

# Project bonds: Their growing role in global infrastructure finance

With a global shortfall in investments for essential projects estimated to exceed US\$1 trillion annually, project bonds have gone mainstream and become an increasingly popular financing option for sponsors in a growing number of markets.



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# The global infrastructure gap is growing

There is nothing new in capital markets being used to finance infrastructure. Over the last 20 years, many governments have been successful in developing PPPs and other structures to attract private capital to their infrastructure investment programs.

**E**ven where there is no shortage of public money, the public sector has turned to equity and debt markets to diversify funding, meet regulatory demands, improve efficiency or simply tap into private sector expertise.

This time, however, things are different. On the one hand, although bank lenders to infrastructure projects are still very much a key part of the market, banks still face considerable regulatory uncertainty. On the other hand, the shortfall in investment for essential infrastructure projects around the world is estimated by the World Economic Forum (WEF) to exceed US\$1 trillion annually. International concern is escalating, and the G20, WEF and IMF have pushed infrastructure improvement to the very top of the strategic agenda. And as public finances remain stretched following the financial crisis, there is an urgent need for new sources of funds to help narrow the gap.

In this update, we examine the increasing use of project bonds in a selection of diverse regions and infrastructure markets. And, helped by the input of prominent investors, bankers and sponsors, we plot the global rise in non-bank debt in greenfield and brownfield projects.

'Infrastructure' is a fluid concept but describes the physical and social systems essential to the world's populations and enterprises. In this report, we have taken an expansive view, but have concentrated on single-asset projects, as opposed to well-established infrastructure-owning corporates.

Our sincere thanks go to the following clients and friends for their invaluable input:

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- Cedric Mbeng Mezui, African Development Bank
- Deborah Zurkow, Allianz Global Investors
- Sergio Monaro, HSBC
- Massimo Fiorentino and Matthieu Mazumdar, Meridiam

We hope you enjoy reading this paper, and we would welcome the opportunity to discuss the matters with you in greater depth.

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# Investor attractions in infrastructure

Project bonds offer long-term investors attractive yields and significant credit spreads.

In general terms, project bonds offer long-term investors attractive yields and significant credit spreads—with the comfort of an underlying asset, often in a quasi-monopolistic position and often with indirect access, via contractual payments from governments to the issuer, to sovereign credit ratings.

More specifically, several characteristics make infrastructure appealing to bond investors:

- i) infrastructure assets appeal to pension funds and life insurance companies due to the stability of returns and the long timescales involved; in Europe, at least, institutional investors are becoming increasingly comfortable with long-dated (20+ years) project bonds—either direct or via funds;
- ii) there is a net under-deployment of institutional capital worldwide, so investors are looking further afield to fill their portfolios;
- iii) governments and multinationals have engineered attractive credit enhancement facilities to notch up project credit ratings;
- iv) institutional investors are looking for higher long-term yields as gilts continue to offer minimal returns; and
- v) many projects have a clear, regulated cash flow, or long-term contractual or offtake agreements with creditworthy counterparties.

That said, project bonds are not a homogenous product. The term means different things in different markets. The following diagram shows certain factors which both rating agencies and investors are likely to take into account when considering potential project

bond infrastructure investments. ‘Brownfield’ deals with a clear, regulated cashflow have been more attractive, and it is hardly surprising that in the ‘greenfield’ sector, some of the most attractive deals have been availability-based transport PPPs, where construction risk is clearly understood and there is no direct or indirect tolling risk.



**There is no fundamental scarcity of private capital...investors are frequently falling short of their target allocations**

WEF, 2014

Project bonds were first issued in the 1990s, and were an important source of capital for infrastructure improvement in Western Europe and North America. Today, project bonds are increasingly being issued to finance (in full or in part) or to refinance infrastructure programs all around the world.

Governments and multilaterals are still striving to boost the appeal of infrastructure projects to fixed-income investors. This means

## Infrastructure—the risk spectrum

Lower risk

Higher risk

- |  |   |  |
|--|---|--|
| <ul style="list-style-type: none"> <li><input type="checkbox"/> Western Europe/North America/ key GCC states</li> <li><input type="checkbox"/> Stable, regulated, 'brownfield' assets</li> <li><input type="checkbox"/> Availability payments diversified payment risk/high barrier to entry</li> <li><input type="checkbox"/> Refinancing post-construction or any construction risk well understood/track record of being on time and on budget</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Wider geographic focus including some CEE and Latam states</li> <li><input type="checkbox"/> PPP structures with some traffic or toll risk</li> <li><input type="checkbox"/> Long-term contracted revenues with non-sovereign</li> <li><input type="checkbox"/> Perception of higher regulatory risk</li> <li><input type="checkbox"/> Less well-understood construction risk (as to latent defects, etc.)</li> </ul> | <ul style="list-style-type: none"> <li><input type="checkbox"/> Less of a construction track record</li> <li><input type="checkbox"/> Emerging markets projects</li> <li><input type="checkbox"/> Sovereign credit lower and/or political risk higher</li> <li><input type="checkbox"/> Contracted revenues with shorter tenor than debt, 'merchant' revenues or full traffic risk</li> <li><input type="checkbox"/> Construction risks perceived as high</li> </ul> |
|--|---|--|

