FOREIGN EXCHANGE RISK MITIGATION STRATEGIES

BENCHMARKING STUDIES REPORT

May 19, 2021

Disclaimer: The findings, interpretations, and conclusions expressed in this report do not necessarily reflect the views of the Brazilian Ministry of Economy. The Brazilian Ministry of Economy does not guarantee the accuracy of the data included in this work.
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A. DEFINITIONS

"ABGF" means the Brazilian Agency for Management of Guarantee Funds and Guarantees;
"ADB" means the Asian Development Bank;
"AK" means the Pro-Islamic Justice and Development Party in Turkey;
"ANBIMA" means the Brazilian National Association of Financial and Capital Market Entities.
"ANI" means Agencia Nacional de Infraestructura;
"APSEB" means Andhra Pradesh State Electricity Board;
"BEEPS" means the Business Environment and Enterprise Performance Survey;
"BI Reg 17" means the Bank Indonesia Regulation No. 17/3/PBI/2015;
"BNDES" means the Brazilian National Bank for Economic and Social Development;
"BPP" means the state-owned utility company’s average electricity generation cost;
"Brazilian Civil Code" means Law 10,406, of 2002;
"BRICS" means the economic group composed by Brazil, Russia, India, China and South Africa;
"CAF" means Corporación Andina de Fomento, the Development Bank of Latin America;
"Operation Car Wash" means Operation Car Wash (Operação Lava Jato), an investigation conducted by the Federal Police in Brazil, in respect of corruption and money laundering schemes;
"CBD" means a certificate of bank deposit (Certificado de Depósito Bancário);
"CBEE" means Companhia Brasileira de Energia Emergencial;
"CBRT" means the Central Bank of the Republic of Turkey;
"CDI" means Certificado de Depósito Interbancário;
"Coface" means Compagnie Française d'Assurance pour le Commerce Extérieur;
"COFINS" means Social Security Contributions;
"CRPAO" means Certificado de Reconocimiento de Derechos del Pago Anual por Obras;
"Decree n. 32" means Decree n. 32 on the Protection of the Value of Turkish Currency;
"DFI" means development finance institution;
"DNDE" means domestic non-deliverable forward;
"DOC" means the Department of Commerce;
"DPIIT" means the Department for Promotion of Industry and Internal Trade;
"E&P" means Exploration and Production;
"E&Y" means Ernst & Young Global Limited;
"ECA" means export credit agency;
"ECB" means External Commercial Borrowing;
"EDC" means Export Development Canada;
"EKF" means Denmark's Export Credit Agency;
"Eletrobras" means the electric utilities company in Brazil;
"Eskom" means Eskom South Africa, a South African state-owned company;
"EUR" means Euro, the currency of the members of the European Union;
"FARC" means the Revolutionary Armed Forces of Colombia;
"FDI" means Foreign Direct Investment;
"FDN" means Financiera de Desarrollo Nacional;
"FDNE" means the Northeast Development Fund;
"FEDAI" means Foreign Exchange Dealers’ Association of India;
"FEM" means Formal Exchange Market;
"FEMA" means the Foreign Exchange Management Act 1999, as amended;
"FNE" means Fundo Constitucional de Financiamento do Nordeste;
"FU" means Functional Units;
"FX risks" or "Forex Risk" means foreign exchange risks;
"FX" means foreign exchange;
"GARCH" means Generalized Autoregressive Conditional Heteroskedasticity;
"GASBOL" means the Bolívia-Brazil pipeline;
"GDP" means Gross Domestic Product of the country;
"GI Hub" means Global Infrastructure Hub;
"GOC" means the Government of Chile;
"GOI" means the Government of India;
"GOP" means the Government of Peru;
"IBEF" means the India Brand Equity Foundation;
"IBRD" means the International Bank for Reconstruction and Development;
"IDB" means the Inter-American Development Bank;
"IDFI" means Indian Development Financial Institutions;
"IDR" means the Indonesian Rupiah, the Indonesian currency;
"IFC" means the International Finance Corporation;
"IGPM" means Índice Geral de Preços – Mercado, a Brazilian general index for Market forces;
"IIF" means the Indonesia Infrastructure Finance;
"IIGF" means Penjaminan & Infrastruktur Guarantee and Infrastructure – PT PII, the Indonesian Infrastructure Guarantee Fund;
"IIPS" means the Infrastructure Investment Programme for South Africa;
"Infraero" means Empresa Brasileira de Infraestrutura Aeroportuária;
"IPCA" means Índice Nacional de Preços ao Consumidor Amplo, a consumer price index;
"IPP Projects" means Independent Power Producer projects;
"JBIC" means the Japan Bank of International Cooperation;
"JEXIM" means the Export-Import Bank of Japan;
"JISDOR" means the Jakarta Interbank Spot Dollar Rate;
"JIPP Project" means Jegurupadu Independent Power Producers Project;
"KfW" means KfW IPEX-Bank, Bank aus Verantwortung;
"LNG" means liquefied natural gas;
"LRN" means Loan Registration Number;
"MDB" means Multilateral Development Bank;
"MCI" means the Ministry of Commerce and Industry;
"MFI" means microfinance institution;
"MoEMR" means the Ministry of Energy and Mineral Resources;
"MOF" means the Ministry of Finance;
"MPC" means Monetary Policy Committee;
"NDB" means the New Development Bank;
"NDF" means non-deliverable forward;
"NDI" means Non-debt Instruments Rules;
"OTC" means Over-The-Counter Market;
"PBI 15/8" means the Bank Indonesia’s Regulation No. 15/8/PBI/2013;
"Petrobras" means Petróleo Brasileiro S.A.;
"PFMA" means the Public Finance Management Act, 1999;
"PIS" means Social Integration Program;
"PPA" means Power-Purchase Agreement;
"PPP" means Public Private Partnership;
"Project" has the meaning ascribed to it in Section B;
"PT-PLN" means Perusahaan Listrik Negara, a state-owned Indonesian utility company;
"RBI" means the Reserve Bank of India;
"Real" means the Brazilian currency;
"REC" means Rural Electrification Corporation Limited;
"RPI-CAO" means Retribuciones por Inversiones según Certificado de Avance de Obras;
"SACE" means Servizi Assicurativi e Finanziari del Commercio Estero;
"SADC" means the South African Development Community;
"SARB" means the South African Reserve Bank;
"Selic" means Sistema Especial de Liquidação e Custódia, the basic interest rate of the Brazilian economy;
"SERV" means Swiss Export Risk Insurance;
"Sol" means the Peruvian currency;
"SPV" means Special Purpose Vehicle;
"States" means Andhra Pradesh, Assam, Arunachal Pradesh, Bihar, Chhattisgarh, Goa, Gujarat, Haryana, Himachal Pradesh, Jharkhand, Karnataka, Kerala, Madhya Pradesh, Maharashtra, Manipur, Meghalaya, Mizoram, Nagaland, Odisha, Punjab, Rajasthan, Sikkim, Tamil Nadu, Telangana, Tripura, Uttarakhand, Uttar Pradesh and West Bengal;
"STF" means the Brazilian Supreme Court;
"STJ" means the Superior Court of Justice;
"Treasury" means the Turkish Directorate of Banking and Exchange of the Undersecretariat of Treasury General;
"UF" means Unidad de Fomento;
"UKEF" means UK Export Finance;
"Union Territories" means Andaman and Nicobar Islands, Chandigarh, Dadra and Nagar Haveli and Daman and Diu, National Capital Territory of Delhi, Jammu and Kashmir, Lakshadweep, Ladakh and Puducherry;
"VAT" means Value-Added Tax;
"V-Lab" means Volatility Laboratory;
"ZAR" means the South African currency.
Machado, Meyer, Sendacz e Opice Advogados ("Machado Meyer") has been retained as local legal advisor to the Global Infrastructure Hub ("GI Hub"), in connection with the development of a benchmark study on foreign exchange risk mitigation mechanisms within infrastructure transactions (public-private partnerships ("PPP") or concession regime, with private finance component) in certain Latin America countries and other selected jurisdictions (the "Project").

GI Hub is a not-for-profit organization dedicated to promoting best practices within G-20 countries and other relevant jurisdictions, pursuant to an ambitious agenda on sustainable, resilient and inclusive infrastructure by means of action-oriented programs.

As part of this mandate and a formal agreement with the Brazilian Federal Government, GI Hub set out a Country Program in Brazil to accelerate the development of its infrastructure markets by building capability of practitioners to improve infrastructure policy, planning and delivery. Particularly, it is envisaged that the GI Hub will deliver a report to the Brazilian Federal Government that benchmarks global leading experiences and instruments that address foreign currency exchange risks in infrastructure transactions.

Infrastructure projects are capital-intensive and must often rely on foreign equity and cross-border financing. However, it should be highlighted that most projects in emerging countries generate revenue in local currency (usually escalated by local inflation).

The mismatch between the revenues generated (in local currency) and the debt service (in foreign currency) represents a major risk to lenders. Although there can be some long-term correlation between local inflation indexes and exchange rates, short-term fluctuation may adversely impact the ability of these projects to serve cross-border debt or meet other obligations in foreign currency.
Absent a reliable mechanism to properly mitigate such risk, relevant sources of potentially cheap funding are not accessible to projects implemented especially in developing countries. Therefore, a deep assessment of the foreign currency exchange risk (simply referred hereto as the “FX Risk”) and the construction of innovative mitigatory solutions is paramount to amplify the offer of long-term credit facilities to finance such infrastructure projects.

The aforementioned issue is rather relevant in the Brazilian market, but it is also verified in several other jurisdictions around the globe. In this context, it becomes especially sensitive to comprehend how comparable jurisdictions have handled the FX Risk, especially those countries that successfully managed to obtain adequate cross-border project financing. Instead of a simple legal transplantation exercise, a comparative approach to jurisdictions that face similar problems builds the path for innovative solutions and identification of problems faced by other countries.

The Peruvian and Colombian governments, for instance, have shown the greatest capacity of implementing sustainable PPPs in Latin America, according to the last Infrascope Index (2019)\(^1\). The index was developed by The Economist Intelligence Unit, is commissioned by the Inter-American Development Bank (“IDB”) and is a benchmark tool that evaluates the capacity of countries to implement sustainable and efficient PPPs in key infrastructure sectors, mainly transport, electricity, water and solid waste management.

This certainly stems from several risk mitigation solutions, including in regard to foreign exchange risk. As further demonstrated in the next sections of this report, such countries, for instance, have innovated in that respect by allowing dollar indexation of the concessionaire’s irrevocable credit rights which are recognized by the government upon delivery of each completed construction and investment phase. The dollar indexed credits may, then, be directed to securitization in the international capital market (mainly 144-A and Reg S), which allows the concessionaire to access broader availability and liquidity of funds, at rates usually much lower than the local interest rates. Various other Latin American countries have followed a similar approach.

Governments benefit from a broader variety of revenues (some even directly related to the exchange rate, such as importation taxes) and always act in the condition of final beneficiary of all such infrastructure projects (due to the return, at the end of the concession/PPP, of all project assets which are relevant for the provision of the public services), therefore, it is only natural that, when unavoidable, the foreign exchange risk

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be more frequently allocated to the Government, rather than to concessionaires (the revenues of which depend exclusively on the project) or their lenders (which are not entitled to the project’s upsides or residual interests).

For the purposes mentioned above, the scope of works performed by Our Firm comprised supporting GI Hub with the preparation of the reports to be addressed to the Brazilian Federal Government, with a focus on the following 3 tasks:

- Undertaking a benchmarking exercise to understand different approaches to attract hedge counterparts to project finance transactions;
- Undertaking a benchmarking of different practices (especially contractual mechanisms) from across the globe on providing long-term hedging and mitigating the risk for infrastructure investments; and
- Collecting 15 detailed case studies which best highlight the findings from the benchmarking exercises above.

As an advisor retained to support GI Hub on the preparation of a report, based on the tasks just listed, we were expected to contribute with structured responses to the following questions:

- Which instruments governments, Development Finance Institutions ("DFIs"), Multilateral Development Banks ("MDB") and other relevant stakeholders are using to mitigate currency risks in infrastructure transactions (contractual clauses and mechanisms)?
- How have central governments with a volatile domestic currency environment been supporting project developers seeking long-term, project-specific investment, mitigating currency risk for potential infrastructure investors?

The overall purpose of the assignment is to:

- Demonstrate the extent to which countries are using hedging instruments and mechanisms to boost foreign infrastructure investments;
- Provide details of how these instruments work and how they are being implemented in infrastructure transactions;
- Raise awareness of innovative approaches to mitigate currency risks in funding and financing infrastructure; and
• Raise awareness of the implications these approaches can have on economic indicators, fiscal debt and infrastructure investments.

At the request of GI Hub, the benchmark analyses covered the following countries:

- Brazil
- Colombia
- Chile
- Argentina
- Peru
- Mexico
- Turkey
- South Africa
- Indonesia
- India

Following a thorough review of the selected jurisdictions, Our Firm, jointly with GI Hub, has also identified 37 case studies in those jurisdictions (Exhibit A) which we considered as innovative. Among such cases, we selected the 15 most relevant ones in terms of solutions for mitigation of FX risk.

Having provided an overview of the scope of works and ultimate goals, the specific purpose of this report is to summarize the main findings following the research of the selected jurisdictions.

The reports and analysis provided herein are the result of the work performed in accordance with the methodology described in the next section hereof. The elaboration of the questionnaires, researches, interviews with stakeholders, collection of information, and drafting of the reports was an intense work of which Our Team is proud.

José Virgilio Lopes Enei
Larissa Santiago Gebrim
Lucas Radesca Alvares Scaff

Coordinators

Amanda Silva Franco de Barros
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Isabella Caroline Cristino
João Demétrio Calfat Neto
Pedro Perez Junqueira Sampaio Meirelles

Researchers
C. METHODOLOGY AND ACKNOWLEDGMENTS

Since the kick-off meeting with representatives of the Brazilian Federal Government, our team has been fully engaged in the identification of different practices (especially contractual mechanisms) from across the 10 selected jurisdictions, with a special focus on the long-term hedging and general strategies for mitigation of risks and attraction of private investment for infrastructure.

In order to ensure global coverage from reliable sources, we have structured a methodology, which prioritizes, aside from general bibliographical research in public sources, the realization of interviews with stakeholders with multiple backgrounds and expertise. This strategy was necessary to avoid a potential bias and allow for a cross-check of the information previously collected in preparation for such interviews. For this reason, for each selected jurisdiction the main goal was to have interviews at least with one stakeholder from the private sector and one representative of the public sector.

Further, such methodology was considered as consistent by both Our Firm and GI Hub in light of the general timeline agreed with the Brazilian Federal Government for the completion of the works (a total of 60 days for completion of all items of the agreed scope of work). We are, thus, aware that the findings contemplated in this Report may be complemented by further research and further interactions with key stakeholders.

Following the kick-off of the works, our team has prepared a questionnaire contemplating questions with an increasing level of complexity, starting with very basic questions on foreign exchange regulation and controls and arrangements for the implementation of capital-intensive infrastructure projects, and ending with more specific queries focused on identifying the main mechanisms adopted in the jurisdiction in reference for mitigation of the FX risk.

In order to ensure consistency and facilitate the processing and critical assessment of the findings, our team has been organized into working groups. For each pair of selected jurisdictions, a working group was assigned, which was considered as a focus point for the bibliographical research.

Under the direction of the coordination team, the working groups advanced the research of publicly available information, guided by the questionnaire. Weekly internal calls were held to verify the status of the works, main challenges in the compilation of information and to make possible the exchange of first impressions and points of attention.

In parallel, the coordination team, with the support of the GI Hub, mapped out stakeholders and scheduled conference calls. Prior to the conference calls, aside from providing a broad overview of the scope of the works being conducted by Machado Meyer
and GI Hub, we also shared the questionnaire prepared by our team to guide the discussions. Some of the stakeholders which collaborated to the preparation of this product have also provided responses in writing to the questionnaire, including suggestions of reliable sources and indicating specific local normative instruments to support a certain question.

We have also had weekly steering calls with the GI Hub team to share insights, opinions, identify challenges ahead, review points discussed during the interviews, analyze the weekly progress, align the products and exchange contacts.

From commencement of the works until the date hereof, we have held 26 meetings (conference calls) with 23 different stakeholders, totaling approximately 34 hours of meetings, as summarized in the table below:

<table>
<thead>
<tr>
<th>26 Meetings</th>
<th>23 Stakeholders</th>
<th>34 Hours (approximately)</th>
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<tbody>
<tr>
<td><strong>MDB</strong></td>
<td><strong>IFC</strong></td>
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<td></td>
<td>Diogo Falchano Bardal</td>
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<td>IFC</td>
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<td></td>
<td>Tomas Anker</td>
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<td></td>
<td>Fernando Camacho</td>
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<td></td>
<td>Maria Virginia Nabuco</td>
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<td></td>
<td><strong>IFC</strong></td>
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<td></td>
<td>Guy-Robert Duval</td>
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<td></td>
<td>Janne Sevanto</td>
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<td></td>
<td><strong>IDB</strong></td>
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<td></td>
<td>Luciano Schweizer</td>
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<td></td>
<td><strong>IDB</strong></td>
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<td></td>
<td>Luciano Schweizer</td>
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<td></td>
<td>Joan Prats</td>
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<td><strong>CAF</strong></td>
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<td>Tiago Cripa</td>
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<td></td>
<td>Nicolas Mendioroz</td>
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<td></td>
<td>Diego Bein</td>
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<tr>
<td></td>
<td><strong>World Bank - Capital Markets &amp; Investments, Treasury</strong></td>
<td></td>
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<tr>
<td></td>
<td>Steen Byskov</td>
<td></td>
</tr>
</tbody>
</table>

Table 1. Meetings Conducted by Machado Meyer
<table>
<thead>
<tr>
<th>Country</th>
<th>Contact Details</th>
</tr>
</thead>
<tbody>
<tr>
<td>Brazil</td>
<td><strong>Infrastructure Ministry</strong>&lt;br&gt;Infrastructure Minister Tarcísio Gomes de Freitas and his sector specific secretaries (during Infrastructure Week in São Paulo, covering other topics as well) &lt;br&gt;<strong>BNDES</strong>&lt;br&gt;Gabriel Ervilha&lt;br&gt;Rafael Feler&lt;br&gt;Thiago Pereira&lt;br&gt;Carolina Amaral&lt;br&gt;Luciene Machado&lt;br&gt;<strong>Santander</strong>&lt;br&gt;Edson Ogawa&lt;br&gt;Rafael Cunha&lt;br&gt;Rodrigo Neves</td>
</tr>
<tr>
<td>Argentina</td>
<td><strong>Tavarone, Rovelli, Salim &amp; Miani Abogados</strong>&lt;br&gt;Francisco Molina Portela&lt;br&gt;Juan Pedro Pascucci&lt;br&gt;<strong>Especialista en PPP y proyectos de inversión publica</strong>&lt;br&gt;Pedro Di Lella</td>
</tr>
<tr>
<td>Colombia</td>
<td><strong>Philippi Prietocarrizosa Ferrero DU &amp; Uria</strong>&lt;br&gt;Alejandro Medina&lt;br&gt;Felipe Arango&lt;br&gt;Rebeca Herrera</td>
</tr>
<tr>
<td>Chile</td>
<td><strong>Consejo Politicas Infraestructura</strong>&lt;br&gt;Carlos Cruz Lorenzen&lt;br&gt;<strong>Philippi Prietocarrizosa Ferrero DU &amp; Uria</strong>&lt;br&gt;Mario Fava&lt;br&gt;Daniel Parodi</td>
</tr>
<tr>
<td>India</td>
<td><strong>Trilegal</strong>&lt;br&gt;Ameya Khandge&lt;br&gt;Kannan Rahul&lt;br&gt;<strong>Invest India</strong>&lt;br&gt;Rahul Agarwal&lt;br&gt;Ayush Saxena</td>
</tr>
<tr>
<td>Indonesia</td>
<td><strong>Ginting &amp; Reksodiputro in association with Allen and Overy</strong>&lt;br&gt;Ferhat Afkar&lt;br&gt;Nitra Anggi Nuremira&lt;br&gt;Millia Hernoto&lt;br&gt;<strong>Indonesia Infrastructure Finance</strong>&lt;br&gt;Schrzo Wahid Naiborhu&lt;br&gt;Irman Boyle&lt;br&gt;Bayu Wirawan</td>
</tr>
<tr>
<td>Mexico</td>
<td><strong>Nader, Hayaux &amp; Goebel</strong>&lt;br&gt;Adrián Mendez S.</td>
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</table>

Interactions in writing based on the questionnaire.
We would like to expressly state our appreciation on the availability, information provided, review of the questionnaires and reports, exchange of thoughts on countries cultures, infrastructure development, historical aspects and, most importantly, the concern with the infrastructure development and interest in learning about other countries practices that all the interviewed individuals have shown.

Jointly with our thankfulness to the individuals, we would like to express our gratitude to Tavarone, Rovelli, Salim & Miani Abogados, Philippi Prietocarrizosa Ferrero DU & Uria, Trilegal, Ginting & Reksodiputro in association with Allen and Overy, L. Bittar Partners – International Business Consultancy and Nader, Hayaux & Goebel, for having designated such an exceptional group of partners and associates to assist us in the local legal aspects in each jurisdiction.

With the support of the international network mentioned above, prior experience from GI Hub and Our Firm, our independent research and interactions with local firms, we are confident that the information collected and reported herein will serve as an important guidance for the assessment and interpretation of multiple initiatives for the mitigation of the FX Risk.
D. EXECUTIVE SUMMARY

I – BACKGROUND

**Infrastructure Bottlenecks**

All the 10 emerging countries covered in our Benchmark Report have relevant bottlenecks in their infrastructure and face strong pressure to improve such infrastructure in order to carry on exports of their commodities more efficiently, to serve the increasing social and urban needs of their population and to improve general standards of living.

Among those countries, Chile could be considered in a more comfortable situation. With a population of less than 20 million inhabitants and the highest sovereign credit rating in Latin America, it has benefited from a long period of economic stability, during which it managed to upgrade its overall infrastructure (its modern toll road system being a good example) to very good levels as compared to other emerging economies. Nonetheless, even Chile is not yet at the same level as developed economies.

**COVID Pandemic**

Since 2020, COVID Pandemic has also put more pressure in the economy of all these emerging countries. In all cases, investment in infrastructure has been seen as a strategic opportunity to accelerate recovery.

**Role of Private Investment**

All these countries recognize the need to attract private investment into infrastructure, under PPP type of arrangements. According to our findings, Indonesia and South Africa seem to be the economies that, until more recently, continued to rely predominantly on the public sector to develop their infrastructure. But even those jurisdictions have already reserved a strong role for the private sector for many years now.

**Domestic vs. Foreign Investment**

With limited exceptions (such as sectors in which foreign investment is not yet admitted by certain countries), private investment in infrastructure may come from local or international equity investors, just like financing may come from domestic or cross-border sources, in any case usually structured as project financing. In all these economies, non-recourse project finance is a rare achievement. Such project financing is usually accomplished on a limited or sometimes full-recourse basis.
Domestic Long-Term Project Financing Capacity

Pursuant to our findings, some Countries seem to have little capacity to finance long-term infrastructure investments domestically, in local currency. For instance, the majority of large infrastructure projects in Turkey are financed in foreign currency. In Latin America, local banking and capital markets in Peru and Colombia seem to cope well with small and medium size projects, but not with the larger and more challenging ones, which seem to require, at least for a relevant part of overall funding, long-term cross-border financing in foreign currency. Due to Argentina recurrent economic crisis, Argentinean developers also struggle to find local long-term project financing for their infrastructure projects.

On the other hands, India, South Africa and Indonesia manage to have their projects financed predominantly in local currency.

The reality in Brazil, Mexico and Chile seem to be in between the two groups above.

Local Currency Project Bonds in International Markets

India and Indonesia have also succeeded with issuances of long-term project bonds in international markets, governed by foreign law, but denominates in their local currency. These bonds are known as Masala Bonds and Komodo Bonds, respectively.

The only example of long-term project bonds issued into international markets by an infrastructure project in Brazil was the case of Celse LNG Powerplant, which was structured in two steps: a local issuance of infrastructure debentures under Brazilian law, fully subscribed by an offshore vehicle, which then issued notes governed by New York law, backed up and secured by the debentures, in the international market.

Colombia had a notable precedent as well, in its Pacífico 3 Toll Road 4 Generation Concession. The multisource hybrid financing closed in 2016, included not only a USD 260 million project bond, the first ever overseas bond for a Colombian toll road, but also another bond issued overseas, which was denominated in local currency (COP 300 billion) and indexed to Colombian unit of reference (UVR), which incorporates the variation of local inflation.

Local Currency Cross-Border Loan Financing

The examples of cross-border loans in local currency are a little more disseminated. There have been a few examples of IFC and IDB loans in local currency in Brazil, such
as in the Celse deal. In any event, we identified similar examples in Chile, Mexico, India, Indonesia and South Africa.

II - FOREIGN CURRENCY FINANCING AND FX RISK

With exception to those sectors offering natural hedging (such as oil or mining projects), projects borrowing funds in foreign currency face foreign exchange mismatch risk in all those 10 emerging economies.

Aside from financing alternatives in local currency (including cross-border ones, as referred above), we have identified several other instruments and mechanisms to mitigate FX risk as follow:

Sectors Offering Natural Hedge

All countries have relevant mining and export activities, therefore benefiting from naturally hedged sectors, with a natural vocation to access cross-border financing in foreign currency. Chile is a good example of that. With a very open economy and a strong production of mineral and agricultural products for exports, Chile's foreign trade represents a very relevant portion of its gross product. Another good example is Mexico, which has a very strong trade relationship with the United States and Canada.

FX Hedging/ Derivatives

Private FX hedging instruments, such as currency swaps at over-the-counter (“OTC”) onshore or offshore markets, are available for all the 10 jurisdictions.

In many cases, however, the market for US Dollar (or other hard currency) – local currency FX derivatives is not very liquid or deep, and accordingly does not offer tenors beyond 3 to 5, or, for a few countries, 5 to 10 years. Based on feedback from interviews, and general press coverage, that seems to be the case in Argentina, Peru, Colombia, South Africa, Indonesia and Turkey.

Therefore, in those countries, these FX derivatives may only offer partial mitigation. At best, they would still retain roll over risk, i.e., the risk that, at the time those FX derivatives are about to expiry and need to be renewed, the market might not be there, or costs might have increased to levels which are no longer affordable.

The market seems a little deeper and more liquid for Mexico, Brazil, Chile and India.
In the case of Brazil, nonetheless, longer terms consistent with project financing needs for relevant infrastructure – such as 15 or 20 years – might be available, especially in the offshore OTC market, but costs are still unaffordable to most project companies in Brazil.

There are multiple reasons for such inefficient pricing, including credit risk of local counterparty. In project financed by multilaterals such as the IFC or the IDB, those AAA entities may have access to such long-term FX derivatives at much better conditions, and then pass-on the costs to project companies in Brazil.

BNDES, the Brazilian development bank, is studying a guarantee product for the specific purpose of covering the risk of a currency swap local counterparty credit risk, with the expectation that this could stimulate the market and bring down overall costs.

FX derivative market is much stronger for Mexican Pesos, considering the close trading relationship between Mexico and the United States. In addition to that, the Bank of Mexico has a bilateral currency swap line with the US Federal Reserve and a parallel agreement with the US Department of the Treasury\(^3\), as established under the North American Framework Agreement (NAFA).

In Indonesia, Bank Indonesia has been attempting to stimulate the FX derivative market for its local currency, by holding regular FX swap auctions in order to help banks manage their liquidity.

**Rebalancing of the Contractual Equilibrium**

All countries with a civil law tradition have the concept of the right of the concessionaire, whether spelled out explicitly in the concession agreement or not, to the rebalancing of the agreement or, in other words, the restoration of the original equilibrium between rights and remuneration, on one side, and costs and risks on the other.

However, unless FX risk is objectively allocated between the parties in the context of and grounded on such rebalancing right (as we have seen in a few projects in Brazil or Chile, for instance), such broad right does not seem to offer much mitigation and predictability in respect of FX risk, because it is always difficult, and subject to a time length procedure, to determine to which extent the depreciation of local currency is an

ordinary FX fluctuation, and when it could be qualified as an extraordinary and unforeseeable event, deserving such contractual remedy.

**Long-term Private Offtake Agreements Indexed to Hard Currency**

Virtually all the 10 countries covered in our research require, as a general rule of law, that contracts between domestic parties are denominated in local currency, and that payments are likewise effected in such local currency.

Nonetheless, all such countries seem to legally permit corporate parties to freely index their contractual obligations to a foreign currency. We have not found another example, like Brazil, where such indexation would be prohibited as a matter of law save for legal exceptions (as those set out in Article 2\textsuperscript{nd} of Brazilian Decree-Law 857/69).

Legal permission, however, does not mean that these foreign currency indexed offtake agreements are common practice everywhere. In general, as between private parties, these foreign currency indexed agreements would only be entered into by offtakers capable of absorbing such risks, such as those with a relevant portion of their revenues in foreign currency, as exporters.

Frequent examples of dollar indexed private agreements were found in Mexico, Chile, Peru and Turkey. PPAs are common examples of such long-term agreements suitable for foreign currency indexation.

**Long-term Offtake Agreements with State-Owned Companies Indexed to Hard Currency**

Many countries manage to mitigate FX risk by setting up state-owned companies to act as long-term offtakers of power generation, water supplies, subway services, etc., and having those SOEs indexing payments (in total or in part) in foreign currency.

Good examples of that are found in Indonesia (Perusahaan Listrik Negara (Persero) – PLN); Colombia (Empresa Metro de Bogota - EMB); India (AP Transco or Andhra Pradesh State Electricity Board) and Mexico (the Federal Electricity Commission). Contractual obligations of most of these companies, to the extent they are managed and operated as independent entities, are not within the budget of central government or relevant subnational entity, but we have not expanded our researches to identify the particular situation of each such state owned entity.

In Brazil, there are multiple examples of Petrobras entering into long-term (in total or in part) dollar indexed agreements (for gas transportation services, to name only a category of these contracts). In any event, those dollar indexed agreements entered
into by Petrobras seem to be a mere reflection of the international nature of the oil and gas industry, rather than a governmental policy towards mitigating FX risk for relevant infrastructure projects in Brazil. Indeed, similar long-term dollar indexed agreements are common practice in the Mexican PEMEX or Colombian Ecopetrol.

Nonetheless, as an example of government oriented policy, we can mention the Brazilian past experience (early 2000’s) with the emergency PPAs executed by Companhia Brasileira de Energia Emergencial – CBEE, the price of which could be partially indexed to the US dollar, in the proportion of costs in foreign currency assumed by the project company.

**Government Foreign Currency Indexed Payments under PPP-Type Structures**

PPP structures adopting either government payments or end-user tariffs are common practice in most of the 10 jurisdictions. In many of them, government payments based on availability, service levels or completion of works are indexed, in total or in part, to hard currency, so as to mitigate FX risk for the private concessionaire and especially for its project lenders.

We have found notable examples of that in Colombia (payments made by the National Infrastructure Agency - ANI); Peru (directly by the Government of Peru, such as in the CRPAOs or RPI-CAOs, although typically through a trust / fideicomiso, as in the case of Colombia); and Turkey (direct guarantees). In South Africa, we found limited examples, such as the Gautrain Rapid Rail Link PPP project, where the local authority, absorbed the FX risk during the construction phase for the portion of costs not subject to local content requirement, and the National Treasury provided hedge coverage, reducing the project overall cost.

**FX Risk Guaranteed by Governmental Funds**

As a variation of direct indexed payment commitments by the government, certain Countries have created funds to guarantee and/or make such commitments and payments, whether co-guaranteed by the government itself or not (or yet by a third-party guarantor, typically a multilateral or a development bank).

That is the case of Argentina (with the FODER - Fondo para el Desarrollo de Energías Renovables, co-guaranteed by the Government of Argentina and with an optional World Bank back-stop guarantee, all put in place for the Renovar Program) and Indonesia (with the Indonesian Infrastructure Guarantee Fund - IIGF, not generally designed to mitigate FX risk in particular, but which could be used to that purpose on a case-by-case assessment).
FX Risk Mitigated by Local Currency Financing Made Available by State Owned Companies

Another alternative for governments to secure FX risk mitigation for projects carried out under their PPP programs is not to index project revenues in foreign currency, but to ensure that those projects have access to local currency financing, even if offered by a state-owned financing or non-financing institution which, in turn, is the one raising foreign debt and handling FX risk.

India is the most notable example of such practice, as in the case of its Indian Development Financial Institutions or the Rural Electrification Corporation Limited – REC, among others. Another relevant example is that of Indonesia, with its Indonesia Infrastructure Finance – IIF, which was established in 2009 by the Government of Indonesia along with the World Bank, the Asian Development Bank and other multilateral institutions to provide infrastructure financing and advisory services for projects in Indonesia. In Mexico, it is also worth mentioning FONADIN – Mexican National Infrastructure Fund and BANOBRAS. BANOBRAS has served for many years as an intermediary, borrowing funds abroad and passing them on, in local currency, to subnational entities in Mexico. BANOBRAS would thus retain FX risk, but it would have access to special governmentally supported FX swap lines.

Development banks such as FDN and BNDES may also play such role of raising funds abroad, although most of their funding usually comes from local budgetary sources.

FX Risk Mitigated in the Context of Early Termination of Concession

Although all 10 countries do contemplate some sort of indemnification in case of early termination of a concession, some of these countries specifically guarantee that termination shall cover either 100% or a relevant portion of outstanding indebtedness, whether in local or foreign currency.

That is the case of Turkey, for instance, where relevant legislation or PPP agreements contemplate the obligation of the Turkish Government to pay out 100% of outstanding debt obligations in case of early termination without fault of the concessionaire, or to secure the payment of at least 85% in case of termination by default of such private concessionaire. Indonesia and India have a similar practice of guaranteeing outstanding debt in case of termination, but we could not find a general rule setting forth specific thresholds applicable to any and all projects. Colombia has also developed its practices to make it possible for the PPP Contract to specifically address a proper risk allocation for the outstanding debt in case of early termination. Finally, Argentinean Fondo para el Desarrollo de Energias Renovables commits to honor (with a backstop guarantee from the Government of Argentina and, optionally, the World Bank) a put option granted to
concessionaire (including in its exercise price the cost of outstanding debt), in case of governmental default.

In the case of Brazil and others, indemnity upon early termination is tied to the overall amount of investments on concession assets that shall revert back to Government and which, due to the early termination, were not yet recovered or amortized throughout the concession period. Although such indemnity could indirectly capture original debt amounts employed in concession assets, its calculation is not directly based on outstanding indebtedness at the time of early termination.

**Other Contractual Mechanisms**

We have also identified other notable FX mitigation mechanisms not fitting the categories above.

**The Chilean 10% FX Variation Band**

In the late 90's, the government of Chile created a public insurance to cover FX risk in the context of cross-border financing for infrastructure projects, in response to a lack of available long-term foreign exchange hedging instruments.

During a period of 1-2 years as of execution of an agreement, PPP counterparties could choose to have the coverage under the foreign exchange guarantee.

Concession revenues, whether paid by the government or by end-users, were denominated in Chilean Pesos and indexed by local inflation, through the use of the *Unidad de Fomento* (“UF”) local reference. However, if local currency depreciated against the US dollar by more than 10% relative to a rate locked-in at the time of the debt placement, Government of Chile would compensate the concessionaire for the adverse impact of such depreciation on its foreign indebtedness. Conversely, the concessionaire should pass-on and pay the GOC the economy resulting from local currency appreciating by more than 10% in any specified contractual period.

The Chilean case is certainly among the most successful examples of FX mitigation mechanisms used throughout the 10 emerging countries comprised in our study. This is because, after using that mechanism for a limited period of time to successfully attract foreign investors and cross border financing to the earlier phase of its infrastructure private concessions, Chile managed to keep its economic stability and gain the confidence of foreign investors, to the point when those contractual mechanisms for mitigating FX risk were deemed no longer necessary.
The Brazilian Variable Signing Bonus (*Valor de Outorga*) Compensation

Another innovative solution for FX mitigation was that one conceived by the IFC in conjunction with the State of São Paulo, which has been incorporated in toll road concessions of the State of São Paulo since 2017, and recently replicated in federal toll road concessions as well.

According to the basic structure of these concessions, the concessionaire must pay a fixed signing bonus and a variable one to the granting authority (in this case, the State of São Paulo). The concession is awarded to the bidder that, duly qualified, offers the highest premium over the minimum fixed amount of the signing bonus (*valor de outorga*) as outlined in the tender documents. On the other hand, such concessionaire must also pay a variable signing bonus consisting of a percentage over the gross revenues of the concession, throughout the concession term.

If so elected by the concessionaire, it would be allowed to have the right to deduct from the variable component of signing bonus installments the adverse impact of FX variation in relation to the principal amount of foreign currency indebtedness assumed by the project company up to the limit set forth in the tender documents and duly evidenced to the granting authority.

The mechanism works both ways. Upon such election, the concessionaire becomes also obliged to pay an additional amount of variable signing bonus, up to a pre-determined total limit, corresponding to any gains arising out of such FX variation in connection with the principal amount of its indebtedness (i.e., in case of appreciation of the Real).

Although offering only partial mitigation (limited by the variable amounts of signing bonus), the Brazilian mechanism has the advantage of limiting the budgetary impact of the FX compensation payable to private parties. In the worst case scenario, such compensation will frustrate the collection of such future variable signing bonus, but may not affect existing budgetary revenues.

Another limitation of this mechanism is that it can only be applied in self-sustainable projects whose projected revenues can afford to contemplate the sharing and payment of on-going revenues to the Granting Authority. For PPPs dependent on periodical payments of the Government to the project company, there would be no on-going obligations of the project company from which FX compensation might be deducted.
Subordinated Loans and Liquidity Facilities offered by local State-Owned Development Banks or Funds

It is also worth mentioning the support role offered by certain local state-owned development banks, or other local state-controlled entities (such as infrastructure funds) in relevant PPPs.

These initiatives may contemplate subordinated loans, thus offering an inherent first loss guarantee that favors senior lenders.

A contingent liquidity facility in another form of relevant support, which can be designed to mitigate different risks in a project (notably cost overrun), but also the inability of project company to meet foreign currency debt service in a period of sudden and large local currency depreciation. In this case, the liquidity facility may help the project company to keep regular on its debt service and other expenses, up and until local revenues may catch up by capturing the effects of the depreciation through inflation or otherwise.

Examples of entities offering subordinated loans or contingent facilities are FDN, in Colombia and the India Infrastructure Finance Company Limited - IIFC. In the case of Brazil, BNDES has already provided contingency facilities to finance subnational entities and in practice to guarantee their payments to PPP concessionaires during the construction phase (the so-called “aporte de recursos”).

