

Multilateral Development Banks' Risk Mitigation Instruments for Infrastructure Investment

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Abstract

Risk mitigation instruments such as guarantees are attractive options for achieving the United Nations Sustainable Development Goals because they provide a way for multilateral development banks (MDBs) to strategically de-risk investments while crowding in private financial resources. However, despite the potential attractiveness of these instruments and their effectiveness in mobilizing private resources, their use has been relatively limited. According to private estimates, guarantees represent only 5 percent of MDB operations, although they account for 45 percent of total private resource mobilization. This paper considers supply and demand determinants of MDBs' current guarantee products, addresses the requirements of private sector investors, and identifies ways to close the gaps between private sector needs and the ability of MDBs to scale up risk mitigation mechanisms. The main conclusion from this analysis is that MDBs' business models impose significant limitations on the further use of guarantees. A possible alternative to overcome these limitations is the creation of specialized entities or off-balance-sheet facilities, learning from the experience of the Multilateral Investment Guarantee Agency.

Keywords: Sustainable Development Goals, multilateral development banks, risk mitigation, private financing, Multilateral Investment Guarantee Agency

JEL Codes: F33, F55, G15, H81

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Abbreviations

ADB	Asian Development Bank
AfDB	African Development Bank
AIIB	Asian Infrastructure Investment Bank
BCBS	Basel Committee on Banking Supervision
BRICS	Brazil, Russia, India, China and South Africa
EBRD	European Bank for Reconstruction and Development
EIB	European Investment Bank
FSB	Financial Stability Board
G20	Group of Twenty
GIH	Global Infrastructure Hub
GTFP	Global Trade Finance Program
HGLA	High-quality liquid assets
IBRD	International Bank for Reconstruction and Development
IDA	International Development Association
IDB	Inter-American Development Bank
IDBG	Inter-American Development Bank Group
IFC	International Finance Corporation
IMF	International Monetary Fund
ISDB	Islamic Development Bank
LCR	Liquidity coverage ratio
MDB	Multilateral development bank
MIGA	Multilateral Investment Guarantee Agency
NDB	New Development Bank
NSFR	Net stable funding requirement

OC	Ordinary capital
OECD	Organisation for Economic Co-operation and Development
PBG	Policy-based guarantee
PBL	Policy-based loan
PCG	Partial credit guarantee
PPP	Public-private partnership
PRG	Partial risk guarantee
S&P	Standard and Poor's
SDG	Sustainable Development Goal
SG	Sovereign-guaranteed
SMEs	Small and medium-sized enterprises
UNCTAD	United Nations Conference on Trade and Development

I Introduction

Guarantees by multilateral development banks (MDBs) can be an effective instrument for de-risking infrastructure investments in order to crowd in private capital financing. Guarantees can provide lower borrowing costs and longer loan tenures to borrowers while minimizing the use of MDB capital-backed resources. Yet, such guarantees represent only 5 percent of MDB operations, although they account for 45 percent of total private resource mobilization (Betru 2017).

Table 1 depicts outstanding guarantees provided by selected MDBs as of 2016. The Multilateral Investment Guarantee Agency (MIGA) is the single most important provider of guarantees and is responsible for about half of all existing outstanding guarantees. This is not surprising, since the MIGA is the only MDB that specializes in risk mitigation products. For the other institutions, except the International Finance Corporation (IFC), guarantees do not represent a significant portion of their operations when compared to loans.

Table 1. Multilateral Development Bank's Outstanding Guarantees, 2016

	World Bank Group									
	Total	MIGA	IBRD	IDA	IFC	IDBG	ADB	AfDB	EBRD	EIB
Guarantees (US\$ Billion)	20.3	14.2	1.5	1.1	3.5	0.2	2.1	0.5	0.6	7.5
Percent of loans	6.2%	n.a.	0.9%	0.8%	15.9%	0.3%	3.1%	2.5%	2.4%	1.6%

Sources: S&P (2017); institutions' 2016 financial information statements; and authors' calculations.

Note: IBRD figures are adjusted to remove Exposure Exchange Agreements (EEAs). Other banks do not include EEAs in their guarantee totals. IBRD figures also include guarantees provided under the Advance Market Commitment program. AfDB: African Development Bank; ADB: Asian Development Bank; EBRD: European Bank for Reconstruction and Development; EIB: European Investment Bank; IBRD: International Bank for Reconstruction and Development; IDA: International Development Association; IDBG: Inter-American Development Bank Group; IFC: International Finance Corporation; MIGA: Multilateral Investment Guarantee Agency.

Guarantees for infrastructure finance are an even smaller share of resources, as a significant portion of the guarantees shown in Table 1 support small and medium-sized enterprises (SMEs), trade finance, and other programs. In the case of the MIGA, 50 percent of the outstanding portfolio is in infrastructure projects. Other MDBs do not provide sector-specific exposure information, but report a significant share of guarantees as part of their trade finance programs. For example, the Asian Development Bank reports that about half of its guarantee exposures are trade-related (ADB 2016). The Inter-American Development Bank Group issued 57 trade finance guarantees in 2016 totaling US\$84 million, an amount that represents just under 50 percent of the volume of new guarantee approvals (IDB 2016). Nearly 80 percent of the outstanding guarantees of the European Bank for Reconstruction and Development are for trade finance (EBRD 2016), and 100 percent of the guarantees reported by the African Development Bank are for trade finance (AfDB 2016). While the focus of this paper is on guarantees for infrastructure finance, many of the findings and recommendations apply to all kinds of guarantees.

A few developments over the past decade have brought renewed attention to MDB risk mitigation instruments for infrastructure, namely (i) greater awareness of the urgency to scale up

investments in infrastructure to close existing gaps, especially in developing economies, in the wake of the establishment of the United Nations Sustainable Development Goals (SDGs); (ii) the lack of effective market mechanisms to mitigate residual infrastructure risks;² (iii) the mobilization potential of MDB guarantees, as previously mentioned; and (iv) the necessity to crowd in investments from pension funds and other institutional investors that manage pools of trillions of dollars invested mainly in low-yield assets in the face of aging populations and rising actuarial deficits. This paper also assesses the current status of MDB risk mitigation products, primarily guarantees, and concludes with suggestions to scale up their use in mobilizing private capital for infrastructure.

Section II describes existing infrastructure investment gaps and analyzes ways to finance them, hinting towards a potential role of MDB guarantees in contributing to close these gaps. This section also argues that very little of the high liquidity observed in the international financial markets since 2008 has been invested in infrastructure. These resources have not been channeled to finance infrastructure projects for several reasons, including the lack of “bankable” pipelines, inadequate risk-adjusted returns, and uncertain regulatory environments. Risk mitigation schemes, such as MDB guarantees, can be instrumental in addressing the latter two reasons by mitigating regulatory and policy risks and improving the risk-adjusted profile of infrastructure investments.

MDBs were established with a mandate to use both loans and guarantees as financial instruments to support the development of their borrowing member countries (Annex I). However, it was only in the 1980s that MDBs began offering guarantees to their clients (Humphrey 2014). Currently, these financial institutions provide a wide array of guarantee instruments covering political and credit risks.³ However, as noted above, despite the availability of guarantee instruments, these instruments are not frequently used due to supply and demand constraints. These constraints are discussed in Sections III and IV.

Section III discusses the capital treatment of guarantees and the broader constraints imposed by the business models of MDBs, which limit their ability to take on risk in the form of contingent liabilities. This is related to the fact that MDBs cannot easily raise additional capital from investors, cannot liquidate portions of their portfolio, have a wide variety of mandates from their boards, and do not have access to a lender of last resort. A conservative accounting treatment of guarantees in this context is warranted and even desirable. This paper refers to capital-treatment-related restrictions as *supply-side constraints* to MDB guarantees. In fact, these types of restrictions explain why MDBs focus mostly on investment loans (as well as policy-based loans) as their main – and for many years only – financial activity. MDBs were aware very early on that guarantees

² Residual risks are those not covered by insurance or contractual arrangements and which the private party cannot manage. They generally encompass the following risks: political and regulatory, expropriation, counterparty, demand, exchange rate, and construction. Some of these risks, such as construction and exchange rate risks, may be partially covered by insurance or swap arrangements. The uncovered part may lead to project distress and default on financial obligations.

