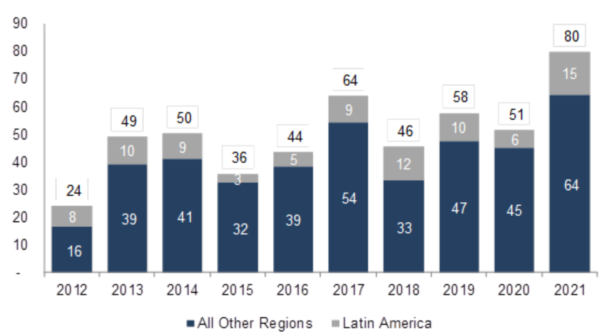
Project Bonds in Latin America

LatAm Project Bond Market Overview

Latin America has been a consistent contributor to the global Project Bond market with more than $93BN issued across 16 countries in the region over the past 10 years. Despite a slowdown in 2020-21 due to the global economic impacts of COVID-19, Latin America represented approximately 17.7% of the global Project Bond volumes between 2012 and 2021, and accounted for 19.3% in 2021.

Latin America Project Bond Issuance Volumes
(2012- 2021, USD-equivalent billion)



Source: PFI, CA CIB

The Latin American Project Bond market has been dominated by the region's largest economies, many of which are rated investment grade. The following table shows the contributions of the region's key economies to Latin America's aggregate Project Bond issuance volume between 2012 and 2021:

Country	Issuance Amount (2012-2021, USD-equivalent billion)	Issuance Amount (2012-2021, %)
Mexico	$23.3	26.3%
Brazil	$20.6	23.2%
Peru	$11.4	12.9%
Chile	$11.3	12.8%
Panama	$9.8	11.1%
Colombia	$4.1	4.7%
Argentina	$3.7	4.2%
Total	**$84.3**	**95.2%**

Other than Brazil, Colombia and Argentina (which are currently rated BB-/Ba2/BB-, BB+/Baa2/BB+ and CCC+/Ca/CCC, respectively), the other main contributors to the Latin American Project Bond market are all rated investment grade. Colombia had been downgraded below investment grade by Moody's in July 2014, but it had maintained investment grade ratings by Fitch and S&P until the summer of 2021 when both rating agencies downgraded Colombia to BB+. Despite Colombia's recent downgrade, it and the other investment grade countries in the region have historically showed resilient economic activity, supported by strong fiscal and monetary policy.

In the case of Argentina, bursts of activity in the Project Bond market have corresponded with new administrations and renewed political activity seeking to stimulate growth as well as investment in infrastructure. Although short-lived, this was the case between 2017 and 2018, when $2.8BN were issued out of Argentina mostly by energy issuers, after nearly two decades of no Project Bond activity in that country due to economic and political instability.

Other jurisdictions have seen increased activity. Uruguay, which has accounted for approximately 20% of total solar and wind issuances from LatAm ex-Brazil since 2017, is an example of this trend. In Colombia, more than $1.8BN has been issued over the past 7 years, primarily anchored in the country's 4G toll road infrastructure program. As of December 2021, 5 of the more than 15 financings related to 4G toll road projects have been financed through the Project Bond market. Colombia's push for infrastructure and energy investments is likely to continue as the country enters an election year in 2022, including through the roll out of the 5G toll road program and the increasing focus on renewable energy projects. Mild activity continues to be observed among infrastructure issuers in the Dominican Republic, Costa Rica, Jamaica, Ecuador and, more recently, Paraguay, which saw its first and second-ever Project Bond issuances for the Corredor Bioceanico and Rutas 2 y 7 road projects in May and October 2019, respectively.

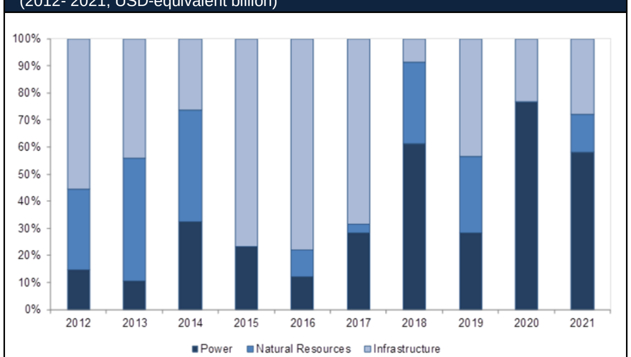
Total issuance volumes from Latin America were up to $15.4BN in 2021, a 253% increase from the $6.1BN registered in 2020. Relative to pre-pandemic levels, the aggregate issuance volumes from Latin America in 2021 evidenced a 49% increase from the $10.3BN registered in 2019. With $5BN issued in 2021, Brazil took the first place in the region and was closely followed by Chile, which registered $4BN. Panama showed increased market activity, surpassing Mexico as the third largest market in the region in 2021, at $1.9BN. Although Mexico moved from the third to the fourth largest contributor to the region's Project Bond volumes from 2020 to 2021, Mexico's issuance volumes registered a 37% increase, from $953MM in 2020 to $1.5BN in 2021. The largest growth in the region's Project Bond volumes was registered in Peru, which went from registering no Project Bond activity in 2020 to over $1.1BN issued in 2021, as well as Chile and Brazil, which were up by 447% and 964%, respectively. Conversely, no Project Bond transactions out of Uruguay reached financial close in 2021 (down from $126MM issued in 2020), and Colombia registered a 24% volume reduction from $1.5BN in 2020 to $1.1BN in 2021. The largest Latin American project bond transaction of the year was the $1.85BN issuance by Aeropuerto Internacional de Tocumen, S.A., out of Panama, to refinance its existing debt.

Sector-wise, the Latin American Project Bond market has been historically comprised of a majority of transportation infrastructure assets – with toll roads and airports as the most significant contributors to issuance volume – followed by oil & gas assets (mostly drilling rigs), several of which were issued from Brazil between 2010 and 2014 before the global oil & gas price contraction and Brazil's 2015–16 economic crisis.

In most years prior to 2017, the power sector represented a relatively small share of issuance volumes in Latin America. However, the region saw an inflection point in 2018 with offerings in power generation and power transmission ending that year as the largest contributors to Project Bond volume. Between 2019 and 2021, the power sector has represented approximately 51% of Latin America's Project Bond market, with more than $6.0BN for conventional power assets, $2.8BN for wind, solar and hydro, and $2.6BN issued for transmission lines.

The power sector's increase in relevance to the Latin American Project Bond market has been fueled by reforms in the energy sector promoting private investment into market segments previously restricted to public investment and an increased emphasis on the deployment of renewables into the region's grids. These changes have been anchored in climate change mitigation plans and targeted sustainability policies. In particular, significant private investment has been attracted to select Latin American countries, particularly Chile, through power purchase agreement ("PPA") auction programs for renewables across the region.

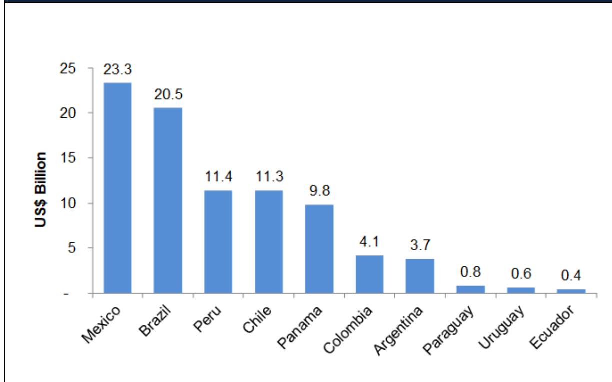
Latin America Project Bond Issuance Volumes
(2012- 2021, USD-equivalent billion)



Source: PFI, CA CIB

Project Bonds out of Latin America have been primarily denominated in USD. Currency denomination has been typically determined by the offering size and underlying asset type. Large issuances requiring access to ampler liquidity pools and targeting international investors are typically issued in USD; while smaller offerings, placed in-country, are more frequently issued in local currency.

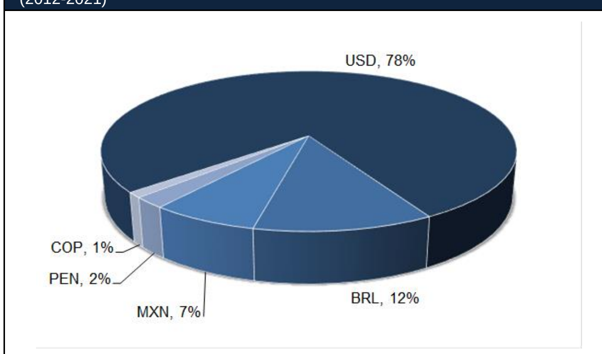
Latin America Project Bond Issuance Volume by Country
(2012-2021, USD-equivalent billion)



Source: PFI, CA CIB

Energy sector offerings – in particular for assets whose cash flows are closely related to oil & gas commodities (widely traded in USD) or for assets operating in regulated markets with prices indexed to hard currency, are commonly issued in USD. Assets relying on user-pays revenue streams – such as tolled transportation projects – are commonly issued in local currency in order to avoid currency mismatches. Since 2012, 78% of Latin American Project Bonds have been issued in USD, and the majority of local currency offerings have been issued in either Brazilian Reais (12%) or Mexican Peso (7%).

Latin America Project Bond Issuance Volume by Currency
(2012-2021)



Source: PFI, CA CIB

Key Drivers of LatAm's Project Bond Market Growth

Latin America's Project Bond market dynamics are underpinned by the following regional fundamentals.

Population Growth

Latin America's population growth trends result in structural pressures that provide a robust rationale for investing in infrastructure and energy assets.

The United Nations estimates that by 2050 Latin America's population will be approximately 780 million, or 1.2x today's estimated 652 million. Approximately 86% will dwell in urban areas, up from today's 75%. The increase in urban population may place pressure over existing infrastructure and calls for the construction of new assets across all sectors.

This trend is further supported by population distribution. While regions like North America and Europe display a trend towards an inverted population pyramid (i.e. skewed towards mid-aged and old-age brackets), Latin America's is concentrated in age brackets under 20 years, suggesting that, as younger populations reach productive age, increasing pressure over existing infrastructure assets may require additional investment.

Improving Macroeconomic Conditions

The region's growth over the past decades has come with requirements for infrastructure investment as countries have migrated from rural economies into industrializing and urbanized economies with higher demand for industry, commerce and services.

Between 2000 and 2019, Latin America experienced an average annual GDP growth rate of approximately 4.5%. This rate was closer to 8.0% for countries in the region currently rated investment grade as well as major economies no longer rated investment, namely Brazil and Colombia. Inflation also has remained relatively stable in the region, within the 2.5-3.5% range for the last 20 years, with the exception of 2008 – during the global financial crisis. With a growing consumer class and overall improved access to education, health, and other goods and services, Latin America saw more than 70MM people lifted out of poverty and its middle class grow by more than 50%.

