2018

Financing of Chilean Public-Private Partnerships : the Shaping of Chile's Public Policy for Economic Development

Laura C. Loaiza

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I. Introduction

In the past decades, Chile has shaped its public policy to attract foreign investment. A country with limited resources compared to its South American counterparts managed to become the continent's strongest and most rapidly growing economy. It has achieved so by accommodating to the requirements of the foreign financial institutions and other key players who in turn provide the country's economy with the liquidity necessary for development and progress.

Chilean economy's growth has been mainly supported by the rapid development of its infrastructure. The country heavily relies on the exportation of copper, wine, and other minor industries (e.g. salmon and avocado). These few industries comprise largely the extent of the Chilean economy. Yet, Chile has been able to take full advantage of these industries and exploit them through its free market policies. Also, the accepting nature of its general public policies towards foreign funds has supported Chile's economic development.

II. Chilean Economic Growth in the Past Decades

Before 1973 Salvador Allende was elected by the Chilean people as president. Allende implemented socialist economic policies in the country during his time in office. These policies were followed by little economic growth and social unrest. Allende's socialist policies referred to as *La Vía Chilena al Socialismo* (The Chilean Path to Socialism) were mostly directed at the country's wealth redistribution and the creation of a welfare state.

Allende’s policies included expropriation measures, raise of minimum wages, and price controls. The implementation of these policies led to a wave of social unrest. Inflation reached 800% and strikes began to be held all over Chile.[1] In 1973 the Chilean Supreme Court and the Chamber of Deputies called on Allende due to his refusal to finalize the issuance of constitutional amendments approved by Congress to address the country’s economic situation. In particular, these amendments restricted the nationalization plan that was being implemented by Allende at the time. As a consequence of Allende’s refusal to implement them, the military was called on to intervene and restore social order.[2]

In September 1973 a military coup d’état led by Pinochet overthrew Salvador Allende. From 1973 to 1990 Chile was governed by General Augusto Pinochet’s dictatorship. This period of time in Chilean history was marked by the military *Junta’s* management and control. Pinochet and the *Junta* transformed Chile´s policies and institutions dramatically. From the economic perspective, the regime’s policies were deeply influenced by Milton Freedman’s free market ideas. Economic policies directed at the economy’s liberalization, deregulation, and privatization were implemented during this time.[3]

El Ladrillo was the landmark piece of work for the economic and political policies implemented during the dictatorship in Chile. *El Ladrillo* was a program designed by economists and other experts who were academics in Chile at the time. Most of them were educated in free market ideals and supported the economy’s liberalization. These ideals were the basis for the proposals described in *El Ladrillo* which was subsequently implemented by the dictatorship. As

[1] Chile Panorama General (World Bank Group, 2018), archived at http://www.bancomundial.org/es/country/chile/overview

[2] Rossana Castiglioni, *The Politics of Social Policy Change in Chile and Uruguay: Retrenchment Versus Maintenance, 1973-1998*. (Milton Park, Abingdon, Oxon: Routledge, 2016).

[3] *Id*.

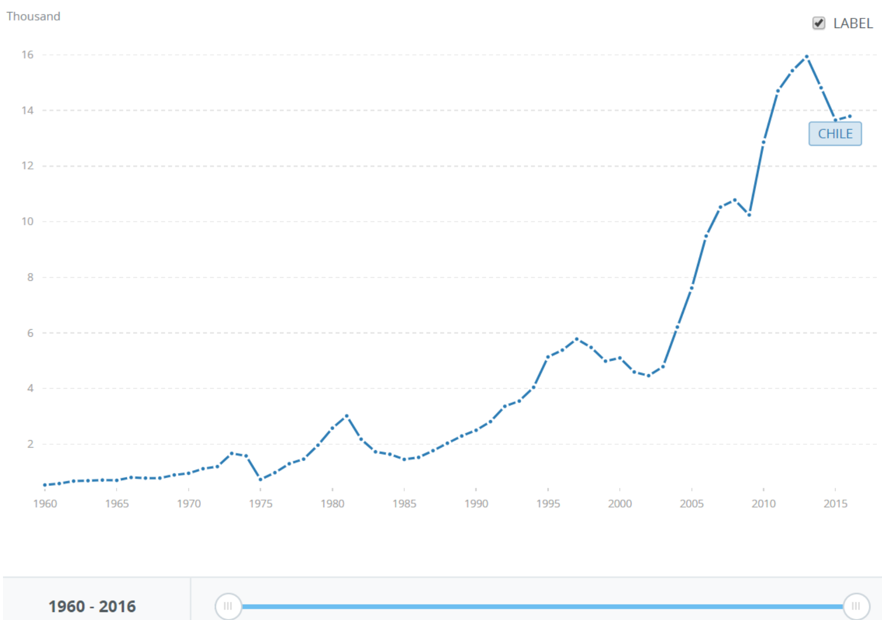
the authors of *El Ladrillo* described it, the plan set forth in it wished to "propose the basic elements of a global economic policy that made an accelerated economic development possible."[4]

As a result, since 1973 and its transition into democracy, Chile experienced dramatic changes in its economy. As described by Rodrigo Caputo and Diego Saravia: "In economic terms, policies shifted from the imports substitution strategy, adopted by many Latin American economies in the 1940s, to free market-oriented policies, in which the government's role, both as producer and regulator was greatly diminished."[5] As an example, Chile's GDP increased

[4] Centro de Estudios Públicos, 2, *El Ladrillo Bases de la Política Económica Del Gobierno Militar Chileno* (Alfabeta Impresores, 1992).

