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Promoting the Use of Capital Markets for Infrastructure Financing

LESSONS FOR SECURITIES MARKETS REGULATORS IN EMERGING MARKET ECONOMIES

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NOVEMBER 2017

WORLD BANK GROUP

ACKNOWLEDGEMENTS

This Policy Note was produced by staff from the World Bank together with external consultants. The main authors are Ana Fiorella Carvajal, WB staff and Daniel Bond and Diana Adams, both Consultants. The Note was produced under the oversight of Alfonso Garcia Mora, Director of the Finance & Markets Global Practice and Samuel Munzele Maimbo, Practice Manager. The team benefited from substantive contributions from Catiana Garcia Kilroy. In addition, very helpful comments were received from Fiona Stewart, John Daniel Pollner, Satheesh Kumar Sundararajan, and Pietro Calice, who peer-reviewed the Note. The team also had the support of Swee Ee Ang.

The Policy Note was shared with the securities regulators of the countries for which country summaries were developed. The team wants to extend its appreciation to the securities regulatory authorities and staff from the Australian Securities and Investment Commission, the Comissão de Valores Mobiliários of Brazil, the Comisión Nacional Bancaria y de Valores of Mexico, the Financial Services Board of South Africa, the Capital Markets Board of Turkey, and the United States Securities and Exchange Commission for their disposition to review the Note and the corresponding country summary. Their review does not mean their endorsement of the cases. Errors, if any, are the sole responsibility of the authors.

The team appreciates feedback received from members of the Task Force on Infrastructure Financing of the International Organization of Securities Commissions (IOSCO). Their comments highlight the value of this Note and reinforce the commitment of the WBG to continue supporting emerging market economies in their efforts to enhance the role that capital markets can play in financing strategic sectors of the economy.

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EXECUTIVE SUMMARY

Securities markets regulators in emerging market economies (EMEs) have a key role to play in facilitating the use of the domestic capital markets to fill the infrastructure financing gap. Many of the factors that have hindered institutional investors' participation in infrastructure financing are outside the control of securities markets regulators. However, as the conditions for mobilizing institutional investors improve, securities markets regulators should seek to ensure that the regulatory regimes for the issuance and placement of securities, as well as for developing new vehicles and instruments, are appropriately structured to address the needs of project sponsors and investors and avoid unintentionally hindering the use of capital markets for infrastructure financing.

This Note provides guidance to securities markets regulators in EMEs about key regulatory issues that could affect the issuance of debt instruments for infrastructure financing over which they have some control. The Note focuses on three areas (placement regime, disclosure obligations and control issues in financing structures) and whether and how their regulation could affect the use of two debt financing instruments in EMEs, project bonds and infrastructure debt funds. To this end, it has drawn from the experiences of a select number of countries in both advanced and emerging market economies to distill lessons that can be used by securities regulators in EMEs to tailor their regulatory frameworks so that they can support infrastructure financing. The choice of debt financing instruments stems from the fact that the most pressing need for EMEs is access to lower cost, longer term debt which the two instruments discussed herein are likely to deliver.

The key lesson from the experiences reviewed is the need to strike the right balance in the regulation of capital markets instruments in EMEs. Sufficient flexibility needs to be given in the placement regime, disclosure and control issues so that project sponsors consider capital markets a viable solution that can complement and in some cases substitute bank financing. Yet, in some EMEs concerns about institutional investors' engagement in infrastructure financing have resulted in the imposition of obligations and restrictions that in practice have hindered the use of capital markets. Thus, while certain safeguards might be advisable they need to be carefully defined. To this end, it is key that securities markets regulators coordinate closely with other government authorities (e.g. Ministries of Finance), financial sector regulators (e.g. pension and insurance regulators) and market participants as they develop regulations to support the mobilization of capital markets for infrastructure financing.

At a more granular level the key findings and recommendations are detailed below.

For project bonds

- **A private offering regime for the issuance of project bonds should be available for institutional investors' investment in infrastructure**. This type of regime is not available

to institutional investors in some EMEs, either as a result of deficiencies in the general framework of securities regulation or restrictions directly imposed on them. Yet project sponsors may be more likely to utilize the capital markets to raise funding if such an avenue is available. The reasons are multifold and include a greater ability to (i) keep confidential sensitive information on the infrastructure projects, (ii) manage control issues, (iii) have more certainty of pricing, and (iv) greater flexibility for tailor made solutions aligned with the diversity of infrastructure assets and (v) to deal with carry costs. Thus, it is critical that securities markets regulations define clearly the boundaries of such regime and that, in tandem, obstacles are removed for its use by institutional investors. The latter could involve, for example, authorizing them to invest a limited portion of their portfolios in securities of private offering. A "hybrid" issuance regime could offer a compromise solution; however the challenge lies in striking the right balance between facilitating project sponsor's use of capital market financing and protecting the interests of investors.

- **For projects already in the refinancing stage, the use of a public offering regime might present less challenges; but changes in the regulatory framework might still be needed.** As the experiences show, in some EMEs the standard framework for debt offerings contains requirements that are more suited for corporate finance and less for projects structured on a non-recourse basis, such as the need for the issuer to meet specific financial ratios or have a minimum number of years of operation. Thus, it is critical that securities regulators review the frameworks and adjust them as necessary to be able to fit non-recourse financing. In addition, finding mechanisms to ensure that sensitive information on the underlying projects is available to investors, while at the same time protected from wide distribution, might also be needed. This could involve for example, establishing data rooms for the review of information by actual investors. In some countries, ensuring the existence of a special purpose vehicle (SPV) that is bankruptcy remote would also be a priority.

- **Imposing the use of credit ratings might be necessary, at least at this point in time.** Credit ratings can play an important role in helping sponsors to structure deals that work as well as helping institutional investors with little experience in project finance enter into this form of financing. The key question for EMEs is whether ratings should be included as a mandatory requirement in the case of public and private offerings. There is no easy answer to this question. The experience of many EMEs is that in markets at an early stage, it might be necessary to impose the use of ratings as a transitory solution to mitigate information and capacity gaps while participants develop their own basic expertise and robust market practices develop. That said, the need for more flexibility in the case of private offerings should be recognized. In any event, it is critical that, in tandem, robust licensing requirements are imposed on credit rating agencies (CRAs), including expertise requirements, and that programs for their ongoing oversight are in place. In addition, coordinated actions should be taken by pension funds and insurance regulators to ensure

that they strengthen their internal capacities and develop robust internal controls and risk management arrangements.

- **Ensuring that control issues can be adequately addressed is key to promoting the use of project bonds; however it is critical to avoid rigid solutions as this is an area still evolving.** The governance structure used in project financing typically gives investors considerable control rights as they usually must be consulted when there are significant changes in the way the project is being carried out. However, many institutional investors in EMEs have limited expertise in infrastructure projects and would not have the human and financial resources to develop project finance expertise. Thus, it is critical to find approaches that allow them to exercise those rights in an effective manner. A prescriptive solution would not be advisable, at least at this point given that different solutions are being tested in both AEs and EMEs. Instead securities markets, pension funds and insurance regulators should raise awareness over this issue and encourage investors in EMEs to come up with solutions that are tailored to their level of expertise. The approaches identified in this Note drawing from different experiences offer a starting point. They include: (i) differentiating the majority needed for decisions, (ii) partnering with an expert borrower/investor and relying on such lender/investor for control issues, and (iii) hiring a third party to assist investors with the analysis and dissemination of information ahead of decisions that are needed from them.

For infrastructure debt funds

- **Disclosure issues can also pose challenges in the context of funds; thus it is important that there be flexibility in their placement regimes.** In general, the need to allow more space to institutional investors to decide the content and frequency of disclosure, and to deal with sensitive information are present in the context of funds. Solutions have ranged from allowing the funds to be placed via private offerings, to lowering regulatory requirements under a public offering, and establishing mechanisms that ensure that sensitive information is available to actual investors, while at the same time protecting it from wide distribution.

- **Control issues can be mitigated via infrastructure funds, however securities regulators should ensure that fund regulations do not impose unnecessary restrictions in their governance requirements.** The cases show that restrictions, such as the need for unitholders approval of key decisions, can be a disincentive to the use of capital markets by sponsors. Thus, enough flexibility should be imbedded in the framework for this type of funds so that the fund manager can assume the controlling creditor role on behalf of the more passive investors in the fund, thus dealing with waivers and consents. In practice this can be achieved with the use of a limited partnership but other legal structures can achieve the same outcome as many of the examples in EMEs indicate.

- **However, for institutional investors and their regulators to be comfortable with this option, it is key that the interests of fund managers are aligned with those of investors.** First, it is critical that fund managers have the necessary expertise for project selection and monitoring. In practice this can be achieved by contracting specialized teams, as managers in some EMEs are already doing. From an institutional investors' regulation perspective, other measures could potentially be added to ensure alignment of interests, such as for example requiring the fund manager itself to invest in the fund. In this context, it is critical that any additional measure be carefully designed to strike the right balance and avoid rigid structures that could disincentive participation by other investors.
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INTRODUCTION

Many governments around the world are eager to see increased institutional investor financing for infrastructure. Traditional funding sources, governments, commercial banks and development finance institutions, are not able to fully meet the demand for infrastructure. As a result, institutional investors[1] are increasingly stepping in to fill this gap. Infrastructure assets have long tenors and predictable cash flows, which are a good match for the long-term liabilities of the pension funds, retirement plans and life insurance companies, which are the institutional investors most interested in infrastructure debt.

A number of factors play a role in creating the framework to mobilize institutional investors to infrastructure financing in emerging market economies (EMEs). Many of them are outside the control of securities markets regulators. They mainly relate to (i) the availability of well-structured and financially viable infrastructure projects ("bankable" projects); (ii) the availability of long-term bank financing and its pricing; (iii) the level of development of the capital markets, and in particular the existence of a government bond market that can serve as a benchmark for pricing; (iv) the size of the domestic institutional investor base, their investment regulations, and whether they are seeking to use a significant portion of their assets for long-term and illiquid assets;[2] (v) the appetite of foreign institutional investors for long-term domestic assets in local currency, the availability of projects that have revenues in international currencies and in some cases currency swap for hedges; (vi) the availability of credit enhancements; and (vii) neutral tax regimes, vis-à-vis other asset classes and international investors, including withholding tax regimes.

However, securities markets regulators have a key role to play in ensuring that as these factors are addressed, the domestic markets can be used for capital raising. Indeed, as the conditions for mobilizing institutional investors to finance public infrastructure improve, it is critical for securities markets regulators to ensure that their regulatory regimes are appropriately structured to address the needs of both sponsors and investors and avoid unintentionally hindering the use of capital markets for infrastructure financing.

This Note provides guidance to securities markets regulators in EMEs about key topics over which they have some control and which are of concern for institutional infrastructure lenders and borrowers. To this end it draws from the experiences of a select number of countries in advanced economies (AEs) (Australia, Canada, European Union and United States) and EMEs

[1] The term "institutional investors" refers to pension funds and public pension reserve funds, insurance companies, sovereign wealth funds, foundations, endowments, and collective investment schemes such as mutual funds.

[2] The most likely such investors are large defined-benefit pension funds and life insurance companies (and annuity providers).

[33] In late 2016 IOSCO constituted a Task Force (TF) with the objective of identifying whether actions were needed from securities regulators to facilitate the use of capital markets for infrastructure financing. The TF organized a panel with the participation of different stakeholders (investment banks, credit ratings and multilateral development banks including the WBG), to jumpstart its discussion. The panel took place in January of 2017, in Madrid, Spain.

(Brazil, Colombia, Costa Rica, Indonesia, Mexico, South Africa and Turkey) to distill lessons that can be used by EMEs to tailor the regulatory frameworks to support infrastructure financing.

The key issues selected for analysis were identified based on WBG work in the field as well as the conclusions of a panel conducted by the Task Force on Infrastructure Financing of the International Organization of Securities Commissions (IOSCO).[3] They are:

- **Issuance regime:** benefits and costs of public offerings versus private placements.
- **Disclosure requirements:** balancing transparency versus both the cost of transparency and confidentiality concerns.
- **Control issues:** establishing a viable model for continued investor involvement in decision-making in the projects they invest in via debt instruments, especially during construction.

The Note focuses on the different angles that need to be taken into account so that securities regulatory frameworks are not an obstacle to mobilize institutional investors in EMEs via debt instruments, in particular project bonds and infrastructure debt funds. There are three reasons for securities regulators to take a proactive role in ensuring an enabling environment for these instruments to develop. First, these instruments appear to deliver the benefits that make infrastructure investment most attractive to many institutional investors – they provide long-term assets that allow asset-liability matching, they can provide a good balance of risk and return, they usually provide some degree of inflation protection and they provide portfolio diversification, as their performance has been shown to have a low correlation to other asset classes.[4] Second, they are equally accessible to both large and small institutional investors. Third, they facilitate access to a pool of long-term capital under competitive conditions facilitating lower cost of financing, which are the most pressing needs in infrastructure financing. The other principal form of investment in infrastructure is through equity. Given the much higher share of debt than equity in large infrastructure projects, and the practice of project sponsors and construction companies to provide all or a large share of the equity, this paper has focused on debt financing.

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[4] World Bank-IMF-OECD (2015). **Capital market instruments to mobilize institutional investors to infrastructure and SME financing in Emerging Market Economies - Report for the G20**. Available at http://documents.worldbank.org/curated/en/192061468179954327/Capital-market-instruments-to-mobilize-institutional-investors-to-infrastructure-and-SME-financing-in-emerging-market-economies-report-for-the-G20
See also Frédéric Blanc-Brude (2012). **Infrastructure portfolio construction: in search of an asset class**. http://edhec.infrastructure.institute/wp-content/uploads/publications/blanc-brude_2012c.pdf
There are other investment instruments that may also deliver the attributes that attract investors to infrastructure as an asset class – for example YieldCos, Permanent Investment Vehicles and various forms of securitization, but there is much less experience with these, especially in EMEs.

The Note is organized as follows:

- Sections I through III assess how these three issues are handled in AEs and EMEs.
- Section IV raises a number of related issues that securities regulators should consider, but that are outside of their control.
- Section V provides recommendations for securities regulators to facilitate the use of project bonds and infrastructure debt funds as a means for mobilizing greater institutional investment in infrastructure.
- Annex I provides an overview of non-recourse project finance given its importance for both infrastructure project bonds and infrastructure debt funds.
- Annex II provides quantitative information on debt offerings and institutional investors
- Annex III provides country summaries for the countries selected. Each country summary provides information on infrastructure financing, institutional investors' participation in such financing, and securities regulations relevant to infrastructure financing in the respective country. For each country a recent transaction that highlights recent trends or innovations in infrastructure financing is also provided.

SECTION I. PUBLIC VERSUS PRIVATE OFFERING

Companies or vehicles that want to raise funding in the capital markets have two distinctive avenues to do so: a public or a private offering, each subject to different regulatory treatment. The former carries the obligation to provide information to investors at the moment of investment and on an ongoing basis. In tandem, the intervention of the regulator is required in the form of an ex-ante authorization of the offering materials along with ongoing monitoring, both aimed at ensuring that issuers provide complete, accurate and timely information to investors. In contrast, in a private offering issuers do not have the same disclosure requirements nor are dependent on the authorization of the issuance by the securities regulator or subject to its ongoing monitoring. In this case, any disclosure is determined by the investors' requirements. Finally, in general regulators have more enforcement powers related to public offerings; while private offerings rely more on contractual enforcement.

The difference in treatment stems from the nature of private issuances. Such issuances are either very small, directed only to a very limited number of investors or directed only to sophisticated investors. As a result, it is considered that the intervention of the regulator in the form of an authorization regime and mandatory disclosures are not needed.[5] In practice, other distinguishing characteristics have developed in terms of how issuances are marketed and sold, in what form they are held by investors, and what types of covenant packages they include.[6] Table 2 contains a summary of the key differences.

In some countries an intermediate form of placement, what has been called the hybrid market, is available. Hybrid issuance frameworks are primarily designed for institutional investors, in an effort to balance the interest for more flexibility in trading with the need to ensure certain level of transparency. Thus, hybrids generally provide more flexibility for secondary market trading than is provided by private placements. In turn, they usually have some minimum disclosure and trade reporting requirements that provide a degree of market transparency somewhere between

[5] In general in AEs the exemptions cover three different types of situations: Small offerings, which is implemented via the establishment of a maximum size for the offering; offerings addressed only to a limited number of investors which is implemented via the imposition of a maximum number of investors that can be reached ; and offerings addressed only to sophisticated investors, which depending on the country include institutional investors as well as individuals that fulfill certain characteristics of wealth and/or knowledge. Some countries also use a minimum investment as a proxy for sophistication. In EMEs there is less development of the private offering regime. In practice, many statutes do contain exemptions related to the number of investors, and more recently also to the nature of the investors involved although in the latter case additional conditions are imposed in some countries, thus making it more akin to a hybrid offer.

[6] A covenant is a promise in a formal debt agreement, that certain activities by the borrower will or will not be carried out. Examples of affirmative covenants are requirements to maintain a specified minimum debt service ratio, debt service reserve levels or credit rating. Negative covenants are usually prohibitions against certain actions that could result in the deterioration of the borrower's ability to repay existing debt.

that of private placements and public offerings. Such type of regime exists in some AEs and EMEs. For example, a widely used regime is the rule 144A of the United States, which allows the resale of securities initially sold in a private offering to qualified institutional investors. Such offers require only the submission of an offering memorandum to the regulator. In EMEs these regimes usually carry additional requirements, including sometimes some level of review by the regulator.[7] This usually stems from concerns about the level of sophistication of institutional investors and thus the need to provide additional protections.

PUBLIC VERSUS PRIVATE OFFERING: KEY DIFFERENCES		
Area	**Public Offering**	**Private Placement**
Disclosure	Prescribed and vetted by regulators	No regulatory review—investor driven
Distribution	Broad distribution to a large number of investors—allows for small investor participation	Small number of targeted sophisticated investors—large investors best positioned to participate
Due diligence	Generally a two-week period during which investors participate in a marketing roadshow hosted by the sponsor	Longer, more detailed process involving active back-and-forth between the sponsor and investors
Terms & conditions	Package that is offered in the disclosure documents on a take-it-or-leave-it basis	Actively negotiated
Covenant package	Light—in a broadly distributed bond, it would be too difficult to coral investors when decisions need to be made	Demanding, giving investors a large degree of control that then necessitates their active participation as changes and waivers are required, especially in the early stage of a project
Form of note	Book-entry and freely transferable, making it difficult to know who the beneficial owners are	Physical entry, providing certainty as to who the owners are—can allow for transfer restrictions
Costs	Expenses are higher but interest spread is lower	Expenses are lower but interest spread is higher to compensate investors for lack of liquidity

[7] See Loladze, Tamar (2015). Hybrid issuance regimes for corporate bonds in emerging market countries: analysis, impact and policy choices. http://documents.worldbank.org/curated/en/251621468001472809/Hybrid-issuance-regimes-for-corporate-bonds-in-emerging-market-countries-analysis-impact-and-policy-choices.

Experience of Advanced Economies

In AEs, the private placement market is the capital market of choice for infrastructure bond issuance. A review of the experience of project sponsors in the United States, the United Kingdom and other European Union countries, Canada and Australia, indicate that project sponsors generally find publicly offered project bonds unattractive for anything other than very large credits (over US$200 million) in the post-construction stage (what are often called "brownfield projects"). Issuers will choose to offer bonds in a public offering only if the benefits of doing so outweigh the extra time and cost. The primary benefit is lowering the borrowing cost, which can be achieved by increasing competition among a broader group of prospective investors.

There are several reasons for this preference for private offerings. In general, there are considerations of time and costs as the process of authorization by the securities regulator adds time and increases the costs of the offering due to the disclosures required and with this the participation of additional entities in the offering. However, there are also other important reasons for this choice that are more unique to project bonds. They mainly relate to concerns over the need to preserve confidentiality of sensitive information regarding the infrastructure projects and deal with control issues. In addition, particularly in cases where early financing is involved, the need for certainty in pricing and dealing with carry costs are also important considerations. These issues are explained in detail in the table below.

USE OF PUBLIC VERSUS PRIVATE OFFERING IN THE CONTEXT OF PROJECT BONDS: KEY ISSUES OF CONCERN

Key issues	Public offering	Private offering
Disclosure	Disclosure is mandated by law. All required disclosure must be publicly disseminated which raises concerns about the dissemination of information that the sponsor considers proprietary.	Allows the sponsor to negotiate directly with investors the type of information that they will need and keep it confidential.
Control issues	Bonds of public offering are widely distributed and traded and usually held in book-entry form, which makes it more difficult for the sponsor to reach investors when needed. This introduces significant "control issues" when investors must participate in decisions, especially necessary during the construction phase of a project. Such control issues are greatest during the construction period, when there are more moving pieces to the credit story than in post-construction.	Easier to deal with changes in the project given that the placement usually involves a limited number of sophisticated investors.
Pricing	It is difficult to obtain firm pricing during bidding with public offerings as pricing is not finalized until the placement of the bonds is completed.	Pricing in private placements is negotiated and thus less uncertain.
Carry costs	In general all proceeds must be raised up-front, creating costly excess cash inventories during construction.	Phased financing can more easily be agreed by parties.

A hybrid regime existent in the United States has also being used to place project bonds, including by EMEs. In many cases where project bonds are placed with U.S. investors the offerings rely on the private offering exemption combined with Rule 144A which allows the resale of the bonds privately sold to qualified institutional investors and Regulation S which allows the offer and sale of the bonds to foreign investors. In fact, this avenue has been used by issuers in EMEs that want to fund large infrastructure projects in the international markets, including issuers in Brazil, Costa Rica, Mexico, Turkey and Peru. While this avenue has provided them with access to a wider base of investors in most cases financing has been in hard currency and as a result it should not be considered a long-term solution except for projects earning income in hard currency. The European Union also has a "hybrid" framework for bonds; however, the reduced disclosure is only marginal and this option is not widely used for project bonds.

Infrastructure debt funds in the AEs are also generally placed under a private offering regime. These funds are usually organized as private equity funds. From a legal perspective, most AEs use a limited partnership structure, with a general manager (the fund manager) and limited partners (the investors). In this structure the manager has the obligation to direct the selected vehicle's business in an optimal and diligent manner.

Other business models to pool assets have started to appear, usually working in the private space. For example, some of the largest pension funds have developed their own expertise and are investing directly in infrastructure projects alone or together with a few like- minded investors, mostly in the equity space. This is the model followed by the largest Canadian pension funds. In other cases, a group of institutional investors have sought to find a manager with particular expertise in infrastructure financing to invest both in equity and debt. That has been the case of the Australian pension funds. Finally, some investors have developed investment platforms to invest along with other investors, with one of them taking a more active/leading role, such as has been done by Allianz, which manages infrastructure investment for its own portfolios as well as raising third party money into infrastructure debt funds. The large amount of internal and external capital they control allows them to sole lead debt offering for large projects, as seen in the Long Beach Civic Center financing in the United States, and the financing for Via 11 in Belgium (described in the United States and EU case studies respectively).

There are also publicly listed infrastructure debt funds, but these generally target liquid securities issued by companies involved in infrastructure such as project builders and managers of public infrastructure. Some also invest in infrastructure projects directly. The most active market for public funds is in the UK, where there is a critical mass of privatized infrastructure assets with secure revenue streams.

Experience in Emerging Market Economies

The experience of most EMEs with the use of the domestic capital markets for infrastructure financing is relatively recent.[8] One important exception is Chile, which during the late 1990s and early 2000s implemented an ambitious infrastructure program that was partly financed by the domestic pension funds and the insurance companies. These institutional investors invested in infrastructure through different channels including via project bonds that were fully guaranteed by monolines.[9]

Many EMEs, particularly but not exclusively in Latin America have found necessary to develop specific frameworks for the issuance of capital markets instruments that could help mobilize institutional investors to infrastructure financing and/or make adjustments to existing regulations. In many of these cases the frameworks relate to collective investment schemes (CIS). That is the case of Brazil, Colombia, Costa Rica and Turkey, where the existing frameworks were amended to provide for a more specific regulation for CIS specialized in infrastructure, including infrastructure debt funds. But some countries, such as Costa Rica, have also developed frameworks for project bonds and other type of infrastructure instruments, as described in the country summaries. Mexico, for example, has developed two main instruments for institutional investment in infrastructure: the CKDs and the CERPIs. From a substantive point of view these instruments share characteristics of CIS, as they allow the pooling of resources for investment in a plurality of projects, with investors taking an equity exposure to the infrastructure projects.

In practice, in some of these cases the instruments are being placed through public offerings. As indicated project bonds have been mostly placed internationally, through rule 144 A and regulation S of the US SEC. But when placed locally, the public offering regime has been the preferred avenue for their placement in countries such as Brazil, Costa Rica, and Mexico. As a result, the offering needs to be authorized by the securities regulator, based on the review of a set of documents which generally include a prospectus with information about the projects being funded. In the case of Brazil, however, a restricted public offering was created which exempts securities from registration. This is now the most common mechanism for placement of infrastructure debentures.

In the case of infrastructure funds, the experience is mixed. In some countries, such as Peru and South Africa, the private offering regime is being used, whereby neither the funds nor their participations (quotas) are subject to registration with the securities regulatory authority. Colombia and Brazil seem to have "hybrid" regimes. In the former, the authorization of the regulator is not required but certain information on the funds needs to be submitted, under a

[8] In some EMEs companies involved in construction are listed and/or issued corporate bonds which are also listed, and thus the capital markets already play a role, albeit indirect, in infrastructure financing via the provision of financing to these companies. These type of instruments do not pose challenges that require attention in this Note as they fit within the "traditional" issuance structures and thus they can comply with traditional disclosure requirements.

[9] The full wrap of the monolines was key to aligning the risk-return appetite of these investors. The monolines disappeared as a result of their role in the global financial crisis.

no-objection procedure. In the latter, funds with a limited number of investors are subject to automatic registration, while the funds' participations are placed though a restricted public offering, exempting them also from registration, and most of the mandatory disclosure requirements.[10]

DEBT INSTRUMENTS FOR INFRASTRUCTURE FINANCING IN SELECTED EMES: INSTRUMENTS CURRENTLY IN USE AND THEIR PLACEMENT MECHANISMS		
Country	**Instrument**	**Placement Mechanisms**
Brazil	Project Bonds	Most commonly placed at international markets, through 144A/Reg S offerings
	Infrastructure Debentures	Public Offering or Restricted Public Offering, but generally through the latter
	Infrastructure Debt Funds	Public Offering or Restricted Public Offering, but generally through the latter
Colombia	Project Bonds	Most commonly placed at international markets, through 144A/Reg S offerings
	Infrastructure Debt Funds	Not subject to authorization, but a notification requirement is in place
Costa Rica	Project Bonds	Public Offering
	Infrastructure debt funds	Public Offering
Indonesia	Project bonds	Not in use
	Infrastructure debt funds	Not in use
Mexico	Project Bonds	Public Offering
	Infrastructure debt funds	Not in use. CKDs and CERPIs allows collective investment, but are considered structured products for equity investment
Peru	Project Bonds	Most commonly placed at international markets, through 144A/Reg S offerings
	Infrastructure debt funds	There is one domestic fund. The regulations allow for private funds, which are not required to be registered with the SMV.
South Africa	Project Bonds (with recourse)	Private Offering
	Infrastructure Debt Funds	Private Offering
	Listed Project Bonds	In the process of being developed
Turkey	Project bonds	Most commonly placed at international markets, through 144A/Reg S offerings
	Infrastructure Funds	There is one domestic fund. The regulations provide for a differentiated regime for issuances placed among institutional investors.

To a large extent, the instruments and placement mechanisms used are being influenced by the regulations governing the investments of institutional investors. In some EMEs, institutional investors and in particular, pension funds are still prohibited from investing in privately placed securities. From the countries reviewed that is the case of Costa Rica, Indonesia, and Mexico,

[10] Mexico has also created a restricted public offering regime, which is now commonly used for the placement of CKDs. In addition, Cerpis must always be placed through a restricted public offering. As will be further explained below, the use of a restricted public offering has allowed restrictions in the dissemination of information related to the projects that these two vehicles invest in.

which restrict investment by pension funds to securities of public offering and/or publicly listed. While in the remaining EMEs analyzed, pension funds can invest in securities placed through private offerings, in some cases conditions are imposed, for example for their investment in collective schemes that have in turn impacted securities markets regulation. The situation is somewhat different for insurance companies, for which less restrictions seem to exist, particularly in countries that are moving to risk-based prudential frameworks such as Solvency II.

But in some cases, there might be also problems with the clear delineation of a space, or "safe harbor," for private offerings. For example, in some EMEs the concept of a private offering is not imbedded in the capital markets law; rather the law defines a concept of public offering to delimitate its scope and the jurisdiction of the securities regulator. Consequently, a private offering would be any offer that does not fall under such definition. However, in many cases the legal definitions are broad and might require further guidance by the securities regulator regarding the boundaries upon which an offer would not be deemed public (i.e. "a safe harbor" for private offers). It is important to note that other factors, such as tax differences might also play a role.[11]

[11] In some EME the legal framework provides tax benefits to securities of public offering, as a way to incentivize the development of a public market.