³ Annex II presents MDBs’ existing guarantee instruments and provides an overview of their main financial and nonfinancial characteristics.

would need to receive the same prudential treatment as loans in terms of capital adequacy requirements and provisioning, as they generate contingent obligations against their capital (Dell 1972). This results in a smaller appetite for guarantees, as they compete with lending limits and do not add to the total resources available to MDB member countries.⁴

Section IV focuses on *demand-side constraints*, outlining client perceptions about the limitations of MDB guarantees. The private sector generally finds guarantees unattractive due to their inadequacy to meet investors' needs. Their complaints include high costs, complexity of the products' structure and conditions, lengthy negotiation and approval processes, limited risk coverage, low flexibility, and slow speed to claim payments, among others.⁵

Section V concludes with preliminary recommendations for enhancing MDB guarantees with the goal of increasing their use. The main conclusion is that under their current business models, MDBs face structural limitations to further using risk mitigation mechanisms, limiting their ability to mobilize private resources to the levels required to meet infrastructure investment needs. We suggest that the Group of Twenty (G20) Infrastructure Working Group explore the creation of dedicated off-balance facilities, drawing from experiences such as the MIGA and other initiatives like the European Fund for Strategic Investments led by the European Investment Bank (EIB). This alternative may help MDBs cope with capital restrictions, enable expanding the use of guarantees and, at the same time, allow for more flexibility and agility to meet the private sector's needs. To provide a comprehensive view of the challenges associated with scaling up guarantees, future research should be pursued in coordination with other MDBs under the leadership of the G20 Infrastructure Working Group. Consultations with the private sector and rating agencies would also enrich the document and provide valuable feedback.

II. Recent Trends in Infrastructure Financing

In recent years there has been increasing awareness of the need to scale up investments in infrastructure. It is broadly recognized that most countries, developed and developing alike, have underinvested in infrastructure since the 1980s, in spite of evidence that an increase in infrastructure spending has a positive impact on output in both the short and long runs (IMF 2014).

The McKinsey Global Institute (2016) has estimated the world's infrastructure investment gap in energy, water, communications, and transport at US\$800 billion annually. This is the annual additional amount of investment needed to support current projected GDP growth trends through 2030, and it implies that infrastructure investments need to increase from the current US\$2.5 trillion annually to US\$3.3 trillion annually by 2030, equivalent to 3.8 percent of GDP. The Global

⁴ This constraint was one of the reasons MDBs did not develop guarantee products for several decades despite having the authority to do so (Dell 1972), and is perceived as an ongoing deterrent to the use of guarantees.

⁵ Some of the identified supply and demand constraints do not apply equally to all institutions. The most conspicuous case is the MIGA (Annex III). There are other aspects that derive from each institution's structure that make certain generalizations misleading. Throughout the text we highlight relevant exceptions.

Infrastructure Hub (GIH), using different assumptions and a different timeframe and approach, arrived at a lower annual estimate for the world infrastructure gap of around US\$700 billion annually until 2040. Both developed and developing countries have underinvested in infrastructure, as evidenced by the fact that the largest gaps in absolute terms are found in the United States, followed by China, Brazil, Russia, and India (GIH 2017).⁶

The United Nations Conference on Trade and Development (UNCTAD) estimates that current spending on economic infrastructure will need to increase by US\$1.1 trillion a year to meet the SDGs in developing economies, on top of the investments required to close the investment gap mentioned above. Around 80 percent would need to be invested to ensure universal access to electricity supply, mostly in Africa (50 percent) and Asia (40 percent). Additionally, some US\$1.4 trillion annually would be needed to meet SDGs for climate change and adaptation, health, education, food security, and biodiversity. Currently, the private sector contributes about a third of the financing for SDG-related investments (UNCTAD 2014).

Moreover, it is important to reckon with the fact that infrastructure investment needs are much greater than governments' fiscal capacity to finance them, and that the financial capacity of MDBs and other official sources of development financing is also limited. Official development partners finance 6 to 7 percent of infrastructure investments, which amounted to about US\$60 billion in 2014. Of official development partners' total financing, 46 percent came from bilateral institutions and 54 percent from multilateral institutions (OECD 2016). In other words, MDBs represent only around 3.6 percent of total infrastructure investments, so their direct contribution to closing the infrastructure gap is marginal. In order to close financing gaps in infrastructure investment, private capital markets need to be more aggressively tapped.⁷

Infrastructure finance is attractive for private financial investors, particularly institutional ones, as it provides long-term tenors, a high degree of regulation, diversification benefits (due to a relatively lower correlation with the economic cycle compared to other asset classes), and hedges against inflation, and it also ensures cash flow stability, among other benefits (World Bank 2017a). In a recent survey that asked institutional investors how they foresaw their exposure to emerging market infrastructure in the next three to five years, about 70 percent of respondents reported that they were planning to increase that exposure "somewhat" or "a lot" (EDHECinfra 2016).

Additionally, monetary policy measures implemented in the wake of the 2008 financial crisis led to a substantial increase in global financial liquidity. However, despite infrastructure assets having features that are attractive to financial investors, and the substantial infrastructure needs in

⁶ Infrastructure gap estimates have at least two important limitations. The first is related to data availability and shortcomings, particularly in developing countries. The second is related to the methodology of calculation, which is based on historical investments and an implied growth trajectory of those investments that do not take into consideration countries' policy objectives, their citizens' aspirations, and how much they can afford, taking into account available funding and financing alternatives. See Fay (2016).

⁷ Recognizing this need, UNCTAD proposed a target of doubling the level of private sector finance. The greatest potential for further private sector contribution is in infrastructure and climate change-related investments (power, climate change mitigation, telecommunications and transport). See UNCTAD (2014).

developed and developing economies, most of this excess liquidity has been invested in low-yielding instruments and very little in higher-yielding infrastructure assets.⁸ Even with growing interest by fund managers, a 2015 OECD survey of large pension funds found that only around 1.1 percent of total assets under management were invested in infrastructure in the form of unlisted equity and debt.⁹

Over the past five years there has been much debate about the reasons behind the mismatch between the infrastructure gap (including SDG-related investments) and the significant liquidity position on very low-yielding assets. The most commonly noted factors by the private sector include (McKinsey Center for Business Development 2016):

- Lack of transparent and “bankable” pipelines
- High development and transaction costs, which are particularly relevant in small and mid-sized projects where economies of scale are limited
- Lack of viable funding models, specifically in sectors and projects that do not generate enough cash flows through user charges
- Inadequate risk-adjusted returns
- Unfavorable and uncertain regulations and policies.

The substantial increase in liquidity in the wake of the 2008 financial crisis also came along with the disappearance of the monolines and more stringent banking regulations that considerably reduced commercial banks’ appetite for operating in developing markets (Betru 2017). In fact, bank lending and capital market financing wrapped in monoline guarantees were two key pillars of infrastructure finance in many countries until 2007. Since then, debt/bond market participants have turned to governments and MDBs to provide guarantees as a means of mitigating infrastructure-specific risks such as expropriation, regulatory, demand, and exchange rate risk, among others.

In the past, such guarantees were provided by AAA monoliners that assumed “residual risk” (not covered by private insurers). This scheme allowed for large-scale participation of institutional investors in debt-financing infrastructure. The 2008 financial crisis, however, resulted in the loss of monoliners’ AAA rating and significantly reduced the interest of institutional investors in infrastructure assets. Also, more conservative lending strategies by commercial banks and the phasing in of higher capital requirements for long-term loans shortened loan tenures and dampened banks’ willingness to hold infrastructure assets (Annex IV).

In this context, MDBs could play an important role by providing risk-mitigating instruments that substitute for monoline facilities and contribute to mobilizing private global liquidity in support of infrastructure financing.

⁸ According to the International Monetary Fund (IMF), the low interest rate environment prevalent since 2008 has stimulated a search for yield, compressing spreads, reducing volatility, and facilitating financial leverage. In 2007, about 80 percent of the Bank of America Global Bond Market Index (US\$15.8 trillion) yielded over 4 percent. While the size of the index has increased from about US\$19.5 trillion in 2007 to US\$45.7 trillion in 2017, the portion of bonds with yields of more than 4 percent has shrunk to less than 5 percent (US\$1.8 trillion). See IMF (2017).

⁹ This figure might be underestimated, as it does not include listed infrastructure assets. See OECD (2015).

III. MDBs' Supply-side Constraints on Guarantees

MDB guarantees can be grouped under two categories: risk guarantees and credit guarantees. Guarantees can be full or partial, depending on the proportion of the amount of the transaction or the financial obligation that is covered (Humphrey 2014). Due to moral-hazard-related concerns, some institutions only provide partial guarantees. That is the case of the MIGA. Others such as the IFC, ADB, and IDB have no restriction in their policies on providing full guarantees. The difference between a risk and a credit guarantee is the type of event that may give cause to a claim. A risk guarantee covers all or part of a financial obligation that stopped being paid due to a specific event, such as expropriation, breach of contract, war, or currency inconvertibility, among other reasons. A credit guarantee may be called regardless of the event that gave cause to a default. A failure to pay a financial obligation such as interest or principal is enough to call a credit guarantee. Annex IV provides more details on the types of guarantees offered by MDBs.