III – THE ROLE AND CONTRIBUTIONS OF MULTILATERAL DEVELOPMENT BANKS

As illustrated in the preceding topics, it is important to highlight the multiple roles and contributions of multilateral development banks – MDBs, such as the World Bank, the International Finance Corporation - IFC, the InterAmerican Development Bank - IDB, the Corporación Andina de Fomento - CAF, the Asian Development Bank - ADB, the African Development Bank and the European Investment Bank, among others, in supporting the development of infrastructure in emerging economies and innovative approaches for their financing and FX mitigation, including in the 10 countries studied. Examples of such relevant support are as follows:

✔ As lenders of last resort, MDBs are usually the first group of lenders to offer long-term cross border financing to projects in new sectors or under innovative structures in emerging economies, testing the market and paving the way to other international or local lenders;
MDBs have also been the first group of international lenders to offer, as an efficient alternative, such long-term project finance in local currency, thus mitigating FX risk for project companies. The Celse Project in Brazil offers a good example of that. Another good example was the local currency financing structured by IBRD to Guanajuato State;

Due to their sophistication and triple A credit risk, MDBs are able to access FX currency swaps and other derivatives in offshore markets at longer tenors, lower costs and overall better conditions, which they can then pass over to project companies financed by them;

As an example of specifically designed solutions to support cross border financing, MDBs and other financial institutions have formed the TCX fund to provide FX hedge for currencies in relation to which there is no private FX derivative market. This fund is therefore not intended for the emerging economies comprised in our study, for which there is an FX hedging market (although with different levels of liquidity and depth). The current investors in TCX are 22 multilateral and bilateral development finance institutions (DFIs) and microfinance investment vehicles (MIVs), and the Dutch and German governments;

Considering the number of projects financed from time to time by them, they can also offer a portfolio approach when passing on FX derivative costs to their local borrowers;

MDBs have a fundamental role in disseminating best practices and providing (or funding through recoverable or non-recoverable loans) advisory services to structure projects or infrastructure programs in a more efficient manner. We have found good examples of such role in virtually all 10 countries;

MDBs have helped emerging economies to set up infrastructure funds, for the purpose of rendering advisory services or to actually finance projects. That is the case of the Indonesia Infrastructure Finance - IIF, stablished in 2009 by the Government of Indonesia along with the World Bank, the Asian Development Bank and other multilateral institutions to provide infrastructure financing and advisory services for projects in Indonesia.

MDBs may also provide back stop, credit default guarantees or other credit enhancement instruments for projects and structures that would otherwise struggle to attract affordable long-term cross-border financing. That was the case of the Argentinian Fondo para el Desarrollo de Energias Renovables, which offers an optional guarantee by the World Bank. In the first large project
structured in Peru under the CRPAO model (IIRSA Norte Toll Road), IDB provided a credit default guarantee in respect of the payment obligations of the Government of Peru. After such successful project, such guarantee was no longer necessary in subsequent projects.

Of course, some of these roles have also been efficiently fulfilled by national development banks, as it is the case, for instance, of BNDES in Brazil, FDN in Colombia, FONADIN in Mexico, and the Development Bank of South Africa.
### COUNTRIES OVERVIEW

<table>
<thead>
<tr>
<th>FLAG</th>
<th>COUNTRY</th>
<th>POPULATION (million)</th>
<th>TERRITORY (km²)</th>
<th>POLITICAL SYSTEM</th>
<th>CURRENCY</th>
<th>AVG. GDP GROWTH 2000-2019</th>
<th>EASE OF DOING BUSINESS RANKING</th>
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<tr>
<td></td>
<td>BRAZIL</td>
<td>210</td>
<td>8,514,876</td>
<td>Federative Presidential Republic</td>
<td>Real (BRL)</td>
<td>1.79%</td>
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<td>ARGENTINA</td>
<td>44.9</td>
<td>2,780,400</td>
<td>Federative Presidential Republic</td>
<td>Argentine Peso (ARS)</td>
<td>2.0%</td>
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<td>CHILE</td>
<td>19.1</td>
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<td>Presidential Republic</td>
<td>Chileno Peso (CLP)</td>
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<td>COLOMBIA</td>
<td>50.3</td>
<td>1,138,914</td>
<td>Presidential Republic</td>
<td>Colombian Peso (COP)</td>
<td>3.7%</td>
<td>67</td>
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<td>INDIA</td>
<td>1,000</td>
<td>3,287,000</td>
<td>Democratic Parliamentary Republic</td>
<td>Indian Rupee (INR)</td>
<td>6.7%</td>
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<td>INDONESIA</td>
<td>270.2</td>
<td>1,877,519</td>
<td>Presidential Republic</td>
<td>Rupiah (RP)</td>
<td>5.5%</td>
<td>73</td>
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<td></td>
<td>MEXICO</td>
<td>130</td>
<td>1,943,950</td>
<td>Federative Presidential Republic</td>
<td>Mexican Peso (MEX)</td>
<td>2.7%</td>
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<td>PERU</td>
<td>31</td>
<td>1,285,215</td>
<td>Presidential Republic</td>
<td>Sol (PEN)</td>
<td>4.9%</td>
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<td>SOUTH AFRICA</td>
<td>58.5</td>
<td>1,213,090</td>
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<td>TURKEY</td>
<td>83.4</td>
<td>769,630</td>
<td>Democratic Parliamentary Republic</td>
<td>Lira (TRY)</td>
<td>5.1%</td>
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FOREIGN EXCHANGE RATE VOLATILITY (*)

Figure 1. Classification: Exchange Rate Volatility

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<td>Extremely High</td>
<td>Türkiye</td>
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<tr>
<td>High</td>
<td>南非</td>
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<tr>
<td>Medium</td>
<td>印度尼西亚</td>
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<tr>
<td>Low</td>
<td>委内瑞拉</td>
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(*) The exchange rate volatility of each country’s currency against the US Dollar was estimated based on the data, measurement and GARCH modeling provided by the Volatility Laboratory (“V-Lab”). The V-Lab is part of the Volatility and Risk Institute of the NYU Stern School of Business⁶, an interdisciplinary center for research and analysis of financial and non-financial risks. The V-Lab provides real-time measurement, modeling and forecasting of financial volatility and correlations for a wide spectrum of assets. We have graded the levels of exchange rate volatility according to the following methodology: “Extremely High” when the average volatility over the estimation period was above 15% (fifteen percent); “High” when the average volatility over the estimation period was between 15% (fifteen percent) and 10% (ten percent); “Medium” when the average volatility over the estimation period was between 10% (ten percent) and 5% (five percent); and “Low” when the average volatility over the estimation period was below 5% (five percent). The estimation period used to calculate the average volatility may vary according to data provided by the V-Lab.

CONVERTIBILITY (*)

Figure 2. Classification: Restriction of Convertibility

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</table>

(*) The analysis was primarily based on the information and materials consulted throughout our research. We considered "Highly Restricted" as those countries which require rigorous prior authorization for currency exchange, limiting access to FX transactions that would be generally available in other emerging countries, "Restricted" as countries that adopt foreign exchange controls and restrictions, which may create relevant hurdles or bureaucracy of FX transactions, without precluding FX tools usually adopted in infrastructure, and "Flexible" as countries which do not require prior authorization for currency exchange, but only communication to the competent authorities or use of specific channels, among other restrictions. The information encountered on the "Trading Economics" website was also taken into account. Source: Trading Economics Data. Available at: https://tradingeconomics.com/currencies. Accessed on April 13, 2021
GENERAL AVAILABILITY AND DEPTH FOR LONG-TERM PROJECT FINANCING FOR LARGER PROJECTS IN LOCAL CURRENCY (*)

Figure 3. Availability and Depth for Long-Term Project Financing

(*) The analysis was primarily based on the information and materials consulted throughout our research as a whole, but also specifically on a report made available by the World Bank.

(**) South Africa and Chile seem to have a strong local banking system, but not a developed local capital market.

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**Governmental Mitigation Instruments**

**Figure 4. Governmental Mitigation Instruments.**

- **Contractual**
  - Government may compensate concessionaire for FX adverse impact within certain limits
  - Government may assume FX risk, in total or in part, under economic equilibrium rationale, if so provided in the agreement
  - Government may guarantee outstanding debt in total or in part in case of early termination of the concession

- **Non-Contractual**
  - Government may guarantee outstanding debt service on foreign currency indebtedness, in total or in part
  - Government may guarantee minimum revenues in foreign currency
  - Government may assume FX risk, in total or in part, throughout a Guarantor Fund
  - Government stimulates the derivative FX hedging market through any kind of governmental support
E. BENCHMARKING STUDIES

I. BRAZIL

- Extremely High FX volatility.
- Restricted FX convertibility - there are relevant foreign exchange controls in place in Brazil, despite a trend of gradual relaxation over the years.
- Local market for project financing in Brazilian currency has become deeper and more diversified, including through state-owned, development or regional banks (such as BNDES, Caixa and Banco do Nordeste), private commercial banks and capital markets.
- Cross-border project financing will continue to be a very important source of financing for infrastructure projects in Brazil, supplementing the limited capacity of local debt providers, especially in very large and more challenging projects.
- Generally not permitted for governmental entities to enter into foreign indexed currency contracts with local parties, save for limited exceptions, always in compliance with fiscal responsibility law and other applicable regulation.
- Generally not permitted for domestic private parties to enter into foreign currency denominated or indexed contracts, except as provided in Decree-Law 857 of 1969.
- Generally not permitted to denominate or index tariffs (totally or partially) in foreign currency.
- Main FX mitigation strategies identified:
  - **Natural hedging.** Applicable for certain specific sectors (oil exploration and mining).
  - **Fx Derivatives:** Traditional FX derivative hedging instruments, such as currency futures or currency swaps, are either not available in the long-term, i.e., beyond 5 or 10 years, or prohibitively expensive beyond those terms. Part of the cost is also associated with the perceived risk of default of the Brazilian counterparty contracting the swap or future instrument.
  - **Financing in Reais:** A few multilaterals, ECAs and other international investors have already agreed to make cross-border long-term financing denominated in Reais, and remunerated by local indexes (CDI or IPCA plus arrangements) to relevant projects in Brazil.
  - **US dollar indexation of Offtake Agreements:** Long-term PPA agreements indexed to US dollar variation already successfully adopted, but improvements in the legislation are required for such alternative to be more disseminated.
  - **2644 Onshore Reserve Account**
  - **Offshore Reserve Accounts**
  - **Economic Equilibrium.** In the absence of specific contractual provisions to the contrary, Court precedents in Brazil tend to allocate FX risks to private counterparty, but there are Court precedents treating FX variation as force majeure risk and contracts providing for variation bonds beyond which revision would be triggered.
  - **Mitigation through Bonus Payment (Valor de Outorga).**
  - **Local Counterparty Credit Guarantee on Currency Swap Transactions**
1. **General Overview**

Brazil is the largest country in South and Latin America, fifth in the world, with a territory of 8,514,876 km$^2$. It is the most populous country in Latin America, the sixth in the world, with a population of around 210 million inhabitants$^8$.

Its gross domestic product was USD 1.84 trillion in 2019$^9$, placing it as the 9th largest economy in the world at that year. Figure 5 below illustrates the Brazilian GDP per capita growth, from 2000 to 2019:

**Figure 5. Brazilian GDP per capita growth (annual %)**

![Brazilian GDP per capita growth](image)


Brazil is a federative republic, comprising 26 federative states, the Federal District (Brasília), and 5,570 municipalities$^{11}$. The Federal Constitution allocates powers and attributions among the Federal Government, the States and the Municipalities. States and

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Municipalities have the autonomy to carry on the powers and attributions allocated to them, subject to the provisions and parameters set forth in the Federal Constitution.

In March 2021, Brazil was classified below investment grade, BB- by Standard & Poor’s and Fitch, and Ba2 by Moody’s\textsuperscript{12}.

In 2020, it was ranked in the 124th position at the World Bank index of the most business-friendly jurisdictions (Venezuela being ranked in the position 188 and Chile in 59)\textsuperscript{13}.

Brazil has a diversified economy and a large internal consumer market. It is a leader in the production and exports of various agricultural products, meat, poultry, iron ore and other commodities. It also has an important industrial sector. Embraer, for instance, is a leading aircraft manufacturer worldwide. Services have been gaining more importance in the national economy\textsuperscript{14}.

\section*{2. Foreign Exchange Controls}

There are relevant foreign exchange controls in place in Brazil, despite a trend of gradual relaxation over the years.

The remittance of funds or the receipt thereof from abroad by a Brazilian resident or a legal entity domiciled in Brazil must be carried out through the execution of a foreign exchange ("FX") transaction with any Brazilian financial institution licensed by the Brazilian Central Bank to operate in the local foreign exchange market.

Any foreign exchange transaction for the purchase or sale of foreign currency has to be classified in accordance with the nature of the underlying transaction. For instance, foreign loans extended to a Brazilian resident, payment of exports or imports, direct investments made in a local company, and cross-border derivative transactions, all have specific classification codes. An extensive and, most importantly, \textit{numerus clausus} list with the possible classification of transactions comprising foreign exchange transactions is provided for in the Central Bank regulations\textsuperscript{15}.

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A few decades ago, individuals and companies residing in Brazil had severe restrictions to maintain and remit funds for the purpose of making investments in foreign currency abroad. Exporters, for instance, were obliged to repatriate and convert into Brazilian currency 100% of the proceeds received out of exports. Those restrictions have been gradually relaxed.

Government imposed official FX rates, or admissible bands, were adopted in the past, but for more than two decades now FX rates are determined by market forces, although the Central Bank of Brazil may intervene in the market by buying and selling foreign currency or currency derivatives to mitigate excessive volatility or speculation.

Although the Central Bank of Brazil would have exceptional powers to centralize foreign exchange transactions, thus suspending the ability of banks and other entities to operate in such market, and even to impose further limitations on the ability of Brazilian entities and individuals to convert Brazilian currency and make payments or remit foreign currency abroad (thus imposing a sort of moratorium on foreign debt), the last time such events occurred was in 1987, and even then it did not last for more than a year.

Dependency of the Government of Brazil on foreign debt has been reduced significantly in the last decades. For many years, Brazil has presented comfortable reserves in foreign currency. Nevertheless, despite the greater stability, Brazilian currency, the Real, still suffers from high volatility and relevant devaluation from time to time16.

Private companies and their projects in Brazil may freely access foreign debt, but must be aware of the risk imposed by FX variation.

By the same token, foreign investors are welcome to invest in virtually all sectors of the Brazilian economy (there are still a few exceptions such as rural land, nuclear energy and media companies, with a trend of gradual liberalization, as occurred in recent years with the health sector and airline companies, previously restricted and now open to foreign investors), thus being entitled to generally the same legal treatment offered to domestic investors. But again, they must face currency risk. Their investments might be lucrative in Brazilian currency, but eventually translate into a loss when local currency profits are reconverted into the foreign investor's currency.

It appears there are a few world-class investors that remain reluctant to make equity investments in Brazil, either because they are not prepared to face Brazilian currency risk or because Brazil has lost investment-grade status.

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16 Banco Central do Brasil. A Dívida Externa Brasileira. Available at: https://www.bcb.gov.br/content/publicacoes/Documents/outras_pub_alfa/D%C3%ADvida_Externa_Brasileira_-_Segunda_Ed%C3%A7%C3%A3o_Revisada_Ampliada.pdf. Accessed on April 9th, 2021.
However, the majority of global investors interested in emerging economies has already made investments or is at least willing to make direct (equity) investments in Brazil if they can find suitable opportunities.

Indeed, FX risk is less of an obstacle for long-term equity investors, given that they have some flexibility to choose a more suitable time to reconvert and repatriate their funds, also bearing in mind that accumulated local inflation indexes and FX variation tend to converge over time, despite short-term mismatches.

For debt providers and their borrowers, FX risk is much more concerning. Debt transactions usually contemplate a payment schedule with specified dates for principal or interest payments to be made, without much room for flexibility other than through complex waivers or debt restructuring renegotiation. Thus, if a company generates revenues in local currency and needs to meet debt service in foreign currency, short-term currency volatility may jeopardize its ability to timely make debt payments.

3. Infrastructure Needs, Opportunities and Legal Regimes

There is a massive need for investments for Brazil to maintain, expand and upgrade its infrastructure and energy assets, paving the way for sustained economic growth going forward17.

Because of the low levels of government investments in infrastructure in the past years (as a result of recurrent economic crisis and the need to control fiscal deficits, among other factors), the historically large infrastructure gap has deteriorated further18.

The economic recovery expected following the end of the COVID-19 Pandemic19 will put further pressure on the infrastructure gap. Before the economic crisis initiated in 2015 due to lack of fiscal austerity, political turmoil and corruption scandals, Brazil had years of high growth levels, but, even in the absence of a crisis, that growth did not seem sustainable because of the infrastructure bottleneck. At those times, for instance, there was insufficient road, railroad and port capacity to transport and ship Brazilian exports efficiently. Huge waiting lines added costs to our products. Airports, which were still


operated by Infraero, a state-owned company, suffered from severe slowdowns, and Brazil suffered from frequent threats of energy shortage.

Reduction of such gap will depend on a combination of increased levels of government investment and private investment in special, particularly coming from foreign investors.

The Brazilian conglomerates that used to dominate the infrastructure arena in Brazil have not recovered from the corruption scandals revealed by Operation Car Wash (Operação Lava-Jato). Although other Brazilian groups have gained space in the meantime, they do not have the capital strength or experience to take over the largest and more challenging projects and, thus, Brazil will need to rely on global investors for that matter.

There are relevant opportunities in the present or near future in virtually all segments of infrastructure. New rounds of airport concessions, greenfield railway lines, greenfield and existing road concessions, port terminals, urban mobility, public lighting and smart cities, solar and wind power generation, LNG thermal power plants, power transmission lines, gas pipelines, oil and gas production, Petrobras’ divestment of refineries, E&P blocks and gas distribution companies, Eletrobras privatization, water and sewage, solid waste management etc20.

In most of these infrastructure segments, under the public service concession (common concessions) or authorization regimes, projects will be remunerated from tariffs or prices collected directly from users, consumers or large private offtakers, subject to applicable laws and regulation. On the other hand, projects structured as public-private-partnerships – PPPs may seek remuneration, in total (administrative concessions) or in part (usually sponsored concessions), from the government itself, such as in the case of projects for construction, expansion, modernization and/or operation of public hospitals, public schools, prisons and governmental buildings.

All these opportunities need to be funded through a combination of equity and debt, the latter coming mainly from non-recourse or limited recourse project financing.

Local market for project financing in Brazilian currency has become deeper and more diversified, including through state-owned, development or regional banks (such as BNDES, Caixa and Banco do Nordeste), private commercial banks and capital markets.

BNDES and other state-owned banks used to dominate project finance in Brazil, by offering subsidized long-term financing, but such model generated important adverse effects and

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20 ABDIB. Perspectivas são positivas para o setor de petróleo e gás. Available at: https://www.abdib.org.br/2020/03/05/perspectivas-sao-positivas-para-o-setor-de-petroleo-e-gas/. Accessed on April 9th, 2021.
has been gradually discontinued, since 2015. Over time, it proved to be unsustainable, due to the pressure posed on the fiscal balance of the country. It also crowded out the development of other sources of financing. At present, despite a material reduction in loans disbursed, BNDES continues to be a relevant player for financing projects in Brazil, but it does so at market (non-subsidized) rates and usually in combination with other funding sources (capital markets or multilaterals, for instance).

Commercial banks operating in Brazil do not offer long-term project financing, as they don’t have long-term local funding for those transactions. Most of their funding comes from short-term deposits (CDBs) or checking accounts, which may be withdrawn at any time. However, they use their project finance expertise to offer bank guarantees to long-term project finance providers, such as BNDES, Banco do Nordeste or even debenture holders, in order to retain construction and project completion risks.

Certain commercial banks, especially state-owned ones as Caixa Econômica Federal and Banco do Brasil, can also provide long-term project financing, acting as on-lending agents for governmental funds such as FDNE or FNE.

The most important capital market instrument has been the infrastructure debentures, which benefit from a more favorable tax treatment, such as full tax exemption on interests payable to Brazilian individuals or foreign investors.

These tax benefits are subject to several conditions, such as those debentures being denominated in Reais, interest rates being fixed or linked to local inflation indexes and duration longer than 4 years. By April 2021, there was a bill of law in advanced stages of the legislative process at Congress extending those debenture tax benefits to a wider set of circumstances, including to debentures indexed to foreign currency.

Under present rules, debentures have attracted banks and individuals and, to a lesser extent, other institutional investors. Very occasionally, some of those debentures have been bought by foreign investors willing to be paid in local currency and to be remunerated based of local indexes.

Nonetheless, investors seem to have the appetite to buy debentures only from projects in more mature and less risky infrastructure segments, such as renewable power generation, transmission lines and toll roads (and, in most cases, on the basis of a full bank guarantee in place up and until project completion). It would be very unlikely to see an appetite for debentures in a more challenging greenfield railway project, for example. According to a
study published by BNDES from the year 2012, when the first infrastructure debentures were issued until 2019, the percentage of primary demand by foreign investors equaled to only 7% (seven percent) of all bonds issued.

Although the capital market’s contribution to the financing of infrastructure in Brazil is still relatively low, there has been undeniable growth in the field as a result of the creation of viable and rather safe instruments, such as infrastructure debentures, for this type of investment. According to ANBIMA, in 2019 almost 30% of infrastructure financing in Brazil came from capital market funding, following the 2018 increasing trend, and the much lower percentage of only 11.5% in the year of 2017.

4. Foreign Investment in Infrastructure: Cross-border Project Financing

Accessing foreign debt liquidity has been even more important at times when local interest rates in Brazil (or their projection for the future) are at higher levels. In 2020, Brazil reached its record low prime interest rate (Selic at 2%), thus reducing the comparative attractiveness of low interests usually applicable to long-term foreign debt.

In March 2021, Selic prime interest rate was increased from 2% to 2.75%, the first increase in almost 6 years. Fiscal deficits aggravated by the Pandemic suggest a trend of new increases of such interest rate. Brazilian public debt long-term instruments, traded in the market, already project higher interest rates for the future.

More or less attractive in comparison to local interests and despite the improvement of the local debt market, cross-border project financing will continue to be a very important source of financing for infrastructure projects in Brazil, supplementing the limited capacity of local debt providers, especially in very large and more challenging projects.

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With respect to these larger and more challenging projects, foreign debt providers are capable not only to absorb larger debt tickets, but their global sophistication and expertise may also enable them to accept risks or more limited recourse structures that might not be acceptable to local debt providers.

The IFC, the IDB and CAF are among the most active multilaterals offering project financing solutions in Brazil. As lenders of last resort, they will usually step in where other sources of financing are not available, or where their participation may set a favorable precedent for subsequent projects in a new segment or under an innovative approach.

They can deploy their own funds, but also attract and leverage, under their umbrella, additional funds from international private participants (the B-Lenders). As far as the project being financed is concerned, IFC and IDB would typically remain as lenders of record for the entire loan amounts, thus extending their preferred status and tax immunity to the funds originated from B-Lenders.

Another important source of cross-border project financing is that offered by export credit agencies - ECAs, which are usually available to projects importing equipment or having sponsors from the jurisdiction of the relevant ECA. Examples of such ECAs active in Brazil include US-Exim and DFC (United States), KfW (Germany), JEXIM and JBIC (Japan), China Exim, and China Development Bank (China), EDC (Canada), EKF (Denmark), UKEF (United Kingdom), SERV (Switzerland), COFACE (France), SACE (Italy) etc.

These ECAs may offer direct financing but, most frequently, they will offer full or partial credit guarantees for commercial banks who would then take the lead on negotiation with the borrower and appear as the lender of record under the relevant cross-border project financing.

In addition to such international commercial banks providing financing with or without the benefit of an ECA guarantee, some funds may also have an appetite for long-term project

26 BNDES. Available at: https://www.bndes.gov.br/wps/portal/site/home/imprensa/noticias/conteudo/20071019_not244_07. Accessed on April 9th, 2021.
29 KfW. Available at: https://www.kfw.de/kfw.de-2.html. Accessed on April 9th, 2021.
financing but usually combined with other interests in the project. There are private equity and other specialized funds more focused on mezzanine and subordinated financing, bearing larger risks but aiming at higher returns.

In all those instances of cross-border project finance, funding is conditioned upon an acceptable alternative for addressing or mitigating FX risk.

5. **Foreign Exchange Risk Mitigation**

Based on the background above, one could raise a few basic questions.

| Does Brazil need FX risk mitigation beyond those solutions already available in the market? |
| Is there a real problem to be solved? |

There is certainly no simple response to those questions.

The Government of Brazil, executive and legislative branches could refuse to support any further FX mitigation alternative, and establish as a policy that FX risk needs to be fully allocated to and solely handled by private investors, through market solutions.

Market participants in general (from developing or financing sides) seem to agree that traditional FX derivative hedging instruments, such as currency futures or currency swaps, are either not available in the long-term, i.e., beyond 5 to 10 years, or prohibitively expensive beyond those terms. With very few exceptions, that situation seems to be similar in all emerging markets comprised in our researches.

That reality could change to the extent that Brazil improves its economic stability, through fiscal austerity, sustainable growth, opening up more its economy, achieving investment-grade status, and other steps that would reduce volatility of the Brazilian currency, and therefore create the conditions for a more liquid and active market for FX derivatives for Brazilian currency covering longer periods and at more affordable costs. However, these are not goals that can be achieved in the short or medium term.

In the meantime, traditional market solutions would not offer reasonable mitigation for FX risk.

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For certain countries, FX derivatives are not available between 3 to 5 years. According to certain market participants, despite the high volatility of Brazilian currency, offshore over-the-counter currency swaps market for Brazilian currency versus US dollar has become more liquid and deeper, only comparable, in Latin America, with those of Mexican Pesos and, to a certain extent, Chilean pesos, for which market is liquid but not so deep, considering the smaller size of Chilean economy. Because of that, FX derivatives for Brazilian currency are now available for longer terms (5 or 10 years) but still very expensive beyond that, unless contracted by AAA entities such IFC or IDB.
Would that preclude Brazil from attracting private investment to develop new infrastructure projects going forward?

Clearly, the answer is no. In terms of equity investment, Brazil could continue to rely not only on domestic investors, but also on long-term foreign investors less sensitive to FX risk. In terms of financing, these investors could be limited to local debt sources and, to the extent necessary, reduce their debt leverage and increase their equity.

However, would that represent the most optimal and efficient scenario for developing infrastructure in Brazil?

Probably not.

Although there are long-term foreign investors less sensitive to FX risk, there are a few correlations that can be clearly established.

The higher the FX risk, the fewer foreign investors will be prepared to invest in Brazil, as opposed to other more mature jurisdictions or even other emerging markets offering better FX mitigation alternatives and competing for the same investors.

Therefore, not offering better FX risk mitigations translates into less interest and less competition for equity investments in Brazil.

By the same token, the fewer foreign investors accepting these higher risks will demand higher returns. If they need to reduce their debt leverage or provide corporate guarantees, that will also increase overall capital costs. Projects become more expensive and, at a certain point where that incremental cost of capital cannot be passed on to users, consumers or taxpayers, these projects are rendered economically unfeasible.

From the perspective of financing, local debt providers may handle the needs of certain types of projects, but probably not the largest or most complex ones. Even for the projects which local debt providers are more used to finance, changes in market circumstances may quickly limit those sources.

Over the last years, for instance, Brazil has experienced a material reduction in the availability of funds from BNDES and other state-owned debt sources, as a result of budgetary or fiscal constraints.

The appetite of Brazilian capital markets for infrastructure debentures is still a relatively new evolution and may be adversely affected by new events or market conditions, such
as an increase in project defaults or a new increase in the interest rates offered on less risky instruments (such as treasury bonds and depositary receipts of first-tier banks).

Similar changes in market conditions may cause commercial banks operating in Brazil to become more risk-averse and, for instance, increase the cost of their completion bank guarantees, or demand full counter-guarantees from sponsors, thus jeopardizing non-recourse project finance. Certain investors will simply not accept (or in the case of certain local funds cannot legally accept) to provide those sort of parent guarantees.

Therefore, availability of foreign debt sources, in the long run, might be crucial for several reasons: (i) to finance those very large and complex projects for which there is no sufficient appetite from local debt providers (or at least, not as the main source of financing); (ii) to supplement or replace local debt providers in case of adverse conditions in the local market; (iii) to offer non-recourse, longer tenors or other solutions (e.g., mezzanine) not necessarily available from local sources, in those instances where those solutions might be a necessity of equity investors; and/or (iv) simply to bring healthy competition to local sources.

That is why the Brazilian government has been supportive of FX mitigation mechanisms beyond FX derivative instruments in the market. Some of these other mechanisms were developed by market players themselves (such as foreign investors providing cross-border financing in Brazilian currency). Some others require the direct cooperation of the Government, either through its executive branch or legislative power, to enable solutions that need legal or contractual basis to be made available, even if they don’t impact budgetary sources or government accounts. We will describe below many of these other instruments which are currently available, or which have been adopted under special circumstances in the recent past.

We will also address other potential solutions or improvements being debated.

Another question, however, is whether the Government of Brazil should increase its efforts and offer other types of FX mitigation mechanisms guaranteed by the Government itself (thus with potential fiscal impact), similar to what has been done by some other countries (such as Peru and Colombia, to use examples near to us at Latin America).

Of course, we cannot ignore the not-so-distant past when Brazil (the public sector itself) was highly dependent on foreign debt, and thus very vulnerable to FX volatility and external crisis, a scenario that contributed to high-interest rates and hyperinflation. Brazil should certainly not go back in that direction.

Accordingly, Brazil cannot even consider dollarizing its economy or all its infrastructure contracts.
But whether it could offer very limited and specifically designed guarantees to few highly selected and strategic projects, that might not be feasible otherwise, is a question to be considered. Pros and cons could be assessed on a case-by-case basis, weighing all aspects: the externalities and structuring effects of bringing viability to a certain strategic project, versus the overall costs, risks and maximum losses to be absorbed by the Government if such a guarantee is called upon.

This has been an approach adopted by certain emerging economies comprised in our benchmark studies.

In any event, even more developed and stable countries have already resorted, or still resort, to similar strategies for selected and strategic projects.

That is the case, for instance, of the United Kingdom, and its UK Guarantee Scheme, which "supports private investment in UK infrastructure projects. It works by offering a government-backed guarantee to help infrastructure projects access debt finance where they have been unable to raise finance in the financial markets".33

I. Available Market Solutions

1. Natural hedging.

Certain sectors offer natural hedging to foreign equity or debt investments. For instance, oil exploration and production and mining concessions in Brazil and elsewhere produce commodities with prices determined by international markets, whether destined for exports or not. Hence, projects in those sectors may access foreign debt without being concerned with FX risk. Their revenues are directly correlated to FX variation.

Projects that generate products for exports can access securitization or prepayment export facilities which are among the cheapest and most efficient lines of cross-border financing. As export financings, they are exempted from withholding income tax. In addition, they offer very low risks to foreign lenders, which translates into reduced interests, because lenders can take collateral from export receivables in hard currency and before those proceeds even need to be repatriated in Brazil. Typically, foreign buyers will be required

33 The Scheme "has to date issued 9 guarantees totaling £1.8 billion of Treasury-backed infrastructure bonds and loans, supporting over £4 billion worth of investment. The scheme guarantees the principal and interest payments on infrastructure debt issued by the borrower to banks or investors. All guarantees are issued on a commercial basis. They are managed by infrastructure finance specialists in the Infrastructure and Projects Authority (IPA)." (UK Government. Guidance: UK Guarantees Schemes. Available at: https://www.gov.uk/guidance/uk-guarantees-scheme. Accessed on April 8, 2021.)
to make payments into offshore collateral accounts under the control of foreign lenders. Debt service will be paid with priority, before excess funds being released to the exporter. Therefore, not only lenders do not face FX variation risk, but they also mitigate convertibility and transferability risks.

Ports and airports also generate part of their revenues in US dollars or other hard currency. Port terminals render a relevant part of their services to international maritime carriers, who pay fees denominated in foreign currency. Airports also have a small portion of the commercial revenues (duty-free related, for instance), and operation tariffs (to international airlines/ international flights) correlated or indexed to hard currency. Within the limits of those foreign currency-denominated or indexed revenues, they could access cross-border financing without bearing relevant FX risk.

2. Derivatives.

As indicated above, in the absence of natural hedging, FX derivatives (currency futures or currency swaps) are the most traditional instruments for mitigating FX variation.

However, because of the high volatility of the Real and restrictions on its convertibility, those derivative instruments are either not available for terms beyond 5 to 10 years, or otherwise prohibitively expensive for longer periods.

It would be possible for a project to then contract 5 or 10-year currency hedge instruments and then renew them every 5 or 10-years. However, these projects would bear a relevant renewal risk, that is, the risk that, under adverse conditions, the cost of such renewal could be extremely high.

The IFC has found ways to partially mitigate such risk. First of all, being a AAA credit worthy institution, with access and experience on FX derivative markets (especially offshore), the IFC is able to contract FX derivatives (mainly OTC currency swaps) at longer terms and lower costs than those available to any Brazilian company. Moreover, considering that the IFC is always financing a portfolio of projects in Brazil, including a portfolio of projects financed in Reais, its treasury department enters into a series of FX derivatives agreements that are not project specific. The cost of Brazilian currency finance to Brazilian projects would then embed the average cost of hedging overtime for the IFC, thus diluting the effect of adverse price volatility on any specific date.

In the future, more efficient ways to use FX derivatives could also be developed and multilaterals or global banks could play an important role. For instance, instead of currency swaps made available solely between Brazilian currency and US dollars or another hard currency (soft currency x hard currency), a market could develop for currency swaps
between two or more soft currencies. Or yet for loans denominated or indexed to a mix of currencies.

That alternative could reduce volatility and bring down costs. Indeed, it is easy to realize that part of the factors that may cause depreciation or volatility of the Brazilian currency are country-specific (resulting from Brazil's own economic reality, not necessarily replicated in other emerging economies), but many of the drivers of volatility in relation to hard currencies are suffered by emerging economies in a very similar way. As an example, the Brazilian currency may suffer a material devaluation in relation to the US dollar, but keep its parity with the *Colombian Peso*.

In this example, there might not be sufficient Chilean resident investors interested to make investments in Brazil, or vice-versa, so that a liquid currency swap market between the two currencies could emerge. However, multilaterals and global banks have relevant investments in both jurisdictions, among many others, and should not need to convert or translate all its results into one single currency.

That idea seems very consistent, for instance, with the rationale of the New Development Bank - NDB, which intended to offer more investment alternatives and to stimulate cooperation within the BRICS emerging economies.

There are other areas for potential improvement.

Some tax inefficiencies for hedge instruments in Brazil were already removed in recent years. It used to be, for instance, that a Brazilian company entering into a swap agreement could be obliged to pay PIS and COFINS contributions and other taxes on each positive variation or payment received, even if at the end of the day, taking into account the net result, it didn't obtain any profit at all. The legislation was amended to contemplate taxation only at the final settlement of the hedge transaction, in accordance with its net result\(^{34}\).

There is probably more room for improving tax treatment on hedging transactions, but these would deviate from the scope of this report. In any event, the most important tax disincentives seem to have already been addressed, although some market participants still refer to certain residual tax inefficiencies on certain offshore OTC transactions.

Another idea for reducing the costs of such FX hedge instruments was the one first proposed by ABGF, and currently studied by BNDES, according to which either of these

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entities could offer a guarantee to mitigate the risk of the Brazilian counterparty, whenever it has to make payments to the hedge provider under the swap or hedge arrangement. We’ll return to that alternative later in this report.

Another point of attention mentioned by market players was ensuring the possibility of hedge providers in project finance transactions, to share in the security package with the same status and priority as credit providers themselves. Some of these market players complained of the reluctance of BNDES and other credit providers to share collateral with such hedge providers. This issue would become moot to the extent that the default risk of the project company is guaranteed by ABGF or BNDES in accordance with the preceding paragraph.

3. Financing in Reais.

As already pointed out, another market solution for avoiding FX risk was the one developed by a few multilaterals, ECAs and other international investors, who agreed to provide cross-border long-term financing denominated in Reais and remunerated by local indexes (CDI or IPCA plus arrangements) to relevant projects in Brazil.

One of the most remarkable examples of that was the project financing extended to CELSE – Centrais Elétricas de Sergipe S.A. (“CELSE”), the project company in charge of the construction and operation of a 1,551MW LNG powerplant in the Municipality Barra dos Coqueiros, in the State of Sergipe (UTE Porto do Sergipe 1).

CELSE was controlled by Golar Power and Ebrasil. Golar Power was an affiliate of other Golar entities owning the FSRU – Floating Storage Regasification Unit, which was made available under a long-term charter agreement to CELSE, as required to the receipt and regasification of the LNG to be used as fuel in the plant.

The construction of the project was completed in March 2020. A total financing of BRL 5 billion was granted in 2018 and 2019 by a combination of IFC and IDB A-B loans, most part denominated in Reais, and infrastructure debentures for two-thirds of total funding (BRL 3.4 billion), that were underwritten with firm guarantee from Goldman Sachs, but eventually distributed to an offshore investment vehicle who held the ownership of the debentures and used them as collateral for the issuance of debt instruments abroad, governed by foreign law, directed to foreign investors who had the option to either take Brazilian currency risk or enter into hedging instruments designed for them35.

35 Canal Energia. Negócios e Empresas / Finanças e RI: Celse receberá financiamento de BRL 5 bilhões para conclusão da UTE Porto Sergipe 1 (freely translated to English as: Celse will receive a BRL 5 Billion financing for conclusion of the Porto Sergipe 1 Thermal Power Plant). Available at:
Appetite for the debentures was only made possible by mitigating the default risk. Repayment of 95% of the debentures (principal and interests) was guaranteed by SERV (Swiss Export Risk Insurance), the Swiss export credit agency, who accepted to provide such credit default guarantee in Reais. Swiss and European content, a condition for SERV’s guarantee, resulted from turbines and other equipment supplied by General Electric, out of manufacturing facilities in those regions.

In addition to such emblematic project financing, the IDB and IFC have entered into many other Reais denominated loan facilities, especially in the renewables and water and sanitation sectors.

For instance, IDB Invest provided in August 2018 a BRL125MM Reais-denominated Total Credit Guarantee to Santa Vitória do Palmar windfarm. The guarantee was used to back up infrastructure debentures.

In December 2018, IDB Invest provided a 20-year BRL350MM Reais-denominated loan to the Recife Metropolitan Area Basic Sanitation PPP Project.

**II. Enhanced Market Solutions**

1. **US dollar indexation of Offtake Agreements.**

Another alternative that has already been successfully adopted but that would require improvements in the legislation to be more disseminated, is the indexation of long-term offtake agreements, such as power purchase agreements (PPAs) in the non-regulated, free contracting environment (ACL), to the FX variation in respect of the US dollar or another foreign currency. By securing dollar indexed revenues, the project may then access foreign currency financing without bearing any currency mismatching.

A recent transaction is very illustrative.

The IDB Invest (part of the IDB) and the DNB Bank ASA from Norway provided a USD 67 million cross-border project finance to Atlas Renewable Energy, to finance the Jacarandá 187 MWp Solar Project in the State of Bahia. The project secured a long-term US dollar indexed stream of revenues by entering into 15-year long dollar indexed PPAs with a Brazilian subsidiary of Down Inc. Such offtaker accepted the US dollar indexation because it has relevant US dollar revenues out of exports. Thus, the transaction, which was

announced in October 2020, offered currency hedging to both the Jacarandá project and the Brazilian subsidiary of Down Inc\(^{36}\).

Although beneficial to all parties involved and not threatening to the Brazilian economy (it is a purely private agreement, without any guarantees from the public sector or any other fiscal impact; and because those US dollar indexed costs will be incorporated in products for exports, they should not bear any impact on local inflation either), these transactions are not more disseminated because they may lack legal certainty.

The Brazilian Civil Code (Section 318) and the basic legislation that introduced the Real as the Brazilian currency in the nineties (Law 9,069 of 1995 and Law 10,192 of 2001, among others) prohibit and deem null and void obligations denominated or indexed to foreign currency in agreements between Brazilian resident parties, except for the limited cases set forth in the applicable legislation.