SECTION II. DISCLOSURE REQUIREMENTS

One of the key differences between securities of public offering and those of private offering is the degree to which disclosure is regulated. Securities of public offerings have requirements as to the minimum information that must be disclosed when securities are first sold, and then on a periodic and ongoing basis. In general, a prospectus is required at the moment of the offering, and then the issuer is obliged to submit periodic reports, including at least semi-annual financial statements and annual audited financial statements (though in some countries they are also subject to quarterly reporting) and to report material events to the market. For securities that are privately placed, information disclosure is negotiated between the issuers and the investors and such information is kept confidential. In hybrid offers, some level of mandatory disclosure might be in place, and in some cases that information can be accessed by the public.

Experience in Advanced Economies

In AEs, a project bond offered to the public would be subject to the same requirements as any other security offered to the public; however they are rarely used. In general, securities regulators have not developed guidance specific to project bonds in any of the countries analyzed. One reason for that is that issuances of project bonds under a public offering are rare and thus, there has not been the need for such guidance. That said, in many AEs there are differentiated requirements for asset-backed securities, which can be used as a starting point for project bonds.

Private placements are the preferred mechanism to place project bonds in AEs. As a result, disclosure is negotiated among the parties. In practice, since the investors are sophisticated and experienced, or are working with others who are, disclosure in project bonds tends to be complete and comprehensive. In the case of "pure" private placements it could be argued that there is greater information sharing and due diligence than with a public bond because of the early and interactive involvement of investors in these transactions.

In general information sharing in a private offering is similar to that of bank lending, although capital markets transactions are more likely to have external credit ratings. Similar to bank lending, the agreements would stipulate the periodic information that would be required from sponsors. In general, the standard practice has been to require quarterly reports, although monthly reports may be required for greenfield projects. The only significant difference in the process is the addition of an external debt rating, even in the case of private placements. This has become an almost universal market practice in issuances in AEs. Many investors' capital requirements are tied by their regulators to risk, which is often measured in terms of the credit

ratings. Therefore, it is difficult to determine appropriate pricing without credit ratings, and issuers who do not have them generally pay a premium.

In hybrid transactions, such as the US 144A there is less bilateral negotiation, and a higher degree of standardization of conditions and disclosure achieved by market practice. This is largely a result of a broader investor base being brought to the table. In line with this experience, there has been an interest in the European Union to standardize the information used in a private offering to encourage further development of this market.[12] There have also been efforts to standardize documentation in the context of project bonds issuances. However, results so far are limited, in part due to the bespoke nature of project infrastructure transactions.[13]

As for funds, in general as indicated above the structure that has been used is that of a private equity fund (which invests in debt). This has consequences for disclosure requirements. The funds are generally not subject to registration with the securities regulators, and disclosure requirements to investors are generally determined on a bilateral basis or through the internal rules of the fund. As a matter of market practice, it is usually the case that quarterly reports are provided to investors, as well as an annual report with audited financial statements. The funds that are listed do need to comply with the public offering requirements as well as those of the market where they are listed. In general, such requirements involve quarterly reports as well as an annual report, containing audited financial statements, and material events disclosure. But, as indicated usually the listed funds invest in companies that are involved in the infrastructure sector, rather than the infrastructure projects themselves. It is important to note, however, that in many jurisdictions the fund managers (and advisers) are subject to licensing.

Experience in Emerging Market Economies

As indicated above, in some EMEs project bonds are placed through public offerings which in turn trigger a set of disclosure obligations. In general, the requirements are aligned with those for debt offerings and include a prospectus at the moment of the offering, and quarterly reports and an annual report including audited financial statements on a periodic basis, and material event disclosure on an on-going basis. In addition, in EMEs it is customary to require a credit rating. That is indeed the case in many of the countries analyzed in this Note. In some of these cases the requirement for a rating has been imposed or is being reinforced by provisions applicable to pension funds.

In practice, some EMEs have needed to tailor requirements to address challenges brought by the application of the standard framework for debt offerings to project bonds. For example, in Costa Rica the regulations imposed on project bonds practically halted the market and it only resumed after a new framework was enacted that eliminated requirements that were

[12] See ICMA (2016). European Corporate Debt Private Placement Market Guide.

[13] See ICMA (2016). European Corporate Debt Private Placement Market Guide; and European Financial Services Roundtable (2015) Facilitating European Infrastructure Investment.

incompatible with project finance (see box). Similar to Costa Rica, Turkey has exempted certain types of infrastructure projects from leverage ratios that apply to debt issuances; however market participants have highlighted the need for a more comprehensive reform. Indonesia faces similar problems, as it only has a framework for corporate bond issuances that has requirements that are incompatible with non-recourse financing. An additional problem for Indonesia is the need to ensure the existence of a SPV that is bankruptcy remote.[14]

Concerns about public dissemination of proprietary information have also required solutions. In Peru, a legal reform enacted in 2013 seeks to address this issue by creating a market for institutional investors and establishing that any information submitted to the regulator in the context of offers exclusively addressed to institutional investors is not considered "of public access" and must be provided directly to the investors. South Africa is keen on developing a market for listed bonds with the objective of expanding the investor base, but has been concerned about the need to make disclosures publicly available. The solution currently discussed involves the creation of a specialized regime for professional investors whereby the information provided by the issuers would not be publicly available; rather investors would be able to access it via a dedicated website.

The impact of regulations in the use of capital markets for infrastructure financing: The case of Costa Rica

Costa Rica got a promising start in the use of project finance with three programs of bond issuances totaling $425 million made in the domestic market over the period 2000-2008. The bonds were used to finance the construction of hydroelectric power plants. All bonds had the electricity power company (ICE) as the sponsor. The issuance of project bonds allowed ICE to get financing that otherwise would not have been available in large part due limits by the budget authority on ICE's direct spending and leverage. Furthermore, the cost of financing with bonds was significantly lower than what ICE was paying for its own direct financing and the tenors were longer.

All the bonds were issued under a public offering regime and subject to authorization by the SUGEVAL (the securities regulator in Costa Rica). One of the main reasons for choosing this placement method is the fact that pension funds in Costa Rica can only invest in publicly offered securities. In practice, domestic pension funds were the main investors, but pension funds from El Salvador also invested in them.

From 2008 to 2015 there was an impasse in the use of capital markets to finance infrastructure due to changes in the regulatory approach of SUGEVAL. The success of ICE's sponsor issuances resulted in a large pipeline of projects to be financed via capital markets of at least US$1 billion. They all had in common with ICE's structures the fact that the bonds were to be paid from future flows stemming from the leasing of an "asset" to a public entity. But they differed in critical aspects, such as who would assume construction risks. The SUGEVAL considered that many of the new projects involved additional risks to investors that were not properly addressed and suspended all authorizations. In 2008 the SUGEVAL issued specific regulations for the use of capital markets for infrastructure financing which were considered to be too restrictive by the market; in particular they apply existing ratios for corporate bond issuances to project bonds. In addition, the regulations required very specific guarantees to be provided by the sponsors in case greenfield projects. Such conditions were considered too restrictive by market participants and as a result, issuances came to a halt.

In 2015 the SUGEVAL issued new regulations for the use of capital markets for infrastructure financing that (i) clarified the different nature of project financing versus corporate financing and thus eliminated the need for the

[14] An instrument initially created for private equity, the RDPT, which is a close-end fund, has been used for infrastructure investment, but with not much success due to a complex set of issues, including tax distortions.

SPV to comply with specific leverage ratios applicable to corporate issuances, (ii) allowed oversight mechanisms to be agreed among the parties subject to their disclosure in the prospectus, and (iii) left to investors the decision of the type of risks that they were willing to assume, under a framework that requires robust disclosure of risks by the issuer and suitability obligations by intermediaries.

Pursuant to such regulations, both trusts and limited-purpose joint stock companies (sociedades de proposito especial) can be used as SPVs to issue securities related to infrastructure financing, including project bonds. The authorization for their public offering requires the submission of a series of information to the SUGEVAL, including a prospectus, a credit rating, and financial information on the project (either projections and their assumptions prepared by a registered expert or if the project is in operation, audited financial statements). The issuer is subject to periodic and ongoing disclosure requirements, including submission of quarterly financial statements and annual audited financial statements, material events disclosure and updated ratings.

The new regulations of SUGEVAL were subject to ample consultation, which allowed the SUGEVAL to fine-tune them. In turn, they had a very positive reception by the market. Three issuances have already been placed. The most recent involved the use of project bonds as a refinancing facility. A tranche was placed exclusively in Costa Rica, under the regime described above. Another tranche was placed in the international markets relying on Rule 144A and Regulation S. (See case study for Autopistas del Sol SA.)

In addition, in 2016 the SUGEVAL issued reforms to the regulations for mutual funds, aimed at creating a framework for public infrastructure funds. Since 2006 close-end mutual funds were allowed to invest in the development of private infrastructure. The reforms introduced in 2016 allow them to participate also in public infrastructure development. The regulations for infrastructure bonds issued in 2015 served as the basis to regulate the infrastructure funds. The only material difference is that these funds must issue "equity-like" participations first and then the funds can also issue bonds to the public. At the time of this note one fund had already been authorized for public offering, and two more were in the process of review by SUGEVAL.

As for infrastructure debt funds, the experience regarding disclosure requirements is mixed. There are some cases where a "pure" private placement regime is available and has been used and as a result, no disclosure requirements are imposed by securities regulation. That is the case of South Africa and Peru. However at least in the case of South Africa disclosure requirements have been imposed by the pension regulator, as well as more specific conditions for pension funds' investment in infrastructure funds that altogether seek to address concerns of the pension regulator about the limited expertise of pension funds with this type of investment.

I**n countries where the public offering regime is used, some tailoring has been necessary to address concerns about the level of disclosure required.** For example, in Brazil the creation of a restricted public offering has allowed to lower the level of involvement of the regulator and the disclosure requirements imposed on infrastructure funds. In a similar vein, in Mexico a restricted public offering was created to allow the CKDs and Cerpis to restrict access to the information of the projects they invest in to actual investors. While these are vehicles for equity investment the lessons are equally relevant for CIS that invest in debt.

KEY DEBT INSTRUMENTS FOR INFRASTRUCTURE FINANCING IN USE IN SELECTED EMES: DISCLOSURE REQUIREMENTS		
Brazil	Infrastructure Debentures	Infrastructure debentures are subject to registration with the CVM. To this end they must submit a prospectus and other documents required by CVM Instruction N° 400/03. The Instructions allowed the CMV to dispense an issuer of specific requirements. IDs may also be placed through a restricted public placement regime with lower public disclosure requirements. On an ongoing basis, if the issuer is a publicly listed company, it must provide quarterly reports and an annual report which must include annual audited financial statements, be subject to material events disclosure, and other disclosure requirements imposed to public companies. If the issuer is not a publicly listed company but its debentures are negotiated in a regulated market audited financial reports are required. A credit rating may be required, in case of significant allocation of resources by institutional investors.
	FIPs-IE	FIPs-IE are constituted pursuant to the Instructions for FIPs. FIPs are subject to registration with the CVM. To this end, they need to submit a prospectus, the fund by-laws and the placement agreement. For funds of less than 20 investors a prospectus is not required and the registration is automatic. Recent reforms have clarified the automatic registration procedure. On an ongoing basis, funds must provide (i) information on the size of the fund, and number of unit holders on a quarterly basis, (ii) portfolio composition on a semiannual basis, and (iii) audited financial statements, along with a detail of costs on an annual basis. FIPs-IE can use a restricted public offering regime with lower public disclosure requirements at the moment of the placement.
Colombia	Infrastructure Funds	Infrastructure funds are constituted pursuant to the Private Equity Funds Regulations. As per such regulations, the funds do not require prior authorization from the SFC, but a series of information must be submitted by the administrator to the SFC, including the internal regulations of the fund and information on the professional manager -if the fund chose to hire one. Private equity funds have a general obligation to provide semi-annual reports to investors.
Costa Rica	Project Bonds	Project bonds can be issued pursuant to the Regulations for Infrastructure Financing. According to such regulations, project bonds are subject to authorization by the SUGEVAL. To this end the SPV manager must submit a series of documents, including a prospectus, a credit rating and financial information (projections along with their assumptions or in the case of projects in operation, audited financial statements for the last fiscal period). There are periodic and ongoing disclosure obligations, in particular: (i) quarterly financial reports, (ii) annual audited financial statements, (iii) material events and (iv) a rating.
	Infrastructure Funds	Infrastructure funds are constituted pursuant to the Regulations for Mutual Funds, where there is a separate chapter for infrastructure development funds. They must be constituted as close-end funds. Pursuant to such regulations they are subject to authorization by SUGEVAL. To this end the fund manager must submit a series of documents, in particular a prospectus. The fund must provide quarterly reports to investors on the status of the projects in which it invests.
Mexico	Project bonds	Requirements for the public offering of project bonds are set forth in the General Dispositions applicable to issuers of securities. Generally, the requirements for asset backed securities apply to project bonds. Pursuant to

		such regulations, the project bonds need to be registered with the CNBV. To this end, the issuer must submit a series of documents to the CNBV, including a prospectus, and a credit rating. Audited financial information is not required if the SPV is of recent creation. The issuer is also subject to periodic and ongoing disclosure obligations which include annual reports with audited financial statements, quarterly reports, material events disclosure and credit rating updates.
Peru	Infrastructure Funds	Infrastructure funds are constituted pursuant to the Regulations for Investment Funds. As per such regulations the funds can be placed privately. In such case, they are exclusively governed by their internal regulations. There is also the possibility to use a simplified registration procedure within the public offering regime, when funds target only institutional investors or where the minimum participation is not less than s/250,000. In that case the fund needs to be registered, but registration is automatic upon presentation of the internal regulation of the fund. Periodic disclosure obligations apply, which include the presentation of annual audited financial statements and interim financial statements, as well as detailed information on the investments made.
South Africa	Listed Bonds (work in progress)	The bonds would be listed in a market for professionals whereby disclosure obligations mandated by the market operator would be relaxed and the information provided by the issuers would not be publicly available, rather investors would be able to access provided that they identify themselves as such with a specific code, via a dedicated website.
	Debt Funds	Funds are not subject to authorization nor registration with the FSB. There are no disclosure requirements imposed by securities regulation. However the pension regular has imposed periodic disclosure requirements, in particular quarterly reports and an annual report.
Turkey	Infrastructure Funds	Infrastructure funds are constituted pursuant to the Communique on Real States Investment Companies. Their offering requires approval from the CMB. In case that the offering is addressed exclusively to institutional investors a prospectus is not required, and interim financial statements do not need to be sent to the CMB either.

SECTION III. CONTROL ISSUES

Control issues arise from the need to make adjustments to infrastructure projects for which authorization from investors (lenders) is required. In practice, infrastructure projects almost always have situations when the project sponsor will need to make adjustments in the way the project is constructed, operated or financed. In order to secure financing for a project, especially for projects during the initial construction phase and those without a track record, the project sponsors must usually provide the lenders with covenant packages that provide significant rights to control decisions about the project's management as long as the debt is outstanding.

Typically lenders insist on covenants that require their approval for:

- Amendments, waivers and permissions to make minor adjustments to the project's planned operation or performance standards (such as making changes in construction contracts, suppliers, technology and timelines)
- Amendments to financing documents to make more significant alterations in the lenders' security, repayment dates, repayment amounts, interest rates, etc.
- Enforcement actions against the project security if there is a covenant breach
- Acceleration of debt payments if there is an event of default

In each case where a decision is required, the lenders need first to be informed of the particulars of the decision to be made and then voting occurs. Since projects sponsors need lenders to make timely decisions in order not to impede the operation of the project (especially during the construction period), the voting process needs to be organized with a clear timeline.

Such process is not particularly difficult when banks provide financing. In the case of bank financing, the number of banks is limited, the project sponsors know who to contact, and the participating banks normally have staff with the skills to understand the issues and quickly make a decision. Furthermore, in many cases there is a controlling creditor on which the syndicate relies for purposes of analyzing information and recommending courses of action.

In private bond offerings, the process does not differ substantially from bank deals, however as the number of investors involve increases, then challenges start to appear. In pure private offerings, usually the placement is restricted to a very small number of institutional investors, thus calling meetings might involve a similar process to bank lending. In hybrid offers and even more so in public offerings there may be a large number of different institutions and, in the latter, potentially also individuals holding the bonds, it may not be easy to identify them,[15] and they may not have staff with the skills needed to understand the issues and make a decision on a timely basis.

[15] Public bonds are held in book entry form often in "street name" which identifies the brokerage firm and not the beneficial owner. Thus, the beneficial owners of the bonds can be hard to identify and can change on an ongoing basis, making outreach to bondholders much more challenging that private placements, which are held in physical form and are subject to trading restrictions.

Infrastructure debt funds can mitigate the control problem. The fund manager makes decisions on behalf of the investors, simplifying control issues. Also, there are likely to be only a few debt funds involved in any project.

Experience in Advanced Economies

Different solutions are being applied in AEs to address control issues in the context of project bonds, whether privately or publicly placed, all of them agreed contractually. They range from simplifying the covenant structure, to adjusting the thresholds for decisions, to delegating control over some decisions to one of the investors. Another approach still developing involves contracting a third party to analyze and disseminate information, and provide recommendations to investors.

CURRENT SOLUTIONS TO CONTROL ISSUES IN ADVANCED ECONOMIES		
Approach	Conditions for use	Countries where it has been used
Structuring the voting process so that the hurdles for voting majorities are set at different levels depending on the importance of the decision. For example, for day-to-day waivers only a simple majority (e.g., 50% based on the value of each lender's participation in the financing) may be required for a decision, while for major decisions such as accelerations a much higher hurdle (e.g., a supermajority of 67% to 90%) may be necessary for an action to be taken.	Equally sophisticated participants	AEs
Bondholders have been willing to turn over a significant portion of their control rights to one of the participating lenders (a bank or institutional investor) that has the in-house capabilities to efficiently deal with routine control issues (i.e., those that do not entail a change that is likely to disrupt the expected debt service payments of the bond-holders).	Used when there is in the group one participant with a higher level of sophistication. The key in such an arrangement is that there is good alignment of interest between the chosen leading lender and the other bondholders.	Used just in a few transactions, mainly in the European Union.
Bondholders collectively outsource to a third party (not one of the lenders) the responsibility for dealing with routine control issues. These organizations can respond to most everyday requests from project sponsors for waivers and consents or oversee voting by bondholders when more significant changes are necessary. In no cases have such agents been given full control rights (as was done when monolines provided comprehensive guarantees for project bonds). So far such organizations operate with little or no regulatory oversight in most countries.	Their involvement can be particularly useful if investors are willing to accept a "snooze or lose" approach to voting that provides them with the right to vote, which they lose if they are not responsive. Some investors, however, question the value of such agents given that they have no "skin in the game" (i.e., they are not risking their own funds).	Used in the context of some of the large infrastructure projects financed in the European Union.

The use of infrastructure funds has also mitigated control issues. As indicated the limited partner structure has allowed the fund managers (in their condition of general partner) to take decisions for the limited partners (investors).

However other important challenges have arisen from the use of a fund structure. A key lesson from the first wave of infrastructure financing via private equity funds has been the need to ensure alignment of interests between the fund manager and the investors. Initially these funds were managed by private equity managers (asset managers) whose interest were not aligned with the long-term horizon looked for by institutional investors.[16] Thus, when funds are used, care is now being placed in finding truly specialized managers whose timeline and objectives are in line with the needs of infrastructure financing. Alternative structures are also being used. For example, the large institutional investors have opted to develop their own capacities and invest directly in infrastructure either by themselves, or jointly with other like-minded investors. Investment platforms have also been developed, whereby a group of investors invests jointly in projects, with one of them taking a leading/more active role.

Experience in Emerging Market Economies

There is not yet sufficient experience in EMEs related to control issues in the context of project bonds in EMEs. In Peru, in at least one project, a third-party project manager has been hired to deal with the majority of control issues on behalf of a group of bond holders and to facilitate their voting when this is necessary for more important issues. But this case involves a transaction placed in the international markets.

In some EMEs oversight entities are part of the structure of debt offerings, but it is uncertain that they could have a role in project bonds. The frameworks for debt issuances in many EMEs contain provisions that require the participation of an oversight entity as part of the structure in order to monitor compliance by the issuer with covenants and which is given the power to call bondholder meetings when certain covenants are breached. That is the case of Brazil and Peru which in certain cases prescribe the use of a fiduciary agent. In practice, such entities seem to have performed a more limited role, and it is unlikely that they could be transformed into specialized third party agents similar to those that are appearing in Europe.

While the use of debt funds is still recent, they show how control issues can be mitigated. In many cases debt funds in Latin America have different legal structures than those used in AEs. However, in practice most structures achieve the same results than the limited partnership of AEs, of empowering the fund manager to respond to project sponsors' requests for amendments, waivers and consents without having to consult investors. Fund managers are filling their infrastructure expertise "gap" by contracting specialized firms in infrastructure financing to support project selection and monitoring. In some countries, such as Peru, additional conditions

[16] See OECD (2015). Infrastructure Financing Instruments and Incentives at http://www.oecd.org/finance/private-pensions/Infrastructure-Financing-Instruments-and-Incentives.pdf

have been imposed for pension fund investment in infrastructure funds that seek to ensure alignment of incentives between the fund manager and the pension funds, including a requirement for the fund manager to invest in the fund (i.e. to have "skin in the game").

In some cases, however, regulations on the operation and governance of the vehicles have created challenges. For example, in Mexico the CKDs have a corporate governance structure similar to that of a listed company, and as a result any investment of more than 5% of the trust estate requires the approval of the board of directors, and any investment of more than 20% requires unitholders' approval. This type of requirement has hindered participation of other type of investors different from pension funds in CKDs. As a result, in 2015 the regulator created another vehicle, the CERPIs, which are designed to emulate a private equity fund structure, where investors have a passive role (like limited partners), while all investment decisions are taken by the manager (like a general partner). While this is a vehicle for equity investment, the lesson is equally relevant to debt instruments.

Other structures are also being tested, that allow for collective investment in ways that seek to align incentives. For example, the International Finance Corporation (IFC) has developed a platform in the lending space similar to that of Allianz, whereby institutional investors can invest in a pool of emerging markets infrastructure loans originated by the IFC and syndicated through the Managed Co-Lending Portfolio Program (MCPP).[17]

[17] The portfolio is constructed following a passive and rules-based allocation process, where an MCPP investor is offered a portion of each new eligible loan that IFC makes. Under MCPP, investors receive priority access to IFC's pipeline, benefit from IFC's experience in managing emerging market loans, and lend on the same terms and conditions as IFC. IFC's investment will be in a first loss position, subordinated to other senior investors, improving the risk position of the senior investors to an investment grade profile.

SECTION IV. OTHER ISSUES RELEVANT TO SECURITIES REGULATORS

Several other policies can impact the effectiveness of regulatory changes made by securities regulators. As indicated in the introduction several factors are affecting the mobilization of institutional investors to infrastructure financing. Many of them are far removed from the purview of securities regulators. There are a few, however, which more directly affect the issuance of capital markets instruments. Therefore, it is key that securities regulators understand how such issues can affect the appetite of institutional investors for these instruments and to the extent necessary, play an advocacy role.

A. Investment Regulation of Institutional Investors

Investment regulations can impact the ability to invest in and appetite of institutional investors for infrastructure financing. Investment regulations vary greatly from country to country and usually change over time as institutional investors' assets grow and each country's capital market develops. Such regulations are typically designed to protect the public's interest and maintain financial market stability. However, in many countries excessively restrictive guidelines are preventing investors from investing in long-term assets such as infrastructure that can provide additional asset growth and diversification, without increasing risk.

In addition to direct prohibitions and restrictions, other provisions could indirectly des-incentivize infrastructure financing. For example, with the growing use of defined contribution pension plans in many countries, pension investment regulations have tended to focus on the short-term delivery of investment returns rather than the long-term generation of a pension income – even though the latter is the more appropriate focus of pension funds. Adopting approaches for regulating investment that reduce short-termism – such as the use of outcome-based benchmarks – would likely increase the flow of pension fund assets into infrastructure. A similar result might be achieved by changing rules that allow pension plan contributions to move from one fund to another without penalties and within short periods of time. Such ease of fund shifting increases the administrative costs of pensions and encourages a focus on short-term investment performance.

More generally governments should also look at any barriers that may be limiting access to their capital markets by foreign institutional investors and restrictions on domestic institutional investors from investing in foreign infrastructure projects. Competition from foreign investors in domestic markets can help hold down the costs of such financing and can also signal to domestic investors that infrastructure is an asset class that they should consider investing in. And in countries that have few domestic institutional investors ready to invest in infrastructure, this can provide long-term financing that may not be otherwise available for projects. Allowing domestic institutional investors to invest in projects abroad can heighten their

appetite for this asset class, especially in countries where there is not a substantial pipeline of projects providing regular investment opportunities. And infrastructure funds, which try to build a diversified portfolio of project investors, do best when they can purchase assets from a variety of jurisdictions.

B. Procurement and PPP/Concession Regulations[18]

Public procurement regulations and practices can have a major impact on the use of capital market financing of infrastructure projects. The public authority bidding procedures requires some certainty of financing terms, which typically favors bank financing and private placements while making it difficult to use the public bond market. This is because in a public bond issue the pricing is not set until just a few days before issuance which makes it difficult to determine the total cost of financing at the bid stage. Without adjustments to the procurement process (and PPP contract terms) securing public bond financings may be discouraged.

Accordingly, public authorities should ensure that bank and capital market solutions are on an equal footing during procurement, especially when only the latter can provide the tenor necessary to avoid refinancing during the life of a project. This has been addressed in a few countries where there a risk sharing mechanism between the public authority and the project sponsor whereby the risk of any such price fluctuations are allocated between the parties, thereby enabling a firm financing commitment to be made upfront. A few countries even have encouraged public bond financing by requiring that this option be offered as part of bids on public projects. Also, the procurement authority may provide indicative bond pricing data for bidders (usually based on rating outcomes, maturity and other key indicators that affect ultimate pricing) to use in their financial models to derive the price of their offer.

Other issues might also need to be addressed to ensure that long term financing is not dis-incentivized. In many countries, the PPP or concession procurement focuses on net present cost. This can lead project sponsors to accept short-term financing and to ignore the cost of the refinancing risk that this involves. There is little incentive for them to choose a more stable financing structure – either by financing with initial long-term capital market debt or contracting to secure such debt post-construction (e.g., via a refinancing guarantee).

C. Impact of Tax and Accounting Rules

We have not addressed in any detail in this report how tax and accounting rules affect the decision to invest in infrastructure assets; however they can have a significant impact on investors' preferences. For example, tax policies have played a major role in the development of the municipal bond market in United States. In Brazil, the creation of a favorable tax treatment

[18] It is important to note that PPPs currently constitute only a small proportion of infrastructure development in EMEs. Publicly developed but privately financed infrastructure, from state owned enterprises (SOEs) and sub-nationals, still constitutes a significant proportion with respect to GDP and will continue to grow.

for infrastructure debentures created significant demand for them from individual investors, but with the unintended consequence of pushing away institutional investors given the lower yield they offered compared to the higher demand from non-institutional investors. In Indonesia, the tax treatment of RPTDs have been one of the key reasons why the vehicle has had no traction. Accounting rules can also shape institutional investor allocations to various asset classes.[19]

D. Quality of enforcement and the rule of law

Effective enforcement of contract and securities laws, and more generally confidence in the rule of law are key to institutional investors' participation in infrastructure financing. In the context of public offerings, securities regulators play an important role in ensuring issuers' compliance with their obligations. Yet, many securities regulatory authorities in EMEs still need to work on improving their supervisory and enforcement programs with a view to ensuring that issuers provide complete, accurate and timely information to investors. More generally, authorities in EMEs need to ensure that investors have at their disposal effective mechanisms to seek private redress. However, in many EMEs, judicial procedures are protracted, judges have limited expertise in financial issues, and in some cases, there are also concerns about the independence of the judiciary. In this context, authorities in EMEs should consider strengthening alternative mechanisms for dispute resolution, while working on long term judicial reforms.

[19] Some examples of this are provided in BlackRock (2014). Who Owns the Assets? Available at https://www.blackrock.com/corporate/en-no/literature/whitepaper/viewpoint-who-owns-the-assets-may-2014.pdf

SECTION V. CONCLUSIONS AND RECOMMENDATIONS

Much remains to be done to mobilize institutional investors in EMEs to finance infrastructure. As indicated in the introduction in many EMEs several factors outside of the control of securities regulators need to be addressed to make this objective a reality. However, even at such an early stage, the cases analyzed show the impact that securities markets regulation can have in either supporting or hindering capital markets financing of infrastructure. Indeed, when the right balance has not been achieved, regulations have hindered the use of capital markets and even brought its use to a halt.

In this context, it is key that securities markets regulators keep close coordination with both government authorities, financial regulators, and market participants and rely on consultation as they develop their regulations. Authorities in EMEs should explore the constitution of committees that comprise representatives from different government agencies, and financial regulators, and potentially also the private sector. At the operational level, ample consultation of both public and private stakeholders should be part of the rulemaking process to ensure that regulations strike the right balance between the different interests at stake. Below are key areas of attention.

For project bonds

Securities regulators should work with other government authorities to ensure that basic preconditions are in place. The cases suggest that some EMEs might still face challenges with basic preconditions that could hinder the use of project bonds, such as the existence of a SPV that is legally recognized as bankruptcy remote. This means that the only insolvency risk that project finance debt-holders bear is from the failure of the project. There are other aspects of the enabling environment that could affect investors' appetite for capital markets instruments more generally, such as the strength of the judiciary, particularly in the context of dispute resolution. However, this is a broader issue that applies to any offering of securities.