Despite the region's steady upward trend, the impact of the COVID-19 outbreak in Latin America has been harsh, resulting in an average GDP contraction of 6.7%. This figure was better than previous estimates by the World Economic Outlook Update of the International Monetary Fund ("IMF"), which had anticipated a GDP contraction in the 7.4% area for 2020. In 2021, the pace of the economic recovery in the region also widely exceeded expectations, averaging a 6.2% GDP growth, with 11 countries being able to regain their pre-pandemic GDP levels. At the end of 2020, the IMF had anticipated an approximately 4.1% recovery in GDP in 2021, and that growth could carry on at roughly 3.0% per-annum thereafter. Although the annual GDP growth for the region remains to be seen, the smaller than expected contraction paired with the faster than expected recovery are encouraging signs for the region post pandemic.

The region's improvement in its macroeconomic and regulatory landscape is evidenced by the evolution of its sovereign credit ratings over the past two decades. In 2000, the region had only one country with investment grade credit ratings from all Moody's, S&P and Fitch. As of December 31, 2021, there are 5 countries with investment grade ratings from the three rating agencies.

Investment Grade Countries in Latin America as of Jan 2022
Map highlights countries with at least two investment grade ratings and other major economies in the region

Source: Moody's; Standard & Poor's; Fitch (as of January 2022)

Supportive Regulation & Policies

Latin America's growth in infrastructure and energy investment volume has benefited from targeted policy decisions and improving regulatory frameworks. Over the past two decades, innovations and best practices in project procurement and financing have been adopted in Latin America to attract private investment, including an increased emphasis on specific investment goals in strategic sectors such as transportation and energy. Including, in some cases, policies for climate change mitigation and guidelines for energy transition. While making these goals a component of their national development plans, some of these sectors have undergone restructuring focused on attracting private investment.

Reforms have included overhauling local PPP and concession laws aiming to improve project bidding and dispute resolution mechanisms, setting up new government agencies and specialized units to support the development of successful infrastructure investment programs. Other policies have also aimed at organizing targeted auctions for awarding offtake agreements related to power generation and transmission assets with the objective of enhancing grid efficiency and reliability.

Some examples include:

- Colombia's PPP laws to attract investors to the country's 4G road program – one of the biggest road-building initiatives in Latin America to date. Colombia also launched the 5G multi-modal infrastructure $13.0BN program in 2020.
- Chile's new concessions and operating frameworks with an emphasis on economic infrastructure, renewable energy and electricity transmission. In 2020, the Chilean government approved a new Energy Efficiency Law focused on reduction of carbon emissions.
- Peru's adoption of innovative approaches to attract investors to PPPs for transportation, hospitals, water, and power generation and transmission (e.g., through milestone payment schemes labeled "RPICAO" – and its predecessor "CRPAO").
- Mexico's laws opening the energy market to private investors, allowing for competitive power generation auctions, and reforming its PPP framework to provide greater certainty for investors and contractors.
- Uruguay's roll out of a strategic energy transition plan emphasizing wind and solar generation, attracting international private investment while reducing the country's grid reliance on fossil fuels and mitigating vulnerability to hydro resource risk.

Efforts throughout the region have also included policies such as net metering regulations and renewable portfolio standard requirements in countries like Chile, Mexico and Uruguay – creating the foundation for a green infrastructure marketplace. In addition to regulations setting the stage for local distributed energy industries (e.g., rooftop residential and commercial/industrial solar in Mexico), innovative frameworks have created opportunities for small-scale renewables benefitting from streamlined interconnection processes and eligibility to sell power at regulated tariffs in the absence of offtake agreements (e.g., Chile's PMGD framework, where small-scale uncontracted generation assets benefit from a "stabilized price" that provides a significantly less volatile source of revenue than spot market sales).

Liquidity & Investor Appetite

Latin American Project Bonds have been typically anchored by US institutional investors. There are approximately 40 US insurance companies that actively participate in Project Bond offerings, across all assets classes. This investor base has traditionally preferred credits rated BBB- or higher and, thus, has frequently invested in assets located in investment grade countries such as Chile, Mexico and Peru. These investors predominantly buy and hold the bonds until maturity, and often prefer a 4(a)(2) US Private Placement format.

In addition to US insurance companies, US asset managers and emerging market investors have demonstrated appetite for structured credit from Latin America – including related to infrastructure & energy assets. This group of investors typically either supplements insurance companies' commitments in investment grade offerings or participates in high yield offerings, including from sub-investment grade countries. They are more commonly seen participating in 144A / Reg S offerings (as opposed to 4(a)(2) US Private Placements) in the region.

In some countries, domestic capital markets are deep enough for additional liquidity to be available from local pension fund managers and local insurance companies. This has historically been the case in Chile, Mexico and Peru, where AFPs and Afores have participated in Project Bond issuances. As these local investors have grown to become more sophisticated, they have also gradually been more comfortable taking lead investment roles. This investor base is also particularly well-suited for local currency-denominated offerings.

Most recently, Asian institutional investors from China, Japan, Singapore and South Korea have emerged as a new target base due to their select appetite for Latin American Project Bonds. This investor pool has demonstrated particular interest in debt rated 'BBB' or higher.

The case of Brazil deserves its own separate discussion, since it has historically been one of the most frequent issuers in the region, while showing a very distinct market dynamic to that described above for the rest of the region. With the exception of some cross-border offerings issued several years ago related to oil & gas assets such as drilling rigs and FPSOs, Project Bonds issued from Brazil have been executed in local currency as "debentures," for relatively small sizes and placed locally with retail investors. The reasons behind this include the high level of involvement of the Brazilian development bank ("BNDES") as a source of low-cost project financing and Brazil's favorable tax treatment of income from debentures related to assets deemed to be *critical infrastructure*.

Country Trends & Highlights

Below, we focus on the countries that have historically contributed most to the growth of the Latin America Project Bond market, and highlight some others that have more recently become relevant. In particular, we discuss key trends and developments in Mexico, Brazil, Peru, Chile, Colombia, Argentina and Uruguay.

Mexico

Mexico has been the country most-consistently leading Project Bond issuance volumes in Latin America with over $23.3BN issued since 2012, representing 26.3% of the total amount issued in the region. In 2017 alone, Project Bond issuances from Mexico exceeded $4.6BN – comprising nearly 50% of the region's total issuance volume for that year. However, issuance volume from Mexico halved in 2018 to reach $2.3BN and further decreased by 9% in 2019 to reach $2.1BN, confirming market caution given the AMLO administration's signals of revisiting past administrations' supportiveness of private sector participation in the country's infrastructure and energy sectors. With only $953MM issued in 2020 through a single issuance backing the Tierra Mojada CCGT plant, the market considerably slowed down due to COVID-19, 50% lower than the previous year. Far still from pre-pandemic levels, the Mexican Project Bond market showed signs of improvement in 2021, with $1.5BN issued in two transactions – the $1.2BN issuance of 6.990% notes by Braskem Idesa in October 2021 and the $350MM issuance of 4.900% notes by Electricidad Firme de Mexico in September 2021 – a 57% increase relative to 2020.

Mexico's leadership in the market has been driven by continued macroeconomic and political stability in the last decade – as reflected by its credit ratings, and its sheer size and relative weight in the regional economy. Mexico is Latin America's second largest economy (surpassed only by Brazil) and has a broad industrial and manufacturing base that has driven substantial investment programs across industries.

The region has seen numerous "groundbreaking" transactions from Mexico, including:

- The first Project Bond guaranteed by an Export Credit Agency ("ECA") in the power sector, globally – i.e., the $401MM, dual-tranche bond offering ($250MM guaranteed by the Export-Import Bank of Korea ("KEXIM") and $151MM uncovered) issued by KST Electric Power Company, S.A.P.I., a Mexican SPV that owns and operates the Norte II combined-cycle power plant (see Mexico Case Study 1);
- The first bank/bond hybrid with a Project Bond issued alongside a bank loan facility related to oil & gas assets restricted from private investment until the comprehensive Energy Reform took place – i.e., the $531MM bonds issued in 2016 on the back of a sale and lease-back transaction with Petróleos Mexicanos ("PEMEX") (see Mexico Case Study 2); and
- The first renewables Project Bond in Latin America – i.e., the $300MM in aggregate senior secured notes issued in 2012 for the Oaxaca II and Oaxaca IV wind farms (see Mexico Case Study 3).

Mexico Case Study 1: Norte II - KST Electric Power Co.

In December 2019, KST Electric Power Co. (a Mexican special purpose company controlled by Korea Electric Power Company, "KEPCO") issued $401MM in senior secured, non-recourse, notes to refinance then-outstanding bank facilities related to the Norte II power plant in Mexico – a 450MW combined cycle asset fully contracted with state-owned utility company Comisión Federal de Electricidad ("CFE"). The notes were issued in two tranches as follows:

- $250MM, 3.30% notes due 2037, benefiting from a full, irrevocable and unconditional, financial guarantee from Korea's export credit agency KEXIM; and
- $151MM, 5.70% notes due 2037, without any form of external credit enhancement.

The credit enhancement provided by KEXIM to the $250MM covered tranche was structured to conform with international capital markets standards, thus ensuring that investors could deem the credit risk fully transferred to the guarantor, equating the offering's implied credit rating to KEXIM's. This was the first-ever Project Bond guaranteed by KEXIM and the first power Project Bond, globally, to benefit from an ECA guarantee.

The transaction was unrated and placed under a 4(a)(2) US Private Placement format with a select group of buy-and-hold institutional investors in Asia, the US and Europe.

The offering monetizes a long-term, USD-denominated, PPA awarded to Norte II in 2011 in the context of Mexico's independent power producer (IPP) framework.

Credit Agricole Securities led this ground breaking transaction as sole placement agent, which received "Latin American Power Deal of the Year" award by IJGlobal for 2019.

Mexico Case Study 1
ECA-guaranteed Power Project Bond
KST Electric Power Co.

IJGlobal Awards 2019

Summary Terms & Conditions

Issuer:	KST Electric Power Co.
Size:	$401 million in two tranches as follows: ▪ $250MM, KEXIM-guaranteed ▪ $151MM uncovered
Issue Dates:	December 2019
Maturities:	December 2037
Amortization:	Fully-amortizing

Sponsor(s):	KEPCO (56%), Samsung Asset Management (34%) and Techint S.A de C.V. (10%)
Format:	4(a)(2) US Private Placement
Use of Proceeds:	Refinance the Issuer's previous indebtedness and cover transaction-related costs
Payment Source:	Payments by CFE per the USD-denominated PPA between the Norte II CCGT (owned and operated by the Issuer) and CFE
Status:	Operating
Ratings:	Offering was unrated
Coupons:	▪ 3.30% for the KEXIM-guaranteed notes ▪ 5.70% for the uncovered notes

Why Relevant?