[5] Rodrigo Caputo and Diego Saravia, *The Fiscal and Monetary History of Chile 1960-2010* (Central Bank of Chile, April 2014).

substantially after the economic policies implemented by Pinochet's dictatorship came into effect as shown below.



Source: World Bank national accounts data, and OECD National Accounts data files.

Even with Chile's amazing growth, infrastructure development was still an issue. While the Chilean market achieved stability and liquidity in a region characterized by unrest and volatility, the infrastructure required to exploit the available resources in the country did not exist. Primarily, transportation, mining, and energy had the most potential for the Chilean economy. The question became how to build the infrastructure required to allow the country to exploit its resources and continue with its economic growth.

III. An Alternative to Financing Infrastructure: Project Finance

Although the Chilean economy is one of the largest in South America, Chile is still a country located in a politically risky region. Abrupt changes within the political spectrum, conflicts, and social upheaval are common throughout South America. As an alternative to the absence of companies able to assume the risks that a large infrastructure project entails, project finance allows local and foreign companies to join synergies and available resources in areas with high political risk to develop infrastructure projects.

Chile, likely due to its strong economy, was the leader in project finance and public private partnerships in the continent. It has also been the most successful country in infrastructure development.[6] According to the Ministry of Public Works of Chile, more than 50 concessions have been awarded only for toll road projects and airports.[7] Including projects in other industries, the number of projects raises to 197 from 1990 to 2016.[8] In terms of projects structured as concessions, Sebastián Piñera in his initial term awarded an important number of these. This is particularly important now that he has been elected for a second term after Bachelet's 2014-2018 government. Thus, Chile is expected to see a new wave of infrastructure projects mostly focused in the energy sector.

In recent years, the renewable energy sector in Chile has grown vastly. The International Financial Review (IFLR), reported that Chile's renewable energy commitments have increased significantly: "In solar, for example, we then witnessed the capacity of installed solar photovoltaic skyrocket. In 2015, there was 370 MW. We aim to close 2016 with 770 MW, and by 2017, we hope to achieve 1,400 MW. This demonstrates the exponential growth that is achievable when government and business align their goals."[9] Since the enactment of the renewable energy law, Chile's renewable energy projects increased.[10] Likewise, according to the Chilean National Commission of Energy (*Comisión Nacional de Energía*) Chile's goal is that

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[6] Jose Luis Vittor and Tim R Samples, *PPPs and Latin American Infrastructure Markets: Brazil and Chile*, 19 Latin American Law & Business Report Thompson Reuters (2011).

[7] *Estadísticas Trimestrales de Concesiones Informe Estadístico Primer Trimestre 2017* (2017), archived at http://www.concesiones.cl/estadisticas/Paginas/default.aspx.

[8] *Measuring the Enabling Environment for Public-Private Partnerships in Infrastructure* (2018), archived at https://perma.cc/V7CS-SDF6.

[9] *Project Finance Report 2017* (International Finance Law Review, 2017).

[10] *Id.*

20% of the electric energy will come from non-conventional renewable energy sources by the year 2025.[11]

The 2018 Infrascope Report on public private associations made by The Economic Intelligence Unit gave Chile an overall global score of 75/100. In comparison, Brazil, one of the largest economies in South America and one of the most active in infrastructure terms, scored 70/100. Likewise, Chile has had a major influence in other Latin American countries, mainly Colombia and Peru which have followed Chile's example in terms of public private associations. In the report, Colombia scored 76/100 and Peru scored 73/100 as shown in the table below.[12]

Score 0-100 where 100=best. Rank out of 8 countries across MCC 1=best
= before the rank indicates a tie.

MATURE (80-100) | DEVELOPED (60-79) | EMERGING (30-59) | NASCENT (0-29)