Investors and sovereign borrowers cite two main reasons for not using MDB guarantee products more extensively: pricing (Section IV) and the accounting policies against sovereign borrowing envelopes. Table 2 summarizes pricing and accounting policies for guarantees for an array of MDBs. It shows that lending charges for guarantees are determined by the principal of equivalency with loans (which leads countries to perceive them as more expensive instruments, since they pay the same rate yet still need to find another financier to fund a particular project), and the fact that guarantees result in a one-to-one reduction of the country lending envelope.¹⁰ Given these policies, most borrowers prefer to receive finance in the form of investment loans rather than in the form of guarantees.

Unfortunately, the regulations underpinning these policies are not easy to change. The pricing and envelope accounting policies for guarantees flow directly from their capital treatment: guarantees are counted on a one-to-one basis against the lending capacity of a bank. Equivalent capital provisioning of guarantees has long been the policy pursued by MDBs and is consistent with international standards (BIS 2006), based on the notion that there is a high correlation between a guarantee being triggered and a sovereign default. Furthermore, banks must carry high-quality liquid assets to cover callable guarantees. The remainder of this section will outline the specific constraints imposed by capital and liquidity policies and their relationship to guarantee pricing.

The MDB Business Model

While all MDBs contain references to guarantees in their founding charters (Annex I), their business models have historically focused almost exclusively on the provision of investment loans. MDBs benefit from strong shareholder support, preferred creditor status with borrowers, strong governance, and years of experience in the market that—in conjunction with robust and conservative financial policies—enable them to maintain AAA credit ratings. Favorable credit ratings allow them to borrow on their equity at very low rates, then intermediate those resources to their borrowing member countries at lower rates and longer tenors (20 to 40 years, depending

¹⁰ Except in the case of the International Development Association lending window of the World Bank Group.

on the country and lending instrument) than would normally be available on the market. While commercial banks may choose to hold a portfolio of assets with diverse maturities or mitigate risks using reinsurance or other risk mitigation products, nearly all the assets of MDBs are held in long-term, low-yielding investment loans that they retain on their books.

MDB business models also impose some unique challenges. MDBs cannot easily raise additional capital from investors, cannot liquidate portions of their portfolio, have a wide variety of mandates from their shareholders, and have no lender of last resort. While their preferred creditor status means MDBs are very reliable in collecting long-term debt owed to them, they have little ability to change their capital or liquidity profiles in the short or even medium term.

Table 2. Comparison of MDB Pricing on Guarantees with a Sovereign Counter-Guarantee

Product Name/Fees	IDB			IBRD			ADB		AfDB	
	PCG	PRG	PBG	PCG	PRG	PBG	PCG	PRG	PCG	PRG
Guarantee fee (basis points)	Ordinary capital sovereign-guarantee variable lending spread (presently 85 basis points), charged on the callable amount			Sovereign-guarantee lending spread based on average maturity (up to 8 years: 50 basis points; 8-10 years: 60 basis points; 10-12 years: 70 basis points; 12-15 years: 80 basis points; 15-18 years: 90 basis points; 18-20 years: 100 basis points) charged on the present value of exposure for PCGs and PBGs, on the maximum disbursed and outstanding for PRGs			Sovereign-guarantee lending spread (50 basis points for 0-13 years; 60 basis points for 13.1 to 16 years; and 70 basis points for 16.1 years and thereafter) charged on the guaranteed percentage of outstanding principal and accrued interest		Sovereign-guarantee lending spread (80 basis points) charged on the guarantee exposure. Accrues on a daily basis and is payable according to an approved schedule or as a one-time, up-front payment	
Standby fee (basis points)	Equal to credit fee (currently 50 basis points), charged on the difference between the maximum guarantee amount and actual guarantee amount			Same level as commitment charges on IBRD loans (presently 25 basis points)			Percentage of guarantee fee; charged on undisbursed principal. If a risk transfer participant is involved, a fee may also be charged for interest that has not accrued		Same level as commitment charges on a loan (presently 25 basis points)	
Front-end fee (basis points)	Ordinary capital sovereign-guarantee inspection and supervision fee (currently zero) is charged as a one-time up-front fee on the guarantee amount			25 basis points charged on the full guarantee exposure			Applicable front-end fee (currently zero)		50-100 basis points of maximum possible exposure (recovery of development costs and to compensate for additional deployed staff)	
Other fees	N/A			For private projects only: Initiation fee – greater than 15 basis points on guaranteed amount or US\$100,000			Case-by-case basis		Late payment fee to cover the cost of delays in receiving payments on the front end, standby and guarantee fees (at least 2 percent per annum above applicable guarantee fee)	

Cost reimbursement	Due diligence cost and legal expenses incurred by the bank to be reimbursed by beneficiary and/or the counter-guarantor	For private projects only: Processing fee – up to 50 basis points of guaranteed amount, against invoice and on a cost-reimbursement basis	Legal fees may be charged to the borrower	Legal and other expenses incurred by the bank in processing the guarantee will be charged in addition to the bank's traditional operations expenses
Source*	<u>Flexible Guarantee Instrument for Sovereign Guaranteed Operations</u>	<u>IBRD and IDA guarantee pricing</u>	<u>ADB Partial Credit Guarantees and ADB indicative rates</u>	<u>Bank Policy on Guarantees and Lending Rates</u>

Note: ADB: Asian Development Bank; AfDB: African Development Bank; IDB: Inter-American Development Bank; IBRD: International Bank for Reconstruction and Development; IDA: International Development Association; PCG: Partial credit guarantee; PRG: Partial risk guarantee; PBG: Policy-based guarantee.

* Links to each of the documents are provided in the pdf version.

Table 3 considers these constraints in the context of rating agencies' reviews of MDBs' liquidity profiles. The table also shows the specific sources of liquidity that Standard and Poor's (S&P) considers when rating MDBs (grouped with the larger set of supranational institutions) and commercial banks. Four of the five sources considered are either very small relative to the balance sheet of MDBs or may not apply to them (as opposed to other supranational entities): repayment of exposures, drawdown of committed facilities, drawdown of cash or inter-bank placements, and scheduled disbursement of paid-in capital. While markets provide a range of options for traditional banks, MDBs are largely limited to using their liquid assets, thus limiting their lending capacity.

Given the limitations imposed by their business model, legal status, and credit ratings, as well as the need to play a countercyclical or acyclical¹¹ role for borrowing members, MDBs have traditionally been conservative in their capital adequacy and liquidity treatment of guarantees.

¹¹ Whereas commercial lenders may tighten credit during financial crises to shore up potential losses, and national treasuries may engage in expansionary fiscal and monetary policy, MDBs have traditionally played a countercyclical (or at least acyclical) role by ensuring access to credit for their borrowing members during crisis periods. The importance of this role makes changes to lending activity in response to crises an unpalatable option.

Table 3. Sources of Liquidity for Commercial Banks and MDBs

Potential Sources of Liquidity for Commercial Banks	Potential Sources of Liquidity for Supranationals
Drawdown of unrestricted cash and short-term deposits	Repayment of purpose-related exposures
System-wide liquidity facilities at central banks or other government sources	
Drawdown of committed credit facilities, subject to financial covenants and headline considerations	Drawdown of committed credit facilities, subject to conditionality and headline considerations
The sale or repo of unencumbered high-quality liquid securities in the open markets	The repayment, repo, or sale of unencumbered high-quality liquid securities in the open market
Within corporate groups, the ability to access funds from affiliates in the form of advances or capital, subject to regulatory and covenant restrictions	
Liquidation of short-term advances to other financial institutions' sold and reverse repos	Drawdown of unrestricted cash and short-term inter-bank placements
Cash available from maturing advances to customers	
Accessing the debt and stock markets to the extent still possible	
Accessing securitization or covered bond markets through established facilities or asset sales programs	
Whole loan sales	
	Disbursement of paid-in capital in line with scheduled general capital increases

Sources: S&P (2011, 2017).

Capital Provisioning and Liquidity Coverage of Guarantees

Two financial policies determine the volume of guarantees or loans that MDBs can finance and the cost of doing so: capital provisioning and liquidity management. Treatment of guarantees under both policies is consistent with the Basel accords and credit rating agency methodologies, but MDB policies were in place long before the Basel II accords went into effect.