Securities regulators should work jointly with other financial authorities to ensure that a private offering regime is available for institutional investors' investment in infrastructure. In many EMEs the restrictions imposed on institutional investors to invest in securities that are privately placed seek to ensure that they have sufficient information on the securities they invest in, that they are adequately priced and that they are liquid. However, due to their bespoke nature, most project bonds are inherently illiquid and the listing itself does not change such situation; nor makes it easier to price the securities particularly when looking at construction risk. In contrast, requiring that institutional investors only buy securities of public offering significantly limits the market for project sponsors, given their needs for confidentiality and effective and

efficient mechanisms to deal with control issues. The need for a private offering regime is even more pressing when considering that the bulk of financing needed in EMEs is greenfield.

Thus, it is important that such regime be explicitly recognized by law and, as needed, guidelines be given (a "safe harbor") to participants as to the conditions under which a private offering could be used without risk of having the securities reclassified as public offerings. In tandem, obstacles for institutional investors' investment via private offerings should be removed. This could be achieved by authorizing them to invest a limited portion of their portfolios in securities of private offering A "hybrid" issuance regime might offer a good compromise; however the challenge lies in striking the right balance. To be effective, any approach would need to provide a satisfactory solution to the key concerns of sponsors: confidentiality, control, pricing and carry costs.

In the context of private and hybrid offerings, securities regulators should encourage the market to take the lead developing disclosure guidance rather that imposing strict requirements. It is acknowledged that this might be a challenge in some EMEs where institutional investors are not yet sophisticated. In such context, there might be the need for regulators to provide guidance in regard to minimum disclosure for project bonds and infrastructure funds even in the context of private or hybrid offers as a way to provide comfort to the market and to institutional investors' regulators.

The regulatory framework for public offerings should account for the differences between project bonds and other debt products such as corporate bonds. As the cases illustrate, it is necessary to tailor the framework for public offering to the specific characteristics of project financing. In particular, if the framework for corporate issuance were to be used as the basis, issues such as the ratios of debt to equity and the requirements to provide prior years' financial statements would need to be eliminated.

In addition, solutions to confidentiality concerns should be sought. One potential approach is to allow issuers to omit from public documents granular information about the projects they invest in, while ensuring that information agreed on can be accessed by actual investors and potentially also by prospective investors under a non-disclosure agreement using web-based virtual data rooms. Regulators can provide guidelines on how these virtual data rooms are set up and managed and how investors can access the information in a fair and equitable manner.

Use of credit ratings might be necessary. Given the complexity of project financing in general and the wide variations in types of projects for which project financing structures are used, few organizations have developed sophisticated project finance risk asset frameworks or have substantial experience in using these frameworks. One of such organizations are the global credit rating agencies (CRAs). Thus, ratings from these organizations are commonly used by investors in AEs to help in evaluating project bonds and loans, as a matter of market practice.

The key question is whether in the context of EMEs ratings should be included as a mandatory requirement, in the case of public and private offerings.[20] There is no easy answer to this question. It is important to highlight that in AEs, public authorities have been working towards eliminating mechanistic reliance on ratings and to this end, in many cases they have removed ratings from laws and regulations. However, the context of EMEs is different, as in many of them corporate bond markets are at a very early stage, and thus many prerequisites for their efficient functioning are not yet in place. Thus, for some EMEs mandatory ratings might constitute a transitory solution to mitigate information and capacity gaps while participants develop their own basic expertise and robust market practices develop. And that is why in many EMEs credit ratings are indeed a mandatory requirement for the issuance of corporate bonds. That said, three main types of concerns have been raised in EMEs, in connection with the use of ratings. First, there are concerns about the negative impact that mandatory ratings can have on issuers' access to the market, as they may create an overly "conservative" credit culture -particularly in cases where the investment regime of institutional investors uses ratings as a threshold for investment. Second, there are concerns that the existence of ratings might disincentive market participants from developing their own credit risk analysis, leading to mechanistic reliance on ratings. Finally, in some EMEs concerns have also been raised about the quality of ratings, and in particular the quality of local CRAs. Thus, decisions regarding the imposition of a credit rating as a requirement for issuance should be based on a clear understanding of country context and the potential actions that can be taken to mitigate the challenges that they might bring -as will be further discussed below. In any event, it is important to highlight that mandatory ratings should be seen as a temporary solution and thus the authorities should be ready to remove the requirement, as the market develops. Finally, the need to provide more flexibility in the case of private offerings should also be recognized.

Particularly when ratings are included as a mandatory requirement, authorities in EMEs should implement initiatives aimed at mitigating the challenges that they might bring to the market. Some of these initiatives are within the control of securities regulators. In particular, securities regulators should ensure the existence of robust licensing requirements for CRAs. In the context of infrastructure financing, particular attention should be paid to expertise requirements. Currently only the global agencies have developed the skills needed for project finance ratings.

[20] CRAs came under intense scrutiny due to their role in the financial crisis that started in 2007. Two sets of recommendations were issued by the G20/FSB on them. First, a recommendation to require registration and provide appropriate oversight of CRAs in line with IOSCO's Code of Conduct Fundamentals for CRAs. Second, the Financial Stability Board (FSB) issued Principles for Reducing Reliance on Ratings. The goal of the FSB Principles is "to end mechanistic reliance on CRA ratings by banks, institutional investors and other market participants by reducing the "hard wiring" of CRA ratings in standards, laws and regulations and by providing incentives for firms to develop their own capacity for credit risk assessment and due diligence". See at http://www.fsb.org/what-we-do/policy-development/additional-policy-areas/reducing-reliance-on-cra-ratings/. These recommendations apply to FSB jurisdictions. However, the review of the IOSCO Principles and Methodology conducted in 2010, led to the inclusion of a new Principle dedicated to CRAs (Principle 22). As a result, the first recommendation constitutes now a global standard. In this regard, Principle 22 requires that CRAs are subject to adequate levels of oversight and that the regulatory system ensures that CRAs whose ratings are used for regulatory purposes are subject to registration and on-going supervision. See the Principles and Methodology to assess them at http://www.iosco.org/library/pubdocs/pdf/IOSCOPD562.pdf

In some countries, local CRAs have affiliation with global CRAs, and thus are able to combine their country expertise with the infrastructure expertise of the global CRAs. But solutions might be more difficult to find in countries where only local CRAs have presence. Thus, as indicated above, this is an issue that should weigh in any decision regarding the imposition of mandatory ratings. In addition, securities regulators should continue to strengthen their on-going supervision programs of CRAs with a view to monitoring whether in practice CRAs follow their rating methodologies, dedicate sufficient expert resources to the rating process and abide by governance requirements. While outside of the control of securities regulators, in parallel it is critical that as the industries develop, pension funds and insurance regulators move towards risk-based regimes and that as part of this change, they require pension funds managers and insurance companies to implement robust internal controls and risk management processes. In addition, similar to securities regulators, it is critical that through their supervisory programs they review whether in practice institutional investors are conducting robust due diligence as part of their investment selection process.

Securities regulators might wish to encourage the standardization of project contracts and align regulatory requirements with such contracts. Project finance is based upon the contractual relationships among the many participants in a project. As a result, each project normally requires multiple contracts – such as a concession agreement, off-take agreement, shareholder agreement, procurement and construction (EPC) contract, financing contracts (loan agreement, intercreditor agreement, etc.), operations and maintenance (O&M) contract and input supply contracts. Such documents are typically developed by market participants and become codified over time. Project finance banks have the knowledge and experience to deal with many variations in these contracts, but institutional investors can find it difficult to do so.

Finding ways to deal with control issues is a greater challenge for EMEs in their efforts to mobilize institutional investor financing for public infrastructure. The situation in many EMEs is different in important respects from that of AEs: the share of total infrastructure financing needed for greenfield projects (relative to brownfield projects) is greater; fewer institutional investors have any project finance capability or the resources to develop such capabilities; and few EMEs have developed private placement markets where control issues are less pressing than in public offering markets.

However, at this point information, it is important to avoid rigid solutions. Different types of solutions are starting to develop in AEs, from differentiating the majority needed for decisions, to relying on one lender/investor for control issues or hiring a third party to assist investors with the analysis and dissemination of information ahead of decisions that are needed from them. What the right solution might be would largely depend on the type of project being finance and the type of investors involved. Thus, a prescriptive solution would not be advisable, at least at this point in time. However, it is critical that securities and institutional investors' regulators raise awareness over this issue and encourage investors to come up with solutions that are tailored to their level of expertise.

In tandem, particularly in the context of bonds of public offering, initiatives aimed at facilitating e-voting should be pursued. Electronic voting ("E-voting) solutions that allow bondholders to be notified when a proposal is to be voted on and to deliver their votes through an internet website, will be of benefit to investors and project sponsors alike, and ensure that project sponsors and owners will have confidence to use the bond markets to fund their projects, because E-voting removes the major concern that bonds are inflexible and unable to provide variations, consents and waivers when required. E-voting can also provide investors with confidence that they can exercise their rights in a way that is simple and quick to operate from the desktop.

For infrastructure debt funds

Disclosure can also pose challenges in the context of funds; thus it is important that there be flexibility in their placement regimes. In general, the cases indicate the need to allow more space to institutional investors to decide the content and frequency of disclosure, and to address concerns about the treatment of sensitive information. Solutions have ranged from allowing the funds to be placed via private offerings, to lowering regulatory requirements under a public offering, and restricting access to sensitive information.

Control issues can be mitigated via infrastructure debt funds, however securities regulators should ensure that fund regulations do not impose unnecessary restrictions in their governance requirements. The cases show that restrictions, such as the need for unitholders approval of key decisions, can be a disincentive to the use of capital markets by sponsors. Thus, enough flexibility should be imbedded in the framework for this type of funds so that the fund manager can assume the controlling creditor role on behalf of the more passive investors in the fund, thus dealing with waivers and consents. In practice this can be achieved with the use of a limited partnership but other legal structures can achieve the same outcome as many of the examples in EMEs indicate.

However, care needs to be taken to ensure alignment of interest between the fund manager and the investors. First, the need for fund managers to have adequate expertise should be highlighted. As the cases suggest, this could be achieved by allowing them to contract truly specialized firms in infrastructure financing to support project selection and monitoring. This is likely to strengthen their monitoring role and put them in a better position to deliver to institutional investors the benefits that they expect to obtain by investing via a fund structure. From an institutional investors' regulation perspective, other measures could potentially be added to ensure alignment of incentives, such as for example requiring the fund manager itself to invest in the fund. In this context, it is critical that any additional measure be carefully designed to strike the right balance and avoid rigid structures that could disincentive participation by other investors.

ANNEX I. OVERVIEW OF NON-RECOURSE FINANCING

Most public infrastructure projects in which there is private sector participation are done of the basis of a special form of financing called project finance.[21]

Project finance is based upon a non-recourse (or sometimes limited-recourse) financial structure, in which project debt and equity used to finance the project are paid back from the cash flow generated by the project, with the project's assets, rights and interests held as secondary security or collateral. In this context, the financing is not primarily dependent on the credit support of the sponsors or the value of the physical assets involved. Rather it depends on the revenue generated by the infrastructure once it is constructed and operating.

A special purpose vehicle (SPV) project company with no previous business or record is necessary for project financing. The company's sole activity is carrying out the project by subcontracting most aspects through construction and operations contracts. In addition, the SPV must be "bankruptcy remote" from the companies sponsoring the project. This means that the only insolvency risk that project finance debt-holders bear is from the failure of the project.[22] Project finance is characterized by the contractual agreements that clearly define the role of various parties in the relationship and are used to safeguard the interests of each party. These contracts also make clear the allocation of risks between the multiple project stakeholders.
This structure often allows non-recourse project financing to be treated as off the balance sheet of the sponsoring organization.[23] However, if a government makes a commitment to make payments for the future services provided by the infrastructure, or guarantees that there will be sufficient cash flows from other sources, these obligations need to be reflected in the government's budget. Given that the SPV has no credit history and is highly leveraged with significant debt service obligations, lenders require that cash flows from the project go first to covering operating expenses and to servicing the debt and any dividend payments are strictly controlled. The use of project revenues is contractually binding and the reinvestment decision is removed from project sponsor's hands.

The regulatory structure of capital markets in most countries have been designed to facilitate the use of corporate stocks and bonds to help finance the on-going need for external equity and debt

[21] In the U.S., most infrastructure is financing through the municipal bond market. See the U.S. Country Summary.
[22] In some countries the SPV concept is not recognized and the project fully segregated from its ownership structure.
[23] Many public sector organizations treat both operating expenditure and capital expenditure as fungible cash and do not have a balance sheet for their assets. This has stimulated much government interest in PPPs that use a project finance structure for financing infrastructure. However, the appropriate consideration should the efficiencies to be achieved using PPPs and not their budgetary treatment.

financing of operating companies. Project financing is different; it was developed as a means to assemble a number of investors and lenders to undertake specific infrastructure projects that would be too large for individual investors to undertake on their own. Table 1 below summarizes the key differences.[24]

Project financing structures can provide a high level of security to project creditors by the prioritization of payments from project revenues specified in financing agreement, the use of cash reserves, liquidity facilities and guarantees to ensure timely debt service payment, and various covenants in the debt agreements that restrict the actions of the project sponsor without the consent of its creditors and set limits or thresholds for certain financial ratios that the company may not breach.[25]

In project finance the contractual relationship among project stakeholders also means that much more information needs to be provided by the project company to its creditors than is normally needed in corporate finance. In the latter, corporate management has a great deal of flexibility in how it carries out the corporation's business. But in project finance, the project company's freedom of action is more constrained by the contractual relationship and the project company typically must consult with and obtain approval for actions that may be necessary but were not anticipated in the original contracts. Some, or a great deal, of this information may be viewed by the project company as confidential for commercial reasons. Thus, project companies are often sensitive to how this information is shared with other project stakeholders and protected from public disclosure.

Finally, project finance is almost always long-term. The large upfront investment required to build infrastructure can generally be repaid only gradually, over the long life of the infrastructure investment. This means that long-term debt instruments are best suited for financing projects.

[24] Wharton Finance (1996). **Project Finance Teaching Note**. This paper is available at http://finance.wharton.upenn.edu/~bodnarg/ml/projfinance.pdf

[25] Not all risks can be removed. Key risks for infrastructure debt investors are:

- Illiquidity risk: infrastructure debt is not liquid and if sold before its maturity has the risk of incurring losses - thus infrastructure debt is least risky if it is a buy-and-hold investment.
- Interest rate risk: the market valuation of fixed rate investments depends on the level of interest rates – again a risk that is less significant for buy-and-hold investors.
- Prepayment risk: the issuer may repay the capital before the contractual deadline – however this risk is often mitigated through the imposition make-whole or non-call provisions or early repayment penalties.
- Default risk: although studies of past project performance have shown that the probability of an issuer default in the infrastructure sector is significantly lower than in other sectors, the issuers may not be able to meet their debt service obligations – in such cases even buy-and-hold investors may be hurt.

Table 1. Comparison of Corporate and Project Finance

Dimension	Corporate finance	Project finance
Financing vehicle	Multi-purpose organization	Single-purpose entity
Type of capital	Permanent - an indefinite time horizon for equity	Finite - time horizon matches life of project
Dividend policy and reinvestment decisions	Corporate management makes decisions autonomous from investors and creditors	Fixed dividend policy - immediate payout; no reinvestment allowed
Capital investment decisions	Opaque to creditors	Highly transparent to creditors
Financial structures	Easily duplicated; common forms	Highly-tailored structures which cannot generally be re-used
Transaction costs for financing	Low costs due to competition from providers, routinized mechanisms and short turnaround time	Relatively higher costs due to documentation and longer gestation period
Size of financings	Flexible	Might require critical mass to cover high transaction costs
Basis for credit evaluation	Overall financial health of corporate entity; focus on balance sheet and cashflow	Technical and economic feasibility; focus on project's assets, cash flow and contractual arrangements
Cost of capital	Relatively lower	Relatively higher
Investor/lender base	Typically broader participation; deep secondary markets	Typically smaller group; limited secondary markets

Source: Wharton Finance (1996)

Outstanding Debt Securities of Selected Countries (at end of 2015)

(million US$ & % of GDP)

	Total debt securities outstanding				International debt securities outstanding				Domestic debt securities outstanding			
	Total	Government	Financial Corporates	Non-Financial Corporate	Total	Government	Financial Corporates	Non-Financial Corporate	TOTAL	Government	Financial Corporates	Non-Financial Corporate
Australia	1,811,812	540,716	1,063,533	207,563	583,726	3,780	518,457	61,490	1,250,858	536,844	674,489	39,525
	146%	*44%*	*86%*	*17%*	*47%*	*0%*	*42%*	*5%*	*101%*	*43%*	*55%*	*3%*
Canada	2,039,626	1,073,434	540,653	425,540	777,247	116,743	417,080	243,424	1,424,721	939,137	275,593	209,991
	142%	*75%*	*38%*	*30%*	*54%*	*8%*	*29%*	*17%*	*99%*	*66%*	*19%*	*15%*
Euro Area (excluding the U.K.)	19,704,848	8,918,617	9,503,834	1,282,399	8,559,921	674,196	6,736,676	1,149,049	11,144,927	8,244,421	2,767,158	133,350
	145%	*66%*	*70%*	*9%*	*63%*	*5%*	*50%*	*8%*	*82%*	*61%*	*20%*	*1%*
United Kingdom	5,905,207	2,614,867	2,740,570	545,299	3,038,419	21,572	2,634,904	381,943	2,866,788	2,593,295	105,666	163,356
	214%	*95%*	*99%*	*20%*	*110%*	*1%*	*95%*	*14%*	*104%*	*94%*	*4%*	*6%*
United States	36,979,004	16,254,315	14,976,205	5,527,029	2,272,297	4,828	1,824,267	443,202	34,706,707	16,249,487	13,151,938	5,083,827
	206%	*91%*	*83%*	*31%*	*13%*	*0%*	*10%*	*2%*	*193%*	*91%*	*73%*	*28%*
Brazil	1,559,700	1,008,165	448,553	102,982	138,900	48,344	53,693	36,862	1,420,800	959,821	394,860	66,120
	104%	*67%*	*30%*	*7%*	*9%*	*3%*	*4%*	*2%*	*94%*	*64%*	*26%*	*4%*
Colombia	112,962	89,375	7,825	15,762	46,807	24,657	7,825	14,325	66,155	64,718	-	1,437
	44%	*35%*	*3%*	*6%*	*18%*	*10%*	*3%*	*6%*	*26%*	*25%*	*0%*	*1%*
Costa Rica	-	-	-	-	7,227	4,250	1,977	1,000	-	-	-	-
	0%	*0%*	*0%*	*0%*	*11%*	*6%*	*3%*	*1%*	*0%*	*0%*	*0%*	*0%*
Indonesia	212,723	155,260	36,031	21,430	78,356	47,922	17,152	13,281	134,367	107,338	18,879	8,149
	25%	*18%*	*4%*	*3%*	*9%*	*6%*	*2%*	*2%*	*16%*	*13%*	*2%*	*1%*
Mexico	753,449	413,266	172,583	167,600	208,972	62,478	22,517	123,977	544,477	350,788	150,066	43,623
	72%	*39%*	*16%*	*16%*	*20%*	*6%*	*2%*	*12%*	*52%*	*33%*	*14%*	*4%*
Peru	68,577	33,507	21,314	13,754	44,141	19,284	14,231	10,625	24,436	14,223	7,083	3,129
	38%	*19%*	*12%*	*8%*	*25%*	*11%*	*8%*	*6%*	*14%*	*8%*	*4%*	*2%*
South Africa	193,837	123,506	39,985	30,347	163,632	111,505	32,851	19,276	30,205	12,001	7,134	11,071
	59%	*38%*	*12%*	*9%*	*50%*	*34%*	*10%*	*6%*	*9%*	*4%*	*2%*	*3%*
Turkey	278,446	213,056	55,451	9,940	110,823	61,821	41,858	7,145	167,623	151,235	13,593	2,795
	41%	*32%*	*8%*	*1%*	*16%*	*9%*	*6%*	*1%*	*25%*	*22%*	*2%*	*0%*

Source: **BIS Debt Statistics**

Pension Fund Assets of Selected Countries (at end of 2015)

	GDP (mil US$)	Pension funds (mil US$)	Pension funds (% of GDP)	All retirement vehicles (% of GDP)	Number of Pension Funds	Average assets per fund (US$ mil)
Australia	1,237,324	1,468,704	118.7%	121.2%	559,547	3
Canada	1,433,688	1,195,696	83.4%	157.0%	8,876	135
Euro Area (excluding UK)	13,549,884	2,114,135	15.6%	--	72,000	29
United Kingdom	2,762,016	2,690,204	97.4%	--	43,690	62
United States	17,946,783	14,249,746	79.4%	133.1%	685,203	21
Brazil	1,505,819	174,675	11.6%	18.9%	317	551
Colombia	254,745	51,968	20.4%	20.4%	4	12,992
Costa Rica	67,797	9,017	13.3%	13.3%	14	644
Indonesia	853,294	14,506	1.7%	--	255	57
Mexico	1,051,045	163,963	15.6%	16.6%	55	2,981
Peru	179,241	36,386	20.3%	20.3%	12	3,032
South Africa	328,022	317,525	96.8%	--	13,390	24
Turkey	676,291	37,196	5.5%	--	223	167

Source: OECD http://www.oecd.org/daf/fin/private-pensions/Pension-Markets-in-Focus-2016.pdf

Notes: Data on South Africa assets is from 2014 and number of funds from 2005.

Data on number of funds in Brazil is from 2014.

The EU has approximately 72,000 funds, of which 67,840 (94%) are in Ireland alone.

Assets per fund for the EU excluding both Ireland and the UK is 478 million US$.

Insurance Company Invested Assets of Selected Countries (at end of 2015)

	GDP (mil US$)	Life	Non-Life	Total	Invested Assets (% of GDP)
Australia	1,237,324	27,793	44,270	72,063	5.8%
Canada	1,433,688	57	70,732	70,788	4.9%
Euro Area (excluding UK)	13,549,884	2,828,095	985,619	3,813,715	28.1%
United Kingdom	2,762,016	654,634	231,183	885,818	32.1%
United States	17,946,783	3,855,647	1,415,193	5,270,840	29.4%
Brazil	1,505,819	13,739	3,272	17,011	1.1%
Colombia	254,745	8,362	3,023	11,385	4.5%
Costa Rica	67,797	-	18	18	0.0%
Indonesia	853,294	22,332	4,195	26,527	3.1%
Mexico	1,051,045	14,254	2,161	16,415	1.6%
Peru	179,241	4,309	911	5,220	2.9%
South Africa	328,022	266,591	8,884	275,474	84.0%
Turkey	676,291	1,716	2,578	4,294	0.6%

Source: OECD Global Insurance Statistical Database
http://stats.oecd.org/Index.aspx?DatasetCode=INSIND

ANNEX III. COUNTRY SUMMARIES

This Annex includes case studies for a selection of AEs and EMEs listed below:

- AEs: Australia, Canada, the European Union, and the United States.
- EMEs: Brazil, Colombia, Costa Rica, Indonesia, Mexico, South Africa and Turkey.

Each country summary provides information on infrastructure financing, institutional investors' participation in such financing, and securities regulations relevant to the issuance of the capital markets instruments involved.

The main sources of information for the country summaries are included in the bibliography. These sources were complemented with information collected by the WBG through work in the field. Each summary was sent for comments to the securities regulatory authority of the corresponding country. Their review should not be construed as endorsement of the cases. Errors, if any, are the entire responsibility of the authors.

AUSTRALIA COUNTRY SUMMARY

Australia has a well-developed infrastructure market and a large and sophisticated investor base including pension funds (superannuation funds), insurance companies and specialized infrastructure financing firms. However, their focus is primarily on equity investment and they have not been active in the debt component of infrastructure financing since the global financial crisis. The paucity of bond financing is in part driven by Australian bank competitiveness in the infrastructure sector, as well as the bidding system in place for procurement of public private partnerships. The bidding scoring focuses on pricing and there is no incentive to put in place a more stable capital structure with longer-term debt. Contributing to Australia's low use of domestic capital markets to finance debt is that their pension funds are defined contribution plans with less certain withdrawal patterns than the defined benefit plans, and their funds allocate less to fixed income than plans in other OECD countries.

Financial Sector Overview

The Australian debt market has approximately $1.8 trillion in bonds outstanding. Of this, about 30% are government securities. Most securities have tenors of 5-7 years, but there has been increasing interest in 10-year bonds and recently the yield curve has been pushed out incrementally. The longest tenor for government bonds is 15 years.

Domestic debt was 101% of GDP. Private sector debt (primarily bank debt) was slightly greater that public sector debt.

Pension assets in Australia were 82% of GPD in 2015 and insurance assets were 6% of GDP. Most of the pension (superannuation) funds are defined contribution programs.

Australian Securities and Investments Commission oversee the securities market and the Australian Prudential Regulation Authority (APRA) is the main pension and insurance regulator.

PPP framework

Australia, along with the United Kingdom, helped to develop the PPP financing model in the 1990s. In the early years, all PPPs were done at the level of the individual states, but there is now an effort to coordinate at the national level. The National PPP Working Group was established in 2004 to lead the development of policy and process improvement for the states. Infrastructure Australia was set up in 2008 as an independent statutory body with a mandate to prioritize and develop nationally significant infrastructure, to provide advice to the Australian Government and to develop 15-year rolling Infrastructure Plans that specify national and state level priorities.

Use of capital markets for infrastructure financing

Australia has a well-developed infrastructure market and a large and sophisticated investor base including pension funds (superannuation funds), insurance companies and specialized infrastructure financing firms. Their focus is primarily on equity investment and they have not

been active in the debt component of financing since the global financial crisis. Prior to the financial crisis, infrastructure bond financing in Australia was executed primarily using full financial guarantees provided by monoline insurance companies.

The paucity of project bond financing is in part driven by Australian bank competitiveness in the infrastructure sector. It is also a reflection of the bidding system in place for procurement of public private partnerships. The model is focused on net present cost, incentivizing bidders to use short-term debt and thus take on refinancing risk. There is no incentive to bid a more stable capital structure with longer-term debt. This reflects positive experience with obtaining bank financing even during periods of stress. It also reflects comfort with the flexibility provided by bank financing. As a result, sponsor will typically refinance large infrastructure debt packages multiple times during a transaction. The cost of this risk is embedded in the equity investors' return hurdles.

Contributing to Australia's low use of domestic capital markets to finance debt is the nature of their pension funds, referred to as superannuation funds. Their funds are defined contribution plans with less certain withdrawal patters than the defined benefit plans that are common in Canada. And their funds allocate less to fixed income than plans in other OECD countries—the second lowest in the OECD.

Finally, the yield curve in Australia is short with even the government going out only 15 years and most non-government debt being issued in the form of medium term notes with shorter tenors.

Despite this, there is incremental movement toward greater institutional investor participation in project debt. Both the government and the market are contributing toward these developments. First, the Australian government is focused on expanding the sources of infrastructure debt financing for projects and has been considering ways to enhance the credit quality of transactions, provide backstop liquidity and change the bidding process to encourage long-term debt as part of the procurement process.

Second, the project sponsors have been working to expand institutional interest in project financing, in order to benefit from increased sources of capital and reduced refinancing risk. One strategy has been to combine a local debt private placement with bank loans and/or a foreign private placement to entice local investors to participate. Still early in developing this approach, the first deals have been for refinancing of projects once construction is completed and the projects are operational. Recent progress has been made in pushing out maturities and attracting local institutional investors. (See box below for details on a recent groundbreaking transaction of this type.)

Australia Case Study: The Plenary Group's Victorian Comprehensive Cancer Centre

In November 2016 the Victorian Comprehensive Cancer Centre (VCCC) in Melbourne issued AUD450 million in 24-year private placement bonds. Australia's Plenary Group financed and built the facility and was contracted to operate it under a 25-year concession. There was a 4½ construction period that was completed the prior June.

The bonds were rated A by S&P. They were floating rate and fully amortizing. The bonds were issued in a private placement both domestically in Australia and in the U.S. A few large U.S. investors were lined up for the transaction, which encouraged local investors to join in on the domestic tranche.

The bonds were part of a refinancing of the bank construction facility, consisting of the bonds and 11.5 year bank debt.

According to Plenary, the financing was a breakthrough for the Australian market. They stated that the long-term PPP bond market was dormant in Australia since the global financing crisis, leaving little competition for banks in Australian PPP financing and, as a result debt has been relatively hard to secure for tenures longer than 7 years. The VCCC reflects a successful effort to re-engage fixed income investors in the Australian PPP bond market. The bond issue was supported by some of the world's largest fixed income investors alongside key local institutions.

BRAZIL COUNTRY STUDY

Brazil has used a highly centralized infrastructure financing model with a strong national development bank (BNDES) to provide stable and relatively low cost finance to infrastructure. Recently the Government has taken a number of measures to increase the role of private sector financing. However, due to a history of high inflation, Brazil's capital market remains focused on short term instruments. A non-investment grade sovereign rating has limited long-term financing from abroad. Most private infrastructure financing via capital markets, is placed under a restricted public offering.

Financial sector overview

According to BIS, the domestic debt market in Brazil was 94% of GDP at the end of 2015. Two-thirds of this was government debt. Bank debt makes up the bulk of the corporate debt. Brazil's history of relativity high nominal interest rates has meant that most domestic debt securities have maturities of less than ten years. Total stock market capitalization in 2015 was 33% of GDP.