The transaction was the first-ever Project Bond in the power sector, globally, to benefit from a financial guarantee from an ECA (KEXIM). In addition, this transaction demonstrated the presence of investor appetite for unrated transactions from select issuers. The resulting cost-of-debt for the covered tranche was the lowest-ever achieved for a Mexican Project Bond. Credit Agricole was sole placement agent for the financing.

The transaction also demonstrated robust investor appetite from Asia, given that the guaranteed tranche was entirely taken by a single Korean investor. The uncovered tranche was circled by six US and Europe-based investors.

Mexico Case Study 2: Poinsettia Finance Ltd.

In 2016, Poinsettia Finance Ltd. issued $531MM senior secured notes to finance a sale and lease-back transaction between private equity fund Kohlberg Kravis Roberts ("KKR") and Petróleos Mexicanos ("PEMEX"). The transaction involved the sale to KKR of an operating portfolio of oil & gas assets originally owned by PEMEX, which were then leased back to PEMEX by KKR on a long-term basis. Additional financing sources for the transaction included non-recourse bank credit facilities as follows: a $100MM 12-year term loan, a $235MM 10-year term loan, a $115MM five-year term loan, and a $50MM five-year revolver. The credit facilities and the senior secured notes rank pari passu in a first-of-its-kind bank/bond hybrid structure.

The primary source of repayment of the senior secured notes and the credit facilities is a stream of payments from PEMEX pursuant to a 15-year lease agreement. Such payments are fixed, USD-denominated, and unconditional, regardless of the availability of the assets, use or performance – thus eliminating operating, volume and price risk.

Credit Agricole Securities acted as Joint Bookrunning Manager & Sole Lead Arranger in this transaction, which received a "Deal of the Year" award by IJGlobal for 2016.

Mexico Case Study 2
Bank / Bond Hybrid Financing
Poinsettia Finance Ltd.

Summary Terms & Conditions

Issuer:	Poinsettia Finance Ltd.
Size:	$530.8 million
Issue Date:	June 2016
Maturity:	June 2031
Amortization:	Fully-amortizing
Sponsor(s):	KKR
Format:	144 A / Reg S
Use of Proceeds:	Finance the purchase price of a portfolio of operating oil & gas assets
Payment Source:	Fixed, hell-or-highwater payments made by PEMEX throughout a 15-year lease agreement, made irrespective of assets use or performance
Status:	Operating
Ratings:	Baa3 / BBB+ by Moody's and S&P
Coupon:	6.625%

Why Relevant?

The transaction was at the time the largest bank/bond hybrid project financing in Mexico and the first to include a private equity firm investing in PEMEX oil & gas assets in the context of Mexico's historic Energy Reform. The transaction was seen as a way for PEMEX to monetize its assets as part of a company-wide asset/liability management strategy. Credit Agricole Securities was a joint-bookrunner for the bond offering and the sole lead arranger for the bank financing.

The transaction demonstrated complementarities between the project finance bank market and the project finance bond market, tapping into distinct liquidity pockets with different appetite for tenor and risk/reward profiles. This allowed an efficient execution with optimized cost of debt and funding diversification.

Mexico Case Study 3: Oaxaca II & Oaxaca IV Wind Farms

In late 2009, Comisión Federal de Electricidad ("CFE") – Mexico's state power company, launched a tender for the construction and operation of three wind projects (Oaxaca II, Oaxaca III, and Oaxaca IV) to ramp up Mexico's wind generation capacity. In March 2010, the three projects were awarded to Acciona Energia SA. Acciona was granted an agreement with CFE to operate the wind projects for 20 years, pursuant to USD-denominated, long term PPAs.

In August 2012, Oaxaca II issued $148.5MM senior secured notes to refinance its construction bank facilities. Concurrently, Oaxaca IV issued $150.2MM senior secured notes, also to refinance its construction-related debt. Both projects are similar in size and technical specifications, with 102MW installed capacity, each.

Credit Agricole Securities acted as Joint Bookrunner in this landmark transaction, which received "Latin American Deal of the Year" award by PFIe for 2012.

Mexico Case Study 3
Fully-contracted Wind Refinancing
Oaxaca II & Oaxaca IV

Summary Terms & Conditions

Issuer:	CE Oaxaca Dos, S de RL / CE Oaxaca Cuatro, S de RL de CV
Size:	$148.5 million / $150.2 million
Issue Date:	August 2012
Maturity:	December 2031
Amortization:	Fully-amortizing
Sponsor(s):	Acciona Energia
Format:	144 A / Reg S
Use of Proceeds:	Refinance construction bank facilities related to the 102MW Oaxaca II and 102MW Oaxaca IV wind farms
Payment Source:	USD-denominated PPAs with CFE
Status:	Operating
Ratings:	BBB- / BBB- by S&P and Fitch
Coupon:	7.250%

Why Relevant?

Oaxaca II and Oaxaca IV were the first wind Project Bonds outside of the United States and the first renewables projects ever in Latin America to tap international capital markets. Credit Agricole Securities was a joint-bookrunner for both issuances.

With the inclusion of local investors in the final order book, Oaxaca II and IV also became the first international Project Bonds to significantly tap local Mexican institutional investors ("Afores"), at a time when commercial banks were unprepared to lend for the refinancing of the projects. The sponsor was able to tap capital markets as an alternative and move forward with refinancing plans.

Brazil

With $4.98BN issued in 2021 alone, Brazil remained as the second largest contributor to the Latin American Project Bond market between 2012 and 2021 – with a market share of 23.2% over that period ($20.5BN) – but significantly reduced the gap to Mexico's $23.3BN over the same period.

Developments in the political front framed by corruption scandals around Brazil-based infrastructure contractors noticeably tempered Brazil's Project Bond market in 2016 and 2017: issuances from Brazil totaled $511MM in 2016, and $81MM in 2017 (a 98% drop from market highs in 2013). This cooling of the markets reversed the particularly robust activity shown in 2012 and 2013, with issuance volumes reaching $3.6BN and $3.4BN, respectively.

The figures seen in 2016 and 2017, nonetheless, deserve to be qualified, as many Project Bonds issued from Brazil have been executed in local currency as "debentures", for relatively small sizes and placed locally with retail investors who benefit from a favorable tax treatment of income from debentures related to assets deemed to be *critical infrastructure*. Moreover, the country's need for infrastructure and energy investments remained, which created pent-up demand for similar investments in subsequent years.

Brazilian issuance volume recovered in 2018, contributing 40% of the total Latin America volume in 2018 ($3.7BN) but decreased by 45% in 2019 ($2.1BN). With $1.2BN issued in 2020 and a whopping $4.98BN in 2021, Brazil took the lead in the Latin American region. The vast majority of these transactions were backing power assets and most of these issuances have been realized in Reais, which has been a trend since 2017. Prior to that year, most issuances were denominated in USD.

Brazil Case Study 1: Voltalia Wind Farm

In March 2016, the São Miguel do Gostoso wind farm issued R$57 million inflation-linked debentures in the local capital markets to finance project completion. The debentures rank pari passu with a BNDES-provided senior secured credit facility.

The 108MW wind farm benefits from a 20-year PPA with Brazil's Câmara de Comercialização de Energia Elétrica ("CCEE") – which represents all electricity users in Brazil's Sistema Interligado Nacional ("SIN").

Brazil Case Study 1
Wind Debenture in Local Currency
São Miguel do Gostoso

Summary Terms & Conditions

Issuer:	São Miguel do Gostoso Participações S.A.
Size:	R$ 57 million
Issue Date:	March 2016
Maturity:	March 2029
Amortization:	Fully-amortizing
Sponsor(s):	Voltalia Energia do Brasil; Paranaense de Energia
Format:	Restricted public offering under the CVM rule 476
Use of Proceeds:	Finance the completion of a 108MW wind farm
Payment Source:	Local currency PPA with CCEE
Status:	Greenfield
Ratings:	BrA+ by Fitch
Coupon:	Inflation indexed plus 8.19%

Why Relevant?

The transaction illustrates Brazil's established local capital markets capacity to finance infrastructure and energy assets, including during construction, on a non-recourse basis. The transaction also underlines the country's reliance on BNDES: the debentures were mostly-placed with BNDESPar – the investment arm of BNDES, and rank pari passu with BNDES as major senior lender. Credit Agricole Securities was sole placement agent for the transaction.

Brazil Case Study 2: Norbe VIII/IX Finance Ltd.

In November 2010, Norbe VIII/IX Finance Ltd. issued $1.5BN to refinance existing debt related to the construction and operation of the Norbe VIII and Norbe IX ultra-deepwater drill ships, which have been chartered to Petrobras under 10-year agreements.

The drill ships are contracted by Petrobras under daily-rate 10-year Charter Agreements, with matching operating agreements in place with Odebrecht.

Original construction financing was provided by a consortium of project finance banks.

Brazil Case Study 2
Ultra Deepwater Drill ships USD Project Bond
Norbe VIII/IX Finance Ltd.

Summary Terms & Conditions

Issuer:	Norbe VIII/IX Finance Ltd.
Size:	$1.5 billion
Issue Date:	November 2010
Maturity:	June 2021
Amortization:	Fully-amortizing
Sponsor(s):	Odebrecht
Format:	144A / Reg S
Use of Proceeds:	Refinance existing debt related to the Norbe VIII and Norbe IX ultra-deepwater drill ships
Payment Source:	10-year Charter Agreements with Petrobras
Status:	Brownfield
Ratings:	Baa3 / BBB by Moody's and Fitch
Coupon:	6.35%

Why Relevant?

The transaction illustrates the liquidity available for jumbo issuances from Brazil if anchored in robust offtakers (e.g., Petrobras).

Between 2010 and 2014, nearly $4 billion USD Project Bonds were issued to finance similar assets in Brazil.

Peru

Peru has historically been the third-largest contributor to the Project Bond market in Latin America (after Mexico and Brazil), accounting for approximately 13% of total issuance volume in the region since 2012, with $11.4BN. Between 2000 and 2010, yearly Project Bond activity from Peru consistently landed in the $50-600MM range. However, issuance volumes out of Peru began an upward trend in 2011, with $950MM, and increased up to more than $1.6BN in 2015. This growth trend was tempered in 2016 with the backdrop of political turmoil resulting in issuances dropping to only ~$300MM in that year. The cooling of the markets was short-lived, however, with 2017 and 2018 resulting in $1.0BN and $1.7BN, respectively, in Project Bond volume. Driven by the expansion of Lima metro ($900MM in aggregate through 4 tranches) and the slowdown in Brazil and Mexico, Peru took the first place of the LatAm market in 2019 with $2.3BN issued. No issuance took place in 2020 as the country was submerged in significant political turmoil and the impact of the COVID-19 pandemic. In 2021, however, Peru achieved an issuance volume that nearly reached pre-pandemic levels with $1.1BN issued in connection with the issuance of 5.625% 2047 notes by Petróleos del Perú (PETROPERÚ).