These exceptions are mostly contemplated in Decree-Law 857 of 1969, which admit obligations indexed or denominated in foreign currency to the extent they involve foreign parties, exports or imports, foreign loans, or yet "agreements with the purpose of assigning, transferring, delegating, undertaking or modifying those previous obligations..."\(^{37}\) (i.e., obligations with foreign parties, exports, imports, foreign loans etc.).

Therefore, agreements such as the Atlas dollar indexed PPA need to rely on the exception set forth in Article 2\(^{nd}\), V, of Decree-Law 857, under the argument that the long-term PPA, although entered into solely by two Brazilian parties, represents, in economic terms, the transference (pass-through) of the foreign currency indebtedness costs to be incurred by the project company\(^{38}\).

Although very rational and consistent with modern reality, such interpretation (based on the concept of the economical transfer) of Decree-Law 857 has not yet been corroborated by specific precedents from the Superior Court of Justice or the Brazilian Supreme Court (STF). Because a different interpretation could lead to the agreement, or its price provisions, being deemed null and void, there are many investors or lenders not yet comfortable in taking such risk in the long-term.

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\(^{37}\) Decree-Law 857/69, art. 2nd, V.

\(^{38}\) In the case of the Atlas – Brazilian subsidiary of Down PPA, there was another element corroborating the US dollar indexation, which was the direct participation of Down Inc. as a guarantor and/or intervening party in such PPA agreement. Nevertheless, the main legal ground for the indexation continued to be the economical transference exception under Decree-Law 857.
The so-called Economic Freedom Law (Law 13,874, of September 2019) offered some additional comfort to comparable situations, mitigating the risk of nullity of price indexation provisions and their agreements entered into solely by companies, notably large and sophisticated ones, well assisted by legal counsel.

Such law reinforced the principle that those corporate parties should be free to allocate risks between themselves, and that Courts should respect such allocation (art. 3, VIII, and introduction of new Section 421-A to the Brazilian Civil Code).

Nonetheless, because such Economic Freedom Law did not specifically address the issue of foreign currency indexation, and because its principles were still qualified by public order laws potentially dictating another result, it was not deemed sufficient to bring full certainty to the matter.

A simple but specific clarification amendment to the legislation could provide the necessary legal certainty.

Brazilian Congress has been alerted to that, and there seems to be a good consensus in favor of such legal clarification, but bureaucracy around the legislative process has not yet been overcome.

There are at least three ongoing legal propositions addressing such clarification in Congress.

The proposal of the New General Law of Concessions, approved in November 2019 by a Special Commission of the House of Deputies, under the presidency of Deputy João Maia and rapporteur Deputy Arnaldo Jardim, offers such clarification in its Section 204, by adding a new item VI to Decree-Law 857/69. The proposal still needs to be approved by the full body of the House of Deputies and the Senate.

Bill of Law 5,387 of 2019, having as rapporteur Deputy Otto Alencar, proposes a broad modernization of Brazilian foreign exchange rules, offering more flexibility in several aspects. Its Section 13, VII, also proposes to explicit the validity of long-term agreements indexed to foreign currency to the extent that they are entered into by infrastructure or energy holders of concessions or authorizations, with exporters. The Bill of Law was approved in December 2020 by a special commission under the House of

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39 The prohibition of foreign currency indexation shall not apply: "VI – to contracts for the use or for services of infrastructure which are entered into with exporters, and in relation to which the counterparty is a concessionaire, permissionaire, lessee or holder of an authorization, in the railway, hydroway, ports, airports, electricity and storage sectors".

40 “VII – in the agreements entered into by exporters with a counterparty which is a concessionaire, permissionaire, lessee or holder of an authorization in the infrastructure sector”.
Deputies but still needs to be approved by the full body of such legislative house and then submitted to the Senate.

Finally, unlike the previous ones, Bill of Law 2889 of 2019, proposed by Deputy Lucas Gonzales and having as rapporteur Deputy Gilson Marques, is focused solely on such clarification, and no other provision. It was approved by the Justice and Constitutionality Commission of the House of Deputies, in October 2019, but it still needs to be approved by the full body of such legislative house and then submitted for approval at the Senate.

2. **Fuel Tariff Pass Through.**

Another already available solution not involving public guarantees or fiscal impact but which was only made possible by appropriate legislation, is the possibility of gas-fired power plants, being successful in the energy auctions carried on by ANEEL, to enter into long-term PPAs in the regulated market, with indexation provisions that may allow them to pass-through the fluctuations in the cost of fuel to the price of the energy sold to distribution utilities.

Those distribution utilities are then authorized to pass through those prices, as indexed from time to time, to the tariff charged from end-consumers. Under the overall mix of energy bought and distributed to end-consumers by utilities (the vast majority coming from hydro generation), the impact of the gas-related FX variation tends not to be material.

Whether imported in the form of LNG or from Bolivia through the GASBOL (Brazil-Bolivia Gas Pipeline), or yet bought directly from Petrobras or other suppliers producing gas locally, natural gas is an international commodity, priced in US dollars and thus, directly impacted by FX variation.

This solution, however, deals only with the impact of FX fluctuation on the fuel used in those powerplants. The project generating companies are still not able to contract foreign currency loans because, except for the fuel component, their revenues are otherwise linked to a local inflation index (IPCA).

Because these are large projects, they can only sell their massive volumes of power in the regulated/ captive market. Selling those volumes to large free consumers, who could potentially accept dollar indexation, is not an option, except perhaps for a small fraction of overall production.

Gas-fired powerplants tend to be projects much larger and more complex than renewable generation projects, which are more numerous nowadays. For this reason, capital markets
in Brazil have shown a large appetite for renewable generation projects, but not much appetite for gas-fired powerplants.

That is why, as anticipated, the 1551MW CELSE powerplant had to innovate and achieve its BRL5 billion project financing from foreign investors willing to bear the Brazilian currency risk.

After CELSE, GNA I and GNA II, project companies controlled by Prumo, Siemens and BP, successfully accomplished their project financing as well, having to rely on Reais denominated loans from multilaterals, export credit agencies or BNDES.

GNA I, a 1,340MW LNG powerplant in the Port of Açú, Rio de Janeiro State, signed the financing agreements in December 2018 contemplating a 15-year USD 288 million loan from the IFC (combined with associated hedge agreements with the practical effect of offering a Reais indexed facility to the company) and a BRL 1.76 billion loan from BNDES and KfW IPEX-Bank. KfW IPEX-Bank was supported by Euler Hermes Aktiengesellschaft, the German Export Credit Agency\(^{41}\).

By its turn, GNA II, a 1,700MW LNG Powerplant, signed in November 2020 a BRL3.93 billion financing from BNDES, through a 24-year debt facility priced at TLP plus 295 basis points\(^{42}\).

3. Petrobras Tracking Account.

In the early 2000s, Brazil was experiencing a severe drought and shortage of power. The country then realized the importance of diversifying its energy matrix, so as not to depend exclusively on hydro generation. It launched the priority program for thermal power – the PPT.

In order to attract investors for a virtually new segment of generation in Brazil, PPT offered investors: (i) a special line of financing from BNDES; (ii) the ability of securing 20-year gas supply agreements from Petrobras; and (iii) the ability to sell the power so generated to distribution utilities, which would then have the assurance of passing through such costs to end-consumers.


The gas market in Brazil was very incipient. Petrobras was the only supplier and most of the gas would come from Bolivia, through the GASBOL. Petrobras was willing to enter into such 20-year agreements, based on delivery-or-pay firm commitments, but it would only sell the gas in US dollars.

Investors would be entitled to pass through the US dollar variation in their energy prices to distribution utilities, but such utilities would only accept incorporating such US dollar variation once a year because tariffs to end-consumers could only be adjusted annually.

At times of high FX volatility, investors could not bear intra-year FX variation risk.

The solution that mitigated FX risk for all parties was the creation of a tracking account, with express support and approval from relevant government authorities (the tracking account was regulated by a joint ruling from the Ministry of Mines and Energy and the Ministry of Economy).

Petrobras agreed to keep the gas prices fixed during each relevant year of supply, but the differences calculated on each invoice between the fixed price in Reais invoiced to the powerplant and the equivalent price in US dollars that Petrobras would expect to charge if it could incorporate the US dollar variation on a daily or monthly basis, would be registered in a tracking account. All positive or negative registered amounts, added by prime interest rates (SELIC) up to the end of each annual cycle, were then summed up on such last day of the year. The result, added by projected interest rates for the year to come, would be then divided into twelve equal installments to be added on each gas supply invoice for the new annual cycle.

The tracking account neutralized the FX risk for all parties while permitting Petrobras, the powerplant, and the distribution utility to work with fixed prices on each annual cycle, thus incorporating the full effects of FX variation only once a year.

4. **2644 Onshore Reserve Account**.

Resolution 2644 of September 10, 1999, of the Central Bank of Brazil, was enacted to authorize energy companies operating in Brazil, to open and maintain foreign currency accounts in local banks in Brazil.

Such accounts could only buy foreign currency out of revenues of the sale of oil, gas or electric energy by those companies. Then, such foreign currency could only be used to pay for obligations in foreign currency duly registered with the Central Bank or documented by appropriate agreements, if registration was not so required.
Although innovative at that time, such foreign currency account would offer a very limited FX risk mitigation. To the extent that revenues (from the sale of electric energy, for instance) would be still denominated in Reais and indexed to local inflation, the account would offer mitigation for FX variation only between the date of receipt of revenues and the date of payment of foreign currency obligations.

5. **Offshore Reserve Accounts.**

Up and until mid-2000s, the maintenance of an offshore reserve account by a Brazilian project company in the context of cross-border financing required special and discretionary authorization from the Central Bank of Brazil.

Such offshore reserve accounts became more common after that. Regulations of the Central Bank were also relaxed to allow Brazilian companies to remit funds and maintain those offshore reserve accounts more freely, subject to entering into relevant FX agreements (for the declared purpose of keeping funds available abroad – "disponibilidades no exterior") and providing appropriate information to the Central Bank of Brazil from time to time.

Those accounts provide some limited mitigation to foreign currency indebtedness, considering that those offshore reserve accounts are intended to serve only as part of the collateral in the security package. The project company would be still expected to meet debt service out of regular project revenues.

**III. Existing or Previously Adopted Government Support Solutions**

In the previous topics, we addressed mitigation mechanisms without impact on the government accounts or fiscal impact. We distinguished certain mechanisms that involve only private arrangements, from other mechanisms that, despite not impacting the government accounts and being mostly private, require or required appropriate legislation to be disseminated.

We'll now address some other mitigation mechanisms that involve, to a lesser or larger extent, financial commitments from the Government.

1. **Rebalancing of the Contract – Economic Equilibrium.**

The Brazilian Federal Constitution ensures to private parties entering into agreements or concessions with the public sector the right to preserve the economic equilibrium of such agreements.
Law 8,666 of 1993 (the basic legislation on public biddings and administrative contracts, now replaced by Law 14,133, of April 1st, 2021, in combination with Law 13,303 of 2016, governing public biddings and administrative contracts involving state-owned companies) defined the economic equilibrium as the relation between the rights and remuneration of the private counterparty on one side, and its costs and obligations on the other side.

As the new Law 14,133 now clarifies, the private counterparty should only be entitled to the rebalancing of its agreement in the event of materialization of risks not allocated to it. Indeed, if such private counterparty is adversely impacted by risks allocated to it, then the economic equilibrium of the contract is deemed to be preserved and no rebalancing shall take place.

Law 8,666 established, as a general rule, that force majeure or other extraordinary risks should be allocated to the public sector. By its turn, the private counterparty should handle ordinary risks of performing under the contract. Neither Law 8,666 nor the new Law 14,133 address FX risk specifically.

In the absence of specific provisions in each relevant contract, court precedents in Brazil tend to allocate FX risks to private counterparty, considering that FX variation is inherent to doing business in Brazil. Private parties should, therefore, take such risk into account when bidding for a contract with the public sector.

There are, nonetheless, court precedents treating FX variation as force majeure risks in case of sudden and large devaluations caused by totally unforeseen and extraordinary events, such as those prompted by new economic plans or global crisis events.

Notwithstanding the above, court precedents do not draw a clear line. Precedents of administrative authorities do not do it either.

As an illustration, the Brazilian government seems to have recognized the COVID Pandemic and its adverse impacts on private concessionaires as force majeure, thus entitling those parties to economic equilibrium rebalancing relief, to be assessed on a case by case basis, if not otherwise provided for in the relevant agreements43.

However, the Brazilian government did not recognize the 2015-2017 economic crisis (so far, more severe than the Pandemic-related economic crisis itself and, thus, the most harmful to the economy in Brazilian history) as a force majeure or extraordinary risk event,

even though it was deflagrated by unprecedented and unforeseen corruption and political scandals, far away from risks posed by ordinary economic cycles.

It is too early to tell how judicial courts will decide on such matter. Uniformity of precedents may also be rendered more difficult to the extent that many concession agreements contemplate arbitration clauses, and, although involving public entities, arbitration proceedings may still be subject to a certain degree of confidentiality.

Taking all of that into consideration, the theoretical possibility of an economic equilibrium relief under judicial or administrative proceedings does not offer much mitigation to FX variation risk.

Absent provisions offering objective parameters and automaticity, rebalancing of an agreement has proven to be an extremely time-consuming and potentially litigious process. A foreign lender would not want to wait for its debt service to be paid up until the final resolution of such rebalancing provision. A default in the meantime would lead to debt acceleration and enforcement of the security package much before a final administrative or judicial decision on the topic of economic equilibrium. Indeed, there are known cases of economic equilibrium claims waiting for an administrative decision for more than a decade.

Precisely because of that, there are precedents of some long-term concession agreements more exposed to FX risk that have economic equilibrium provisions allocating FX risk to the Granting Authority and contemplating objective parameters which should enable a contract revision to be applied automatically or in a very short timeframe (such as accumulated variations – 5% or 10%, for instance - that, once achieved, would automatically trigger revision of tariff or payment obligations from the Granting Authority).

Metro lines offer good examples of those provisions. These are large and complex projects that usually cannot abdicate from some level of foreign currency financing, especially financing associated with rolling stock (trains) and other imported equipment. Even if they could forego such foreign currency financing, they would still be exposed to FX risk, because they need to import foreign equipment and spare parts from time to time.

As illustrations, Line 4 of the São Paulo Subway and the Salvador Light Rail Project (in construction) all have provisions in their concession agreements allocating part of FX risk to the Granting Authority (State of São Paulo and State of Bahia, respectively). In the case of the Salvador Light Rail Project, the Granting Authority shall compensate the concessionaire for any adverse FX impact exceeding BRL 10 million in any relevant financing payment period.
2. **Mitigation through Bonus Payment (Valor de Outorga).**

A very innovative solution for FX mitigation (at least partially) was that one conceived by the IFC in conjunction with the State of São Paulo, which has been incorporated in toll road concessions of the State of São Paulo since 2017.

The first concession to adopt such mitigation mechanism was the Centro-Oeste Paulista (Florínea-Igarapava) toll road awarded in 2017, followed by Rodovia dos Calçados (Itaporanga-Franca), and including other concessions such as the 46.7 Km Rodoanel Norte (North Ringroad) Project and the largest ever toll road concession in the State of São Paulo, the 1.273 km Piracicaba-Panorama (PIPA) Highway System.

According to the basic structure of these concessions, the concessionaire must pay a fixed signing bonus and a variable one to the granting authority (in this case, the State of São Paulo). The concession is awarded to the bidder that, duly qualified, offers the highest premium over the minimum fixed amount of the signing bonus (valor de outorga) as outlined in the tender documents. On the other hand, such concessionaire must also pay a variable signing bonus consisting of 3% over the gross revenues of the concession, throughout the concession term.

If so elected by the concessionaire at the commencement of the concession, it would be allowed to have the right to deduct from the 3% variable component of signing bonus installments the adverse impact of FX variation in relation to the principal amount of foreign currency indebtedness assumed by the project company up to the limit set forth in the tender documents and duly evidenced to the granting authority.

The mechanism works both ways, though. Upon such election, the concessionaire becomes also obliged to pay an additional amount of variable signing bonus, up to a total limit of 6% (3% + 3%), corresponding to any gains arising out of such FX variation in connection with the principal amount of its indebtedness (i.e., in case of appreciation of the Real).

The mechanism offers partial mitigation. If the adverse impact of FX variation exceeds the amount of the 3% variable signing bonus, the concessionaire will be able to deduct the full 3% amount only. The excess of such adverse impact might be carried over for deduction in subsequent years, but, to the extent such future deduction cannot be accomplished (for instance, because the concession reaches its final term), the concessionaire would still not be entitled to a cash refund from the granting authority. Conversely, in a scenario of strong appreciation of the Brazilian currency, the variable component of the signing bonus payable by the concessionaire would be limited to 6% of the gross revenues. Any excess gain might be added to future variable component installments, provided that, in any relevant payment period, the 6% cap cannot be surpassed.
Although offering only partial mitigation (because under extreme and theoretical scenarios, signing bonus might not be sufficient to absorb the entire FX variation adverse impact), stress simulations made by the IFC showed that in most statistically relevant scenarios, the mechanism would offer full mitigation.

This mechanism is not neutral and bears a fiscal impact on the granting authority, because it may reduce the amount of signing bonus that would be otherwise received by it in the long-term.

However, because such impact is limited to the amount of the variable component of the signing bonus to be received in the future (a non-recurrent revenue resulting from a one-time concession granting event), with no impact on previously existing revenues or tax collections, it does not have the potential of creating an unbalancing in the public accounts, nor consuming budgetary resources already committed to other uses.

This solution adopted for the toll roads in the State of São Paulo was also conceived for the projects of Lines 8 and 9 of the São Paulo Urban Trains System (CPTM), which have been recently awarded. IFC suggested that the mechanism could apply not only for the principal amount of foreign indebtedness, but also for interest payments. However, in this case, adverse FX impacts would be compensated not through reduction of signing bonus, but through additional payments to the concessionaire out of the tariff centralized collection system (a clearinghouse receiving tariffs for all the subway and urban train systems in the São Paulo metropolitan area). Because those additional payments could eventually cause material reductions in the residual amounts of tariffs to be received by CPTM and the São Paulo Metro Company, which are the last priorities in such clearing system, the mechanism was ultimately not approved.

A similar system of variable signing bonus compensation was also authorized to be used for the 4th round of federal airport concessions. The bids for such rounds took place in 2017, but investors ended up not electing to incorporate such mechanism in their concessions. The mechanism was not replicated in the subsequent 5th and 6th rounds of federal airport concessions, but Federal Government is still studying the use of such mechanism in other federal concessions.

Indeed, such mechanism has also been contemplated for the new federal toll road concessions, starting with the 35-year concession of the 850 km federal toll road BR-
153/080/414/GO/TO - Aliança do Tocantins to Anápolis, scheduled to be auctioned on April 29, 2021.

The federal mechanism is also intended to mitigate the risk of adverse FX variations and its impact on the principal amount (interests not included) of foreign indebtedness contracted by the concessionaire within the first 5 years of the concession.

The concessionaire may elect to activate such mechanism, as long as it does so within 12 months as of the date of executing the agreement.

Adverse impacts may then be deducted from a contractual Reserve Account set up to mitigate such FX risk ("recursos vinculados"). Similarly to the São Paulo State mechanism, here the reserve account will receive a specified percentage of the gross revenues of the concession, which would otherwise be payable by the concessionaire to the granting authority as a variable signing bonus ("outorga variável"). In case of FX variation in favor of the concessionaire, it shall increase the percentage of gross revenues to be deposited into the reserve account (up to twice the original amount).

3. **Local Counterparty Credit Guarantee on Currency Swap Transactions.**

As explained above, currency hedge instruments tend to be prohibitively expensive for longer periods.

There are many reasons for that. The main ones are associated with lack of market depth or liquidity (i.e., sufficient transactions that could offer more efficient prices) and of course the high volatility of the Brazilian currency.

But part of the cost is also associated with the perceived risk of default of the Brazilian counterparty contracting the swap or future instrument.

In those derivative transactions, to the extent that, at each adjustment period, the notional amount indexed by Reais and a local index (CDI or IPCA plus) results in a higher amount than the same notional amount indexed by the FX variation plus an applicable international index (Libor plus), that is, the opposite result that the Brazilian counterparty sought protection for, then such Brazilian counterparty will need to make a payment to the hedge provider and/or make a margin deposit.

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The hedge provider needs to include in the overall price of the hedge instrument the risk of default by the Brazilian counterparty.

The Brazilian Agency for Guarantees and Funds – ABGF was the first entity to develop a product pursuant to which it would provide a credit guarantee against such default risk.

On the basis that ABGF could price such risk more efficiently than global hedge providers (as this is a risk that would only materialize when macroeconomic conditions in Brazil tend to be favorable, thus leading the Real to appreciate against other currencies), ABGF would help Brazilian parties to contract hedge instruments at more affordable costs.

The idea is very positive, but it seems that ABGF has never got to implement it. Under current policies and priorities of the Federal Government, ABGF does not seem to be expanding its activities.

Nevertheless, BNDES is considering to further develop the idea and to offer such guarantee itself.

4. **US Dollar Indexed Offtake Agreements with State Owned Entities.**

This solution has already been adopted in emergency circumstances in the past.

For instance, in the early 2000s, as a short-term remedy against the shortage of power, the Brazilian Government launched the Emergency Thermal Power Program, to attract heavy fuel or diesel thermal plants that could be implemented and start generating power in a matter of few months (the other solution was that offered by gas-fired powerplants under the PPT program, but requiring much more time for implementation).

In order to oversee the program, the Brazilian Government created the state-owned company CBEE – *Companhia Brasileira de Energia Emergencial*.

Following a public auction, CBEE entered into 3-year PPAs with investors committed to implement their plants and start supplying energy in a very short timeframe.

Under the rules of the auction and subsequent PPAs, project companies were authorized to define a portion of the contract price which should be indexed to local inflation (K1), and a portion of the contract price which could be indexed to foreign currency (K2). By defining K2 accordingly, plants were able to access foreign debt if needed.
5. **IPEA’s Suggestion for the Replication of Chilean 10% Band Mitigation Mechanism.**

Although not implemented in Brazil, it is worth mentioning the suggestion presented by IPEA – Instituto de Pesquisa Econômica Aplicada in 2016 and based on the former Chilean model\(^{45}\).

The suggestion would consist of creating a band – for instance, a 10% fluctuation downwards or upwards - within which the FX variation would be absorbed solely by the concessionaire. Beyond such band, the adverse impact of such FX variation over the concessionaire foreign indebtedness (duly evidenced and up to the limit set forth in the concession agreement) would be compensated by the Government, for instance, through payments out of the Federal Guarantor Fund. On the other hand, favorable impacts beyond the 10% band, would oblige the concessionaire to pay such associate gains to the Granting Authority or to deposit such amount into the Federal Guarantor Fund.

In order to mitigate the FX impact for the Government, IPEA suggests that a relevant portion of the assets or funds sitting on the Federal Guarantor Fund be invested in foreign currency indexed instruments. The cost of such instrument and/or hedging mechanism taking by the Government would be passed over to the concessionaire, as part of its overall cost of financing.

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II. ARGENTINA

- Extremely high FX volatility.
- Highly restricted FX convertibility. Prior approval from Argentine Central Bank required to perform most FX transactions. More recently the Argentine Central Bank has tightened controls on FX convertibility, as the foreign reserves of the country shrink.
- Limited national capital market that provides some private solutions to deal with FX risks, such as hedges, futures, swaps indexed in different commodities and tokens of foreign products, among others.
- Foreign currency indexed or denominated contracts were more common in the beginning of the previous Administration (Dec 2015 – 2019), when the inflation levels were lower, the amount of foreign investment was higher, and the government was willing to take the FX risk.
- The common practice in Argentina is to have cross-border project finance structures, with cash inflows and guarantees provided by the private controlling shareholder.
- For the construction and financing of infrastructure, Argentina enacted in 2017 the PPP framework, comprised by Law No. 27,328, 2016 and its implementing Decree No. 118/2017.
- RenovAr Program.
- Road Concessions Mechanism.

1. General Overview

The Argentine Republic is the third largest economy in Latin America, after Brazil and Mexico, and has the fourth largest population with approximately 44.9 million inhabitants. The country is the 8th largest country by area in the world, and an important player in the Latin America region concerning agricultural and natural resources. The country is located in the south of South America, having physical borders with Uruguay, Paraguay, Brazil, Bolivia, and Chile.

Historically, Argentina has been in the vanguard of infrastructure development in Latin America. With a strong export industry and wealthier population than other Latin American countries, Buenos Aires and surrounding areas were the first cities to be connected pursuant to public transportation and infrastructure to exports.

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Not surprisingly, despite the periods of economic downturn, it is still recognized as a primary product, livestock and commodities producer for exports. Such historical conditions resulted in a leading position in several trade agreements and as a member of the MERCOSUL.\textsuperscript{49-50}

According to the World Bank Overview "Within its 2.8 million square kilometers of territory, Argentina is endowed with extraordinary fertile lands, gas and lithium reserves, and has great potential for renewable energy. It is a leading food producer with large-scale agricultural and livestock industries. In addition, Argentina has significant opportunities in some manufacturing subsectors, and innovative services in high tech industries"\textsuperscript{51}.

However, due to consecutive governments driven by populism, Argentina faced numerous economic crisis during the last decades, resulting on a long recession period.

Argentina is a presidential democratic republic and a state with a decentralized government. The existing political system has been established in 1853, pursuant to the enactment of the Argentine Constitution. In 1994, a modernization process was launched, reforming the constitution and instituting new structural organic rules to the country.\textsuperscript{52}

Currently, center-left President Alberto Fernandez began his four-year term in December 2020 and has pursued a social agenda, contemplating government investment to increase social conditions, renegotiation of the public debt and concession plans to increase foreign investments. His predecessor and center-right President Mauricio Macri had a neoliberal-austerity agenda, which included privatization of state-owned companies, reform in the social security, tax and labor systems.\textsuperscript{53}

In addition to enduring the effects of several domestic political and policy changes in recent years\textsuperscript{54}, Argentina was also severely impacted in 2020-2021 by the worldwide COVID-19 pandemic.


pandemic, which led to, among other critical situations, a decline in Argentine GDP of 16.2%, the largest retraction in its history. Although the macro-economic conditions are not in their best days, the country is ranked by the World Bank Doing Business measuring report at the 126th position.

A more difficult scenario is perceived in terms of foreign investment, due to macro-economic conditions which entail high levels of institutional risk, currency fluctuations, and sovereign debt risk. In recent years, currency devaluation, international monetary defaults, and strict regulations to deal with FX risk have been common occurrences in Argentina and have affected some potentially great initiatives from the Argentine Government, such as the RenovAr Program, which will be further described below.

Given the economic distress scenario, the current Argentine Administration is directly investing and creating government-assisted programs to support the population. With the assistance of multilateral organizations – such as the Corporación Andina de Fomento (“CAF”), that has a portfolio of investments amounting to USD 3.7 billion in Argentina in 2019, the International Finance Corporation (“IFC”), with a USD 6.2 billion portfolio in committed loans in 2020, and the Inter-American Development Bank with USD 10.5 billion in 2019, the country is ranked by the World Bank Doing Business measuring report at the 126th position.

59 According Tavarone, Rovelli Sakim & Miani, in the legal article “Argentine Central Bank Mandates Companies to Refinance Debt”, a refinancing plan shall be filed with Argentine Central Bank based on the following standards “a) Argentine debtors shall be granted access to the foreign exchange market to purchase foreign currency to make payments of services of principal for up to 40% of the principal amount due on such period only; and, b) at least 60% of the principal amount due on such period shall be refinanced with a new external indebtedness with an average life of at least 2 years”. Available at https://www.trsym.com/argentine-central-bank-mandates-companies-to-refinance-debt/?lang=en. Accessed on March 21, 2021.
62 According to CAF “la estrategia de CAF en el país procura apoyar la reducción de los costos logísticos y de transporte con el propósito de aumentar las exportaciones o apuntalar ganancias de productividad; apoyar proyectos con alto impacto en la mitigación de brechas sociales, contribuir con la recuperación y sostenimiento del crecimiento y productividad del sector público (mediante esfuerzos de conocimiento, asistencia técnica y financiamiento) e impulsar el desarrollo del sistema financiero local”. For more information we suggest accessing Annual Report CAF 2019. Available at https://scioteca.caf.com/handle/123456789/1630. Accessed on March 21, 2021.
billion approved investment in Argentina in 2020, the investment for social and infrastructure sectors is contributing to a better horizon for the Argentine economy.

The World Bank forecasts that Argentina’s economy is "to grow by 4.9 percent this year [2021], which would be the first positive growth rate in four years. A loosening of pandemic mitigation measures and fading uncertainty surrounding the recent debt restructuring are expected to support private consumption and investment. As consumption slows, growth is projected to soften to 1.9 percent in 2022". The figure below illustrates Argentine GDP per capita growth, from 2000 to 2019:

**Figure 6. Argentine GDP per capita growth (annual %)**

![Figure 6. Argentine GDP per capita growth (annual %)](image)


According to the last announcement of investment rates, Moody’s classified Argentina as “Caa1” on 2020 and Standard & Poor’s as “CCC+”. 

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2. Foreign Exchange Controls

As mentioned in the first section of this Report on Argentina, foreign exchange regulations in such country have always been present, with the level of government control varying from time to time\(^70\).

Currently, Decree No. 609/2019, as extended by Decree No. 91/2019\(^71\) ("Decree No. 609/2019") sets forth that any non-residents shall require prior central bank approval to access the FX market in any amount above USD 1,000 per month\(^72\) and resident individuals shall be subject to a limitation of USD 200.00 per month, in any of the (dual) conversion systems supervised by the Argentine Central Bank\(^73\). The dual conversion system uses floating FX rates determined by the market. However, in practice, the Argentine Central Bank intervenes in the FX market as buyer or seller of foreign currency in order to control the FX rate.

Decree No. 609/2019 also establishes the following conditions with respect to usual transactions in the infrastructure sectors\(^74\):

- **Payment of principal and interest under external financial indebtedness**: debtors established in Argentina are not required to obtain prior Central Bank authorization to access the FX market under external financial indebtedness at maturity for payment purposes. However, any prepayments or unscheduled payments (such as penalties or interests due to delay) need to obtain such prior approval.

- **Access to the FX market for investment purposes**: Argentine resident legal entities (such as companies performing infrastructure services to the government according to the PPP legal framework), local governments, mutual funds and local trusts must require prior Central Bank approval to purchase foreign currency and/or transfer foreign currency abroad for the following purposes: (i) subscription of debt securities


\(^{72}\) According Tavarone, Rovelli Sakim & Miani, in the legal article “Argentine Reinstitutes Capital Controls: Key Points” The regulation excludes from this limitation the operations of: “(i) official export credit agencies; (ii) diplomatic and consular delegations for official expenses, (iii) representatives of courts, special missions, commissions or bilateral bodies established under treaties or international agreements, in which Argentina is a party thereto, for official expenses”. Available at: https://www.trsym.com/argentina-reinstitutes-capital-controls-key-points/?lang=en. Accessed on March 24, 2020.


between affiliates; (ii) subscription of debt securities; (iii) loans granted to non-
Argentine residents; (iv) bank deposits abroad of Argentine residents; (v) purchases
and transfers abroad of foreign currency for transactions between Argentine residents;
and (vi) constitution of guarantees for derivative transactions.

Argentine companies and individuals are allowed to hold bank accounts in foreign banks
and currencies.

Argentina also has a limited national capital market that provides some private solutions
to deal with FX risks, such as hedges, futures, swaps indexed in different commodities and
tokens of foreign products, among others. It is important to note that some of these
products can be found in the over-the-counter market, but traditional currency hedge
forms are only sold by the Central Government, as a method to manage the inflow and
outflow of foreign currency in the country.

An alternative is the acquisition of private insurances to deal with currency devaluation
and payments abroad or indexed in foreign currency. The Argentinean legislation does not
prohibit private parties, such as insurance companies, to provide FX devaluation
insurances. However, given the current Argentine economic situation, it is not common to
find private insurers offering such products.

With respect to the banking market, since September 1, 2019 (date of enactment of
Decree 609/2019), any foreign currency loan disbursements to Argentinean companies or
to be used to pay debts in Argentina must be converted to pesos and deposited in local
bank accounts.

As of September 15, 2020, the Communication “A” 7106 from the Central Bank of
Argentina75 determined that companies and financial institutions “shall reprofile at least
60% of any payment of principal scheduled between October 15, 2020, and March 31,
2021, on any external financial debt (other than intercompany debt) and dollar-
denominated local securities offerings”76.

To deal with these new regulations77 and the prior Decree 609/2019, Argentine companies
are refinancing their loans with foreign parties to include a foreign reserve account in their

structures, which shall be used to guarantee the payment. Such inclusion is being used to guarantee the debts and avoid the increase of interest, execution of guarantees, and application of penalties, but cannot be used to repay the debts that are under the restrictions of Communication "A" 7106.

3. Infrastructure Needs, Opportunities and Legal Regimes

As previously mentioned in the Sections above, even though Argentina is going through a long recession period, due to several economic challenges and institutional policy changes during the last decades, the current administration is seeking to invest and create government-assisted programs to support the Argentinian population, through the establishment of new investments for social and infrastructure sectors in significant amounts.

This tendency can be verified in the World Bank’s forecasts for the local economy, which is expected to grow by 4.9 percent in 2021, representing an expectation for the first positive growth rate in the last four years. In this scenario, it can be understood that, mainly because of the difficult current economic and social situation, the Argentinean infrastructure sector has a lot of room to grow and the Government is looking at this sector as an important catalyst agent to promote the local economy and develop the relevant sectors locally. Bearing this in mind, in order to facilitate such growth, it is also important to have a legal framework and background that is able to promote new investments and new financing sources.

As further described in Section 4 below, the construction and financing sources of the infrastructure sector in Argentina were regulated in 2017 by the PPP framework, comprised by Law No. 27,328, 2016 and its implementing Decree No. 118/2017, as amended from time to time. This legislation still plays an important role in the infrastructure sector as the PPP schemes were, and still are, seen as the main source of new investments and opportunities for the country to boost its infrastructure sector and mitigate its local deficit in the referred areas, through a greater participation of new agents such as commercial banks and multilateral credit organizations in the financing of public works.

The PPP framework mentioned above provides a broad definition of the concept of PPPs and allows a wide variety of transactions to be developed within its scope. In this sense, according to the legislation, any category of infrastructure projects, housing, activities and services, productive investments, technological innovations and researches may be

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structured under the PPP framework. Furthermore, each province within Argentina may enact its own PPP legal framework.

The contextualization above is intended to indicate that one of the main paths taken by the Argentine Government in order to expand infrastructure projects locally and, in addition, seek to mitigate negative economic impacts on the country, is the implementation of PPP schemes for different sectors. According to the PPP Knowledge Lab, there are 186 active PPP projects in Argentina, with a total active investment of USD 32.4 billion.

In addition, also according to the data available in the PPP Knowledge Lab, an analysis of the most recent projects reveals that the electricity sector currently comprises the largest number of projects, as may be seen below:

**Table 2. Argentina’s Infrastructure Projects: Electricity Sector**

<table>
<thead>
<tr>
<th>Project Name</th>
<th>Sector</th>
<th>Financial Closure Year</th>
<th>Investment (USD Million)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Canadon Leon Wind Farm</td>
<td>Electricity</td>
<td>2020</td>
<td>160.00</td>
</tr>
<tr>
<td>Loma Blanca Wind Portfolio</td>
<td>Electricity</td>
<td>2019</td>
<td>475.00</td>
</tr>
<tr>
<td>Altiplano 200 Solar Power Plant</td>
<td>Electricity</td>
<td>2019</td>
<td>234.00</td>
</tr>
<tr>
<td>Puerto Madryn II Wind Farm</td>
<td>Electricity</td>
<td>2019</td>
<td>200.00</td>
</tr>
<tr>
<td>Chubut Norte III and Chubut Norte IV Wind Farms</td>
<td>Electricity</td>
<td>2019</td>
<td>175.00</td>
</tr>
</tbody>
</table>

From a general and procedural perspective, the PPP scheme adopted in Argentina also follows the classic principles of public-private partnerships, which are applied worldwide. The most commonly used procurement process in Argentina is the public bidding. Also, the criterion used to award a PPP corresponds to the offer that is the most convenient for the public interest based on the conditions established in the bidding or tender notice to be issued by the government authority responsible, which is the PPP Secretariat. It is

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important to point out that, before the public bidding is initiated, the contracting entity must prepare a report comprising the following main topics:

- The feasibility of engaging in a PPP;
- The fiscal impact of the expenses to be incurred;
- The financial and budgetary effect of the project;
- Its effects on public resources and externalities caused;
- The impact of the project on the generation of employment and the promotion of small and medium-sized companies and the local industry;
- The environmental and social impact;
- An assessment of the equitable sharing of risks between the parties; and
- Other relevant information.

In summary, bearing in mind the difficult current economic and social situation of Argentina, it is clear that schemes and structures which are attractive for private sector agents to invest in may contribute to the country’s economic development so that it may retake its regular course of economic and social reforms and positive growth that is much expected. From a general perspective, the PPP regime comprised in the legal framework mentioned above, in essence, allows for a balanced and predictable articulation between the public and the private sector, also effectively assigning and thus mitigating project risks in a reasonable manner between the parties involved in the transaction. The main goal in Argentina is, therefore, for the Government and sector players to focus on how they may contribute with what is necessary for the PPP regime and structures to remain a suitable and attractive tool for channeling private investment in public infrastructure.

4. Foreign investment in Infrastructure: Cross-border Project Financing

Considering the size of its population, its territorial length, main economic sectors and available natural resources, Argentina is in high demand for investment in infrastructure.

In view of the elevated amount of investment that the country needs, and the many challenges currently faced, as mentioned in prior items of this report, capital-intensive industries/sectors must strive to efficiently use the appropriate structures available to obtain financing. The Argentinean legislation does not limit the sources or management of funding, allowing infrastructure projects to seek recourse or non-recourse financing under market conditions.

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Long and medium term agreements connected to project finance structures (financing, operation and maintenance, supply, equipment acquisition, among others) can be fixed in foreign currency, indexed in foreign currency and agreed in UVA’s – Unidad de Valor Adquisitivo, which is a readjustment index for the Argentine peso to cope with inflation. Such indexed or denominated contracts were more common at the beginning of the previous Administration (December 2015 – 2019), when inflation levels were lower, the amount of foreign investment was higher, and the government was willing to take the FX risk.

The common practice in Argentina is to have cross-border project finance structures, with cash inflows and guarantees provided by the private controlling shareholder. Multilateral organisms were also strong financiers in the Argentine economy considering their development goal and their role as lenders of last resort.

Another usual practice is to have the government or a state-owned company as the off-taker in the infrastructure projects. In this scheme, as the acquirer of goods or services to be provided, the Argentine Government concentrates the obligation to pay and regulates its sale/consumption/availability (e.g., energy, transport, lightening, among others).

For the construction and financing of infrastructure, Argentina enacted in 2017 the PPP framework, comprised by Law No. 27,328, 2016 and its implementing Decree No. 118/2017, as amended from time to time. According to such regulations, payments can be subsidized by the Central Federal Government or its subnational authority depending on the contractual arrangements to be entered into. The granting authority may be a Governmental entity or a decentralized entity, depending on the service to be granted and the relationship with the State subdivisions.

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84 According to Maria L. Schiaririti, from Marval O’Farrell Mairal Law Firm, “there is no mandatory scheme for the remuneration of the private party in a PPP in Argentina. The private party’s remuneration depends on the kind of agreement, the form, the modality and the opportunities for payment established in the relevant PPP contract. Pursuant to section 9 of Law No. 27,328, parties may agree on the PPP contract on the procedures for the price review with the purpose of preserving the agreement’s financial-economic equation. The remuneration might be paid by the users, the contracting party or third parties”. Lexology. Public Private Partnership in Argentina. Available at: https://www.lexology.com/library/detail.aspx?g=83598e7b-d88e-4531-926f-21395558c58b. Accessed on March 27, 2021.