Brazil has a mandatory pay-as-you-go pension system but no mandatory private system. However, there is a significant voluntary private system, the majority of which are defined benefit plans. Only about a tenth of pension assets are in defined contribution plans. "Closed pension funds" are sponsored by one or more companies in the same sector or industry, by labor unions, and by professional groups for their employees. "Open pension funds" are open to the general public and are run by insurance companies, bank subsidiaries, and nonprofit organizations. According to the OECD pension assets represented 18.9% of GDP at the end of 2015. While there are over three hundred funds (only 28% of these are public, but they hold 85% of the assets), the largest fifteen funds hold around two-thirds of the investable assets. Many of the large funds are state controlled, as their members are employees of large state owned enterprises. The largest, Previ, has the equivalent of over US$60 billion in assets.

The domestic insurance sector is not highly developed and total insurance assets were only 1.1% of GDP at the end of 2015 according to OECD data.

The securities regulator in Brazil is the Comissão de Valores Mobiliários (CVM). SUSEP has oversight over insurance companies and open pension funds and PREVIC has oversight over closed pension funds.

PPP framework

Brazil is one of the leading users of PPPs among the emerging market countries. As a result, a substantial amount of Brazil's infrastructure is run by the private sector—from ports to airports, roads, water, energy, and telecommunications. Over the period 2012-2016 around 270 PPP reached financial closure. The high number of PPP projects developed in the country is supported by its strong institutional framework as well as the ability to develop PPPs at both the national and sub-national level. The Government has recently proposed an ambitious plan for increasing the pipeline of such projects, but most of the projects will require substantial further development before they are ready to be tendered. While the country's financing instruments

are more developed than those of other countries in the region, its capital markets still must be strengthened to ensure funding for future projects and fill the financing gap left by the withdrawal of BNDES as the primary financier for PPPs.

Use of capital markets for infrastructure financing

Historically, financing for Brazilian infrastructure projects has been primarily via public sector banks, in particular the national development bank Banco Nacional de Desenvolvimento Econômico e Social (BNDES). In the past BNDES lent full funding for projects at a government-subsidized rate (the TJLP rate). BNDES charges a spread on the TJLP long-term lending rate, which stood at 7.5% in 2016, while commercial banks base their rates on the Selic benchmark, which was then at 13.75%. However, institutional investors, in particular pension funds and insurance companies are beginning to play a role in infrastructure financing, through different instruments explained below.

FIP-IE

The Infrastructure Equity Interest Investment Funds (Fundo de Investimento em Participações em Infra-Estrutura or FIP-IE) were created in 2007 motivated by the need to encourage private investment in infrastructure projects in Brazil by those domiciled in Brazil or abroad. FIP-IE are a specific category of FIP, which is the structure for private equity funds in Brazil. As such they are governed by CVM Instruction 391. Such instruction has been amended in different occasions to address concerns from the market about perceived rigidities in the eligible assets, and clarify aspects related to the registration process, as well as to the role of different parties.

As any FIP, a FIP-IEs is a closed-end collective investment schemes legally organized as a condominium. FIPs must be marketed to qualified investors only and have a minimum investment commitment of 100,000. A FIP-IE cannot have less than five investors and no investor can hold more than 40% of the fund's total value or receive earnings exceeding 40% of the fund's total earnings. FIP-IEs can invest in infrastructure projects that are considered to be a priority of the Government, which are those in the energy, transportation, water and basic sanitation or irrigation sectors. The FIP-IE can invest in new infrastructure projects, as well as in the expansion of existing projects. They can also invest all their subscribed capital in non-convertible debentures.

Pursuant to CVM rules the fund itself must register with the CVM. Registration is automatically granted on the day of the filing of relevant information, which includes the copy of the deed of incorporation of the fund. Reforms approved in 2016 clarified the nature of this automatic registration. One of the difficulties under the previous regulations was that the rule provided for the "automatic" registration of the FIP but the CVM did not have in place a system to confirm immediately the registration. This problem generally caused most fund managers to wait until they received a registration letter from the CVM. Such process brought some uncertainty to the registration process. Under the new system, the registration will be granted automatically once the relevant documents are filed with the CVM, but until the CVM implements a system for

automatic registration the registration will be effective 10 business days after the filing (unless the CVM replies earlier with requests for amendments or clarifications on the documents).

The distribution of FIP quotas is considered a public offering and thus, in principle, subject to registration with the CVM. However, FIPs could make use of a restricted public offering regime, pursuant to CVM Instruction 476, which exempts the quotas from registration. In practice, almost all FIPs choose to place their quotas through a restricted public offering. A restricted public offering is an offer made exclusively to professional investors. Pursuant to CVM rules to qualify as such the offer can only be marketed or advertised to a maximum of 75 professional investors, and no more than 50 of those investors actually invest in the fund.

CVM Regulations establish minimum disclosure obligations for FIPs. In particular, the administrator of the FIP must forward to the unit holders, to the administrator entity of the organized market where the units of the Fund are admitted for trading and to CVM, the following periodic information:

- On a quarterly basis, within 15 days after the end of the respective calendar quarter: (a) the net worth value of the Fund; (b) the number of units issued; (c) the quantity of unit holders; (d) the profile of the unit holders, specifying the category, number of unit holders and percentage of units, and (e) the total committed capital and the subscribed and paid in amounts and up to the reference date;
- Semi-annually, within 150 days after the close of the respective calendar semester, the composition of the portfolio, listing the quantity and type of securities that form such portfolio;
- Annually, within 150 days after the close of the fiscal year: (a) the audited financial statements, together with the independent auditors' report and the report of the administrator and manager; (b) the classification of the Fund in accordance with the accounting principles adopted for the valuation of its investments; (c) the costs charged to the Fund, specifying its value and percentage in relation to the annual average net value of the Fund.
- The fund is also subject to material events disclosure. In the case of a material change in the fair value of the investments of the FIP during the fiscal year, the following disclosures are required: (a) the report of the administrator and the manager with the justifications and details on the change of fair value; and (b) the effect of the new valuation on the results for the year and net value of the Fund. In addition, in the event that this type of change occurs during the fiscal year, the Fund must prepare its financial statements for the period between the date of beginning of the fiscal year and the date of the accounting recognition of that change, and submit it to the independent auditor. However, if the accounting effects of the material change in the fair value are recognized until two months prior to the closing date of the fiscal year, the preparation of these financial statements is not necessary.

The Regulations also required them to comply with a basic set of governance practices. In particular they (i) are prohibited from issuing founder shares; (ii) must establish a unified mandate of up to two years for all Board of Directors' members (if there is a Board of Directors);

(iii) must provide shareholders with copies of related party agreements, shareholders' agreements and programs of call option of shares or other securities issued by the company; (iv) must adhere to the arbitration chamber for the resolution of corporate conflicts; (v) and do an annual audit of its financial statements by independent auditors registered with CVM.

For a number of years, FIP-IE were the main channel of pension funds investment in infrastructure. However, due to challenges in fund governance and the negative impact of the recent recession on the performance of these funds, their appetite for investing in such funds has waned.

Project bonds

So far, investment in project bonds although permitted for pension funds has not been widely used. The first non-recourse project bonds for Brazilian projects were issued in 2010. While there has been a steady stream of these bonds being issued since then, they have yet to play a major role in infrastructure financing for several reasons. Interest rates on government debt have been high, making riskier and difficult to analyze assets such as project bonds. Brazilian pension funds generally only invest in assets rated A+ (local scale) or higher. There are few credit enhancement mechanisms available, making it difficult to raise the ratings on the bonds to levels needed attract institutional investors. For those projects that have issued bonds, the bonds have provided only a small portion of the total financing. This contrasts with the experience in AEs, where projects issuing bonds have received on average about half of their financing from the bonds. In contrast to the purchasers of project bonds in AEs – who are primarily insurance companies and pension funds – in Brazil the domestic project bonds are purchased primarily by public banks (both BNDES and Caixa Economica Federal) and private banks, high wealth individuals and asset managers (including infrastructure funds). In 2015 the relative shares of these three groups were 61%, 31% and 8%.

Financing in the oil and gas sector is somewhat a special case as 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. Project sponsors have also been able to attract foreign financing for larger, more complex projects. 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, including the refinancing of drill ships and offshore oil rigs.

Infrastructure Debentures

In 2011, in an effort to increase capital market financing for infrastructure, a Federal Law created the so-called Infrastructure Debentures (Debêntures de Infraestrutura or IDs), with the objective aimed at stimulating private financing for infrastructure projects of national interest. (Law 12.431/2011.) To receive this classification, debentures (i) must be used to fund investment projects in infrastructure or related to priority R&D investments, as defined by the Federal

Government, (ii) have a minimum weighted average tenor (duration) of four years and (iii) pay interest based on a fixed interest rate linked to a price index, or Brazil's Reference Rate.as BNDES has been supportive of Infrastructure Debentures by sharing security *pari passu* when lending to the same project.

One of the features of the IDs that has greatly shaped where they were used and who bought them is the reduction in taxes when the funds raised meet very specific guidelines set out by the Government. They provide an income tax exemption for domestic individuals and reduced taxes on foreign investors. A 15% withholding tax rate is applied to legal Brazilian entities, a rate below that available for returns on most other financial instruments.

Infrastructure debentures are usually placed through a restricted public offering, pursuant to CVM Instruction 476. As a result, they are exempt from registration, and from the specific disclosure obligations of an issuer of public offering under Instruction 400.[26] However, if issued by a publicly listed company then they must provide quarterly reports and an annual report which must include annual audited financial statements, are subject to material events disclosure, and other disclosure requirements imposed to public companies. If the issuer is not a publicly listed company but its debentures are negotiated in a regulated market, audited financial reports are required. A credit rating may be required, in case of significant allocation of resources by institutional investors. IDs are also placed internationally, relying on the private placement exemption as well Regulations 144A and Regulation S of the United States SEC. International transactions arising from the debentures are also exempt from the tax on foreign exchange transactions (IOF).

So far the use of infrastructure debentures has been much less than what the Government had expected. (See box below on the Rodovias do Tiete BRL Infrastructure Debentures which discusses some of the reasons for this.) The tax exemption for individual investors has had the unintended consequence of pushing away institutional investors due to the lower yield they offered given the higher demand from non-institutional investors resulting from the tax advantages.

Banks and letras financeiras

The Government also took an additional measure to stimulate the market for long term financing by banks by exempting long-term bank bonds called letras financeiras from mandatory reserve requirements. The letras financeiras allowed banks to raise fixed interest rate funding with a tenor of two years or more which they could then use to invest in IDs and other long-term investments. Banks started issuing these in 2010 and their volume grew rapidly. This provided them with the funding they needed to invest in IDs and undertake other forms of long-term lending. It also created increased competition between the banks and institutional investors for the provision of long-term financing.

[26] Under Instruction 476 an issuer is only subject a general obligation of disclosure, whereby the issuer needs to provide complete and sufficient information to investors and ensure that it is distributed in equal conditions to all investors.

Other issues

Project level credit enhancement has in the past not been available for infrastructure projects since a significant amount of infrastructure is either built by the Government directly or funded by state owned banks. And where infrastructure is privately financed, this has usually been done through corporate guaranteed loans or bonds. This means there has been little to enhance the stand-alone credit quality of the project. But if Government reduces its direct financing, credit enhancement will be necessary if financing from institutional investors is to fill the gap. Working with the World Bank, the Government of Brazil recently developed a project bond structure where pension funds can invest in greenfield projects. The bond will pay interest during the whole life of the bond, including the construction phase, and provide a high quality guarantee on the principal, either at the end of the construction period or at maturity.

In 2015 BNDES made available a credit line, Credit Line to Support Liquidity (Linha de Suporte à Liquidez or LSL), to support project liquidity for project bonds for an amount equal to up to two years of interest payments. In practical terms, the LSL works as a type of insurance, or stand-by credit, to whomever invests in these infrastructure bonds – in the event an issuer does not have enough cash flow and needs extra funding in order to pay the interest rates to bondholders, the trustee or issuing bank will notify BNDES who will disburse the payable interest amount directly to the bondholders, under the conditions set forth in the deed of issuance. The new credit line will reduce the risk of default, because the interest payment is guaranteed. The credit line may only be accessed by issuers of infrastructure bonds to fund projects already financed by BNDES, which are carried out by special purpose vehicles where the project entrepreneurs hold at least 20% of the equity share.

Another means of credit enhancement was launched by the Government in late 2014 – the Agencia Brasileira Gestora de Fundos Garantidores e Garantias S.A. announced the launch of a Fundo Garantidor de Infraestrutura (FGIE). This fund, with initial capitalization by the Government, will provide guarantees against credit risks and risk of noncompliance with contractual obligations related for PPPs and other essential public infrastructure projects. The FGIE will appear in a supplementary way to insurance and reinsurance companies, covering risks not assumed by these entities. FGIE is currently in the process of being capitalized and assessing projects for its planned initial guarantees.

The Government of Brazil has recently indicated that its infrastructure financing will be cut back in an effort to increase capital market financing. BNDES has said it will no longer provide bridge loans for infrastructure concessions and PPPs. It has also said it will provide long-term funding for 40% to 50% of investments in federal highway concessions, down from up to 70% in previous years, and 40% of investments in airport concessions. Banco do Brasil plans to lead syndicates of commercial banks to fund construction, and then BNDES and FI-FGTS could provide the long-term financing by underwriting up to 50% of infrastructure bonds issued by concessionaires. The Government hopes that the private sector will provide the remaining long-term debt that these projects need.

Some of the larger funds have also made direct investments in companies such as Invepar, an infrastructure company owned and controlled by the three largest pension funds in the country, PREVI, Petros and FUNCEF.

Brazil Case Study - Rodovias do Tiete BRL Infrastructure Debentures

One of the key developments in infrastructure financing in Brazil has been the creation of Infrastructure Debentures (IDs), a type of security designed specifically to raise long-term private funds for infrastructure form both domestic and foreign sources. The first IDs were launched for raising capital for PPPs and other public concessions and one of their primary targets for sourcing funds were the voluntary pension funds. While the launch of IDs raised a lot of interest in the market, they were slow to launch. One problem is the fact that the Ministries were slow to define the criteria for the evaluation of projects where they could be used. There was also uncertainty as to whether they could be used to take out a bridge financing that had already been incurred by the project company. And the tax policies that applied to IDs were not clear – especially whether or not investors would lose tax benefits if the issuer were to take certain actions such as paying down maturing commercial paper with some of the proceeds.

In mid-2013 the first major ID made it to the market. It was issued by Rodovias do Tiete, a consortium that had taken over the operation of Marechal Rondon Leste highway in April 2009. The consortium is currently owned in equal stakes by groups Atlantia-Bertin Concessoes S.A. and Ascendi International Holdings B.V., a Portuguese company. Atlantia-Bertin Concessoes is a joint venture between Italian toll-road operator Atlantia S.p.A and Brazil's Grupo Bertin. The concession has a 30-year contract with state transport agency Artesp. Rodovias do Tiete manages 415 kilometers of a highway system linking 25 municipalities in the state of Sao Paulo. The concessionaire started charging tolls in November 2009.

While this was an operating road system, Rodovias do Tiete still needed additional financing to pay for the construction of 88 kilometers of second lanes on some roads over the next four years and capital expenditures during the life of the concession for maintenance and upgrades. The company also wanted to pay off its bank loans which were maturing in mid-2012. (This initial financing was provided by five Brazilian banks - Banco do Brasil, BES Investimento, Banco ABC, HSBC and Banco Caixa.)

Rodovias do Tiete first tried to issue bonds in 2012, but had to postpone the effort due to questions raised about tax and refinancing issues under the ID regulations and delays in the government finalizing it criteria for selecting projects for this new form of financing. The initial effort sought to raise R$650m (US$321m) with a 12-year infrastructure debenture with a simultaneous domestic and international offering. Domestically the company tried to sell the security under CVM Rule No. 476, which by that time limited the sale to just 20 qualified investors. It was thought that this would facilitate the issuance of the IDs by avoiding full disclosure rules. It appears, however, that this discouraged wider participation from potential buyers, especially foreign buyers, who were concerned about future liquidity. With the construction financing coming due, BTG Pactual assumed the project's outstanding debt and later led the new capital market issue.

Rodovias do Tiete returned to the market in mid-2013 after the regulatory issues were clarified and issued a 15-year BRL 1.065 billion (US$501 million) ID under CVM Rule No. 400 which allowed it to reach a larger market. This was the longest maturity ever achieved in the local market and the first time that a toll road in Brazil was financed entirely through the capital markets. In addition to publicly listing on the domestic market it was the first ID sold with 144a/RegS registration internationally. All of the bonds

are denominated in Brazilian real and have a fixed interest rate with an inflation adjustment linked to the Brazilian Consumer Price Index (IPCA). Thus foreign investors took on exchange rate risk.

The postponement of the proposed initial debenture issuance in conjunction with a slowing Brazilian economy caused problems for Rodovias do Tiete almost from the start. In 2012, after the initial effort to issue a ID failed, Moody's affirmed its provisional Ba2 (global scale) and Aa3.br (local scale) ratings assigned to the debentures proposed by Rodovias do Tiete, but changed the outlook on the rating to negative from stable. It noted that the delay in securing capital market financing generated higher interest expenses for Rodovias do Tietê in the short term, which will cause a moderate deterioration in the project's coverage ratios and liquidity profile and that given the slow-down in toll collections that appeared likely, the planned issuance of a BRL650 million debentures in 2013 could be insufficient to support the company's longer-term cash needs.

In February 2016 Moody's lowered Brazil's sovereign ratings to Ba2 with a negative outlook. As a consequence it also lowered the ratings on the Rodovias do Tietê's IDs to B1/Baa1.br from Ba2/Aa3.br. In November 2016 Moody's lowered the rating on the IDs to B2/Ba2.br and gave a negative outlook to the rating. It cited the cause as poor traffic performance in 2015/16 that had significantly impacted revenues combined with increasing financial costs. The concession was also being fined for delays in construction and maintenance, as well as environmental issues.

In May 2017 the ratings were lowered once again to Caa1/B3.br. Moody's issued a warning that the company´s high leverage structure and weakening finances policy could result in a debt restructuring in the short to medium term – and that uncertainties around the outcome of covenant waiver negotiations with creditors also weighed on the rating. Rodovias do Tietê's experience with it toll collections is similar to that of many other toll based highway projects around the world and has lead the market to move away from this type of financing and to depend more on government backed availability payments.

CANADA COUNTRY SUMMARY

Canada is a leader in using the capital markets to finance public infrastructure. It has a solid system of national/sub-national cooperation for implementing PPPs, a large defined benefit pension system that needs long-term investment assets and thus provides good demand for project bonds, and little competition from banks for longer-term financing. A number of very large institutional investors have become leaders in direct investing in infrastructure projects, not only domestically but worldwide. These Canadian investors, largely pension funds, have a preference for investing in project equity rather than debt due to the high level of in-house skills they have developed for analyzing and managing projects and the higher returns available to equity investors. When investing in debt, Canadian investors have had a preference for brownfield projects rated investment grade. Generally, banks provide the short-term construction lending with the take-out placed with institutional lenders post-completion. However, the Canadian project procurement process focuses on full life-of-project financing and avoiding refinancing risk, which should encourage capital market involvement earlier in the financing process for greenfield projects. Most capital market financing takes place in the private placement market, which is well developed in Canada.

Financial Sector Overview

According to BIS data, the Canadian debt market has approximately $2 trillion in bonds outstanding, with a little over half of that being government securities. Government securities account for the vast majority of the value of traded bonds, indicating that there is relatively light trading activity in the non-governmental bond segment of the market. In 2015 domestic debt in Canada was 99% of GDP, two thirds of which was government debt. Private debt was divided about equally between financial and non-financial companies.

Pension assets in Canada were 83% of GPD in 2015 and insurance assets were 5% of GDP. Most of the pension funds are defined benefit programs.

Securities regulation in Canada is governed at the provincial or territorial level.[27] Despite this, the various securities commissions generally harmonize their rule-making so that in the majority of cases, they make identical or nearly identical rules. There are also mechanisms in place aimed at ensuring coordination of supervisory functions.

PPP framework

PPPs are well established in Canada, where more than 177 of such projects were closed between 1993 and 2015. In 2002, British Columbia created the “Capital Asset Management” policy, with a framework that was adopted by other provincial governments. This policy means that PPPs are always considered when the cost of an infrastructure project reaches a specific threshold. In

[27] Canada has a federal system of government with power divided between Canada's federal government and its ten provincial and three territorial governments.

2009 the Government of Canada set up PPP Canada, a crown corporation, to promote the use of PPPs by providing expertise and funding for them at the federal and provincial levels. Provincial bodies such as Infrastructure Ontario, Partnerships BC, SaskBuilds, Alberta Infrastructure, Partnerships New Brunswick and the Société Québécoise des Infrastructures are at the heart of the Canadian PPP programs and are directly responsible for the majority of infrastructure projects.

Use of capital market for infrastructure financing

Canada has an active infrastructure financing capital market. Its institutional investors provide equity and debt financing not only for infrastructure in Canada, but worldwide. Canadian pension funds have the world's highest asset allocation to infrastructure, at approximately 5% of assets, most of that in equity.

The involvement of institutions in debt financing for infrastructure started with the activities of a small number of the larger insurance companies in the early 2000's. The market has developed steam driven by a number of factors:

- The project procurement processes prioritize stability of long-term financing over shorter term cost savings[28]
- Canadian pension funds are defined benefit plans, with a strong appetite for long-term inflation-linked assets to match their liabilities
- Canadian banks have not been competitive in long-term financing due to their conservative lending approach and preference for shorter maturities
- Monolines and other third party credit enhancement were never actively used in Canada, due to the government's regulatory stance.

Canadian institutional investors have therefore had the incentive to developed in-house infrastructure underwriting and management capabilities. Indeed, the resulting approach of internally managing their direct investment in infrastructure is called the "Canadian model."

Most bonds in Canada, including project bonds, are placed in private placements.[29] Even very large transactions can be placed in this market; in 2016, for example, Bruce Power LP, a nuclear energy power provider, placed CAD1 billion bonds in a private placement.

[28] For example, Ontario's evaluation criteria for public works marks down the sponsors' bids if their plans include debt refinancing risks.

[29] Bonds issued in Canada may be publicly offered or privately placed. Similar to the U.S., public bonds in Canada are offered via prospectus and disclosure requirements are prescribed by regulation. The prospectus must be approved by the relevant Canadian securities administrator and is publicly available. Issuers are subject to periodic (usually quarterly) reporting and material events disclosure. Private bonds are exempt from these requirements and are referred to as exempt market securities. There are clear rules delineating what constitutes a private placement, including placements that are limited to accredited investors.

Investors in infrastructure bonds in Canada have had a preference for brownfield, investment grade projects. In many cases, the banks continue to provide the short-term construction lending with the take-out placed with institutional lenders post-completion. (Two examples of this are discussed in the box below.) However, increasingly they are investing in greenfield projects, including one of the large Canadian pension investors that is making large-scale investments in greenfield projects.

The Canadian government has been actively involved in supporting the infrastructure finance market. Most recently, it has created the Canada Infrastructure Bank, a government funded entity that will provide $35 billion in a variety of financial instruments to revenue generating infrastructure projects. Its goal is to spur additional private investment in infrastructure. It expects to use a variety of financial instruments, including direct contributions, repayable contributions, equity investments and debt instruments.

Canada Case Study: Kingston Solar and Grand Renewable Solar

In 2016, two solar power generation facilities issued privately placed bonds into the Canadian debt capital markets. Both facilities, which are unrelated, are 100MW solar plants located in Ontario and both sell to the electricity grid under 20-year power purchase agreements. Both had been financed during construction by a combination of equity and bank debt. Both bonds were rated BBB by Canadian rating agency, DBRS.

The first to close was the Grand Renewable Solar Project, which closed its CAD613 million deal in June. It was sold to institutional investors in Canada and the US.

Kingston Solar closed its CAD633 million deal in October.

The bonds are the two largest solar bond financings closed in Canada. They showcased the demand for green bonds among Canadian institutional investors. The transactions were oversubscribed, leaving some investors unable to buy bonds.

The bonds also highlight Canadian institutional investors' preference for brownfield operations and a preference for higher quality, investment grade debt securities. At a BBB rating post-completion, it is doubtful that a bond transaction issued to fund construction risk would have achieved an investment grade rating, thereby greatly reducing the appeal of the bonds to institutional investors.

COLOMBIA COUNTRY SUMMARY

Colombia has an investment grade sovereign credit rating. This has allowed the country to attract considerable foreign financing for its infrastructure projects. Until recently domestic institutional investors have played only a minor role in the financing of infrastructure projects. This is now beginning to change as the Government recently launched a major infrastructure program and is actively seeking to mobilize financing from them. To this end actions on different fronts were needed. One set of actions involved changes to securities markets regulations and pension funds regulations all aimed at providing more flexibility for pension funds to invest in infrastructure, while under a framework that provided comfort to the regulators and the market.

Financial Sector Overview

Colombia's debt capital market is relatively underdeveloped. Though issuances have risen in recent years, the corporate bond market remains underdeveloped, has low liquidity and is dominated by financial-sector issues. Total domestic debt securities equaled just 26% of GDP in 2015, consisting primarily of government debt. Corporate securities equaled only 1% of GDP. Almost all issuances are on the public securities market (Bolsa de Valores de Colombia) as the private placement market has not been very much developed in Colombia. Total stock market capitalization in 2015 was 35% of GDP.

Colombian pension fund assets were 20% of GDP in 2015 and highly concentrated, as only four funds control the market.[30] Colombia has mandatory private individual accounts (but less than 30% of the active labor force is currently enrolled). All are defined contribution plans. Colombia also has a mandatory pay-as-you-go public pension scheme that workers can join if they do not participate in a private plan. There a choice of multiple funds which rank from conservative and more liquid to risky and more illiquid (with different investment limits imposed for each).

Colombia's insurance sector is small. Their AUM were 4.5% of GDP in 2015.

The Superintendencia Financiera de Colombia (SFC) is the government agency responsible for overseeing financial regulation.

PPP framework

Colombia has more than 25 years of experience with concessions and its framework for these is now well developed. The Government has awarded a total of 180 PPP infrastructure projects, worth approximately US$62.6 billion, during the period 1990–2016. A new PPP law implemented was in 2012. Past challenges for PPPs, such as the high incidence of contract renegotiation, have been dealt with in the new PPP Law. Using this law, the Government created the Fourth Generation Toll Road Concessions Program (the "4G Program") - an ambitious $24 billion (as of

[30] With Decree 857, the Government required each pension fund administrator to offer four different types of funds. Conservative fund, Moderate Fund, Great Risk Fund and Programmed Retirement Fund. They vary according to the degree of risk and the expectancy of life of their members. The funds have different investment structures basically in variable income securities and fixed income.

original estimates) near-decade long investment plan to create a nationwide toll road network through up to 40 different PPPs. Colombia's national infrastructure agency, Agencia Nacional de Infraestructura (ANI), is responsible for project design and contracting.

Experience with the use of capital markets for infrastructure financing

Until recently the infrastructure finance market was predominantly met by the large Colombian banks. Other sources of funding have started to appear. Domestic infrastructure funds are co-financing project loans in small club deals and project bonds are providing a way for both domestic and international investors to help finance greenfield projects.

To get there, the authorities took several actions to channel other sources of funding to infrastructure financing, including both domestic and foreign institutional investors. To promote private investment in PPPs: (i) changes were made to the investment regime of pension funds, (ii) the regulations of private equity funds, (iii) the withholding tax rate applied to foreign financings of infrastructure was reduced and (iv) arbitration regulations governing dispute resolution which were changed to meet international standards. In addition, Colombia is laying the groundwork for comprehensive regulatory reform for insurance companies and is moving to risk capital requirements.

Infrastructure debt funds

Before the second quarter of 2014, pension funds were allowed to invest a maximum of 5% of their AUM in listed or unlisted private equity funds regardless of the nature of the underlying investments. As part of the measures adopted by the Government to diversify and increase the financing sources for the upcoming PPPs, Decree 814 of 2014 created another infrastructure investment option for pension funds - infrastructure debt funds. Today, four private equity funds that focus on infrastructure PPPs have been incorporated in Colombia. It is expected that these funds will be active lenders and investors in the 4G Program as well as in other infrastructure PPPs. All these infrastructure funds are unlisted.

From a legal perspective, infrastructure funds are a category of private equity funds (fondos de capital privado) and thus, governed by the regulations for private equity funds. Accordingly, they are closed-end collective investment schemes, that must invest at least two thirds of their proceeds into “productive” projects. PPP projects approved under the PPP law count towards the two third threshold, as well as debt instruments issued directly or indirectly by the concessionaries of a PPP. The funds can also extend or buy loans, as long as they are used to finance PPP projects.

The regulations for these funds are very flexible, and in general allows different aspects of the operation of the fund to be define by its internal regulations. The funds can have different types of participations. They can also have different compartments, each one with a different investment policy, so long as all this is provided in the internal regulation.

Pursuant to the regulations, these funds must have a local administrator, which could be a fund manager, a brokerage house of a fiduciary entity. They should also have a general manager,

except if they choose to hire a professional manager (gestor profesional). Gestores Profesionales do not have to register with the SFC but the regulations establish basic minimum criteria that they must meet. The GP is in charge of performing the initial due diligence and monitoring the investment throughout the life of the infrastructure projects in which the fund invests, and in such role also handles control issues. Funds must also have an investment committee to be designated by the GP (in cases that the fund chose to have one), and the functions are to be defined by its internal regulations. They must also have an oversight committee (comite de vigilancia) appointed by the investors, in charge of monitoring that the fund manager and the GP comply with their responsibilities under the law and the internal regulations of the fund.