working to improve understanding between sponsors and the investment community: in some countries, such as Colombia, Peru and the Republic of Ireland, it has also meant creating or improving PPP legal frameworks; ensuring a visible pipeline of deals; and utilising attractive credit enhancement strategies.

Structuring a PPP procurement process which encompasses both bank and bond investment is challenging from a government point of view, as one needs to address issues of comparability in pricing and

levels of commitment and market closure. But countries at the early stages may take comfort in the fact that these issues have now been successfully addressed in many European jurisdictions.

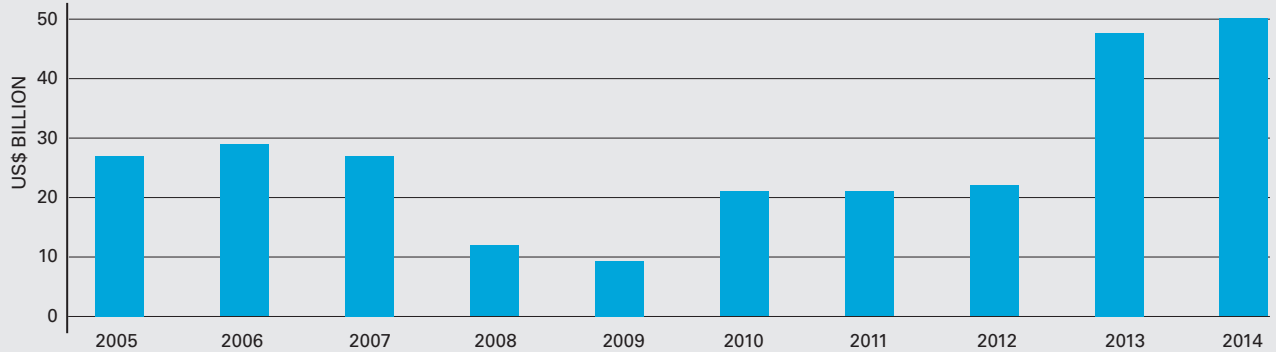
Although the following chart shows a sharp rise since 2011 in infrastructure financings which include project bonds, total global PPP deal numbers to the end of 2013 dropped for the third year in a row, according to *IFJ* data. However, Europe, the world's biggest PPP market, saw activity pick up in 2013 after two years of decline.

Sixty-eight deals closed in 2013, valued at a total of US\$275 billion. And, as government spending around the globe remains tightly controlled, PPP programs are likely to pick up elsewhere. It is worth noting that there is no definitive data source for total global project bond issuance.