Capital adequacy policies define an overall lending volume for MDBs given their current level of equity (including paid-in equity, retained earnings, and reserves). A strong capital position ensures their solvency, even if some assets deteriorate (which is seldom the case). A one-to-one provisioning of guarantees means that these instruments may “crowd out” their lending capacity. The reason for this provisioning is that lending and providing a guarantee carry the same underlying exposure to default. This is based on the assumption of a high correlation between a sovereign default event and guarantee triggers. MDBs have long seen one-to-one accounting as

the best way to ensure capital ratios that appropriately reflect the underlying risk exposure (Dell 1974; Ashoka 1995). It is also consistent with the Basel II accords, which specify that 100 percent of guarantees should be reflected in credit exposures.¹²

Indeed, the irrevocable nature of guarantee contracts makes issuing them in some ways riskier than making investment loans. When a borrowing country's arrears meet specific thresholds, an MDB may place the borrower on nonaccrual status and stop disbursements of loans or stop issuing new loans. The irrevocable nature of guarantee contracts means that even if a borrower were to enter into nonaccruals, an MDB would be obligated to continue to meet calls on guarantees issued on behalf of that borrower.¹³

Liquidity policies add further costs for carrying guarantee obligations. MDBs have policies governing the amount of liquid assets they hold to cover potential short-term liabilities. The strength of these policies is assessed by rating agencies (S&P 2017) and is consistent with the Basel III framework (BIS 2013).¹⁴ For example, both the IDB and the World Bank hold liquid assets to cover at least 12 months of liabilities, consistent with S&P requirements for a "very strong" funding and liquidity profile (IDB 2016; World Bank 2017b). Under this policy, an amount equal to or greater than any guarantee obligations callable in the next year must be held by the MDB treasury in liquid assets.

The practical implication of these capital and liquidity treatments is that, once issued, guarantees occupy the same lending space as loans, but rather than disbursing the resources to borrowers, MDBs hold the amount in their treasury until it is either called or the guarantee contract is ended. The pricing of guarantees and the country envelope treatment are the result of these underlying costs.

Pricing and Its Relationship to Capital Treatment

MDB pricing for guarantees flows directly from their capital treatment. All MDBs currently price guarantees according to their lending charges. Most MDBs cite two reasons for this. First, given that capital provisioning is the same for a guarantee as for a loan, the financing costs should also be the same. Second, pricing reflects the cooperative nature of an MDB given that it does not differentiate its sovereign-guaranteed lending pricing among its country members (AfDB, undated).

Table 2 contains the specific pricing information for the currently available instruments. While the World Bank adjusts pricing according to the maturity of the guarantee, most MDBs structure charges in such a way that they directly match the equivalent lending spread for a loan. This pricing reflects the fact that since the capital required to cover the guarantee is being held in the

¹² Guarantees are regulated as part of the broader category of off-balance-sheet liabilities under Basel (although all MDBs report guarantee exposures on their balance sheets). See section 83 of BCBS (2006).

¹³ Such a scenario is not far-fetched. For example, the only call on an IBRD guarantee was in 2002 when it paid out a call on a US\$250 million policy-based guarantee in Argentina the same year that the country went into arrears on its IBRD debt (World Bank 2003). The overall portfolio share of guarantee exposures was limited in several institutions precisely for this reason.

¹⁴ The Basel accords are nonbinding guidelines that the members of the Basel Committee on Banking Supervision commit to implement in their domestic regulatory frameworks. The accords are not direct constraints on MDBs.

treasury, the carrying cost is the same as if that capital were simply disbursed to the country as a loan. Charging less would mean granting a subsidy to guarantees vis-à-vis loans from the perspective of an MDB.

Internal Incentives and Lending Envelopes

The final factor affecting the attractiveness of guarantees to borrowers is their accounting in the country lending envelope. Borrowing countries are typically constrained by country lending envelopes determined by MDBs as a way of distributing resources proportionally to their members' sizes and stakes in the cooperative. Given that, as shown above, guarantees crowd out loans on a one-to-one basis, countries operating at their envelope typically have a preference for receiving a loan rather than demanding a guarantee.¹⁵

The country lending envelope also generates somewhat perverse internal incentives within MDBs. Guarantees typically involve higher administrative costs than loans because of the need to negotiate contracts with the private sector clients whose investments are being guaranteed. Given higher administrative costs and borrowing government counterparts who prefer loans, MDB staff have few incentives to persuade countries to reserve lending space for guarantee coverage.

In summary, prudential financial regulations lead to a one-to-one substitution effect between loans and guarantees, and determine the pricing of the latter. This, combined with a limited country envelope, leads to a low supply-and-demand equilibrium in the market of MDB guarantees. In order to unleash the potential of this instrument, either capital adequacy rules need to be revisited, or off-balance-sheet mechanisms that are not directly affected by such rules need to be developed.

IV. Matching MDB Financial Products to Private Investors' Needs

Beyond regulations that limit the supply of and demand for MDB guarantees, there are aspects that are specific to projects and investors that also limit the demand for these instruments. The final beneficiaries of a guarantee are private investors. They can be sponsors of projects, commercial banks, or bond investors. Investors may acquire guarantee coverage for different reasons. For instance, sponsors may benefit from reduced financing costs and longer tenures; commercial banks could leverage their capital by the mitigating impact on regulatory capital requirements arising from guarantees; and bond investors, such as pension funds and

¹⁵ The exception to the lending envelope policy is the World Bank, which has experimented with various methods of incentivizing the use of guarantees beginning since 2004 by counting only 25 percent of IDA guarantees against the envelope (World Bank 2009). The policy has changed several times in the intervening years (World Bank 2013). Presently, both the IDA and World Bank count only 25 percent of guarantees against the lending envelope, with some discretion based on resource availability (World Bank 2009).

commercial banks, may be willing to buy investment-grade, credit-enhanced bonds because internal regulations limit their capacity to buy speculative-grade debt instruments.

However, private investors contend that MDB guarantees fail to deliver these desirable outcomes, making such guarantees unattractive instruments. The following factors have been taken from various sources (Betru 2017; WEF 2016; World Bank 2012) and reflect how private investors perceive the problems of MDB guarantees:¹⁶

- *Limited risk coverage.* Guarantees typically only partially cover credit or political risks. The rationale for offering partial guarantees is to make investors have “skin in the game” to mitigate moral hazard issues. However, some lenders would rather have instruments that fully isolate and transfer these risks elsewhere. They might find it difficult to price the value of partial coverage, consider it too costly to evaluate and mitigate risks not covered, and/or may not have the required human resources with expertise to perform these assessments.
- *Complexity of products and lengthy preparation periods.* When consulted, private investors always point to a need to streamline negotiation and approval processes. The partial nature of guarantees, in which some risks are covered and others not, leads to time-consuming negotiations and delays in approval as the parties work to understand the scope of a particular guarantee. Additionally, MDB guarantees are generally required for more complex projects in challenging political and economic contexts. A case in point is the guarantee given by the MIGA and the EBRD to the Elazig Hospital public-private partnership (PPP) in Turkey, presented in Annex V. This guarantee successfully enhanced the credit of the bonds issued to finance the undertaking, but negotiations and preparation took three years.¹⁷
- *Low certainty and speed of claim payments.* Guarantee provisions generally require a due diligence administrative process once a claim is triggered before any payment is made. That is, payment is not on demand, which affects its certainty and access to liquidity. Months can go by before the claim is paid, a delay that might permanently affect a project's financial viability, depending on the size of the claim.
- *Low flexibility and transferability.* Guarantees have limited flexibility and limited scope to be tailored to the needs of final beneficiaries. In the case of bank financing, hurdles to transferability, such as the requirement of guarantor approval, imply that banks cannot easily sell their exposures. Banks that originate infrastructure assets might not want to hold loans to maturity, and regulatory requirements penalize illiquid assets.
- *High financial costs.* The price of MDBs' guarantees range from 0.5 to 1 percent a year, including fees, depending on the product and the provider (Table 2). This can be expensive for many transactions, because the yearly fees add to the interest rate of the enhanced financing, as explained below. To be financially attractive, the reduction in the

¹⁶ It should be noted that some of the perceived shortcomings described above might not apply equally to all MDBs and guarantees products. It is likely that most of them reflect the MIGA's products and way of doing business, since that entity is by far the largest provider of MDB guarantees. For instance, the IFC, IDB, and ADB are allowed to provide full guarantees (Humphrey 2014), so in those cases problems related to limited risk coverage might not be present. Also, internal policies may allow the tailoring of products that provide for timely and on-demand payment of credit risk. The limited number of guarantees issued by other MDBs may be leading to a misrepresentation of private investors' views, and the issue should be further investigated.

¹⁷ This information was provided by EBRD staff involved in the operation.

interest rate from the enhanced credit has to offset the additional cost of the guarantee. In many cases this is not possible. However, pricing issues notwithstanding, there may be factors that make guarantees more rather than less attractive. For example, guarantees can be very effective in extending the term of a loan or bond issuance, a desirable feature for private investors. Also, having MDBs behind an operation may create positive reputational effects, rendering it more attractive.

- **Safeguards.** Environment, social, and financial safeguards apply equally to loans and guarantees. Despite the benefits of these safeguards, they introduce additional transaction costs and preparation and negotiation time, particularly for operations with the private sector.