Pursuant to the regulations, neither the fund nor the shares they offer require prior authorization of the SFC; but they are required to submit a series of documents to the SFC, including the internal regulation of the fund and information and the contract with the GP if the fund chose to have one. In practice, based on its analysis of the information, the SFC issues a non-objection or no action letter to the fund permitting the fund to begin operations. These funds must have at least two investors and the minimum participation is 600 minimum salaries.

Changes were also made to the investment regulations for pension funds, in tandem with the changes to the framework for private equity funds. As per such changes, pension funds may invest up to 5% of their AUM in infrastructure funds, and this will not count towards the 5% of the general private equity funds bucket. Therefore, a pension fund today may invest up to 10% of its AUM in private equity funds, 5% of which must be targeted to private equity funds which invest up to two-thirds of their AUM in PPPs. This is for the moderate risk pension fund. For the "high risk" pension funds, the permitted allocation is 7% of the value of the fund.

Pension funds must comply with the following conditions:

- They must make available to the regulator the investment criteria and the risk-return analysis for such investment.
- They must check that the fund manager or "professional manager" has at least 5 years' experience in the management of the type of assets of the fund.
- Related party investment (for pension funds) are not permitted, except for funds of private capital with at least two thirds of its investments in PPP projects, subject to the fund manager being independent from the pension fund.
- The sum of participation from the pension fund and its affiliated companies cannot be more than 50% of the capital of the "fund of private capital".

Private equity funds are exempted from the general rules that eligible investments for pension funds and severance funds must be rated by a credit rating agency supervised by the SFC.

For insurance companies, investments into private equity funds are eligible for their technical reserves. Life insurance companies may invest up to 10% of their technical reserves into such funds either domestic or foreign-incorporated (except in funds related to real estate), and general insurance companies may invest up to 5%. The investment may not exceed 50% of the total capital of the fund, and if it exceeds 30%, the Board of the insurance company must approve the investment.

Project bonds

Pension funds are also allowed to invest in debt securities issued by the PPP private partner. As per the regulations, all bond issues must be rated by external credit rating agencies for pension funds to invest in them. There have been adjustments allowing pension funds to issue forward purchase commitments of fixed income issues. This addresses the "carry cost" issues that arise when bonds are issued for greenfield projects. They may also invest in infrastructure through securitization structures backed by future flows generated in the form of toll roads and /or approved annual government budgetary appropriations committed to specific concessions. Pension funds are not allowed to directly provide loans or enter into co-financings.

Other important changes

Financiera de Desarrollo Nacional (FDN), a financial entity that started operating in 2014 and is majority owned by the Colombian government, is playing an important role in bringing together different actors in the provision of private financing for the 4G Program and other public infrastructure. It provides liquidity and subordinated debt facilities as needed to aid in the financing of these PPPs.

Colombia has taken other steps to help raise private financing for infrastructure. In line with the financing needs of the 4G Program, the government is committed, for the first time, to make part of its payments/contributions under said projects in U.S. dollars. Therefore, part of the government payments under each 4G project will be denominated in said currency. This has opened the door for a naturally hedged financing in U.S. dollars to be granted by foreign lenders to local concessionaires.

Up until December 2014, as a general rule, the withholding tax rate applicable to interest payments under foreign loans and debt securities issued abroad was 14% (when the loan's tenor was greater than one year). In contrast, the withholding tax rate for local loans and local securities ranged between 2.5% and 7%. With the tax reform passed by Congress at the end of 2014 (Law 1739 of 2014), the withholding tax rate applicable to foreign loans and foreign securities was reduced to 5% as of January 1, 2015, provided that (a) the tenure of the loan or the notes is more than eight years, and (b) the proceeds of the credit facility are used to finance a PPP project.

The Infrastructure Law of 2013 specifically promoted arbitration as a dispute-resolution mechanism for PPP infrastructure contracts. Because the arbitration law is based on the UNCITRAL model, it is familiar to foreign sponsors and investors doing business in Colombia and has been welcomed by many foreign private partners who prefer and feel more comfortable with having an international arbitration clause in their contracts.

Colombia has begun the process of joining the OECD. Such membership will help in attracting infrastructure investments from funds mandated to invest only in OECD countries.

Colombia Case Study – Pacifico Tres

The concession project Autopista Conexión Pacífico III, is a 146 km highway project that is part of Colombia's 4th Generation (4G) toll road program. The project consists of the construction of short road stretches, the improvement of existing roads, two tunnels and several bridges. The project benefits from a cap on construction cost overruns related to environmental licensing, land purchases, and utilities' reallocation at 144% of the contractual budget, which ANI covers during construction. Upon the completion of the construction, the project will receive fixed availability payments and will operate under traffic catch-up mechanisms for a pre-determined period to mitigate the vehicle volume risk. Construction works will be performed under a fixed-price date-certain engineering, procurement, and construction (EPC) contract with a consortium composed of all project sponsors (acting directly and not through affiliates).

In 2016 approximately US$740 million debt financing for Pacifico Tres was raised via a mixture of both loans (41%) and bonds (59%). Two series of bonds were issued, as 144A securities in the United States and Reg S outside the United States, both with a final maturity of December 2034. The bonds are listed on the Luxembourg Exchange. One series is denominated in U.S. dollars and is rated BBB- (global scale) by Fitch. It was purchased by investors from the U.S. (31%), Europe (21%) and Latin America (48%, including investors from Colombia). The other was denominated in UVR and is rated AA+ (Colombian national scale) by Fitch. (UVR, which stands for Unidad de Valor Real, is a non-monetary reference currency that reflects purchasing power based on the variation of inflation.) These bonds were purchased by both Colombian institutional investors and banks (65%) and offshore investors (35%). There were three loans tranches – a short term COP loan maturing in 2027, a long-term COP loan maturing in 2032 and a UVR loan maturing in 2034. These were provided by Colombian banks and two infrastructure debt funds.

FDN granted a Subordinated Multi-Purpose Liquidity Facility (SMF) equivalent to 15% of the senior debt balance. FDN's Multi-Purpose Liquidity Facility is a source of liquidity over the life of the project that ensures the payment of scheduled debt service in case of cash shortfalls, as well as anticipating DR payments guaranteed by ANI. (DR stands for "Diferencia de Recaudo". They are periodic payments made by the ANI to the Concessionaire if necessary to make up the difference between the present value of the project's accumulated toll revenues and the toll revenues guaranteed by the ANI, which are defined in the Concession Agreement. The difference between the VPIP and VPIP ANI are calculated and paid in the years 8, 13 and 18 of the concession.) The objective of the SMF is to:

- Guarantee the Debt Service during construction. A delay in construction would have an impact on the debt service due to a delay in the disbursement of the toll and availability revenues accrued during the construction phase.
- Fund certain construction cost overruns (due to acquisition of right of way, relocation of public utilities, social and environmental impact compensation) which are initially paid for by the concessionaire but are refunded by the ANI. (When these cost overruns exceed 20%, they begin to be covered by the ANI in varying percentages. These expenses are initially assumed by the concessionaire but are refunded by the ANI. In case of an overrun, the SMF finances the ANI's portion until the concessionaire receives the reimbursement payment.)
- Guarantee the Debt Service during the operations phase if there are any deficiencies in the cash flow. (If the Debt Service Coverage Ratio (Cashflow Available for Debt Service / Debt Service) is

- less than 1.00x, the SMF line will disburse the required amount to re-establish this ratio to 1.00x.) Additional liquidity includes 12-month principal and interest prefunded onshore and offshore debt service reserve accounts (DSRA).
- Guarantee the Debt Service in the event of early termination the Concession Agreement.
- The Intercreditor Agreement for the project bonds spells out the process by which voting by bond holders is to be carried out and provides a mechanism for ensuring that voting can be carried out in a timely manner. Certain deadlines are set in connection with various voting procedures. Considering the consent solicitation process that would be required for the holders of the Notes to vote on any such decision, in certain circumstances, particularly during the construction phase of the Project, such deadlines may not be sufficient for each the holders of the Notes to cast its vote with respect to such decision. This was addressed in the intercreditor agreement by establishing that by virtue of the purchase of the Notes, bond holders are deemed to have consented to a mechanism whereby, subject to certain conditions, their holding will be excluded from the determination of the outcome of majority- and supermajority-based decisions, and will be deemed to have voted favorably with respect to class voting-based decisions, in each case if they fail to cast their vote within the required deadlines.

COSTA RICA COUNTRY SUMMARY

Costa Rica's capital market is still at an early stage of development; however, given their size, its pension funds can already play an important role in infrastructure financing. In this context, the experience of Costa Rica offers important lessons regarding the impact that securities markets regulation can have in facilitating the use of capital markets for infrastructure financing. Costa Rica got a promising start with three domestic project bond issuances totaling $425 million over the period 2000-2008. A change in the approach of the securities regulator and subsequently in the regulations for the issuance of project bonds nearly halted the market. Regulatory changes implemented in 2015 and 2016 introduced flexibilities in the framework that have clear the way for the use of capital markets for infrastructure financing. The framework relies on a public offering regime in light of restrictions imposed on pension funds. Since these changes were introduced, transactions have already taken place involving both project bonds and infrastructure funds.

Financial sector overview

Costa Rica's debt capital market is relatively small and not highly developed. Total domestic debt was 78% of GDP at the end of 2015. Roughly three-quarters of this is in the national currency – the Costa Rica colon – and one quarter in U.S. dollars, with a small amount of the market (0.2%) in domestic inflation linked currency. Most of the debt is issued by the Government or government backed entities and is both fixed and floating rate with the tenors up to 20 years. Corporate bonds are mainly represented by issues of banks and the bonds are only short- and medium-term ones. Bonds are placed through public offerings and are listed and traded on Costa Rica Stock Exchange (Bolsa de Valores de Costa Rica).

Costa Rica did not launch its privately managed defined contribution pension system until 1995. But their assets have grown rapidly and were equal to over 13% of GDP by the end of 2015 according to the OECD. About 80% of their assets are invested in government securities. Pension funds must still adhere to quantitative and qualitative investment guidelines, and can only invest in publicly listed securities; although a comprehensive reform to move to a risk-based framework is underway. The insurance industry is still very small.

There is a system of specialized regulators in place, with separate regulators for the banking, securities, pensions and insurance sectors, all of them governed by the same board the Consejo Nacional de Supervision del Sistema Financiero. The Superintendencia General de Valores (SUGEVAL) is the Costa Rica securities regulator.

Costa Rica's sovereign rating is just below investment grade. This places a ceiling on the ratings for project bonds unless there is significant support from an outside entity with a higher credit rating.

PPP framework

In 1998 the Government of Costa Rica created a specialized entity to manage the public-private partnership (PPP) framework: the Consejo Nacional de Concesiones (CNC) associated with the Ministry of Public Works (MOP). Costa Rica's main concession law (Ley 8643) was modified in 2008 to streamline the concession process; however the framework is still considered problematic and a bill was introduced to Congress in 2012 to completely revamp it. The 2012 bill has not yet been approved. To date, only four main PPP projects have been awarded.

Use of capital markets for infrastructure financing

The experience of Costa Rica offers interesting lessons regarding the impact that securities markets regulation can have in facilitating the use of capital markets for infrastructure financing.

Project bonds

Costa Rica got a promising start in the use of project finance with three bond issuances totaling $425 million made in the domestic market over the period 2000-2008. All three were used to finance the construction and operation of hydroelectric and thermal plants held by Instituto Costarricense de Electricidad (ICE), the Costa Rican state-owned holding company that controls assets in electric energy generation, transmission, distribution and in the telecom sector.

In each case a trust[31] was created by a state bank, with the trust structure reviewed by the state audit entity (the Contraloria General de la Republica). The trust issued project bonds to the public under a program authorized by SUGEVAL. One of the main reasons to use the public offering regime is the fact that pension funds in Costa Rica can only acquire securities of public offering. At the time of these offerings, there were no specific regulations for project bonds; but Costa Rica had enacted regulations for securitization, which were used as the basis for the authorization of the project bonds.

In all three cases the project bonds were backed by an ICE commitment to pay for the lease of the plants constructed via this financing, at a specified period of time irrespective of whether construction was completed or not in time. All issuances were in dollars. As the lease payments were set on a schedule that did not depend on completion of construction the creditors were not exposed to construction risk. The issuances were structured with multiple small bonds with different maturities (the maximum of which was 15 years). Other than the lease payment agreement from ICE, most of the bonds did not have a credit guarantee from ICE.

Most bonds were priced and placed through auctions -except for a few issuances placed under a firm commitment underwriting. The auctions were conducted as the project required funding to compensate the project contractors and to purchase equipment. This helped to minimize carry costs. The bulk of investors for the initial issuances were high-net worth individuals, and as

[31] Trusts in Costa Rica are a legally recognized special purpose vehicle which offer bankruptcy remoteness to investors.

pension funds assets grew they became the main investors. In addition, pension funds from El Salvador invested in some of the issuances.

The issuance of project bonds allowed ICE to get financing that otherwise would not have been available in large part due limits by the budget authority on ICE's direct spending and leverage. Furthermore, the cost of financing with bonds was significantly lower than which ICE was paying for its own direct financing and the tenors were longer.

The success of ICE's sponsor issuances resulted in a large pipeline of projects to be financed via capital markets that was estimated in at least US$1 billion.[32] They all had in common with ICE's structures the fact that the bonds were to be paid from future flows stemming from the leasing of an "asset" to a public entity. But they differed in critical aspects, such as who would assume construction risks. The SUGEVAL considered that many of the new projects involved additional risks to investors that were not properly addressed (including construction risks) and suspended all authorizations. In 2008 the SUGEVAL issued specific regulations for the use of capital markets for infrastructure financing which applied existing ratios for corporate bond issuances to project bonds and imposed restrictive conditions for the issuance of project bonds that carry construction risk. As a result, except for ICE, issuances came to a halt.[33]

In 2015 the SUGEVAL issued new regulations for the use of capital markets for infrastructure financing that (i) clarified the different nature of project financing versus corporate financing and thus eliminated the need for the SPV to comply with specific leverage ratios applicable to corporate issuances, (ii) allowed oversight mechanisms to be agreed among the parties subject to their disclosure in the prospectus, and (iii) left to investors the decision of the type of risks that they were willing to assume, under a framework that requires robust disclosure of risks by the issuer and suitability obligations by intermediaries.

Pursuant to such regulations, both trusts and limited-purpose joint stock companies (sociedades de proposito especial) can be used as SPVs to issue securities related to infrastructure financing, including project bonds. The authorization for their public offering requires the submission of a series of information to the SUGEVAL, including a prospectus, a credit rating, and financial information on the project (either projections and their assumptions prepared by a registered expert or if the project is in operation, audited financial statements for the last fiscal year). The issuer is subject to periodic and ongoing disclosure requirements, including submission of quarterly financial statements and annual audited financial statements, material events disclosure and updated ratings. The new regulations of SUGEVAL were subject to ample consultation, which allowed the SUGEVAL to fine tune them. In turn, they had a very positive reception by the market. Three issuances have already been placed. The most recent involved the use of project bonds as a refinancing facility. A tranche was placed exclusively in Costa Rica,

[32] There is no official data. This estimate corresponds to issuances in the pipeline by three key public entities: the Social Security, the Customs Office and ICE.

[33] The Law of Strengthening and Modernization of Public Entities in the Telecommunication Sector (Law 8660) authorized ICE to issue bonds directly, under a more flexible leverage ratio than the one applicable to corporations. Since 2009 ICE has been authorized as an issuer, which has made the trust vehicle less necessary for it. Since then, ICE is an active issuer in the capital markets using the funds raised through the offerings to finance its infrastructure projects.

under the regime described above. Another tranche was placed in the international markets relying on Rule 144A and Regulation S. (See case study for Autopistas del Sol SA.)

Infrastructure funds

In 2016 the SUGEVAL issued reforms to the regulations for mutual funds, aimed at creating a framework for public infrastructure funds. Since 2006 close-end mutual funds were allowed to participate in the development of private infrastructure. The reforms introduced in 2016 allowed them to participate also in public infrastructure development. The regulations for infrastructure bonds issued in 2015 served as the basis to regulate the infrastructure funds. As a result, they provide ample flexibility to the funds to define the projects they invest in (including projects in a pre-operational stage) as well as different aspects of their operation via the prospectus (which works as the internal regulation of the fund). The only material difference is that these funds must issue "equity-like" participations first and then the funds can also issue bonds to the public. The funds must have a minimum net asset of five million dollars and a minimum participation of one thousand dollars. The funds must provide reports to investors on a quarterly basis on the status of the projects they invest in. At the time of this note one fund had already been authorized for public offering, and two more were in the process of review by SUGEVAL.

Pension fund regulation

The current investment framework for pension funds is very prescriptive, and as indicated above, requires pension funds to invest only in securities of public offering. However, the pension regulator, the SUPEN, has embarked on a project to implement a risk-based supervisory approach, which would place more responsibility for selecting investments in the pension fund managers and require them in tandem to strengthen their due diligence and credit analysis capacity.

Costa Rica - Autopistas del Sol SA Toll Road Dual Bond

In May 2017 an innovative US$350.75 million dual bond was issued by Autopistas del Sol SA on Costa Rica's domestic market. A US$300 bond was issued on the international markets and a US$50.75 million bond on the domestic markets. The bonds were used to refinance existing bank loans that provided construction financing for its Route 27 toll road concession and to allow the project sponsors to take out some equity from the project (through the distribution of dividends). Moody's and Fitch Ratings rated the international bonds Ba2 and BB respectively. Fitch rated the domestic bonds AA on the national scale.

Route 27 is a four-lane highway in operation with a length of 76.8 kilometers that serves as a connection between San José and Caldera port on the Pacific coast. Construction began in 2007 and the highway opened in early 2010. The concession is operated by Autopistas del Sol, S.A., which in turn is owned by Globalvía, a Spanish company which is the world's second largest transportation infrastructure developer by number of concessions.

The international offering consisted of US$300 million placed of Rule 144A/Regulation S senior secured notes due 2030, and the local offering was for US$50.75 million of Costa Rican Law senior secured notes due 2027, placed via a public offering.[34] Both bonds have a fixed interest rate. The terms of the local offering were consistent and pari passu with those of the international offering thus ensuring that the local bondholders are guaranteed exactly the same treatment and security rights as the international bondholders. The local bond was purchased by Costa Rican pension funds and other local institutional investors.

This was the first time a Costa Rican entity operating an infrastructure asset issued project finance-style bonds. It was also the first time that both international and local bonds were issued simultaneously for a Costa Rican issuer. There is no precedent in the market to have an issuance in two different jurisdictions with the same collateral, and now that it has received regulatory authorizaton it is likely to open the door to similar transactions in the future. And this was the first offering of project bonds out of a non-investment grade Central American country.

The source of payment of the bonds will be the flows generated by the operation of the San José-Caldera Ruta Nacional 27 road, but there is also a minimum revenue guarantee. The concession will expire in July 2033 or when the net present value of toll revenues reaches US$301.4 million in real terms, whichever comes first. As the concession can be terminated early in case the concessionaire reaches the established net present value target set in the concession contract, the structure includes a mechanism that traps any extra cash and pays the debt in advance if the traffic exceeds the traffic indicated under the base case of the Issuer's financial model. This mechanism mitigates the risk that the concession expires before the debt is fully amortized.

The toll rates for Ruta 27 are adjusted quarterly to reflect changes in the Costa Rican colón's exchange rate to U.S. dollars and also annually to reflect changes in the United States CPI. Rates can be adjusted before the next adjustment date if the exchange rate or the CPI has a variation greater than 5%. However, historically, rates have been updated in a timely manner. Thus there is no material exchange rate risk due to the tariff adjustment mechanism and to the fact that the toll revenues denominated in Costa Rican colóns will be converted into U.S. dollars daily.

In March 2016, Globalvia was acquired by pension funds OPSEU Pension Plan Trust Fund 40%), PGGM N.V. (40%) and Universities Superannuation Scheme Ltd (20%). The OPSEU is one of the largest Canadian defined benefit pension fund with net assets of $19 billion. PGGM (now known as PFZW) is the second largest pension fund in the Netherlands and has asset of of €162 billion (US$183 billion). The Universities Superannuation Scheme is the largest U.K. pension scheme with over £50 billion (US$64 billion) under management.) This acquisition is indicative of how the largest pension funds around the world are moving to invest directly in infrastructure assets, often joining together to do so.

[34] The initial offering was for US$104 million, but the appetite of pension funds for these bonds was low. A key reason appeared to be the limited level of expertise of pension funds in connection with this type of bonds, which makes their investment strategy to be very conservative.

EUROPEAN UNION COUNTRIES SUMMARY

The capital markets provide approximately 20% of all debt financing for infrastructure in the European Union, most of it in the form of privately placed debt to institutional investors. These investors have primarily been focused on brownfield projects with investment grade credit ratings. However, as they have built up their teams and their expertise, some of the largest institutional investors are leading transactions, even at the greenfield stage, and bringing in other institutions, much in the same way that banks lead and syndicate loans. They are also joining with banks to provide infrastructure projects with multiple sources of debt financing. Additionally, the EU has been innovative in dealing with the control issues arising from capital market financing of projects, introducing a new type of participant, a third party monitoring and surveillance advisor. Where decision-making involves analysis of complex information, or when deals are public this type of advisor may be hired to facilitate analysis and dissemination of information, and collection of investor feedback. While this role is still nascent in the EU, it could serve as a model for countries where investors have not yet developed the credit skills or in-house expertise required of infrastructure investment, or where transactions are sold in a public offering.

Financial Sector Overview

The European Union's capital markets totaled $25.6 trillion in securities outstanding as of the end of 2015. This compares to the United States where the total was $37 trillion. Domestic debt was 86% of GDP, the bulk of which was government debt. Pension assets in the U.K. were 97% of GPD in 2015, while for the remaining countries they were 15% (due to a number of these countries having pay-as-you-go public pension systems). Insurance assets were 32% of GDP in the U.K. and 28% for the other countries.

The European System of Financial Supervision (ESFS) is the framework for financial supervision in the European Union in operation since 2011. The system consists of the European Supervisory Authorities, the European Systemic Risk Board, the Joint Committee of the European Supervisory Authorities, and the national supervisory authorities of EU member states. As part of this system the European Securities and Markets Authority (ESMA) was established. It has responsibility for overseeing securities markets in the EU and supporting co-operation between national competent authorities. The European Insurance and Occupational Pensions Authority (EIOPA) was also set up to oversee EU insurance companies and pension funds.

PPP Framework

Most of the member countries of the European Union have used PPPs for public infrastructure projects. The United Kingdom played an important role in developing the PPP model and especially the structures that are currently in wide use for financing these projects. The Private Finance Initiative (PFI) was developed initially by the governments of the United Kingdom and Australia, and used extensively in these two countries and later in Spain. The PFI framework was introduced in 1992 in the United Kingdom and the first PFI project was the Skye Bridge in

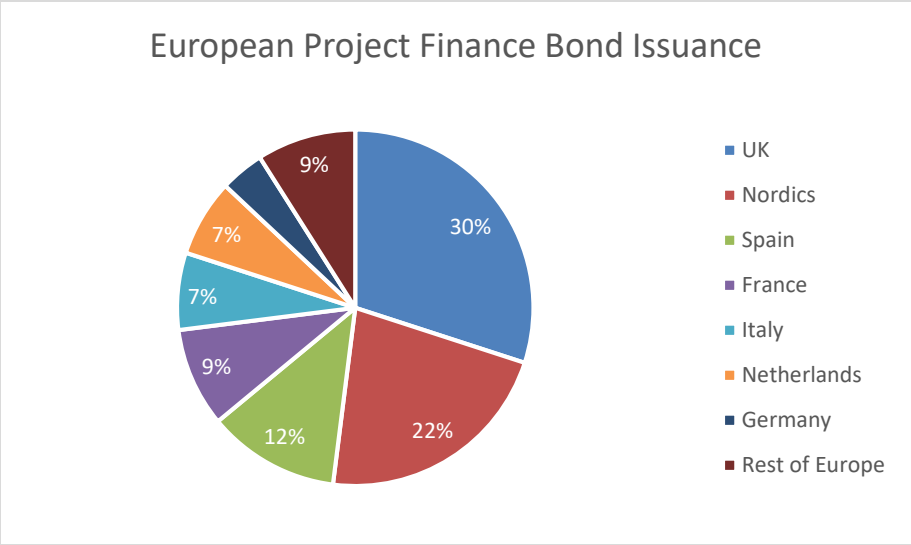
Scotland, which completed construction in 1995. In 2012 the Government made some changes in the framework and relabeled it PF2. HM Treasury has played a key role in developing guidelines to direct the financing of these projects. From 1997 until 2008, almost all PFI projects had credit enhancement by one of the commercial monoline bond insurance companies. After the financial crisis the EU Commission used the European Development Bank to develop an alternative credit enhancement program for major infrastructure projects with trans-EU importance. As a result of this, a significant number of major projects across Europe have been able to obtain capital market financing. The European PPP Expertise Centre (EPEC) has in recent years provided considerable guidance on the development of PPPs in the EU.

Use of capital markets for infrastructure financing

The capital markets provide approximately 20% of all debt financing for infrastructure in the EU. Prior to the financial crisis, when project debt was almost entirely monoline guaranteed, capital markets financing amounted to over 15% of total debt financing for infrastructure. This fell to zero in the period following the financial crisis. Since then, governments and the development finance community, have focused on a number of steps that have resulted in the improved institutional support for infrastructure, and the market has driven further innovation in reaction to both government incentives and market conditions. Examples include:

- Government credit enhancement, such as the U.K. Guarantees Scheme
- The European Investment Bank's Project Bond Initiative that provides a first loss position
- Government financial support, such as the Dutch government linking availability payments to CPI
- European initiatives to improve and standardize the private placement market
- Solvency II's lowering of capital charges for qualifying infrastructure investments
- The growth of infrastructure funds
- Growth of expertise and flexibility at some of the large institutional investors, adding capabilities that now rival those of banks.

These efforts have led to successful growth in project bond issuance. In 2015 volumes totaled $10.7 billion. And as the graph below indicates project bonds utilization is spread across the EU.



Institutional investors have had a preference for low-risk projects, mostly post-completion. This approach fits the nature of their credit appetite and reflects regulations that require very high capital charges for high-risk investments, or in some cases, prohibit non-investment grade exposures. Additionally, it suits their institutional capacities. None but the biggest and most active investors, mostly insurance companies, can take on the diligence and active management of early stage projects with construction risk. A low risk tolerance combines with, and sometimes drives, their lack of institutional capacity or appetite to assess construction risk, assume the risk of delays, or manage the control functions required when detailed covenant structures are put in place to protect investors.

There are notable exceptions. Some large institutional investors have dedicated infrastructure teams and have taken on the role previously played by banks. Alternatively, they have partnered with banks in greenfield projects and allocated risks and exposure timeframes to each of their capacities, with banks taking the short-term, riskier construction risks and institutional investors taking the longer term exposure, as was done for the N-33 road financing in the Netherlands (see box).

The most innovative institutions are also providing features previously provided only by banks. One critical competitive tool is the ability to offer flexible or delayed financing drawdowns during construction. This feature lowers the borrowing costs for project sponsors, eliminating the negative carry they would incur if they had to borrow to meet all future needs upfront. Institutional investors have begun to offer flexibility in the form of forward commitments. One example is Via A11, a Belgian greenfield highway public-private-partnership. The transaction was fully funded by the capital markets in a transaction led by Allianz Global Investors, which featured forward commitments that allowed for staged financing during construction. The European Investment Bank's credit enhancement was used to raise the rating to the point where the transaction could be fully funded by institutions. (See box below describing the Via A11 project.)

Although the private placement market is less developed in the EU compared to US,[35] the bulk of project bond issuances have been privately placed and exempt from registration. [36] The volume of publicly registered infrastructure bonds is low and market participants report a move away from public financing. When public debt is used, it is generally for larger deals (€300 million plus), and deals with low risk and light covenant packages. On public deals, the process of decision-making is complicated by a large number of investors who change over time. Therefore, issues with managing construction risk of early-stage deals are magnified.

There is also a hybrid bond approach in the EU, whereby offerings that are limited in the same way as private placements can be issued in a public offering with reduced disclosure requirements. However, the difference in reporting requirements for hybrids has been described as only "slightly lighter" than required for full retail distribution. Although less burdensome it still creates similar barriers for many infrastructure issuers. Some market observers have noted that newly formed, special purpose issuers such as projects face challenges in meeting the PD directives, even the lighter ones. Some of the information investors generally require, such as the financial projections model could, if filed publicly, cause problem both in terms of increased issuer liability (because it's based on forecasts) and in confidentiality. And under the Market Abuse Directive (MAD) issuers must promptly disclose information if it would have a significant effect on the price of the issuer's securities. Additionally, any investor who has non-public information must not trade their positions.

