particular, the barriers below hinder the growth of innovative financing.

Supply Challenges

Opaque language and limited understanding of innovative financing business models, operating environments, and different actors' institutional constraints reduce the supply of capital. Many current mechanisms—particularly those still in the nascent stage—fail to offer risk-return profiles that fit investor requirements. It is always difficult to assess risks associated with new instruments, but the use of inconsistent language makes it difficult for development practitioners and financial managers to clearly communicate. For example, development impact bonds, which do not guarantee the repayment of the principal and offer a higher return when metrics are achieved, have more in common with equity investments than bonds. Current mechanisms lack the clear and compelling product definition and risk-adjusted returns that private sector investors require. The market would benefit from a clear segmentation that clarifies which products could appeal to commercially oriented donors and which ones will require temporary subsidies to establish the necessary performance history.

Few institutions have the capacity, mandate, or experience with innovative financing vehicles necessary to create new products or to evaluate the risks of existing ones. Large institutional investors have a fiduciary responsibility to achieve risk-adjusted returns that align with

Figure 19: Innovative financing mechanisms are projected to mobilize \$24 billion per year by 2020 based on historical performance



investor expectations. While many large investors believe that responsible investing can produce financial returns and reduce reputational risk, they are not willing to sacrifice financial return for social benefits. This reluctance restricts the supply of capital to opportunities in which financial and social returns are correlated.

From a public sector perspective, many large donor agencies do not have the legal authority and institutional incentives to pursue innovative financing schemes. Many donors make investment decisions based on annual appropriations, which limits their ability to make long-term commitments. They also often do not have the authority to make investments with contingent liabilities or equity. While multilateral financial institutions (such as the World Bank) and bilateral institutions with a private sector mandate (such as Proparco in France and the CDC group in the UK) have greater flexibility, innovative financing remains a relatively small portion of government aid.

Finally, innovative financing product sponsors' failure to engage with a broad part of the financial sector further limits capital and expertise. Certain providers of financial services, such as private banking and private equity, have offered impact investing and microfinance investments. However, other types of financial institutions, such as insurance companies and pension fund managers, have only explored innovative financing in a limited capacity. Within

financial institutions, there has also been very little engagement with the credit and risk assessment departments to learn how to evaluate new innovative financing vehicles—this lack of involvement limits the supply of capital and does not tap the departments' expertise, which is necessary to develop new products.

Intermediation Challenges

Lack of standards, data, liquidity, and performance metrics makes it difficult for investors to assess innovative financing opportunities. Clear, comprehensive, and credible performance information will allow commercial investors to participate in the market. In the case of green bonds and microfinance, for example, the availability of standardized information about the mechanisms' financial performance has enabled investors to participate in these markets. However, it is difficult to gather this information for many other types of innovative financing mechanisms. In addition, while organizations such as the Global Impact Investing Network (GIIN) have made considerable efforts to provide standard metrics for assessing the development impact of these investments, there is still no way to compare the social, environmental, and economic results of different investments.

With the notable exception of bonds and microfinance, innovative financing instruments do not have the market infrastructure necessary to create liquidity. The

Box 4: Potential for growth in different sectors

Global Health: Innovative financing in health has mobilized over \$8.2 billion total since 2006. By 2020, an additional \$18 billion may be mobilized for innovative financing mechanisms in global health.^a In addition to the previously tested models, several additional areas are ripe for innovative financing. These include mHealth (mobile platforms for collecting data, technology platforms for education and diagnostics), new diagnostic tools, nutrition (micronutrients and biofortification), and reproductive health (e.g., long term birth control solutions).

Agriculture and Food Security: Innovative financing in agriculture and food security has mobilized approximately \$1 billion over the last three years. At the current investment pace, the opportunity for innovative financing mechanisms would reach an additional \$2.5 billion total by 2020. A number of mechanisms in agriculture and food security have focused on accelerating access to capital. In addition, new innovative financing mechanisms could include improved inputs (biofortified crops, improved crop yields through plant breeding and open pollinated crop development, fertilizer with reduced waste and run-off), innovation in harvest and storage (improved on-farm storage technology or improved drying and processing technology), and improved ICT service to enable market transactions.