85 According to Maria L. Schiaririti, from Marval O’Farrell Mairal Law Firm “since Argentina is a federal country, each province may enact its own PPP legal framework. In this regard, the PPP framework invites provinces to adhere to the regime it sets out. The city of Buenos Aires and 14 provinces (Buenos Aires, Córdoba, Mendoza, Río Negro, Neuquén, Santa Cruz, Chaco, San Juan, La Rioja, Entre Ríos, Misiones, Jujuy, Chubut and Tierra del Fuego) have already adhered to the PPP framework”. Lexology. Public Private Partnership in Argentina. Available at: https://www.lexology.com/library/detail.aspx?g=83598e7b-d88e-4531-926f-21395558c58b. Accessed on March 27, 2021.

86 According to Maria L. Schiaririti, from Marval O’Farrell Mairal Law Firm "the PPP framework does not provide for a centralized PPP authority. The control and follow-up of PPP procurement processes and execution of PPP agreements is performed by different agencies, as follows: (i) the relevant contracting agency; (ii) the relevant convening authority, which, with regard to projects performed by entities from the federal public
5. **Foreign Exchange Risk Mitigation**

As a matter of concept and regulation, the risks under a PPP agreement shall be allocated to the party that can deal with the risk in the most efficient way. The Argentinean legislation does not provide anything different in that respect.

In past years, the granting authorities were keen to obtain the necessary investments and have the projects executed. As it is a policy determination matter which risks each government is willing to take in a contractual arrangement under a public proceeding, the public agreements entered during each Administration may differ accordingly.

In Argentina, the current Administration has not executed any new public contracts with payments in foreign currency or indexed to dollars. Moreover, the current Administration went public with the idea of amending the existing contractual obligations signed in dollars in order to replace them for payments in pesos, so that the cost of the agreement does not follow the devaluation rates. Until April 2021, the government intention was not fulfilled and the agreements have so far not been amended.

As in other civil law jurisdictions, if there is a government imposed amendment to a public agreement or a specific risk allocated to the public/granting authority materializes, the private party will be entitled to indemnifications or the revision of the public agreement and a claim for the economic rebalance of the financial clauses and conditions.

In relation to currency devaluation risk, the most common allocation is that such risk is attributed to the private party. The assumption under this allocation is that private parties are the most efficient players to obtain profit, therefore, the best contractual parties to monitor the market and obtain the best business-oriented and economic conditions.

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administration, will be the ministry to whose jurisdiction the contracting agency belongs; and (iii) the direct superior authority of the contracting agency when such agency is an entity within the federal public sector. Pursuant to the PPP framework, the following might act as contracting agencies: (i) the federal government and its decentralized entities (including social security entities); (ii) state-owned entities or state-owned companies in which the federal government has a majority stockholding or control of its decision-making process; (iii) public entities not included in the federal administration in which the federal government has control over its decision-making process; and (iv) public trusts whose funds or resources are wholly or partially owned by the federal government”.


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Under a very strict standard, it would also be possible for a private party to claim that due to an extreme scenario of currency devaluation the contract became over-burdensome and may discuss with the granting authority to terminate the agreement.

In any of the cases above, it is possible for the parties to judicially claim the economic rebalance and contract termination.

Currency hedge is available in Argentina but under limited terms. In the past, it was common to find market products that would mitigate the risk for three to five years. Nowadays, however, it is most common to find carved-out options covering up to three years.

Under such circumstances, Argentine companies have been using the traditional form of hedge to protect their economic situation. When the traditional forms of hedge (trading currency pursuant to the best FX rates available) cease to be available, the companies try to negotiate with their creditors to postpone their obligations or to use other private mitigation arrangements (NDFs, OTC instruments, insurances, among others).

For purposes of this report, we identified an ambitious Argentine program launched in 2015, called “RenovAr”, which aimed to shift the source of 20% of the energy consumed in Argentina to renewable sources until 2025, by promoting the renewable projects necessary to produce 10.4GW or 1.2GW per year on the target date.

In a one-off program, the government decided to provide VAT benefits on imports, accelerated depreciation, and up to 10 years of income tax benefits. Furthermore, it allocates the FX risk to the contractual offtaker and the Central Government.

In summary, the RenovAr program was designed to mitigate risks faced by investors in renewable energy projects. The program is structured to have the state-owned company – Compañía Administradora del Mercado Mayorista Eléctrico – CAMMESA, as the offtaker of the project developers under power purchase agreements, making the state-owned entity responsible for the acquisition of the generated energy and the distribution of the energy to the consumers (in pesos).

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The legal framework also created a fiduciary state-instituted fund, called *Fondo para el Desarrollo de Energias Renovables* (the “FODER”), to finance the projects, mitigate liquidity and lower offtaker credit risks by providing guarantees and direct financing for the projects. The funding came from “the national budget, savings resulting from lower reliance on fossil fuel-based generation, specific taxes and revenues from the issuance of debt securities”\(^{92}\).

According to IFC, such projects’ bankability was strengthened by several key features, of which we highlight, for the purposes hereof, the following: (i) PPA tariffs in US dollars, but payable in ARS; (ii) compensation triggered by payment default or convertibility/transferability restrictions in the form of a put option granted by the Government of Argentina and payable out of a pre funded liquidity and guarantee fund (FODER) and with additional backstops from the Ministry of Energy and Mining, the Ministry of Finance and earmarked government securities; and (iii) optional World Bank guarantees in the event that the above-mentioned compensation is not paid or in the event of inconvertibility or non-transferability\(^{93}\).


\(^{93}\) Other key features include: (i) top priority dispatch to RenovAr projects; (ii) provisions for lender consent prior to assignment, termination, amendment or renegotiation of the PPA and a 180-day cure period in connection with a termination event attributable to the project company; (iii) backstop offtaker obligations with a pre-funded liquidity and guarantee fund (FODER) that benefits from structural protections including a top-up obligation by the Government of Argentina if the fund balance drops below 65% of the required amount and a 12-month reserve account; and (iv) a dispute resolution mechanism based on international arbitration. (International Finance Corporation – IFC. RenovAr (Argentina): Scaling "Express Edition”. Available at: https://www.ifc.org/wps/wcm/connect/987eeec6-6259-4c00-8e21-fbf49813a47b/scaling-infra-argentina-08.pdf?MOD=AJPERES&CVID=mSCMXzz. Accessed on May 6, 2021.)
Table 3. Guarantee Structure of RenovAr Program

The RenovAr program is still ongoing, on its 4th round of concessions, but macro-economic issues and governmental decisions are lowering the construction rhythm and amending original guidelines.

Source: IFC94.

III. CHILE

- Strong economic reforms and economic stability in Chile have led to a low to medium level of currency fluctuation FX volatility.
- Foreign currency is freely exchangeable and transferable from and into the country, but the transactions must be performed pursuant to the Formal Exchange Market or the Informal Exchange Market.
- Long-term infrastructure projects in Chile are usually financed through non-recourse project finance transactions.
- Legally permitted under the Chilean law to enter into short or long-term contracts and transactions denominated or indexed in US dollars or other currencies.
- Considering the low variation of currency over the years, the Government of Chile does not currently provide any government-supported FX Risk Mitigation method, leaving the foreign investors to find in the market the necessary tools to protect their investments.
- Infrastructure projects are capital intensive and long-term investments and financing institutions usually protect their investments by requiring the sponsor and the project company to develop a hedge strategy. Considering the low currency fluctuation, the banking market has been able to offer the traditional forms of protection such as currency swaps, commodities indexed swaps, futures, among others.
- Historically, for the implementation of most infrastructure projects during the end of the 90’s and beginning of the 2000’s, the government provided a series of guarantees to PPP projects to foster infrastructure investment.
- In 1998, a risk sharing mechanism was created to mitigate FX risk: in case of depreciation by more than 10%, risk was attributed to the Government (which would then compensate adverse effect of such FX variation on debt service); in case of appreciation in comparison to US dollars, private concessionaire should pay the Government.

1. General Overview

Chile is the 7th largest country in South America, with a territory of 756,950m². It currently ranks as the 6th most populous country in the continent, with a population of 19,116,201 inhabitants. The country is the 38th largest country by area in the world\(^9^5\) and an important player in the Latin America region in relation to agricultural and natural resources. The country is located in the south of South America, having physical borders with Brazil, Peru, Bolivia and Argentina.

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In the '70s, Chile became the most stable country in Latin American when it adopted a model of market-oriented economy, by reducing custom tariffs and creating an outward-oriented model of development. Afterwards, the Chilean public sector has gradually given up its role as a developer and deepened its role as a regulator, leaving the productive activities to the private sector. Measures such as the privatization of state-owned companies, import taxes reductions and trade liberalization through a great number of free trade treaties, privatization of social security system, private sector participation in health and education, independence of the Chilean Central Bank, reorganization of public finances, liberalization of the banking system, opening the capital account and promoting foreign investment, were implemented and still are part of the Administration’s agenda.

With the structural reforms, Chile inserted its economy in the world map, and globalization became the key strategy of the Chilean development model. Accordingly, through trade liberalization, Chile expects to make the best of the markets, attain economies of scale using the international markets, and use the country’s comparative advantages. The pillars of the Chilean model can be summed up as: (i) resorting to international trade; (ii) opening the capital account and using the flows of foreign investment; (iii) macroeconomic stability; and (iv) good governance.

According to the World Bank Overview “Chile has been one of Latin America’s fastest-growing economies in recent decades thanks to a solid macroeconomic framework, which enabled the country to cushion the effects of a volatile international context and reduce the population living in poverty (on US$ 5.5 per day) from 30 percent in 2000 to 3.7 percent in 2017. However, more than 30% of the population is economically vulnerable and income inequality remains high.”

From a political perspective, Chile has a long democratic tradition, even though it has experienced a gap of 17 years of authoritarian rule as a result of the 1973 military coup led by General Augusto Pinochet on the democratically elected Socialist government of Salvador Allende. After a difficult period of dictatorship, Chile ultimately restored its democratic system of government in 1990.

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President Sebastián Piñera, the current president of Chile, of the center-right “Let’s Go Chile” coalition, was elected for a second non-consecutive term in March 2018. His 2017 campaign was centered on the economic record of his first term (2010-2014), when Chilean economy expanded by 5.3% per year. Even though the president was reelected with a proposal of enacting business-friendly tax and labor reforms, it is expected that Piñera is going to spend the remainder of his term trying to contain social unrest while contending with the health and economic challenges posed by the Coronavirus pandemic.

Although living standards have improved significantly, the mentioned social unrest arises from the dissatisfaction of Chileans with the limits of the post-Pinochet policy consensus. According to the Congressional Research Service Report on Chile, “They [Chileans] argue that Chile’s economic growth has disproportionately benefited a small sector of society and that most Chileans still lack economic security and access to quality public services. Chileans have registered their discontent with the status quo through repeated electoral swings and mass mobilizations over the past decade.”

The scenario of large popular uprising and social unrest was deeply inflamed in 2019, when social protests against an increase in transit fares suddenly turned violent. The strict government response to such protests with the deployment of military forces and establishment of curfews backlashed with millions of Chileans taking to the streets to denounce societal inequality and the high cost of living in Chile.

Also, according to the Congressional Research Service Report, “Piñera has sought to address protestors’ demands with proposals to increase pensions and the minimum wage, reduce health care costs, and enhance penalties for corruption. He also agreed to hold a plebiscite on whether the country should draft a new constitution to replace the Pinochet-era charter.”

In this sense, as previously mentioned, Chile’s reputation as Latin America’s most stable and business-friendly nation will be tested as the country is preparing itself for tumultuous years ahead with two elections and the drafting of a new constitution.

As stated on the Bloomberg review of the latest events in Chile “Many investors credit the current constitution for underpinning more than three decades of rapid growth, fiscal discipline and surging corporate profits that gave Chile the highest sovereign credit rating

in Latin America. For the left, the Constituent Assembly is an opportunity to overthrow the legacy of unfettered capitalism of Augusto Pinochet’s dictatorship and the deep inequalities it enshrines. In the meantime, investors are holding their breath”  

The balance of risks in Chile is tilted to the downside due to uncertainty regarding the impact of the COVID-19 pandemic and the fluid domestic political context. According to the World Bank, Chile is exposed to lower-than-expected copper prices and longer subdued export demand resulting from the pandemic. In addition, prolonged containment measures will likely impact economic activity despite fiscal and monetary stimulus. Also, the political uncertainty around the constitutional reform of the country, as previously mentioned, could weaken private sector confidence, dampening the recovery.  

The World Bank forecasts that Chilean economy will grow 3.2% in 2022. Figure 7 below illustrates Chilean GDP per capita growth, from 2000 to 2019:

**Figure 7: Chilean GDP per capita growth (annual %)**


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According to the last announcement of investment rates, Moody’s classified Chile as A1 in 2020 and Standard & Poor’s as A in 2021.\(^{106}\)

As further described in the present study, the foreign exchange risk in emerging markets is usually present because, in such jurisdictions (as is the case of Chile), in a situation of a large foreign currency-denominated debt, large depreciation of the local currency in real terms tend to magnify the cost of debt service in sectors where the earnings are not naturally linked to the exchange rate. The borrower’s exposure and risk grow as does the debt, but not the earnings, given that those are denominated in local currency. In this scenario, the topics below are constructed in order to provide an overview of the specific situation in Chile, presenting the more commonly adopted mitigators for the referred risks.\(^{107}\)

2. Foreign Exchange Controls

The foreign exchange rates in Chile are mainly determined by market conditions (offer and supply). However, under specific circumstances and in accordance with the government’s public policy, the Government of Chile (“GOC”), through the Chilean Central Bank, has the authority to intervene in the rates for purposes of stabilizing the Chilean currency (pesos chilenos) if needed.\(^{108-109}\)

The Chilean peso has been the official currency of Chile since 1975 and is probably the Latin American currency that suffered the lowest devaluation from that date on.

Such stability is due to strong government action and the implementation of a healthy economic policy in the country through a lengthy process that was intensified especially in the '90s. This economic policy is seen as a great success case.

As previously introduced, from August 1984 to September 1999, the Chilean Central Bank adopted an exchange rate band in which the main objectives were to maintain international competitiveness and reduce excessive exchange rate volatility.\(^{110}\) Since September 2, 1999, the country has embraced a fully flexible exchange rate regime, with


the possibility of the monetary authority intervening in the market only if the exchange rate does not reflect the “real” value of the foreign currency\textsuperscript{111}, as set forth below:

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure8.png}
\caption{Exchange Rate Band and Observed Exchange Rate}
\end{figure}

Foreign currency is freely exchangeable and transferable from and into the country, but the transactions must be performed pursuant to the Formal Exchange Market ("FEM") or the Informal Exchange Market ("IEM")\textsuperscript{113-114}.

According to the legislation on the matter, certain transactions must be channeled through the FEM and reported to the Chilean Central Bank, such as the ones described below\textsuperscript{115}:

\begin{itemize}
\item\textsuperscript{113} FEM is composed of authorized banks and exchange houses. Differently, the IEM is composed of all other entities that do not belong to the FEM and, consequently, are not authorized to participate in the referred market, such as stockbrokers. In other words, the FEM can be defined as a regulated and, thus, much stricter market, that only special participants can act pursuant to the fulfilment of the requirements established by the Chilean Central Bank. Available at: https://www.bcentral.cl/documents/33528/1333247/Manual+de+Procedimientos+y+Formularios+de+Informaci%C3%B3n+del+CNCI.pdf/69998a10-5a76-4897-b8ea-756742e21dfe?t=1617027999063. Accessed on April 5, 2021.
\item\textsuperscript{114} Each transaction should be carried out in accordance with Chapter XIV of the Chilean Central Bank’s Compendium of Foreign Exchange Regulations, providing all the information required for such transactions. Available at: https://www.bcentral.cl/documents/33528/1333247/Manual+de+Procedimientos+y+Formularios+de+Informaci%C3%B3n+del+CNCI.pdf/69998a10-5a76-4897-b8ea-756742e21dfe?t=1617027999063. Accessed on April 5, 2021.
\item\textsuperscript{115} Banco Central del Chile. Available at: https://www.bcentral.cl/documents/33528/133521/QA_normativa_cambiaria.pdf/7a3c1bff-b0db-ccf0-3abc-072022f4accb?t=1580133661876. Accessed on April 5, 2021.
\end{itemize}
(i) Transactions with "derivative instruments" to be carried out with persons domiciled or residents abroad and transactions with "derivative instruments" to be carried out in Chile with the entities of the FEM;

(ii) Credit and investment transactions carried out by banking companies established in the country, with persons domiciled or residing abroad; and

(iii) Credit transactions, deposits, investments and capital contributions from abroad.

With respect to foreign investment and international finances, the Chilean Central Bank must be informed before the remittances of foreign currencies that correspond to principal, interest, profits, finance payments and other transferences through the FEM entity involved in the transaction.

There are no restrictions as to the term or the amount of transaction and it is also permitted for companies and individuals residing/domiciled in Chile to maintain bank accounts and investments in US dollars and other foreign currency with local banks. In the case of deposits abroad, the Chilean Central Bank also requires that payments or remittances to and from Chile be reported and carried out through the FEM.

3. Infrastructure Needs, Opportunities and Legal Regimes

Chile has a historical dynamic and market-oriented economy, characterized by a high level of foreign trade.

The international commercial trade in Chile started in the military period (from 1973 to 1990) and was based on copper. In the 1990s, the Chilean Government enacted a policy to decrease customs tariffs and foster free trade agreements with different countries and trade blocks to promote the country’s exportations

In the same decade, following a global trend, the Chilean Government maintained a privatization economic instance that was initiated in the military regime on large scale and continued in the democratic period with less intensity. In the '90s, the Chilean Congress enacted a new Concessions legal framework, allowing for the increase of private participation in the economy

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Under such legal framework, the execution and/or administration of the granted services became responsibility of the private entities acting as concessionaires and no longer of the GOC, that had a small budget to create and manage the infrastructure required for the economy to grow\textsuperscript{118}.

The concessions carried out in such period put Chile in a privileged position in Latin America, as the national roads, energy plants and airports were cutting-edge, in a period where other countries were still struggling with sovereign international debts, inflation and decreasing budgets.

Nowadays, with an already strong mining, agricultural industry and the in-progress shift of the country’s energy sources to renewables, Chile currently demands intensive and efficient infrastructure for the production, transportation and export of such commodities and to expand the energy generation.

Moreover, Chilean citizens are putting pressure on social, urban and other related infrastructure necessary for economic and social growth. Such scenario builds up a momentum for the development of a second or third round of national infrastructure projects, modernizing the current infrastructure or opening new paths to national economic growth.

From a legal perspective, the framework that shall support the national infrastructure development is still the legislation from the ’90s, with some amendments to modernize the framework.

The Concessions System is regulated by Decree No. 900 of 1996 (the “Public Works Concession Act” or “Decree No 900”)\textsuperscript{119} which amends and restates the previous Legal Decree No. 164 of 1991. Decree No. 900 stipulates the main terms and conditions of the bidding process, all the negotiations between the GOC and the private entity interested in the concession and all the rights and details involving a concession of services by the State, through the Ministry of Public Works.

The PPP program in Chile followed the classic principles of public-private partnerships, which were being applied worldwide. The Ministry of Public Works, jointly with other


\textsuperscript{119} On an additional note regarding the current legislation on Concessions in Chile: It is important to point out that, lately, popular protests are arising in Chile demanding a new Constitution for the country. As the movement keeps gaining momentum, it is important to note that, if a new Constitution is indeed brought up for discussion and execution by the Government, the specific legislation regarding the Concession program may be subject to alterations in the near future.
Ministries, was responsible for assessing the necessity, opportunity and the financing sustainability of each project among the pool of potential projects and decided which ones should be carried out. For the relevant project to be approved, it should be politically and financially viable, in addition to meeting the country's social and environmental demands.

The last development in Chilean infrastructure legislation is the creation of the Fondo de Infraestructura S.A. in 2018 (the "Infrastructure Fund")\(^{120}\). The Infrastructure Fund is structured as a limited liability company with a sovereign trust fund format\(^{121}\), in which 99% of the shares are owned by the Government and 1% by the Corporación de Fomento (CORFO). Its main objectives are the construction, expansion, repair, conservation, exploitation, development, financing and investment of infrastructure projects in the country.

In addition, and complementing Decree No 900, Law 20,848, issued by the GOC in 2015 ("Law 20,848"), contains the main terms and conditions regarding foreign investment in Chile.

In general, it comprises an agreement between the State of Chile and the foreign investor so as to permit the foreign capital to be invested in the country, in exchange for some benefits and regulatory stability, especially tax-related, such as: import of equipment, deductibility, faster depreciation, greater facility for remittance of revenues abroad, better exchange regimes and, in general basis, generating a policy of non-discrimination between domestic and foreign investors.

4. Foreign investment in Infrastructure: Cross-border Project Financing

The long-term infrastructure projects in Chile are usually financed through non-recourse project finance transactions. The funding usually comes from: (i) equity; (ii) capital market transactions (public offerings or debt instruments); or (iii) bank loans (corporate and project finance lending).

\(^{120}\) The Infrastructure Fund is, therefore, administered by the Chilean Ministry of Finance, seeking to finance and invest in infrastructure projects, either directly or through third parties, as well as prepare the necessary studies for the implementation of such projects. The Chilean deputy chamber approved the creation of the Infrastructure Fund in January 02, 2018 with the initial funding of the Ministry of Finance in the amount of US$ 9 million. As previously stated, for the development of its purpose, the Infrastructure Fund is structured to: "(i) Build, expand, repair, conserve, exploit and develop, only through unrelated third parties, such infrastructure projects; (ii) Carry out expenses or investments of a physical or financial nature, for new projects, promoting their construction and development; (iii) ISSUE financial instruments of debt, guarantees and other expressly authorized". Available at: https://www.gihub.org/resources/financial-facilities/fondo-de-infraestructura-sa/. Accessed April 5, 2021.

\(^{121}\) As for the corporate structure, as previously mentioned, the Infrastructure Fund is created as a limited liability company constituted by the State though its tax authority (detaining 99% of the fund) and by the CORFO (1%). The State is responsible to contribute with fiscal and national assets for public use. Its assets shall be highways granted in concessions that allow their administration to be established in the Infrastructure Fund. In addition, CORFO, for its part, shall provide resources or financial assets.
Chilean law allows parties to enter into short or long-term contracts and transactions denominated in or indexed to US dollars or other currencies, so that the foreign investor may mitigate the FX Risks that are intrinsic to these types of cross-border project financing.

Pursuant to the consolidation of a robust economy that, in return, contributes by attracting foreign investments to infrastructure projects, it is also understood that in Chile, long-term financing contracts between two private entities can be structured in the way that best suits these parties interests, with the structuring of instruments in foreign currency, values and prices indexed to foreign currency, among other available financing schemes.

With the recent crisis brought by the COVID-19 pandemic, the GOC is planning to use infrastructure development as a starting point to help reactivate the economic activity. In this sense, the GOC and the Ministry of Public Works have decided to continue with a strong pipeline of concessions through its PPP program so as to keep attracting investment into the sector and the country122.

5. Foreign Exchange Risk Mitigation

As previously mentioned in Section IV, the Concession System in Chile is in expansion and the GOC is seeking to create a friendly environment for foreign investors and, for that purpose, the GOC provides a legal framework intended to protect investors interested in the development of projects.

Such legal framework is based on Decree No. 900, the Concessions Law of Chile, and in Law 20,848, which contain the specific terms and conditions applicable to foreign investment within the country’s border. Nevertheless, the mentioned legal framework does not specifically provide for any FX Risk mitigation mechanisms.

Considering the low currency fluctuation over the years, the GOC does not currently provide any government-supported FX Risk mitigation guarantee, leaving the foreign investors to find in the private market the necessary tools to protect their investments.

Despite the low FX volatility in Chile, project lenders usually protect their investments by requiring the sponsor and the project company to develop a hedge strategy. Considering the low currency fluctuation, the banking market in Chile is well equipped to offer the

traditional forms of protection such as currency swaps, commodities indexed swaps, futures, among others.

From a bank perspective, Cowan, Hansen and Herrera (2004)\textsuperscript{123} found that Chilean firms tended to match the currency denomination of their debt with those of their assets and income streams, in order to avoid the FX variation risks in its projects. Such conclusions are aligned with studies on the matter, as set forth below:

"Close to 40 percent of the private sector external debt is naturally hedged against fluctuations. The composition of the external debt stock by economic sector in Chile indicates that 38 percent of the private sector external debt is held by firms in the agriculture, mining and manufacturing sectors. In these sectors, earnings are either directly or indirectly denominated in foreign currencies, as prices move closely with the exchange rate. Another 25 percent of the private sector debt is held by financial institutions, where regulations have ensured careful management of exposures to currency movements. Data collected for the 2004 Chile Financial Sector Stability Assessment (FSSA) indicate that Chilean banks hedge 90-100 percent of the net foreign currency position on their balance sheets."\textsuperscript{124}

Another point of attention is that Chilean regulations allow long-term agreements (such as power purchase agreements) to be denominated in or indexed to US dollars. As the use of long-term agreements in the energy sector is rising in Latin America, one of the innovative features of these structures is exactly the ability to reduce currency-related risks by denominating long-term agreements in the energy sector in, for example, US dollars.

Atlas Renewable Energy, for instance, has recently entered into three different long-term power purchase agreements in Chile, two of them already in operation and one under construction\textsuperscript{125}.

Specifically, regarding the project that is still under construction (Plant Sol del Desierto), Atlas signed the long-term contract for the sale of solar energy with Engie Energía Chile. As for the other two fully operational projects, the Javiera plant is structured as a private PPA and the Quilapilun Solar plant is a project allocated to the Chilean open market, under the 2014 tender procedure. Such investments were carried out in transactions using US dollar-dominated contracts.


According to Fitch Ratings Report on the Chilean Electricity Sectors:\textsuperscript{126}

\begin{quote}
"The Chilean electricity market is mostly U.S. dollar-denominated due to long-term U.S. dollar-dominated contracts. Most generation companies have a low exposure to local currency costs. On average, nearly 10% of costs are denominated in Chilean pesos. Most companies have FX swaps to mitigate some of the currency risk stemming from debt denominated in local currency. (…) Most companies have broad access to local and international markets, coupled with adequate cash flow generation, and readily available cash is mostly allocated in U.S. dollars on banking instruments with high liquidity."
\end{quote}

In addition, the market practice to hedge agreements is also commented on a study conducted by the University of Chicago entitled: \textit{"Financing of Chilean Public-Private Partnerships: The Shaping of Chile’s Public Policy for Economic Development"}:

\begin{quote}
"Chile’s energy projects are frequently financed by international lenders and multilateral agencies (e.g. Inter-American Development Bank). On the other hand, other infrastructure projects such as toll-roads, airports, and ports are typically financed by local banks. This difference derives from the currency in which the source of payment is set. In most energy projects the consideration is denominated in US Dollars or Euros for offtake-based projects, while it is denominated in Chilean Pesos for concession-based projects."\textsuperscript{127}
\end{quote}

Historically, for the implementation of most infrastructure projects during the end of the '90s and beginning of the 2000s. When Chile was still building a track record to gain confidence from foreign investors, the government provided a series of guarantees to PPP projects to mitigate certain risks.

In 1998, the government created a public insurance to cover default risk in foreign exchange currency, in response to a lack of available long-term foreign exchange hedging instruments. During a period of 1-2 years as of execution of an agreement, PPP counterparties could choose to have the coverage under the foreign exchange guarantee.

In this case, the public entities payments were to be ordinarily performed pursuant to \textit{Unidad de Fomento ("UF")}, which is a unit of reference covering only local inflation. In addition to that, in case local currency depreciated against the US dollar by more than

\begin{flushright}
\textsuperscript{126} \textit{Fitch Ratings: Chilean Electricity Sectors}. Available at: https://your.fitch.group/rs/732-CKH-767/images/Fitch\_10077519.pdf?mkt\_tok=eyJpIjoiTlpTwpWallUWmhaVFZrWVdFNSisInQiOiJDNTJIWXdSUjJvR1NLVmlaVlpDTrnRcL1BYEMIBX3f6NGVKV0paS04zVFFViRaUVVfIXZ4zv3RzMGFnZ0JRdGNRW12WHF\rSFIUHzhnYTEDuE9PSJ9. Accessed on March 2021.

\end{flushright}
10% relative to a rate locked-in at the time of the debt placement, then GOC should compensate concessionaire for the adverse impact on its debt service in foreign currency. On the other hand, the contracted parties should pay the GOC if local currency appreciated by more than 10%. In this sense, with the establishment of the referred band, the private entity was protected against the foreign exchange risk upon currency devaluation and, as determined by the legislation, also protected against any inflation variation during the term of the agreement.

The UF token was created during the government of President Eduardo Frei Montalva, by the Decree n° 40 of January 20, 1967, of the Ministry of Finance (“MOF”). Its original purpose was the re-evaluation of savings in accordance with variations in inflation, allowing, in this sense, that the money saved in banks could maintain their purchasing power. Later on, the use of the UF was extended to the credit system of GOC.

The UF is readjusted from the 10th day of each month and until the 9th day of the following month, on a daily basis, at the geometric average rate corresponding to the variation that the Consumer Price Index has experienced determined by the National Institute of Statistics - INE, in the calendar month immediately prior to the period for which said unit is calculated\textsuperscript{128}.

\textsuperscript{128} EDUCA. Portal de Educación Financiera. ¿La Unidad de Fomento es Dinero?. Available at: https://www.cmfeduca.cl/educa/600/w3-article-27474.html. Accessed on 5 April 2021.
COLOMBIA

- High FX volatility.
- Restricted FX convertibility - the Colombian peso is almost freely convertible, but certain transactions must be channeled through intermediaries authorized for such purposes and must be declared to the Central Bank.
- Article 28 of Law 9 of 1991 generally authorizes short or long-term contracts and transactions denominated or indexed to US dollars or other hard currencies.
- To meet its needs for infrastructure, especially in the transportation sector, Colombia has strongly relied in private investment, such as through the structuring of PPPs.
- Fourth generation of road concessions (4G) is a major reference in the PPP practice in a strategic sector for the country.
- All of the 4G toll road projects have been financed either through non-recourse or limited recourse long-term or mini-perm project finance. Capital structures involved multiple source investments, both national and international.
- In 4G contracts, each project is divided into Functional Units and payments by the National Agency of Infrastructure (ANI) are made upon availability of each Functional Unit. ANI contributions are transferred to concessionaires on an annual basis to a bank account held by a trust through which all the payments of project costs are made. ANI’s contributions under concession agreements are backed with a multi-annual budgetary allocation mechanism.
- The government of Colombia has facilitated the long-term financing of 4G projects by either assuming or sharing some key risks (e.g. Contingency Fund).
- The national banking system has played predominant role in project finance in Colombia. The need of attracting foreign investors to 4G projects became even more latent as the appetite for local lenders has shrunken following the Odebrecht scandal.
- FX hedging instruments are standard and commonly available in connection with long-term loans denominated in a foreign currency and are normally provided by commercial banks.
- FDN is an important player in the Colombian market as it offers products targeted at enhancing the creditworthiness of sponsors, either through subordinated and liquidity credit lines, or through the provision of guarantees. FDN has also launched a line of funding in Colombian pesos to involve a greater number of foreign institutions in the financing of 4G projects.
- In certain 4G toll road projects, a portion of the ANI contributions may be denominated in US dollars. While in most of the cases, such contributions are payable in COP, the Concession Agreement may set forth a conversion mechanism that allocates most of the FX risk to ANI.

1. General Overview

The Republic of Colombia is the fourth-largest economy in Latin America, after Brazil, Mexico, and Argentina, and has the third-largest population with approximately 50.3 million inhabitants. The country is considered one of the most attractive foreign investment destinations in Latin America. Such recognition is a result of an investor-friendly environment and steady economic growth, moved by multiple concurring forces, such as
improvements in the regulatory framework and relevant achievements in the peace process with the Revolutionary Armed Forces of Colombia, as further detailed below\textsuperscript{129}.

Accordingly, pursuant to the information made available by the World Bank, Colombia has a “track record of prudent macroeconomic and fiscal management, anchored on an inflation targeting regime, a flexible exchange rate, and a rule-based fiscal framework, which allowed the economy to grow uninterrupted since 2000”\textsuperscript{130}. Differently from other countries of the region, it has a controlled one-digit inflation since 1999.

In 2018, its GDP increased 2.6%, exceeding the average of the other countries in the region (2.2%)\textsuperscript{131}. Economic rates of growth accelerated to 3.3% in 2019, driven by robust private consumption and stronger investment\textsuperscript{132}. The chart below illustrates Colombian GDP per capita growth, from 2000 to 2019:

\textbf{Figure 9. Colombian GDP per capita growth (annual \%)}

\begin{figure}[h]
\centering
\includegraphics[width=\textwidth]{figure9.png}
\caption{Colombian GDP per capita growth (annual \%)}
\end{figure}

Source: World Bank\textsuperscript{133}.


\textsuperscript{133} GDP at purchaser’s prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current local currency. Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.CN?end=2019&locations=CO&start=2000. Accessed on March 21, 2021.
Although infection rates and deaths in Colombia have not been as high as in other countries, following active involvement of the central government and adoption of severe measures such as a six-month lockdown in the country, consistently with worldwide trend, the pandemic has nonetheless adversely affected employment, government revenues, economic growth, and has delayed implementation of many key projects and government acquisitions.

Notwithstanding the above, especially under the current challenging environment for countries all over the world, the development of infrastructure projects has been considered as key for the reactivation of the economy.

Colombia is a presidential democratic republic and a state with a decentralized government. The existing political system has been the result of the modernization process launched by the adoption of the Constitution in 1991. Article 1 of the Constitution of Colombia, under the fundamental principles title, defines the country as “a social state under the rule of law, organized in the form of a unitary republic, decentralized, with autonomy of its territorial units, democratic, participatory, and pluralistic, based on the respect of human dignity, the work and solidarity of the individuals who belong to it, and the prevalence of the general interest.”

Center-right president Iván Duque began his four-year term in 2018 and has pursued a reformist agenda, contemplating studies for privatization of state-owned companies, and reform in the social security, tax and labor systems. Halfway through his mandate, though, Ivan Duque has struggled to gather the required support in congress to advance with his agenda.

The country is strategically located between south and north American countries. Not surprisingly, Colombia is a founding member of the Pacific Alliance and has free-trade agreements with the U.S. and many other nations. For reference purposes, Colombia has 17 preferential trade agreements currently in force.

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As of March 2021, it is classified as investment grade “BBB-” by Standard & Poors and “Baa2” by Moody’s.

In 2020, it was ranked in the 67th position at the World Bank index of the most business-friendly jurisdictions (Brazil being ranked in the position 124 and Venezuela, 188).

Natural resources are abundant in Colombia. The country has the largest coal reserves in Latin America and has the second-largest hydroelectric potential in the continent, after Brazil. Due to the climate and the topography of the country, agriculture is extensive and very diversified, being responsible for a significant share of the country’s overall GDP.

Colombia is considered by some as “the most industrially diverse country of the Andean Community, with four major industrial centers: Bogota, Medellin, Cali, and Barranquilla”. Most industries in the country are driven by agriculture and commodities, with the main industries being textile, chemical products, metallurgy, cement, cardboard containers, plastic resins and beverages.

The services sector’s importance has increased in recent years. It is becoming the backbone of the Colombian economy as it represents 57.6% of the GDP and employs 64% of the workforce. Tourism is one of the most important components of the service sector and has been particularly dynamic over the past few years, especially in Bogota, Medellin, Cartagena, Cali, and Barranquilla, but currently suffered from the COVID-19 outbreak.

2. Foreign Exchange Controls

Exchange regulations require that the following transactions be channeled through intermediaries authorized for such purposes, and must be declared to the Central Bank:

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- Imports and exports of goods
- External loans and related financing costs
- Investment of capital from abroad and remittances of profits thereon
- Investment of Colombian capital abroad, as well as remittances of yields
- Investment in foreign securities and assets and their associated profits
- Endorsements and guarantees in foreign currency
- Derivative or secondary financial operations, e.g. forwards, swaps, caps, floors, or collars.

Payments by residents to other residents in US dollars through checking accounts held abroad are authorized through compensation accounts (i.e., foreign accounts from residents registered before the Colombian Central Bank).

The Colombian peso is almost freely convertible, subject to the proceedings above mentioned (Article 55 of External Resolution 1 of 2018), and investors report no restrictions on access to hard currency\textsuperscript{147}.

Projects performed by companies with foreign capital in special sectors such as the exploration and production of oil, natural gas, coal, nickel, and uranium are subject to a special foreign exchange policy\textsuperscript{148}.

FX rates in Colombia are mainly determined by market forces/conditions. The Banco de La República, the Colombian Central Bank, is authorized to intervene in the market by buying and selling foreign exchange, exercising call or put options at market rates through an auction process, or selling foreign exchange through swap agreements by means of an auction process at the rates determined by the Colombian Central Bank, or the sale of US dollars through non-deliverable forward contracts\textsuperscript{149}.

Article 28 of Law 9 of 1991 generally authorizes short or long-term contracts and transactions to be denominated or indexed to US dollars or other hard currencies. However, transactions among Colombian residents cannot be paid in foreign currency, unless both parties have foreign accounts registered as compensation accounts with the Central Bank (Articles 37 and 86 of External Resolution 1 of 2018). As already anticipated


\textsuperscript{149} Please refer to Article 2 of External Resolution 1 of 2018 and External Circular Letter DOAM-143 from the Colombian Central Bank.
In the previous paragraphs, there are some additional exceptions regarding transactions involving the hydrocarbons, oil, fuel and natural gas sectors (Article 97 of External Resolution 1 of 2018).

Although it is common for long-term agreements to be denominated in or indexed to US dollars (regardless of limitations on payments in US dollars described above), PPAs are not usually so indexed (even though the non-regulated sector price is freely determinable). Ultimately, the ability of a relevant offtaker to enter into a dollar indexed agreement will depend on its ability to absorb FX variation. An exporter might be well suited for that, but not a local company generating revenues solely in local currency.

Considering the foregoing, cross-border project financing into Colombia may still face relevant foreign exchange risk, to the extent that, in many cases, project revenues are generally neither denominated nor indexed to the currency of international long-term finance.

3. Infrastructure Needs, Opportunities and Legal Regimes

Fostering further investments in the infrastructure sector is paramount to improve the connectivity of the multiple regions of the country, and, consequently, increase the competitiveness of the country among its peers\(^{150}\).

For Colombia, similarly to other comparable developing jurisdictions, underinvestment in infrastructure has hindered economic and social growth. Unlocking private investment and enabling access to multiple sources of financing are crucial goals to make possible meeting Colombian infrastructure needs.

Pursuant to the information made available by Financiera de Desarrollo Nacional ("FDN"), the development bank of Colombia, specialized in infrastructure project finance and structuring, as will be further detailed in the next sections, up to 2035, an estimated total investment amount of USD 139 billion will be required for infrastructure and basic services, of which\(^{151}\):

- USD 61 billion in road network and intervention;
- USD 5.3 billion in 31 airport projects;

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- USD 3.6 billion in healthcare;
- USD 34 billion in education, justice and housing; and
- USD 20 billion in other sectors (such as water, waste treatment, energy and fluvial).