Where decision-making involves analysis of complex information, or when deals are public, a third-party monitoring and surveillance advisor may be hired to facilitate dissemination of information and collection of investor feedback. This is a relatively new role that has been introduced to the market post-financial crisis. They are independent advisors who act as the eyes and ears of the investors, review and summarize project information and recommend actions. They can review confidential information without, in a public deal, triggering disclosure requirements or hampering the investors' ability to trade securities. They do not, however, vote on substantive decisions. Two providers of this service are Deutsche Bank and Bishopsfield

[35] Efforts are underway to improve private placement markets in the EU. In 2015, the Pan-European Private Placement Working Group published a guide to best practices for private placements, which aims to support the development of this market by building on existing practices in the bond and bank loan markets, as well as in other international private placement markets. In a study commissioned by the Association for Financing Markets in Europe, European investors noted that the regulatory treatment of European private placements is ambiguous, leading to a more cautious use of this financing channel than in the United States. The U.S. "safe harbor" exemption from SEC oversight gives investors greater certainty about regulatory treatment. Another impediment is differences in the legal framework of different countries, which means that a private placement in the Netherlands is different from a private placement in France. The European Commission's Capital Markets Union acknowledges the potential for growth in European private placements and has identified the lack of standardized processes and documentation as a barrier to further development. Additionally it notes that tax treatment of private placements is determined largely along national lines, contributing to the fragmentation of this market in Europe. Some countries have passed withholding tax exemptions to address this (e.g., the United Kingdom in January 2016) but the Commission notes that tax is an area to be explored to find ways of addressing barriers to investment across the European Union.

[36] Private placements are exempt from the requirement for the approval and publication of a prospectus if any of the following apply to the securities offering: (i) it is made to qualified investors only; (ii) it is made to fewer than 150 persons (other than qualified investors) per European Economic Area state, or (iii) the minimum consideration paid by any person is at least EUR 100,000.

Capital Partners.[37] The monitoring and surveillance agent business is unregulated in the EU, although these advisers often have other businesses that are regulated.

This third-party agent role could serve as a model for countries where investors have not yet developed the credit skills or in-house expertise required of infrastructure investment, or where transactions are sold in a public offering. However, investors report some concern with taking advice from a party with no exposure to the credit. Where possible, investors prefer to rely on another party who is aligned as an investor.

Impact of Recent Regulatory Changes on Development of EU Capital Market Financing

Investors are very sensitive to regulatory requirements, which in many cases determine the profitability of their investments.

Changes introduced by Basel III (and additional changes currently under consideration) may impact banks' appetite for long-term lending.[38] Under Basel III, project financing is becoming more expensive for bank lenders because of increased liquidity and capital requirements especially for the longer tenors that match infrastructure's needs. As a result, banks might shift capital from long-term project financing, which could in turn be a potential catalyst for further use of capital markets. Indeed, many market participants believe that banks' aggressive terms for infrastructure loans have limited institutional participation. Standard & Poor's has stated that they believe that the presence of institutional investors and the frequency of capital market funding would increase if banks were to reduce balance sheet exposures.

In the face of these changes and ongoing uncertainty, some banks are changing the way they finance infrastructure. More are lending only up to seven years, in a "mini-perm" infrastructure loan that must be refinanced at or before maturity. Concurrently, they are building out their "originate-to-distribute" platforms. Credit Agricole, a leader in project finance, launched a new financing model five years ago to sell most of its loans instead of retaining them as in the past, and has sold exposure to institutional investors, in a change to its strategy pre-financial crisis when loans were syndicated only between banks. Natixis and BNP Paribas have both reported that they plan set up originate-to-distribute platforms that follow this model.

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37 Bishopsfield is a London-based boutique investor and advisor. It currently monitors $3bn in exposures in Europe including roads in construction, wind farms and student accommodations.

[38] "Four risk measures of the agreement have a potential impact on infrastructure financing. The first one is the liquidity coverage ratio (LCR), which will be more stringent with contractual "committed facilities" granted to project finance than for to type of financing. The second one is the net stable funding ratio (NSFR), which restricts the maturity mismatch for lending in tenors above one year. Under this provision, banks with limited access to medium/long-term funding would face strong restrictions to participate in project finance requiring long tenors. The third risk indicator relates to tighter limits for large exposures, which may limit the participation of relatively small banks in project finance, as projects are generally large. The fourth risk indicator is in the possible elimination of internal risk based (IRB) models for project finance. As external ratings may not be allowed or not be available, a more conservative capital provisioning may be applied". See Private Financing of Public Infrastructure through PPPs in Latin America and the Caribbean at https://openknowledge.worldbank.org/handle/10986/26406

Banks have also become more innovative in credit risk management. They have begun more actively using credit insurance policies that protect against non-payment. Less ironclad and smaller in size than the monoline credit guarantee product, these policies nevertheless lower risks and can increase the credit ratings, thereby reducing capital charges.

In contrast to Basel III, changes to Solvency II may make infrastructure lending more appealing to the European insurance companies it covers. On April 1, 2016, capital charges on qualifying rated infrastructure debt were cut roughly 30% to 40% compared to similarly-rated corporate bonds.

Changes in Solvency II were party motivated by the European Commission's policy objectives, included in its Investment Plan for Europe announced in November 2014, which aims to encourage investment in infrastructure. This is an example of policy changes that use data and analysis of historical infrastructure debt performance to directly support the desire to increase institutional lending to infrastructure.

The lower capital charge applies to "qualifying infrastructure investments in bonds or loans" and "qualifying infrastructure equity." Qualifying issuers must be infrastructure project entities consisting of physical facilities, systems and networks that provide or support essential public services. Cash flows must be "predictable" which is satisfied if the revenues are availability-based, set by law or regulation, or take-or pay. Revenues must come from either a BBB rated institutions, or an EU government institution, or from a large number of users. Investors must benefit from a contractual framework that provides a high degree of protection. Debt must either be rated BBB or higher, or must be senior to all other claims against the project. The project must be located in the EU or the OECD.

Under this regulatory regime, insurance companies are likely to continue to favor low-risk transactions, making credit enhancement either within the deal or in the capital structure important for attracting this investment.

For pension funds, regulations often prohibit them from investments below investment grade, which absent a strong sponsor, or government or structural support, most greenfield projects fall short of. Nevertheless, efforts to mobilize pension funds' investment in infrastructure have started, slowly, to take root. The pension funds can represent an important source of capital with long-term financing objectives.

Pension funds, like insurance companies, have also been teaming up with banks to provide longer term financing for projects while the banks provide the shorter-term construction financing. One example of is the road expansion and bridge building infrastructure project known as N-33. Three banks provided construction financing and two pension funds provided the majority of the take-out long term financing under a forward commitment. (See box below for more details on the N-33 project). A critical component of this transaction was the Dutch government's involvement in working with the pension funds to provide terms and conditions attractive to them, in this case a government availability payment indexed to the country's CPI over the 20-year concession. This allowed APG to offer funding at an indexed but fixed rate much lower than what banks could offer.

European Union Case Study: Via A11 in Belgium

Via A11 is a Belgian Public Private Partnership established to develop and operate 13km of a 2-lane highway near Bruge. The project consists of designing, building, financing and maintaining almost 90 structures including a viaduct, a moving bridge and two tunnels. The €588mm financing closed in 2014 and involved a number of milestones:

- The transaction was financed entirely in the capital markets with no bank lending involved
- Both listed and unlisted bonds were issued simultaneously
- Bond financing could be drawn down over time during the construction period, mitigating negative carry
- It was the first greenfield project to receive credit enhancement from the European Investment Bank's project bond initiative, which was sized at 20% of the senior debt and successfully raised the rating of that debt from Baa3 to A3 even during construction.

Payments are availability-based with no traffic risk to the lenders, with payments to be made following completion by the Flanders Region.

Allianz Global Investors was the lead investor. The delayed drawdown approach used forward purchase agreements in a solution that has emerged to address allow institutional investors to provide flexible funding timelines, something they did not previously do, and which had made institutional lending less favorable than bank financing.

The combination of listed (Luxembourg stock exchange) and unlisted bonds was structured to accommodate Allianz's regulatory and accounting requirements under German law (although Allianz often does invest in private placements). To address control issues, the deal split voting into discretional and ordinary matters; Allianz can decide upon smaller issues while more important matters are referred to the bondholders as a whole. The EIB, which took a subordinated position, maintains some entrenched rights.

European Union Case Study: N-33 Road-Widening Project in the Netherlands

The N-33 project in the Netherlands was a project for improving the existing road, building a new bridge, and managing them over a 20 year concession. Three banks provided a construction loan as well as 30% of the long-term project loan. Two Dutch pension funds provided both equity and a forward commitment for 70% of the long-term loan, the latter to be provided following a 3-year completion period. The Dutch pension funds are among the largest in the world, with close to €1tr in invested capital, a large portion of this under the oversight of only a few large pension funds.

The N-33 PPP concession was awarded to a JV between Dutch construction company, BAM, and the pension fund PGGM. It called for a 2.5 year construction period and 20 years of operation. Leverage was 91:9 debt-to-equity. BAM and PGGM together provided this 9% equity. The remaining 91% was a construction loan divided equally among three commercial banks. This loan was to be refinanced after approximately three years, with Dutch pension fund, APG, buying 70% of the long-term debt and the banks retaining 30% of this exposure.

This concession was unique in the sense that pension funds were directly and actively engaged in both the equity and debt financing from the start. They were the main drivers in securing the overall financing package for the project. The sponsor partnership brought the construction expertise of BAM together with the equity capital of PGGM and the pension fund's early involvement assured that the project met its environmental, social and governance criteria.

On the debt side, the Dutch Ministry of Infrastructure and the Environment closely coordinated with APG and other pension funds interested in the financing to define terms that would incentivize them to provide debt for the project. APG's terms included that the availability payment from the Dutch government for the infrastructure be indexed to the country's CPI over the 20-year concession. This allowed APG to offer funding at an indexed but fixed rate much lower than what banks could offer.

APG took away the refinancing risk from the commercial banks, the government took away the inflation risk from APG, BAM took away the construction risks, PGGM took the early equity risks, and commercial banks took greenfield risk, each party assuming the risks appropriate to their skills and risk tolerance.

INDONESIA COUNTRY SUMMARY

While Indonesia has a great demand for infrastructure and a government keenly interested in having the private sector finance some of its infrastructure projects, the contribution of domestic institutional investors is very limited so far. Challenges are multifold, from improving PPP procedures and ensuring that a pipeline is available to designing instruments that can align risk return appetite of foreign institutional investors, given the current limited size of domestic institutional investors. The current legal and regulatory framework will need to be upgraded if the domestic capital market is to become a significant source of financing for infrastructure. In the meantime large Indonesian infrastructure companies are beginning to turn to the domestic capital markets to finance their projects and institutional investors are getting exposure to infrastructure by purchasing their corporate bonds. The Government is currently in the process of preparing regulations for both project bonds and infrastructure debt funds.

Financial sector overview

The domestic bond market is not very large - only 16% of GDP in 2015 according to the OECD. Domestic corporate bonds were only 3% of GDP, two-thirds of which were financials. Indonesia's corporate bond market is characterized by a lack of depth and low liquidity, driven by a limited supply of quality issues, low retail participation, and buy-and-hold behavior among domestic institutions. Even though government bonds are issued with maturities going out to twenty years, the market provides very little pricing information for corporate bonds due to limited trading. Total stock market capitalization in 2015 was 41% of GDP.

Total investable assets of non-bank institutional investors in Indonesia are quite small. At the end of 2015, privately managed occupational pension funds had assets of 1.7% of GDP, the National Social Security System (a broad-based mandatory system) had assets of 3.9% of GDP and insurance companies had assets of 3.1% of GDP according to the OECD. The pension industry has a mix of defined benefit and defined contribution plans. Institutional investors prefer safe and short term investments. Given pension participants' ability to withdraw their savings when they change jobs, and their tendency to evaluate investment results on an annual basis, the liquidity requirement is high—despite a net inflow into the overall system, especially now as coverage is becoming more comprehensive due to recent pension reforms. Insurance companies do invest in longer term securities, but mainly government bonds.

The Indonesia Financial Services Authority (Otoritas Jasa Keuangan or OJK) is in charge of the regulation and supervision of the financial sector.

Indonesia has an investment grade sovereign rating. Foreign investors hold about 40% of government bonds and do over 40% of public equity trading. But foreign investors are not providing much local currency financing for infrastructure due to exchange rate risk, for which there are almost no hedging instruments available. (The FX forwards market goes only up to three months and there are no FX options.) In addition, the legal framework inadequately protects

foreign investors given, for example, the long time to resolve cases and low recovery rates for creditors in insolvency proceedings.

PPP framework

Indonesia has limited experience with PPPs. Currently, several agencies are taking overlapping roles to lead the PPP agenda: the PPP Unit (PKPS) within the Ministry of National Development Planning Agency (BAPPENAS) is in charge of coordinating the PPP program, the Committee of Infrastructure Priorities Development Acceleration (KPPIP) is a project management office for priority projects and the Ministry of Finance created in 2015 a PPP Unit, called P3CU. Regulations were issued in 2015 defining procedural guidelines for the PPPs. There are also sectoral specific regulations. Under the new procedures eight project have been financed over the past two years for a total of IDR 81.23 trillion (about US$6 billion). In 2017 the Government published information on 22 additional PPP projects that are in preparation.

Use of capital markets for infrastructure financing

In Indonesia infrastructure financing has largely been provided by banks. There is little financing from capital markets channeled to developing new infrastructure, and by and large it is limited to plain vanilla corporate bonds issued by large utilities and construction companies, mostly by state-owned enterprises, with perhaps few small deals using a collective investment contract scheme. About 13% of the corporate bond market is for companies in the infrastructure sector, and the financing raised is perhaps the most straightforward means for financing infrastructure in Indonesia.

Bonds for individual projects are not available in part because of the lack of a credit culture among domestic investors. These investors have difficulty in evaluating the credit enhancements that are necessary to improve a project bonds' credit quality beyond that of the project sponsor's own credit rating. The government backed Indonesia Infrastructure Guarantee Fund (IIGF) – known in Indonesia as PT Penjaminan Infrastruktur Indonesia – which was set up to promote financing for PPPs, during its first six years of operation signed only nine guarantee agreements. While there are two local credit rating agencies, PT Moody's Indonesia and Credit Rating Indonesia (PT PEFINDO), investors are first and foremost more receptive to issuer's names; credit ratings are only secondary to the investment decision in the domestic bond market. Hence, the prevalence of mostly state-owned enterprises (SOEs) and other large and well-known corporations in the bond market.

In addition, there are gaps in the legal and regulatory framework that can hinder the use of capital markets for infrastructure financing. In particular, Indonesia lacks a strong framework for Special Purpose Vehicles (SPVs) which could enable securitization of infrastructure-related assets and project bonds. And there is no legal precedent in the Indonesian capital market for a sale or transfer of rights for future revenues or receivables without recourse. Exemption of SPVs from withholding and income taxes would also facilitate project financing.

In addition, Indonesia does not have a framework for the offering of securities other than through a public offer, and the investor regulation (pension fund regulation) allows investment only in publicly offered debt securities. There is a nascent private placement market, where securities can be offered to less than 100 potential buyers or sold to less than 50 buyers. But this market is yet to be used for infrastructure financing.

If the public offering regime were to be used for infrastructure financing (to allow investment from pension funds), then the regulations for the issuance of corporate bonds would need to be used as there are no specific regulations for project bonds. However, some of the requirements are not suited for project finance, including for example certain performance indicators such as the need for the corporation to be in operation for a minimum of three years, and to have profit for the last year.

Another potential challenge is that Indonesian law does not provide clear guidance on subordination of debt claims by contract. However, it has become an acceptable practice for sponsors and other junior creditors to enter into a foreign law subordination deed or agreement with senior creditors.

There is one instrument that can be used to circumvent these problems, albeit unsatisfactorily. It is possible for institutional investors to invest indirectly through a collective investment scheme called in Indonesia a RDPT (Reksa Dana Penyertaan Terbatas or Limited Participation Mutual Fund), which was established to create a legal vehicle for private equity funds that can be purchased by institutional investors. An RDPT is a closed-end fund that can be offered to a maximum of one hundred investors - with no more than forty-nine investing in the fund. Such funds have been used primarily for investing in private and public equity. But there have been a few RDPT created for infrastructure-related investment, including for lending to new projects that could not otherwise been made through the bond market. However, the RDPT has so far not become a significant instrument for infrastructure investment. This is because RDPT is a taxable entity, which it is not particularly attractive to nontaxable investors such as pension and social security funds and because of the extra expense of investing through an intermediary.

Sukuk (Islamic bonds) are well suited to infrastructure financing, as illustrated by their extensive use in project finance in Malaysia. However they have yet to be developed in Indonesia, whose Muslim population is the largest of any country in the world. The Government issued long-term local currency project-based sukuk in 2011 and 2013 and used the funds raised to finance infrastructure projects. But these are general obligation bonds and not project bonds. Indonesia has lagged other countries in the growth of its sharia-compliant financial institutions. But as these grow, then the demand from these for sukuk can be expected to increase.

Indonesia Case Study – Jasa Marga Toll-Road Financing

PT Jasa Marga Tbk is a state-controlled company that plans, builds, operates and maintains toll roads in Indonesia. The company currently operates and manages 13 toll road concessions directly and nine more toll roads through its subsidiaries. Approximately 73% of total toll roads in Indonesia are operated by Jasa Marga, which makes this company the dominant player in Indonesia's toll road sector. It was established in 1978 and was first listed on the Jakarta Stock Exchange in 2007.

In the past Jasa Marga raised most of its funding from internal cash flow, stock sales and domestic syndicated bank loans – plus cash injections from the State Budget. In 2017 it needs to raise Rp 7trillion (US$521.3 million) to repay debts and to fund expansion. It plans to raise part of this by issuing US$446 million in bonds. This issuance will be part of the company's notes program launched in 2016. The program is set up so that Jasa Marga can issue a series of bonds worth Rp19 trillion ($1.4 billion) until 2019.

In 2017 investment regulations for Indonesian insurance companies and pension funds were revised and the minimum holdings of government bonds raised from 20% to 30%. But they can fill half of this requirement by holding SOE bonds. This will push up the demand for bonds such as those being issued by Jas Marga.

The company is also planning to raise some additional funds via an asset securitization. It is still exceedingly difficult to finance greenfield projects via the capital market in Indonesia. On a stand-alone basis such projects cannot obtain sufficiently high ratings (due largely to land acquisition and construction risks) that institutional investors demand (which is normally single-A or higher on the national rating scale). Thus infrastructure companies in Indonesia have just started the process of securitizing the cash flows of completed projects that should provide the higher rated debt that is attractive to institutional investors. The funds it raises through such securitizations can then be used to finance greenfield projects.

The bonds and securitizations to be issued by infrastructure corporates such as Jasa Marga will provide institutional investors in Indonesia a means of investing in infrastructure assets. While not as direct as infrastructure project equity, loans or bonds, they may deliver similar investment attributes.

MEXICO COUNTRY SUMMARY

Mexico is well placed to develop efficient capital markets solutions to complement bank financing for infrastructure. Non-recourse project bonds have for some time provided long-term financing for Mexican infrastructure projects. In recent years, new instruments have been introduced particularly in the equity space that allow Mexican pension funds additional means to invest in infrastructure. These instruments are similar in many ways to infrastructure funds found in other countries, but they are publicly listed and rated, thus satisfying pension funds' investment requirements. The need to structure them as securities of public offering has created challenges, that the securities regulator has sought to overcome by making more flexible their regulations and/or creating more flexible instruments overtime.

Financial Sector Overview

Mexico's domestic debt securities equaled 52% of GDP in 2015, with corporate securities equaling 18% of GDP. The government yield curve goes out 30 years. The debt market in Mexico is far more active than the equity market. The main issuers are banks, non-bank banks, private companies, state governments and municipal governments. Total stock market capitalization in 2015 was 31% of GDP.

Mexico has a sizable pension industry and government policies implemented in recent years have encouraged them to invest in infrastructure projects. Mexican pension fund (afores) assets were 16% of GDP in 2015 and relatively concentrated as there were only 55 of them. All are defined contribution plans. Insurance companies in Mexico had invested assets of 1.6% of GDP in 2015.

The Comisión Nacional Bancaria y de Valores (CNBV) is the securities and banking regulator.

PPP framework

A PPP law passed in January 2012 provides a broad enabling framework for PPPs at all levels of government. It improves existing federal legislation introduced a decade earlier and a number of state-level laws that have been introduced over the past decade. A significant pipeline of public infrastructure projects has been developed under Mexico's 2013-2018 development plan. There is no agency at the federal or state levels that is exclusively responsible for PPPs. Budget constraints at state and federal levels are creating pressure to expand the use of PPPs.

Use of capital markets for infrastructure financing

Capital markets are playing a significant role in mobilizing institutional investors to finance infrastructure in Mexico. In practice, the investment regime of pension funds has influenced the type of instruments available for infrastructure financing and the way they are placed in the markets. In this regard, while pension funds are allowed to invest up to 18% in infrastructure assets, there are specific regulations concerning the type of instruments that they can invest in. In particular, their investment needs to be via securities of public offerings and have an investment grade rating. This means that while the country has a framework for private

offerings,[39] in practice it is not used for the placement of instruments targeted to pension funds. The insurance sector is in the process of implementing Solvency II. This will give insurance companies greater freedom in their choice of investment instruments and could increase demand for private placements. But there is still uncertainly about how exactly various instruments will need to be treated under this new regime and thus there is little demand so far.

Project bonds

Since roughly 2008, Mexico's state-owned development bank, Banobras, has funded the relatively small number of public projects, and subsequently syndicated the debt. However, as the project pipeline grows, it is unlikely that Banobras will be able to meet rising demand and there will be an increase in long-dated project finance bonds. Such bonds were first issued in 2009 and their use has increased rapidly to the point that as of end-2015 they were 10% of outstanding non-government bonds. Most of these bonds are issued to refinance bank construction loans once construction is complete and the projects are in the relatively low risk operational phase and have stable revenues. These project bonds are filling a financing gap where banks would not be a financing alternative, given the large size, lower returns and longer tenors typical of mature infrastructure assets.

The main holders of these bonds in Mexico are pension funds (with around 63% of outstanding volume) and insurance companies (holding around 7%). They typically have credit ratings above AA on the National scale (often equivalent to BBB or BBB- on the global scale) and very low liquidity. The latter is acceptable to the pension funds' investment profile given their buy-and-hold investor profile. A quarter of these bonds have partial credit guarantees provided by either Banobras or FONADIN (another of Mexico's development finance institutions).

Banobras bonds are publicly offered and listed. Pursuant to article 93 of the Securities Markets Law bonds issued by Banobras are subject to a special regime regimen whereby Banobras is only required to notify the CNBV the characteristics of the securities it will issue. There is no obligation to submit a prospectus for authorization by the CNBV, nor to submit periodic or ongoing information (article 93 Of the Securities Markets Law).

Requirements for the public offering of project bonds issued by private vehicles are set forth in the General Dispositions applicable to issuers of securities. Generally, the requirements for asset backed securities apply to project bonds. In this context, the issuer must submit a series of documents to the CNBV, including a prospectus, and a credit rating. Audited financial information is not required if the SPV is of recent creation, and there are no "dependency linkages" with the sponsor (i.e. when the sponsor provides a guarantee). The issuer is also subject to periodic and ongoing disclosure obligations which include annual reports with audited financial statements, quarterly reports, material events disclosure and credit rating updates.

[39] Under the Securities Market Law, an offering of securities in Mexico is private if any of the following applies: the offer is made exclusively to institutional or qualified investors, or the offer is made to less than 100 companies and/or individuals.

Certificados de Capital de Desarrollo (CKDs)

CKDs were created in 2009 to expand the way in which pension funds could invest in infrastructure. Pension fund investment rules were amended to allow pension funds the possibility of making investments in private equity and infrastructure projects through the CKD structure. Each pension fund can invest up to 10% of its assets in them. Today pension funds hold most of the stock of CKDs.

There are basically two types of CKDs: (i) those issued to finance an individual company or project located in Mexico, and (ii) those issued to finance a private equity fund to invest in multiple companies or assets in Mexico based on a business plan and certain eligibility criteria determined by the sponsoring manager. Most CKDs are issued to finance a private equity fund that invests in multiple assets in Mexico based on a business plan and eligibility criteria determined by the sponsoring manager. CKDs pay dividends to their shareholders linked to the revenues of the infrastructure projects in which they are invested. One variation that has been allowed is for a CKD to enter into a co-investment with an unlisted SPV in a joint venture scheme. The unlisted SPV can be owned by a foreign or a local investor that is generally more experienced than pension funds in the CKD. (See box below on CKD Infraestructura México.)

The regulations for CKDs have been amended overtime to accommodate concerns of the market. In particular in July 2011, at the urging of the pension funds, the regulations for CKDs were modified so that CKDs no longer had to be fully pre-funded at the placement date. Instead only a capital commitment is necessary, as is more generally used in private equity funds in other countries. The new rule requires at least 20% of the face value of the CKD to be pre-funded, with the balance available to be called by the manager as needed. This helps to improve the returns that investors receive from their investments in CKDs. Another change made in 2011 was to increase in the maximum amount of a single CKD that may be purchased by single investors, revising it upward from 35 percent to up to 80 percent if the manager or other qualified investors have committed to contribute at least 20 percent of the total amount of the CKD offering.

Since pension funds can only invest in publicly offered securities, CKDs must be structured through a publicly traded security registered on the RNV and listed to trade on the Exchange, the BMV. As an instrument of public offering, CKDs are subject to authorization by the CNBV. This authorization is based on a submission of a prospectus and complementary information on the issuance. CKDs are subject to the same periodic and on-going obligations of any listed company, including quarterly reports, annual audited financial statement and material events disclosure. Reforms introduced allow CKDs to be placed through a restricted public offering and in that case some information could be omitted in the prospectus (but would need to be made available to actual investors).

Similar to a publicly listed company, an issuer of CKDs is also subject to governance requirements. As part of such requirements, a CKDs holder (regardless of their management skills or experience) making up at least 10% of total investment has a say on or can veto investment decisions. This is quite different from private equity funds in other countries where fund managers are accustomed to operating without input from investors. Although CKDs holders' participation in investment decisions can be negotiated and contractually avoided, most pension funds have insisted on significant involvement in investment and disinvestment decisions. This involvement

in turn has disincentive participation from other investors who see this vehicle as too costly and rigid.

In practice, to align the interests of the manager and the investors, the manager typically acquires a commitment to co-invest a certain percentage of the overall investment (in practice such commitments have ranged from 2% to 20%) with the fund.

More recent vehicles

In 2015 two new investment vehicles were created that may help mobilize long-term investors into infrastructure: the Fideicomiso de Inversión en Energía e Infraestructura (FIBRA-E) and the Certificados de Proyectos de Inversión (CerPI). Both products are very specific to the Mexican regulatory context.

FIBRA-E is a new investment vehicle that allows private and public participants to monetize assets characterized by having stable and predictable cash flow, under a tax regime that reduces the level of taxation and therefore allows greater distributions. It is expected that FIBRA-E will be especially attractive to PEMEX and other energy SOEs as a way to monetize their assets. From a legal perspective a FIBRA-E is based on the US Master Limited Partnership (MLP). A major consideration is that it is "transparent" for tax purposes (i.e., the tax is paid at the level of each investor).

CerPIs were introduced in response to demand for investment funds that are closer to international practices, where the administrator is given greater discretion to make the investment decisions. In this regard, only investors holding at least a 25% share are able to appoint a member of the Technical Committee that oversees investments or to summon a general assembly of shareholders, as well as other powers. Unlike the Fibra and Fibra-E, which focus on the development of the energy development, CerPIs can be used to invest in any economic sector.

CerPIs must be issued as restricted public offerings, i.e., only for institutional and qualified investors. They are subject to authorization by the CNBV, for which a prospectus is required. They are also subject to similar disclosure obligations as CKDs. Pursuant to the current regulations, they can omit information regarding the individual projects they invest in the public documents, although selected financial information about the investments do need to be provided. Actual investors do have the right to be provided access to any additional information agreed upon.

The National Pension System Commission (CONSAR) has made several amendments to the regulatory framework regarding investment from pension funds using CerPIs:

- The structure must involve a parallel vehicle or co-investor that must invest in the same projects as the issuing trust.
- The co-investor will represent 30% of the total value of the investment or project and may invest by acquiring certificates that have been issued by the trust.
- The funds received from CerPI issuance must be invested through investment vehicles in Mexico.

- The issuing trust must ensure that the manager, unless it is a financial institution, must first protect the interest of the investors and act in their favor.

Mexico Case Study: CKD Infraestructura México

CKD Infraestructura México, S.A. de C.V. (CKD IM) is an example of how CKDs can be used for investing in infrastructure. This investment platform was launched in late 2015. Caisse de Dépôt et Placement du Québec (CDPQ), and a consortium of Mexican investors including FONADIN, Pensionisste and the three largest pension funds are investing in the platform. CDPQ holds a 51% interest in the co-investment vehicle and is the controlling manager. CKD IM, whose certificates are listed on the Mexican Stock Exchange, holds the remaining 49%.

CDPQ is a Canadian long-¬term asset manager for Canadian pension funds and insurance companies with around CAD 250 billion AUM invested globally. A local investment team has been appointed to manage the Mexican investment platform but it will also, draw form the expertise of infrastructure investment teams from CDPQ. This platform will allow the Mexican investors to benefit and learn from CDPQ's infrastructure investing expertise while providing CDPQ local intelligence and deal access and probably some political risk protection.

The platform plans to invest up to MXN 35.1 billion (US$2 billion) in Mexican energy, telecommunications and transportation projects and has an investment horizon of 50 years. Planned investments will be in equity in brownfield projects with stable cash flows in local currency or, occasionally, dollars. This reflects CDPQ's willingness to assume exchange rate risks and manage these on a portfolio basis, which is facilitated by three factors: i) the indexation to inflation of the projects' revenues; ii) the long term horizon of investments; iii) the diversification of the CDPQ's portfolio at a global level.