OVERALL SCORE			1) REGULATIONS			2) INSTITUTIONS			3) MATURITY			4) INVESTMENT & BUSINESS CLIMATE			5) FINANCING		
Rank		Score / 100	Rank		Score / 100	Rank		Score / 100	Rank		Score / 100	Rank		Score / 100	Rank		Score / 100
1	Colombia	76	=1	Chile	91	1	El Salvador	91	=1	Colombia	82	1	Costa Rica	75	1	Peru	77
2	Chile	75	=1	Colombia	91	2	Brazil	88	=1	Honduras	82	2	Jamaica	74	2	Brazil	73
3	Peru	73	3	El Salvador	90	3	Guatemala	80	=3	Chile	81	3	Chile	72	3	Colombia	63
4	Brazil	70	4	Mexico	85	=4	Colombia	75	=3	Peru	81	=4	Colombia	68	4	Chile	62
5	Jamaica	69	=5	Guatemala	80	=4	Jamaica	75	5	Jamaica	80	=4	Mexico	68	5	Uruguay	58
6	Mexico	68	=5	Jamaica	80	6	Chile	68	6	Mexico	73	6	Uruguay	67	=6	Costa Rica	54
7	Honduras	66	7	Nicaragua	78	=7	Nicaragua	66	7	Uruguay	71	=7	Paraguay	66	=6	Panama	54
8	Uruguay	65	8	Honduras	76	=7	Peru	66	8	Costa Rica	70	=7	Peru	66	8	Dominican Republic	52
9	El Salvador	61	9	Brazil	73	=9	Honduras	63	9	Brazil	68	9	Honduras	65	9	Mexico	50
=10	Costa Rica	59	=10	Paraguay	71	=9	Uruguay	63	=10	Nicaragua	67	10	Trinidad and Tobago	62	10	Argentina	43
=10	Nicaragua	59	=10	Peru	71	11	Mexico	61	=10	Panama	67	11	Dominican Republic	60	=11	Ecuador	40
12	Paraguay	58	=12	Dominican Republic	68	12	Paraguay	60	12	Trinidad and Tobago	60	12	Panama	59	=11	Nicaragua	40
13	Guatemala	57	=12	Ecuador	68	13	Trinidad and Tobago	48	13	Paraguay	56	13	Ecuador	54	=13	El Salvador	38
14	Trinidad and Tobago	52	14	Uruguay	61	14	Argentina	42	14	Guatemala	51	14	Brazil	51	=13	Honduras	38
=15	Dominican Republic	49	15	Argentina	60	15	Costa Rica	40	=15	Dominican Republic	49	15	Argentina	48	=13	Trinidad and Tobago	38
=15	Panama	49	16	Costa Rica	53	16	Ecuador	31	=15	El Salvador	49	=16	El Salvador	45	16	Paraguay	37
17	Argentina	43	17	Trinidad and Tobago	49	17	Dominican Republic	16	17	Argentina	28	=16	Guatemala	45	17	Jamaica	34
18	Ecuador	40	18	Panama	47	18	Panama	11	18	Ecuador	19	18	Nicaragua	39	18	Guatemala	33
19	Venezuela	9	19	Venezuela	13	19	Venezuela	0	19	Venezuela	10	19	Venezuela	12	19	Venezuela	8

Source: 2018 Infrascope Report. The Economist Intelligence Unit.

Throughout Chile's recent history, the country has adapted its legal system to permit a larger development of infrastructure projects. Due to the success in their experience and given that Sebastián Piñera was elected as president for his second term recently, Chileans are

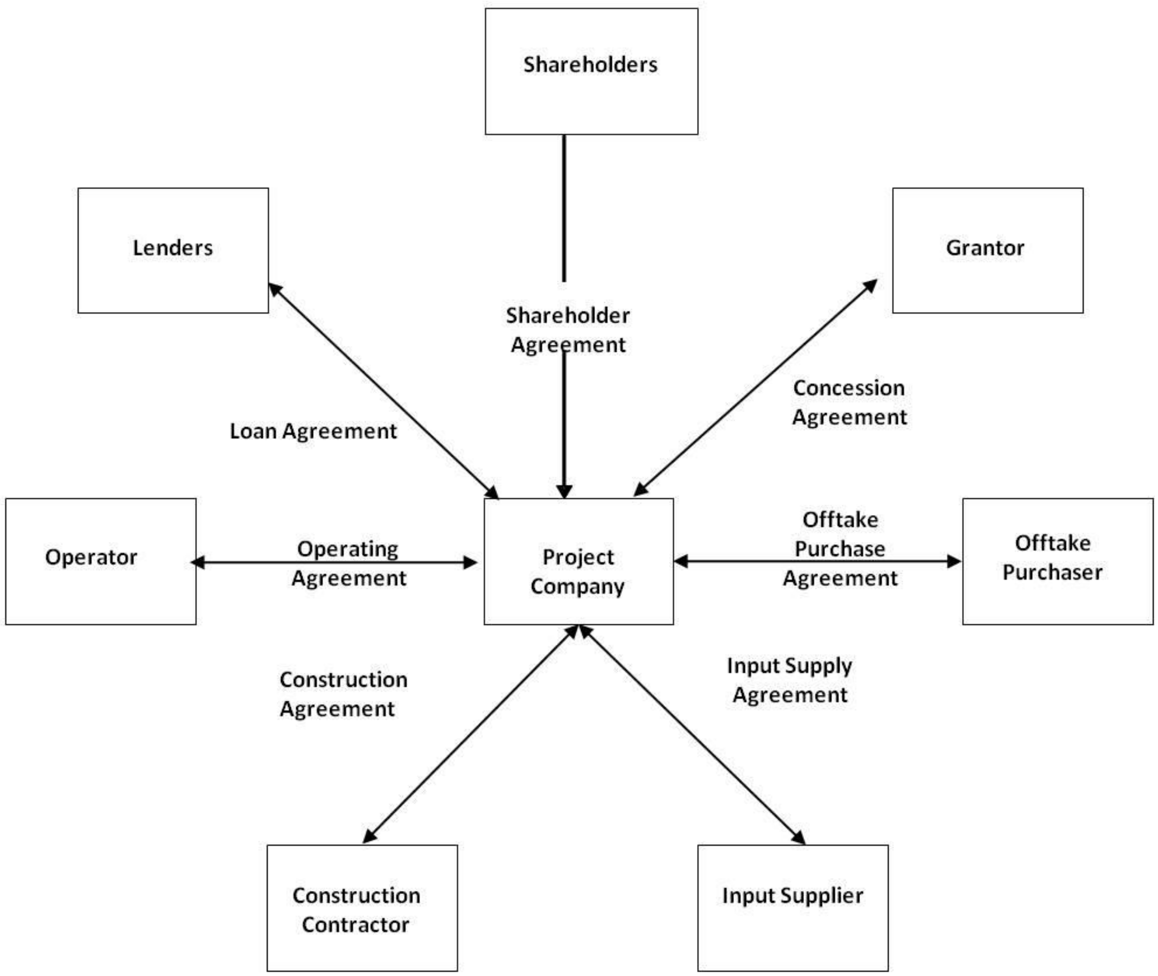
[11] *CNE: Chile superará sus metas de energía renovable a 2025* (2015), archived at https://perma.cc/N3GB-VSYX.