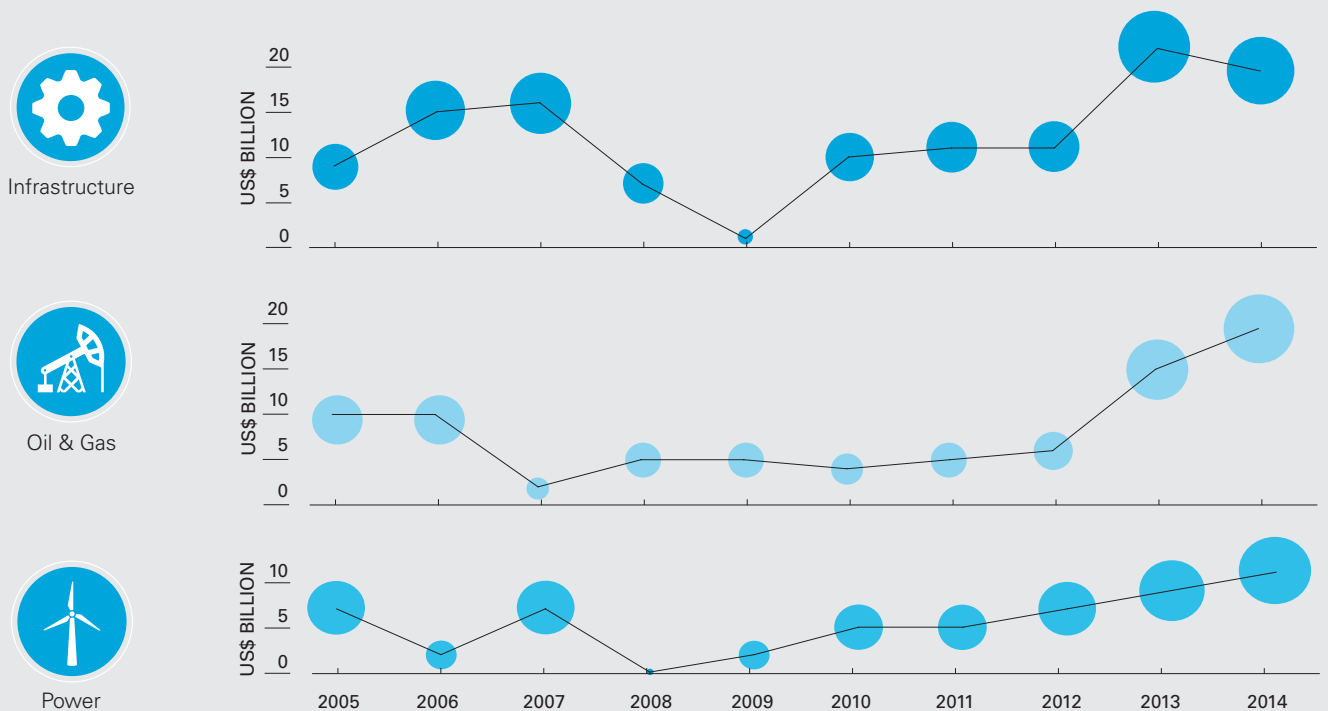
And yet, as many investors and sponsors have pointed out, deal flow is not what it could be. 'There is no fundamental scarcity of private capital...investors are frequently falling short of their target allocations'. (WEF, 2014)

# Project bond deals on the rise

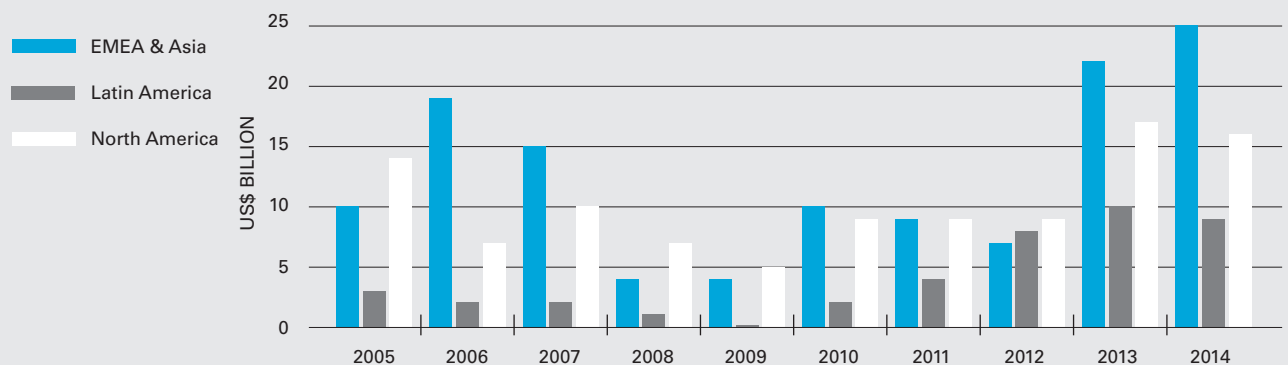
## Global



## Infrastructure, Oil & Gas, Power



## EMEA & Asia, Latin America, North America



Source: Project Finance International

# Developments in Europe: A blueprint for credit enhancement?

In Europe, bondholders have been responsible for 100 percent of senior debt on several prominent infrastructure deals and have shown themselves to be comfortable with construction risk.

The European Investment Bank's (EIB) Project Bonds Credit Enhancement (PBCE) facility has substantially assisted this process. Belgium's A11 motorway financing (see box below), in which White & Case advised the EIB and Allianz Global Investors were lead investors, was the first greenfield project to be funded under the new framework.

Project bonds (both with and without PBCE) in Europe have been described as a like-for-like

replacement for long-tenor bank lending previously available for projects. This description can be misleading. Whilst a credit-enhanced, long-dated bond can certainly be engineered to share characteristics with long-tenor lending, sponsors tend not to look at banks and bonds as 'either, or'. Instead, they assess carefully the available financing components on their respective merits and costs, rarely simplifying to the point where bonds are seen as a bank lending proxy.