The Role of Basel III in Determining Investor Restrictions

As shown in Section III, capital adequacy regulations tend to limit the use of MDB guarantees due to the substitution effect with the loans they generate. However, once Basel III regulations are fully in force, an additional demand force for guarantees may come into play. Basel III might considerably restrict commercial banks' ability and willingness to lend long term due to the higher costs the regulations will impose on banks' balance sheets (Annex IV).¹⁸

There has been a process of deleveraging since the 2008 financial crisis, due in part to more stringent regulations and to banks' increased risk aversion, that has led to more conservative strategies. The scope for long-term lending has indeed narrowed in many countries. A review of MDB guarantee instruments should consider how they might be tailored to mitigate the impact of this new reality. The need for this derives from the importance of commercial banks to structure infrastructure finance and facilitate the participation of institutional investors. Many infrastructure projects are not suited to capital market finance, especially greenfield projects. Most institutional investors have neither the structure nor the capacity to assess complex infrastructure projects, so banks remain the essential coordinators and organizers of infrastructure finance.

In a report to the G20 Finance Ministers and Central Bank Governors, the Financial Stability Board (FSB) committed to evaluate the unintended consequences of Basel III on the provision of long-term finance (FSB 2014). According to a survey conducted by the FSB, some of its members expressed concern over the liquidity framework in the liquidity coverage ratio (LCR) and the net stable funding requirement (NSFR). Under this framework, banks may have incentives to hold shorter-term assets to better align the average maturity of their total assets and liabilities. Infrastructure assets are by definition long-term and illiquid, hence the corresponding negative impact to infrastructure finance.

A third rule under discussion, in addition to the LCR and the NSFR, is related to the standardized approach towards credit risk. The Basel Committee is considering revisions that may limit the situations in which banks can determine their regulatory capital requirements for project finance under the internal-risk-based approach. Banks will have to instead use the standardized approach or the slotting approach. In the former case, if external ratings are available, project finance will

¹⁸ Nonetheless, many of the proposed revisions to Basel might not come to fruition or impact infrastructure finance, as they are still being implemented or in the process of being developed.

have the same risk weights as corporate finance; if external ratings are not available, project finance will have higher risk weights (150 percent in the pre-operational phase and 100 percent in the operational phase). In the latter case, risk weights may vary between 70 and 250 percent (Garcia-Kilroy 2017).

MDB guarantees may help mitigate these impacts if adequately designed and if regulators see them as compliant with their liquidity requirements. It is not the intention of this paper to indicate how precisely this can be done. However, two proposals may provide guidance for future discussions. First, the liquidity framework gives preferential treatment for sovereign assets and government bonds.¹⁹ MDB guarantees with a sovereign counter-guarantee could be considered a sovereign asset for the purpose of liquidity treatment. Second, in operations supported by MDB guarantees, the issuer and/or the issuance could be externally rated so as to facilitate commercial banks' compliance with the standardized approach to credit risk.

Ratings and Costs of MDB Guaranteed Bond Issuances

In bond issuances backed by MDB guarantees, rating agencies consider, among other things, the structure of the guarantee, the own structure of the debt being covered, the quality of the borrower, and the standing of the guarantor in assessing the scope to provide a rating upgrade (credit enhancement). Both Moody's and S&P require guarantees to be an unconditional promise of full and timely payment of the guaranteed obligation. In other words, a mere promise to pay the remaining amount after the beneficiary has exhausted all collection efforts does little to improve the issuance rating (S&P 2013; Moody's Investor Service 2016a).

S&P made its methodology more stringent as of May 2013 and now gives no credit enhancement to sovereign borrowers backed by partial guarantees. As mentioned above, the great majority of the guarantees provided by MDBs are partial, and this is a desirable trait to better align incentives and prevent moral hazard. S&P's rather conservative understanding limits the effectiveness of guarantees provided by most institutions, in particular the MIGA, which is by far the largest provider of guarantees.

Moreover, rating improvements due to an MDB guarantee are limited. Normally, ratings are improved two to three notches, as shown in the example of the MIGA-EBRD guarantee in Annex IV, where guarantees that were provided to two bond issuances to fund the Elazig Hospital PPP in Turkey increased ratings from Ba1 to Baa2 on Moody's scale.

While the Elazig Hospital PPP is a successful case, it is not easily replicable in other countries. Investment-grade-rated emerging economies would probably not find it financially attractive to engage in a complex and lengthy negotiation unless it enhanced their credit rating to the AAA or AA vicinity, where the biggest pockets of money are. Also, the reduction of the credit cost would need to compensate for the costs added by the guarantees. As will be seen below, this is not easily attainable unless current prices of guarantees are significantly reduced or they provide for AAA or AA equivalent yields. MDB guarantees seem to be better suited for operations in

¹⁹ Between 10 and 30 percent of drawdown in comparison to 100 percent in the case of a special-purpose vehicle or special-purpose entity.

speculative-grade countries, as they may provide for significant extensions of loan terms and a considerable reduction in costs that more than compensates for guarantee fees.

Finally, the market structure of potential buyers of credit-enhanced instruments may pose additional challenges. Humphrey (2014, p. 26) has noted that “the investor base for an international issue is fragmented: certain sets of investors normally seek high-risk, high-yield emerging market risk, while other, more conservative, investors prefer standard AAA paper. An emerging market issue with an MDB guarantee falls in neither category and thus has no natural investor base.”

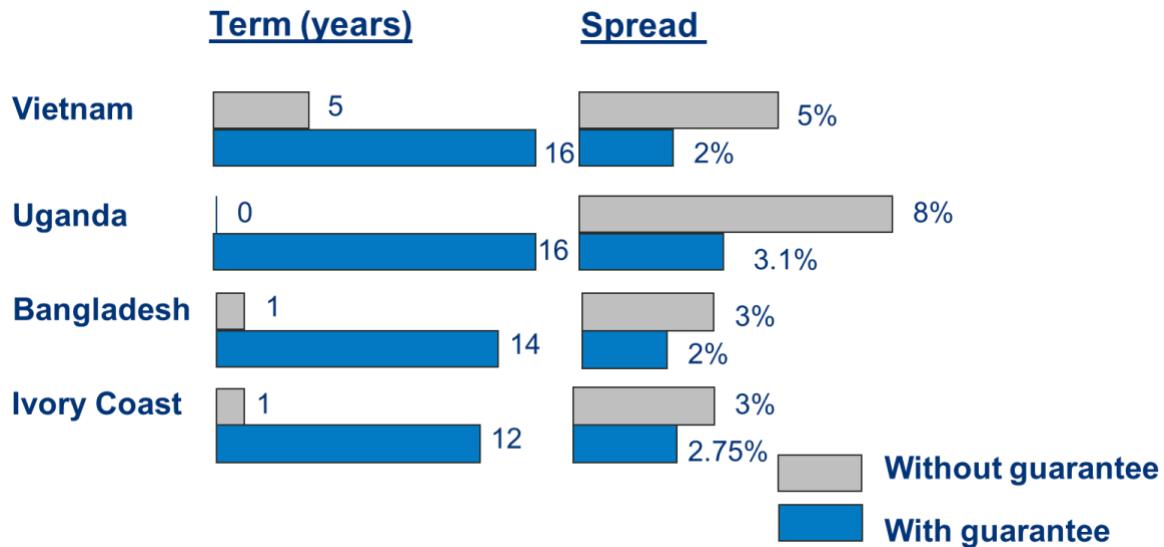
Costs of MDB Guarantees

Figure 1 illustrates the financial impact of guarantees provided by the World Bank in selected countries that are in the speculative-grade rating range or not rated at all at the time of the operation.²⁰ The provision of guarantees significantly extended loan terms and reduced financing spreads. The figure supports the claim that the term impact is more relevant than the financing cost impact. For example, the Ivory Coast extended its loan term from 1 to 12 years, while reducing its spread by only 0.25 percentage points.

To better illustrate the impact of guarantee fees on the all-in cost of a bond issuance, we performed a simple hypothetical numerical exercise with selected Latin American countries, using the cost of IDB guarantees with a sovereign counter-guarantee (0.85 percent a year). The numbers are depicted in Table 4. The last column (break-even spread) shows the spread that needs to be achieved after credit enhancement in order to financially compensate for the guarantee cost. The higher the sovereign spread of a country, the greater the financial benefit from a guarantee.

²⁰ Vietnam was the only country rated at the time of the contracting of the guarantee in 2002 (B1 by Moody's). The guarantees were contracted by Uganda, Bangladesh, and the Ivory Coast in 2007, 2002, and 1999, respectively. None of those countries were rated at the time, and this is probably why they benefited the most from term extension and spread reduction.

Figure 1. Financial Impact of Guarantees Provided by the World Bank



Source: World Bank.

As an example, take the case of Argentina. Suppose the federal government structures a toll road project to be delivered as a PPP in which the sponsor issues bonds to finance the construction phase. Without the credit enhancement, the sponsor would raise financial resources at a cost of 373 basis points over the U.S. Treasury bond of similar maturity. The financial benefit depends on the credit upgrade provided by the guarantee. A three-notch enhancement would take the cost of borrowing close to that of Brazil, rendering the operation financially advantageous, with a 43 basis point all-in cost reduction.²¹ In the case of Colombia, a three-notch enhancement would drive its borrowing costs close to those of Chile, 20 basis points above its break-even spread and therefore not financially advantageous. This exercise illustrates that credit enhancements are cost-effective from a purely financial point of view to countries below the investment-grade threshold.