Growth in the Peruvian Project Bond market has been fueled by PPP innovations first introduced in 2006, designed to transfer construction and performance risk to the Government of Peru. These innovations, such as the CRPAO and the RPICAO structures, entail the issuance of payment certificates backed by the Government of Peru, subject to pre-defined project completion milestones, payable regardless of subsequent milestone completions and regardless of asset performance or use, once in operation. CRPAOs are direct obligations of the Peruvian government and have been construed as sovereign indebtedness, whereas RPICAOs are contingent obligations – thus avoiding treatment as direct sovereign indebtedness. Both structures result in highly-visible cash flow streams that have been received in the capital markets as credit-derivate to the Peruvian sovereign (see Peru Case Study 1).

Peru's robust concession framework has also enabled other innovations, such as partially-credit enhanced offerings, to be well received (see Peru Case Study 2).

The success of Peru's PPP framework has been frequently used as a point of reference in the region. Other countries, including most recently Argentina (with the *Títulos por Inversión* (TPIs) intended to be used in the postponed *Autopistas y Rutas Seguras* toll road program), Paraguay (with the *Certificados de Reconocimiento de la Obligación de Pago* used for the landmark Carmelo Peralta-Loma Plata segment of the Corredor Bioceánico and, more recently, the Costanera Sur road project in Asunción) and Panama (with the *Certificados de No Objeción* used to finance the Panama City subway system), have based their concession and public works models on the RPICAO mechanism, with the goal of attracting investor appetite to critical infrastructure assets.

Peru Case Study 1: Lima Metro Line 2 Finance Ltd

In April 2014, the Peruvian Ministry of Transport and Communications entered into a concession agreement with Metro de Lima Linea S.A. (a consortium comprised of Iridium (ACS), Vialia (FCC), WeBuild (formerly Salini Impregilo), Hitachi STS (formerly Ansaldo STS and AnsaldoBreda), and COSAPI) for the construction and operation of Line 2 of the metro system in Peru's capital city, Lima – running nearly 35 km across the city and connecting with the Jorge Chavez International Airport in the neighboring city of Callao.

The awarded concession agreement conforms to Peru's RPICAO PPP structure and involves a fixed schedule of USD-denominated compensation rights, assigned by the Peruvian government as certain pre-agreed construction milestones are achieved and independently verified. The related RPICAOs represent irrevocable and unconditional payment guarantees from the Ministry of Transport and Communications of Peru but do not constitute direct sovereign obligations: the primary source of revenue is a master trust whose funding source is the aggregation of subway fares by the users and certain government-levied taxes. In the event that such collections are insufficient to cover the payments established by the RPICAO schedule, the Government of Peru steps-in to cover the difference, regardless of whether the project (or any specific milestone linked to an RPICAO) is completed and, once operational, regardless of use.

In 2015, Lima Metro Line 2 Finance Ltd, a Cayman SPV established for purposes of securitizing the RPICAOs, issued $1.15BN senior secured notes backed by the future cash flows to be derived from assigned RPICAOs, in order to finance the construction of the underground railway lines.

Peru Case Study 1
Milestone Payments-backed Offering
Lima Metro Line 2 Finance Ltd

PFI AWARDS 2015

Summary Terms & Conditions

Issuer:	Lima Metro Line 2 Finance Ltd.
Size:	$1,155 million
Issue Date:	June 2015
Maturity:	July 2034
Amortization:	Fully-amortizing
Sponsor(s):	Iridium (ACS), Vialia (FCC), WeBuild (formerly Salini Impregilo), Hitachi STS (formerly AnsaldoBreda and Ansaldo STS), and Cosapi
Format:	144 A / Reg S
Use of Proceeds:	Finance the construction of subway line 2 in Lima
Payment Source:	Unconditional and irrevocable payments backed by the Government of Peru, under Peru's RPICAO (milestone-linked) concession structure
Status:	Greenfield
Ratings:	Baa1 / BBB / BBB+ by Moody's, S&P and Fitch
Coupon:	5.875%

Why Relevant?

The project is one of many transactions in Peru made possible by RPICAO payments. Market-reception of this form of co-financing has been very favorable, as it transfers project completion risk and revenue risk to the sovereign. Credit Agricole Securities was a joint-bookrunner for the bond offering.

The notes drew significant interest from Asset Managers and local Peruvian investors – who comprised the majority of the final order book at over 30% of total allocations.

This transaction demonstrated that RPICAO-backed projects can benefit from ample liquidity – given that the transaction size was over $1.0BN.

Peru Case Study 2: Peruvian Transmission Lines

In 2013, project company Concesionaria Línea de Transmisión CCNCM S.A. entered into a Guaranteed Tranmission System (*Sistema Garantizado de Transmisión* or SGT) concession agreement with the Peruvian Ministry of Energy and Mines to build, own and operate a project consisting of three 220-kV transmission lines in northwestern Peru as well as the expansion of two existing substations and the construction of two new substations.

Under the concession agreement, the concessionaire is entitled to receive an Annual Guaranteed Revenue (*Remuneración Anual Garantizada or RAG*) throughout the 30-year term of the concession agreement. The RAG is denominated in U.S. dollars, but it is payable in local currency (*Peruvian Soles*) on a monthly basis. The RAG is based on the availability of the projects and it is therefore payable to the concessionaire irrespective of the effective utilization of the transmission lines. Moreover, the RAG is adjusted for inflation on an annual basis according to the U.S. Finished Goods Less Foods and Energy Index published by the U.S. Department of Labor.

In August 2018, Concesionaria Línea de Transmisión CCNCM S.A. refinanced the $136.9MN existing loan facility through a dual bond/loan transaction of $174.8MN in the aggregate. The bond tranche consisted of a $99.5MN U.S. Private Placement purchased by three U.S.-based buy-and-hold institutional investors rated investment grade.

Peru Case Study 2
Milestone U.S. Private Placement
Concesionaria Línea de Transmisión CCNCM S.A.

Summary Terms & Conditions

Issuer:	Concesionaria Línea de Transmisión CCNCM S.A.
Size:	$99.5 million
Issue Date:	August 2018
Maturity:	May 2047
Amortization:	Fully-amortizing
Sponsor(s):	Grupo Cobra (former subsidiary of ACS)
Format:	U.S. Private Placement
Use of Proceeds:	Repay existing debt, fund MTM for existing hedges, cover transaction fees and Sponsor distribution
Payment Source:	Fixed availability payments under a 30-year concession agreement awarded by the Peruvian Ministry of Energy and Mines – Annual Guaranteed Revenue (*Remuneración Anual Garantizada or RAG*).
Status:	Operating
Ratings:	BBB- by Fitch

Coupon:	5.62%

Why Relevant?

This transaction was one of the first Latin American U.S. Private Placements to be issued as part of an innovative dual bond/loan refinancing. The dual bond/loan refinancing structure allowed the sponsor of the project to tap different liquidity pockets and ultimately achieve a competitive rate for both the loan and bond facilities.

The totality of the notes were purchased by three institutional investors, demonstrating the interest on the part of U.S. insurance companies in acquiring project bond debt in Latin America.

Peru Case Study 3: Eten Cold Reserve Power Plant

In 2010, project company Planta de Reserva Fria de Generacion de Eten S.A. was awarded a 20-year concession to build and run a 224MW thermal power plant in Peru's north west. The plant was intended to be used as a backup generator for the country (or "cold reserve") in order to help meet excess energy needs in the event of grid shortages or unplanned power demand increases.

The concession grants USD-denominated, fixed capacity payments throughout its tenor and variable payments when called to dispatch, made from the entire Peruvian electrical generation system – a counterparty risk profile deemed by investors to be consistent with the Peruvian sovereign.

Peru Case Study 3
Credit-enhanced Transaction
Planta de Reserva Fría de Generacíon de Eten S.A.

Summary Terms & Conditions

Issuer:	Planta de Reserva Fría de Generacíon de Eten SA
Size:	$132.8 million
Issue Date:	December 2013
Maturity:	December 2033
Amortization:	Fully-amortizing
Sponsor(s):	Grupo Cobra (former subsidiary of Grupo ACS) and Empresa de Mantenimiento, Construcción y Electricidad,S.A. de C.V. ("EMCE")
Format:	144 A / Reg S
Use of Proceeds:	Finance construction of a 224 MW, diesel-fired, simple-cycle power plant
Payment Source:	Fixed availability payments under a 20-year concession agreement awarded by the Peruvian government and variable revenues when the plant is called to dispatch into the grid. Additionally, bondholders benefit from an irrevocable and unconditional partial credit guarantee from a development bank, equivalent to 20% of the bonds' outstanding balance.
Status:	Greenfield
Ratings:	BBB- / BBB- by S&P and Fitch
Coupon:	7.650%

Why Relevant?

The transaction incorporated external credit enhancement provided by a regional development bank (CAF) in a sufficient amount to help investors feel comfortable with the exposure to construction delay risk – given the project's relatively long construction period (approx. 2 years).

CAF's participation gave comfort to bondholders that if project completion were to be delayed and, thus, no operating cash flows were available to cover interest and principal once scheduled debt service were due, the partial credit guarantee would be available to cover the shortfall. The 20% cover was deemed to be sufficient to mitigate delay risk, as an independent engineer offered an opinion that the likelihood that delays would extend beyond what the partial credit guarantee could sustain was low.

In 2013, the project company issued nearly $133MM non-recourse 144A / Reg S bonds to finance the power plant's construction. In order to help mitigate completion and operation risk, regional development bank Corporación Andina de Fomento ("CAF") provided credit enhancement in the form of an unconditional and irrevocable partial credit guarantee equivalent to 20% of the outstanding debt. The guarantee is exercisable on a pre-default basis, and including during the project's construction period, to cover any shortfall in principal or interest due. Guarantee amounts exercised may be repaid on a subordinated basis in subsequent periods, replenishing the liquidity available to the notes.

In this sense, although CAF's partial credit guarantee did not entirely address completion risk, rating agencies viewed the sponsors' completion guarantees together with CAF's partial enhancement as sufficient to achieve investment grade.

Chile

Historically, Chile has been the fourth largest contributor to the Project Bond market in Latin America – accounting for approximately 12.8% of total issuance volume between 2012 and 2021, with $11.3BN. 2021 was a very good year for the Chilean Project Bond market which grew by 447% relative to 2020 to reach $4.0BN and the second rank in Latin America for the year, falling only behind Brazil.

Chile's Project Bond market has been characterized by issuances in the $200-500MM range, but with occasional offerings as small as $50MM in privately-placed transactions and as large as $1.0BN in 144A / Reg S offerings, for a wide array of assets including toll roads, gas transportation, power generation (incl. renewables) and power transmission.