Climate, Environment, and Energy: Various innovative financing mechanisms and funds have mobilized over \$17.4 billion in the sector since 2007. Based on growth rates from 2007-2013, the opportunity for climate and environment related innovative financing could be as high as an additional \$45 billion by 2020. Additional areas ripe for innovative financing include: green community development innovations such as new green building materials, energy efficient transport systems such as vehicle sharing or electric scooters, and household-level innovations such as improved or advanced technology for off-grid cooking (especially cook stoves), and lighting and solar innovation.

^a Based on the assumption that non-IFFI funding grows at maximum historical 2006-2011 CAGR, and IFFI funding remains stable at historical 2006-2013 average size.

heterogeneous and bespoke nature of many innovative financing mechanisms prevents investors from trading products to create liquidity in the market. A common infrastructure, such as credit rating agencies and exchanges, would help facilitate the trading of products to increase liquidity.

Demand Challenges

A lack of investment in design funding limits innovation and increases the costs associated with introducing new instruments. Creating new innovative financing mechanisms—especially mechanisms without track records—can be very costly. The GAVI Alliance, for example, provided more than \$30 million to the Pneumococcal Vaccines Accelerated Development and Introduction Plan (PneumoADIP) to build the business case for the Pneumococcal AMC. Microfinance required decades of grants and concessional finance before it became a commercially viable investment. Creating new mechanisms also takes a significant amount of time. Designing the IFFIm required the UK Government, the World Bank, Goldman Sachs, and the lawyers for GAVI to work together for over two years. Likewise, the Global Health Investment Fund, an impact investing fund that supports research and development for new vaccines, spent over two years raising capital, despite having guarantees from the Gates Foundation and the Norwegian government. Without significant upfront support, innovative financing mechanisms often operate at below scale and fail to achieve their potential.

Proposed Solutions and Roles for Different Actors

Public and private actors must work together to accelerate the growth of the innovative financing market. We have identified three ways to support the market growth, described in more detail below. First, organizations that design and implement innovative financing mechanisms can make greater efforts to share knowledge and learn from each other. Better information about the financial and social performance of innovative financing products will attract new actors. Second, new partners can provide capital and expertise. In particular, institutions that manage capital for private investors can actively seek investments and development practitioners can create opportunities that meet the investment criteria and requirements of those investors. Third, there is a need to reduce the start-up costs and transaction costs of new innovative financing mechanisms. New mechanisms can adopt successful strategies from existing efforts, but learning from past efforts requires increased transparency and more systematic monitoring and evaluation of performance.

1. Share knowledge and learn about innovative financing through a central resource for technical assistance, data, and tools. Innovative financing consists of a heterogeneous collection of asset classes that behave differently under varying market conditions and are governed by different sets of rules and regulations. There are no standardized ways to describe performance, and this

Box 5: Challenges vary by sector

Sample barriers and challenges for engaging private sector players in the sector (not exhaustive)

Agriculture	<ul style="list-style-type: none"> • Lack of credit history and collateral implies a high risk for lenders • Complex risk profile due to agronomic and political risks • Low demand for financing among SHF due to high risk evaluation
Education	<ul style="list-style-type: none"> • Importance of scale (low margins) • Few exit options • High risk due to long time horizon and lack of collateral
Energy and environment	<ul style="list-style-type: none"> • Difficulty of measurement of impact • Difficulty in getting to scale • Uncertainty related to the political environment
Health	<ul style="list-style-type: none"> • High level of uncoordinated action within the sector • High risk in the early product development phase • Limited exit options, and reputational risks when exiting
Infrastructure	<ul style="list-style-type: none"> • Lack of understanding and capacity to structure projects • Complex risk exposure (e.g., related to cross-border investments) • Lack of transparent regulatory frameworks and legal security

information is rarely publically available. As a result, it is difficult to compare performance across different assets and identify mechanisms that most effectively produce development outcomes. In addition, a broader understanding of how different types of innovative financing mechanisms can address specific problems would help push the sector forward.