To meet its infrastructure needs, especially in the transportation sector, Colombia has strongly relied on private investment, such as through the structuring of PPPs.

Colombia is one of the countries in which PPPs have undergone the most significant evolution in recent years and such process has been described in detail by a report organized by CAF\textsuperscript{152}. Accordingly, VASSALO (2018) reports that:

\begin{quote}
"Since the early 1990s, public-private partnerships in Colombia have mainly included transport infrastructure works and the provision of some public services. Concession schemes have been widely used under this concept for the execution of large infrastructure projects. Infrastructure in Colombia has, however, historically been characterized by low levels of development and quality compared to other countries in the world. In addition, public works concessions in the country have faced a variety of problems and lack of any stable legal or institutional framework to foster efficient project development. Then in 2010, a new government came to power and identified the fundamental changes in institutional and regulatory matters that were needed for a real highway system that would serve as the backbone for the country's economy and market"\textsuperscript{153}.
\end{quote}

Major challenges at the time included the need of improving the modeling of projects, to avoid multiple renegotiations and contractual amendments, providing strategic public agencies with human resources and technical capability for the modeling, licensing, and implementation of such projects, introducing a reliable legal framework to regulate such long-term projects, among others.

In order to enhance the institutional environment for the implementation of new PPP projects, it was approved the creation of Agencia Nacional de Infraestructura (the “ANI”), whose attributions included the design and supervision of contracts. The creation of ANI, thus, provided the necessary institutional strengthening required to model and better manage PPPs under a new framework much more aligned with international best practices.

Another relevant change in the period consisted in the enactment of the new Public-Private Partnerships Act and the Infrastructure Act (Law 1508 of 2012), which "\textit{tried to address} 


the historical problems plaguing concessions due to the lack of definition in some fundamental aspects of PPP contracts"\textsuperscript{154}.

Further, it is reported by CAF that "the evolution of this base framework was accompanied by a complex regulatory development process related to public-private partnerships in the transportation sector for highways, railroads, and ports, with around 30 laws and decrees regulating the sector"\textsuperscript{155}.

These changes have played a fundamental role in pushing the development of the sector, enabling the implementation of the most ambitious transportation infrastructure program in Colombia’s history: the fourth generation of road concessions (4G). It represented a “near-decade long investment plan to create a nationwide toll road network”, especially significant for a country to which the toll road network represents more than 80% of the internal transport\textsuperscript{156}. The 4G program consisted of 30 contracts, including 21 public initiatives and nine private initiatives, covering 9,000 km of roads with a projected investment of some COP 52 trillion (USD 17.2 billion, approximately) that would, in turn, be split into several stages\textsuperscript{157}. Contract term varies between a minimum of 25 and a maximum of 29 years.

The abovementioned report also indicates that in previous generations, projects were mainly financed through corporate finance, although a mini-perm financing structure was also used in some cases.

For 4G projects, the use of project finance structures became more common. All of the 4G toll road projects have been financed either through non-recourse or limited recourse long-term or mini-perm project finance. Some projects have initially obtained bridge loan financings to obtain temporary liquidity, in which case such bridge loans usually have parent company guarantees. Nonetheless, the long-term or mini-perm financings are either non-recourse or limited recourse. Considering the level of investment required for their implementation, capital structures involved multiple sources of investments, both national and international. The degree of exposure of the sponsors usually depends on the construction risks that are not assumed by the EPC contractor.


In 4G contracts, each project is divided into Functional Units ("FU"), i.e., sections of the road that can be built, implemented, operated and maintained regardless of completion of the entire project. Based on the definition of FU, payments are made upon availability of each such FU, as opposed to early generation projects, in which the government advanced payments to sponsors, creating fewer incentives for efficiency and quality controls.

Concessionaire revenues come from three sources, namely: (i) toll collection, starting from completion of each relevant FU once work is completed on the respective FU; (ii) ANI contributions, which may be designed to mitigate relevant risks, including demand and/or FX risks; and (iii) other accessory revenues from commercial exploitation of the surrounding areas\textsuperscript{158}.

ANI contributions are transferred to concessionaires on an annual basis to a bank account held by a trust through which all the payments of project costs are made. Initially, the funds transferred by ANI to such account are blocked and are released to the concessionaire only upon the completion or partial completion of functional units of the project. ANI’s contributions under concession agreements are backed with a multi-annual budgetary allocation mechanism that allows Colombian governmental agencies to undertake payment commitments that become due in future fiscal years. After creating Future Annual Budgetary Allocations through an administrative act, the granting authority is bound to include any corresponding payment commitments in future budget bills by means of, for example, a concession agreement.

As reported by Vassalo (2020), with respect to the 4G experience, “financial risk in these projects is assumed entirely by the concessionaire, in addition to being responsible for obtaining the necessary financial resources—both debt and equity—in order to meet the obligations stipulated in each contract”. On the other hand, the need of ensuring bankability for such very capital-intensive projects, including by attracting foreign investment, led to the development of certain mechanisms to mitigate the FX risk. Such initiatives may be considered successful, as nearly all 4G projects have advanced towards reaching financial closing.

4. Foreign investment in Infrastructure: Cross-border Project Financing

As previously mentioned, considering the required investment volumes and the new conditions established for the PPP roads program, multiple sources of debt have been used to finance such 4G programs, including foreign and local banks, capital markets, debt

funds, multilateral entities, and the local development bank\textsuperscript{159}. Development of new capital-intensive projects in multiple sectors, however, will require access to other sources of financing, notably international ones.

The government of Colombia has facilitated the long-term financing of 4G projects by either assuming or sharing some key risks, as is the case of the construction risks (cost overruns for licenses, land, networks, and geological) and operational risks, by establishing partial state guarantees covered by a Contingency Fund\textsuperscript{160}. The amounts and terms of funds to be contributed to such Contingency Fund are defined by contingent liability assessment methodologies developed by the Ministry of Finance. As a result, different concessions have different, already Ministry approved, fund contribution programs\textsuperscript{161}.

It is further reported and confirmed in our interview with market players that the national banking system has played a predominant role in project finance in Colombia\textsuperscript{162}. Seven local banks involved in the eight first-wave projects have taken on nearly 50\% of the financing and "the other stakeholders involved in the financial closings for these projects were eight international (21\%) and two multilateral (4\%) banks, the FDN (9\%), various local and international investment institutions through two debt funds (5\%) and capital markets (15\%)"\textsuperscript{163}. The need of attracting foreign investors to 4G projects became even more latent as the appetite for local lenders has shrunken following the Odebrecht scandal. A statement of Clemente del Valle, CEO of FDN back in 2018 was illustrative in such regard. According to him "we need more pesos for the projects, but most of our international sources of financing have dollars and not pesos"\textsuperscript{164}.

The FDN has played a very important role in mobilizing financial resources for 4G projects and also for the structuring of multiple mechanisms aimed at multiplying the sources of financing for the projects. Accordingly, the "institution has not only put its own resources


\textsuperscript{164} Colombia’s FDN expects foreign lenders to step up for 4G. Available at: https://www.globalcapital.com/article/b17h76m3x3sz83/columbias-fdn-expects_foreign-lenders_to_step_up_for_4g. Accessed on April 4, 2021.
toward the financing process, it has also worked actively to improve the standards, expertise and technical capacities of the agents involved in infrastructure financing, and in the promotion of regulatory changes aimed at expanding financing sources for PPPs.\textsuperscript{165}

5. Foreign Exchange Risk Mitigation

To attract foreign investors to the Colombian market, the risk of mismatch of the local currency against other hard currencies must be adequately addressed. Looking to the Colombian market, we have identified multiple mechanisms used by both sponsors and lenders for such regard. ANI has also played a significant role in that by providing a reliable legal framework for the 4G PPP projects.

FX hedging instruments are standard and commonly available in connection with long-term loans denominated in a foreign currency and are normally provided by local commercial banks. Derivative instruments that are usually contracted by Colombian borrowers are FX futures and swaps (covering fluctuations in the FX exchange rate) and interest hedges when the interest of the loan is tied to Libor.

In other cases, the project company has issued bonds in the international market payable in US dollars but indexed to UVRs (Unidad de Valor Real), which are units of value denominated in Colombian peso and which vary depending on Colombian CPI. Fideicomiso P.A Concesión Ruta al Mar, for instance, issued in 2017, a COP 522,000,000,000 aggregate principal amount of 6.750% Series A Senior Secured Notes due 2044 adjusted by reference to UVR and payable in U.S. dollars. In this specific precedent, whose offering memorandum is publicly available, there is a clear reference to investors bearing the FX Risk, as the underlying risk under the notes is in Colombian pesos, in which case a depreciation of the Colombian Peso against the US dollar could affect payments of principal, interest, and other amounts in US dollar.\textsuperscript{166}

FDN is an important player in the development and offering of products designed for foreign exchange risk mitigation.

FDN, for instance, offers products targeted at enhancing the creditworthiness of sponsors, either through subordinated and liquidity credit lines, or through the provision of guarantees. Reference in this regard can be made to (i) the Multi-purpose Subordinated


Facility (FSM), which works as an additional contingent debt fund available throughout the project lifecycle to provide coverage in the event of any cash shortfall, either to pay off debt or for advance payments guaranteed by ANI, and (ii) to the Partial Guarantee of Liquidity, a liquidity source that improves the project’s risk profile in the construction phase (liquidity risk) or in the operation and maintenance phase (traffic risk), depending on the type of guarantee\textsuperscript{167}.

Further, FDN has launched a line of funding in Colombian pesos to involve a greater number of foreign institutions in the financing of 4G projects. The bank could grant loans in Colombian pesos to international banks and multilateral entities, thus allowing them to finance projects in Colombia in that currency, through on-lending facilities (but retaining project default risk)\textsuperscript{168}.

FDN has also had an active role in the creation of debt funds for infrastructure financing. The debt fund was an innovation promoted by FDN that uses the private equity regulation that allows institutional investors to invest as much as 5% of the portfolio\textsuperscript{169}. As can be imagined, such funds are mainly designed to mobilize financing from pension funds.

Finally, it is worth mentioning that in certain 4G toll road projects, a portion of the ANI contributions may be denominated in US dollars. While in most of the cases, such contributions are payable in COP, the Concession Agreement may set forth a conversion mechanism that allocates most of the FX risk to ANI. Exceptionally, ANI has agreed to pay US dollar contributions in US dollars.


\textsuperscript{169} The Business Year. Aiming to Increase Funding from International Investors. Available at: https://www.thebusinessyear.com/colombia-2018/clemente-del-valle-president-financiera-desarrollo-nacional-fdn/vip-interview
V. INDIA

- Medium FX volatility.
- GOI plays an important role in fixing, limiting, and intervening on FX rates pursuant to RBI, as it has the responsibility of conducting monetary policy in India.
- Rupees are considered as partially convertible, which means that although it is generally freely exchangeable into foreign currency at market rates, there are a few important restrictions for higher amounts, which will require approval.
- Legally permitted but not customary to denominate or index tariffs (partially) in foreign currency.
- Infrastructure projects in India are mainly financed by the Indian banking system.
- Indian entities mainly access foreign debt through ECBs, which are commercial loans raised by eligible Indian borrowers from recognized overseas lenders, subject to regulatory considerations in the nature of end-use restrictions of borrowed funds, all-in borrowing costs, etc.
- In India, Project Finance is usually limited recourse, with support from the project sponsor of the SPV.
- Indian companies may issue Masala Bonds in order to raise funds from foreign investors and to develop its projects locally. As such securities are denominated in Indian currency, if the rupee depreciates, foreign investors must bear the risk.
- Indian market agents are expanding their strategy to apply innovative hedging techniques for protection against the foreign currency risks.
- Jegurupadu Independent Power Producers Project: Part of the PPA indexed to US dollars variation and termination payment also indexed to US dollars.
- Partial government guarantees covering outstanding debt in case of early termination are available. Extent of guarantee (full or partial) may vary depending on whether termination is for convenience of the Government or due to private party’s default.
- State-owned Banks and Development Financial Institutions that, upon participation as an intermediary agent, are responsible for raising foreign financing and resources (denominated in foreign currency) and, later, on lending such resources, in local currency, to domestic agents and companies in such specific sector.

1. General Overview

India is the world’s largest democracy and, according to UN estimates, its population is expected to overtake China's in 2028 to become the world’s most populous nation\textsuperscript{170}. It currently ranks as the 2\textsuperscript{nd} most populous country in the world, with a population of more than 1 billion inhabitants\textsuperscript{171}. The Indian territory comprises 28 states and 8 union territories\textsuperscript{172}.


The Government of India (“GOI”) is a sovereign, socialist, secular, democratic republic with a parliamentary system of government, in which the President is the head of the State, while the Prime Minister is the head of Government and runs the office with the support of the Council of Ministers who form the Cabinet Ministry. The President is elected by members of an electoral college consisting of elected members of both Houses of Parliament and Legislative Assemblies of the States, in accordance with the system of proportional representation, by means of single transferable vote.

For each of the Indian states, the Governor is appointed by the president for a term of five years and must be an Indian citizen of at least 35 years of age. The system of government in states closely resembles that of the Union, and the Union Territories are administered by the President pursuant to an administrator to be appointed.

In recent years, as a rising economic powerhouse and nuclear-armed state, India has emerged as an important regional power and is expected to be one of the top three leading economies in the next 10-15 years.

According to the India Brand Equity Foundation ("IBEF"), a trust established by the Department of Commerce ("DOC"), Ministry of Commerce and Industry ("MCI") and GOI, in 2020, the total deal value in India stood at US$ 80 billion across 1,268 transactions. Of this, M&A activity contributed with approximately 50% to the total transaction value. Some of the important recent developments in Indian economy are as follows:

- India’s overall exports from April 2020 to November 2020 were estimated at USD 304.25 billion, (a 14.03% decrease over the same period last year). Overall imports from April 2020 to November 2020 were estimated at USD 290.66 billion, (a 29.96% decrease over the same period last year).
- Gross tax revenue stood at INR 7.21 trillion (USD 98.50 billion) in the first six months of FY21.
- FDI inflows in India stood at USD 39.93 billion between April 2020 and September 2020, 10% higher than the first six months of 2019-20 (USD 36.05 billion).
- India’s Index of Industrial Production for October 2020 stood at 128.5, against

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Accordingly, pursuant to the information made available by IBEF\textsuperscript{178}, “the seven major infrastructural factors that are most significant in accelerating the pace of economic development of India are the followings: energy, transport, irrigation, finance, communication, education, and health. The first five refer to economic infrastructural facilities, while the latter two relate to social infrastructure.”

According to the RBI, significant developments in the external sector, such as, "substantial increase in foreign exchange reserves, growth in foreign trade, rationalization of tariffs, current account convertibility, liberalization of Indian investments abroad”, increased access to external commercial borrowings by Indian corporates and participation of foreign institutional investors in Indian stock market, resulted in a changed environment\textsuperscript{179}.

Also, in the context of the Make in India initiative\textsuperscript{180}, GOI has recently sought to reform its policies in order to attract additional foreign investment. As part of this initiative, India is reforming its rules on the restriction of foreign direct investment and on “doing business” aspects more generally. The country is also developing six industrial corridors across the country, in which it plans to encourage the growth of industrial cities\textsuperscript{181}.

In the context of this initiative, recent reforms to foreign direct investment rules have expanded opportunities for foreign investors by making ownership limits less restrictive in a number of new sectors\textsuperscript{182}, while also making the approval of investments faster and easier in a broader range of sectors.

India has been growing at very high rates for the last years, but India’s economy has been severely impacted by the COVID pandemic: according to the Word Bank Overview\textsuperscript{183}, between FY17 and FY20, growth decelerated from 8.3 percent to 4.0 percent, with

\textsuperscript{178} IBEF. \textit{Indian Economy Overview}. Available at: https://www.ibef.org/economy/indian-economy-overview. Accessed on April 7, 2021.


\textsuperscript{180} According to Make in India, GOI launched this program in 2014, aiming to foster design and manufacturing activities in India by implementing economic reforms and attracting higher levels of FDI. More information available at: https://www.makeinindia.com/. Accessed on March 31, 2021.


\textsuperscript{182} According to GOI, "railways, defense, insurance, and medical devices are among the sectors in which India has relaxed limits on foreign direct investment. Of the 35 sectors in which the country permits foreign investment, there are 28 sectors in which either all the subsectors, or at least some of them, have no caps on foreign ownership as a share of equity”. Available at: https://static.investindia.gov.in/2020-10/FDI-PolicyCircular-2020.pdf. Accessed on March 31,2021.

weaknesses in the financial sector compounded by a decline in the growth of private consumption.

Despite the unfavorable scenario, the World Bank\(^\text{184}\) forecasts that Indian economy will grow 5.2 percent in 2022. Figure 10 below illustrates Indian GDP per capita growth, from 2000 to 2019:

![Figure 10. Indian GDP per capita growth (annual %)](image)

Source: World Bank\(^\text{185}\).

In the World Bank’s Doing Business rankings\(^\text{186}\), India jumped to the 79th position in 2019 from 142 in 2014. Also, according to the last announcement of investment rates, Moody’s classified India as “Baa3 negative”\(^\text{187}\) in 2020 and Standard & Poor’s as “BBB- stable”\(^\text{188}\).

2. **Foreign Exchange Controls**

GOI is responsible for setting India’s exchange control policy and the Reserve Bank of India ("RBI") for administering foreign exchange regulations and setting the currency

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exchange rates, in consultation with GOI. The Foreign Exchange Management Act 1999, as amended (“FEMA”), and its rules and regulations set out the foreign exchange control regime.

The key regulatory authorities governing foreign investment in India are the following:

- Department for Promotion of Industry and Internal Trade (“DPIIT”), related to the MCI: This department is responsible for India’s Foreign Direct Investment (“FDI”) Policy and for issuing press notes to amend the FDI Policy.

- RBI: Responsible for issuing circulars, notifications, and regulations under FEMA.

- Ministry of Finance (“MOF”): Responsible for issuing the Non-debt Instruments Rules (“NDI”)

Additionally, the key laws that govern foreign investment in India are the following:

- FDI Policy, issued by the DPIIT.

- FEMA and the rules and regulations issued thereunder, specifically, the Foreign Exchange Management (Non-debt Instruments) Rules 2019 (“NDI Rules”).

GOI plays an important role in fixing, limiting, and intervening on FX rates through RBI, which is the authority responsible for conducting monetary policy in India, as per RBI Act, 1934. The Monetary Policy Committee (“MPC”) constituted by the Central Government under Section 45ZB determines the interest rate policy required to achieve the targeted inflation rate.

The Reserve Bank Monetary Policy Department assists the MPC in formulating the monetary policy. Views of key stakeholders in the economy and analytical work of the Reserve Bank contribute to the process of deciding on the repo rate policy (which is the

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189 According to Q&A about Investing in India reported by Thomsom Reuters, “the NDI Rules govern investments in India by non-residents investors, non-resident Indians and overseas citizens of India. The NDI rules prescribe (among other things): (i) the conditions attached to foreign investments in India; and (ii) the pricing guidelines for foreign investments, acquisitions and transfers of immovable property in India, downstream investments, the repatriation of sale proceeds and so on”. (Shroff, Shardul S; Pandey, Rudra Kumar; Nijhawan, Vishal. Investing in India. In Practical Law Country Q&A, July 1st, 2020. Thomsom Reuters. Available at: https://uk.practicallaw.thomsonreuters.com/7-596-0585?transitionType=Default&contextData=(sc.Default)&firstPage=true).

rate at which commercial banks borrow money from RBI by using government bonds as collateral to achieve their fiscal goals).

Also, the Foreign Exchange Dealers Association of India ("FEDAI")\(^{191}\) plays an important role in ensuring the smooth functioning of the markets through closer coordination with the RBI, the Forex Association of India and various market players. FEDAI was set up in 1958 as an association of banks dealing in foreign exchange in India to serve as a self-regulatory body and is incorporated under Section 25 of The Companies Act, 1956.

According to FEDAI\(^{192}\), "its major activities include framing of rules governing the conduct of inter-bank foreign exchange business among banks vis-à-vis public and liaison with RBI for reforms and development of forex market".

Currently, some of its functions are as follows:

- Setting guidelines and rules for Forex Business.
- Training of bank personnel in the areas of Foreign Exchange Business.
- Accreditation of Forex Brokers
- Advising/assisting member banks in settling issues/matters in their dealings.
- Represent member banks on Government/Reserve Bank of India/other bodies.
- Announcement of daily and periodical rates to member banks\(^{193}\).

In relation to currency convertibility in India, rupees are considered partially convertible, which means that although they are generally freely exchangeable into foreign currency at market rates, there are a few important restrictions for higher amounts, which will require approval. The regulators also pitch in from time to time to keep the exchange rates within permissible limits instead of keeping the rupees as a completely free-floating currency subject only to market dynamics.

In case of extreme volatility in rupee exchange rates – which, in the last few years, has proven to be a very unusual situation\(^{194}\), the RBI swings into action by purchasing/selling US dollars (kept as foreign reserve) to stabilize the rupee exchange rate\(^{195}\).


\(^{194}\) According to the Trade Economics, in twenty-five (25) years, rupee exchange variated in 2.183x, which may be classified as a "low" variation. More information available at: https://tradingeconomics.com/currencies. Accessed on April 16, 2021

\(^{195}\) Investopedia. Available at: https://www.investopedia.com/terms/e/exchangerate.asp. Accessed on April 7, 2021.
Under the current RBI regulations, a person residing in India is allowed, subject to prior approval from RBI, to open, hold and maintain a foreign currency bank account with an authorized dealer bank for certain specified purposes as recognized by the RBI\textsuperscript{196}.

Additionally, an Indian company or a corporate entity registered or incorporated in India is also allowed to open, hold and maintain a foreign currency account with a bank outside India for purposes of regular business transactions in the name of its office (trading or non-trading) or its branch established outside India or its representative located outside India. The opening of such accounts is also subject to the terms and conditions of the current RBI regulations. Also, according to the RBI, there is no limitation on the amount of foreign currency permitted to be held by individuals, companies and corporations in India, it being possible to retain foreign currency indefinitely without any limitation\textsuperscript{197}.

3. Infrastructure Needs, Opportunities and Legal Regimes

The infrastructure sector is highly responsible for propelling India’s overall development and, therefore, benefits from special attention from the GOI, particularly in respect of implementing policies that ensure the creation of world-class infrastructure in the country\textsuperscript{198}.

According to the data provided by the DPIIT, foreign direct investment in the construction development sector (townships, housing, built-up infrastructure, and construction development projects) and construction (infrastructure) activities stood at USD 25.78 billion and USD 17.22 billion, respectively, between April 2000 and September 2020\textsuperscript{199}.

Bearing this in mind, India is going through a moment of significant foreign interest in the infrastructure sector, with new entities and players seeking to participate in the expansion of the sector. Among others, some of the key transactions of infrastructure investment in India are listed below:

- The largest deal was done by Abu Dhabi Investment Authority, Public Sector Pension Investment Board, and National Investment and Infrastructure Fund as they made investment worth USD 1.1 billion in GVK Airport Holdings Ltd.


\textsuperscript{198} IBEF. \textit{Infrastructure Sector in India}. Available at: https://www.ibef.org/industry/infrastructure-sector-india.aspx. Accessed on April 7th, 2021.

• **In December 2020**, Oil Minister, Mr. Dharmendra Pradhan stated that as the GOI pushes for increased use of cleaner fuels to reduce carbon emissions, India is likely to see a USD 66 billion investment in the construction of gas infrastructure. The government is planning to increase the share of natural gas in its energy portfolio from the existing 6.3% to 15% by 2030.

• **In December 2020**, Mr. Nitin Gadkari, the Union Minister for Road Transport, Highways, and MSMEs, inaugurated and laid the foundation stones for 15 Nagaland National Highway (NH) projects. These NH projects have a length of ~266 km, including costs of ~INR 4127 crores (USD 560.45 million).

• **In November 2020**, the National High-Speed Rail Corporation Limited - NHSRCL signed a contract with Larsen & Toubro (L&T) to design and construct a 237 km long viaduct between Vapi (Maharashtra-Gujarat border village of Zaroli) and Vadodara (Gujarat). This high-speed rail corridor implementation agreement is the biggest infrastructure contract for construction and design in the country.

• **In November 2020**, Warburg Pincus-backed logistics real estate firm, ESR India signed an agreement with the Maharashtra government to invest INR 4,310 crores (USD 578.88 million) to set up 11 industrial and logistics parks around Mumbai and Pune

According to the IBEF, "with such key aspects of the infrastructure sector already pre-defined, the GOI is able to organize itself in order to attract interested parties to the development of such projects, as the GOI is expected to highly invest in the infrastructure sector, mainly highways, renewable energy, and urban transport:

• **Indian energy sector is expected to offer investment opportunities worth US$ 300 billion over the next 10 years.**

• **In the Union Budget 2020-21**, the Government has given a massive push to the infrastructure sector by allocating Rs. 1,69,637 crore (USD 24.27 billion) to develop the transport infrastructure.

• **In November 2020**, the Union Cabinet approved investments of Rs. 6,000 crore (USD 816.18 million) equity in the debt platform of National Infrastructure Investment Fund - NIIF) for the next two years to drive infrastructure growth in

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200 **IBEF. Infrastructure Sector in India.** Available at: https://www.ibef.org/industry/infrastructure-sector-india.aspx. Accessed on April 7th, 2021.
the country. This step would assist the organization to collect Rs. 1.10 lakh crore (USD 15 billion) for infrastructure project funding by 2025.”

Furthermore, as infrastructure in India is currently still generally poor when compared to similarly developed nations, the GOI identified that the sector can be boosted with the implementation of PPPs schemes, as a way of growing the country’s infrastructure and attracting foreign investment.

The MOF of India centralizes coordination of PPPs through its Department of Economic Affairs (DEA) PPP Cell. In an effort to streamline PPP procedures, strengthen the regulatory framework on the matter and encourage the private entities to consider investing locally in India through the PPP model, the DEA also published guidelines for the formulation and approval of PPP projects.

So as to increase available funding sources and promote infrastructure projects, the GOI is the controlling shareholder of the India Infrastructure Finance Company Limited (“IIFCL”) through which it provides long-term debt for financing infrastructure projects in the following sectors: transportation, energy, water, sanitation, communication, social and commercial infrastructure. The IIFCL provides long-term financial support to infrastructure projects locally through Direct Lending, Subordinated Debt, Takeout Finance and Credit Enhancement, with overriding priority to PPP projects.

Additionally, certain specific legislations enable private sector participation in certain sectors, such as power, highways and airports sectors (through the Electricity Act 2003; National Highways Act 1956 and Airports Authority of India Act 1994, respectively). At the state level, many states have enacted laws to facilitate private sector participation in financing, construction, operations and maintenance of infrastructure projects, as follows:


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201 **IBEF. Infrastructure Sector in India.** Available at: https://www.ibef.org/industry/infrastructure-sector-india.aspx. Accessed on April 7th, 2021.

202 **IBEF. Infrastructure Sector in India.** Available at: https://www.ibef.org/industry/infrastructure-sector-india.aspx. Accessed on April 7th, 2021.


Within the scope of PPP contracts, the proper calculation of the Total Project Cost ("TPC") is a key issue considering that TPC is an important mitigation threshold on certain commercial terms of the PPP arrangements and its implications. For instance, as per the concession agreement template for development of National Highways, if an event of default contractually allocated to the public party occurs and results in the contract termination, the indemnity payments to be made by the public entity to the private entity is linked to the remaining of the TPC described in the concession contract. Also, the performance guarantee amount to be provided by the private entity is likewise linked to the TPC remaining amount\textsuperscript{205}.

After the severe impacts resulting from the current global health crisis, the GOI is planning to proactively engage with the private sector partners to immediately mitigate the impacts of the pandemic on the country\textsuperscript{206}.

From a general perspective, despite all challenges being currently faced by the country – mainly due to the impact of the COVID-19 pandemic, India is still considered as a booming economy with significant and growing opportunities and continuing Government support to the infrastructure sector, especially in the last few decades. In order to keep up with such scenario, the legal framework has been significantly changed on a regular basis, seeking to address various concerns of the private entities interested in investing in the country. Also, several local infrastructure companies are using the momentum of infrastructure development to expand their activities, which shall generate a continuous platform for future local investments.

4. **Foreign investment in Infrastructure: Cross-border Project Financing**

Infrastructure financing in India is mainly based in the Indian banking system. The national benchmark is composed of private entities, government-supported entities and state-owned companies.

The Indian based source of finance is due to three main aspects. Firstly, the existence of a domestic legislation that mandates banks to allocate specific percentages of funds to finance the national infrastructure, which creates a pool of cheap liquidity to be used in the sector.


\textsuperscript{206} Public Private Partnerships in India. Available at: https://www.pppinindia.gov.in/faqs. Accessed on April 7th, 2021.
As a second aspect, individuals are allowed to make cash deposits to be allocated to finance specific government selected projects\textsuperscript{207}. The deposits are remunerated above the local deposit market average and are a relevant source of finance for the infrastructure sector.

A third characteristic is that India maintains a significantly complex system of capital controls for the purpose of foreign investment in the country.

According to the terms and conditions of the FEMA legislation, the RBI is authorized to establish capital controls with respect to the transfer or acquisition of capital or debt instruments. In addition, the RBI is also authorized, under the FEMA, to establish controls regarding overseas lending into India, any lending in a currency other than rupees and the issuance of guarantees to a non-resident. Accordingly, the RBI is responsible for the regulation of cross-border debt raised by Indian entities.

In a general perspective, Indian entities mainly access foreign debt through the External Commercial Borrowing (“ECB”) route. The ECBs are commercial loans raised by eligible Indian borrowers from recognized overseas lenders, subject to regulatory considerations in the nature of end-use restrictions of borrowed funds, all-in borrowing costs etc. The ECB framework in India divides ECB financing into two main categories: foreign currency denominated ECBs and Indian Rupee denominated ECBs (which also include the Masala Bonds – further described below).

The financing through ECBs locally can be made available by Indian entities that are permitted to raise foreign direct investments (and other identified entities specifically permitted to raise ECBs). As for the government regulation, the RBI regulates ECBs by placing limitations on borrowing amounts, costs, use of proceeds (excluding real estate activities and investments in capital markets) and collateral packages.

In this sense, debt raises that are not structured within these parameters regulated by the GOI may be subject to prior RBI approval. Further, according to specific RBI regulation on the matter, ECB transactions must necessarily be reported to the RBI. In this regard, according to the terms and conditions of the RBI internal legislation, any draw-down in respect of an ECB should only happen after obtaining the Loan Registration Number (“LRN”) from RBI by filing a duly certified Form ECB to the Director, External Commercial Borrowings Division, Department of Statistics and Information Management (“DSIM”),

\textsuperscript{207} According to Agrawal (2020), India has a reasonably high savings rate. The savings as a portion of GDP are 22.3 percent for household, 7.2 per cent for corporate and 1.3 per cent for public sector and almost 50 per cent of household savings are in form of deposits in banks, leaving an insignificant portion in contractual investments. Available at https://journals.sagepub.com/doi/pdf/10.1177/0971890720914096. Accessed on April 19th, 2021.
with all terms and conditions of the ECB duly reported. Furthermore, any changes in the ECB conditions, whether under the automatic route or under the approval route\textsuperscript{208}, should also be reported to the DSIM through a revised Form ECB by no later than 7 days as of the changes effected. Any failure to comply with reporting guidelines in respect of Form ECB for an ECB may entail criminal action under FEMA\textsuperscript{209}.

As for the limit established for such transaction, according to the RBI legislation on the matter: “Under the aforesaid framework, all eligible borrowers can raise ECB up to USD 750 million or equivalent per financial year under auto route. Further, in case of FCY denominated ECB raised from direct foreign equity holder ECB liability-equity ratio for ECBS raised under the automatic route cannot exceed 7:1. However, this ratio will not be applicable if outstanding amount of all ECBS, including proposed one, is up to USD 5 million or equivalent. Further, the borrowing entities will also be governed by the guidelines on debt equity ratio issued, if any, by the sectoral or prudential regulator concerned”\textsuperscript{210}.

Furthermore, it is also important to point out that there are exemptions under the ECB framework, such as the ECB facility for Public Sector Oil Marketing Companies, which can raise ECB for working capital purposes with minimum average maturity period of 3 years from all recognized lenders under the automatic route without mandatory hedging and individual limit requirements. According to the legislation, the overall limitation for such ECBS shall be of USD 10 billion or equivalent\textsuperscript{211}.

Passing to the analysis of the transaction structures and corporate vehicles that are more commonly used in India, in both local and international projects, we can point out that, in large infrastructure projects, the project is awarded by the GOI or the relevant regulatory authority to a developer which is then responsible for entering into contracts related to the project, such as land procurement, construction, financing, offtake arrangements, and then operating the project for the concession/grant period.

\textsuperscript{208} Under the ECB framework, ECB can be raised either under the automatic route or under the approval route. Under the approval route, the prospective borrowers are required to send their requests to the Reserve Bank through their Authorized Dealer (AD) Banks for examination. As for the automatic route, the cases are examined by the Authorized Dealer Category-I (AD Category-I) banks, that can be defined as the bank branch which is designated by the ECB borrower for meeting the reporting requirements including obtaining of the LRN from the Reserve Bank, exercising the delegated powers under these guidelines and monitoring of ECB transactions.


In India, project finance is usually limited recourse, with support from the project sponsor to cover certain risks and obligations, the following being among the most common:

- Fund cost overrun (at times subject to caps).
- Retention of a majority shareholding in the SPV.
- Pledge its shareholding (51% or more) to the lenders.
- Be responsible for creation of a Debt Service Reserve Account.

Notwithstanding, it is also important to point out that, as further described in this report, any equity contribution by a foreign investor must be made in accordance with the current FEMA and FDI Regulations.

In accordance with Agrawal, the channels through which the funds are applied in the infrastructure sectors are (i) government, (ii) commercial banks, (iii) non-banking financial companies ("NBFCs"), (iv) insurance companies and pension funds, (v) ECB and (vi) Equity and FDI from abroad.

Some of the governmental initiatives with the purpose of organizing funds for infrastructure sector are the following:

- Infrastructure Debt Fund;
- Tax-free Infrastructure Bond;
- Amendment of the Insurance Regulatory and Development Authority Investment Regulations, 2013;
- Enactment of the new Land Acquisition Act;
- Real Estate (Regulation and Development) Bill;
- Increased role of financial organizations like IIFCL and Power Finance Corporation;
- Simplification of FDI norms for Railways, Construction, and Defence; and
- Relaxation of ECB policy.

As per the National Institute of Public Finance and Policy of New Delhi, infrastructure projects in India are primally financed by commercial banks and, secondly, by non-banking financial companies, as set forth in the table below:

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As may be seen from the table above, banks have played a fundamental role in funding infrastructure projects, which was possible because, in recent years, RBI has taken several reforms to remove the complexity of infrastructure.

Another benefit arising from the low volatility of the local currency is reflected on the possibility of contracting financing abroad, in order to strengthen the infrastructure system and local projects. In this scenario, instruments as the Masala Bonds are an interesting alternative for Indian companies that seek to invest in Indian infrastructure.

The Masala Bonds – instruments that are similar to the Kangaroo Bonds in Australia and Samurai Bonds in Japan – are Indian Rupee denominated bonds governed and regulated by the same legal framework of the ECBs (in respect of the entities eligible to apply for it, use of proceeds limitations and other similar restrictions etc.). Notwithstanding, given the currency denominated the bonds, foreign exchange risks associated with the debt are passed onto the offshore investor. Consequently, fluctuation in exchange rates and changes in domestic interest rates may affect the marketability of the bonds.

As previously mentioned, Indian companies usually issue Masala Bonds in order to raise funds from foreign investors and develop its projects locally. As such financing is denominated in Indian currency, if the rupee rates fall, foreign investors will bear the risk associated with the devaluation.

The Masala Bonds were introduced in India in 2014 by IFC, which was the first entity to issue Masala Bonds in India to fund infrastructure projects and such securities were the first rupee bonds to be registered on the London Stock Exchange.

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**Table 4. Sources of Debt Financing in India**

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<td>216015</td>
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<td>29602</td>
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<td>ECBs</td>
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<td>56020</td>
<td>65182</td>
<td>75484</td>
<td>88349</td>
<td>331834 (14.6)</td>
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<td>Estimated Requirement of Debt</td>
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<td>107184</td>
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</table>

Note: Figures in parenthesis refer to percentage share in total debt
Source: Twelfth Five Year Plan, Vol. 1, p. 91.

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As for the borrower’s benefit, besides the main protection against currency fluctuation mentioned above (given that currency risk is attributed to the investors), other key advantages identified were: (i) diversification of the Indian entity’s portfolio; (ii) reduction to borrowers’ cost given that such bonds are issued outside India below 7% interest rate; and (iii) accessing a wider range of investors considering that the issuance is held abroad\textsuperscript{216}.

In summary, although infrastructure financing in India is mainly based in the Indian banking system, ECB loans and the issuance of Masala Bonds are valuable instruments for project companies to access foreign investment for infrastructure projects in India.

5. Foreign Exchange Risk Mitigation

In emerging markets, FX Risk is commonly seen in project finance transactions as a finance-intense structure. In case of large foreign-currency denominated debt, depreciations of local currency in real terms tend to magnify the cost of debt service and thus increase the cost of loans in sectors where the earnings are not naturally linked to the exchange rate.

In view of the challenges presented, the Indian market agents are diversifying their strategy to apply innovative hedging techniques for protection against foreign currency risk. Derivatives, futures and swaps are tools that facilitate trading in risk. Studies on the matter state that, in India, the foreign exchange market is still evolving, and corporate enterprises are going through the movements in transition from a passive to an active role in risk management\textsuperscript{217}.

The implementation of financing structures with currency protection through hedging agreements allows that, when the local currency is strengthening, a foreign exchange-indexed tariff provides offtakers with a declining real cost for the service provided by the relevant project. Consequently, during periods when the local currency is weakening, a foreign exchange-indexed tariff forces offtakers to pay an increasing real cost or refer to guarantees to comply with its financial obligations.

In addition to the traditional private hedging strategies and agreements, tariff readjustment is also a potential mechanism for mitigating FX Risk in Project Finance transactions. From a general perspective, investors are usually protected by frequent tariff

\textsuperscript{216} What are Masala Bonds and Their Benefits. Available at: https://cleartax.in/s/masala-bonds. Accessed on April 2021.
adjustments to reflect cost changes, as with less frequent adjustments investors would face greater risk of losses arising from currency depreciation. In India, as in other developing countries, most projects (especially in power generation) that are financed with foreign currency debt feature a license or contract under which energy prices are adjusted in accordance with a foreign exchange index.

Such structure was implemented, for instance, in the Jegurupadu Independent Power Producers Project²¹⁸, which has a portion of the tariff calculation in US dollars²¹⁹. Such USD portion of the tariff represents a reduction to the private party’s exposure to FX risk, which is, therefore, passed on to the consumers. The termination payment under such project was also indexed to US dollars. It is important to note, however, that although the tariff and termination payment were somehow linked or indexed to US dollars, payments in any event must be made in rupees. Lenders and sponsors were willing to take this risk because they verified that the GOI, as the guarantor, had satisfactory foreign exchange reserves and that the government’s management of such reserves was solid. Further, lenders and sponsors were also confident that the GOI, as guarantor, would be able to protect and guarantee the transaction in a case of default²²⁰.

The Jegurupadu Project received only a partial guarantee, under which the central government does not guarantee payments from Andhra Pradesh State Electricity Board (“APSEB”) to the project, but only guarantees foreign debt upon the project’s termination. To compensate for this deficit, Jegurupadu also received state guarantees from the government of Andhra Pradesh for APSEB’s payments and for all debts and equity upon termination.