And, although bonds have the facility to represent the totality of private capital on an infrastructure project, in most cases they will be put to work alongside bank lending and equity finance—and intermediaries are duty-bound to advise appropriately in matching creditor appetite with transaction requirements. The German A7 motorway extension is a good recent example of a combined bank/bond approach.

## Selection of major European project bond deals closed since 2013

NAME	COUNTRY	DEAL SIZE	COUPON	RATING	TENOR	CREDIT ENHANCEMENT	PRIVATE PLACEMENT/ LISTED
<b>UPP (multi-site student accommodation)</b>	UK	£382m	4.90%	A-	27 years fixed, 34 years index-linked	Unwrapped	Private
<b>Olympique Lyonnais</b>	France	€450m	Undisclosed		10 years		Private
<b>Castor/Watercraft</b>	Spain	€1.4bn	5.76%	BBB	21 years	PBCE	Listed
<b>Sustainable Communities for Leeds</b>	UK	£102m	5.07%	AA-/A2	19 years	Assured Guaranty as monoline	Listed
<b>Zaanstad Prison</b>	The Netherlands	€195m	Undisclosed	n/a	28 years	Tranching	Private
<b>L2/A507 Ring Road</b>	France	€592m	28 years	Tranching	Private		Private
<b>R1 Expressway Refinancing</b>	Slovakia	€1.24bn	4.78%	BBB	26 years	Unwrapped	Listed
<b>M8 Motorway</b>	UK	£176m	5.59%	A-	31 years	Unwrapped	Listed
<b>A11 Motorway</b>	Belgium	€578m	4.49%	A3 (expected)	31 years	PBCE	Listed
<b>Mersey Gateway Bridge</b>	UK	£257m	3.84%	Aa1	29 years	UK guarantee scheme	Listed

Source: White & Case, various data sources





## Appreciation and understanding of the potential of project bonds is growing fast, both on the sponsor side and the investment side

Bank lending in Europe will remain a critical source of capital for infrastructure, despite recent retrenching. As the financial sector continues its return to good health, banks are cycling back in. But the landscape they return to will be altered, certainly in the medium term. And, as Basel III rules tighten towards 2019, desire among affected banks to return to funding entire 20+ year projects may be dampened.

Appreciation and understanding of the potential of project bonds is growing fast, both on the sponsor side and the investment side. Trepidation over the inherent complexities of using bonds in project finance is being allayed as issuances gain ground, and expertise amongst CFOs and CIOs rises.

### Road to the future: Belgium's A11 motorway construction, financed by institutional investors and the EIB

The Europe 2020 Project Bond Initiative (PBI), launched as a pilot in 2012 and led by the European Commission and the EIB, is a high-level mission to attract private finance to the region's strategic infrastructure projects. Its roots lie in the EU's 2020 objectives, which outlined a need for a €2 trillion investment in the transport, energy and information and communication technology sectors. Under the PBI, the EIB can provide projects with a subordinated instrument to support the senior bondholder. During the pilot phase, the EIB has ringfenced €230 million to deploy across up to ten projects (which must be closed by the end of 2016). With this figure acting as a first loss piece, the EIB could provide approximately €750 million of project bond credit enhancement (PBCE). This, according to its own calculations, would be sufficient to attract total infrastructure financing of more than €4 billion.

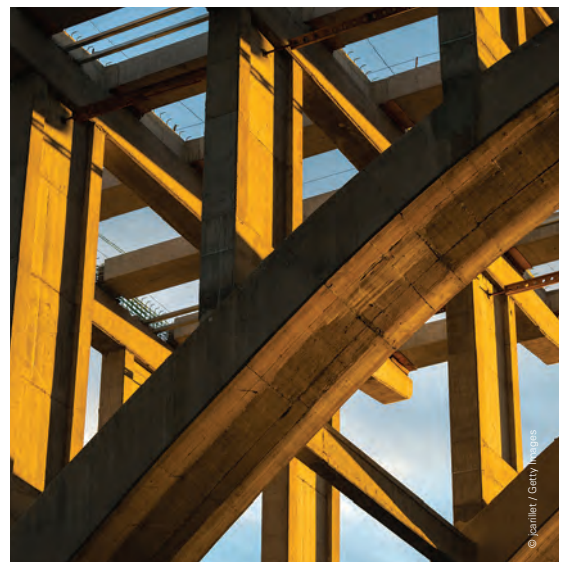
The first PBCE in a greenfield context was the A11 financing in Belgium, which closed in spring 2014. The new stretch of motorway will become one of the country's largest design-build-finance-maintain projects, and sees new ground being broken as public bodies in Europe turn away from bank funding towards the bond markets. An EIB letter of credit was instrumental in attracting investors, which were led by Allianz Global Investors (Allianz GI).