Growth in the Chilean Project Bond Market has been supported by the country's strong macroeconomic environment and overall stability – as reflected in its credit ratings of A1 / A / A- (i.e. the highest in Latin America) – and noteworthy PPP structure innovations such as the use of government-guaranteed revenue floors and caps designed to help mitigate demand risk, and flexible-term concession mechanisms designed to limit equity downside. These mechanisms proved to be particularly well-suited for transportation infrastructure with revenues relying on user-paid tariffs or tolls. For instance, mechanisms where a project's present value of revenue is guaranteed by way of making the concession's term variable (i.e., "Total Guaranteed Revenue" or "MDI") or where, if revenue is below a pre-agreed fixed threshold, the government makes up for the shortfall (i.e. "Minimum Guaranteed Revenue" or "IMG"), have been used in the past in Chilean toll roads and airports. In some instances, both mechanisms have been used in conjunction (see Chile Case Study 2).

Profit-sharing mechanisms have also been implemented in Chile, where in addition to minimum revenue guarantees, if revenues exceed a pre-agreed threshold, the surplus will be split between the concessionaire and the government to incentivize availability and service quality.

The Chilean market has also seen meaningful Project Bond issuance activity related to the power sector, with issuances related to portfolios of transmission lines anchored in the country's long term concession framework for transmission and distribution, and off the back of PPAs with the country's distribution companies ("DistCos") in the context of public auctions aimed at enhancing Chile's grid reliability and cost efficiency.

More recently, Project Bonds off the back of private offtake agreements have been well-received by investors (see Case Study 3), in particular as an attractive alternative to projects with DistCo PPAs which have been negatively impacted by the confluence of increased grid curtailment due to transmission network limitations and the compression of electricity spot prices fueled by low energy commodity prices and the entry of low-to-no marginal cost of dispatch sources such as wind and solar.

Chile Case Study 1: Celeo Redes Transmision Lines

In 2017, Celeo Redes Operacion Chile SA – a newly created SPV, issued a dual-currency, dual tranche (pari passu) transaction consisting of $593MM 144A / Reg S senior secured notes placed in the international capital markets, and an amount equivalent to $214MM (at the time of financial close) bonds denominated in local currency/inflation-linked investment units ("UFs") and placed in the Chilean market. Issuance proceeds were used to refinance the then-outstanding construction facilities of a portfolio of overhead power transmission lines, spanning 454km in the Chile's Central Interconnected Electrical System ("SIC") – which serves approximately 92% of the country's population.

The transmission lines in the portfolio operate pursuant to long-term concession agreements granted by Chile's Ministry of Energy, which entitle them to receive availability-based transmission tariffs, paid by a diversified pool of Chilean power generation and distribution companies. Such payments are due regardless of actual electrical volume throughput – thus fully mitigating demand risk.

A noteworthy feature of this transaction is that the bonds mature 10 years after the fixed tariff term of the transmission lines concession agreements – which establish a fixed tariff during the first 20 years of the concession life, but have tariffs re-set thereafter. Once in the resettable tariff period, the new tariff remains fixed for an initial four-year period. Afterwards, tariffs are re-calculated according to the results of an independent transmission study commissioned by the grid regulator to estimate the cost of constructing a new transmission line in that point in time – exposing the projects to tariff re-set risk. In spite of this risk, investors and rating agencies developed a favorable long term view of the likely stability of the tariff regime, allowing the issuer to monetize 30 years of concession revenues.

Chile Case Study 1
Transmission Portfolio Refinancing
Celeo Redes Operación Chile SA

Summary Terms & Conditions

Issuer:	Celeo Redes Operacion Chile SA
Size:	Aggregate US$593 million: • $379 million International Bond • UF5.41 million (≈US$214MM) Local Bond
Issue Date:	May 2017
Maturity:	June 2047
Amortization:	Fully-amortizing
Sponsor(s):	Elecnor, APG Asset Management NV
Format:	Two *pari-passu* tranches: • 144 A / Reg S International Bond • Locally-placed bond
Use of Proceeds:	Refinance construction credit facilities
Payment Source:	Fixed transmission tariff from Chilean generation companies under long-term agreements
Status:	Brownfield
Ratings:	Baa2 / BBB / BBB- by Moody's, S&P and Fitch
Coupon:	• 5.200% (International Bond) • 3.350% (Local Bond)

Why Relevant?

The Celeo Redes offering was the first Project Bond refinancing of a portfolio of transmission line assets in Latin America. This transaction demonstrates that, given transmission lines' mostly-standardized technology and low operating risk profile, portfolio (re)financings are particularly well-suited for this asset type.

This approach allows issuers to take advantage of transaction economies of scale and to reach critical mass to tap a broader, more liquid investor base.

Chile Case Study 2: Ruta del Maipo Toll Road

In 2001, project company Ruta del Maipo Sociedad Concesionaria S.A. issued $421MM 144A / Reg S senior secured notes to finance the rehabilitation of a 193km stretch of the Ruta 5 highway connecting the Chilean cities of Santiago and Talca.

The project company also issued local currency bonds, placed with Chilean institutional investors, comprising approximately 55% of total project debt in US dollar terms at closing (based on then-current exchange rates).

The issuer operates the road pursuant to a concession agreement including, both an IMG mechanism and a MDI mechanism. Under the IMG awarded to Ruta del Maipo, the project has certainty of receiving a fixed, pre-agreed revenue stream directly paid by the Chilean government in the event that revenues from toll collections are below a pre-agreed minimum. If toll collections exceed the period's IMG, then no payment is made by the Chilean government. If collections are lower than the period's IMG, the Chilean government makes-up for the revenue shortfall.

The MDI mechanism in this project, on the other hand, helps investors enhance the project's recovery profile. This is particularly useful to mitigate revenue risk in the event of extended downside scenarios. Under the MDI, the concession agreement's term is linked to cumulative revenue performance, instead of being pegged to a specific date: the concession ends when the present value (discounted at 9.5%) of actual revenues equals a pre-agreed target value.

Chile Case Study 2
Revenue Floors & Caps
Ruta del Maipo Sociedad Concesionaria S.A.

Summary Terms & Conditions

Issuer:	Ruta del Maipo Sociedad Concesionaria S.A.
Size:	$421 million
Issue Date:	August 2001
Maturity:	June 2022
Amortization:	Fully-amortizing
Sponsor(s):	Currently Intervial (ISA) Chile; originally Cintra.
Format:	144 A / Reg S
Use of Proceeds:	Finance rehabilitation construction works in a toll road connecting Talca with Santiago
Payment Source:	First, by toll collections from users and, second, payments from the Government of Chile under a revenue-floor guarantee mechanism (i.e. IMG), pursuant to a variable term concession (i.e. under a MDI mechanism)
Status:	Brownfield
Ratings:	Baa3 / BBB- by Moody's and S&P
Coupon:	7.373%

Why Relevant?

Ruta del Maipo is one of several toll roads in Chile that have benefited from the IMG and MDI mechanisms, in conjunction.

The IMG and MDI structures in Chile demonstrate that governments can move away from directly-backing project revenues (e.g. though availability payments schemes) in order to attract investor appetite, and can, instead, provide contingent forms of support triggered only in downside scenarios, while still relying primarily on user-pay revenues.

Chile Case Study 3: Atlas Renewable Energy Chile

On March 2020 and in spite of the COVID-19 outbreak, Atlas Renewable Energy (a developer formed by private investment firm Actis focused in the Brazilian, Chilean, and Mexican renewables markets) issued $253MM senior secured Green Bonds to refinance two of the company's solar PV projects in northern Chile: (i) the operating 70MW Javiera Solar project which has a bilateral PPA with Antofagasta Minerals' Minera los Pelambres (one of the largest copper mines in Chile's Antofagasta region and one of the largest and most competitive copper mines in the world), and (ii) the 244MW greenfield Sol del Desierto solar project which is expected to supply energy to Engie Energia Chile S.A. by 2022.

The notes were placed with buy-and-hold investors under a 4(a)(2) US Private Placement format and were rated BBB- by Fitch. This precedent shows that construction risk is not a limitation for Project Bond issuers to obtain an investment grade rating, and that Project Bonds can be issued for projects with private offtakers (even if unrated) with the rating of the offering typically capped by the offtaker's. In cases where the offtaker is not rated (as was the case for the Atlas Renewables Energy Chile offering), investors and rating agencies typically conduct an internal credit assessment of the offtaker's credit quality and anchor their views on pricing and structure accordingly.

This transaction is the largest solar PV Project Bond from LatAm to-date, demonstrating robust investor appetite for the asset class and for private PPAs in the Chilean market.

Chile Case Study 3
Corporate PPAs for Renewables
Atlas Renewable Energy Chile

Summary Terms & Conditions

Issuer:	Javiera SpA and Parque Solar Fotovoltaico Sol del Desierto SpA, as co-issuers
Size:	$253 million
Issue Date:	March 2020
Maturity:	December 2036
Amortization:	Fully-amortizing
Sponsor(s):	Atlas Renewable Energy Chile
Format:	4(a)(2) US Private Placement, Green Bond
Use of Proceeds:	Refinance previous indebtedness and cover transaction costs
Payment Source:	PPAs with corporates in the energy and mining sector deemed to be investment grade (Minera los Pelambres for Javiera Solar and Engie Energia Chile for Sol del Desierto)
Status:	70MW operating, 244MW greenfield
Ratings:	BBB- by Fitch
Coupon:	Confidential

Why Relevant?

The offering demonstrates investor appetite for Chilean corporate PPAs, regardless of the transaction's exposure to construction risk, and for security structures with cross-collateralization between two co-issuers – which differ from more commonly-seen single issuer structures where a new SPV (or HoldCo) is created to jointly hold the security package for a portfolio of assets.

The timing of the issuance (i.e. in the midst of the COVID-19 outbreak) also underlined investor receptiveness to renewables offerings providing relative value and sound credit metrics – as suggested by the offering's BBB- rating.

Colombia

Colombia has not been typically a large contributor to Latin America's Project Bond market – representing 4.7% of total issuance volume in the last 10 years with $4.0BN. Project Bond issuances out of Colombia have almost exclusively related to toll road infrastructure projects. Outside toll road infrastructure, other salient project bonds have included the financing for the acquisition of the $710MM EnfraGen portfolio which included assets in Colombia (as well as in Chile and Panama to a lesser extent) and the $415MM private placement backing the Bogota Airport (El Dorado) in 2019.

Toll road Project Bonds in Colombia have been anchored in the 4G Program: a highway concessions program under which over 30 projects have been awarded since its inception in 2013. 4G-related USD Project Bonds' size has been constrained by the fact that the projects under the 4G program are substantially reliant on local currency revenues through user-pay tolls, complemented by availability payments and certain revenue top-ups made directly by government agency *Agencia Nacional de Infraestructura* ("ANI").