2. Engage new partners by promoting asset classes that attract profit-oriented managers and investors.

Engaging the private sector will require new approaches to creating bankable products. These products may include public sector investments in supportive policies and regulation, risk capital, and knowledge. Promising opportunities that produce social and financial returns and that identify innovative and more efficient ways to deliver goods and services will entice private sector actors. An initial opportunity, for example, could be the expansion of thematic bonds from the environmental sector to other development areas such as health and education. Like green bonds, these bonds would be issued by international finance institutions and would mobilize private sector capital in a manner consistent with existing business models and asset requirements. These opportunities would create channels for the financial industry to participate in investments that produce social returns.

3. Finally, support the development of promising and proven products by collaborating during the design phase.

The current approach for developing new innovative financing products is costly and time consuming.

Often, the public sector champions new products that do not take into account the business needs of potential investors. A channel for private sector institutions to participate on their terms during the early stages of product design would help overcome the obstacle of differing priorities. Creating a public-private partnership will reduce transaction costs associated with launching new products and will build coalitions of organizations that are committed to growing the sector. Public funders would specify what will be achieved by articulating a limited number of objectives and proposing incentives to catalyze private investment. Financial intermediaries would determine how to attract capital and achieve those objectives.

Increased use of innovative financing mechanisms will require greater coordination between different actors.

For example:

- **Regulators and Policymakers** can ensure that country laws allow innovative financing funding mechanisms and actively seek opportunities to collaborate around new innovative financing mechanisms.
- **Foundations and NGOs** can fund research to identify appropriate opportunities for new mechanisms and host events to facilitate collaborations around specific new mechanisms.
- **Development Banks and Impact Investors** can invest in promising but unproven ideas, provide guarantees,

Box 6: Proposals to accelerate the creation of innovative financing products

	Description	Deliverables
1 The Innovative Financing Exchange	The Innovative Financing Exchange will provide technical assistance, build capacity for negotiations, and support data measurement and outcomes.	Date: Gather and publish annual performance data Tools: Create and share a risk management framework Advice: Support practitioners creating new products
2 Innovative Financing Structuring and Marketing Group	The Innovative Financing Structuring and Marketing Group is a public-private partnership to identify and replicate models that work and use them in new sectors and markets.	Identify three scalable models and work with public and private partners to mobilize additional resources.
3 Innovative Finance Incubator	The innovative financing incubator will support the design and development of new products to test approaches and partnerships.	A co-funding facility to support new innovative financing products.

Source: Dalberg analysis and expert interviews.

and promote the use of standards to measure and communicate social and financial performance.

- **Financial Intermediaries** can identify promising opportunities that produce social and financial returns, communicate the needs of different types of investors to policy makers, and provide liquidity to create markets.
- **Institutional Investors** can provide capital to investments that provide risk-adjusted returns and actively seek opportunities to collaborate around new innovative financing mechanisms.
- **Private companies** can seek innovative and more efficient ways to deliver goods and services and participate in public-private partnerships

Conclusion

Meeting global commitments to eradicate poverty and to respond to climate change will require all possible sources of financing. Identifying new opportunities for funding requires collaboration between different actors—especially investors, entrepreneurs, and policy-makers. Innovative financing provides a set of tools for donors who want to create more development impact through their investments, corporations open to new business models in new markets, and financial institutions looking for new opportunities.

Innovative financing is a critical tool to engage the private sector and increase the international community's focus on development outcomes. Innovative financing is a bridge that enables the transition from grant-funding models to structures that support markets and promote long-term sustainability. Innovative financing can attract private companies that want to expand into new markets,

investors and fund managers who want to produce both financial and social returns, and governments that want to achieve more and better development impact in a resource-constrained environment.

There is an opportunity and need to accelerate the growth of bankable investments that mobilize resources for development and increase the efficiency and effectiveness of financial flows. To capitalize on this opportunity, the status quo needs to change: many potential sources of capital and expertise remain untapped, and new innovative financing mechanisms often fail to account for the existing business models, incentives, and constraints of investors and private business. In addition, the innovative financing market is still very conservative; bonds and guarantees dominate the market by shifting the risk from private to public investors. The more innovative mechanisms that do exist often only involve a small set of actors or target specific issues. Further innovative financing opportunities are often missed because few players have the context and credibility to “translate between” public finance institutions, private players, and local governments.