[12] *Measuring the Enabling Environment for Public-Private Partnerships in Infrastructure* (2018), archived at https://perma.cc/V7CS-SDF6.

expecting a new surge in infrastructure projects most of which will likely be financed under a project finance basis.

1. General Structure of a Project Finance-Based Deal

As an alternative to other financing structures, project finance has risen as the preferred mechanism to finance large infrastructure projects around the world. This alternative is particularly attractive for companies without a balance that is strong enough to obtain the debt required to build and operate a large project. The structure revolves around a special purpose vehicle or project company to which the concession agreement or license is granted to. The main purpose of the structure is to allocate as many risks as possible to third parties different from the project company which will act as borrower. In general terms, the risk allocation is done so through the different agreements required to implement the structure as shown in the chart below.



Source: World Bank.

In the Chilean case, project finance investment is mostly local for transportation projects while mostly foreign for energy projects. There are two factors that explain why such large financings have been able to be financed by local banks given that the Chilean market lacks depth. First, the source of payment, meaning the payment made by the granting authority or the offtaker to the project company which in turn will be the source of payment for the lenders, is usually denominated in Chilean pesos. Secondly, unlike other Latin American countries, the

Chilean banking market is more liquid and, therefore, is able to support such large and risky financing structures.

2. Granting Authority or Grantor

In the international stage, public-private partnerships are used for the development of public infrastructure. The birth of a public-private partnership usually initiates with the bid for a project. The bid is held by the granting authority responsible for public works in the relevant jurisdiction. In the case of Chile, this is the Ministry of Public Works. A public-private partnership contract may involve either the construction of infrastructure (greenfield projects) or the upgrading of existing infrastructure (brownfield projects).[13]

Unlike public procurement's case, public-private partnerships are not financed with taxes or public revenues. In public-private partnerships, the granting authority is ensuring the output of public services through a long-term agreement with a private party. To do so, the granting authority delegates the design, construction, operation, and maintenance of the relevant facilities to that party, along with all the risks this entails.[14]

During the last 20 years, public-private partnerships have taken a major role in infrastructure development throughout Latin America. The first countries to use this model for infrastructure in the region were Chile and Brazil.[15] Chile's public-private partnership

[13] E.R. Yescombe. *Principles of Project Finance*. Amsterdam: Academic Press is an imprint of Elsevier, (2014).

[14] *Id*.

[15] Jose Luis Vittor and Tim R Samples, *PPPs and Latin American Infrastructure Markets: Brazil and Chile*, 19 Latin American Law & Business Report Thompson Reuters (2011).

transactions have centered mostly around transportation and prisons.[16] And it has been the public-private partnership model, the one that has influenced Chilean public policy.

3. Offtaker

Offtake agreements provide the project company with the certainty that it will be able to sell whatever it produces or to deliver the service it provides. The price of the products or services is central to the transaction since the financing will highly depend on the payment arrangements under the offtake agreement (or concession agreement). The offtaker is the party with which the project company enters into the supply or offtake agreement. Offtake agreements tend to be more common in energy projects in which there is a power purchase agreement, yet for the most part they can be structured for any project that is not governed by a concession agreement. In the case of concessions, offtake agreements may not exist and the project company's income will be set out in the concession agreement itself. As such, the importance of the offtaker is that it provides the project with a payment source for the financing whenever the payment source is not the granting authority.

Offtake agreements may be structured as take-or-pay contracts, take-and-pay contracts, long-term sales contracts, hedging contracts, throughput contracts, or input-processing contracts.[17] The difference between these types of agreements is the way in which the service the project provides or the product it manufactures is paid. Chilean law allows for any of these payment arrangements to be agreed by the parties without material limitations.

[16] Getting the Deal Through, *Project Finance 2012* (Law Business Research Ltd., 2011), archived at https://perma.cc/9YBX-NNUR.

[17] E.R. Yescombe. *Principles of Project Finance*. Amsterdam: Academic Press is an imprint of Elsevier, (2014).

4. Special Purpose Vehicle or Project Company

The special purpose vehicle or project company is an entity incorporated solely for purposes of the project. The sole purpose of the entity is to develop the project either under the conditions set forth in the concession agreement or the offtake structure. It is the point of contact between the granting authority and the shareholders or sponsors who are developing the project. Lenders pay particular attention to the risks assigned to the special purpose vehicle since it will also be the main borrower under the financing.

Specific to project finance transactions, the special purpose vehicle will have a large debt-to-equity ratio due to the high leverage of these types of transactions. The high leverage also entails higher risks for lenders which in turn is reflected in higher rates of return for these in the financing costs. Due to the requirements of lenders in respect of special purpose vehicles as a consequence of the leverage in project finance transactions, Chile enacted thin capitalization rules.[18] Although these thin capitalization rules have been recently modified[19] they still remain an example of how the public policies and the legislative agenda of Chile is deeply entangled with the goal of the country to develop its infrastructure in terms which adapt to the requirements of financial institutions.