Issuances related to the 4G program have attracted a large base of international institutional investors thanks to ANI's payment obligations and other external credit enhancements provided by Colombia's development bank Financiera de Desarrollo Nacional ("FDN") in the form of subordinated revolving liquidity facilities as well as, more recently, a guarantee provided the U.S. Development Finance Corporation ("DFC").

Colombia Case Study: Puerta de Hierro Toll Road

In May 2021, Patrimonio Autónomo Montes de María and Sociedad Concesionaria Vial Montes de María S.A.S., the concessionaire and co-obligor, secured a Project Bond financing for the construction, rehabilitation and improvement of approximately 200km of roads, including a 6.4km bypass, to connect the Caribbean coast of Colombia with other important road concessions in the region, namely the Córdoba-Sucre and Ruta Caribe toll road concessions.

The ~$210MM-equivalent financing package consisted of senior secured notes issued under Rule 144A/Reg S format and denominated in Colombian peso, as adjusted by reference to inflation-linked investment units (*Unidades de Valor Real*, or UVR).

This was the first Project Bond in Latin America to benefit from a full and irrevocable guarantee by the U.S. Development Finance Corporation (DFC), which was also counter-guaranteed by Assured Guaranty (AG). Moreover, this transaction was also the first social bond for an infrastructure project in Colombia, upon being certified by Vigeo Eiris (V.E.) as aligned with 4 United Nations Sustainability Development Goals: No Poverty; Decent Work and Economic Growth; Industry, Innovation and Infrastructure; and Peace, Justice and Strong Institutions.

Puerta de Hierro's financial and documentary structure builds upon the framework used in previous 4G Project Bond PPP transactions, namely Pacifico 3 (2016) and Costera (2016), as well the Ruta al Mar Private Initiative transaction of 2017. Like its 4G PPP predecessors, the Puerta de Hierro capital structure is sized by reference to the currency denomination of the project's revenue streams. However, the Puerta de Hierro project bond borrows from the more efficient trust structure used in the only non-PPP 4G Project Bond to have successfully closed – Ruta al Mar –.

The foregoing characteristics, paired with a DFC guaranty backed by the full faith and credit of the U.S. Government, resulted in a heavily oversubscribed transaction. This is also the only 4G Project Bond to achieve a rating higher than that of the sovereign.

Colombia Case Study
DFC Guaranteed Toll Road
Patrimonio Autónomo Montes de María

PFI AWARDS 2016

Summary Terms & Conditions

Issuer:	Patrimonio Autónomo Montes de María
Size:	COP 760 billion (~$210 million), indexed by reference to UVR
Issue Date:	May 2021
Maturity:	May 2045
Amortization:	Fully-amortizing
Sponsor(s):	Sacyr
Format:	144 A / Reg S
Use of Proceeds:	Repay the existing mini-perm financing, fund project costs, and fund reserve accounts
Payment Source:	The issuance is backed by availability payments from government agency ANI, and user-pay toll revenues
Credit Enhancement	The issuance benefits from an irrevocable guarantee by the U.S. Development Finance Corporation (DFC) with respect to the principal, interest and make-whole payments due and payable to the bondholders
Status:	Brownfield
Ratings:	Aa1 / AA by Moody's and S&P

Coupon:	4.100%

Why Relevant?

Puerta de Hierro was the first project bond in Colombia to benefit from a full and irrevocable guarantee by the U.S. Development Finance Corporation (DFC) (covering principal, interest and make-whole premium) as well as the first 4G toll road to be certified as a social bond.

As a result of these innovative features, Puerta de Hierro is likely to be used a reference transaction for future 4G and 5G Project Bonds. For example, the Rio Magdalena 2 multi-tranche Project Bond (issued later in 2021) was also certified as a social bond.

Argentina

Argentina had been excluded from international capital markets for several years until the sovereign's inaugural $16.5BN issuance in April 2016, across 3-year, 5-year, 10-year and 30-year tranches; and had not seen a Project Bond issuance in nearly two decades until 2017 (see Argentina Case Study 1). Since then, investor appetite for Argentinian credit, both sovereign and corporate, has been confirmed in several cases, in spite of the country's deeply sub-investment grade ratings. Recent developments on the political and economic front, unfortunately, resulted in the Argentina Project Bond market closing off again, for the time being. Argentina's return to the Project Bond market (albeit short-lived) disproved the common misconception that capital markets investors only participate in project financings when offerings can be deemed to be investment grade. It also underscores 144A investors' focus on point-in-time sovereign ratings as indicators of country risk (a reliance that is typically less generalized across 4(a)(2) USPP executions). The $400MM bond offering related to the Quito international airport in Ecuador in 2019 (also a sub-investment grade country) further refutes this common misconception.

The return of Argentine issuers to the international capital markets was framed by market optimism surrounding the administration of President Mauricio Macri and key sector policy reforms pushed during his term, including tax code changes, liberalizing the power sector, introducing clear renewables targets, new PPP frameworks modeled after success case studies in the region (e.g. the Peruvian milestone-linked framework), and eliminating foreign exchange controls, among others.

President Macri's administration was also credited for successfully reaching an agreement with "hold-out" investors that had been ruled in favor by a US court in 2014 to demand full repayment of certain restructured sovereign obligations that had been subject to litigation for more than 10 years, as a consequence of Argentina's credit default in the early 2000's. The ruling prohibited the Argentinean government from paying its restructured debt holders without paying in full (i.e., without any haircuts).

Argentina first defaulted on its debt obligations in 2001 amid a sharp economic downturn that eased off on 2005 – allowing the country to return to the B rating category; only to fall into selective default status in 2014, after failing to reach an agreement with holdout investors. In May 2020, S&P downgraded Argentina, again, to Selective Default, shortly after Fitch downgraded the country to Restrictive Default status.

Since 2012, a volume of $3.7BN Project Bond have been issued in Argentina, the bulk of which occurred in 2017 and 2018.

Argentina Case Study: Stoneway Power Plants

In 2017, Stoneway Capital Corp. issued the first Project Bond in Argentina in nearly two decades. The $500MM offering was placed in the 144A / Reg S market in February and was followed-on by a $165MM re-tap in November, that same year. Issuance proceeds were destined to finance the construction of four thermal power plants in the Province of Buenos Aires with an aggregate expected installed capacity of more than 806MW: Las Palmas, Lujan II, Matheu III and San Pedro.

Stoneway is a Canadian private company constituted with the purpose of building, owning and operating the portfolio of power plants, through its three operating subsidiaries incorporated in Argentina.

The power plants benefit from 10-year PPAs with Argentina's wholesale electricity market administrator ("CAMMESA") – which is partially controlled by the Argentinian government. The PPAs grant US dollar-denominated, fixed price, capacity payments (which represent approx. 82% of the projects' aggregate revenues) and certain variable payments including excess output sales into the spot market and certain pass-through charges for operating expenses from running the plants while available and called to dispatch. The capacity payments under the PPAs are due irrespective of actual dispatch (i.e. are strictly based on asset availability). Additionally, under the PPAs, fuel will be directly supplied by CAMMESA – thus eliminating supply risk.

Investor appetite for these bond offerings was anchored in the view that CAMMESA offtake risk is credit-linked to the Argentinean sovereign – in spite of the fact that CAMMESA obligations are not explicitly guaranteed by the Government of Argentina, and by liquidity provisions structured during the projects' construction period to mitigate completion risk.

Argentina Case Study
Sub-investment Grade Country Offering
Stoneway Capital Corporation

PFI AWARDS 2017

Summary Terms & Conditions

Issuer:	Stoneway Capital Corp.

Size:	▪ 1st Issuance: $500 million ▪ 2nd Issuance: $165 million
Issue Date:	▪ 1st Issuance: Feb 2017 ▪ 2nd Issuance: Nov 2017
Maturity:	March 2027, for both tranches
Amortization:	Fully-amortizing
Sponsor(s):	Araucaria Energy S.A., SPI Energy S.A. and Araucaria Generation S.A.; ultimate parent Stoneway Capital Corp.
Format:	144 A / Reg S
Use of Proceeds:	Finance the construction of the four power plants
Payment Source:	Fixed price PPAs with CAMMESA (state-owned entity in charge of the management of the wholesale market and the dispatch of electricity into the country's power grid) as sole offtaker
Status:	Greenfield
Ratings:	B3 / B by Moody's and Fitch
Coupon:	10.00%, both tranches

Why Relevant?

Stoneway was the first issuer in approx. two decades to tap the international capital markets with a Project Bond offering out of Argentina. Credit Agricole Securities was joint-bookrunner for the transaction.

The transaction confirmed investor appetite for Latin America infrastructure & energy assets, incl. in high yield contexts, and dispels the common misconception that Project Bonds cannot be issued to finance construction.

Uruguay

Uruguay has historically been a marginal contributor to Latin America's Project Bond market, arguably due to its relative small size in terms of population and GDP. However, recent activity in the renewables front deserves a closer look. Since 2017, approx. $614MM have been issued for Project Bonds in Uruguay of which 85% were on the back of renewable assets; $224MM have been raised for 118MW wind assets and $300MM for 309MW solar projects. With $127MM issued, 2020 was a very good year for the Project Bond market in Uruguay which encountered the fastest growth in Latin America at 44%. In 2021, no Project Bonds were issued out of Uruguay.

The first Project Bond for a Uruguayan wind farm was the $136MM offering issued in 2017 for the 70MW Campo Palomas project. This offering was placed under the Inter-American Development Bank Group's A/B bond program and was followed by two solar offerings (Jacinta Solar and Naranjal / Del Litoral) in 2018. All transactions received "Green" certifications – i.e., as Green Project Bonds.

The most recent Uruguayan Renewable Project Bond closed in December 2020 for $97MM is was backing a solar portfolio owned by Hudson Sustainable Group. The most recent Uruguayan wind Project Bond closed in December 2019 for $88MM, backed by the 49MW Kiyu wind farm. This transaction, sole led by Credit Agricole Securities, was the first-ever Project Bond from Uruguay without reliance on an A/B bond structure and was placed directly with one blue-chip institutional investor, achieving the lowest cost-of-debt for a Uruguayan Project Bond to date.

Uruguay Case Study 1: Campo Palomas Wind Farm

In August 2017, Campo Palomas Finance Limited announced the issuance of $136MM investment-grade Green Project Bonds, in order to refinance existing construction loans related to a 70MW wind farm in the Salto Department in Uruguay. This transaction was the first international Project Bond offering from Uruguay.