Increasing the use of innovative financing will require a coordinated effort from public and private partners. This coordinated effort will need to increase information and transparency on innovative finance successes and failures, demonstrate scalable models to enable innovative finance and build a global network of investors and entrepreneurs to expand the sector. By combining private sector approaches to achieving risk-adjusted returns with a philanthropic orientation to producing social impact, the international community can harness innovative financing to address global economic, social, and environmental challenges.



ANNEX 1:

METHODOLOGY AND DEFINITIONS

Data collection approach

The data used in this report is a conservative estimate of the innovative financing market. We used Annex 9 (Glossary of Selected Innovative and Traditional Financial Instruments and Mechanisms) in Navin Girishankar, *Innovating Development Finance, From Financing Sources to Financial Solutions* World Bank Policy Research Working Paper 5111, November 2009) as a starting point and complemented it with additional desk research. In particular, we drew upon surveys of innovative financing by the OECD, and the Leading Group on Innovative Financing. In addition, we drew on data collected by the Global Impact Investment Network (GIIN) to capture information about microfinance and other investment funds.

To determine whether or not an instrument should be included, we asked three questions.

- **Maturity and Scope:** Did the instrument mobilize resources for a developing country? We started with a list of 14 types of instruments that commonly referred to as innovative financing. These instruments and our definitions of them are provided below. We did not include institutions (such as the Global Alliance for Vaccines or Immunizations), generic fundraising approaches (such

as crowd funding sites), or financial flows between individuals (such as remittances). We also limited the scope to transfers between countries. As a result, we did not include instruments such as the Social Impact Bonds in the UK and the US because those use domestic resources for domestic purposes or the important growth in resources within developing countries.

- **Innovation:** Did the instrument introduce a new product, facilitate entry into new market, or attract new participants? As discussed above, innovation is in the eye of the beholder. In determining whether or not an instrument is innovative, we adopted a very broad definition of innovation. This is consistent with how international organizations implicitly defined the market.
- **Intention:** Did the sponsors of the instrument intend to produce positive social and environmental outcomes? We recognize that many types of international resource flows, including foreign direct investment and remittances, have positive development effects. For the purpose of this study, we limited our scope to investments where the investor had a stated intention to produce positive social or environmental benefits in addition to financial returns. This is consistent with the definitions

Table 2: Overview of Data Used in Report

	Number in Database	Number that mobilized resources between 2000-2003	Amount mobilized between 2000-2013 (\$ million)	Percentage of Total (percent)	Total mobilized (USD M)
Securities and Derivatives					
Bonds	14	14	23,200	25%	29,500
Guarantees	23	17	36,100	39%	56,700
Impact Investing Funds**	98	82	5,800	6%	5,900
Loans	6	4	1,800	2%	2,300
Microfinance Investment Funds	130	112	9,100	10%	9,300
Other derivative products	13	8	600	1%	600
Subtotal	284	237	76,600	82%	104,300
Results, output, and performance-based mechanisms					
Advanced Market Commitments	6	4	1,100	1%	1,100
Awards and prizes	1	10	300	0%	300
Debt-swaps and buy-downs	4	4	1,400	1%	1,400
Development Impact Bonds	5	0	-	0%	-
Performance-based contracts	16	13	5,000	5%	5,000
Subtotal	49	31	7,800	8%	7,800
Voluntary contributions					
Auctions	2	2	6,500	7%	6,500
Donations a part of consumer purchases	6	4	200	0%	200
Subtotal	8	6	6,700	7%	6,700
Compulsory Charges					
Taxes	6	4	2,400	3%	2,400
Subtotal	6	4	2,400	3%	2,400
	347	278	93,500		121,200

* Of the 347 mechanisms in the database, only 278 mobilized resources between 2000 and 2013. This reflects the emergence of new asset classes such as Development Impact Bonds, which did not mobilize any resources during that period, and new products, such as the DFID Innovation Prizes for Environment and Development which was launched in 2013 and has not been implemented yet.

** We defined the universe of impact investing and microfinance funds based on the decision of managers to register with ImpactBase, a leading database of impact investing funds. Many fund managers elect not to register with ImpactBase, which makes this a conservative estimate of the market size.