There are, however, a couple of caveats that should be noted. First, these examples consider that the guarantee covers the full value of the issuance (full guarantee), which is not the case for partial guarantees. In this situation, the annual fee cost would be lowered proportionally to the value covered. Partial guarantees, as noted in Annex II, are not particularly appealing to commercial banks and rating agencies. S&P does not even consider them in its credit rating analysis. Second, there are policy reasons for contracting a guarantee beyond financial cost considerations. Governments might want to use the guarantee to develop infrastructure finance through capital markets or attract international banks that do not normally operate in their countries. MDB support may be particularly useful in facilitating infrastructure finance at the subnational level. A significant part of infrastructure needs is in cities, where credit standing is

²¹ Current spread of 373 – 245 basis points (Brazil's spread) + 85 basis points (guarantee cost).

generally weaker, infrastructure long-term funding through user tariffs is more uncertain, and the benefits from sustainable infrastructure are greater.

Table 4. Impact of Guarantees on the Cost of Borrowing

	S&P Rating	EMBI Spread [†] (basis points)	Guarantee Cost	Guarantee Cost	Break-even Spread [*] (basis points)
			(basis points)	(percent of EMBI spread)	
		(a)	(b)		(a - b)
Argentina	B	373	85	22.8	288
Mexico	BBB+	249	85	34.1	164
Brazil	BB	245	85	34.7	160
Colombia	BBB	188	85	45.2	103
Peru	BBB+	140	85	60.7	55
Chile	A+	131	85	64.9	46

Sources: IDB; and authors' calculations.

Note: EMBI: Emerging Market Bond Index.

[†] Spread as of November 17, 2017.

^{*} Spread after credit enhancement that compensates for guarantee costs.

V. Conclusions and Recommendations

MDB guarantees are particularly well suited for mobilizing resources because they constitute a way to strategically de-risk investments while crowding in private capital. However, despite the appetite for MDB guarantees and their effectiveness in mobilizing private resources, their use has been relatively limited.

This paper has highlighted two sets of limitations to the further use of guarantees: supply-side constraints and demand-side constraints. On the supply side, restrictions are related to prudential rules adopted as a result of MDBs' capital adequacy policies, which require booking guarantees as if they were loans, independent of their probability of being called. This treatment is directly related to MDB business models that, on the one hand, provide for remarkable resilience in collecting long-term debt owed to them but, on the other, considerably limit the ability of MDBs to change their capital or liquidity short-term profiles in case a guarantee is called. As argued in Section III, while this is a desirable practice from a risk management perspective, particularly in the absence of a lender of last resort, it implies that guarantees consume as much capital as loans, competing with member countries' lending programming. It also determines how guarantees are priced: because of the capital equivalency of both instruments, guarantee fees are set at par with loan spreads.

On the demand side, the general perception of private investors is that MDB guarantees generally do not fulfill important prerequisites such as low cost, simplicity of products and broad risk coverage, on-demand payment, and expeditious time of negotiation and preparation. These perceptions should be further understood and investigated to assess how much they can be

generalized to all institutions. Considering the overwhelming weight of the MIGA in the supply of MDB guarantees, the perceptions might be predominantly reflecting characteristics of its products and way of doing business.

Section IV discussed some of the benefits arising from MDB guarantees that should be weighed against their costs and limitations. Credit enhancements result in significant extensions of loan terms, a rarely mentioned positive outcome. Also, credit enhancements can be particularly attractive financially to countries below the investment-grade rating threshold. However, credit spread reductions may not compensate for credit enhancement costs in operations in investment-grade-rated countries. This makes intuitive sense, since there is less credit to be enhanced in that category. Governments might also use MDB guarantees to achieve other policy objectives, such as developing local capital markets, attracting new players to their markets, and facilitating private finance at the subnational level. Reputational effects arising from the involvement of MDBs is instrumental in supporting client countries in achieving these goals.

In light of these findings, a few conclusions and recommendations follow. Depending on the level of agreement around them, these conclusions and recommendations should be further explored under the leadership of the G20 Infrastructure Working Group in close coordination with other MDBs and consultations with the private sector and rating agencies, with the aim of enhancing the potential use of MDBs' infrastructure risk mitigation instruments.

Alternative Funding Mechanisms for Financing Guarantees

An alternative to overcome supply-side constraints is the creation of off-balance-sheet funds or facilities dedicated to mitigating risks. The aim is to crowd in private capital and shift risks away from MDBs' balance sheets. This option should be considered to further leverage the MDBs' own capital.

There are two additional initiatives that should be considered in light of each institution's mandates and structures:

- Designing off-balance-sheet, multi-donor funds to provide guarantees without facing the prudential regulation restrictions applicable to MDBs. Such funds could be set up to cover subsidy costs of guarantees, with any retained earnings from these guarantees after administrative costs paid back into the fund. Such an arrangement would be far more capital efficient and "cheaper" for MDBs.²² Funding for such a vehicle could be via direct country contributions or through mechanisms that would bind the guarantees provided by the fund directly to national treasuries.
- Designing bilateral mechanisms from highly rated donor countries to guarantee certain types of MDB loans. An example of such intervention is the pilot program developed by

²² An example of such a mechanism is the European Fund for Strategic Investments, which works as a first-loss guarantee covering credit risk on a portfolio basis of the European Investment Bank's lending operations to SMEs, mid-caps, and "strategic investments." With capital of €21 billion, the fund is expected to support the direct mobilization of €60.8 billion of additional financial investment by the European Investment Bank Group and a further mobilization of €315 billion of additional investments from 2015 through 2018.

the Swedish International Development Cooperation Agency and the ADB, in which the former, backed by Sweden's AAA, assumes the credit risk of five outstanding ADB sovereign loans worth US\$155 million at the time of its launching. The operation provided the ADB with additional lending head room.

In addition, regional development banks make very limited use of reinsurance, a traditional method for defraying guarantee risk that has been successfully employed by the MIGA since 1997. Regional development banks could explore – both jointly and independently – commercial products that would shift risk off their books and allow the expansion of existing guarantee offerings.

Expanding the Use of Existing Products

Both borrowers and MDB staff have limited knowledge of the potential financial advantages of guarantees and where those advantages are greatest. Borrowers with the most capacity to structure guarantees are often middle-income countries that have other attractive options for issuing debt. MDBs can conduct assessments to help understand which sectors and sovereign environments stand to benefit most from guarantees and develop capacity-building exercises for staff and borrowers.

Investors and rating agencies often cite the dearth of information about historical performance as a reason for a conservative approach. MDBs could strengthen their position by developing a unified database of risk mitigation instruments and their performance.

Complementary Ways to Support the Use of Guarantees for Development

One constraint identified is the status of MDBs as institutions without a lender of last resort. MDBs can strengthen the leveraging capacity of their guarantees by financing guarantee facilities indirectly through national development banks and other local financial institutions that benefit from the backing of national treasuries or lenders of last resort.

In countries where capacity to issue or absorb guarantee financing is low, MDBs can use policy-based lending to deepen financial markets, with the goal of expanding the availability and liquidity of risk mitigation instruments locally.

Changes to the International Financial Architecture

The S&P rating methodology for guarantees does not consider the risk mitigation benefit of guarantees if they only provide partial coverage. MDBs typically provide only partial risk guarantees because they view the shared risk as mitigating moral hazard on the part of the investor. MDBs and shareholders can engage in a joint dialogue with credit rating agencies on how to ensure that risk mitigation instruments are both incentive-compatible and provide credit enhancements.

Annex I: Provision of Guarantees in Agreements Establishing MDBs

All MDBs, with the exception of the Islamic Development Bank (IsDB), have explicit wording in their agreements providing for the use of both loans and guarantees as a means to support the development of their member countries. Below is a summary of the provisions of each MDB agreement in which we found relevant reference to guarantees.