Investments are planned as joint ventures with an infrastructure operator that has "skin-in-the-game" and is responsible for managing the infrastructure assets. The first investment has already taken place in an SPV managing four mature toll roads, in partnership with the Mexican construction company ICA.

While CKD Infrastructure Mexico is in its initial stage of operation, it may prove to be a model for long-term institutional investors in emerging capital markets who are seeking: i) knowledge transfer from a highly specialized international assets manager; and ii) a investment vehicle that provides good alignment of interest between its participants and an investment horizon that can deliver the benefits that buy-and-hold investors seek in infrastructure as an asset class.

PERU COUNTRY SUMMARY

While Peru's capital market is still relatively small, it is playing a significant role in financing the country's infrastructure. This is due to the existence of a relatively large pension fund industry, which has been a key investor in infrastructure for the last decade, but also to the stability of the country which has provided confidence to international institutional investors, along with the design of instruments that are aligned with the risk return appetite of investors. The pension fund regulator has made changes in pension fund regulations over time to support their investments in infrastructure financing. The primary instruments used by institutional investors to invest in infrastructure are privately placed infrastructure funds and project bonds. Most of the project bond issuances so far are placed in the international markets. The reasons are complex, and many are outside the control of the securities regulator. A number of domestic and international infrastructure funds provide both equity and debt to projects in Peru, with their major shareholders being the pension funds. A few of such funds are domiciled in Peru.

Financial Sector Overview

Peru's debt capital market is small, with total domestic debt securities equaling only 14% of GDP in 2015 according to BIS data. Corporate debt securities equaled 6% of GDP. Total stock market capitalization in 2015 was 31% of GDP.

The Superintendencia del Mercado de Valores (SMV) is the governmental regulatory and supervisory entity of the Peruvian securities market.

While investable insurance assets were only 2.9% of GDP in 2015 (according to OECD data), pension funds in Peru had investable asset equal to about 20.3% of GDP. Since there are only a few funds, they are of a reasonable average size. All are defined contribution systems. The government, in an effort to reduce management fees, uses a periodic (every two years) public tender to competitively select a single fund that is responsible for enrolling new members. The tender mechanism forces the winning company to offer the same commission to its new and existing members. Peru also has a mandatory pay-as-you-go pension plan that workers can contribute to if they do not contribute to a private plan.

Peru is laying the groundwork for comprehensive regulatory reform for insurance company investing while simultaneously incorporating risk capital requirements. Pension funds still face quantitative and qualitative investment limits (e.g., no direct investment in real estate and no loans), but can invest in both privately placed or publicly offered securities.

Peru's private pension system is similar to those across Latin America in that savers have a choice of multiple funds which rank from conservative and more liquid to risky and more illiquid (with different investment limits imposed for each) and are able to move their savings from one to another fund or to withdraw funds. A change in the withdrawal rights introduced in mid-2016, which would allow some participants to cash out of most of their pension, is making it more risky for funds to invest in infrastructure and some funds have started cutting back their investments in this asset class.

Framework for PPPs

The government of Peru has established a legislative framework for PPPs and has developed deal structures that have gradually transferred risks to the private sector. The investment promotion agency of Peru, ProInversión, is responsible for structuring PPPs and fostering investment in infrastructure projects. Private players can also develop their own projects and present them to the government for approval and a fast-track tender. Peru's development bank, Cofide, helps in the financing of some projects, but not as the sole lender.

Use of capital markets for infrastructure financing

Peru has been able to finance infrastructure via capital markets through different types of vehicles. The domestic pension funds have been very active in financing infrastructure and currently have over 10% of their assets in infrastructure assets. They invest directly in projects primarily through project bonds and infrastructure funds. They are not allowed to make loans. Pension investment regulations do not set any limit for infrastructure investments as they are treated as part of the overall equity and bond investment ceilings. However the development of infrastructure debt investment funds has been encouraged by pension regulatory guidelines that specify a special sublimit of 4% of assets for investment funds that invest at least 80% in debt securities which finance infrastructure.

Infrastructure bonds

In 2006 Peru introduced an innovative model to facilitate financing for large-scale infrastructure PPP projects through long-term funds raised in the capital markets. The Government developed a payment mechanism and supporting regulations that mitigates completion risk and provides for predictable government payment streams that are not subject, in large part, to operating risk. It created instruments called CRPAOs (Certificados de Reconocimiento de Derechos del Pago Annual por Obras) which were first used to finance the construction of the toll road projects. CRPAOs are physical certificates that are issued to the concessionaire once it has completed a certain predefined milestone of a construction project. They represent the right to receive a payment from the government for the cost of construction associated with the milestone completed spread out over a period of 15 to 20 years, depending on the concession. CRPAOs are governed by New York law, can be enforced in New York courts, and are transferrable to third parties both inside and outside the country. This unconditional government guarantee made it possible for the CRPAOs to be securitized into a fixed income instrument issued to investors in capital markets. This was done by the concessionaire selling CRPAOs to a third party – an investment bank or a special purpose vehicle ("issuer") – who would then issue the debt instrument backed by the CRPAOs to bond investors. The proceeds collected by the concessionaire from the sale of the CRPAOs to the issuer could then be used to finance the next milestone of the construction project, thus allowing the construction to proceed segment by segment until the entire project is completed. Peruvian pension funds have accounted for much

of the institutional investment in these project bonds, although foreign investors have also been attracted to them.

In most projects the risks that a project will not complete construction and be operational on schedule is significant. Without some form of credit enhancement (sizeable advance payments, sovereign guarantees or standby letters of credit) bonds for greenfield projects usually do not receive credit ratings that allow pension funds to invest in them. The Peruvian approach using the CRPAOS reduces construction risk essentially down to a level equivalent to the nation's sovereign risk.

However, because CRPAOs create a direct future sovereign debt service obligation, the Peruvian government opted to use a modified model for subsequent projects, where possible, by introducing RPICAO instruments in 2008. RPICAOs are essentially irrevocable payment obligations also tied to completed milestones under a concession agreement. RPICAOs, unlike their predecessors, are not granted in certificate form and, while representing payment rights on account of CAOs issued in the same fashion as in CRPAO backed projects, do not embody direct payment obligations of the government of Peru. Instead, the government of Peru acts as a guarantor in the event that the project funds are insufficient to cover the concessionaire's financing costs. Principally, payments under the RPICAOs are made by the government entity commissioning the particular project, through a master trust, which is in turn funded through taxes levied by the government of Peru. In the event the amounts generated through such collections are insufficient to satisfy the payment obligations pursuant to a RPICAO, the government of Peru is obligated to step in and cover the difference. Like with CRPAOs, the unconditional and irrevocable payment rights under RPICAOs may be assigned or sold to third parties. The transferability of RPICAO rights has also thus permitted concessionaires to tap into foreign capital markets through securitization transactions.

There has been a strong appetite for securitized CRPAOs and RPICAOs given their backing by the Peruvian government. The fact that the certificates are relatively standardized also facilitates their securitization. The government intends to phase out the use of these instruments due to their impact on the fiscal deficit, via contingent liabilities. But they have been very useful in familiarizing both domestic and foreign institutional investors with Peruvian infrastructure projects.

The bulk of Peruvian project bond issuances have been placed in the international markets, mainly through the use of Regulation 144A and Regulation S of the U.S. SEC. This has allowed the concessionaries to attract financing from institutional investors in both United States and Europe. Peruvian pension funds have invested in these bonds along with international investors. Given the large percentage of such securities that are held by local pension funds a key question is why such issuances are not placed via the domestic market, using the regulations of the SMV, especially as the supply of local securities is insufficient to meet local demand from pension funds and financial companies. The answer to this question is complex. There appears to be a desire for more competition in the investor base, in order to generate more competitive pricing. In addition, a purely private offering regime, akin to U.S. private placements or Regulation 144A offerings, is not operational in Peru, in part due to the difference in tax treatment with a public

offering --as the latter enjoys a favorable tax treatment. [40] Through legal reforms approved in 2013 a market for institutional investors was created, whereby the public offering of securities addressed exclusively to them benefits from a lighter regulatory process and potentially also lighter disclosure requirements making it similar to a private offering, while still enjoying the favorable tax treatment afforded to public offerings. In addition, information submitted to the SMV is not considered of "public access" and must be provided directly to investors. However, such new avenue has not yet been used as there appear to be uncertainties as to the conditions for its use.

Infrastructure funds

Infrastructure funds fall under the Law on Investment Funds and Management Companies (Ley de Fondos de Inversión y sus Sociedades Administradoras) and its regulations (Investment Regulations). Pursuant to such framework the fund manager (the Sociedades Administradoras de Fondos de Inversión) is subject to licensing by the SMV.

The Law allows the constitution of funds that are of private offering, which are exclusively governed by their internal regulations. Such funds are not subject to registration nor disclosure requirements with the SMV. Any disclosure obligations vis-à-vis investors would originate in the internal regulations of the funds. The fund manager does need to send periodic information to the SMV on the net assets of the private funds it administers.

The Regulations for Investment Funds also provide two different types of registration regimes for funds of public offering: general and streamlined. A streamlined regime can be used when an offer targets exclusively institutional investors, or there is a minimum of s/250,000 participation. In such cases while the funds need to be registered, registration is automatic upon submission of the internal regulation of the fund. Periodic disclosure requirements remain the same, including an annual report with audited financial statements, intermediate financial statements and a report with information on the investments made.

Below some noteworthy infrastructure funds:

- In order to kick-start the unlisted infrastructure equity sector, the GOP, IDB, CAF and CoFides provided US$100mn in initial capital for a US$500 million, 12-year Infrastructure Investment Fund established by the Peruvian government that was launched in 2009. The fund is managed by Brookfield and AC Capitales, which invested US$100 million. The remaining funds came from domestic and foreign institutional investors.
- In 2009, the Peruvian Pension Fund Association created an Infrastructure Investment Trust that invests in infrastructure bonds (up to US$1.5 billion) that are held to maturity. Oversight

[40] Pursuant to the law, offerings addressed exclusively to institutional investors are considered private placements by the Law, provided that the securities acquired by said investors may only be transferred to another institutional investor – or must be registered before being transferred. Only public offerings of securities are subject to the provisions and obligations established in the Securities Law and other regulations approved by the SMV.

of the fund's investments is ensured by representatives of the four pension fund administrators that sit in the investment committee of the Trust.

- In 2012 Sigma Infrastructure, a US$500 million Private Equity fund, was launched, with $250 million in committed capital after two rounds of fundraising. This fund has three Peruvian private pension funds, ONP (public pension fund) and COFIDE as Limited Partners. The fund is dedicated to investing in greenfield infrastructure projects in Peru such as energy generation and transmission, transportation, ports, among others.

Regulations of pension funds

The Law for the Private Pension System establishes a list of eligible investments for pension funds, but leaving ample room to the pension supervisor to expand the list as well as to impose conditions for investment. In practice, the regulations have changed overtime. In general, initially every instrument had to be individually approved by the pension supervisor to be eligible for investment by the pension funds -including for example, investment in securities of private placement. Overtime such regulations have been made more flexible, increasingly placing the decisions regarding individual investments in the fund managers, and eliminating the need for registration of the individual instruments with the Superintendency. The regulations do require that certain information about the instruments be available and in the case of debt instruments that they be subject to credit rating. Regarding investments in infrastructure funds the current regulations have additional requirements mainly aimed at ensuring alignment of incentives between the fund manager and the pension funds. In particular, the (i) time horizon of the infrastructure fund must be aligned with the objectives of the pension fund, and (ii) the manager of the infrastructure fund is required to invest at least one percent of the committed capital in the fund (skin in the game).

Peru Case Study - Port of Paita

In April 2012, a project bond was issued for a Peruvian project with no government guarantee or financial guaranty insurance. This was a ground breaking transaction in several other respects, including how project "control issues" were handled, how bond holder voting was carried out and how "negative carry" was dealt with.

This project bond was issued by Terminales Portuarios Euroandinos Paita S.A. for the expansion of the Paita Terminal Port in the region of Piura, Peru. This 2012 Rule 144A/Reg S project bond saw investors take construction and demand risk. The transaction was the next step in the evolution of Peru's innovative infrastructure finance methods that started with the use of government issued CRPAOs in the IIRSA toll road projects, followed by the use of a project bond to refinance the Lima airport in 2007, and then the creation of RPICAOs for the Huascacocha and Taboada water projects. The U.S. dollar denominate notes carry a fixed interest rate of 8.125% throughout the life of the notes and fully amortize over a period of 25 years. (During the first 5 years only interest is paid on the Notes.) The long tenor and fixed interest rate are probably the biggest advantages the project achieved by issuing a project bond. The notes were rated "BB-" by Fitch and "BB" by Standard & Poor's on the global rating scale. A low long- term fixed interest rate was possible even given the non-investment grade

- rating due to the concession structure, a prevailing low interest rate environment at the time of issuance and strong demand for demand for long-term fixed income assets.
- A key reason investors were willing to assume construction risk in this project was that the existing port facilities, which are part of the concession, have been generating revenues for several years prior to the expansion project that the bonds are financing. Thus there is revenue available to pay bondholders, whether or not construction is completed on time. (There still is the risk of a default under the Concession due to the construction.)
- Project "control issues" were mitigated in large part by having an Independent Engineer contracted to re-test the Issuer's debt service coverage ratio upon the occurrence of certain events and provide approvals or disapprovals with respect to certain actions of the Issuer under the transaction documents, such as changes to budgets, the Issuer's three-year capital plan and the implementation of any major works.

- In those situations where the Independent Engineer was not given approval rights and the bondholders are required to approve certain actions (other than an event of default scenario), the bondholders will be deemed to have approved such actions unless a certain percentage (usually a majority) of the bondholders have responded within a set amount of time after receiving the applicable approval request notice, disapproving of the action. This "deemed approval approach" prevents bondholders who fail to respond to an approval request from keeping the Issuer from going forward with necessary changes, even though these bondholders would have agreed with the request if they had responded. The assumption is that only bondholders that disagree with a certain action will be motivated enough to respond to an approval request. In an event of default scenario, the bondholders will be required to give actual instructions to the Indenture Trustee.

SOUTH AFRICA COUNTRY STUDY

South Africa invests more in infrastructure as a share of GDP than most EMEs. This has been made possible in part by the large amount of assets available for investment in the country's pension funds and insurance companies. In addition, given that South African pension funds and insurance companies may invest no more than 15% percent of their assets in other countries, there is strong demand for domestic infrastructure assets. Such investments have been facilitated by flexible securities and investment regulations that provide access to a number of instruments through which they can invest in infrastructure, including project loans (for insurance companies) and bonds, municipal bonds and private equity funds. South Africa also has a substantial pipeline of bankable projects available for investment. It is likely that a framework for listing project bond (that takes into account the concerns of project sponsors about information disclosure) will be in place soon. It is expected that this will stimulate the use of project bonds in South Africa and should make it easier for the smaller pension funds to invest directly in infrastructure.

Financial Sector Overview

South Africa has a relatively well-developed bond market. There are approximately 140 issuers with an excess of 1,000 debt instruments in issue. The sovereign bond curve has relatively large benchmark bonds with a varied maturity profile in issues going out twenty-six years. South Africa has had a low investment grade sovereign rating that has made it an attractive market for foreign investors. Currently the long-term foreign currency sovereign credit rating for South Africa is BB+ with negative outlook from Standard & Poor's, Baa2 with negative watch outlook from Moody's and BB+ with stable outlook from Fitch. The domestic debt market in South Africa was 9% of GDP at the end of 2015 according to BIS date. Less than half of this was government debt. In contrast to most other emerging market countries, non-financial companies made of 60% of corporate debt. Total stock market capitalization in 2015 was 281% of GDP.

South Africa's pension and provident fund assets represented 96.8% of GDP and the domestic insurance sector's assets were 84% of GDP at the end of 2015 according to OECD data. (Most insurance companies are long-term life insurance companies.) Thus South Africa has one of the largest pools of institutionally managed assets relative to GDP in the world.

While there are over 12,000 registered pension and provident funds, less than 2,000 of these are active. By far the largest is Government Employees' Pension Fund (GEPF) - the largest pension fund on the African continent and the seventh biggest in the world with an asset base of US$127 billion at the end of 2016. GEPF, together with other public employee pension funds Telkom Pension Fund and Eskom Pension and Provident Fund, account for about half of total pension assets. The twenty largest funds hold about two-thirds of the system's total assets under management.

The Financial Services Board (FSB) is South Africa's financial regulatory agency responsible for the non-banking financial services industry. The Johannesburg Stock Exchange (JSE) is the country's dominant stock exchange.

PPP Framework

South Africa has a history of using Public Private Partnerships going back to 1998. In 2000 the National Treasury issued regulations for PPPs under the Public Finance Management Act 1999 and a PPP Unit was established in the National Treasury. The total value of all PPPs undertaken until 2016 was R65.3 billion. The flow of PPPs has been uneven over time and declined in recent years. However, based on the projects currently at an advanced planning stage, PPP project transactions are expected to increase from R4.8 billion in 2016/17 to R5.9 billion in 2019/20.

In addition there has been substantial investment opportunities in the renewables sector due to a very successful independent power producer investment program that was launched in 2011 and has led to about US$14 billion in investments. While much of the initial debt funding was provided by local banks, the banks have resold about half their loans to insurance companies and some of the larger pension funds.

Regulation of pension funds and insurance companies

In 2014 the FSB initiated a gradual transition to a risk-based supervisory regime for insurance companies, with full implementation targeted by 2016. The intention is to align the South African insurance industry with international standards, specifically the Solvency II regime implemented for EU insurers. This will give insurance companies considerable latitude in terms of which instruments and markets in which they invest.

However, the FSB is of the opinion that there is a general lack of investment expertise among trustees of pension funds, and therefore their investments are primarily rules-based. (The GEPF is not officially regulated by the FSB but voluntarily elects to follow FSB rules and regulations.) The current investment limits are commonly referred to as Regulation 28 (of the South African Pension Funds Act). A pension fund may only invest in the kinds of assets specified in Regulation 28, and within the relevant issuer and aggregate limits that are defined per asset class. By way of example, Regulation 28 limits the maximum exposure of a pension fund to unlisted debt instruments and shares and private equity funds. (When determining the asset class of a specific asset for the purposes of determining compliance with Regulation 28, a pension fund must apply the look-through principle. In terms of this principle, which is intended to prevent the circumvention of the prescribed limits, a pension fund must always disclose and report on the underlying assets to which it has economic exposure if the instrument directly held by the pension fund merely provides a conduit to such exposure.) Should a pension fund is of the opinion that it would be prudent to exceed any of the prescribed limits, it can approach the FSB for a possible exemption.

Use of capital markets for infrastructure financing

South African pension funds have had long experience investing in infrastructure, generally via bonds (e.g. those issued by the South African National Road Agency Limited - SANRAL - financing the South African major highway system). Until recently these bonds were issued with corporate backing, but a non-recourse project bond market is now being developed.

Pension funds also invest in infrastructure though unlisted private equity funds. Infrastructure funds have played a significant role in South Africa since the late 1990s. Private equity funds invested about US$800 million in 2015, with about US$100 million going into infrastructure. (These funds are growing rapidly, with funds raised in 2015 being about US$2.2 billion.) The average lifespan of a fund is normally between seven to ten years, but the lifespan of funds that invest in infrastructure tends to be longer (up to twenty years).

Regulation 28 was amended in late 2011 and for the first time included investments in private equity funds by pension funds. A pension fund may invest up to 2.5 per cent of the total fair value of its assets in any one private equity fund and up to 5 per cent in any one fund of private equity funds. This is subject to the proviso that a pension fund must not invest more than 10 per cent of the total fair value of its assets in aggregate across both private equity funds or funds of private equity funds. This limitation is also subject to the further limitation that a pension fund may not invest more than 15 per cent of its assets across both hedge funds and private equity funds.

Private equity funds are unregulated. A private equity fund is governed by its constitutional document (that is, a partnership agreement or a trust deed). Investors typically seek to negotiate the various protections, including investment restrictions on geographic and sector exposure and on borrowing and hedging and the appointment of an investors' advisory board, which usually regulates conflicts of interest.

However, the Registrar of Pension Funds published conditions for investment in private equity funds in March 2012 that stipulate requirements for a private equity fund to qualify for investment by a pension fund. Although the applicable requirements do not bind private equity funds, pension funds are significant investors and private equity funds therefore have a strong incentive to comply. (Over half of their funds come from pension funds.) Some of the conditions for a pension fund to invest in a private equity funds are:

- Fund managers must be members of the South African Venture Capital Association and are required to be authorized as discretionary financial services.
- The private equity fund is audited and statements are prepared in accordance with the international financial reporting standards so as to fairly present the financial position and cash flow of the private equity fund. There must be clear policies and procedures for determining the fair value of the assets of the private equity fund in compliance with the International Private Equity Valuation Guidelines. The valuation of these assets must be verified independently at least annually by a third party.

- At a minimum, the fund must provide quarterly investment reports setting out the fund's performance, activities and the value of its investments, as well as any other information in order to enable the pension fund to fulfil its own reporting requirements.

The Registrar of Pension Funds has also set out a number of considerations which must be taken into account by a pension fund before investing in a private equity fund. These considerations include an analysis of the private equity fund's investment strategy and objectives, its ability to borrow funds, the ability of a private equity fund to change its investment strategy and policy, the rights of the pension fund in the case of a contractual breach by the private equity fund, safeguarding of the private equity fund's assets, and the fees likely to be charged to the private equity fund by the manager, amongst other considerations.

Among noteworthy funds are the South Africa Infrastructure Fund (SAIF), a twenty year closed end unlisted infrastructure fund targeting equity investments that was established in 1996. Investors in SAIF included major South African institutional investors – including Standard Bank, Old Mutual, Futuregrowth, Liberty Life Assurance Company, Metropolitan Life, Public Investment Commissioners and Transnet Pension Fund – as well as the African Development Bank. The fund invested in three major 30 year toll road concessions – the Bakwena Platinum Corridor, N4 and the N3 – and a number of other projects in the rail, airports and telco sectors. The Fund successfully exited its toll road investments in 2016, representing the largest private equity realization for toll road infrastructure in Africa to date.

A similar large fund is the African Infrastructure Investment Fund (AIIF), a 15 year closed end fund formed in 2004 as a joint venture between Macquarie Group and Old Mutual Asset Managers of South Africa. It raised R1.32 billion (≈US$100 million) from Old Mutual Life Assurance Company (South Africa) Limited, Standard Corporate and Merchant Bank, Cape Joint Pension Fund, Capital Alliance Life Limited, Eskom Pension and Provident Fund, the IDEAS Fund, Metropolitan Life Limited, Nedbank, Public Investment Commissioners and Stanlib Asset Management Limited. It invested predominantly in toll road assets, and has exposure to a South African wind farm.

Institutional investors in South Africa are also able to invest in infrastructure funds investing in other SSA countries. The PIC recently created as multi-billion dollar, 25 year, Pan Africa Infrastructure Development Fund (PAIDF). Investors in the fund include GEPF as well as insurance companies involved in managing pension funds and the Ghanaian Social Security and National Insurance Trust (SSNIT).

The largest life insurance companies and pension funds are active direct investors in South African infrastructure, usually investing directly into projects along with banks or taking debt on the secondary markets when banks wished of off-load some of their exposure to a project. Long-term insurance companies may market investment exposure to portfolios owned by them to investors through the issue of linked investment policies. This type of investment policy is widely used by pension funds to obtain exposure to both listed and unlisted investments. (Pension funds are allowed to make only limited loans to domestic entities. They can apply to invest for up to 10% of their assets with the prior approval of the Registrar and members of the fund.)

Some of the largest municipalities in South Africa have used municipal bonds to raise financing for local infrastructure. For example, since 2004 the City of Johannesburg has issued six bonds. Cape Town and Ekurhuleni have also issued such bonds. Almost all the funds raised by these bonds go into financing infrastructure. All municipal bonds are listed on the JSE.

In 2013 CPV Power Plant No.1 Bond SPV (RF) Ltd successfully issued a R1 billion bond to finance a 44MW CPV project located at Touwsrivier, South Africa. This was the first renewable energy bond issued in Africa. The bond achieved a global investment-grade rating and was listed on the JSE. It was purchased entirely by institutional investors. While this was a project bond, the bond payments were also secured with a corporate guarantee from Soitec Solar GmbH, a French CPV manufacturer that held a 60% ownership in the SPV.

Recent efforts to expand the use of capital markets

Recently the National Treasury and the JSE, in conjunction with The World Bank, set up a working group with other market stakeholders to create a framework to list non-recourse project bonds in South Africa and facilitate the further development of the capital markets with the aim of unlocking the pools of funds available for investment in the institutional investor market. Until now relatively little project or infrastructure financing (except by way of state-owned company bonds) has been listed on formal capital markets.

This effort was undertaken based on the view that project bonds provide a good match for the needs of institutional investors for long-term assets to match their liability structure. Listing of project bonds on the exchange is likely to make it easier for smaller institutional investors to invest directly in infrastructure debt since they will likely be more willing to invest in project bonds if they are listed and rated.

The Working Group defined project bonds as bonds that:

- are issued to raise capital for specific stand-alone projects;
- are repaid from cash generated by the project (non-recourse); and
- assume (and their performance is subject to) certain project-specific risk.

The Working Group is proposing that a Professional Debt Market (PDM) be created. From a regulatory point of view, the term “professional debt market” will refer to a market for securities with specific Listings Requirements, but it will not mean that it is a market limited to professional investors. Project bonds could be listed and publicly traded in the public debt market with different disclosure obligations and less onerous listing requirements.

The Working Group addressed the fact that project bond issuers are likely to have concerns around the disclosure of certain of their information (such as intellectual property, contracts and so on). In order to alleviate these concerns, but to continue to provide a mechanism for disclosure, it proposes that a virtual data room or password protected website (collectively the “virtual data room”) be established by the issuer, where the issuer is able to upload any price

sensitive information. The listing document read together with the information uploaded into the data room will constitute the public disclosure in relation to the issuance. The virtual data room will be accessible to a qualifying investor, that being any investor who has signed non-disclosure agreement.

South Africa Case Study- Vantage GreenX Fund

Vantage Capital Group is an investment and financial services group founded in 2001 that specializes in mezzanine debt fund management, debt capital markets activities (including debt origination, placement and advisory services), third party private equity fund management, and on-balance sheet proprietary investing. The Group currently has funds under management and investments of over R8.0 billion (over $500 million).

In late 2013 Vantage launched an unlisted senior debt fund, Vantage GreenX that invests in renewable energy (geothermal, hydropower, solar, biomass, wind) projects. The Fund raised R2.2 billion (≈US$215 million) from 14 Limited Partners (LPs), all South African pension funds. It is now fully invested. It then launched a second fund, Vantage GreenX II which closed its fundraising at the end of 2016 with R2.95 billion (≈US$280 million) invested.

To assess eligibility of the project it invests in, GreenX reviews investment plans, market analyses, expected returns and the commitment level of management of co-financiers. To complete an investment, the fund requires proper project documentation including business plan, signed PPA, signed construction and EPC agreements, and other legal project documentation and EIA reports. The Funds undertake a full due diligence including site visits, legal and technical due diligence, financial analysis and the creation of a term sheet. It usually takes six months to complete from the idea of financing to the signing of contracts.

The GreenX funds issue Asset Backed Notes to investors and then uses the proceeds to acquire permitted investments in the form of senior debt in selected projects structured along limited recourse project finance principles. They can invest in up to 50% of the debt of each project. The Funds have been structured in this way so that the project economics flow through to the Investors, allowing for a management fee to be charged by the Advisor. LPs invest from $5 to $50 million each. The Funds invest in multiple technologies, locations and sponsors so as to diversify and reduce concentration risk. Aside from their financial performance, projects are carefully scrutinized in areas such as corporate governance, environmental impact, social (ESG) policies and practices to ensure the sustainability of the investment. The Funds are designed to provide institutional investors access to projects that they would not otherwise have considered on a standalone basis.

Both funds are investing so far primarily the projects in South Africa's renewable energy independent power producer program (REIPPP). Under this program project development companies bid on tariffs and, if successful, can obtain a 20-year power purchase agreement (PPA) with Eskom, which agrees to purchase the renewable power from the project company. The PPA tariffs are inflation linked. These projects are underpinned by a South Africa Ministry of Finance (MOF) guarantee to cover buyer payment default and/or political force majeure. So far there are 79 approved projects at various stages of development, with more expected from future bidding rounds. The majority of funding for these projects originates from local banks in ZAR. The funds complement the commercial banking sector by being a distribution channel for banks seeking to sell-down long-term debt in these projects into the secondary

debt market. In addition to projects under REIPPP, Fund II will also target investments in sustainable energy projects which will include natural gas and cogeneration projects run by the South Africa Department of Energy. In contrast to the initial fund, the new fund will also attempt to enter deals before financial close as a primary source of financing.

The first fund invested in:

- A 30MW solar PV plant in Mpumalanga
- A 28MW solar PV plant in Mpumalanga
- A 75MW solar PV plant in the Eastern Cape
- A 74MW wind plant in the Eastern Cape
- A 140MW wind plant in the Eastern Cape
- A 134MW wind plant in the Eastern Cape
- A 85MW solar PV plant in the Northern Cape
- A 100MW solar CSP power plant in the Northern Cape

In 2016 a second group, Prescient Investment Management (founded in 1998), closed a similar fund, the Prescient Evolution Clean Energy and Infrastructure Debt Fund (in a joint venture with Evolution Africa). It raised over R3 billion (≈US$ 290 million) from investors. Prescient has recently committed capital of some R690 million in two wind farms and one solar project in South Africa. The fund has a flat fee structure, with no performance fee, and expects to generate real returns over time, beating inflation by at least 4.5 percent, gross of fees, over any rolling three-year period, with very low volatility.