Aside from losing space to the mitigation strategies mentioned above and due to the fact that there is a tendency to seek financing in the local market, traditional hedging instruments in India tend to also lose their practical relevance considering that intermediary agent have been frequently introduced to act in the scope of local Project Finance transactions, the main purpose of which is to participate in financing agreements and absorb the exchange risk.

²¹⁸ The 216-megawatt Jegurupadu project, sponsored by GVK Industries (“GVK”) and CMS Energy (“CMS”), was a “fast-track” project in India, developed under the amendments to India’s Electricity Act. The project was awarded via negotiation and developed by GVK and CMS with support from a central government counter guarantee, escrow facilities for payment from its state offtaker, and loans and equity investment from the International Finance Corporation and Asian Development Bank.


That intermediary agent is usually a State-owned Bank or Development Financial Institution that, upon its participation as an intermediary agent, is responsible for raising foreign financing and resources (denominated in foreign currency) and, later on, lending such resources, in local currency, to domestic agents and companies in such specific sector, at a lower and more attractive rate than the international rates, for the purpose of carrying out infrastructure projects in several sectors. With this structure, companies, project sponsors and developers do not assume FX risk, since they are able to directly access the domestic market for financing. From a general economic perspective, the main idea is to reduce the overall cost of infrastructure projects.

In India, the Indian Development Financial Institutions ("IDFIs") are responsible for a significant portion of the financing for local infrastructure. Such institutions are organizations owned by the government and responsible for providing funds to low-capital projects or where borrowers are unable to obtain financing from commercial lenders. The main purposes of IDFIs are: (i) the provision of financial and technical support to various sectors, (ii) raising of funds by borrowing funds from governments and selling their bonds to the general public, and (iii) the provision of guarantees to banks on behalf of companies.\textsuperscript{221}

The Rural Electrification Corporation Limited ("REC"), for instance, is an important intermediary institution for financing projects in India. The main goal of REC is to facilitate availability of electricity for accelerated growth and improvement of quality of life of rural and urban populations. REC is a Navratna Central Public Sector Undertaking under the Ministry of Power of India. The main business activities of REC involve financing projects in the complete power sector value chain, either generation, transmission or distribution. REC is also responsible for providing financial assistance to state electricity boards, state governments, central/state power utilities, independent power producers, rural electric cooperatives, and private sector utilities.\textsuperscript{222}


\textsuperscript{222} Rural Electrification Corporation Limited. Available at: https://www.recindia.nic.in/business-profile Accessed on April 2021.
VI. INDONESIA

- Extremely high FX volatility.
- Restricted FX convertibility.
- Mandatory use of IDR in transactions conducted within the Indonesian territory. Any foreign amounts disbursed into the country must be converted into the national currency, except for transactions listed in articles 4 and 5 of BI Reg 17.
- Transactions that may be denominated in foreign currency: (i) international trade transactions, including export and/or import of goods and service trade activity that crosses the state territorial borders conducted by way of cross border supply and consumption abroad; (ii) international financing transactions in which the provider or the receiver of the financing is domiciled overseas; and (iii) strategic infrastructure projects having obtained Bank Indonesia’s approval.
- The debt portion of the funding for infrastructure projects comes mostly from bank loans and capital market issuances in local currency. Securitization of project revenues have been increasingly used in new projects. Onshore bank loans remain the primary source of funding.
- IFC and the Asian Development Bank have been actively promoting foreign investment in strategic projects in the country.
- IIF was established in 2009 by the Government of Indonesia along with the World Bank, the Asian Development Bank and other multilateral institutions to provide infrastructure financing and advisory services to projects in Indonesia.
- PPAs are traditionally denominated in IDR but, on a case by case basis, can be index-based in foreign currency, depending on the foreign components used in the projects and project’s purpose. Such US dollar-indexation shall, thus, be limited to the foreign components percentage determined for each project. Payment for power must be made in rupiah, except if otherwise approved by Bank Indonesia.
- Currency exchange risk is commonly allocated to the private party and may be mitigated by the following mechanisms: (i) financing in rupiah; (ii) purchase price index taking into account fluctuations; and (iii) hedging instruments, such as future contracts and currency swaps. When fluctuation is extreme, the risk may sometimes be shared with the Government.
- Not a common practice for the Indonesian Government to provide budgetary guarantees, insurances, or back-to-back guarantees to cover FX fluctuation or rupiah devaluation.

1. General Overview

Indonesia is an archipelago of approximately 17,500 islands located in the Indian and Pacific oceans, off the coast of mainland Southeast Asia. It is the world’s fourth most populous nation with approximately 270.2 million inhabitants and, as the largest economy in Southeast Asia, Indonesia is also part of the G-20.

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For the elaboration of this Report we are thankful for the discussions and inputs of Michael Tardif and Ferhat Afkar, respectively partner and senior associate of Ginting & Reksodiputro in association with Allen & Overy LLP in Indonesia.
The country has experienced impressive economic growth over the past 20 years, overcoming the Asian financial crisis of the late 1990s and performing a steadier growth with enormous gains in poverty reduction. Due to its consistent economy and favorable demographics, Indonesia is considered an attractive country for investors in Southeast Asia, although susceptible to high levels of geopolitical and inflation risk, the latter being associated with the country’s economic growth.

According to the World Bank, Indonesia’s economic planning is based on a 20-year development plan (2005-2025), divided into 5-year medium-term plans with different priorities. The 2020-2024 medium-term plan “aims to further strengthen Indonesia’s economy by improving the country’s human capital and competitiveness in the global market”.

On top of the already considerable challenges faced by Indonesia in achieving the aforementioned development goals, the global crisis resulting from the COVID-19 pandemic has added particularly challenging complications that caused the Indonesian economy to experience its first full-year contraction in more than 20 years. After many years of continuous growth, Indonesia’s GDP fell 2.1% in 2020. Figure 11 below illustrates Indonesian GDP per capita growth, from 2000 to 2019:

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Since the first domestic COVID-19 case identified in early March 2020, the virus quickly spread to other islands around the country, and, as of December 8, 2020, Indonesia had the highest number of COVID-19 cases in Southeast Asia, registering a total of 581,550 confirmed cases\(^2\). Among the measures enacted in order to contain the crisis, the Government imposed large-scale social restrictions and closed the country’s borders to foreigners for certain periods of time in addition to increasing the state budget and implementing a National Economic Recovery Plan, which is a stimulus package of IDR744.28 trillion\(^2\), for the handling of the COVID-19 outbreak\(^3\).

The national plan includes, among others, tax incentives, capital injections for state-owned enterprises, interest subsidies for small and medium-sized enterprises, liquidity support for the banking industry, and financial assistance for vulnerable households\(^4\).

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\(^4\) IDR is Indonesian rupiah.


Notwithstanding the above, especially under the current challenging environment for countries all over the world, the development of infrastructure projects has been considered as key for the reactivation of the economy\textsuperscript{232}.

Indonesia is a presidential democratic republic and a state with a decentralized government. The existing political system has been the result of a transition into democracy that began in 1998, when the dictator that ruled the country since 1966, Suharto, was forced to resign as a result of protests breaks during the Asian financial crisis.

Since he was first elected in 2014, Indonesia’s president, Joko Widodo, announced ambitious infrastructure plans, including a 2020-2024 plan promising more than USD 400 billion in investments, in hundreds of projects throughout the country’s islands. The Government’s initial studies stipulated that the majority of the necessary funding would come from the Government budget or state-owned enterprises, and the increase of private sector engagement in the country’s infrastructure sector\textsuperscript{233}.

As of the latest 2020 credit ratings, Indonesia stands at BBB- under Standard & Poor’s and Baa2 under Moody’s.

In 2020, it was ranked in the 73\textsuperscript{rd} position at the World Bank index of the most business-friendly jurisdictions (Brazil being ranked in the position 124)\textsuperscript{234}.

Natural resources are abundant in Indonesia, with a large variety of mineral deposits (tin, bauxite, manganese, copper, gold, among others), which makes mining, including extraction of oil and natural gas, responsible for a relevant portion of the country’s GDP and exports. The refining activities were attributed to a state-owned company since 1968 – Pertamina, but recently the Government allowed private investors (foreign or local) to establish oil refineries independently (i.e., regardless of cooperation with Pertamina), subject to certain conditions, such as prioritizing domestic demand over exporting\textsuperscript{235}.


Indonesia is also one of the world’s leading coal exporters\textsuperscript{236}.

Furthermore, the services sector represents a major segment of the Indonesian economy, accounting for one third of the GDP and with tourism being a particularly important source of income.

2. Foreign Exchange Controls

According to article 5 of Law No. 24 of 1999, concerning foreign exchange flows and the exchange rate system, Bank Indonesia has the authority to propose the exchange rate system to be defined by the Government and implement monetary policy. Pursuant to Indonesia’s economic history, during the 1997 and 1998 monetary crises faced by the country, Bank Indonesia changed the controlled-exchange rate system then in force to a \textit{free floating exchange rate system}, which remains effective to this day\textsuperscript{237-238}.

Although it does not have the authority to fix, limit or intervene in foreign exchange rates, Bank Indonesia, as the central bank of Indonesia, is responsible for maintaining rupiah stability by monitoring foreign exchange transactions. For these purposes, Bank Indonesia establishes, on a daily basis, the foreign exchange reference rate – the Jakarta Interbank Spot Dollar Rate (JISDOR) –, which represents the USD/IDR spot price based on foreign exchange transactions in the domestic market captured by Bank Indonesia’s monitoring system\textsuperscript{239}. The JISDOR, as established by Bank Indonesia each day, serves as a reference rate for each domestic bank to determine their foreign exchange rates.

The currency exchange system in Indonesia is limited by regulatory authorities. For transactions between banks and Indonesian parties, the Bank Indonesia Regulation No. 18/18/PBI/2016 provides that the exchange of IDR into foreign currency without an underlying transaction is limited to USD 25,000 for spot transactions and USD 100,000 for standard derivative transactions, per month per customer (Indonesian individuals or legal entities).

\textsuperscript{236} LEGGE, J. D. INDONESIA. Available at: https://www.britannica.com/place/Indonesia/. Accessed on March 24, 2021.


For transactions between banks and foreign parties, on the other hand, the Bank Indonesia Regulation No. 16/17/PBI/2014 provides that the exchange of IDR into foreign currency without an underlying transaction is limited to USD 100,000 for spot transactions per month, per customer (individuals or corporations), and USD 1 million for standard derivative transactions per transaction, per customer. The exchange of foreign currency into IDR, in turn, is limited to USD 1 million for standard derivative transactions per day per customer.

In any case, any exchange transactions exceeding the thresholds above must be supported by an underlying transaction, to which the maximum amount for the FX transaction shall be limited\(^{240-241}\). In addition to the foreign currency controls above, offshore loans are also subject to specific approvals and procedures, as will be further detailed in Section 3 hereof.

Additionally, article 2 of the Bank Indonesia Regulation No. 17/3/PBI/2015 ("BI Reg 17") stipulates the mandatory use of rupiah in transactions conducted within the Indonesian territory, which includes: (i) transactions in Indonesia having the purpose of payment; (ii) settlement of other obligations that must be fulfilled by using money; and/or (ii) other financial transactions in Indonesia.

Therefore, Indonesia has a protective system for the FX market that allows the Central Bank to foresee the amount of foreign currency being injected into the national economy and mandates that any foreign amounts disbursed into the country be converted into the national currency, except for the transactions listed in articles 4 and 5 of BI Reg 17\(^{242}\).

Such regulation was issued with the stated purpose of stabilizing the rupiah exchange rate, providing only for a few exceptions. For the purposes of this study, we highlight that the following transactions may be denominated in foreign currency: (i) international trade transactions, including export and/or import of goods and service trade activity that crosses the state territorial borders conducted by way of cross border supply and consumption abroad; (ii) international financing transactions in which the provider or the receiver of the financing is domiciled overseas; and (iii) strategic infrastructure projects having obtained Bank Indonesia’s approval.

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BI Reg 17 also provides for the mandatory inclusion of prices in rupiah only, which means that agreements (other than within the exceptions), may not mention any corresponding USD or other foreign currency amounts.\textsuperscript{243}

Additionally, it is important to note that companies may open and maintain bank accounts in foreign currency both with onshore and offshore banks. However, according to Bank Indonesia Regulation No. 16/10/PBI/2014, borrowers under an offshore loan are obliged to withdraw offshore loans through banks in Indonesia that carry out foreign exchange activities.\textsuperscript{244} Likewise, the payment of sales or export of natural resource commodities must necessarily be made into onshore bank accounts (which includes a subsidiary or a branch of an offshore bank that operates in Indonesia).\textsuperscript{245}

With respect to the execution of contracts or transactions denominated by the US dollar or other hard currencies, we will refer to the considerations made above concerning BI Reg 17, which generally sets forth the mandatory use of rupiah, providing only for a few exceptions.

Notwithstanding such mandatory use of rupiah, upon issuance of BI Reg 17, the Ministry of Energy and Mineral Resources ("MoEMR") issued press release No. 40/SJI/2015 stating that the specific characteristics of the energy sector made it impossible for BI Reg 17 to be fully implemented due to the nature of certain transactions of the sector (such as drilling services and lease of ships).

For example, the energy and airport sector have adjusted well to the indexation of tariffs in foreign currency, in view of the structure of the projects, final product to be delivered to the end-user and the purpose of each of the tariffs charged (connected to a foreign component).

Therefore, the MoEMR and Bank Indonesia reached an agreement that the use of foreign currency will continue to be allowed in "transactions which are fundamentally difficult to fulfill the provisions of BI Reg 17\textsuperscript{246}"

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3. **Infrastructure Needs, Opportunities and Legal Regimes**

Fostering further investments in the infrastructure sector is paramount to stimulate the country’s economy and may be key to leading Southeast Asia’s recovery from the COVID-19 crisis\(^\text{247}\).

For Indonesia, the long-lasting infrastructure sector’s heavy dependence on public funds and the lack of investor-friendly regulation have resulted in the sector’s mismatch with Indonesia’s economic expansion. For instance, over the past 5 years, total infrastructure investment amounted to USD 180.7 billion, of which only USD 8.9 billion corresponded to private investment\(^\text{248}\). Facilitating private investment and providing mechanisms to properly manage risks are crucial goals to achieving Indonesia’s infrastructure needs\(^\text{249}\).

Therefore, in order to meet the country’s goals in the infrastructure sector, the Indonesian government has included more than 100 projects in the national medium-term development plan (2020-2024) and has simplified their complex regulatory framework and land acquisition procedures, as well as improved the regulation on development of public private partnerships (“PPPs”) in an attempt to make it more appealing to investors.

In this regard, in order to improve the country’s PPP regulation dated back to 2005, Presidential Regulation No. 38/2015 (“PR 38/2015”) was enacted to implement important changes to the PPP legal framework in Indonesia. It provides that the following infrastructure sectors or services may be developed through PPP schemes: transportation, roads, irrigation, water, waste, telecommunication and informatics, power, oil and gas, education facilities, sports and arts facilities, tourism, health and public housing.

With regards to investment return within PPPs, PR 38/2015 also innovated by introducing the availability payment, which is a periodic payment made by the authority in charge of the project (i.e., the government contracting agency or “GCA”) during the term of the PPP contract as compensation for the infrastructure services provided by the private partner upon achievement of specified service levels\(^\text{250}\). With this amendment, the Indonesian PPP

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scheme may now benefit from the following mechanisms: (i) user fee regulated by tariff, which is to be determined by the relevant authority or based on the capability of end users/consumers to pay the tariffs; (ii) availability payment, as described above; and (iii) other payment schemes that do not contravene any prevailing laws and regulations.

Other key features of the Indonesian PPP regulatory framework also include the viability funding gap and a government guarantee.

The viability funding gap is a government support in the form of a one-time government budgetary contribution of some of the project’s construction cost, given in cash to a PPP project that is already economically viable but that has not reached financial feasibility. The provision of viability funding gap depends on approval by local Parliament.

The government guarantee, in turn, is intended to mitigate infrastructure risks resulting from government action or inaction that could negatively impact PPP infrastructure projects, including, for example, license delays, financial close termination or delays, amendments to legislation and regulatory provisions, or changes to tariff structure. It is a guarantee by the Indonesian Infrastructure Guarantee Fund ("IIGF") or a co-guarantee with the Ministry of Finance (to the extent that IIGF’s capital is insufficient to provide guarantee for a particular PPP project), provided in order to guarantee the Government’s financial obligations under PPP projects.

4. Foreign investment in Infrastructure: Cross-border Project Financing

Infrastructure projects in Indonesia are generally financed by a combination of debt and equity (either paid up capital or shareholder loans). The debt portion of the funding comes mostly from bank loans, capital market issuances and securitization of project revenues.

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have been increasingly used in new projects\textsuperscript{255}. Although some projects have benefited from financing via offshore loans, onshore bank loans remain the primary source of funding due to the rather strict foreign exchange controls enacted by Indonesian authorities, as described in Section 2 hereof.

In addition to the foreign currency controls already discussed, offshore loans are also subject to specific approvals and procedures. As per Presidential Regulation No. 82/2020, the Ministry of Finance and Bank Indonesia are the authorities responsible for coordinating and supervising offshore loans to Indonesian parties, with the Ministry of Finance’s prior approval being required solely in respect of offshore loans to state-owned or regional-owned enterprises.

According to Bank Indonesia Regulation No. 21/2/PBI/2019, the borrower within an offshore loan is required to submit reports on the company’s foreign exchange activities and on the so-called “prudential principle implementation activity”, as well as to inform the company’s minimum hedge, liquidity ratios and credit ratings (in accordance with Bank Indonesia’s Regulation No. 16/21/PBI/2014)\textsuperscript{256}.

Although certain multilateral and international financial entities, such as the International Finance Corporation and the Asian Development Bank, have been actively promoting foreign investment in strategic projects\textsuperscript{257}, it is clear that a continuous and significant development of the Indonesian infrastructure sector as intended by the government still depends on further measures to encourage and provide the necessary comfort for foreign investors.

In respect of onshore lending, loans are concentrated in four local banks (Mandiri, BRI, BNI and BCA) which dominate the supply of rupiah financing to the infrastructure sector. Thus, considering the relatively small size of the Indonesian banking sector (which accounts for solely 0.5% of the country’s GDP), the Indonesia Infrastructure Finance ("IIF") plays an important role\textsuperscript{258}.


IIF was established in 2009 by the Government of Indonesia along with the World Bank, the Asian Development Bank and other multilateral institutions to provide infrastructure financing and advisory services for projects in Indonesia. IIF’s role is relevant to the development of infrastructure financing by providing longer term loans than those available in the domestic market, extending nonrecourse or limited recourse financing and offering other available financing products. The IIF also partners in most projects with other financial institutions through syndicated facilities, which, given its experience in project structuring, adds a layer of comfort to the other financing parties.

Another specificity of the Indonesian market is the possibility that power tariffs derived from power purchase agreements executed in the renewable energy sector be indexed in US dollars. This is due to the fact that the Indonesian energy matrix is still mostly based on fossil fuels, that are naturally subject to foreign exchange rate fluctuations. Fossil fuels (coal, oil and gas) jointly represent 88% of the country’s power generation resources and, therefore, the state-owned utility company’s average electricity generation cost (also known by its Indonesian acronym, "BPP") is naturally subject to the FX rate fluctuations inherent to fossil fuels. Considering, therefore, that the tariff for renewable electricity generation is based on such BPP, MoEMR Regulation No. 50/2017 defined that the tariff regime for renewable sources can be denominated in US dollars. For non-renewable projects, PPAs are traditionally denominated in IDR but, in a case by case, can be index-based in foreign currency, depending on the foreign components used in the projects and project’s purpose. Such USD-indexation shall, thus, be limited to the foreign components percentage determined for each project.

Notwithstanding the USD-indexation mentioned above, MoEMR Regulation No. 10/2017 provides that payment for power must be made in rupiah, except if otherwise approved by the Bank Indonesia. Considering the inherent conversion and transferability risk arising from such requirement, sector players have come up with a solution under which power producers will enter into converting agreements with the state-owned utility company (Perusahaan Listrik Negara ("PT-PLN")) and a converting bank.

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263 The state-owned utility company, Perusahaan Listrik Negara (PT-PLN), acts as the primary offtaker of electricity generated by independent power producers and also holds the monopoly over power transmission and distribution in Indonesia.
The PPA invoices are issued in US dollars in the beginning of each payment period (usually short periods such as monthly or each three months) and, thus, the converting agreement will require PT-PLN to maintain in its bank accounts the IDR amounts equivalent to the USD invoiced amount as of the payment date. Therefore, when payment date comes (at the end of the month or three months period), the converting bank may proceed with conversion of the IDR amount into USD prior to transferring it to the power producer. In such case, PT-PLN will be able to honor its USD financial obligations, thereby protecting its sponsors/lenders from the FX fluctuations.

The airport sector has also presented interesting opportunities for foreign investors, given that projects may benefit from tariffs or services indexed in US dollars (although, once again, payments must always be made in IDR). The government guarantees provided in this sector, however, are not intended to cover any financial obligations of the public contracting agency, but only to secure government risk (such as expropriation, change in law, government action/inaction, etc.). Payment and currency risk is, in this case, fully allocated to the private parties, however, as in the power sector, the possibility of USD indexation in tariffs and services represents an attractive mitigation risk for foreign investors.

Aside from the energy, oil and gas industry and airport sector, the remaining infrastructure sectors generally do not benefit from foreign exchange indexed revenues. In the water sector and toll roads sector, for instance, project contracts have historically been denominated in IDR, without any possibility of USD or other hard currency indexation. The currency risk is fully allocated to the private parties (sponsors and lenders) and, since there are no available contractual mechanisms (and FX derivative market is limited) to address FX risk, such sectors are not that attractive to foreign investors and are mainly financed by local banks (in IDR), which generally require stronger sponsor support. Additionally, water projects are operated by local or regional government, which tend to have more budget issues and, therefore, usually depend on the support of the central government guarantee in order to secure their financial obligations before the private party.

Considering the foregoing, cross-border project financing in Indonesia may still face relevant foreign exchange risk, to the extent that project revenues in most sectors are generally neither denominated nor indexed to the currency of international long-term finance markets.

5. **Foreign Exchange Risk Mitigation**

In respect of hedging instruments available in Indonesian market, according to Bank Indonesia’s Regulation No. 15/8/PBI/2013 dated October 7, 2013 (“PBI 15/8”), hedging
transactions include derivative transactions, forward transactions and swap transactions, such as, under article 5: (i) purchase of foreign currency against rupiah to the Bank; (ii) foreign exchange transactions against rupiah; (iii) derivative transactions; (iv) risk management for commercial banks, risk management for Islamic commercial banks and sharia business units; and (v) commercial bank daily reports.

Pursuant to such regulation, hedging transactions must be carried out with an underlying transaction (supported by relevant documentation), including but not limited to debt payments in foreign currencies, export-import activities and investment activities. The term and nominal value of the hedging transaction may not be longer nor exceed the term and nominal value of the underlying transaction (article 6 of PBI 15/8).264

According to a 2015 study by the Asian Development Bank (“ADB”), most hedging transactions for emerging market and global crossover funds for partially convertible currencies (such as the Indonesian rupiah) are done through short-term NDFs, which are generally of 1 (the most active), 3, 6, or 12 months, and then rolled-over for as long as necessary. FX hedges by long-term bond investors are mostly allowed, provided that they demonstrate that the currency purchases and sales are directly related to an underlying bond investment.265

It is very clear that there are several different regulations regarding hedging transactions and the rules are rather complex and usually confusing. Therefore, the ADB study also revealed that, although not exactly meant to discourage foreign direct investment and normal trade flows, the foreign exchange controls and regulatory framework in place in Indonesia tend to, in practice, restrict FX transactions and make it more difficult for investors to access the onshore FX and FX hedging markets.266

In constant attempts to change the scenario described above, a 2019 study shows that Bank Indonesia has been setting efficient hedge prices so as to provide more effectiveness to swap hedging transactions and has also been holding regular FX swap auctions in order to help banks manage their liquidity.267 More recently, in a monetary policy review dated

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April 2020 for purposes of mitigating the impacts of COVID-19, Bank Indonesia increased the available alternatives for hedging against rupiah by expanding the types of underlying transactions able to support domestic non-deliverable forwards (DNDF)\(^\text{268}\).

In what regards PPP infrastructure projects specifically, although the government may provide a government guarantee in favor of a project’s sponsors/lenders, such guarantee is intended to mitigate solely infrastructure risks resulting from government action or inaction that could negatively impact the project, including, for example, license delays, financial close termination or delays, amendments to legislation and regulatory provisions, or changes to tariff structure\(^\text{269}\). It is a guarantee by the Indonesian Infrastructure Guarantee Fund (“IIGF”) or a co-guarantee with the Ministry of Finance (to the extent that IIGF’s capital is insufficient to provide guarantee for a particular PPP project), generally provided in order to guarantee the Government’s financial obligations under PPP projects\(^\text{270}\), although it may apply differently to each project. The IIGF guarantee is, therefore, not intended to directly cover currency fluctuations, however it would be applicable if, for instance, the currency fluctuations were to affect the Government’s ability to comply with its financial obligations under a PPP project.

Additionally, according to the 2020 risk allocation guidelines disclosed by the IIGF (also known by its Indonesian name, Penjaminan & Infrastruktur Guarantee and Infrastructure – PT PII)\(^\text{271}\), the currency exchange risk (when fluctuation is not extreme) is allocated to the private party and may be mitigated by the following mechanisms: (i) financing in rupiah; (ii) purchase price index taking into account fluctuations; and (iii) hedging instruments, such as future contracts and currency options.

The document also states that, when fluctuation is extreme, the risk may be shared with the Government, however no further details on how this risk sharing would be implemented are provided. Aside from the PPA indexation to US dollars as mentioned in Section 2 above under which the FX risk is ultimately shared with the state-owned utility company (in its condition of offtaker), no relevant projects have been identified as having


benefitted from any other FX risk sharing mechanism. Nonetheless, it seems to be an indication that, depending on the level of foreign exchange risk, the Government would be willing to discuss other ways of managing and sharing such risk.

In any event, it has not been a common practice for the Indonesian Government to provide budgetary guarantees, insurances, or back-to-back guarantees to cover FX fluctuation or rupiah devaluation.
VII. MEXICO

- High Foreign Exchange volatility.
- Free FX convertibility. Except for specific regulated sectors, Mexican law does not contemplate any restrictions, controls, governmental fees or taxes on foreign currency exchange or transfers of funds to parties abroad.
- Payments onshore must generally be performed in Mexican currency, pesos mexicanos, according to the applicable FX rate (FX).
- Sources of financing for infrastructure projects may come from FONADIN (National Infrastructure Fund - Fondo Nacional de Infraestructura) as well as commercial and development banks.
- Inter-American Development Bank (BID) and International Financial Corporation (IFC) are important sources for financing Mexico’s infrastructure.
- Mexico has important domestic players and a strong pipeline of projects. Financing for infrastructure may be obtained from public or private sources.
- As reported by the World Bank, Mexico’s onshore and offshore OTC [Over-the-Counter] derivatives markets are fully integrated.
- Multilateral banks are important players when it comes to supporting project finance in Mexico. The Mexican government has been relying on partnerships with multilateral banks such as the Inter-American Development Bank (IDB) to implement partial credit guarantee programs.
- It is possible for PPAs to be indexed to US dollars and, in that case, the price should be adjusted pursuant to a specific formula that accounts for variations in the peso-dollar exchange rate.
- Many large projects may have state owned offtakers who will agree to US dollar indexes long-term agreements, thus enabling projects to access foreign currency cross-border financing.

1. General Overview

Mexico is the second largest economy in Latin America, one of the world’s fifteen greatest economies in the world and has approximately 130 million inhabitants. With a rich culture and strong macroeconomic institutions, Mexico’s economy is highly connected to mineral resources, industrial, manufacturing, services and tourism sectors. The third sector is the largest component of Mexico's GDP. The figure below illustrates Mexican GDP per capita growth, from 2000 to 2019:
37% of the country’s manufacturing industry is composed by the automotive industry, ranking the country as the sixth largest worldwide producer. Mexico also manufactures computer equipment, electrical gadgets and conductors, as detailed in the graphic below:

Source: World Bank\textsuperscript{272}.


Similar to other Latin American countries, Mexico presents complex government affairs and lower indexes of human development. According to the information made available by the World Bank: “Over the last three decades Mexico has underperformed in terms of growth, inclusion, and poverty reduction compared to similar countries. Its economic growth averaged just above 2 percent a year between 1980 and 2018, limiting progress in convergence relative to high income economies” 274.

Mexico is the second Latin-American country best positioned in the World Bank Doing Business ranking of 2020, classified in the 60th position out of 190 countries, only losing to Chile among Latin American countries275. Such classification is due to a high-rate index related to obtaining domestic financing, instruments to protect investments, international trade, among other categories.

According to Deloitte’s report on Doing Business in Mexico “nowadays there are no restrictions on foreign investment in Mexican banks (except with regard to foreign governments). In fact, foreign financial institutions may be established in Mexico through an affiliate.”.

As a democratic federal republic, Mexico is composed of thirty-one states and the Federal District. The country is ruled by the Constitution of 1917, which determines the division of the government branches in Executive, Legislative and Judiciary, and also provides for individual, social and trans-individual human rights.

The Executive branch is led by the President, democratically elected by the population through a universal voting system. The President governs the country for a six-year period during which he or she is responsible for appointing his or her provisional successor, due to the absence of a vice president, as well as for selecting the general attorney, diplomats and Supreme Court justices to vacant spots during his or her administration. The President is also allowed to rule through the executive decrees system.

The Legislative branch is divided into the Chamber of Deputies and the Senate, with specific powers for the presentation, analysis and approval of Mexican bills of law. On the other hand, the Judicial branch is composed by the Supreme Court, the Electoral Court, the Federal Judiciary Council among other circuit and district courts.

Mexico has entered into 34 reciprocal investment promotion and protection agreements, along with commercial treaties, offering protection and guarantees to foreign investors. The most important treaties are the United States-Mexico-Canada Agreement (USMCA) and the North America Free Trade Agreement (NAFTA).

2. Foreign Exchange Controls

Mexico has no foreign-exchange controls currently in force, especially after the signing of international agreements and treaties as abovementioned. Mexican law was amended not to contemplate any restrictions, controls, governmental fees or taxes on foreign currency exchange or transfers of funds to parties abroad. The law only imposes restrictions to foreign investment in specific regulated sectors, as further detailed below.

Therefore, foreign exchange is freely convertible to other currencies and transferable from and to the country in all of its legal forms – currency, profits, dividends, payments or any type of cash stemming from or involving investments, pursuant to the applicable FX exchange rate.

The exchange rate is determined by Banco de México, Mexico’s Central Bank, pursuant to an average of rates in the wholesale foreign exchange market for operations payable in 48 hours (market conditions). Each banking day, Banco de México informs the exchange rate that shall be used on the day after and is responsible for settling the liabilities denominated in U.S. dollars payable in Mexico.

Under Mexican Law, all payments must be performed in Mexican currency, pesos mexicanos, according to the applicable exchange rate (FX). Moreover, in the Mexican market, the Government limits the deposit and exchange of US dollars in Mexican banks, but foreign hard currency transactions processed through on-line banking are not subjected to such restrictions.

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3. Infrastructure Needs, Opportunities and Legal Regimes

Mexico is considered an attractive country to invest, especially in the infrastructure sector due to its competitive environment for the private sector’s participation. Such conditions come from the numerous commercial treaties signed by Mexico and, as pointed out by Mexico Projects HUB due to "a) a full commitment to constant public investment; b) a well-defined strategy, supported by long-term planning; c) diversified long-term public and private funding, in local and foreign currencies; and, d) a solid institutional and legal framework”282.

In the last five years, Mexican Government has invested over USD 75,969 billion in the infrastructure sector, whereas USD 12,289 billion came from the private initiative. It is estimated that the Mexican infrastructure sector requires an additional USD 1.1 trillion of investment in the country283.

In order to obtain financial funds, it is possible to seek for FONADIN’s assistance (Fondo Nacional de Infraestructura, the National Infrastructure Fund) as well as commercial and development banks. FONADIN’s support involves two types of investment, recoverable and unrecoverable, the latter being provided to support projects with social and/or economic purpose with lower financial return.

The Inter-American Development Bank (IDB) and International Financial Corporation (IFC) are important sources of financing for Mexico’s infrastructure.

In 2016, a government-supported fund (Investment and Technological Development Fund) was added to the PPP Law as a possible source of funding, to be allocated to support technology projects in regulated sectors.

As in most project finance deals, funding for infrastructure projects comes from banking debt and sponsor’s equity. In the Mexican market, domestic and international private equity funds also provide financing to project developers.

More recently, Mexican pension funds (AFORES - Administradoras de Fondos para el Retiro) have also participated in financing infrastructure projects by acquiring structured securities, such as certificados de capital de desarrollo (CKDs), Fideicomiso de Inversión en Energía e Infraestructura (FIBRA E) and Certificados Bursátiles Fiduciarios de Proyectos de Inversión (CERPIs). Those certificates are peso-denominated instruments that allow

financing the equity portion required by infrastructure projects\textsuperscript{284-285}. They are structured through trust funds responsible for issuance of the securities, which are then usually acquired by Mexican pension funds (AFORES) (although other investors are allowed to acquire the bonds, the costs associated tend to make them less attractive to such investors)\textsuperscript{286}.

In 2019, the Government of Mexico signed the National Agreement on Private Sector Infrastructure Investment aiming at facilitating and accelerating the implementation of projects that contribute to Mexico’s growth and development, under which the Government made a commitment to improve the economic conditions for private investment in the country\textsuperscript{287}.

Pursuant to such agreement, the private sector should identify infrastructure projects that could receive investments in an amount equivalent to an annual infrastructure investment of 5% of the GDP. Fulfilling its part, the private sector identified 1,600 projects for investment that could achieve the rate proposed by the Mexican Government in the National Development Plan.

The parties agreed on 147 projects for an initial investment from the private sector. The selected projects are from different infrastructure sectors, such as transport, telecommunication, water, energy, tourism, health and others.

With respect to infrastructure funding, Mexico has important domestic players and a strong pipeline of projects, being that financing for infrastructure may be obtained from public or private sources.

Since 2012, with the enactment of the country’s PPP Law (\textit{Ley De Asociaciones Público Privadas}), Mexico established a public-private partnership legal framework to regulate the dissemination of national infrastructure.

On February 7, 2008, a Presidential Decree established Mexico’s National Infrastructure Fund (Fondo Nacional de Infraestructura - FONADIN), that, as anticipated above, has the purpose of managing the development of national infrastructure through planning, designing and construction of projects.

Currently, most of Mexican’s infrastructure projects are developed through Public-Private Partnership arrangements, mostly sponsored by FONADIN pursuant to, for instance, the Programa de Modernización de Organismos Operadores de Agua (PROMAGUA), for water operators’ modernization program, Programa De Residuos Solidos Municipales (PRORESOL), concerning solid waste infrastructure projects, and the Program to Support Federal Massive Transport (PROTRAM), among others.

With respect to government funding for PPP projects, there are three types of resources: (i) budgetary funds; (2) funds of FONADIN or other federal non-budgetary funds; and (3) non-financial funds, characterized by the contribution of authorizations for the execution of the works and for the provision of services (or in the form of permits, concessions or authorizations for the use or exploitation of public goods). The PPP Law does not state that the Government must provide specific guarantees in favor of awarded parties however, the Mexican Government can guarantee payment obligations in accordance with the Federal Expenditure Budget, to be applicable on a case by case basis.

According to the "Study on PPP Legal & Financial Frameworks in the Mediterranean Partner Countries" developed by the European Investment Bank, "Mexico, with a BBB credit rating and a member of OECD, increasingly funds its PPP projects in Mexican Pesos (MXN) rather than in United States Dollars (USD), and has required less IFI funding, ECA guarantees or commercial international banks requiring political risk insurance. The Mexican financial markets have also allowed for Mexican PPPs to be financed in MXN and USD denominated bonds".

It is also relevant to mention that foreign investors are only allowed to participate in authorized activities. According to article 4 of the Foreign Investment Law (1993), foreign investors may participate in any proportion in the capital stock of any Mexican corporation or partnership, except for activities reserved for the Mexican Government or activities

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reserved exclusively for Mexicans or Mexican companies\textsuperscript{293}, such as: Exploration and extraction of petroleum (including all other hydrocarbons); Planning and control of the National Electricity System as well as Electricity transmission and distribution; Nuclear power generation; Radioactive minerals; Control, supervision and surveillance of ports, airports and heliports; Postal services; Land domestic passenger, tourism and freight transport; Development banks; among others.

There are restrictions according to which foreign investment is permitted in the abovementioned activities up to a certain percentage: (i) up to 10\% in cooperative companies for production; (ii) up to 25\% in domestic air transportation, air taxi transportation and specialized air transportation; and (iii) up to 49\% in manufacture and commercialization of explosives, firearms, cartridges, ammunitions and fireworks, not including acquisition and use of explosives for industrial and extraction activities; printing and publication of newspapers for circulation solely throughout Mexico; series "T" shares in companies owning agricultural, ranching and forestry land; fresh water, coastal and exclusive economic zone fishing; integral port administration; radio broadcasting; telecommunications concessionaires, and others\textsuperscript{294}.

From the perspective of a foreign company, there are no restrictions on nationality under the Mexican law or on maintaining offshore foreign currency accounts, however, in practice, it is common that biddings require project companies to be incorporated in Mexico.

4. **Foreign investment in Infrastructure: Cross-border Project Financing**

There are risks inherent to cross-border project financing that can directly affect the result of the project and its costs. Political risk, government strategies, currency-related risk, and other types of risk may be mitigated by guarantees, insurances, reserve funds and several other instruments as further detailed below\textsuperscript{295}.

According to the Mexican Banks’ Association, financing transactions in Mexico represent 34.2\% of the Mexican GDP and cross border transactions have become increasingly active. There are no requirements such as obtaining licenses, authorizations or consents in order

\textsuperscript{293} According to PWC’s Doing Business in Mexico Report: “Foreign investment may not participate directly in the activities and companies mentioned or though trusts, contracts, partnerships or by-law agreements, pyramiding, schemes, or other mechanisms granting any control or participation”. Available at: http://read.pwc.com/i/434024-doing-business-in-mexico-2015/497. Accessed on March 24, 2021.


to provide cross border financing or to enforce rights under cross border loan agreements in Mexico\textsuperscript{296}. 

Project companies can open and maintain foreign currency bank accounts in Mexico or abroad. In project finance deals, it is common for lenders to require the project company to maintain foreign currency accounts abroad to facilitate the loan payment, thus limiting exposure to currency fluctuations\textsuperscript{297}.

### 5. Foreign Exchange Risk Mitigation

FX risk may generally be mitigated by defining contractual terms and conditions that include, the use of foreign currency hedges, pursuant to swap mechanisms and several other private instruments. For Mexico, the multiple agreements and treaties already mentioned throughout this report exemplify possible measures that can be used to mitigate FX risk, given that they facilitate trade between countries.

According to The Bank for International Settlements: "In the MXN onshore market, the foreign and domestic banks are the main suppliers of foreign currency. Until February 2016, the Bank of Mexico was also a net seller of US dollars in the spot FX market. Local banks use MXN derivative instruments frequently in order to hedge FX funding risks back into Mexican pesos. The importance and activity level of pension funds in the Mexican FX market has grown in recent years, especially in forward (and also spot) markets"\textsuperscript{298}.