Allianz GI supplied US\$433 million in senior debt on behalf of the Allianz Group and third-party clients. The EIB's subordinated tranche was US\$144.5 million, and there were smaller equity investments from local agencies Via Brugge and Via-Invest. Moody's gave the bonds an A3 rating, three notches up on the project had it not benefitted from the EIB's credit enhancement. The yield for Allianz and its clients is attractive; a coupon of 4.49 percent on the senior debt, with a maturity of 31.5 years

Allianz GI has participated in a number of other road project transactions, including two road projects without credit enhancement.

### Project bonds without credit enhancement also appeal

The European pipeline of PPP projects is reasonably healthy—and issuances to date have been oversubscribed. Depending on the size of the assets in question—and on a project's quality, nature and location—non-bank debt is increasingly the majority component in long-term financing. Besides the comfort of credit enhancement where it is available, new investors have seen the asset class embraced by a roll call of leading fund managers, and confidence is growing fast. Europe's debut issue of an index-linked, privately placed bond of 41-year duration without credit enhancement, was used to finance a student housing project for the University of Hertfordshire, with Meridiam Infrastructure acting as the lead investor in a consortium. Meridiam Infrastructure later worked on the L2 motorway financing in France and on the refinancing of the R1 motorway project in Slovakia.





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# Project bond progress in the United States

In the United States, bank lending and private activity bonds (PABs) provide the mainstay of transport infrastructure debt financing.

Nearly 2,500 of these credit-rated, tax-exempt municipal PABs were issued in 2011 (the last full year audited by the IRS), worth a total of nearly US\$87 billion.

Beyond PABs, certain transport infrastructure projects are eligible for TIFIA<sup>1</sup> financing. To qualify, such projects must be high value, environmentally sound, rated as investment grade and have a connected revenue source (such as tolls) to service debt payments. The TIFIA component cannot exceed 49 percent of total project costs, although in practice the prior limit of 33 percent continues to be applied. Under TIFIA, the US Department of Transportation can provide three types of credit assistance: direct secured loans; loan guarantees; and standby lines of credit.

Although TIFIA financing and PABs can be used together, all-PAB

projects are increasingly common, this is due in part to the increased timescales involved with TIFIA. While the terms of TIFIA were modified slightly by the Moving Ahead for Progress in the 21st Century Act (2012), there remain concerns that TIFIA is stagnating, with a logjam of projects accumulating despite efforts to streamline the program.

Although PPP financing strategy is decided at the state level, there are ongoing federal efforts to stimulate PPP and help attract institutional investors towards transport infrastructure projects: a US Treasury Department consultation paper entitled “Expanding Our Nation’s Infrastructure Through Innovative Financing” (September 2014) highlights the urgency of finding new money to help close the infrastructure gap. It lays bare the dire state of public finances

and highlights the importance of an expansion of PPP initiatives. But it also points to the disincentives for institutional investors, including the complication of dealing with legal frameworks and procurement rules, which vary from state to state. Currently 33 states have PPP legislation in place, but there is a wide variance in the depth and flexibility afforded by each. Some states, such as Florida, Texas and Indiana, have sophisticated PPP frameworks in use. Many states have no legislation at all.

Progressively, capital markets solutions have stretched to cover the full spectrum of investment-grade risk in US projects. However, with many bond investors just getting to grips with the intricacies of infrastructure projects—and with a shortage of attractive deals to be found in the US—change is unlikely to be rapid.

<sup>1</sup> In 1998, the US Congress passed the Transportation Infrastructure Finance and Innovation Act, or TIFIA, which established a US federal credit program for eligible surface transportation projects of national or regional significance.

## US hwy projects funded by private activity bonds

PABs ISSUED	PROJECT
<b>US\$677m</b>	East End Crossing, Ohio River Bridges, Louisville, KY
<b>US\$675m</b>	Downtown Tunnel/Midtown Tunnel, Norfolk, VA
<b>US\$615m</b>	IH 635 (LBJ Freeway), Dallas, TX
<b>US\$589m</b>	Capital Beltway HOT Lanes, Northern VA
<b>US\$461m</b>	Goethals Bridge, Staten Island, NY
<b>US\$400m</b>	North Tarrant Expressway, Fort Worth, TX
<b>US\$398m</b>	RTD Eagle Project (East Corridor & Gold Line), Denver, CO
<b>US\$274m</b>	North Tarrant Expressway 3A & 3B, Fort Worth, TX
<b>US\$253m</b>	1-95 HOT/HOV Project, Northern VA
<b>US\$244m</b>	1-69 Section 5, Bloomington and Martinsville, IN
<b>US\$150m</b>	CenterPoint Intermodal Center, Joliet, IL
<b>US\$75m</b>	CenterPoint Intermodal Center, Joliet, IL
<b>US\$20m</b>	US 36 Managed Lanes/BRT Phase 2, Denver Metro Area, CO