ADB	<i>Article 11. Recipients and Methods of Operations (ADB 1966)</i> Subject to the conditions stipulated in this Agreement, the Bank may provide or facilitate financing to any member, or any agency, instrumentality or political subdivision thereof, or any entity or enterprise operating in the territory of a member, as well as to international or regional agencies or entities concerned with economic development of the region. The Bank may carry out its operations in any of the following ways: ... (iv) by guaranteeing, whether as primary or secondary obligor, in whole or in part, loans for economic development participated in by the Bank.
AfDB	<i>Article 14. Recipients and Methods of Operations (AfDB 2002)</i> In its operations, the Bank may provide or facilitate financing for any regional member, political subdivision or any agency thereof or for any institution or undertaking in the territory of any regional member as well as for international or regional agencies or institutions concerned with the development of Africa. Subject to the provisions of this chapter, the Bank may carry out its operations in any of the following ways: ... (e) By guaranteeing, in whole or in part, loans made by others.
AIIB	<i>Article 11. Recipients and Methods of Operations (AIIB 2015)</i> The Bank may carry out its operations in any of the following ways... (iii) by guaranteeing, whether as primary or secondary obligor, in whole or in part, loans for economic development...
EBRD	<i>Article 11: Methods of Operation (EBRD 2013)</i> The Bank shall carry out its operations in furtherance of its purpose and functions as set out in Articles 1 and 2 of this Agreement in any or all of the following ways:... (iii) by facilitating access to domestic and international capital markets by private sector enterprises or by other enterprises referred to in sub paragraph (i) of this paragraph for the ends mentioned in that sub paragraph, through the provision of guarantees, where other means of financing are not appropriate, and through financial advice and other forms of assistance; <i>Article 20: General Powers</i> The Bank shall have, in addition to the powers specified elsewhere in the Agreement, the power to... (iv) guarantee securities in which it has invested in order to facilitate their sale;
EIB	<i>Article 16 (EIB 2013)</i> Within the framework of the task set out in Article 309 of the Treaty on the Functioning of the European Union, the Bank shall grant finance, in particular in the form of loans and guarantees to its members or to private or public undertakings for investments to be carried out in the territories of Member States, to the extent that funds are not available from other sources on reasonable terms.
IDB	<i>Section 4. Methods of Making or Guaranteeing Loans (IDB 2015)</i> Subject to the conditions stipulated in this article, the Bank may make or guarantee loans to any member, or any agency or political subdivision thereof, to any enterprise in the territory of a member, and to the Caribbean Development Bank, in any of the following ways: (i) by making or participating in direct loans with funds corresponding to the unimpaired paid-in ordinary capital and, except as provided in Section 13 of this article, to its reserves and undistributed surplus; or with the unimpaired resources of the Fund;

	<p>(ii) by making or participating in direct loans with funds raised by the Bank in capital markets, or borrowed or acquired in any other manner, for inclusion in the ordinary capital resources of the Bank or the resources of the Fund; and</p> <p>(iii) by guaranteeing, with the ordinary capital resources or the resources of the Fund, in whole or in part loans made, except in special cases, by private investors.</p>
IFC	<p><i>Section 6. Miscellaneous Operations (IFC 2012)</i></p> <p>In addition to the operations specified elsewhere in this Agreement, the Corporation shall have the power to:... (iii) guarantee securities in which it has invested in order to facilitate their sale (iv) buy and sell securities it has issued or guaranteed or in which it has invested</p>
IDB Invest	<p><i>Section 3. Operating Principles (IIC 2002)</i></p> <p>The operations of the Corporation shall be governed by the following principles: ... (f) It shall apply financial, technical, economic, legal and institutional feasibility criteria to justify investments and the adequacy of the guarantees offered;</p> <p><i>Section 7. Other Powers</i></p> <p>The Corporation shall also have the power to:</p> <p>(a) Borrow funds and for that purpose furnish such collateral or other security as the Corporation shall determine, provided that the total amount outstanding on borrowing incurred or guarantees given by the Corporation, regardless of source, shall not exceed an amount equal to three times the sum of its subscribed capital, earned surplus and reserves... (c) Guarantee securities in which it has invested in order to facilitate their sale; (d) Buy and/or sell securities it has issued or guaranteed or in which it has invested;</p>
IsDB	<p><i>Article 2. Functions and Powers (IsDB 2001)</i></p> <p>To fulfill its purpose the Bank shall have the following functions and powers: ... (xiii) to undertake any other activities which may advance its purpose</p>
NDB	<p><i>Article 3. Functions (NDB 2013)</i></p> <p>To fulfill its purpose, the Bank is authorized to exercise the following functions:</p> <p>(i) to utilize resources at its disposal to support infrastructure and sustainable development projects, public or private, in the BRICS and other emerging market economies and developing countries, through the provision of loans, guarantees, equity participation and other financial instruments;</p> <p><i>Article 19. Methods of Operation</i></p> <p>a) The Bank may guarantee, participate in, make loans or support through any other financial instrument, public or private projects, including public-private partnerships, in any borrowing member country, as well as invest in the equity, underwrite the equity issue of securities, or facilitate the access of international capital markets of any business, industrial, agricultural or services enterprise with projects in the territories of borrowing member countries.</p> <p>b) The Bank may co-finance, guarantee or co-guarantee, together with international financial institutions, commercial banks or other suitable entities, projects within its mandate.</p>
World Bank (IBRD)	<p><i>Section 4. Conditions on which the Bank may Guarantee or Make Loans (IBRD 1989)</i></p> <p>The Bank may guarantee, participate in, or make loans to any member or any political sub-division thereof and any business, industrial, and agricultural enterprise in the territories of a member, subject to the following conditions:</p> <p>(i) When the member in whose territories the project is located is not itself the borrower, the member or the central bank or some comparable agency of the member which is acceptable to the Bank, fully guarantees the repayment of the principal and the payment of interest and other charges on the loan.</p> <p>(ii) The Bank is satisfied that in the prevailing market conditions the borrower would be unable otherwise to obtain the loan under conditions which in the opinion of the Bank are reasonable for the borrower.</p> <p>(iii) A competent committee, as provided for in Article V, Section 7, has submitted a written report recommending the project after a careful study of the merits of the proposal.</p>

	<p>(iv) In the opinion of the Bank the rate of interest and other charges are reasonable and such rate, charges and the schedule for repayment of principal are appropriate to the project.</p> <p>(v) In making or guaranteeing a loan, the Bank shall pay due regard to the prospects that the borrower, and, if the borrower is not a member, that the guarantor, will be in position to meet its obligations under the loan; and the Bank shall act prudently in the interests both of the particular member in whose territories the project is located and of the members as a whole.</p> <p>(vi) In guaranteeing a loan made by other investors, the Bank receives suitable compensation for its risk.</p> <p>(vii) Loans made or guaranteed by the Bank shall, except in special circumstances, be for the purpose of specific projects of reconstruction or development.</p>
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Annex II: Types of MDB Infrastructure Guarantees

This annex outlines key characteristics of the various guarantees products offered by MDBs from a project finance perspective. These instruments may cover contractual, regulatory, currency, and political risks.

Partial Risk Guarantees

Partial risk guarantees (PRGs) are credit-raising and risk-palliating instruments designed to improve the bankability of infrastructure projects developed as public-private partnerships (PPPs), where the private partner plays a major role in mobilizing project funding. PRGs eliminate or mitigate credit risk exposures, as they ensure that private lenders get repayment in case of default as a result of nonperformance of contractual obligations by governments.

There are four kinds of PRGs:

- A *revolving PRG* covers a determined amount of consecutive payments. As soon as the obliged government makes one of those payments, the covered amount is reinstated, covering the subsequent payment periods. For example, if a government owes 40 payments (one per month), and the guarantee covers four periods, what is initially guaranteed are the first four months, but as soon as the government makes the first month's payment, the guarantee will reinstate itself and cover payments of the following four months (that is, months two to five).
- A *PRG for specific cash flows* covers determined specific payments only. For example – taking the previous example – a government can decide that only the payments of specific months are guaranteed, and all the rest remaining uncovered.
- A *proportional PRG*, covers a constant percentage of payments during the entire commitment period, but that coverage may not be reinstated.
- Finally, *interest only* and *principal only* PRGs ensure the debt servicing of the principal or the interest, respectively.

PRGs help fill financing gaps in PPPs. Under most PPP arrangements, governments and private sector parties share construction costs. Governments typically provide a fixed annual payment for construction, while the private party provides the remainder, typically with support from an outside financier. Securing support from such a financier for brownfield projects with little underlying assets often requires mitigating risks associated with either the government's contractual performance, the sovereign operating environment, or both. PRGs are an effective way of ensuring payment flows to PPP projects to ensure the projects are finalized. The guarantees are typically focused on a specific set of risks as outlined in the guarantee contract.

MDBs mitigate their own risks by subscribing an indemnity agreement (i.e., a sovereign counter-guarantee) with the host government. In the event the guarantee is called, the counter-guarantee establishes the host government's responsibilities for the debt incurred by the MDB in fulfilling the call as determined in the agreement.