TURKEY COUNTRY SUMMARY

While Turkey has a large pipeline of public infrastructure projects to be developed, it does not have advantageous conditions for long-term domestic capital market financing of infrastructure projects. The size of the domestic institutional investor base is a key challenge, though it is expected that the autoenrollment regulations may create a sizeable pool of assets to invest in infrastructure. Current issuance regulations do not seem suited for project bonds, particularly because of the application to project bonds of the same requirements applicable to a corporate bond issuance. The procurement process for PPPs and concessions impose a number of impediments to the use of project bonds for greenfield projects.

Financial Sector Overview

The government bond yield curve goes out only to 10 years, and corporate bonds only to three to four years. The corporate bond market is small. Further during the recent three years more than 50 percent of the amount raised has been placed overseas. According to the Central Registration Agency (MKK) outstanding corporate bonds placed domestically amounted to 50 million TL as of 2016, while the total outstanding bonds issued overseas amounted to 137 TL for the same period.

The amount of investible pension assets is currently relatively low, around 5.5% of GDP in 2015 according to the OECD. However, this should change rapidly as Turkey implemented a system of auto-enrollment for its pension system starting in January 2017. All workers under 45 years of age are to be automatically enrolled in a pension plan determined by employers and 3% of their earnings will go into their pension fund, up to a fixed maximum. The Government will provide a subsidy amounting to 25% of employees' paid contributions. In addition, a system of voluntary pensions continues to exist. As of July of 2017, there were 6.824.786 in voluntary private pensions, while there were already 3.273.366 in auto-enrolment plans.41

The Capital Markets Board (CMB) is Turkey's financial regulatory and supervisory agency primarily focused on capital market activities. Regulation and supervision of insurance and pensions is vested in the Undersecretary of the Treasury.

Turkey is a member of the OECD, which helps in attracting infrastructure investments for foreign funds mandated to invest only in OECD countries. However, Turkey's recent ratings downgrades now have the government as non-investment grade for all three global rating agencies. This is making it more difficult to attract foreign lenders for Turkey's pipeline of PPPs for hospitals, airports, etc. - even though they are structured with government availability payments. (Also, these payment agreements have not yet been tested.)

[41] A person can both be auto-enrolled and have a private pension, so adding these two numbers may be misleading for the total number of private pension system contributors.

PPP framework

Turkey has a long history of public concessions, although it does not have a general PPP law. Instead legal frameworks for PPPs have been developed for specific sectors over the past thirty years. Turkey does not have either a centralized PPP authority. Contracting Authorities are required to obtain the opinion of the State Council regarding the concession agreement.

Institutional investors regulation

Portfolios of pension funds can be managed by only portfolio management companies, which must be authorized by the CMB. Pension funds are subject to a rule-based investment regime. That said, current regulations allowed them to invest up to 10 % of their portfolio value in privately placed securities.

It is important to note that the regulations for auto-enrollment may create in the near future an important financial resource for infrastructure investment. In this regard, the regulations state that the savings of contributors who do not specify the funds in which to invest their contributions at the end of their first year in the system, are automatically channeled to the standard fund in which at least 10% of the fund value must be invested in infrastructure projects instruments besides private equity and real estate investment funds.

In insurance, the regulatory and supervisory authorities are looking at harmonizing major prudential requirements with the EU's Solvency II requirements. Thus, insurance companies will have considerable flexibility in their choice of investments instruments.

Use of capital markets for infrastructure financing

Currently most infrastructure financing in Turkey is provided by domestic and international banks, including multilateral development banks. Banks are willing to provide financing for public concessions and PPP projects at relatively low cost, making it difficult for capital market financing solutions to compete. There is little transparency in bank financing since the banks and contractors have a long history of working together. Contractors are resistant to providing the level of corporate information typical in capital market transactions. However, the dozen or so domestic banks may be reaching their exposure limits for these projects, especially since their customers are from a limited number of qualified domestic contractors.

Project bonds

There have been a few corporate bonds issued to finance infrastructure projects (all relatively short term, with a maximum four year tenor). The first true project bond from Turkey was issued in late 2016 to finance Elazig Hospital PPP. This bond was privately placed and sold only to foreign investors via Regulation 144A and Regulation S of the US SEC. (See summary of this transaction in box below.)

Challenges in the domestic framework were one of the key reasons for the use of the international markets. In particular, the requirement in the Capital Markets Law and sub-regulations that an issuer must be legally constituted as a corporation/joint-stock company becomes a hurdle for SPVs which are not organized relying on this legal form. In addition, leverage ratios existent for issuers (5 times the equity for public corporations and 3 times for non-public corporations) apply equally to SPVs as Turkish law does not distinguish between SPVs or companies for this purpose. Recently the Government moved to encourage the use of project bonds by relaxing the leverage ratio for a specific type of projects (Build-Operate-Transfer and projects guaranteed by the Undersecretariat of Treasury). However, there are other project structures which do not benefit from this exemption. Finally, if bonds were to be listed, then other criteria existent for corporate bond issuances would apply to them. In this regard, in order for a bond to be listed the issuer must meet an "operating term criterion" which states that a minimum of two calendar years must have passed since the company's establishment date, an "audit criterion" which states that the company must submit financial statements and independent audit reports to Borsa Istanbul and a "profitability criterion" which states that net profits must have been earned at least in one of the last two years as evidenced by its financial statements prior to the application date. While appropriate for corporate bonds, such requirements are unsuitable for project bonds. Thus, a more comprehensive reform appears to be needed.

Changes would also be needed in the regulations governing the procurement of PPPs and concessions. Currently the procurement process does not consider financing during the tendering and awarding stage. This works against efforts to structure project so that they will be able to meet the credit standards required by institutional investors, a task that needs to be done during the tendering process. The contracting authorities have yet to introduce more sophisticated evaluation criteria that would enable them to determine when a bond financing offer would provide better value than a loan financing offer.

The past lack of demand for long-term capital market financing of infrastructure projects in Turkey has meant there was little pressure to modify the regulatory framework to allow for project bonds or for the market to develop infrastructure funds to supplement bank financing. However, Turkey has now embarked on an ambitious program to develop its public infrastructure which will create greater demand for long-term capital market debt and likely lead to further enhancements in its PPP framework.

Infrastructure funds

Infrastructure funds can be constituted in Turkey via the Regulations for Real Estate Investment Companies. Such regulations do contain provisions specifically address to companies that invest exclusively in infrastructure projects (Infrastructural Real Estate Investment Companies – IREICs). The first infrastructure-oriented private equity fund was recently established solely for investing in a certain PPP health project. It has a net asset value exceeding 250 million TL.

Pursuant to such Regulations, at least 25% of their shares have to be sold to the public or qualified investors. IREICs are subject to portfolio restrictions that are specified in the corresponding Communiqué. In order to stimulate the IREIC industry, tax incentives that are the same as those in effect for conventional REITs were also brought into force.

REICS that are exclusively placed among institutional investors are exempted from some of the disclosure requirements applicable to a public offering. They are required to file an application with the CMB and obtain its approval, but they are not required to issue a prospectus. In addition, they are not required to submit interim/intermediate statements to the Board.

Turkey Case Study – Elaziğ Hospital Project Bonds

A 28-year concession was awarded in August 2014 by the Turkish Ministry of Health to ELZ Sağlık Yatırım A.Ş, a consortium consisting of Meridiam (a French infrastructure investment company), Rönesans (an international construction and services company headquartered in Turkey), and the Turkish companies Sila Group (a Turkish health sector management firm) and S.A.M. Yapi Sanayi ve Ticaret Ltd. (a Turkish engineering company) to design, build, finance, equip and maintain an integrated campus of four hospitals in the city of Elaziğ.

This project, like other recent hospital concessions, is being done under a law passed in 2013 (the "BLT Law") specifically covering PPPs in the health (and to some extent the education) sector. Under the BLT model the government provides a private project company with "servitude rights" over certain real property for a specific period of time up to thirty years and a contract to design, finance and build a facility. Under the BLT contract the Treasury provides debt repayment guarantees for early termination due to government action, force majeure, and early termination for contractor default. Once the facility is completed, the project company leases it back to the government and also provides clearly defined operational services. There is an availability payment structure that provides for payments from the government to the project company based on volume and non-volume based service measures. At the end of the contract period the facility is handed back to the government free of charge.

The eleven other BLT projects in the health sector were financed through multilateral development bank and/or commercial bank loans while the Elaziğ project is the first to be financed using a project bond.

The expected €360 million total cost of this greenfield project is being financed on a 20:80 equity to debt ratio. Debt financing is coming from a €288 million private placement of euro bonds issued by a Luxembourg issuer entity, ELZ Finance S.A., whose proceeds are on-lent to ELZ Sağlık Yatırım and is the first ever bond financing to be put in place for a greenfield infrastructure project in Turkey.

The senior secured amortizing bond was issued in two tranches:

The EBRD provided a €89 million unfunded liquidity facility for a €208 million tranche with a 20 year tenor. MIGA also provided a political risk guarantee for these bonds (and a similar guarantee for the project's equity investment). The combined the EBRD and MIGA support provided sufficient credit enhancement for full tenor of the bonds to enable them to obtain a Baa2 rating from Moody's (two notches higher than Turkey's sovereign foreign currency debt rating). The EBRD's support is similar to that provide by the EIB for PPP projects in the EU with its Project Bond Credit Enhancement (PBCE) facility. However, the liquidity facility for the Elazig Hospital bonds represented 43% of the bond's value, a much higher level of support that is provided under by the EIB's facility (which is capped at 20%).

Bond investors also found comfort in the IFC's purchase of an unenhanced and unrated €80 million tranche of bonds with a 18 year tenor.

The bonds were issued under the U.S. SEC's Reg S. All the bonds were purchased by foreign investors including MUFG (Japanese financial institution), Intesa Sanpaolo (Italian financial institution), Siemens Financial Services (German financial institution), Proparco (French development finance institution), FMO (Dutch development finance institution) and the Industrial and Commercial Bank of China (ICBC-Chinese financial institution).

The bond is classified and marketed as both "green" and "social". This rating was conferred by Vigeo Eiris, an environmental, social and governance rating company.

UNITED STATES COUNTRY SUMMARY

Most infrastructure financing in the United States is carried out by means of municipal bonds, which are used in financing approximately 80% of U.S. public sector infrastructure. In addition to this, there is an active non-municipal infrastructure debt market that connects institutional investor capital to infrastructure financing needs. This market is large, established and attractive enough that many non-U.S. infrastructure issuers choose to raise capital in the U.S. bond market, often in conjunction with international bond offerings -although it is not generally used to finance social infrastructure.

Debt securities are offered in three different ways in the United States: they can be publicly registered, privately placed or issued under the Securities and Exchange Commission's (SEC's) 144A regulations, which is a hybrid between a public and a private placement. Municipal bonds are exempt from SEC registration requirements (though are subject to anti-fraud provisions) but are nevertheless broadly placed with both retail and institutional investors and are in a category of their own. Outside of the municipal market, most infrastructure project debt in the US is raised in the private placement market. Only the largest infrastructure issuers who are, generally, already public registered (e.g., utilities) tap the public markets. For larger bespoke infrastructure transactions, where a broader investor outreach is needed to fully fund the deal, the market of choice is the hybrid 144A market. Additionally, many private placements and 144A transactions also include a Regulation S tranche that is sold to non-U.S. investors.

Financial Sector Overview

The United States' capital markets totaled $37 trillion in securities outstanding as of the end of 2015 according to BIS data, making it by far the largest such market in the world. Domestic debt was 193% of GDP, about equally divided between government and private debt. Non-bank corporate debt was 28% of GDP, the highest of any country in the world. Pension assets in United States were 79% of GPD in 2015 and insurance assets were 29% of GDP. The pension funds are a mix of defined benefit and defined contribution programs.

The SEC is the main securities market regulator in the United States, although each state also has its own securities regulation framework. The insurance industry in the United States is regulated by the individual state governments with the National Association of Insurance Commissioners (NAIC) acting as a forum for the creation of model laws and regulations. Private pension plans are governed by various federal statutes and regulations, the most important of which is the Employee Retirement Income Security Act of 1974 (ERISA). Responsibility for interpretation and enforcement of ERISA is divided among the Department of Labor, the Department of the Treasury (particularly the Internal Revenue Service), and the Pension Benefit Guaranty Corporation. The IRS also plays a role in tax exempted securities.

PPP framework

PPPs are not as widely used in the United States as in some other AEs. This is due the fact that much of the country's infrastructure is financed using municipal bonds and there are several

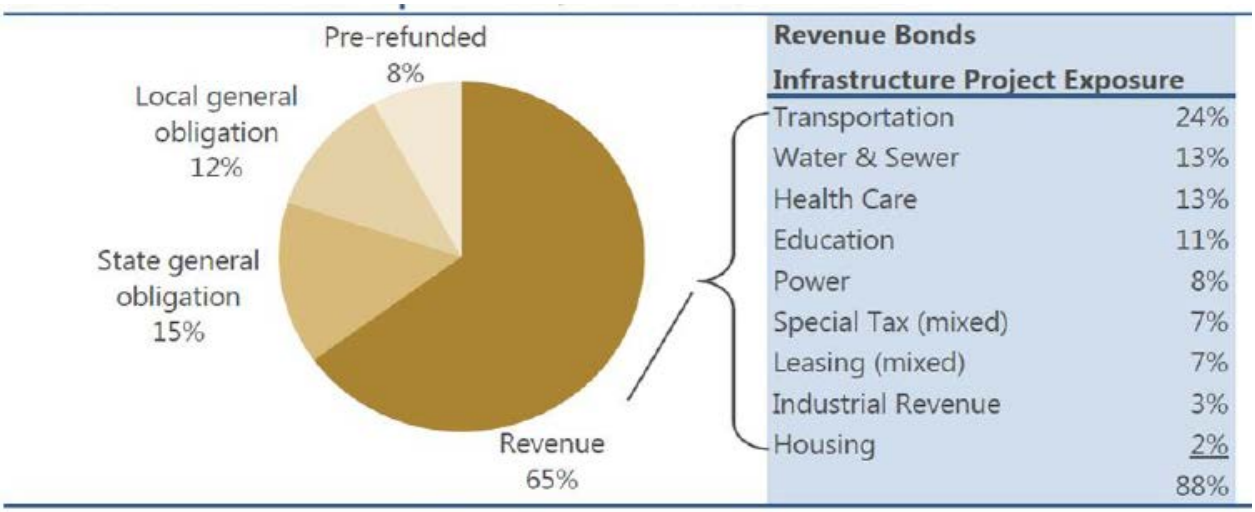
hurdles for using tax-exempt financing for finance PPPs. However, a number of states and large cities have implemented some form of PPP projects, primarily for transportation. There is currently no federal or state PPP standardized framework. However, federal government officials are now looking to the PPP frameworks of other countries for ideas on how to drive the massive increase in infrastructure development planned by the current administration.

Use of capital market for infrastructure financing

The U.S. market has a number of characteristics relevant to infrastructure financing that are different from other countries.

Use of municipal bonds

First, the U.S. has a large and liquid municipal bond market totaling approximately $3.8 trillion in bonds outstanding. Most of these bonds enjoy tax-exempt status (interest paid by the issuer to bond holders is often exempt from gross income for federal income tax purposes, as well as state or local taxes depending on the state in which the issuer is located, subject to certain restrictions). This allows states and municipalities access to both institutional and individual sources of funding at advantageous rates. Most public sector infrastructure, approximately 80%, is financed using this market. States and cities can finance infrastructure either through general obligation bonds with full recourse to the assets of the government issuer, or through "revenue bonds" where financing is repaid by the cash flow generated by specific infrastructure projects. Revenue bonds make up about two-thirds of municipal bond financing in the U.S. (See Figure 1.)



Source: Standish, Bloomberg Barclays Muni Index as February 28, 2017

Additionally, municipal bonds can be used to finance infrastructure being built by public private partnerships (PPP's) if specified hurdles are met. When the public sector entity is the sponsor, these financings are 100% debt with no equity capital at risk; for PPPs, the sponsors contribute the equity. There are a number of other forms of municipal bonds that have been created for special purposes. Details on the differences between the various types of these bonds are shown in Table 2.

Category	Debt service secured by	Special requirements	Tax incentive	General uses/ specific case examples
General Obligation (GO) Bonds	Full faith credit of issuer, unlimited guarantee with tax revenue	Voter approval	Tax-exemption on interest income to investors	Any projects that do not generate revenues (e.g., city hall, library, public school, park, prison)
Revenue Bonds	Revenues from service charges; savings from efficiency upgrades	Creation of special entity with authority to levy service charges	Tax-exemption on interest income to investors	Any projects that generate revenues (e.g., toll roads, airports, parking garages, energy efficiency upgrades)
Special or Limited Tax Bonds	Limited to specific tax proceeds (e.g., gas tax, special assessment, incremental sales, ad valorem property tax)	Special enabling legislation	Tax-exemption on interest income to investors	Los Angeles Country Metropolitan Transportation Authority (LA Metro) Measure R (half-cent 30-year incremental sales tax)
Anticipated Notes (e.g., GARVEE bonds)	Anticipated proceeds, e.g., expected future federal grant disbursements	Special enabling legislation: eligible for tax-exempt investors	Tax-exemption on interest income to investors	Grant Anticipation Revenue Vehicle (GARVEE, highways), Grant Anticipation Notes (GAN, transit)
Tax Credit Bonds (e.g., BAB bonds)	Full faith credit of issuer, guaranteed with tax revenue	Special enabling legislation: allows tax-exempt investors	Direct tax credit to investors or direct payment to state/local governments	School modernization program, renewable energy, surface transportation, and other infrastructure projects
Certificates of Participation (COP)	Revenues from leasing facilities or equipment	Creation of special entity with authority to collect lease revenues	Tax-exemption on interest income to investors	Public transit, water/ wastewater treatment, prisons, office buildings, parks

Additionally, states and municipalities can issue taxable bonds, which currently make up approximately 15% of the market. [42] In some cases, the government provides a tax subsidy directly to the issuers or bond buyers that mimics the advantages of the tax exempt market but can be structured in a way that is beneficial to investors who do not usually benefit from the tax exemption of municipal bonds because they are not U.S. tax payers.[43]

When combined with the tax exemption, there is a powerful incentive for borrowers to raise infrastructure financing through this market if they can qualify for it. But there are reasons to tap other markets, such as delayed drawdown feature that drove the Long Beach Civic Center to choose a private placement of project debt over municipal financing (see box).

Municipal securities are expressly exempted from registration with the SEC and the disclosure requirements applicable to securities registered with the SEC, except for the antifraud provisions and Rule 10b-5, which requires that information filed for the benefit of investors must not omit relevant information or contain misleading information.[44] In addition to the antifraud provisions described above, the SEC's investor protection efforts in the municipal securities market have been accomplished primarily through regulation of broker-dealers and municipal securities dealers. Rule 15c2-12 was adopted in 1989 and is designed to address fraud and manipulation in the municipal securities market by prohibiting the underwriting of municipal securities and subsequent recommendation of those municipal securities by brokers, dealers, and municipal securities dealers for which adequate information is not available.

Although disclosure in the municipal market has improved, investors have asked for greater and timelier disclosures. Disclosure of audited financial information can be slow and there are no uniformly applied accounting standards for municipal borrowers, although many do follow standards established by the Government Accounting Standards Board. In March of 2017, the SEC proposed rule amendments to improve municipal securities disclosure.[45]

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[42] Interest on municipal securities may be tax-exempt or taxable under federal tax law. Generally, taxable municipal bonds are issued by state and local governments to finance a project that does not meet certain public purpose or public use tests under the Internal Revenue Service requirements to qualify for tax exemption. For example, a state or local government issuer may issue taxable municipal bonds to finance sports facilities, fund industrial development, improve public pension funding levels or refund municipal bonds that have been previously refunded. From the Municipal Securities Rulemaking Board at http://www.msrb.org/msrb1/pdfs/About-Taxable-Municipal-Bonds.pdf.

[43] The Build America Bonds program that offered subsidies for taxable bonds used to finance infrastructure was put in place by the Obama administration in 2009 and was a popular program until Congress did not renew it in at the end of 2010.

[44] When Congress enacted the Securities Acts Amendments of 1975 ("1975 Amendments"), they created a limited regulatory scheme for the municipal securities market at the federal level but the focus was mainly on broker-dealers and banks. The 1975 Amendments also created the Municipal Securities Rulemaking Board ("MSRB") and granted it authority to promulgate rules governing the sale of municipal securities. However, it did not create a regulatory regime for, or impose any new requirements on, municipal issuers. The 1975 Amendments expressly limited the SEC's and the MSRB's authority to require municipal securities issuer filing with the SEC or the MSRB prior to any sale of municipal securities by the municipal issuer Securities & Exchange Commission (2012). **Report on the Municipal Securities Market**. Available at https://www.sec.gov/news/studies/2012/munireport073112.pdf

[45] See Securities Exchange Act Release 80130 (March 1, 2017), 82 FR 13928 (March 15, 2017), available at https://www.gpo.gov/fdsys/pkg/FR-2017-03-15/pdf/2017-04323.pdf.

Municipal bonds are widely distributed and approximately 75% are held either directly or indirectly (through mutual funds and ETFs) by individuals. This broad distribution is facilitated by the widespread use of credit ratings, which are relied on by many investors to assess the creditworthiness of issuers of the bonds for their investment and risk objectives. Indeed, municipal bonds enjoy significantly lower rates of default than corporate and foreign government bonds. Studies indicate that the risk of ultimate non-payment for municipal debt historically has been low, both when compared to total municipal debt outstanding and total municipal debt in default. Despite its size, breadth of investor base and reliance on credit ratings, the muni market is generally a "buy-and-hold" market with infrequent trading.

Private Placement Market

A second component of the U.S. market is the private placement market, which is large and well developed, has a long history, and benefits from a consistent legal framework and regulatory oversight by the SEC. The Securities Act of 1933 (as amended) contains various exemptions to registration requirements. The most relevant ones for infrastructure issuers are those contained in section 4(a)(2) and Regulation S.

Most institutional debt private placements are made with reliance on section 4(a)(2). In a section 4(a)(2) offering, securities can be offered and sold without registration because the offering is not a public offering. Regulation D provides three safe harbors with respect to non-public offerings (*Rules 504, 505 and 506, Regulation D*). The most popular safe harbor, Rule 506(b) of Regulation D, permits the sale of securities to an unlimited number of accredited investors and up to 35 non-accredited investors provided that there is no general solicitation or advertising to sell the securities. Rule 506(c) of Regulation D, however, permits the use of general solicitation or advertising to sell the securities provided that offers and sales are made solely to accredited investors, and the issuer takes reasonable steps to verify that the purchasers are accredited investors. Securities sold under section 4(a)(2) are restricted securities that cannot be resold freely.

An accredited investor encompasses banks, insurance companies, investment companies; benefit plans, trusts and charitable organizations with $5 million or more in assets; individuals with $1 million (excluding their home) and income of over $200,000 for individuals and $300,000 for married couples.

Regulation S is a safe harbor for offers and sales in offshore transactions with no "directed selling efforts" in the U.S. These are often made concurrently with U.S. private placements that rely on 4(a)(2) or, as discussed below, Rule 144A.[46]

Annual issuance of all debt private placements is estimated to be approximately $55 billion across more than 200 transactions. The bond issuance in the public market is over $1 trillion annually and 144A issuance is approximately $700bn.

The private placement market is the market of choice for project finance for the reasons that include the ability to maintain confidentiality, access to a comprehensive due diligence process

[46] Other exemptions from registration apply to very small offerings ($1-5 million or for securities offered by banks).

for the investor, the ability to include detailed and tailored covenant packages, and control issues allowing the parties to agree on changes post-closing, when necessary. Additionally, the natural investor base for this specialized and contract-driven asset class is institutional. Therefore, unless the transaction is very large or has retail appeal, the borrower saves little in price by broadening of the potential investor base and is not incentivized to assume the cost of regulatory compliance.

The private market can also offer flexibility that makes it more competitive with bank financing. One critical competitive tool is the ability to offer a flexible or delayed drawdown on bond financing, something that only banks previously offered. Institutional investors have begun to offer this in transactions effected in the United States and Europe but this flexibility is not possible in the public market. (See box below on the Long Beach Civic Center PPP.)

Project debt is often raised in the United States for projects in other countries due to the robust U.S. private placement market and the ability to connect it to a Regulation S offering to bring in overseas investors.

Hybrid 144A Market and Public Debt

A third differentiating characteristic of the U.S. market is the 144A debt offering. Technically it is a private placement (exempt from SEC registration) but it offers some of the features of a public bond. Rule 144A was adopted by the SEC in 1990 and loosens the traditional private placement prohibitions against trading, allowing 144A securities to be traded among certain sophisticated "qualified institutional investors (QIB)." A QIB is a corporate accredited investors that owns and invests a minimum of $100 million in securities on a discretionary basis, or if a broker-dealer, $10 million.

The use of Rule 144A evolved such that the securities offerings are made "public style" with an offering document that looks very similar to a prospectus for a publicly listed offering. These securities are generally underwritten by an investment bank that lines up buyers through a broad marketing effort, and is supported by the same sales, trading and research personnel in charge of public bond offerings. 144A bonds, therefore, do not generally involve the extensive one-on-one negotiation of terms and conditions and active dialogue between sponsors and investors that is characteristic of traditional private placements. 144A securities are book entry like public bonds while private placement bonds are generally physical, there is a register, and it is very clear who owns them. The increased marketability of the 144A notes, means that it is more difficult for the sponsors to know who holds the debt and communicate with them directly post-closing, hence introducing control issues (i.e. decisions that need to be made by investors) that are similar to those for public bonds.

The 144A market is used to finance projects with some or all of the following characteristics:

- Low risk, generally brownfield transactions
- No, or light, covenants
- Large size
- More corporate in nature (e.g., public utilities).

Public markets are not generally used for traditional infrastructure project finance. Issuers who are more corporate in nature such as public utilities, when themselves public, will raise financing that way. There are the obvious issues of cost and the burden of ongoing [public] quarterly disclosure updates that lack confidentiality, and the inability to know for sure who holds the bonds.

But there is also another issue that limits the use of public bonds for the more complex infrastructure deals. Investors in public deals need to be very careful when obtaining non-public information. Having such information, when it is material, restricts them from trading their securities. For projects that seek amendments, waivers and consents, all such communications of a material nature would have to be in the public arena and investors will be hesitant to actively engage in the type of back-and-forth dialogue that is more readily and effectively accomplished between private placement investors and the project sponsors.

Regulators hold issuers and underwriters to a higher standard in public and 144A deals in terms of required disclosures. All deals must meet the 10b-5 standard that requires offering documents to not contain any untrue statements of a material fact or omit to state a material fact necessary to make the offering document "not misleading." In addition to this, public offering disclosure is highly regulated and monitored by the SEC, while 144A documentation receives a "lighter touch." Private deals have the lightest touch and documentation is not reviewed by the SEC. The differential treatment is indicative of regulators' greater concern when protecting of less sophisticated investors.

United States Case Study: Long Beach Civic Center PPP

On April 20, 2016, the City of Long Beach reached commercial and financial deal for its new $520mm Civic Center. The project [deal structure] includes a classic design, build, finance, operate and maintain structure for certain assets (new City Hall, Library and Port of Long Beach headquarters) and adjacent private real estate development. The PPP was financed using privately placed, taxable delayed-draw bonds ($239mm, 43 year tenor) and not with tax-exempt municipal bonds, as was originally anticipated.

Project conception began in 2007 when the City concluded that its existing City Hall and Library had seismic deficiencies that would require extensive renovation. Additionally, the buildings were functionally and operationally obsolete and not well located. The City decided to develop a new Civic Center that emphasized a mixed-use, walkable environment for its downtown. It brought in the Port of Long Beach, which needed a new headquarters building.

The consortium that won the bid from the City was led by Plenary Group (an Australian developer and manager of public infrastructure); Macquarie advised.

The City will not make any payments to the developer until it takes occupancy of the new City Hall and new Library. Upon occupancy, the City will make monthly payments to the project, which increase annually, a portion at a fixed rate of 2.18% per year and a portion indexed to the CPI. The Port headquarters is financing by a bank construction loan, paid off by the Port upon completion.

Sources	US$mm
Private Placement 43-year Notes	239
Port Completion Payment / Sumitomo Mitsui 3-year Construction Loan	213
Equity Contributions from Plenary	21
City Cash Contributions	19
Land Sales Proceeds	22
TOTAL*	514

* $6mm in costs not included, raising total financing to $520mm.

The City chose a PPP structure because it enabled the City to procure a new Civic Center without any budget increases, bond issues or voter approvals, although there was extensive community outreach. The PPP structure also facilitated design and operational innovation from the developers, and assured a high level of maintenance without regard to changing government budgetary circumstances or political preferences. Additionally, the private development undertaken as part of the project increases real estate development in the area and helps subsidize the annual cost[s] of [operating] the Civic Center, which the City wanted to keep at current levels. The PPP model had been successfully validated for the renovation and operation of the nearby Long Beach courthouse, opened in 2013, which was financed through a state-sponsored PPP.

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