Source: Federal Highway Administration, September 2014

## PABs in action: Extension of Interstate 69

The Texas-to-Michigan highway has been earmarked for upgrade and extension under the US government’s Corridors to the Future program. In July 2014, financing closed for the I69 “Section 5” Indiana PPP Highway project. This is to be a DBFOM concession covering 21 miles of new road connecting Evansville and Indianapolis, Indiana. The project is to be funded by a US\$244 million PAB issuance and US\$40 million in equity. White & Case represented joint bookrunners Jefferies and Citigroup.

# Africa: The origins of a project bond framework

Quayside Retention Walls Sonlis Lda. Luanda, Angola  
Retention Walls Sonlis Lda. Luanda, Angola

The African Development Bank (AfDB) is championing project bonds as a solution to Africa's daunting investment shortfall and prioritizing the implementation of a framework to help governments approach investors.

Sub-Saharan Africa is hungry for new infrastructure. The continent is experiencing net economic growth in excess of 5 percent according to figures from the IMF in October 2014.

- Power demand will increase from 590 terawatt hours in 2010 to more than 3,100 terawatt hours in 2040
- Transport volumes will increase by 6 to 8 times by 2040, but by up to 14 times for certain landlocked countries
- Port throughput will rise from 265 million tons in 2009 to more than two billion tons in 2040
- Water needs will threaten several major river basins
- Information and communications technology demands will rise exponentially

The Program for Infrastructure Development in Africa, led by the African Union, has outlined 51 essential energy, transport, water and communications projects valued together at over US\$60 billion, to be delivered by 2020. Furthermore, the Africa Infrastructure Country Diagnostics (AICD)(2010) assesses Africa's total infrastructure investment requirements to amount to around US\$93 billion per annum. So the urgency of securing new money is clear to see, especially as there has been a drop in inbound overseas development aid (see below).

Project bonds are championed by the ADB as a future solution to Africa's daunting investment shortfall. However, project bond financing is new to the continent. That is not to say foreign capital is absent in African infrastructure: Several countries have raised government eurobonds and dollar bonds specifically for infrastructure development, and now there are plans being readied to sell international debt in the form of project bonds.

ADB's current priority is ensuring that a framework is put in place and shared with governments to ensure they are informed in approaching the markets. Certain countries have a pressing need for new projects, but little experience in structuring complex, long-term project financing with the inclusion of non-traditional sources. ADB is keen that sponsors are properly prepared before they approach investors. So it is working hard to ensure a consistent level of understanding across the continent, and is drawing on the help of investment banks, law firms and other third-party sources of expertise.

There is a useful amount of local liquidity for infrastructure. There is also willingness to invest, as projects are government backed and offer good returns. But overseas investors—those with the deep pools Africa needs to tap—have yet to develop an appetite for infrastructure finance big enough to close the gap, especially for long-date financing. There were

more than 500 treasury bonds issued in Africa in 2013, the great majority of which had maturities of less than two years, and it can be assumed that long-dated bonds of the type gaining ground in Europe are a generation away. Certainly, there are concerns that adjustments and fluctuations in the world economy could hit Africa hard: 'With the upcoming normalisation of monetary policy in the United States, global geopolitical events or a more marked slowdown in emerging markets than currently anticipated could trigger a reversal in sentiment toward these economies. Ensuing capital outflows would put pressure on countries with large external financing needs, forcing abrupt adjustments', IMF, October 2014.





**We might group the markets in different countries according to the depth and development of their local markets and experience with project finance. South Africa stands out as having the investor base and capital market sophistication combined with a pipeline of projects for project bonds to be widely used. However in other countries such as Uganda, Tanzania, Ghana and Zambia, bond markets remain underdeveloped, with limited tenor in the Sovereign market and very limited issuance in the corporate market**

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# Latin America update: New frameworks and new opportunities

Chile, Peru and Colombia stand out for their market-friendly, ambitious PPP programs, while projects in Brazil offer secure and stable cash flows.

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**W**hilst each market has its own legal framework and its own unique set of infrastructure requirements, there is a common move towards PPP to finance current and future projects. There is an active and liquid local market, led by the private pensions companies, and many sponsors are also looking to attract cross-border investment.