Source: Innovative Financing Initiative Database; Dalberg analysis.

of impact investing proposed by the Global Impact Investing Network and the World Economic Forum.

While we made every effort for this database to be complete, it is likely that we did not include all possible innovative financing instruments. We hope to continue refining this database in the future. If you would like to receive a copy of the database, please contact us at innovativefinance@dalberg.com.

Market projections

We projected the innovative financing market size based on the historic growth rates of different mechanisms. The

higher end of the range was calculated as the maximum of the historic annual growth rate for all innovative financing mechanisms between 2003 and 2013 (12.3%) and the growth rate for the specific type of instrument. The lower end of the range was estimated as the minimum of the historic growth rate for innovative financing as a whole and the specific type of instrument.

In addition, we made decisions based on the availability of data about which year to use as the baseline and what period of time to use to calculate historic performance.

Definitions of each instrument

Securities and Derivatives	Bonds and Notes	Debt financing raised in capital markets to fund development interventions like microfinance or climate change interventions
	Guarantees	Financial commitment to provide payment in case of financial loss, including insurance products, that act as a risk-mitigation incentive to attract other funders
	Loans	Loans made with concessionary repayment terms to borrowers for implementing specific development interventions like green credit lines
	Microfinance Investment Funds	Investment funds that finance microcredit lenders in developing countries who provide low-income and marginalized borrowers with access to finance
	Other Investment Funds	Investment vehicles that are structured and funded to target a specific development challenge, often blending investors with different risk/return profiles
	Other Derivative Products	Financial instrument that derives its value from performance of another asset like securities tied to residential mortgages or weather events
Results-, output-, and performance based mechanisms	Advanced market commitments	Commitment of funds to guarantee price/market for products once developed
	Awards and Prizes	Financial reward for development solutions in a competitive selection process
	Development Impact Bonds	Investors fund development intervention upfront, government/donors repay them with interest based on results achieved
	Performance-based contracts	Grant contracts structured to disburse based on meeting specific performance targets
	Debt-swaps and buy-downs	Developing country debt repayment obligations are transferred or reduced based on meeting development goals
Voluntary contributions	Carbon Auctions (voluntary market)	Voluntary participation in legally binding exchanges for trading carbon credits and reducing emissions
	Donations as part of consumer purchases	A percentage of each purchase of a consumer product goes to fund a designated development challenge
Compulsory charges	Taxes	Specific tax imposed by government to raise funding for a specific development challenge

Table 3: Assumptions used to calculate market projections

Instrument	Historic Compound Annual Growth Rate	CAGR implied by projected range midpoint	Baseline Year in Calculations	Period used to calculate the historic growth rate	Projected Midpoint (USD M)	Percent of Total
Compulsory Charges						
Taxes and Levies	1.6%	7.7%	2013	2007-2013	687	3%
Results Based Mechanisms						
AMC	15.7%	14.1%	2012	2009-2012	985	4%
Awards and prizes	-30.7%	3.2%	2012	2005-2012	1	0%
Debt-swaps and buy-downs	19.2%	16.1%	2012	2004-2012	185	1%
Performance-based contracts	21.8%	17.7%	2012	2009-2013	3,321	14%
Securities and Derivatives						
Bonds, notes	16.9%	14.7%	2012	2006-2012	5,261	22%
Development Impact Bonds	NA	14.1%	2014	NA	110	0%
Guarantees	7.2%	10.0%	2012	2003-2012	9,075	38%
Investment funds	10.0%	11.2%	2012	2006-2012	580	2%
Loans	-1.5%	6.9%	2012	2003-2012	18	0%
Microfinance Investment Funds	15.2%	13.8%	2011	2005-2010	2,304	10%
Other derivative products	-45.8%	3.0%	2012	2008-2012	6	0%
Voluntary contributions						
Auctions	-5.3%	5.9%	2012	2008-2012	1,619	7%
Consumer Purchases	7.0%	9.8%	2012	2006-2012	38	0%
Weighted Average	12.3%	12.0%		Total	24,191	100%



ANNEX 2:

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