The bonds were placed in the context of an A/B bond program. The A/B bond structure entails a financing sequencing where an A/B loan is provided by the development bank to finance a project's construction– with the participation of a commercial bank on the "B portion" of the facility, and a bond refinancing follows after project completion to take-out the commercial bank's commitment and reduce the development bank's long term hold. This results in a "B bond" benefitting from the development bank's umbrella.

The wind farm benefits from a USD-denominated, 20-year Operating Lease agreement with Uruguayan government-owned *Administración Nacional de Usinas y Transmisiones Eléctricas* ("UTE") - effectively eliminating wind resource risk and generation risk.

Uruguay Case Study
IIC A/B Bond Offering
Campo Palomas Finance Limited

Summary Terms & Conditions

Issuer:	Campo Palomas Finance Limited
Size:	$136 million
Issue Date:	August 2017
Maturity:	2037
Amortization:	Fully-amortizing
Sponsor(s):	Invenergy Wind Global
Format:	A/B Bond, Green Bond
Use of Proceeds:	Refinancing of construction facilities
Payment Source:	Fixed, USD, monthly lease payments from UTE under a 20 year lease agreement
Status:	Operating
Ratings:	Baa3 by Moody's
Coupon:	5.20%

Why Relevant?

The issue marked the second-ever A/B bond and underscores the effectiveness of development bank participation in capital markets structures in a market-enabling role, instead of as direct and ultimate lender.

This offering demonstrated that international investors have appetite for small renewables offerings in Latin America, dispelling the common misconception that Project Bonds in emerging markets need to be executed in a 144A / Reg S format.

Uruguay Case Study 2: Kiyu Wind Farm

In December 2019, the operating 49MW Kiyu Wind Farm in Uruguay issued $88MM 4.86% senior secured notes due 2041 to refinance its then-outstanding commercial bank credit facilities. The transaction was the fourth Uruguayan Project Bond in the international Capital Markets and the second wind offering from Uruguay, but the first-ever to be issued without relying on a development bank's product (i.e. a pure 4(a)(2) US Private Placement) and without a financing tail versus its underlying offtake contract.

Kiyu benefits from a PPA with UTE for 100% of the project's energy output (in contracts with Campo Palomas' Operating Lease structure) which at the time of issuance had 23 years remaining tenor.

The transaction was publicly rated BBB- by Standard & Poor's and achieved the lowest cost-of-debt for a Uruguayan Project Bond issuer to-date (4.86%). Its successful placement in the private placement market demonstrates that there is investor appetite for renewables assets from emerging markets, particularly when their revenue structure is anchored in robust offtake agreements and in the context of highly supportive policy frameworks, such as Uruguay's, without requiring support from multilateral agencies.

Uruguay Case Study
First USPP Project Bond
Parque Eolico Kiyu S.A.

Summary Terms & Conditions

Issuer:	Parque Eolico Kiyu S.A.
Size:	$88 million
Issue Date:	December 2019
Maturity:	2041
Amortization:	Fully-amortizing
Sponsor(s):	Zero-E Dollar Assets, S.L. (F/K/A BowPower S.L.)
Format:	4(a)(2) Private Placement
Use of Proceeds:	Refinancing of construction bank facilities
Payment Source:	USD-denominated, inflation-indexed PPA with state-owned utility UTE
Status:	Operating
Ratings:	BBB- by S&P
Coupon:	4.86%

Why Relevant?

The offering was the first-ever Project Bond issued without reliance on a development bank's program, dispelling the perception that a development bank's umbrella is a necessary condition to attract investor appetite for Project Bonds from smaller Latin American jurisdictions.

Precedent Uruguayan Project Bonds had been placed under the Inter-American Development Bank's A/B Bond program.

The execution achieved the lowest interest rate for a Uruguayan issuer to-date, underscoring investors' appetite for UTE offtake agreements regardless of bond execution format.

Conclusion

Investor appetite for infrastructure and energy assets in Latin America remains strong, underpinned by improving macroeconomic conditions and supportive regulatory frameworks while still being periodically impacted by political uncertainty.

The region has seen the development of innovations benefiting project economics and bankability that have established working templates with reliable examples of best-practices. Countries are adopting lessons learned from their peers, and creating broad interest from investors that some years ago were still not active in Latin America.

Despite sovereign rating changes potentially looming in some countries in Latin America, the region is well-positioned to remain an active and relevant contributor to the global Project Bond market in 2022 and in the long term.

Select Latin America Project Bond Issuances
(2018 – 2021)

Project	Country	Sector	Asset Type	Currency	Size (USD-equiv. MM)	Coupon	Tenor (Years)	WAL (Years)	Credit Ratings (Moody's / S&P / Fitch)	Issuance Date
Matrix Renewables Chile	Chile	Power	Solar	USD	290	--	20.0	--	--	Dec-21
Transmilenio Bus Fleet	Chile	Infrastructure	Buses	USD	126	--	--	--	--	Nov-21
Brazil Lighting PPP	Brazil	Power	Lighting	BRL	925	12.250%	11.0	--	--	Oct-21
Foz do Rio Claro Energia	Brazil	Power	Hydro	BRL	79	1.700%	7.0		BBB (R&I)	Oct-21
Alfa Desarrollo	Chile	Power	Transmission	USD	565	4.550%	30.0			Oct-21
Generadora Metropolitana	Chile	Power	Power	USD	600	--	--	--	-- / BBB+ / --	Sep-21
Cardal Transmisison Project	Uruguay	Power	Transmission	USD	55	--	--	--		Sep-21
Metro de Santiago	Chile	Infrastructure	Metro	USD	650	3.693%	40.0		Ba3 / BB / BB-	Sep-21
Gas Natural Acu	Brazil	Power	Gas-fired	BRL	2124	5.920%	18.0			Aug-21
Aeropuerto Internacional de Tocumen	Panama	Infrastructure	Airport	USD	1200	4.0% / 5.125%	20 / 40			Aug-21
Gran Colombia	Guyana	Natural Resources	Mining	USD	42	6.875%	5.0			Aug-21
Interchile S.A.	Chile	Power	Transmission	USD	1200	4.500%	35.0	25.4	Aa1 / AA+ / --	Jul-21
Inversiones Latin America Power Limitada	Chile	Power	Wind	USD	1200	5.125%	12.0		-- / BB / --	Jun-21
MC Brazil Downstream Trading Sarl	Brazil	Natural Resources	Oil & Gas	USD	656					Jun-21
Autopista Río Magdalena	Colombia	Infrastructure	Highway	COP	2500	6.050%	15.0		Ba3 / -- / --	Jun-21
Puerta de Hierro	Colombia	Infrastructure	Tollway	COP	905	4.100%	24.0	15.7		Apr-21
Investment Energy Resources (IERL)	Various	Power	Hydro, Wind, Solar	USD	1513	6.250%	8.0	8.0	-- / -- / BBB	Apr-21
Concessao Metroviaria Rio de Janeiro	Brazil	Infrastructure	Metro	USD	260		10.0		-- / -- / BB+	Apr-21
Serra do Mel Holding	Brazil	Power	Wind	BRL	1435		14.0		Baa2 / -- / --	Apr-21
La Pimienta Solar	Mexico	Power	Solar	USD	83					Apr-21
Acaua Wind Farm	Brazil	Power	Wind	BRL	209		14.0		Aa1 / AA / --	Feb-21
Guara Norte	Brazil	Natural Resources	Oil & Gas	USD	26	5.198%	13.5	8.0		Feb-21
Petroleaus del Peru	Peru	Power	Oil & Gas	USD	363	4.650%	26.0		Ba2 / -- / BB-	Feb-21
Hudson Uruguayan Solar Portfolio	Uruguay	Power	Solar	USD	97	4.650%	22.0	15.0	NAIC-2 (BBB-)	Dec-20

Select Latin America Project Bond Issuances (Continued)
(2018 – 2021)

Project	Country	Sector	Asset Type	Currency	Size (USD-equiv. MM)	Coupon	Tenor (Years)	WAL (Years)	Credit Ratings (Moody's / S&P / Fitch)	Issuance Date
EnfraGen Energia Sur SAU / EnfraGen Spain SAU / Prime Energia SpA	Chile, Colombia, Panama	Power	Power	USD	710	5.375%	10.0	10.0	Ba3 / BBB- / --	Dec-20
UEP Penonome II	Panama	Power	Wind, Solar	USD	263	6.500%	18.0	--	Ba3 / -- / --	Dec-20
Linhas de Taubate Energy Transmission Line	Brazil	Power	Transmission	BRL	77	--	--	--		Nov-20
FEL Energy VI S.à r.l.	Mexico	Power	CCGT	USD	953	5.750%	20.0	14.6	Baa3 / BBB- / BBB-	Nov-20
ENA Master Trust	Panama	Infrastructure	Tollway	USD	400	4.000%	28.0	19.0	Baa1 / BBB+ / BBB+	Nov-20
Solaria Energia y Medio Ambiente	Uruguay	Power	Solar	USD	30		20.0	--	-- / BBB / --	Nov-20
Usina Termelétrica Pampa Sul S.A.	Brazil	Power	Coal	BRL	88	7.250%	16.0	--	AAA (local)	Sep-20
Usina Termelétrica Pampa Sul S.A.	Brazil	Power	Coal	BRL	86	6.250%	8.0	--	AAA (local)	Sep-20
Porto Primavera Hydro	Brazil	Power	Hydro	BRL	270	--	--	--	--	Aug-20
Águas Cuiabá and Paranaguá Saneamento	Brazil	Infrastructure	Sanitation	BRL	169	--	10.0	--	--	Aug-20
TME Transmission Lines Lot E	Brazil	Power	Transmission	BRL	37	--	2.0	--	--	May-20
Guaimbe and Ouroeste Solar	Brazil	Power	Solar	BRL	227	--	10.0	--	--	May-20
Folha Larga 1 Wind Farm	Brazil	Power	Wind	BRL	27	0.520%	1.4	--	--	Apr-20
Ruta del Algarrobo	Chile	Infrastructure	Highway	UF	324	3.000%	25.0	13.0	A+ (local)	Mar-20
Dracena Solar PV Plants	Brazil	Power	Solar	BRL	75	--	17.0	--	--	Mar-20
Atlas Chilean Solar Portfolio	Chile	Power	Solar	USD	253	--	17.0	10.0	-- / -- / BBB-	Mar-20
Transmissora de Energia Linha Verde II SA	Brazil	Power	Transmission	BRL	45	--	24.0	--	AA+(bra)	Mar-20
Janauba Transmissora de Energia Eletrica	Brazil	Power	Transmission	BRL	132	4.830%	25.0	--	--	Feb-20
TransJamaica Highway Ltd	Jamaica	Infrastructure	Tollway	USD	225	5.750%	16.0	10.7	-- / B+ / BB-	Feb-20
CRC Transmision SpA	Chile	Power	Transmission	USD	365	--	30.0	--	--	Jan-20
KST Electric Power Company SAPI de CV	Mexico	Power	CCGT	USD	250	3.300%	18.0	10.0	NR	Dec-19
KST Electric Power Company SAPI de CV	Mexico	Power	CCGT	USD	151	5.700%	18.0	10.0	NR	Dec-19
Line One Peru Metro Expansion Company Limited	Peru	Infrastructure	Subway	USD	72	3.483%	13.9	--	--	Dec-19
TAG Norte Holdings, S de RL de CV	Mexico	Natural Resources	Gas Pipeline	USD	332	5.040%	20.0	14.0	Private	Dec-19