Partial Credit Guarantees

Partial credit guarantees (PCGs) cover private lenders against default on a specific portion of debt (loans or bonds), normally for a public investment project, regardless of the cause of default. Guarantee structure and coverage can be determined flexibly on a case-by-case basis at the level required by a specific debt instrument and the market. This happens as long as the commercial lenders share the credit risk of the borrower in a meaningful manner, and allow the extension of debt maturity and/or lower interest rate costs. PCGs have typically covered later date payments, but other structures are also possible. PCGs allow the government and public sector borrowers to achieve extended maturities, lower their interest rate costs, access higher amounts of commercial debt, and/or access to different markets. PCGs may be offered along with an MDB loan to the same borrower for the same project, or on a stand-alone basis. However, a common issue to address is the short loan tenures offered by financiers. In this regard, these guarantees offer longer loan tenors. For example, if a bank provides a five-year loan, a PCG could roll over the loan for 5 to 10 years

Policy-based Guarantees

Policy-based guarantees play a valuable role in easing the entry of emerging economies into international capital markets or syndicated loan markets, improving borrowing terms, maintaining market access even during financial crises, and developing new creditor bases. They extend the MDB's partial credit guarantee instrument beyond project financing to enable countries to access private foreign financing. Like the MDB's policy-based loans (PBLs), PBGs help a borrower address actual or anticipated development financing requirements and support governments' policy programs and institutional actions. These guarantees share PBL requirements, except that eligibility is limited to countries that have a strong track record of adequate performance and access to international markets on their own in the medium term.

Guarantee Facilities

Guarantee facilities provide an agreed-upon amount of funding to be used by a second institution to extend guarantees to other projects of a specified nature. The institution is typically a national development bank or other local lending institution. An agreement establishing a guarantee facility defines a period of use, establishes criteria for project eligibility, and requires only one approval at the onset rather than individual guarantee approvals. For example, a US\$200 million facility of this type may leverage about US\$1.5 billion in investment.

Enclave Guarantees

MDB enclave partial-risk guarantees are typically offered for export-oriented, foreign-exchange-generating commercial projects in very low-income countries. Eligibility for MDB enclave operations in relatively highly rated IDA-only countries recently has been extended to projects that do not themselves generate foreign exchange, but have clear economic and financial benefits with strong financial flows in local currency through an off-take to a strongly creditworthy party. In such cases, foreign-exchange-related credit enhancements are made by a pre-existing alternative definite source of foreign exchange, ring-fenced into a dedicated debt service payment

escrow account. Like PRGs, enclave guarantees cover the government's contractual obligations to the project, though as a matter of practice the MDB will not cover contractual obligations, if any, related to transfer risk or to off-take payment obligations of foreign parties. MDB enclave guarantees are generally nonaccelerable (that is, the MDB's payment obligations to the lenders under such guarantees are limited to the annual principal and interest obligations originally scheduled under the guaranteed loan).

Global Trade Guarantees/Finance

There are also guarantees such as the Global Trade Finance Program (GTFP), a product of the International Finance Corporation (IFC), which extends and complements the capacity of banks to deliver trade financing by providing risk mitigation in new or challenging markets where trade lines may be constrained. The GTFP guarantees the trade-related payment obligations of approved financial institutions in emerging markets across all regions of the world. Through the GTFP bank network, local financial institutions can establish working partnerships with a vast number of major international and regional banks in the program, thus broadening access to finance. By tapping the risk mitigation provided by the GTFP, international trade finance providers can enhance their global reach, gain familiarity in new markets, and build relationships with quality counterpart banks in growth markets around the world. The GTFP extends and complements the capacity of banks to deliver trade finance by providing risk mitigation on a per-transaction basis in challenging markets where trade lines may be limited. With the GTFP's global mandate, dedicated trade specialists, and more than 250 participating banks, participants can conveniently finance their imports and exports by accessing a program that links them to an extensive network of bank partners worldwide.²³

²³ See www.ifc.org/gtfp for updated country and bank coverage.

Annex III: The Unique Characteristics of the Multilateral Investment Guarantee Agency

Over half of the callable guarantees issued by MDBs over 2012–2016 were issued by the Multilateral Investment Guarantee Agency (MIGA) (see Table 1 in the main text). But the MIGA is not simply multilateral development bank (MDB) focusing on guarantees – it is an organization with a unique structure and it offers a unique financial product compared to the other MDBs.

Unique aspects of the MIGA structure:

- Focuses exclusively on issuing guarantees, not on structuring projects
- Mitigates guarantee exposures with reinsurance and other financial products extensively, while other MDBs do so minimally if at all
- Calls on guarantees are losses, rather than being converted into a sovereign-guaranteed loan
- Available lending amounts to countries (country envelope) are not affected
- Can liquidate portions of its portfolio, while other MDBs cannot.

Unique aspects of MIGA financial products:

- Offer only guarantees without a sovereign counter-guarantee
- Set price according to a risk assessment including country, sector, organizational, and other risks
- Focus on foreign direct investment (only cross-border investments are eligible for coverage)
- Call on the guarantee to trigger a claim process, which may take months before resulting in a payment
- Expedite safeguards policies
- More closely resemble insurance products
- May cover equity and debt, while other MDBs are restricted to debt.

Annex IV: Basel III Implications for Infrastructure Finance

According to Garcia-Kilroy (2017), there are four key Basel III regulations under discussion that might impact infrastructure finance:

i) Liquidity coverage ratio (LCR)

This standard aims to ensure that a bank has an adequate stock of high-quality liquid assets (HQLA) (cash or cash equivalents) to meet its liquidity needs for a 30-calendar-day liquidity stress scenario (BIS 2013). The numerator is the stock of HQLA, while the denominator is the total expected cash outflows minus total expected cash inflows (net cash outflows). Lines of credit available to special-purpose vehicles should be accounted for as a 100 percent drawn over the 30-day stress period, while in the case of other types of credit, such as that extended to corporates, only a proportion of it (10 to 30 percent) should be reflected as a drawn. Since it is common business practice to create a special-purpose vehicle for undertaking infrastructure projects, a LCR implies that banks need to hold significantly more HQLA to each dollar loaned to infrastructure than to corporates.

ii) Net stable funding requirement (NSFR)

Limits the ability of banks to hold significant volumes of more than one-year term loans by requiring that funding of at least one year be in place to match assets of one year's maturity or more. The NSFR affects infrastructure finance indirectly, as the tenure of infrastructure loans is typically long-term, i.e., more than 10 years.

iii) Large exposures

Establishes a “large exposure” limit of a bank at 25 percent of the bank’s Tier 1 capital. A “large exposure” in turn is defined as the sum of all exposure values of a bank to a counterparty or a group of connected counterparties when it is equal to or greater than 10 percent of the bank’s Tier 1 capital. Infrastructure projects generally involve the mobilization of very large sums concentrated in a few projects, which might lead to important restrictions for specialized banks, particularly mid-sized ones.

iv) Credit risk

Basel II established a specialized lending (project finance) class of investments that covered most investments by commercial banks’ special-purpose vehicles (BCBS 2006). Entities using the internal-risk-based approach could generate their own risk weights, satisfying a set of conditions in the document for specialized lending. Under several proposed revisions to Basel (BCBS 2015, 2016), the committee is considering restrictions that include the imposition of a strict capital floor calculated under the standardized approach and limitations to the conditions under which specialized lending may be risk-weighted under the internal-risk-based approach. These restrictions may significantly increase the capital cost of infrastructure for commercial banks.

Annex V: The MIGA-EBRD Guarantee to Fund the Elazig Hospital Public-Private Partnership in Turkey

The Multilateral Investment Guarantee Agency (MIGA) and the European Bank for Reconstruction and Development (EBRD) provided guarantees to two bond issuances to fund the Elazig Hospital public-private partnership (PPP) in Turkey: a €83 million bond maturing in 2034 and a €125 million bond maturing in 2036. Moody's assigned these bond issuances a Baa2 (investment-grade) credit rating in November 2016 (Moody's Investors Service 2016b). Without the enhancement, both issuances would have been assigned at best a Ba1 (speculative-grade) rate, Turkey's sovereign rating at the time. The guarantee therefore resulted in a two-notch upgrade of the bonds' rating. In this case, the guarantee scheme was composed of two complementary instruments (Moody's Investors Service 2016a):

- i) A MIGA political risk insurance policy designed to mitigate a breach of contract by the Turkish Ministry of Health as off-taker; expropriation, and inconvertibility/nontransferability of currency but subject to applicable waiting periods for each of the insured events; and, in the case of breach of contract, an arbitral clause award on the basis of the underlying Funders' Direct Agreement prior to filing a claim.
- ii) EBRD subordinated liquidity facilities that provided credit support in the construction phase to increase resilience to delays and cost over-runs, and in the operational phase to keep debt payments current in the event the Turkish Ministry of Health missed payments or that there were protracted arbitral proceedings, and to enhance lenders' recovery prospects.

The combination of these two interventions created some desirable features for the guarantee scheme alluded to above, such as broader risk coverage and enhanced certainty and speed on claim payments. However, further rating upgrading was limited by some risks inherent to the operation such as the contractor's credit profile, the site exposure to seismic events, complex financing documents and a political risk insurance claims process dependent in part on arbitration and lender exposure to a protracted arbitral process in the event of termination during construction.

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