Additionally, currency swaps can also be an instrument that helps ensure convertibility. The Bank of Mexico has a bilateral currency swap line with the US Federal Reserve and a parallel agreement with the US Department of the Treasury\textsuperscript{299}, as established under the North American Framework Agreement (NAFA)\textsuperscript{300}.

Pursuant to the information provided by the World Bank: "Mexico’s onshore and offshore OTC [Over-the-Counter] derivatives markets are fully integrated. As a result, participants

\textsuperscript{296} Lexis: Cross-Border Banking and Finance Guide (Mexico). Available at: https://plus.lexis.com/document/?pdmfid=1530671&crid=6f45e03b-09ca-4382-a1b5-a0eb30af1fac&ppdocfulpath=%2Fshared%2Fdocument%2Fanalytical-materials%2Furn%3AcontentItem%3A5RR0-BS31-JN6B-S3WP-00000-00&pdcontentcomponentid=126166&pdteaserkey=&pdislpamode=false&ecomp=pt4k&earg=sr0&prid=deac
\textsuperscript{297} Lexology: Structuring a lending transaction in Mexico. Available at: https://www.lexology.com/library/detail.aspx?g=a00a2fb3-f5d6-4df8-abd8-59d2d2d0eb60. Accessed on March 12, 2021.
in these markets can benefit from lower costs and greater liquidity and price transparency relative to the local exchange-traded market. Investors and end-users have access to a wide variety of foreign exchange and interest rate contracts, among which the most important ones are currency options, currency forwards, cross-currency swaps, and interest rate swaps"301.

In 2017, the Mexican Foreign Exchange Commission established a program that implemented a new foreign exchange market mechanism of non-deliverable forward (NDF’s)302 auctions settled in Mexican Pesos. Such mechanism aimed to maintain the proper functioning of the local exchange market, while supplying market participants with another foreign exchange hedging instrument, precisely in order to mitigate exposure to FX risk303-304.

The government also uses currency hedging programs as a mechanism to reduce the fluctuation of the exchange rate and attract more investors305. According to a World Bank study on Mexico’s Derivative Market, “typically, Mexican corporates want to hedge long-term risks on the liability side of their balance sheet arising from large currency movements using currency-linked structured notes. Deals are designed so that the notes, which usually have a three-year maturity, can be rolled over to enable the Mexican corporate to hedge currency risk for a period as long as 10 years”306.


303 According to Bank of Mexico, the main operational details of the mechanism are summarized below:

• “The program can size up to 20 billion US dollars taking into consideration the total nominal amount outstanding.
• The maximum tenor of the NDF’s will be 12 months.
• Since the settlement of the forward is non-deliverable, the stock of international reserves is unaffected by the sale of these instruments.
• Only local banks that can operate derivatives are allowed to present tenders for these instruments.
• Auctions will be interactive, will last two minutes, and the allotment will be done at multiple price. Bank of Mexico will roll over the total amount outstanding of the NDFs until the Foreign Exchange Commission deems it necessary. The first auction took place on March 6th, 2017, for a total notional amount of one billion USD distributed along six maturities”.


305 “Mexico’s currency commission has increased the size of its program of foreign exchange auctions from $20 billion to $30 billion, the central bank said on Monday, as policymakers take steps to support the battered peso currency”. Mexico increases foreign exchange peso hedge program. Available at: https://www.reuters.com/article/mexico-peso-cenbank-idUSE1N28D005. Accessed on March 25, 2021.

The abovementioned study also states that “coupon payments of peso-denominated bonds are better hedged using cross-currency swaps rather than forwards, futures, or interest rate swaps. Not surprisingly, then, increased peso denominated issuance in local and external markets has driven cross-currency swap volumes up. The majority of these contracts, that are custom-made to suit investors’ needs, require exchanging the principal either at the inception or the end of the contract. A typical contract is the UMS (United Mexican States foreign currency-denominated debt) asset swap, which requires exchanging the dollar coupons for peso-denominated coupons”\(^\text{307}\).

Multilateral banks are important players when it comes to supporting project finance in Mexico. The Mexican government has been relying on partnerships with multilateral banks such as the Inter-American Development Bank (IDB) to implement partial credit guarantee programs, so that project developers are able to issue debt with a higher rating than the project would otherwise be able to\(^\text{308}\).

More specifically, FX risk mitigation may be achieved with the indexation of agreements to hard currency. For instance, in Mexico, it is possible for PPAs to be indexed to US dollars\(^\text{309}\), and in that case the price should be adjusted pursuant to a specific formula that accounts for variations in the peso-dollar exchange rate. In the Federal Energy Commission 2016 auctions, FX rate variation had a 70% weight on the formula, which also considered US inflation and Mexican inflation, with weights of 20% and 10%, respectively, on the formula\(^\text{310}\). The Mexico City Airport is another example of the use of dollar-indexed tariffs, which are subject to monthly conversions and also mitigate FX risk\(^\text{311}\).


In summary, foreign investors have their FX risks mitigated through the indexation of agreements to hard currencies or through hedging instruments available in the local capital market, which also benefit from hedging treaties entered into by the government, such as the abovementioned bilateral currency swap line with the US Federal Reserve and the North American Framework Agreement with the US Department of the Treasury\textsuperscript{312}.

VIII. PERU

- Medium FX volatility.
- Flexible FX convertibility. Peruvian foreign exchange controls are among the less stringent in South America: 1993 Constitution guarantees the freedom to hold and dispose of foreign currency.
- Nevertheless, the Peruvian currency, Sol, is predominant on domestic transactions. Still, it is legal for short or long-term contracts to be indexed to foreign currency.
- First boom of privatizations and concessions to private investors came in the mid-nineties and it is currently recognized, at least regionally, as an international reference of best practices in terms of public-private partnerships, structured under a unified regulatory framework.
- In March 2016, Peru was the first non-member to adhere and comply with OECD principles with respect to the selection, structuring and awarding of public private partnerships (PPP).
- Infrastructure projects are typically financed through non-recourse or limited recourse project financing. More generally, funding of infrastructure projects in Peru has mainly relied on the traditional banking system, including MFIs and DFIs and capital markets.
- Peruvian legislation has several instruments to attract foreign investment. GOP is legally allowed to offer different types of government guarantees for project finance parties, covering different sorts of risks (such as FX but also demand and construction risks).
- With respect to currency risk, item 1.15 of the Guidelines for Risk Allocation in PPP Contracts establish that such risk shall be usually allocated to the private investor, unless the GOP determines, through appropriate market sounding, that, due to limitations of local capital markets and banking sources and despite the strategic importance of the project for the country, the project will need to satisfy a relevant portion of its funding through cross-border project financing.
- In exceptional cases and as further demonstrated below, GOP is authorized to offer special mitigation mechanisms, such as a guarantee of minimum stream of US dollar revenues.
- "Certificados de Reconocimiento de Derechos del Pago Anual por Obras" (the "CRPAO") are certificates issued by the GOP, freely negotiable, recognizing that a certain defined segment or phase of a project has been duly accomplished, and that, accordingly, the concessionaire is entitled to an irrevocable stream of revenues (based on a defined schedule of payments), which, depending on the project, may be denominated and/or indexed (in total or in part) to US dollars. CRPAOs improve the bankability of such projects by reducing their construction and currency risks essentially down to a level equivalent to the nation’s sovereign risk, which, for Peru, has been investment grade for a reasonable time.
- CRPAOs evolved into the "Retribuciones por Inversiones según Certificado de Avance de Obras" (the "RPI-CAO"). CRPAOs raised issues of whether they needed to be recognized as public debt. To avoid that, CRPAOs evolved into RPI-CAOs.
1. General Overview

Peru is the third largest country in South America and twentieth in the world, with a territory of 1,285,215 km². It currently ranks as the fourth most populous country in the continent, with a population exceeding 31 million inhabitants.

Its gross domestic product was of USD 227 billion in 2019, the 6th largest in the South America. According to the Word Bank Overview, Peru experienced significant economic expansion during the previous decade, which has been growing at a slower pace since 2014 due to numerous factors and, on top of the challenges already faced by the country in that regard, the outbreak of the COVID-19 pandemic has also severely impacted its economic development, causing an 11.1% decline in the country’s GDP in 2020.

The figure below illustrates Peruvian GDP per capita growth, from 2000 to 2019:

![Figure 14. Peruvian GDP per capita growth (annual %)](source: World Bank)


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Among the measures enacted in order to contain the crisis, the Government launched a program of economic aid to the vulnerable population and businesses, including cash transfers, tax benefits and credit guarantees. In spite of those efforts, the pandemic resulted in rising unemployment and poverty rates in the country, leading to a state of deep economic recession. In the context described, fostering economic activities and accelerating the GDP growth may be considered as the main challenges of the Peruvian government nowadays\(^{317}\).

Government of Peru ("GOP") is organized as a democratic republic, divided in regions with certain decentralized powers and attributions. The legislative branch is unicameral and the president is considered as the chief of state, including powers to appoint the Council of Ministers and Prime Minister and to block legislation through the exercise of veto rights (which may, though, subject to especial voting requirements, be overturned)\(^{318}\). The country has been facing a rather difficult political crisis since ex-president Martin Vizcarra was impeached based on corruption allegations in November 2020\(^{319}\). Presidential and congressional elections are set to take place on April 11, 2021, amid a severe pandemic and an unprecedented political crisis.

As of the latest credit ratings, Peru stands at BBB+ under Standard & Poors and A3 under Moody’s.

In 2019, it was ranked in the 76\(^{th}\) position at the World Bank index of the most business-friendly jurisdictions (Brazil being raked in the position 124 and Venezuela, 188)\(^{320}\).

Mining plays an important role in the Peruvian economy, with an abundance of mineral deposits, making the country a relevant producer of gold, silver, copper, zinc and lead. Peru also benefits from large reserves of natural gas and oil and, despite its complicated geographical features, agriculture represents a significant portion of Peruvian GDP, also employing 27\% of the active population. Finally, the tertiary sector is also a major segment of Peruvian economy, accounting for more than 50\% of the country’s GDP, including tourism, financial services and telecommunication\(^{321}\).

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2. **Foreign Exchange Controls**

Peruvian foreign exchange controls are among the less stringent in South America.

The 1993 Constitution guarantees the freedom to hold and dispose of foreign currency. GOP has eliminated all restrictions on remittances of profits, dividends, royalties, and capital, although foreign investors are advised to register their investments with ProInversion to ensure these guarantees. Exporters and importers are not required to channel foreign exchange transactions through the Central Bank of Peru and can conduct transactions freely on the open market. Anyone may open and maintain foreign currency accounts in Peruvian commercial banks\(^{322}\).

The foreign exchange market operates freely, for the most part. To mitigate extreme variations of the exchange rate, Central Bank intervenes through purchases and sales in the open market without imposing controls on exchange rates or transactions\(^{323}\).

Nevertheless, the Peruvian currency, *Sol*, is predominant on domestic transactions. Still, it is legal for short or long-term contracts to be indexed to foreign currency. On the other hand, such foreign exchange indexation is not widely spread for every sectors, although it must not be ignored the existence of long-term agreements in which tariffs are indexed to US Dollars. As this is not the general rule, and considering that there are sectors in which foreign currency indexation may not be easily reflected into the tariffs, cross-border project financing into Peru may still face relevant foreign exchange risk, to the extent that project revenues are neither denominated or indexed to the currency of international long-term finance.

3. **Infrastructure Needs, Opportunities and Legal Regimes**

As a strong producer of mining and agricultural products throughout its large territory, Peru demands robust and efficient infrastructure for the production, transportation and export of such commodities. Its large population, concentrated in a few regions, also puts pressure on social, urban and other related infrastructure. It is reported that "in the last decade, Peru has begun to take the necessary measures to improve its infrastructure in transport facilities, electricity, water and communications in order to promote new investments which will contribute to the development of the productive sectors of the


\(^{323}\) Idem as above.
There is still a significant gap in infrastructure needs yet to be addressed and fostering private investments to reach such ultimate goal seems inevitable. For the years 2020-2021 there are different projects in the pipeline, notably in the Transport, Water and Sanitation, Real Estate, Education and Energy sectors. It is still not clear, though, whether the adverse effects of the pandemics may compromise such planning and the extent of the losses. It is worth mentioning that in 2020, “investments in ongoing infrastructure concessions in Peru dipped to US$174mn between January and August, falling 50% year-on-year.”

The first boom of privatizations and concessions to private investors came in the mid-Nineties and it is currently recognized, at least regionally, as an international reference of best practices in terms of public-private partnerships, structured under a unified regulatory framework, as further detailed below.

In 2003, as part of a decentralization trend, regions were given more powers and attributions to promote private investments through regional concessions.

To promote uniform requirements throughout all departments and the centralized government, consistent with international best practices, Legislative Decree 1224 (later replaced by Legislative Decree 1362) established a general framework for the development of projects through private investments initiatives, referred as public private partnerships.

In accordance with article 20 of Legislative Decree 1362, Public Private Partnerships (PPP) “are a modality of private investment, based on long-term contracts in which the State participates, with a public entity and one or more private investors”. Article 29.1 of the Supreme Decree 240, further provides that PPPs are “one of the forms of participation of the private sector, in which the projects risks are adequately distributed and are preferably financed by the private sector, for the implementation of projects securing optimal service levels for the users”, including “long-term contracts, in which the ownership for the investments made may be maintained, reversed or transferred to the State, based on the nature and reach of the project and the provisions of the relevant agreement”.

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In March 2016, Peru was the first non-member to adhere and comply with OECD principles with respect to the selection, structuring and awarding of public private-partnerships (PPP). PPP legislation is based, among others, on the following principles: (i) clarity and legal predictability; (ii) Value for Money; (iii) transparency; (iv) budgetary and financial prudence, (v) integrity, (vi) adequate risk allocation and (vii) focus in results.

PPPs, which may have a contractual term of up to 60 years, may be self-sustainable or may benefit from direct payments (or guarantees) from the government or governmental entities.

4. Foreign investment in Infrastructure: Cross-border Project Financing

Infrastructure projects are typically financed through non-recourse or limited recourse project financing. More generally, funding of infrastructure projects in Peru have mainly relied on the traditional banking system, including MFIs and DFIs and capital markets. A report prepared by E&Y provide interesting details on the source of funds for the financing the infrastructure projects in Peru based on the IJ Global transaction database. Pursuant to the information contemplated therein, from 2008 and 2019, “bank and multilateral loans represent 61.9% of total debt transactions, followed by commercial bonds with 32% and revolving facilities with 6.1%.” Further, the report also mentions that “foreign institutions have also shown great interest in funding local projects in Power, Healthcare, Water & Sanitation, Telecommunications and Transportation sectors, including American, European and Asian financial institutions”.

Large and capital intensive projects usually require cross border project financing.

Peruvian legislation has several instruments to attract foreign investment. In addition to the overall business friendly environment, including a more liberal foreign exchange system, PPPs are based on the principle that risks should be shared and allocated to the party best suited to handle them.

In this regard, GOP is legally allowed to offer different types of government guarantees for project finance parties, covering different sorts of risks (such as FX but also demand and construction risks), in case of projects which might not be bankable otherwise, due to the high levels of required capital or other specific challenges.

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328 Please refer to Article 4 of Legislative Decree 1362.
5. Foreign Exchange Risk Mitigation

PPPs in Peru are expected to contemplate an efficient and objective sharing of the project risks. In case of materialization of a risk not allocated or absorbed by private investor, as in many civil law jurisdictions, investor will be entitled to the revision of its PPP or concession terms, so as to rebalance the relation between, on one side, its rights and remuneration and, on the other, its costs and obligations.

PPP and concession contracts may also stipulate specific remedies or protections against certain risks, so that concessionaire will be automatically insulated, without the need of a broader or more time-consuming rebalancing procedure.

In 2016, the Ministry of Economy and Finance of Peru published the “Guidelines for Risk Allocation in PPP Contracts”\textsuperscript{331}, providing general guidance on the allocation of the most import risks of a PPP arrangement, such as risk of construction, demand, operation etc.

With respect to currency risk, item 1.15 of such guidelines establish that such risk shall be usually allocated to the private investor (the concessionaire), as part of general financing risk, unless the GOP determines, through appropriate market sounding, that, due to limitations of local capital markets and banking sources and despite the strategic importance of the project for the country, the project will need to satisfy a relevant portion of its funding through cross-border project financing. That is usually the case in very large projects, involving ticket amounts not available domestically, or more complex or innovative projects, in relation to which local lenders might be more risk averse.

In those exceptional cases and as further demonstrated below, GOP is authorized to offer special mitigation mechanisms, such as a guarantee of minimum stream of US dollar revenues.

Indeed, mitigation of foreign exchange currency risk may be achieved through different instruments.

Currency of cross border project finance may be matched with project revenues (and thus FX variation risk may be duly mitigated), if (a) relevant long-term agreements (such as power purchase agreements – PPAs) are denominated or indexed to foreign currency, (b) if long-term revenues, although not based in long-term foreign currency denominated contracts, are derived from exports of commodities or services typically tied to international prices (such as mining products or airport revenues, thus offering natural

hedge), and/or (c) if cross border project finance is granted in local currency.

On the other hand, many projects, such as toll roads, cannot denominate or index their revenues to foreign currency. Nonetheless, if, as part of its value for money assessment, GOP is convinced that a priority and strategic project for the country cannot be successfully implemented without foreign capital and allocation of an incremental set of risks to the public sector, GOP may offer different types of governmental guarantees or commitments to mitigate currency and other risks.

The first innovative instrument of that kind was the “Certificados de Reconocimiento de Derechos del Pago Anual por Obras” (the “CRPAO”). CRPAOs are certificates issued by the GOP, freely negotiable, recognizing that a certain defined segment or phase of a project has been duly accomplished, and that, accordingly, the concessionaire is entitled to an irrevocable stream of revenues (based on a defined schedule of payments), which, depending on the project, may be denominated and/or indexed (in total or in part) to US dollars. If, after the issuance of the CRPAO, the concessionaire breaches its other obligations under the concession, sanctions and fines cannot nonetheless adversely affect the irrevocable stream of revenues represented by the CRPAO, which, hence, has the natural vocation to be securitized or to serve as collateral for a long-term project bond. CRPAOs have been used in projects such as the following toll roads: (i) IIRSA South, 2,603Km, Interocean South Corridor; and (ii) IIRSA North, 960Km from Paita to Yurimaguas.

In practice, CRPAOs improve the bankability of such projects by reducing their construction and currency risks essentially down to a level equivalent to the nation’s sovereign risk, which, for Peru, has been investment grade for a reasonable time332.

CRPAOs, however, raised issues of whether they needed to be recognized as public debt. To avoid that, CRPAOs evolved into “Retribuciones por Inversiones según Certificado de Avance de Obras” (the “RPI-CAO”), which are contractual commitments. Although assignable, they are not negotiable instruments as CRPAOs.

On top of that, RPI-CAOs have reinforced the rational that the primary source of the irrevocable stream of revenues guaranteed by the RPI-PAOs shall be project revenues collected from end users (e.g., tolls), so that GOP will only have a contingent obligation of topping up, from time to time, such primary revenues so as to secure the total guaranteed amounts.

In order to promote fiscal responsibility, total outstanding amounts of CRPAOs and RPI-CAOs cannot exceed a certain percentage of Peru’s annual gross domestic product (e.g., 0.5%).

Jose Moran and Juan Heros report that “the first project to incorporate RPICAOs was for the construction of a dam on Lake Huascacocha, which sits in the Andes, and a series of waterways and tunnels linking the dam to the Rimac River.” They also report the use of RPICAOs for Toboada water treatment facility and for the Red Dorsal fibreoptic project.333

In certain projects, CRPAOs or RPI-CAOs were combined with other credit enhancement instruments, such as partial default guarantees from multilaterals.

333 Id.
IX. SOUTH AFRICA

- High FX volatility.
- Restricted FX convertibility. Transactions involving foreign exchange may be carried out by Authorized Dealers and Authorized Dealers with limited authority and all cross-border transactions must be reported to SARB. Exceptionally, some transactions also require prior approval from SARB.
- Although legally possible, it is uncommon for agreements to be indexed to hard currencies, such as US Dollars or Euros.
- The use of ZAR is generally mandatory, but this requirement may be waived upon prior approval by SARB in specific scenarios under which foreign currency or multiple currencies are necessary for the development of a project.
- Projects in South Africa are usually developed under the South African ZAR to reduce the risk of currency mismatch between the revenue stream and the debt service.
- Multilateral financial institutions do not commonly finance infrastructure projects in South Africa, given that the domestic market has properly absorbed internal demand for credit. Such entities, however, may take part in the modelling phase of the projects, providing support and sharing experiences.
- Not common for long-term agreements to be indexed to foreign currency, although legally possible.
- Long-term hedging (for more than 5 years) is not readily available, requiring periodical renegotiation of derivative agreements. The local market for hedge arrangements is normally centered in private parties – without governmental support.
- Allocation of FX Risks in PPP agreements normally follow the value for money methodology. In specific projects where FX risks represented a material risk and its mitigation by the private sector through hedging protection was too burdensome, the public party has accepted to share the FX risk, for instance by determining a multicurrency payment structure (e.g., the Gautrain Rapid Rail Link PPP).

1. General Overview

The Republic of South Africa is located in the Sub-Saharan Africa region, which is rather diverse in terms of natural and human resources, comprising low, lower-middle, upper-middle, and high-income countries. In respect of natural resources, South Africa is widely recognized for its mineral resources and for its position in exporting gold, platinum, chrome, manganese, diamonds and other minerals, having been considered a strategic country for developing green technologies and industries. Other than mining, the financial services, property, manufacturing and

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tourism sectors are relevant to the national economy and also attract strategic investments.\textsuperscript{336}

South Africa is a constitutional democratic republic, with an independent judiciary and a three-tier system of government, organized in a cooperative governance-basis.\textsuperscript{337} The existing democratic system rose in 1994, and the first democratic election under an interim Constitution\textsuperscript{338} after termination of the apartheid regime occurred in the same year.\textsuperscript{339} The executive authority of the country is President Cyril Ramaphosa.

The current constitution, as amended from time to time, was enacted in 1996, and its first article defines the "Supremacy of the constitution and the rule of law", and "Universal adult suffrage, a national common voters roll, regular elections and a multi-party system of democratic government, to ensure accountability, responsiveness and openness"\textsuperscript{340}.

As with many other countries worldwide, the COVID-19 pandemic has severely affected South Africa’s economy. The World Bank estimates a 7% constraint to the country’s economy, an increase in poverty by two million people and unprecedent rising rates of unemployment.\textsuperscript{341}

 Nonetheless, according to statistics published by the South African Government and despite the negative impact on economic sectors such as construction (which contracted by 20.3% in 2020), agriculture production has impressively increased by 13.1\%.\textsuperscript{342}

The figure below illustrates South African GDP per capita growth, from 2000 to 2019:


In November 2020, Moody’s Investors Services downgraded South Africa’s long-term investment, ratings from Ba1 to Ba2, due to unreliability in electricity supply, business confidence weakness and overall risks relating to economic growth, which could possibly limit the country’s access to funding, stating that the impact of the coronavirus pandemic “will leave long-term scars on South Africa’s fiscal position principally through two channels: a severe loss in revenue of about 5% of GDP, which the government cannot fully and quickly compensate through spending cuts nor recover; and rising borrowing costs” and “The maintenance of the negative outlook reflects the risks that the debt burden and debt affordability could deteriorate significantly more than Moody’s currently projects”.

In 2020, the country ranked in the 84th position at the World Bank index for ease of business.

The 2021 Index of Economic Freedom ranked South Africa in the 99th place, indicating it as one of the least free countries economy-wise. Greater economic freedom and an

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upgrade in the aforementioned rates would require structural improvements in the judicial system and labor market. Within the African continent, it ranks 9th on the 2021 Index of Economic Freedom.

2. Foreign Exchange Controls

The country’s local currency is the South African Rand (“ZAR”), which freely circulates in all Common Monetary Area countries, namely, Lesotho, Namibia and Swaziland.

Foreign Exchange Control in South Africa is ruled by the Exchange Control Regulations, promulgated in December 1961, as amended, and enforced by the Department of Finance of the South African National Treasury, as well as by the South African Reserve Bank (“SARB”) (specifically under its Financial Surveillance Department).

Transactions involving foreign exchange may be carried out by Authorized Dealers and Authorized Dealers with limited authority, which are banks legally authorized for such purposes. Despite being handled by Authorized Dealers, all cross-border transactions must be reported to SARB, regardless of the amount in discussion. See below a short list of Authorized Dealers:

- ABSA Bank Limited;
- Bank of China;
- BNP Paribas;
- Citibank, N.A., South Africa;
- Deutsche Bank; etc.

Authorized Dealers (whether with limited authority or not) must follow all procedures set out on SARB’s Currency and Exchange Manuals. Pursuant to such restrictive regulations, certain financial arrangements, either denominated in ZAR or in foreign currency, usually require prior approval by governmental exchange authorities. However, the South African

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Government has been implementing amendments to the regulation to make it more flexible\textsuperscript{351}. Below is short a list of transactions requiring prior approval by SARB:

- Payments in foreign currency by individuals or companies residing/based in South Africa;
- Financial transactions in foreign currency, involving, for instance, foreign contracting entities, joint ventures or consortiums with foreign parties;
- Contracting loans from a foreign entity creditor in foreign currency.

Market forces and conditions of demand and supply of currency (both national and foreign) determine Foreign Exchange rates in South Africa, but SARB may intervene to maintain the foreign exchange market and financial stability\textsuperscript{352}. Moreover, SARB can also intervene to determine weighed average exchange rates, for tax fixation purposes\textsuperscript{353}, by keeping the inflation low and steady, for instance, thereby preventing ZAR devaluation\textsuperscript{354}.

Although legally possible, it is uncommon for agreements to be indexed to other hard currencies, such as US Dollars or Euros. There are restrictions for governmental borrowing in foreign currency, but indexing agreements in other currencies is not prohibited by force of law.

As will be further described in this report, South African Government’s stand in relation to infrastructure projects (especially the ones developed under a public-private partnership structure) is to denominate agreements and arrangements in ZAR, thereby not entering into long-term hedging agreements or agreements in foreign currencies, to the extent that public South African institutions should not be negatively impacted by foreign exchange risks.


The use of ZAR is generally mandatory, but this requirement may be waived upon prior approval by SARB in specific scenarios under which foreign currency or multiple currencies are necessary for the development of a project.

Please refer to Sections 3 and 4 below for further detail on exchange control regulations over infrastructure projects, specifically cross-border Project Finance.

3. Infrastructure Needs, Opportunities and Legal Regimes

Infrastructure projects are commonly developed under the Government’s Department of Public Works and Infrastructure\textsuperscript{355}, which may exercise closer control over investments and projects in certain economic/industry sectors (as controlling or relevant shareholder in certain companies)\textsuperscript{356}. Project agreements are typically denominated in ZAR, except for mining projects permitted to sell internationally, which have agreements denominated in foreign currency.

Following such market condition, PPPs, concessions and Independent Power Producer projects ("IPP Projects")\textsuperscript{357-358} are denominated in ZAR and financed through both non-recourse and limited recourse funding.

Specifically regarding PPPs, "South Africa has established a firm regulatory framework in terms of which national and provincial government institutions can enter into public private partnership (PPP) agreements"\textsuperscript{359}. PPPs executed by the national and provincial governments are mainly regulated by the Treasury Regulation 16 issued in accordance with the Public Finance Management Act, 1999 (PFMA). Municipal governments, in their turn, are subject to the Municipal Systems Act, 2000.

According to the 2018 Budget Review prepared by the South African treasury, "despite the success of the PPP model in South Africa, the number of new project transactions has
declined over the past six years, decreasing from an estimated R 10.7 billion in 2011/12 to R 5 billion in 2017/18, mainly as a result of delays and cancelled projects in the health and security sectors.”

Each sector is further regulated by their own set of legislation. As an example, there are incentives and specific initiatives for the energy sector, such as the Renewable Energy Independent Power Producer Programme and Eskom Investment Support Project. The Eskom Project (developed by Eskom, a state-owned company) intends to steadily enhance the power supply in South Africa, being responsible for “generating approximately 90% of the electricity used in South Africa and approximately 30% of the electricity generated on the African continent.” Other examples are the Electricity Regulation Act and the New Generation Regulations, the National Ports Act, the South African National Roads Agency Limited and National Roads Act and the Gauteng Transport Infrastructure Act.

According to standardized PPP practices set out by the South African National Treasury, PPP/concession tariffs are collected by the service provider, usually a private party conducting each project pursuant to a PPP agreement. Depending on the project objectives, the tariffs may also be given governmental revenue support.

PPP projects may not necessarily involve debt finance and, in such case, will be initially funded either entirely through corporate finance or by a combination of government funds and private equity.

The Government of South Africa set out in 2012 a national plan for structuring infrastructure projects and enhancing the local economy, the National Infrastructure Plan, which aims to “transform our [South Africa’s] economic landscape while simultaneously

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creating significant number of jobs and strengthen the delivery of basic services” supporting as well the “integration of African economies.”

To support the national industry and the national infrastructure plan, the South African Government and the European Union created the Infrastructure Investment Programme for South Africa (“IIPSA”) to promote infrastructure projects in order to face structural problems such as poverty, unemployment, and to enhance infrastructure integration in the South African Development Community region (“SADC”). IIPSA is co-funded by the European Union and Development Finance Institutions, and the beneficiaries of IIPSA (owners or sponsors for the projects with a minimum invested capital) shall necessarily be eligible public or private institutions developing public services.

In addition to IIPSA, the Infrastructure Fund Initiative was created to serve as government funding and ancillary support for co-financing of blended finance programs and projects and shall be used as viability gap funding for large-scale infrastructure investments. The institutions involved in the Fund are Infrastructure South Africa in the Department of Public Works and Infrastructure, the National Treasury and the Development Bank of Southern African.

4. Foreign investment in Infrastructure: Cross-border Project Financing

Projects in South Africa are usually developed under the South African ZAR to reduce the risk of currency mismatch between the revenue stream and the debt service.

Multilateral financial institutions do not commonly finance infrastructure projects in South Africa, given that the domestic market has properly absorbed internal demand for credit, when projects are not carried on and funded by governmental entities directly. Such entities, however, may be seen in the modelling phase of the projects, providing support and sharing experiences.

Projects in infrastructure are mostly developed through local market funding. Commercial banks in South Africa, such as ABSA Bank Limited, Standard Bank, Nedbank, Rand...
Merchant Bank\textsuperscript{370} and Investec, among others, have provided funding for relevant projects.

Meanwhile, foreign export credit agencies are common players in the project financing sector as they provide finance and associated hedge particularly in connection with imports of equipment. Furthermore, development finance institutions (such as the Development Bank of Southern Africa, the African Development Bank, the European Investment Bank, among others) are also involved in such cases, following the lead and terms of commercial banks\textsuperscript{371}.

Local pension funds also play a relevant role in the supply of funds for the development of infrastructure projects.

In the specific case of power plants, state-owned companies acting as energy suppliers may enter into agreements and arrangements for operation purposes denominated in foreign currency. Upon changes to the foreign exchange rates, the state-owned companies may thereby be authorized to pass on any price increase resulting from currency fluctuation to the energy consumers.

Although it is possible to denominate other infrastructure offtake agreements in foreign currency, these contracts are generally ZAR-based and their implementation, with limited exception, is led by commercial South African Banks, senior loan funding and additional funding by other agencies and facilities\textsuperscript{372}.

\section{5. Foreign Exchange Risk Mitigation}

Although the preferable and most common approach (including per the standardized PPP practices set out by the South African National Treasury) is for public institutions subject to Treasury Regulation 16 (South Africa’s PPP legislation) not to enter into foreign currency agreements, hedging arrangements are authorized and used as a valid mechanism for FX

\textsuperscript{370} “Through the Infrastructure Fund, Government will provide support for co-financing of projects and programmes that blend public and private resources. Currently provision has been made for R100 billion over 10 years, with R10 billion funding in the current MTEF baseline. The Infrastructure Fund will be used as viability gap funding for large-scale infrastructure investments. The support will take different forms, including to fund deserving infrastructure projects, blended co-funding, capital subsidies or interest rate subsidies and guarantees.” (Rand Merchant Bank. Export Credit Agency. Available at: https://www.rmb.co.za/solution/export-credit-agency. Accessed on March 26, 2021.)


risk mitigation, specially by private developers\textsuperscript{373}. Long-term hedging (for more than 5 years), however, is not readily available, requiring periodical renegotiation of derivative agreements. The local market for hedge arrangements is usually centered in private parties, without any governmental support.

Hedging agreements may be entered into by private parties for currency risk and interest rate risk exposure\textsuperscript{374}. Given the limited availability of long-term hedging instruments, “in order to limit exposure to pricing of rand-based debt financiers, some international players in the South African market have chosen to fund projects on a corporate finance basis overseas, reliant on their balance sheets, in order to reduce the overall project cost”\textsuperscript{375}.

In the specific case of power plants, state-owned companies acting as utilities may enter into PPAs with private generators. In those cases, the private developer normally absorbs the FX Risk, and is expected to contemplate hedging costs in its financial proposal offered within bids organized by the government. Nevertheless, in some priority projects, state owned offtaker may offer US dollar indexed PPAs.

In this later case, upon changes to the foreign exchange rates, the state-owned companies may thereby be authorized to pass on any price increase resulting from currency fluctuation to the energy consumers.

Historically, private generators were only authorized to sell power to state owned companies. Currently, the market is open and sale of energy directly to Municipalities or large consumers is authorized. However, even with such recent adoption of more modern structures, it is not common for PPA agreements to be indexed to foreign currency, although legally possible.

For PPP projects, even though it is possible to denominate such transactions in foreign currency, this type of project is also generally ZAR-based and its implementation is led by commercial South African Banks, senior loan funding and additional funding by other


agencies and facilities\textsuperscript{376}. Allocation of FX Risk usually follows the value for money methodology.

In specific projects where FX risk represented a material risk and mitigation thereof by the private sector through hedging protection was too burdensome, the public party has accepted to share the FX risk, for instance by determining a multicurrency payment structure.

For instance, the Gautrain Rapid Rail Link PPP, which also relied on governmental assistance under a patronage guarantee, was heavily affected by financial variations such as inflation, change in the estimated capital cost and exchange rates. FX risk especially posed a material risk to the project considering that approximately 25\% of the costs for the development phase was based in foreign currency.

For this reason, to offer some FX risk mitigation, the project adopted a multi-currency approach. During the development phase, payments by the Government were partially indexed in foreign currency – other than for the portion of the private party’s costs for which local content was required. For such purposes, in the financial modeling for the project, foreign denominated costs were converted by the granting authority into local currency at a spot rate in 2006. FX rates were then fixed until 2011. The National Treasury acted as a currency swap counterparty to the Gauteng province, eliminating the additional cost for currency hedging. During operational phase, however, FX risk was allocated to the sponsors\textsuperscript{377-378}.

A close analysis on the particularities of each specific project is necessary in order to evaluate the best mechanism for mitigating foreign exchange risk. Previous projects reveal that FX risk has been more intensively absorbed by the private parties, but this scenario may change once demand for funding of infrastructure projects surpasses local sources of project financing.


X. TURKEY

- Extremely high FX volatility.
- Restricted FX convertibility. Although there is no limit on the amount of foreign currency that may be brought into Turkey, amounts greater than 25,000 Turkish lira (TL) or 10,000 EUR need to be declared when taken out of the country.
- Foreign exchange controls restrict the possibility of residents and non-residents to execute credit agreements in foreign exchange. In this sense, Turkish legislation sets out specific exceptions allowing residents in Turkey to enter into foreign currency indexed or denominated agreements. Such exceptions cover, for instance, PPP agreements.
- Decree No. 32 is lenient, however, with respect to maintenance of bank accounts and investments in hard currencies with local banks.
- PPPs and other project development contractual arrangements for the infrastructure sector in Turkey are generally financed through non-recourse, limited recourse or full recourse project finance structures.
- A wide range of financing models have been used in project finance. More recently, Islamic financing has also been used in some projects. Additionally, in Turkey a significant number of projects is financed by international finance institutions (such as the IFC, EBRD and EIB).
- Financing transactions are mostly determined in hard currency (USD or EUR) where TL denominated fixed and floating financing is also available.
- Limited local capital market instruments for financing of infrastructure projects.
- Limited offer for long-term hedging instruments.
- Energy projects are mostly financed locally. Payments for long-term PPA must be made in local currency. Cost of energy may fluctuate with the FX variation.
- For PPP projects, Government may undertake obligations indexed or denominated in foreign currency.
- Turkey’s government may support and subsidize projects by providing budgetary guarantees, minimum revenue guarantees, land allocations, tax exemptions as well as exemptions from certain governmental authorizations.
- Each project has its own guarantee mechanism, structured pursuant to value for money analysis and feasibility studies.
- Treasury may assume a maximum of 85% of foreign-sourced debt if early termination is due to the project company’s fault, but up to 100% if early termination is not caused by the project company, along with all the financing costs including derivative costs not exceeding 10% of the foreign-source debt.
- Investors may also benefit from the use of Investment Incentive Certificates, applying over interest payments on investment loans.

1. General Overview

Turkey is a Eurasian country situated at the crossroads of the Balkans, Caucasus, Middle East and Eastern Mediterranean. Almost all of the country’s territory is in Asia occupying the Anatolian peninsula with a territorial land extension larger than any country in
Europe\textsuperscript{379}. The country’s population reached 83.4 million inhabitants in 2020 with a Gross Domestic Product (GDP) of approximately USD 720 billion\textsuperscript{380}. The figure below illustrates Turkish GDP per capita growth, from 2000 to 2019:

\textbf{Figure 16. Turkish GDP per capita growth (annual %)}

![Graph showing Turkish GDP per capita growth from 2000 to 2019.]

Source: World Bank\textsuperscript{381}.

The country’s history is marked by significant economic and political changes, including the shift from an agricultural depending economy to one in which industry and services are the most productive sectors\textsuperscript{382}. Turkish government has played a considerable role in infrastructure investment and developing strategic sectors such as railroads, ports, and industrial sectors. Despite its general capacity to foster infrastructure and general industrial development, Turkey has suffered subsequent economic and social impacts related to major political shifts over time.

In 2002, the pro-Islamic Justice and Development Party (AK) won the general elections, and in 2003 the party leader and current President of Turkey, Recep Tayyip Erdo\=gan, became Prime Minister. In this period, the country has faced internal conflicts, ranging

\textsuperscript{379} Britannica: Turkey. Available at: https://www.britannica.com/place/Turkey. Accessed on April 05, 2021.


\textsuperscript{381} GDP at purchaser’s prices is the sum of gross value added by all resident producers in the economy plus any product taxes and minus any subsidies not included in the value of the products. It is calculated without making deductions for depreciation of fabricated assets or for depletion and degradation of natural resources. Data are in current U.S. dollars. Dollar figures for GDP are converted from domestic currencies using single year official exchange rates. Available at: https://data.worldbank.org/indicator/NY.GDP.MKTP.CD?end=2019&locations=TR&start=1980&view=chart. Accessed on March 21, 2021.