5. Lenders

Lenders include commercial banks, bondholders, and private equity funds (mostly those specialized in infrastructure). These play a major role in infrastructure project development. Lenders will provide financing for the construction and/or operation of the project through a credit agreement. Yet, other financial instruments will also be provided by the lenders as part of

[18] Chilean Law No. 20.780 of 2014.
[19] Chilean Law No. 20.899 of 2016.

the financing structure. The financial instruments used in project finance deals will vary depending on the cash-flow structure of the particular project. These include the borrowing itself, and may also include hedges, leasing, trusts, or asset backed finance loans.

Due to the size of the investment required to build and operate a large infrastructure project, more than one lender may be required to underwrite the financing. As such, it is standard to appoint a lead arranger to structure a "club deal" or to have a syndicated financing.[20]

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.

Notwithstanding the funding source for Chilean infrastructure projects, all lenders largely use the same standards to structure the financing. Local Chilean banks have adopted the international standards used by foreign lenders in project finance. Yet, it is fair to say that to some extent, project finance standards in Latin America have been mostly defined based on the Chilean experiences.[21]

[20] E.R. Yescombe. *Principles of Project Finance*, Amsterdam: Academic Press is an imprint of Elsevier, (2014).

[21] Tomás Serebrisky, Cinthya Pastor, Ancor Suárez-Alemán, Juan Alberti, Aldo González, *Financiamiento privado de la infraestructura en América Latina y el Caribe: Chile, Perú y Uruguay como casos de estudio*, Inter-American Development Bank, (2017) archived at https://perma.cc/W6WZ-XUCY.

6. Sponsors or Shareholders

The special purpose vehicle's shareholders or sponsors are the entities behind the project's development, construction, and operation. The shareholders, like the lenders, act as investors in the project. For such purpose, they are required to invest a certain amount of equity in the project company depending on the leverage agreed with the lenders. Yet, unlike the lenders, they will only have a return on their investment once the project's financing has been paid in full or at least in part.

Sponsors usually play different roles in the project. They might provide equity or know-how and they might have different participation levels in the project. Their interactions are regulated through a shareholder agreement. The shareholder agreement will mainly set forth how decisions will be made in respect of the project company. As a consequence, lenders will be interested in the deadlock provisions established in the shareholder agreement and in the agreement's enforceability itself. This is so because a deadlock between the shareholders of the project company entails a risk to the project's development.

In Chile, the applicable legal rule provides that shareholder agreements are enforceable between the parties. To be enforceable in respect of the project company, there is a notification requirement. Yet, unlike other jurisdictions there is no need to take additional measures or to put in place specific mechanisms for enforceability purposes.

7. Contractor and Operator

i. Contractor

The project will not be built by the special purpose vehicle itself, even though it is its obligation to deliver the project under the concession agreement or under the offtake agreement. The construction will be undertaken by a third-party contractor. Such contractor will usually be comprised by all or some of the project company's sponsors and the risks assigned to it in relation to the construction of the project will be much higher than those assigned to the project company itself.

For purposes of the construction and risk allocation between the contractor and the project company, several contracts are required. The most important will be the construction agreement (commonly known as engineering, procurement and construction agreement (EPC)). Additional agreements including a direct agreement between the contractor and the lenders and particular performance guarantees or insurance will also be required to secure the project's construction and the downstream debt service's repayment.

The Chilean Civil Code provides general regulation for construction contracts based on roman law principles. Yet, Chile's regulation has proven generally adaptable to the international standards set by the International Federation of Consulting Engineers (FIDIC).[22] Additionally, the experience acquired by construction companies over time has shaped Chilean public policy in a welcoming way to international standards for construction agreements. Moreover, Chile's ranking on the World Bank Doing Business on "Dealing with Construction Permits" for 2018 was 15.[23] This can be seen as an example of Chile's adaptability to accommodate in favor of foreign investors.

ii. Operator

Unlike the project's construction, the operation itself may be undertaken either by the project company or a third-party operator. As in the contractor's case, in the case of a third-party

[22] Arturo Prado Puga, *The General Construction Contract and Specially the EPC Rules and Regulations and Main Characteristics*, 41(2), Revista Chilena de Derecho 765, -783 (2014).

[23] *Doing Business* (World Bank, 2018) archived at http://www.doingbusiness.org/data/exploreeconomies/chile.

operator, there will be an entity most likely owned and managed by several of the project company's shareholders. Likewise, with a third-party operator the risk allocation between the operator and the project company will be established in an operation agreement. And the lenders will make sure to implement a direct agreement with the operator as well as performance guarantees. Chilean law is also flexible towards these types of agreements. Standards required by financial institutions and other investors can easily be met within the existing Chilean legal framework.[24]

8. Input Supplier

Certain projects will also include an input supplier depending on whether the project requires the input of certain resources to operate. For example, this is the case of coal power plants which require coal to operate. The input must be secured for the project to be viable. Otherwise the fulfilment of the commitments acquired with the offtaker or the granting authority will be subject to the required resource's variable supply. Chilean law allows for these long-term commitments to be respected which in turn contributes to the confidence investors have in the country.

As part of project finance structures' implementation and their more detailed complexities, Chile has tailored its legal system to align with foreign investors and financial institutions' interests and concerns.