Three LATAM countries stand out for their market-friendly, ambitious PPP programs—although each is at a different stage:

**Chile** was something of a pioneer in LATAM PPP. Many of the country's key infrastructure improvement projects of the past 15 years have been part-funded by monoline-wrapped project bonds, tapping into dollar financing when local liquidity proved insufficient. The country is now shifting its focus from transport to energy investment and social infrastructure, although

there are certain notable transport deals on the table—including the development of the Santiago Airport.

**Peru** reformed its PPP law in 2005 and is running a well-structured, ambitious program. Private investors are offered a good degree of protection, with the government effectively underwriting payments should a project fail or overrun—even covering some elements of the greenfield construction risk. The framework is noticeably 'pro-investor'—and treats national and foreign investors alike. Bonds are local currency—and the vast majority of paper is bought by local investors, particularly the private Peruvian pensions companies. However, there are signs of interest abroad, and there have been a handful of international placements of project bonds—including the greenfield power projects for Eten S.A.—and interest is expected to pick up.

**Colombia** has a pressing need for new transport infrastructure, particularly to improve links between regions riven by mountains. The country is a rising economic power, with rapid growth, a diversifying economy and an investment-grade credit rating. Infrastructure improvement will be critical to maintaining progress, and an ambitious US\$53 billion investment program is underway. A vast new road and rail network is being built. Whilst there are reasonable levels of liquidity in local and neighbouring capital markets to finance these projects, there is government support for a proportion

of dollar financing. Colombia has new PPP legislation: law 1508 (2012). This framework is designed to help attract private money to infrastructure and provides improved levels of assurance to lenders and investors and facilitates bonds being used post-construction.

In the past, **Brazil's** development bank, BNDES, has provided mainstay financing for projects. In oil and gas, local currency project bonds have traditionally been issued to cover aspects of long-term financing of projects. These may represent 10 to 15 percent of a project's costs, with a typical maturity of five-to-seven years, and can offer tax incentives to local investors. But there is a natural limit to the amounts of capital available locally. So sponsors have been keen to attract the deeper pools of foreign investment for larger, more complex financings. (This represents a significant development for a country with a scarcity of long-term dollar financing due to the foreign exchange risk.)

Dollar-issued project bonds in Brazil have, so far, primarily been issued to refinance projects. As such, they have played a crucial role in strengthening banks' balance sheets, freeing up lending for new projects or helping towards capital and liquidity requirements. There have yet to be any greenfield issuances of the type seen in North America and Europe, and this situation is unlikely to change in the near future. For now, it's 'bank first, then bond': Sponsors prefer the long-term lending to be securely



**In the past, Brazil's development bank, BNDES, has provided mainstay financing for projects, but its share is dropping**



© Bloomberg / Contributor / Getty Images

Drilling Companies  
at Rio Oil & Gas  
2014 Expo

in place in the first instance before appraising the debt capital markets for recycling at a later stage. With their 'complementary' project financing role and disconnect from the construction risk, Latin American project bonds neither require nor have the option of an EIB-style credit enhancement.

Overseas investors, in just a few short years, have warmed to opportunities in Brazil, and private placements have been oversubscribed in the United States—where there is sophisticated comprehension of both industry and country nuance. It is expected that upcoming issuances will see greater interest from investor groups in Asia, as their understanding of Brazilian infrastructure risk improves.

As an interesting first step towards the greater use of project bonds in infrastructure, it is worth noting in Brazil the use of project bonds for the refinancing of drillships and offshore oil rigs operated by The Odebrecht Group and Queiroz Galvão Óleo e Gás. These deals, in which HSBC acted as financial advisers and joint bookrunners (and White & Case acted as legal advisers to the banks on some of the deals), were the first of their kind in Latin America.

#### ODEBRECHT OIL & GAS: PROJECT BONDS FOR REFINANCING

In August 2013, HSBC oversaw the issuance by a subsidiary of Odebrecht Oil & Gas, the leading company in Brazil's oil and gas integrated services market, of a US\$1.69 billion Rule 144A/Regulation S project bond. This transaction was undertaken to refinance three Korean-built, ultra-deepwater drilling assets (ODN I, ODN II and Norbe VI), all of which are contracted under long-term charter and services agreements with Petrobras. The senior secured notes, with a 9.2-year maturity, and a coupon of 6.75 percent, were rated Baa3 by Moody's, and BBB by both Standard and Poor's and Fitch. An innovative characteristic was a retention mechanism which will start to trap cash 46 months before maturity (until the target net balloon amount is reached) in order to ensure payment of the last installment.

This transaction followed an earlier issuance in 2010, when the first project bond of its kind was used to refinance two nearly completed drillships (Norbe VIII and Norbe IX), again with a Petrobras offtake agreement in place, and was followed by a 2014 issuance, under the same indenture used in the 2013 deal, which added the Tay IV drillship to the collateral pool.