\textsuperscript{382} Britannica: Turkey. Available at: https://www.britannica.com/place/Turkey. Accessed on April 05, 2021.
from multiple humanitarian crises, such as with the Kurds, frequent mobilizations
demanding the extension of certain civil rights and recent impacts from the war in Syria.
In 2016, the government of then Prime Minister Erdogan, who has been in power since
2003, suffered an attempted coup where authorities detained thousands for suspected
involvement in the attempt. Finally, in 2017 Prime Minister Erdogan won the referendum
proposed to transform Turkey’s regime from parliamentarian to presidentialism.\textsuperscript{383}

Resulting from this scenario of conflicts, the quality of institutions scores low on several
sub-indicators, especially media freedom, government effectiveness, protection of private
property, and regulatory quality. Political instability is the second most significant obstacle
that businesses face according to the latest round of Business Environment and Enterprise
Performance Survey (BEEPS), which greatly hampers the environment for doing business
in the country\textsuperscript{384} (as summarized in the chart below). This has become even more
significant in recent years since the BEEPS survey took place amidst the attempted military
coup of 2016 and two-year state of emergency, a referendum to create an executive
presidency and the elections\textsuperscript{385}.

\textbf{Figure 17. Change in Average Worldwide Governance Indicators}

\textsuperscript{383} Turkey profile – Timeline: Available at: https://www.bbc.com/news/world-europe-17994865. Accessed on
April 06, 2021.
\textsuperscript{384} Given its unique strategic location, one of the country’s major goals is to join the European Union. Turkey
has been a candidate since 1987 and in 1999 was declared eligible to join the block. Turkey’s involvement in
European integration dates back to 1959 and includes the Ankara Association Agreement (1963) for the
progressive establishment of a Customs Union created in 1995. However even as a strategic partner for the
European Union on issues such as migration, security, counterterrorism and economy, Turkey has taken steps
backwards in the areas of democracy, rule of law and fundamental rights. In response, the General Affairs
Council decided in June 2018 that accession negotiations with Turkey are effectively frozen and without a
favorable business environment as Turkey’s economy is facing several challenges such as high
unemployment, high inflation and strong economic volatility with an over reliance on external financing.
(European Neighbourhood Policy and Enlargement Negotiations: Turkey. Available at:
Accessed on April 05, 2021).
\textsuperscript{385} SOKMEN, A.; KELLY, R. Turkey Diagnostic. London: European Bank for Reconstruction and Development.
on April 09, 2021.
Another significant institutional restriction of the country is the underdevelopment of local capital and financial markets, identified as a critical issue restricting access to finance in Turkey. Amidst this context of institutional fragility and political turbulence, the effects of the COVID-19 pandemic are challenging the Turkish government as regards fiscal, monetary, and general stability maintenance.

"The pandemic amplified monetary policy challenges. Inflation is high and has long been stuck well above the official target of 5%. Actual and expected inflation rose after the COVID-19 shock. Monetary policy interventions related to the pandemic supported economic activity, the exchange rate and liquidity of banks. (...) added concerns whether monetary policy prioritizes growth and employment over price stability. Faced with massive capital outflows and a sharp exchange rate depreciation, the Central Bank started to tighten liquidity in August, increased the policy interest rate in late September, the effective funding rate in October, and, as this proved insufficient, again the policy rate in November. It also normalized its policy framework. Foreign reserves remained nevertheless low and risk premia high."  

Despite the series of internal political, economic and social conflicts, Turkey has managed to achieve extensive development and investment rates in strategic areas, reaching an economic growth rate of 5% between the years 2002 and 2011. Currently, according to the information compiled from World Bank data, Turkey ranks 3rd globally in Public-Private Partnership (PPP) projects among the top ten countries with the largest number of PPP projects from 1990 to 2015, with a total contract value of USD 165 billion.

2. Foreign Exchange Controls and Stabilization Mechanisms

Within the limits of the regulatory framework established by the competent authorities, as described below, the Central Bank of the Republic of Turkey (CBRT) is the responsible...
entity for determining and implementing the Turkish exchange rate regime. CBRT "is vested with the authority and tasked to frame and implement the exchange rate policy in line with the exchange rate regime (…)"\(^{392}\).

In relation to the regulatory framework, the Council of Ministers is the central competent authority holding the prerogatives for defining the general rules and restrictions regarding currency exchange, in accordance with Law n. 1567 of 1930 regarding protection of the value of Turkish currency.

Complementing such law, the Directorate of Banking and Exchange of the Undersecretariat of Treasury General (Treasury) issued Decree No. 32 on the Protection of the Value of Turkish Currency ("Decree No. 32"), which sets forth the regulatory framework and restrictive principles that guide decisions on currency policy and rates in the Turkish market, including securities and other capital market instruments.

Among other relevant restrictions, the foreign exchange controls restrict the possibility of residents and non-residents to execute credit agreements in foreign currency. In this sense, Turkish legislation sets specific exceptions allowing residents in Turkey to enter into foreign-currency indexed or denominated agreements, such as:

(i) to finance exports, purchases and shipments considered as exports, as well as earnings in foreign currency;

(ii) within the framework of investment incentive certificates\(^ {393}\) and foreign exchange credits for financing investment goods (i.e. machinery and equipment);

(iii) contractors working abroad, and to residents in Turkey who are conducting business related to international tenders held in Turkey or related to defense industry projects approved by the Undersecretariat of Defense Industry; and

(iv) transactions with an average maturity exceeding one year and with an amount above USD 5 million.


\(^{393}\) Investment incentives are available to investors through an "Investment Incentive Certificate" ("IIC"), which is obtained from the General Directorate of Incentive Practices and Foreign Capital under the Ministry of Industry and Technology ("Authority"). In order for an investment to be granted an IIC, the minimum investment expenditures should be at least TRY1 million for the first two regions and TRY500 thousand for other regions. It should be noted that the investment projects are still subject to Authority evaluation in order to be granted any incentives. ERDIKLER, Şaban et. al. Investment in Turkey. KPMG. 2020
Notwithstanding this general tight regulation, Decree No. 32 is lenient with respect to maintenance of bank accounts and investments in hard currencies with local banks. The same applies to the use of foreign funds to invest and pay obligations. Furthermore, residents in Turkey are allowed to freely keep, purchase and sell foreign exchange to establishments authorized to execute such transactions, and also use foreign currency banknotes and make deposits in Turkey and abroad.

Therefore, the Turkish Central Bank and other commercial banks may open foreign exchange and gold deposit accounts on behalf of residents and non-residents, which are allowed to freely use such accounts. Net profits, dividends and other related earnings “stemming from the activities and operations of foreign investors in Turkey” may also be transferred abroad, as per article 12 of Decree n. 32/2015. Finally, although there is no limit on the amount of foreign currency that may be brought into Turkey, amounts greater than 25,000 Turkish lira (TL) or 10,000 EUR need to be declared when taken out of the country.

3. Infrastructure Needs, Opportunities and Legal Regimes

Turkey is among the major markets of the PPP sector. In 2015, Turkey was responsible for 40% of the infrastructure projects carried out by way of PPPs in low-and middle-income countries that have reached financial close, with seven projects having a total investment value of USD 44.7 billion.

In Turkey, PPPs are a relevant contractual arrangement to allow the universalization of public services and the availability of such services to the population, "as many of the infrastructure projects are built via PPP models, even though there is a lack of harmonized and unified PPP legislation". This lack of a uniformed PPP act determines a wide variety of sectoral and fragmented PPP legislation in the country, resulting in a complex system for foreign investors to operate within.
While Turkey has become known for its PPP projects over the last decade, specially due to its significant investments in the transportation and healthcare sectors, the concept of involving private entities in the provision of public services is not new within the Turkish context and, according to BAYIRBAŞ, B. & YILMAZ, A. (2016), dates back to as early as 1910, the year in which the Concession Law\textsuperscript{399}, which regulates the "concession model" was enacted\textsuperscript{400}. However, due to the administrative law nature of these contracts and the lack of contractual balance between the private entity and the relevant administrative body, the use of the concession model has gradually decreased, leaving the scene to more modern and balanced PPP models such as the build-transfer-operate ("BOT"), build-operate ("BO") and build-lease-transfer ("BLT") models.

The table below indicates the timeline of the issuance of certain milestone PPP related legislative acts in Turkey:

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numbered 4283 on Establishment and Operation of Electricity Production Facilities with Build-Operate Model and Regulation of Energy Sales; the Build-Operate-Transfer (BOT) model is mainly regulated in Law numbered 3996 Concerning the Realization of Certain Investments and Services by the Build-Operate-Transfer Model, yet there are also sector specific laws concerning the BOT model such as Law numbered 3465 on Assignment of Institutions other than General Directorate of State Highways for Highway (with tolls) Construction, Maintenance and Operations and Law numbered 3096 on Assignment of Institutions other than Turkish Electricity Administration for Electricity Production, Transmission, Distribution and Trade; the Transfer-of-Operating-Rights (TOR) model is regulated in many legislative acts, for example Law numbered 3096 on Assignment of Institutions other than Turkish Electricity Administration for Electricity Production, Transmission, Distribution and Trade; Law numbered 3465 on Assignment of Institutions other than General Directorate of State Highways for Highway (with tolls) Construction, Maintenance and Operation; Law numbered 4046 (Article 15) on Arrangements for The Implementation of Privatization; Law numbered 5335 (Article 33/1) authorizing the State Airports Authority to totally or partially transfer its airports to the private sector and Law numbered 44589 (Article 218/A) on Customs; the Built-Lease-Transfer (BLT) model is regulated in Law numbered 6428 on the Construction of Facilities, Renovation of Existing Facilities and Purchasing Service by the Ministry of Health by Public Private Partnership Model; Law numbered 351 on Higher Education Loan and Dormitories Institution, II and Decree on the Organization and Duties of the Ministry of National Education numbered 652.1" (BAYAZIT, Bahar. Legal Analysis of State Support in Public Private Partnerships in Turkey. European Procurement & Public Private Partnership Law Review (EPPPL), vol. 15, no. 3, 2020, p. 214. Available at HeinOnline. Accessed on March 25, 2021.)

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\textsuperscript{400} According to Bayirbaş, B. & Yilmaz, A. In "The Public-Private Partnership Model in Turkey: Heavy Infrastructure Projects", the concession model, which is no longer as commonly used, involves the transfer of the right to provide public services to private entities by way of an administrative law contract with the relevant administrative body. Also, Under Turkish law, concession contracts are subject to the prior review of the Council of State (Danıştay) before their execution, revision, or, in principle, their subsequent adjudication.
Table 5. Turkish PPP Milestones

<table>
<thead>
<tr>
<th>Year of Issuance</th>
<th>Legislation</th>
<th>Still in Use?</th>
</tr>
</thead>
<tbody>
<tr>
<td>1910</td>
<td>Concession Law</td>
<td>Still in force, though the number of projects to which it is applied is limited</td>
</tr>
<tr>
<td>1984</td>
<td>Law No. 3096 on the Appointment of Institutions other than the Turkish Electricity Administration for the Production, Transmission, Distribution and Trade of Electricity</td>
<td>Still in force, though the number of projects to which it is applied is limited</td>
</tr>
<tr>
<td>1994</td>
<td>Law No. 3996 on the Procurement of Certain Investments and Services under the Build-Operate-Transfer Model</td>
<td>Yes</td>
</tr>
<tr>
<td>1994</td>
<td>Law No. 4046 on Privatization Practices (Privatization Law)</td>
<td>Yes</td>
</tr>
<tr>
<td>1997</td>
<td>Law No. 4283 on the Regulation of the Establishment and Operation of Electrical Energy Generation Facilities and the Sale of Energy under the Build-Operate Model</td>
<td>Still in force, though the number of projects to which it is applied is limited</td>
</tr>
<tr>
<td>2013</td>
<td>Law No. 6428 on the Construction, Renovation and Purchase of Services by the Ministry of Health by way of the Public-Private Cooperation Model and Amendments to Certain Laws and Decrees with the Force of Law</td>
<td>Yes</td>
</tr>
</tbody>
</table>


It is worth mentioning that there have also been certain relevant milestone PPP projects conducted on the basis of partnerships at the government level. This model is commonly called the “IGA Model”, as it involves an Inter-Governmental Agreement (“IGA”) that is executed at the state level, which, once duly ratified, bears the force of law, thus putting the agreement between the relevant parties at a substantially more protected level than ordinary contracts. The IGA Model has, in Turkey, been used for energy projects including nuclear power plants and oil transportation pipelines.

According to Bayirbaş, B. & Yilmaz, A. (2016), there are currently three contract types used in the Turkish PPP sector: (i) private law contracts, (ii) concession contracts qualifying as administrative law contracts; and (iii) IGA type contracts.

The remuneration of infrastructure and related services projects in Turkey is usually provided by project revenues. In airport projects, for example, the SPV would receive "passenger service fees, rents, and space allocations, counter revenues, parking area revenues, fuel supply revenues and so on (...)". Also, the government may offer specific

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402 Since 1999, the Turkish Constitution has also recognized the possibility that administrative authorities may enter into private law contracts under certain conditions. With the option provided by the Constitution, many of the PPP laws (e.g. BOT Law, BO Law and BLT Law), explicitly state that agreements executed under such laws are subject to private law provisions. As a result, projects carried out under the said PPP laws are governed by private law contracts, which are subject to different rules, jurisdictions and challenge risks in comparison with projects realized under administrative law contracts.

guarantees related to determined projects and sectors, as seen in some airport sector pppps.\textsuperscript{404}

Despite this general arrangement scheme, government entities can disburse payments to ensure the continuation of services, either in the form of service payments or availability payments. Health-care projects, in which "the SPV receives quarterly availability payments from the Ministry of Health for ensuring the availability of the hospital during the relevant period"\textsuperscript{405}, are good examples of this alternative strategy.

4. Foreign investment in Infrastructure: Cross-border Project Financing

PPPs and other project development contractual arrangements for the infrastructure sector in Turkey are generally financed through project finance structures in which the SPV enters into financing agreements, and project agreements, based on guarantees connected to future project revenues. The project finance structures can be non-recourse, limited recourse, or full recourse, with public entities usually in charge of paying for the construction and operation of the project, but also for the distribution or regulation of the public service/good to be provided (e.g. energy, transport, sewage).\textsuperscript{406}

In Turkey, a wide range of financing models have been used in project finance, including\textsuperscript{407}:

- Bank loans from public or private banks, and development banks.
- Multinational lending agencies.
- Leasing.
- Export credit agency
- Long-term bond markets.

\textsuperscript{404} To exemplify, we can point to the findings of a report prepared by Transparency International Turkey on the Zafer Airport, which is located in Konya, a major city in south-central Turkey. The airport has an investment value of £50 million; £39,158,804 was paid from the Treasury to the project company in the first seven years (2012-2019) since the number of passengers remained 96% below the warranty on average. According to the report, it is estimated that £205,281,118 will be paid under the guarantee until 2044. (BAYAZIT, Bahar. Legal Analysis of State Support in Public Private Partnerships in Turkey. European Procurement & Public Private Partnership Law Review (EPPPL), vol. 15, no. 3, 2020, p. 214. Available at HeinOnline. Accessed on March 25, 2021.)


More recently, Islamic financing has also been used in some projects. Additionally, in Turkey, a significant number of projects is financed by international finance institutions (such as the IFC, EBRD and EIB) either on their own or jointly with more traditional commercial lenders.\footnote{LYTHE, J.; POLAT, B. Project finance in Turkey: overview. In: Practical Law Country Q&A. April 1, 2018. Thomson Reuters. Available at: https://uk.practicallaw.thomsonreuters.com/Cosi/SignOn?redirectTo=%2f8-637-011443%5fIrTS%3d20210213135613251%26transitionType%3dDefault%26contextData%3d(sc.Default)%26firstPage%3dtrue. Accessed on April 22, 2021.}

Legal entities may contract general standard form of corporate debt or project related agreements/issuances, in both banking market and capital market. Other relevant possibility, depending on the aspects of the specific project, is that the financing can be provided as secured or unsecured, revolving or non-revolving, with a fixed or floating interest rate, in local currency and/or foreign currency, by a single lender or a lender syndicate, or as a club loan and so forth.\footnote{Presidency of The Republic of Turkey (Investment Office). Legal Guide to Investing in Turkey. 2019. Available at: https://www.invest.gov.tr/en/investmentguide/pages/legal-guide.aspx. Accessed on March 2021. P. 73}

Despite the options listed above, the usual financing source in Turkey is senior debt with long-term maturity structures, while equity or junior debt constitutes a relatively small portion. Non-recourse financing is rare, and financing for the projects is "generally provided on a limited recourse basis."\footnote{WERNECK, Bruno; SAADI, Mário (Ed.). The public-private partnership law review. Law Business Research Limited, 2015. P. 152}

The most utilized financing conditions in the country regarding financing structures for infrastructure projects are: (i) bank loans as the main financing tools, whereas alternative financing tools remain limited; (ii) financing transactions are mostly determined in hard currency (USD or EUR) whereas TL denominated fixed and floating financing is also available; (iii) debt to equity ratio is varying between 60-40 to 80-20; (iv) Debt-Service Coverage Ratio level is varying between 1.10-1.35x; and (iv) recourse/limited-recourse structures are generally applied.\footnote{AKBAŞ, M.; HATEM, E.. Capital Projects and Infrastructure Spending in Turkey: outlook to 2023. PWC and Garanti. Available at: https://assetsgarantibbva.com/assets/pdf/en/other/TGB_CPI%20Spending%20Report_03-Jan_Web_exe.pdf. Accessed on March 25, 2021.}

The Turkish government offers diverse incentives to channelize domestic and foreign investments for promoting private investment activities in selected sectors and regions, depending on factors such as the scale of investment and type of project. For the purpose of defining specific incentives, the country is "separated into six regions based on the development level of the districts/cities in these regions. The first three zones represent more developed regions, respectively, whereas the last three show relatively less
developed zones in Turkey"\textsuperscript{412}. The following map illustrates such division (valid from January 1, 2021):

**Figure 18. Turkey Map: Regions based on Development Level of the Districts and Cities**

Source: ERDIKLER et. al., 2020\textsuperscript{413}.

Finally, alongside these specific incentives, Turkey recently developed the so-called Super Incentives. This new model envisions a particular incentive system unique to each investment project, envisaging a project basis support that will enable a flexible and customized incentive mechanism to the qualified investments. In order to access such incentives, the "investors are required to obtain an Investment Incentive Certificate from the Ministry of Industry and Technology"\textsuperscript{414}. The incentive scheme may include: (i) interest support/government grants; (ii) government purchase guarantees; (iii) infrastructure support, and (iv) facilitation in the bureaucratic processes\textsuperscript{414}.

5. **Foreign Exchange Risk Mitigation**

In Turkey a wide variety of FX private hedging instruments are standard and commonly available in connection with long-term loans denominated in foreign currency, although the offer for long-term instruments is limited. Services typically provided by banks to commercial clients in Turkey include derivatives, forward transactions, Eurobonds, government bonds, repo transactions, overdraft accounts and spot loans. Such FX


\textsuperscript{413} Id.

\textsuperscript{414} Id.

Moreover, Turkey’s government may support and subsidize projects by providing budgetary guarantees, minimum revenue guarantees, land allocations, tax exemptions as well as exemptions from certain governmental authorizations.\footnote{WERNECK, Bruno; SAADI, Mário (Ed.). The public-private partnership law review. Law Business Research Limited, 2015. P. 150} A special report on effective PPP management in Turkey points out that it is “accepted for public authorities to undertake a number of risks in order to keep fees reasonable and to improve quality within PPP projects via guarantee mechanisms, which include giving demand guarantees, reducing expropriation costs, and undertaking inflation and exchange rate risks.”\footnote{BAYAZIT, Bahar. Legal Analysis of State Support in Public Private Partnerships in Turkey. European Procurement & Public Private Partnership Law Review (EPPPL), vol. 15, no. 3, 2020, p. 213.}

Also, specific situations are provided within the Turkish regulation to mitigate foreign exchange risks in infrastructure projects, by allowing, for instance, the Turkish Treasury to assume foreign-sourced debt in case of termination of the agreement between the project company and the government, provided that certain conditions are met. There are precedents in the healthcare and education sectors, executed pursuant to PPP projects, and the structure and relevant limitations may be summarized as follows:

“(...) a similar mechanism has been implemented by Article 8/A of the Law on Public Financing and Debt Management on 21 February 2013 and detailed under a regulation that allows the Treasury to assume a maximum of 85 per cent of foreign-sourced debt if early termination is due to the project company’s fault, but up to 100 per cent if early termination is not caused by the project company, along with all the financing costs including derivative costs not exceeding 10 per cent of the foreign-source debt. Under the Regulation, to be eligible for the Treasury to assume any foreign source debt, the minimum investment amount must be 500 million liras for integrated health campuses and education campuses while the minimum investment requirement for a BOT-base project to be eligible for the Treasury to assume foreign-sourced debt is at least 1 billion libras. The Council of Ministers’ approval must be obtained at the end of the negotiation before the execution of the debt assumption agreement between the Treasury, the project company and the lenders. Accordingly, the Treasury and the Council of Ministers’ approvals are required twice, namely, before the tender stage and before the execution of the project agreement.”\footnote{WERNECK, Bruno; SAADI, Mário (Ed.). The public-private partnership law review. Law Business Research Limited, 2015. Pp. 149-150.}
Further, investors may also be granted with an Investment Incentive Certificate which applies to interest payments on investment loans granted in the scope of incentive regimes in defined regions. This interest support is "granted in a range of 3 to 7 points for Turkish Lira denominated loans and up to 2 points for foreign currency and foreign exchange loans". Interest support for strategic investments is the highest with a limitation of 5% of the fixed investment amount, reaching up to sums of TRY 50 million.

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EXHIBIT A: CASE STUDIES SUMMARY

BRAZIL

- **CESEL – 1.5 MW LNG Powerplant.** CELSE – Centrais Elétricas de Sergipe S.A., is a joint venture between Golar Power (Norwegian/English capital) and Ebrasil (local player). In March 2020, it was the largest LNG powerplant in Brazil. The integrated project also involved the need of constructing a dedicated 33 km transmission line, a dedicated gas pipeline connecting the plant to an FSRU, and the port terminal required to anchor the FSRU. It raised BRL 5.4 billion in financing from IFC, IDB and infrastructure debentures in 2018.

- **ARTESP SP Road – Piracicaba Panorama (PIPA).** Concession for the operation of the Piracicaba-Panorama road project (PIPA lot) granted to a special purpose vehicle Eixo SP, owned by Singapore’s GIC and Brazil’s Patria Investments. The concession agreement has a contractual mechanism for mitigation of FX risk, by means of which concessionaire may deduct, from signing bonus owed annually to the Granting Authority, the adverse impact of FX fluctuation on its indebtedness.

- **São Paulo Metro Line 4-Yellow.** Executed on November 29, 2006, Line 4 was the first PPP in São Paulo, in a strict sense, i.e, governed by Law 11,079 of 2004 and thus relying on some level of financial contribution of the Granting Authority (the State of São Paulo), as opposed to the more traditional common concessions (relying solely on tariffs from end-users). Such PPP was based on the sponsored modality, pursuant to which the concessionaire is entitled to direct payments from the government, complementing revenues derived from tariff collected from end-users. FX risk is objectively allocated as between the Concessionaire and the Granting Authority.

- **Jacaranda Solar Power (Atlas) Project.** Atlas Renewable Energy is developing the 187MWp Jacarandá Solar Project, in the Municipality of Juazeiro, State of Bahia. It will count with 450 solar modules and produce sufficient power to meet the needs of a city of 750,000 inhabitants. The project required financing of approximately USD 70 million for its implementation and is based on a long-term US dollar indexed PPA.
ARGENTINA

- **RenovAr Program - Chubut Norte III and Chubut Norte IV.** The RenovAr Program launched in 2015 aims to shift the source of 20% of the energy consumed in Argentina to renewable sources until 2025, by promoting renewable projects necessary to produce 1.2GW per year. Wind farms Chubut Norte III (57.66 MW) and Chubut Norte IV (83 MW) developed in the scope of round 2 of the program came into operation in 2021 with the capacity to annually produce 669,100 MWh of energy supplied to the Argentine Interconnection System (SADI). Long-term PPA was indexed to US dollars and payment obligations thereunder, as in other RenovAr projects, was guaranteed by a fund, with optional backstop guarantee from the World Bank.

- **RenovAr Program – Parque Cañadón León.** Wind farm Cañadón León (120 MW) is located in the vicinity of the village of Cañadon Seco, in the province of Santa Cruz, in southern Argentina. The project consists in 29 wind turbines, each with a power rating of 4.2 MW, and a 53 percent capacity factor. The Project also includes a power substation within the project footprint and a 3.2 km transmission line connecting the Project to the existing power grid.

- **Red de Autopistas y Rutas Seguras PPP – Etapa 1.** Corridor B consists of converting two sections of the 113km highway between Mercedes and Bragado and 31km between Santa Rosa and Anguil) of national route 5 into a highway, building four bypasses and turning a 372km section to Bragado to a safe route.

CHILE

- **Concesión Interconexión Vial Santiago – Valparaíso – Vina del Mar, Ruta 68.** The Santiago-Valparaíso-Viña Del Mar toll road project consists of the construction and operation and maintenance of a total of 141.36 km, contemplating 4 tunnels, 16 bridges, 22 interchanges and 14 crossings and additional 19.6 km of rural service streets. With an original term of 25 years, the concession favors the fluid transportation of cargo and passengers and allows easy access to the port of Valparaíso and other inner cities, also improving accessibility to Gran Santiago. It benefited from an FX risk allocation mechanism, by means of which Granting Authority would compensate concessionaire for the effects on its foreign indebtedness of local currency devaluation in excess of 10%.
• **Concesión Ruta 5 Tramo Los Vilos - La Serena.** Toll road that follows the route of Ruta 5 Norte between the north of Los Vilos and La Herradura in Coquimbo.

**SLC Terminal Aéreo – Santiago.** SCL Terminal Aereo is a bond-financed project to expand and operate Arturo Merino Benítez International Airport in Santiago. The project company has a 15-year concession that may be extended. The most important project risks relate to passenger growth and to a partial mismatch between revenues, paid in Chilean pesos, and debt-service obligations, paid in US dollars.

• **El Abra, Collahuai e Los Pelambres Mine Project.** El Abra, in northern Chile, is one of the largest solvent-extraction electrowinning copper mines in the world and also one of the world’s lowest-cost copper mines. El Abra was one of the largest mine project financing ever completed.

**COLOMBIA**

• **TermoEm Cali.** Build-operate-transfer (BOT) power project that serves the city of Cali in Colombia. It was the first power project in Colombia financed through Rule 144-A private placement.

• **Rumichaca - Pasto Toll Road.** This project encompasses the construction of 25 km of double lane road and 52 km of second lane as well as the improvement of 57 km of existing road. It will require intervention on 11 bridges. The contract also includes the O&M of the 83 km road for 25 years.

• **Pacífico 3 Toll Road 4G.** The Conexión Pacífico 3 Highway was the first project in Colombia’s 4G program to reach financial closing. It paved the way for other successful projects under the 4G Program. Approximately 3,000 direct and indirect jobs were created by the project and its associated spillover effects. The government increased its support for private sector participation in infrastructure development, improving the country’s PPP framework and providing incentives for investors.

• **Bogota Line 1 PPP Project.** Bogota Line 1 PPP Project is the largest infrastructure project ever undertaken in Colombia, with a total construction cost in excess of USD 4.3 billion. It will stretch over 24km and include the construction of 15 stations and acquisition of 23 trains each able to carry 1,800 passengers, with a maximum capacity of 72,000 passengers per hour. The project seeks to improve access to jobs and quality transit for public
transport users in the area of influence of the Metro Line. Its financing was made possible through a combination of efforts from the stated owned entity Empresa Metro de Bogota and the private Concessionaire.

**INDIA**

- **Dabhol Power Plant.** Power station, port facilities for the importing of liquified natural gas (LNG) and an LNG regasification facility. The Maharashtra government in February 1994 agreed to unconditionally guarantee to pay if Maharashtra State Electricity Board failed to pay. A tripartite agreement was signed by the Centre, Maharashtra and RBI in September 1994, guaranteeing payment of about Rs 1,500 crore a year by the Centre in case the government of Maharashtra defaulted.

- **National Highway N. 1A.** The project involves four-laning of Jammu-Udhampur section from km 15.00 (Jammu Bypass) to km 67.00 of NH-1A in Jammu & Kashmir on under NHDP-II, located in the state of Jammu & Kashmir. The concession agreement was signed on July 19, 2010 and shall remain in force until June 19th, 2031. The governmental authority responsible for the project is the National Highways Authority of India (NHAI) and the engaged concessionaire is SP Jammu Udhampur Highway Private Limited.

- **Jhajjar Project.** The Project comprises the construction of a supercritical coal-fired power plant with a total capacity of 1,320 megawatts (MW). The plant consists of two 660 MW units that run on coal supplied by rail from India’s North Karanpura coal fields, which are operated by Central Coalfields Limited. The Project was awarded to CLP Power India Private Limited on a build, own, and operate (BOO) basis. Equipment sourcing through various packages has been finalized with suppliers and construction will commence in March 2009. The Project is located near Khanpur village in Jhajjar district in the state of Haryana.

- **Jegurupadu Project.** The Phase I of the project involves 217 MW of combined cycle power plant comprising three gas turbines of 52.8 MW and a steam turbine of 77 MW. It was one of the first power plants developed with private investment. Power generated by the project is entirely sold under a take-or-pay regime to Andhra Pradesh Transmission Corporation (AP Transco), the state-owned utility and offtaker in Andhra Pradesh.
Public Infrastructure Finance Companies - REC Case Study. REC Limited, formerly Rural Electrification Corporation Limited, is a public Infrastructure Finance Company in India’s power sector. The company is a Public Sector Undertaking and finances and promotes rural electrification projects across India. The company provides loans to Central/ State Sector Power Utilities in the country, State Electricity Boards, Rural Electric Cooperatives, NGOs and Private Power Developers. It is engaged in the financing and promotion of transmission, distribution and generation including renewable energy projects throughout Indian power infrastructure sector and occupies a key position in the GoI's plans for the growth of the Indian power sector.

INDONESIA

Jasa Marga Komodo Bonds. Jasa Marga was the first Indonesian company to issue Komodo bonds in the LSE and raised USD 295 million for its expansion plan. This funding source allowed Jasa Marga to access the broadest and deepest possible range of investors globally. The bonds were subscribed by 15% of local investors (Indonesia), 40% Asian investors, 26% US investors and 19% European investors.

MEXICO

Merida III Gas-fired Power Plant - Yucatan Peninsula. Merida III was the first fully independent power producer (IPP) and BOO venture in Mexico. The fuel supply to the plant is through a 700 km natural gas pipeline built and operated by a vehicle of InterGen, TransCanada and Gutsa Construcciones.

Samalayuca II Gas-fired Power Plant in the state of Chihuahua. Project was structured as a build-lease-transfer (BLT) project because BOO projects were not permitted at the time. The structure comprises a construction phase and a 20-year lease phase under which Comision Federal de Electricidad (CFE) has an unconditional obligation to make lease payments and, at the end of the lease period, ownership of the project is transferred to the Mexican utility. Although the plant was designed to run on natural gas, it is also capable of running on diesel oil. The plant supplies power to the city of Juarez and to US customers under US-Mexican interchange agreements.
- **TEG I and II Power Plants.** TEG I and II are power plants in the state of San Luis Potosi using petroleum coke as fuel, with a combined capacity of 460 MW. They are “inside the fence” projects financed under Mexican self-supply legislation (located within a company's industrial plant or complex, owned by the company and intended to serve mainly the needs of that plant or complex; excess power may be sold to other users). TEG I was developed to provide power to 12 Cemex cement plants to manage the company's long-term cost of electricity. Surplus power will be sold to the CFE (Comision Federal de Electricidad). TEG II is a sister plant on the same site, with reduced costs due to economies of scale. TEG II was developed to provide power to Pinoles, a Mexican mining and metals company with a similarly heavy need for electricity. Surplus power will also be sold to the CFE (Comision Federal de Electricidad).

- **Oaxaca II Wind Farm.** In 2012, a developer-operator (Acciona Energia) that had been awarded a 20 year, fixed-price PPA found itself unable to refinance loans from its Spanish and French investors due to shrunken dollar liquidity. Acciona Energia sought to refinance its initial USD 350 million bridge loan and obtain long-term financing for the operation of Oaxaca II wind farm. Acciona re-financed its loan by issuing project bonds in the US bond market (therefore, denominated in US dollar), raising USD 148.5 million, at a yield of 7.25%, maturing in 2031 at the same time its PPA with the CFE ends. By leveraging the dollar-denominated PPA granted by the CFE, Acciona was able to list its bonds in the US bond market and mitigate currency risk for investors.

- **Local currency financing at the sub-national level in Mexico.** Mexican sub-national governments faced challenges in obtaining financing due to various market conditions and regulations, such as the requirement that states may borrow exclusively in local currency from local financial institutions and the spread charged by the local financial intermediary (BANOBRAS) over cost of funds from ultimate lenders, such as the IBRD. The conditions thus resulted in an uncompetitive overall cost. The financial intermediaries had traditionally hedged FX risk through a foreign exchange trust fund created by the Ministry of Finance, which effectively concentrated all FX risk relating to foreign currency borrowing by sub-nationals in the hands of the federal government. Upon use of the well-developed Mexican peso swap market, IBRD was able to efficiently provide Mexican peso financing to the Guanajuato State for investment in the State plan which included projects in the toll road and sanitation sectors.
**PERU**

- **IIRSA Norte Toll Road.** Peruvian government had an ambitious plan to rejuvenate 955 km of roads connecting the fluvial port of Yurimaguas with the Pacific port of Paita, aiming at promoting economic growth in remote areas of the country. The project is also part of a wider plan to better integrate infrastructure networks across South America, in this case between Peru and Brazil.

- **IIRSA South Toll Road.** The IIRSA Sur toll road is part of Peru's national road investment plan involving construction of three longitudinal (i.e., also including IIRSA Central and IIRSA Norte) and twenty transversal highways. Jointly, the IIRSA Sur undertaking entails the construction or upgrading of some 2,600 kilometers of roadways that link the Peruvian ports of San Juan de Marcona, Matarani and Ilo (south of Lima/Callao) to southwestern Acre in Brazil.

- **Lima Metro Line Two Project - Lima-Callao Metropolitan Region.** The Lima Metro Line Two Project for Peru is intended to provide a major east-west axis (Ate-Lima-Callao) of the Lima-Callao Metropolitan Region with a modern and integrated mass transit system that will improve accessibility to jobs and services in the area of influence. The project includes the implementation of 35 Km of new urban rail infrastructure.

- **Cálidda Pipeline.** The project company is the sole concessionaire for the pipeline distribution of natural gas in the Department of Lima and the Constitutional Province of Callao. This project aims to finance the expansion of the Natural Gas Distribution System in 2020–2021 in order to reach more users, mainly households and small and medium-sized enterprises.

- **Vía de Evitamiento de Chimbote (Red Vial 4).** Red Vial 4 is one of the most important roads in Peru, connecting its capital, Lima, with several important cities and ports in the northern part of the country. The company has refinanced the project, also intending to use the funds for the construction of certain stretches of the road and the 37 km Chimbote bypass.
SOUTH AFRICA

- **Gautrain Rapid Rail Link PPP.** The Gautrain Rapid Rail Link is an 80km-long high-speed rail system in South Africa, developed under a PPP scheme, with a 19.5-year concession for the construction, operation and maintenance of the Gautrain.

- **Rustenburg Water Services Trust (RWST).** First application of project finance structure in the water sector in South Africa. The financing was in local currency (ZAR), which itself was used as a mechanism to mitigate any currency risks associated with the project.

TURKEY

- **Osmangazi Bridge.** Osmangazi Bridge, a 2,682-meter long structure, is said to be the fourth-longest suspension bridge in the world and the second longest in Europe. The bridge aims to drastically cut travel time between Istanbul and the country’s western provinces. The highway project is being built through a public-private partnership and is the first road project in the country to be procured under the Build-Operate-Transfer model. Otoyol Yatirim ve Isletme (OYIAS) was appointed as the concessionaire to plan and carry out the 22-year project.

- **Elazig Integrated Health Campus project (Elazig).** The Elazig Integrated Health Campus project (Elazig) is a 360 million availability payment based greenfield project structured as a public-private partnership (PPP) that forms part of the Government of Turkey’s Health Transformation Program. The Project consists of a 1038-bed integrated health campus comprising a general hospital, women’s and children’s hospital, psychiatric hospital, mouth and dental health Centre, and additional support buildings and facilities. The campus will help serve a growing population in eastern Turkey by offering greater access to high quality healthcare services and technology, as well as additional capacity for expansion in the future.

- **Eurasia Tunnel (PPP).** The project is a PPP for the design, financing, construction, operation and maintenance of the Istanbul Strait Road Tunnel Crossing, comprising three sections with a total length of 14.6 km. Tender has been awarded with a concession period of 30.5 years at
the end of 2008 to a Turkish-Korean J.V., and the contract is currently being finalized for signature.

- **Başakşehir PPP Project.** This PPP scheme involves the design, construction, financing and operation of the health campus, as well as the supply of facilities and equipment. The health campus with an investment period of 3 years and operation period of 25 years, is scoped to serve 100,000 visitors per day with its 10,000 employees. Core medical services and staff are provided by the Ministry of Health, but the concessionaire provides maintenance and operation services.
EXHIBIT B: FORM OF QUESTIONNAIRE

Part One – General Questions

1. Are there any relevant foreign exchange controls in the jurisdiction in reference?

2. Is local currency freely convertible into US dollars or other hard currencies?

3. Are FX rates mainly determined by market forces/conditions (offer and supply) or Government plays a relevant role in fixing, limiting or intervening on FX rates?

4. Are companies or individuals residing/domiciled in the jurisdiction in reference allowed to keep bank accounts and investments in US dollars or other hard currency with local banks [or foreign banks operating in your country]? Are they allowed to keep and freely use hard currency funds in foreign accounts outside of the referred jurisdiction?

5. Is there any limitation on the amount of foreign currency permitted to be held by individuals, companies and corporations?

6. Is it legally permitted under your/said jurisdiction for local parties residing or domiciled therein to enter into short or long-term contracts and transactions denominated or indexed to US dollars or other hard currencies, or the use of local currency is mandatory under those circumstances?

7. If so permitted, is it common for long-term agreements (such as power purchase agreements) to be denominated or indexed to US dollars or other hard currencies?

8. In addition to long-term infrastructure projects that earn their remuneration through the collection of tariffs from users and consumers, are there PPP schemes in the jurisdiction in question by means of which long-term infrastructure projects may get their remuneration, in total or in part, directly from government authority? If so, such government payments are undertaken solely or directly by Central/Federal Government, or also by subnationals or state owned companies?

Part Two – FX Risks and Infrastructure Projects

9. Are long-term infrastructure projects in such jurisdiction usually financed through non-recourse or limited recourse project finance?
10. Are long-term FX hedging instruments readily available in the jurisdiction in reference? Are they commonly used to hedge long-term foreign currency indebtedness?

11. In addition to traditional hedging instruments (currency swap, futures and options), is there any sort of local insurance available against FX devaluation risk (offered by private insurers, state owned or governmental entities)?

12. How foreign investors mitigate FX risk when investing in long-term infrastructure projects in the referred jurisdiction?

13. Does the government of such jurisdiction offer any guarantee or protection against market devaluation of local currency, such as governmental payments to compensate, totally or in part, the adverse impacts of FX devaluation on the project company/ concessionaire?

14. Does the government of your jurisdiction provide any other specific instrument or contractual arrangement to mitigate currency risks, such as (i) governmental guarantees granted directly to project lenders; (ii) guarantor or fiduciary funds/pool of assets to which project company or its lenders may resort to, in case local currency revenues cannot satisfy foreign currency debt service; (iii) deferral or reduction of project costs or expenses, such as investment obligations or periodical payments owed to the Government?

15. Are long-term infrastructure or public service concessionaires authorized to revise tariffs they charge on users in case of FX devaluation?
EXHIBIT C: REFERENCES


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