IV. Regulation by deal: Legal Framework for Private Public Partnerships in Chile

Project finance transactions in Chile are the standard to finance toll-roads, energy plants, renewable energy projects, ports and airports, information and technology projects, natural gas,

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[24] *Id*.

water and sanitation projects, and rail projects. Although there are other alternatives to finance large infrastructure projects such as straight lending or asset backed lending, most projects in Chile are financed with a project finance structure-based deal.

As a consequence of Chile's interest in developing its infrastructure and to remain as the most stable and most rapidly growing economy in South America, Chile's policy makers have focused on providing foreign investors and financial institutions with a framework of regulation adapted to their needs and requirements. The baseline for Chile's public policy has become in a way what financial institutions or foreign investors require to finance the country's development. The governance and administration of Chile has been shaped by the deals completed in the country. As such, Chile has followed the trend towards public-private partnerships and a networked approach to regulation.[25]

Chile has made legislative accommodations in favor of the requirements of foreign investors. The following are representative cases of how the Chilean system and policies have been shaped through civil law mechanisms by project finance deals.

1. Legislation to Mitigate the Political Risk

One the main elements around which project finance transactions are structured is the political risk. Latin America is a region known for its political instability. Since project finance is one of the few alternatives to finance large projects in risky regions,[26] the political risk's mitigation strategy becomes of paramount importance. "As the market for project finance transactions has expanded into developing countries, concerns about political risk have grown.

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[25] Steven M. Davidoff Solomon and David Zaring, *Regulation by Deal: The Government's Response to the Financial Crisis*, 61 Admin. L. Rev. 463 (2009).

[26] Claudia Girardone and Stuart Snaith, *Project Finance Loan Spreads and Disaggregated Political Risk*, 21, Applied Financial Economics, 1725-34, (2011).

Key risks that arise are the decision by a government to cancel a project or to change the terms of the contract or not to fulfil its obligations, political or regulatory risk in failing to implement the tariff increases agreed upon in the contract, the risk of expropriation or nationalization of project assets by a government."[27]

Chile has more history with public private partnerships and infrastructure development on a project finance basis than other Latin American countries. This experience, added to the country's exceptional stability compared to its neighbors, have made it the role model in the region in political risk terms.

One of the main factors that has allowed Chile to be perceived by international actors as a politically stable country has been the lack of corruption scandals. In comparison with countries such as Brazil and Peru, Chile has been somewhat immune to corruption in the construction industry. Likewise, Chile is the first South American country to have joined the OECD. Its economy has had the most growth in the region since the 1990s. And even with the recent decline in copper prices which affected the country's economy substantially it remains one of the healthiest economies in South America.

The most successful tool of Chile to create the welcoming environment it has towards project finance has been the enactment of a robust body of legislation that allows for the flexibility required by international and local financial institutions.

[27] *Risk Allocation, Bankability and Mitigation in Project Financed Transactions* (World Bank, 2018) archived at https://ppp.worldbank.org/public-private-partnership/financing/risk-allocation-mitigation#environmental.

2. Legal Framework for Concessions and Public Private Partnerships

Since 1996, Chile enacted regulation to allow for concessions to be developed through public-private partnerships. Decrees 900/1996 and 956/1997 issued by the Ministry of Public Works regulate the framework for concessions in Chile. More recently, the Law of Public Works Concessions (Law No. 20.410 of 2010) expanded the regulatory framework. The law made changes pursuant to "greater transparency and incorporating more objective criteria (around renegotiation and unintended transfer of commercial risk) to compensate private actors in the case of acts of government."[28]

The Chilean concessions regulation has also transformed the Chilean legal framework in favor of standards set by financial institutions for project finance purposes. The regulation allows to grant collateral over public works, guarantees a minimum income, allows for foreign exchange insurance, includes subsidies, and allows for parties to bid for the concession's total amount of revenues.[29] All of these elements parallel concerns from foreign and local lenders in project finance deals.

3. Environmental Concerns and Equator Principles

The Chilean Ministry of Public Works, through its Concessions Coordination Environment Unit and the Secretary of Environment and Land (*Unidad de Medio Ambiente de la Coordinación de Concesiones and Secretaría Ejecutiva de Medio Ambiente y Territorio*) established a Manual of Environmental Management in Concessioned Works (*Manual de Planes*

[28] *Measuring the Enabling Environment for Public-Private Partnerships in Infrastructure* (2018), archived at https://perma.cc/V7CS-SDF6.
[29] *Sistema de Concesiones Chile* (Coordinación de Concesiones Ministerio de Obras Públicas, 2015), archived at https://perma.cc/4J7H-P8BN.

de Manejo Ambiental para Obras Concesionadas) which addresses the environmental requirements for the construction and exploitation phases of concessions.[30]

Additionally, in respect of international environmental standards for project finance, most Chilean financial institutions have adopted the Equator Principles which are the most common risk management framework for risk assessment in project finance.[31] The Chilean Banking and Finance Association sets forth in its Good Practices Manual (*Manual de Conducta y Buenas Prácticas de la Asociación de Bancos*) that in terms of environmental matters the Equator Principles are the reference for financial institutions to address environmental risks in projects.[32]

Additionally, Chile recently adopted the first Regional Environmental Agreement of Latin America and the Caribbean. The treaty was adopted by 24 countries in March 4, 2018 in Costa Rica. The treaty addresses among other issues, the problem of social and environmental requirements in respect of the communities surrounding infrastructure projects in alignment with the Equator Principles and the IFC's environmental standards.