Select Latin America Project Bond Issuances (Continued)

(2018 – 2021)

Project	Country	Sector	Asset Type	Currency	Size (USD-equiv. MM)	Coupon	Tenor (Years)	WAL (Years)	Credit Ratings (Moody's / S&P / Fitch)	Issuance Date
Parque Eolico Kiyu SA	Uruguay	Power	Wind	USD	88	4.860%	23.0	14.0	-- / BBB- / --	Dec-19
Celeo Redes	Chile	Power	Transmission	USD	365	5.150%	30.0	--	IG	Dec-19
Braskem Idesa	Mexico	Natural Resources	Petrochemical	USD	900	7.500%	10.0	--	-- / BB- / BB	Dec-19
AES Mexico Generation Holdings	Mexico	Power	Other	USD	280	5.620%	--	--	--	Nov-19
Ventos do Sul	Brazil	Power	Wind	BRL	80	--	--	--	AAA(bra)	Nov-19
Empresa Electrica Cochrane	Chile	Power	Coal	USD	450	5.500%	7.5	4.3	Ba1 / -- / BBB-	Oct-19
Prumo Participacoes e Investimentos (Prumopar)	Brazil	Infrastructure	Port	USD	350	7.500%	12.0		-- / -- / BB	Oct-19
Rutas 2 and 7 Finance PPP	Paraguay	Infrastructure	Tollway	USD	290	5.000%	16.0	9.7	Ba1 / BB / BB+	Oct-19
El Dorado International Airport	Columbia	Infrastructure	Airport	USD	415	4.090%	6.4	--	-- / -- / BBB	Aug-19
MV24 Capital B.V.	Brazil	Natural Resources	Oil & Gas	USD	1100	6.748%	14.8	--	-- / BB / BB	Aug-19
EDP Transmissão SP-MG	Brazil	Power	Transmission	BRL	213	IPCA + 4.45%	20.0	--	AA+(bra)	Aug-19
Lima Subway Line 2	Peru	Infrastructure	Metro	USD	563	4.350%	17.0	--	Baa1 / BBB / BBB	Aug-19
Ergon Peru S.A.C.	Peru	Power	Solar	USD	222	4.870%	15.0	--	0	Jul-19
Tropicalia Transmissora de Energia S.A.	Brazil	Power	Transmission	BRL	109	IPCA + 5.09%	25.0	--	Ba1 / -- / --	Jul-19
Red de Carreteras de Occidente ("RCO")	Mexico	Infrastructure	Tollway	MXN	365	6.000%	21.0	--	-- / BBB+ / BBB	Jun-19
Red de Carreteras de Occidente ("RCO")	Mexico	Infrastructure	Tollway	MXN	146	9.670%	19.0	--	-- / BBB+ / BBB	Jun-19
La Bufa Wind	Mexico	Power	Wind	USD	225	5.770%	18.0	12.0	--	May-19
Equatorial Energia's Brazillian Tranmission Line Portfolio	Brazil	Power	Transmission	BRL	96	--	20.0	--	--	May-19
Corredor Bioceanico Highway	Paraguay	Infrastructure	Tollway	USD	732	5.375%	15.0	9.0	Ba1 / BB / --	May-19
Summit LDC Holdings US Pipeline Portfolio Refinancing	Brazil	Power	Wind	BRL	26	--	11.0	--	--	May-19
Sao Paulo and Parana Transmission Lines	Brazil	Power	Transmission	BRL	54	--	11.5	--	--	Apr-19
Rodovias do Tiete Toll Road Refurbishment PPP	Brazil	Infrastructure	Tollway	BRL	27	--	12.0	--	--	Mar-19
Mariscal Sucre International Airport in Quito	Ecuador	Infrastructure	Airport	USD	400	12.000%	14.0	10.7	B2 / -- / --	Mar-19
Line 1 Peru Metro Expansion Company Ltd	Peru	Infrastructure	Metro	USD	156	4.737%	14.0	7.8	NAIC-2 (BBB)	Mar-19

Select Latin America Project Bond Issuances (Continued)

(2018 – 2021)

Project	Country	Sector	Asset Type	Currency	Size (USD-equiv. MM)	Coupon	Tenor (Years)	WAL (Years)	Credit Ratings (Moody's / S&P / Fitch)	Issuance Date
Line 1 Peru Metro Expansion Company Ltd	Peru	Infrastructure	Metro	USD	117	4.373%	14.0	7.8	NAIC-2 (BBB)	Mar-19
Tropicalia Transmission Line	Brazil	Power	Transmission	BRL	24	--	15.0	--	--	Feb-19
Equatorial Transmissora 3	Brazil	Power	Transmission	BRL	12	IPCA+4.65%	15.0	--	--	Feb-19
Equatorial Transmissora 2	Brazil	Power	Transmission	BRL	12	IPCA+4.85%	14.0	--	--	Feb-19
Equatorial Transmissora 1	Brazil	Power	Transmission	BRL	12	IPCA+4.85%	14.0	--	--	Feb-19
Vila do Conde Transmissora de Energia (VCTE) and LT Triângulo (LTT) transmission projects	Brazil	Power	Transmission	BRL	150	CDI + 750bps	--	--	--	Jan-19
Concesionaria Vial Sierra Norte	Peru	Infrastructure	Tollway	USD	293	5.230%	15.0	9.0	NAIC-2	Dec-18
Concesionaria Vial Sierra Norte	Peru	Infrastructure	Tollway	USD	40	5.230%	17.0	9.0	NAIC-2	Dec-18
MSU Energy CCGT plants	Argentina	Power	CCGT	USD	250	L + 1125bps	5.0	--	--	Dec-18
Parnaiba II Thermoelectric Power Plant	Brazil	Power	CCGT	BRL	178	DI index + 250bps	7.0	--	--	Dec-18
Parque Eólicos Tres Hermanas & Marcona	Peru	Power	Wind	USD	250	5.590%	18.3	10.3	-- / -- / BBB-	Nov-18
Parnaiba I	Brazil	Power	Thermal	BRL	146	DI index + 250bps	7.0	--	brAA- (Fitch)	Nov-18
Parnaiba I	Brazil	Power	Thermal	BRL	84	IPCA + 7,223%	7.0	--	brAA- (Fitch)	Nov-18
Paranatinga - Canarana Transmission Line	Brazil	Power	Transmission	BRL	16	--	--	--	--	Oct-18
Santa Catarina Transmission Line	Brazil	Power	Transmission	BRL	329	IPCA + 6,720%	10.0	--	brAA (Fitch)	Oct-18
Transmissora Paraiso de Energia SA	Brazil	Power	Transmission	BRL	287	IPCA + 653bps	10.0	--	brAAA (Fitch)	Sep-18
Sobral I Solar	Brazil	Power	Solar	BRL	37	NTN-B + 195bps	15.0	--	brAAA (Fitch)	Sep-18
Sertão I Solar	Brazil	Power	Solar	BRL	35	NTN-B + 120bps	14.3	--	brAAA (Fitch)	Sep-18
Energia del Valle de Mexico II (EVMII)	Mexico	Power	CCGT	USD	469	6.020%	22.3	17.0	BBB-	Sep-18
Cajamarca Transmission Line	Peru	Power	Transmission	USD	100	5.620%	29.0	19.0	-- / BBB- / --	Sep-18
Pirapora I PV Solar Plant	Brazil	Power	Solar	BRL	60	IPCA + 5,766%	16.0	--	brA+ (Fitch)	Aug-18
Naranjal/Litoral	Uruguay	Power	Solar	USD	98	5.750%	24.0	15.3	Baa3 / -- / --	Jun-18
Naranjal/Litoral	Uruguay	Power	Solar	USD	11	6.750%	15.0	9.4	Ba2 / -- / --	Jun-18
El Encino (Fermaca Pipeline El Encino, S. De R.L. De C.V.)	Mexico	Natural Resources	Pipeline	USD	450	5.465%	23.0	18.0	BBB- (Kroll)	Jun-18

Select Latin America Project Bond Issuances (Continued)

(2018 – 2021)

Project	Country	Sector	Asset Type	Currency	Size (USD-equiv. MM)	Coupon	Tenor (Years)	WAL (Years)	Credit Ratings (Moody's / S&P / Fitch)	Issuance Date
Hunt Oil Company of Peru	Peru	Natural Resources	Oil	USD	600	6.375%	10.0	8.1	Ba1/BBB	May-18
Aeropuerto Internacional de Tocumen, S.A.	Panama	Infrastructure	Airport	USD	225	6.000%	30.0	--	-- / -- / BBB	May-18
Mulungu do Moro Wind Portfolio	Brazil	Power	Wind	BRL	29	--	--	--	--	May-18
Cometa Energia S.A. De C.V. (Saavi Energia)	Mexico	Power	Gas and Wind portfolio	USD	860	6.375%	17.0	--	Baa3 / -- / --	May-18
Sergipe LNG-to-power Project	Brazil	Natural Resources	Power	BRL	832	9.775%	14.0	9.0	brAAA (Fitch)	May-18
Developer Centrais Elétricas de Sergipe (Celse)	Brazil	Power	LNG Terminal	BRL	977	9.850%	14.0	--	Private	Apr-18
MSU Energy	Argentina	Power	Natural Gas	USD	600	6.875%	7.0	--	B3 / B / --	Apr-18
Mesa La Paz Wind Farm	Mexico	Power	Wind	USD	304	5.900 to 6.000%	26.0	15.0	Baa3 / BBB / --	Apr-18
Santa Vitoria do Palmar Wind	Brazil	Power	Wind	BRL	31	IPCA + 5,955%	13.5	--	AAA (Fitch Local)	Mar-18
Genrent Iquitos Thermal Power Plant	Peru	Power	Thermal	USD	107	5.880%	19.0	--	--	Feb-18
Concessionária ViaRio S.A.	Brazil	Infrastructure	Tollway	BRL	191	DI index + 290bps	10.0	--	brA- (Fitch)	Feb-18
La Jacinta Solar Farm Finance	Uruguay	Power	Solar	USD	65	--	24.5	14.5	Baa3 / -- / --	Jan-18
Eletrans SA	Chile	Power	Transmission	USD	180	4.060%	20.0	12.0	-- / A- / --	Jan-18

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