**Overseas investors, in just a few short years, have warmed to opportunities in Brazil**

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# Middle East case study: Learning from Abu Dhabi's debut project bond

The Middle East is another high-growth region with pressing infrastructure needs, and the way in which public projects are financed is evolving rapidly.

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For the past two decades, most of the project bonds issued in this region were oil and gas related; however, the recent issuance of a bond by the Ruwais Power Company, an independent water and power company, established a precedent for project bonds in the power sector. These bonds have often benefitted from the strong credit ratings of the gulf nations and the explicit or implicit credit support provided by the relevant governments. Strong sovereign support provides certain regional projects with the ability to tap the liquidity of the capital markets. However, the same support provides the largest challenge to the development of a project bond market as traditional bank lenders are often willing to lend to these projects at margins that often undercut potential bond pricing.

Abu Dhabi's infrastructure investment approach stands out in comparison to other regions, principally because it does not suffer from the lack of public money seen elsewhere in the world. Instead, the Emirate is on a journey, which began in 1997, towards part-privatising its state-owned power and water sector assets—and the bond markets are considered an appropriate contributor to the infrastructure financing mix. Whilst distribution remains 100 percent state-owned, power generation and water desalination and treatment are now partially owned by foreign investors.

The Abu Dhabi Water & Electricity Authority (ADWEA) is now competitively driven in all project elements. Its policy is to delegate design, finance, operations and maintenance contracts to overseas companies, with the intent of importing world-class best practice. The government will retain control (tending to hold on to 60 percent of assets), operating to a contracted offtake model, rather than a market model, which gives foreign partners a level of comfort. ADWEA also helps ensure the efficient running of contracts, and has never seen a project fall into legal dispute.

Project finance for ADWEA has become defined by certain characteristics: i) the presence of a solvent, AA-rated government partner is reflected in the type and cost of capital available; ii) banks have always been comfortable in long-term lending at cheap rates, and they have typically been able to undercut credit from other sources, such as bonds and Islamic finance; iii) private equity involvement is discouraged; iv) there is a certain amount of ECA support from Korea and Japan, for example, to support their local investment—but suppliers are not chosen because of their links to ECAs; and (v) local investment is encouraged, and the embryonic pension funds in the region may well have greater involvement in the future.

Cheap finance has held up throughout the various market shocks and regulatory interventions of the past 15 years—including

September 11, 2001, 'Lehman Brothers' collapse and the implementation by banks of the capital disciplines of Basel III. So the choice to debut on the bond market—ADWEA has issued just once to date (see below)—was not forced by the lack of any alternative as might be seen in other markets. Instead, the bond issuance simply made strategic good sense: the investor appetite was there; rates were affordable; and it suited ADWEA's mission to be competitively driven in all elements of project supply.

ADWEA is not expecting to see investors come in for the construction risk, or for the long dates seen in Europe and the United States. But projects bonds will remain, in the medium term at least, an important complementary source of project finance.





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## ABU DHABI'S DEBUT POWER AND WATER PROJECT BOND GETS SNAPPED UP

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Central to Abu Dhabi's infrastructure plans is Shuweihat S2, a greenfield integrated water and power plant project on the Persian Gulf coast. It will have a generating capacity of 1507 MWs, and the facility will produce 100 million imperial gallons per day (MIGD) of desalinated water. In 2013, White & Case advised the plant's owner, Ruwais Power Company (itself majority-owned by ADWEA, with minority private shareholders including Marubeni Corporation, GDF Suez and Osaka Gas Co.) on the inaugural issuance of US\$825 million 6% senior secured notes, maturing in 2036, in order to partially refinance existing facilities

with its commercial lenders and its ECA lender, Japan Bank for International Cooperation. The transaction was the first of its kind for a power and water project in the Middle East.

The issuance was well received internationally, and the roadshow revealed to ADWEA a sophisticated institutional investor base, particularly in the United States and Asia. Purchasers understood the asset, the country and the rationale for the investment. The S2 bond is now trading well in the secondary market, suggesting that any future deals will be well received.

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## Conclusion

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In Europe, the renaissance of project bonds is well established, while in other regions, such as the United States, they never really went away. It is clear that project bonds operate very differently in different geographic and industry segments with multiple different structural and legal features. Worldwide, the picture for project bonds is not consistent; not least because in this post-crisis era the market and market practice is still fluid and developing. Banks and bank funding will remain critical and have proved to be remarkably resilient; nevertheless the infrastructure gap will continue to provide a range of opportunities for project bonds.

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