4. Dispute Resolution

In terms of dispute resolution, project finance transactions are usually governed by New York or English law and subject to New York or English courts. Yet, international arbitration has become considerably more common in the recent years. Lenders will seek strong institutions and highly specialized courts for their disputes. Recently, due to the technical components of

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[30] *Manual de Planes de Manejo Ambiental para Obras Concesionadas*, (2013), archived at https://perma.cc/9C7N-SHF8.

[31] *The Equator Principles* (The Equator Principles Association, 2018) archived at http://equator-principles.com/about/.

[32] *Manual de Planes de Manejo Ambiental para Obras Concesionadas*, (2013), archived at https://perma.cc/9C7N-SHF8.

construction and offtake agreements involved in project finance transactions, technical boards have increased substantially as a dispute resolution mechanism.

In 2004, Chile enacted Law No. 19.971 known as the Chilean Arbitration Law which reflected the UNCITRAL Model Law. The law was enacted with the purpose of empowering Chile as a center for international arbitration. Although Chile has not been successful in achieving such goal, the legal framework has allowed local financings to use international and local arbitration as an alternative to Chilean courts which lack strength and stability. In turn, this contributes to make it easier for financial institutions to acquire participations in the borrowing in the secondary market or to allow investors to enter the project in a further stage either as borrowers or sponsors.

Likewise, Chile has an increasing tendency towards the use of technical boards. These have been used mostly for dispute resolution between the granting authorities and concessionaires or construction companies. Yet, in the long term, the knowledge and experience developed by experts in technical dispute resolution boards may contribute to their use by international financial institutions financing projects in the region.

Additionally, Chile is a party to the New York Convention which makes arbitration awards that much easier to be enforced. This provides lenders and financial institutions involved in the financing of Chilean projects greater certainty in case of a dispute.

5. The Currency Dilemma: Foreign Exchange Controls

Foreign exchange plays a major role in the financing of project finance transactions. In the case of concessions, sources of payment arising from concession agreements are usually denominated in local currency. In the case of other types of projects, the revenues may come from local sales (set in local currency) or exports (set in foreign currencies). The source of payment has to be aligned with the debt service's currency. In turn, the debt service's repayment may be structured in local currency or in a foreign currency, most likely US Dollars or Euros. Additionally, large assets included in the project's collateral may be required to be valued in a foreign currency.

Consequently, depending on cash flow of a particular transaction, foreign exchange risks of convertibility and transferability may arise.[33] In these cases, financial institutions will usually protect themselves by requiring the project company and the sponsors to device a hedging strategy in whichever part of the cash-flow currencies differ. Hedging strategies usually include the implementation of hedges and swaps. Including these financial instruments usually requires a liquid and deep market so that financial institutions can offer these products.

In the case of Chile, both depth and liquidity were present if compared to its Latin American counterparts: "The depth and liquidity of the domestic derivatives market increased significantly in the years before the Lehman bankruptcy, driven by the growing hedging needs of the private pension funds (*Administradoras de Fondos de Pensiones* (AFPs) in Spanish)."[34] In addition to the strength of its market, Chile implemented during the dictatorship a free transfer of capital system with no restrictions to the transfer of funds from and into the country. Therefore, in structuring a project finance transaction, financial institutions can find the flexibility required to design satisfactory hedging strategies that mitigate any existing foreign exchange or currency related risks.

[33] John Dewar, *International Project Finance: Law and Practice* (Oxford: OUP Oxford, 2011).
[34] Fernando Avalos and Ramon Moreno, *Hedging in derivatives markets: the experience of Chile*, BIS Quarterly Review 53-63 (2013).

6. The Role of Technology in Finding New Projects to Develop

Project finance is also a financing mechanism suitable for technology transfer. In Chile over ten information and communication projects were launched until 2016.[35] Likewise, more traditional projects (e.g. energy, natural, rail, water and sanitation) have benefited from technology. Due to the high risk entailed in testing new technologies, project finance is used as an alternative to finance projects which involve high risk untested technologies.

Renewable energy projects have been central in recent years in Chile. The development of technologies for wind, hydro, and power energies has had a major increase. In a survey performed by the OECD including projects from 1996 to early 2016, it was reported that over US $3,643 million were invested in renewable energy projects from international and local sources.[36] Given Chile's limited resources and vast coastline, paired with the Atacama Desert, Chile has found in these technologies a new niche for infrastructure projects.

The National Energy Commission (*Comisión Nacional de Energía*) set out the regulatory framework for renewable energy projects. Such framework is based on Law No. 20.257 known as the Non-conventional Renewable Energy Law. The framework, in addition to the country's additional efforts to attract foreign investors, resulted in an increase in investment and project development. As described in an OCDE report, Chile has focused on: "Gaining a good understanding of how projects were financed, and in particular of the extent of private investors participation, is, therefore, of primary importance to inform policy makers."[37]

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[35] *Measuring the Enabling Environment for Public-Private Partnerships in Infrastructure* (2018), archived at https://perma.cc/V7CS-SDF6.

[36] Javier García, *Renewable Energy Financing: the case of Chile* (Working document prepared for the Research Collaborative on Tracking Private Climate Finance, 2016), archived at https://perma.cc/4R9F-Q9B7.

[37] *Id*.

7. When Deals Go South: Insolvency and Renegotiation of Financing Deals

As in every financing the debt service repayment risk is the most important risk for lenders. Therefore, the possibility to renegotiate deals and the legal framework of a country in respect of insolvency acquire importance from the deal's structuring stage. Lenders require certainty that they will be able to either renegotiate the financing or to make claims before an insolvency court.

As shown in the table below, Chilean law generally allows for all types of security interests. This allows lenders to secure all relevant assets in a project fairly easily in case the debt cannot be repaid. Likewise, Chilean insolvency laws allow for dip-lending strategies that are an alternative to bankruptcy. Finally, agreements are renegotiable under Chilean law and additionally, the granting authorities have been fairly open to the renegotiation of concession agreements or licenses.

Region / country	Sector	% of renegotiated contracts	source
Latin America and Caribbean	Total	68%	Guasch 2004 (2012)
	Electricity	41%	
	Transport	78%	
	Water	92%	
US	Highways	40%	Engel Fischer & Galetovic 2011
France	Highways	50%	Atthias and Saussier 2007
	Parking	73%	Beuve et al 2013
UK	All sectors	55%	NAO 2001

Table 1: Percentage of renegotiated contracts by region and sector. Source: Estache, Antonio and Stéphane Saussier, "Public-Private Partnerships and Efficiency: A Short Assessment", CESifo DICE Report 12 (3), 2014, 08-13

Source: *The Renegotiation of Public Private Partnerships Contracts (PPP): An Overview Of Its Recent Evolution In Latin America*. Revista Chilena de Economía y Sociedad, (2016).

V. Chile as a Role Model: Similarities with Other Latin American Countries

Other Latin American countries such as Peru, Colombia, and more recently Argentina, have followed Chile's lead in infrastructure development through project finance deals. These countries have followed Chile as a role model and in doing so they have launched public-private partnership programs to build mostly toll-roads, ports, airports, and energy projects.

1. Peru

Peru has awarded 130 infrastructure projects through the public-private partnership structure. Most of these were toll-roads and energy projects.[38] Peru's promotion of private sector investment began in the early 1990s. Yet, it was only in 2008 when the first private-public partnership legislation was enacted. The current public-private partnership framework in Peru was set forth by Legislative Decree No. 1224 and Supreme Decree No. 410-2015.

Additionally, Peru has been working towards a more comprehensive legal framework that will be able to adapt to foreign investors' requirements. For example, in 2013 Peru enacted a new regulation for purposes of security interests which provided more flexibility in the design of security packages available to lenders.

2. Colombia

In 2012, Colombia's Congress enacted Law No. 1508 which regulates the framework for public-private partnerships. This law has been the framework for the most recent public-private partnership projects launched in the country. Additionally, Colombia has reinforced the governmental institutions that support infrastructure development through public-private partnerships which include the *Financiera de Desarrollo Nacional* (FDN), a major lender for infrastructure projects in Colombia, and the National Infrastructure Agency (*Agencia Nacional de Infraestructura*).

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[38] *Measuring the Enabling Environment for Public-Private Partnerships in Infrastructure* (2018), archived at https://perma.cc/V7CS-SDF6.

Colombia has awarded over 180 public-private partnership projects since 1990 until 2016 worth approximately US$62.2 billion.[39] Yet, most of these projects were not financed through project finance structures until recently. Following Chile's example, Colombia has accommodated its legislation and institutions to increase foreign investment.

3. Argentina

During the past 3 years, Argentina's President Mauricio Macri focused on the country's infrastructure. For this purpose, Argentina's government enacted a public-private partnership legal framework in 2017. During the first quarter of 2018, Argentina reported 32 successful bids for six road projects as part of a $26.5 billion public-private partnership investment plan.[40]

Within the Argentinian attempt to jump start its economy again, the legal framework for public private partnership intends to compensate for Argentina's underdevelopment. Latin Lawyer described Argentina as "lagged behind in the implementation of innovative new schemes and there was no room for new or creative structures like public–private partnerships (PPPs)".[41] The new legislation intends to develop Argentina's toll-road infrastructure for the time being and to set the framework for other types of projects following the Peruvian and Chilean cases.

VI. Conclusion

Chile built its modern economy based on free market principles under Pinochet and based on the proposals set forth in *El Ladrillo*. In furtherance of its economic efforts, during the past two decades, Chile has been shaping its economic public policy to accommodate to foreign lenders' standards. Chile has been able to build a comprehensive and advanced infrastructure to

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[39] *Id.*

[40] Luc Cohen and Maximiliano Rizzi, *Argentina gets 32 road project bids in test of partnership plan* (Thomson Reuters, April 24, 2018), archived at https://perma.cc/H889-KNGW.

[41] Eduardo A. Koch, *PPPs in Argentina and Latin America: Overview* (Latin Lawyer, December 8, 2017), archived at https://perma.cc/QV6V-EVVJ.

support the country's economic exploitation of its limited resources. It has done so by aligning its interests with those of foreign investors and lenders. Chile's legal framework has been steadily shaped to fulfill the needs and requirements of foreign banking institutions, private equity funds, hedge funds, and bondholders. At the same time, it has fully taken advantage of the synergies created by the public-private partnerships it has implemented for this purpose.