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Foreign Infrastructure Investment in Chile: The Success of Public–Private Partnerships through Concessions Contracts

Andrew Hill

Foreign Infrastructure Investment in Chile: The Success of Public–Private Partnerships through Concessions Contracts

Andrew Hill[*]

Abstract: Developing countries often have infrastructure needs that far outpace their ability to finance and undertake such projects. The private sector can foster development and help governments meet their infrastructure demands through Public–Private Partnerships (PPPs). PPPs allow governments to shift risk to the private sector and tap into the expertise of profit-maximizing firms. However, governments still face substantial exposure when deals fail. Over the past fifteen years, Chile has had great success with PPPs—most notably through toll road concessions. This paper examines the characteristics of Chile's PPP regime in order to pinpoint the factors that lead to successful private participation in infrastructure development. First, the bidding process is clear, transparent, and fair. Second, the robust regulatory framework for PPPs has remained stable and predictable. Third, concession contracts encourage compliance with clearly defined expectations and service levels. And finally, Chile's foreign investment laws protect investors and provide financial assurances for private sector capital.

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[*] J.D. Candidate, 2012, Northwestern University School of Law.

INTRODUCTION

In developing countries, infrastructure needs often outpace the public sector's financing capabilities. Governments have increasingly turned to the private sector to provide financing and expertise for the construction and management of critical infrastructure projects. This intersection of the public and private sectors, called Public–Private Partnership (PPP), provides an innovative solution for governments looking to modernize infrastructure while avoiding the burdens of debt financing. Perhaps no country in Latin America has had better success with PPP than Chile. This paper will examine the elements of Chile's approach to infrastructure development that led to $11.5 billion in PPP investment in the country between 1995 and 2008.[1]

Part I will provide a general overview of the traditional model for infrastructure development as well as the PPP model. Part II will illustrate an example of a typical PPP toll road project and detail the history, size, and scope of PPP in Chile. Part III will analyze the regulatory framework in Chile that has allowed for stable infrastructure growth, focusing on the aspects of the Chilean legal system that have facilitated private sector infrastructure investment. It will then discuss the intended impact and actual effect of the 2010 legislation amending Chile's concessions law. Part IV will discuss the traditional bidding and concessions process, and will focus on Chile's recent innovations, including Least Present Value of Revenues (LPVR) auctions. This paper will conclude with key takeaways and closing remarks. The success of Chile's PPP system is due to the clear and transparent bidding process, the stable regulatory framework governing PPP, and the robust laws and treaties that protect foreign investors and investments.

I. TRADITIONAL AND PUBLIC–PRIVATE PARTNERSHIP MODELS

A. Traditional Model

Investment in infrastructure was traditionally dominated by the public

[1] FOREIGN INV. COMM., MINISTRY OF PUB. WORKS, CHILE, OPPORTUNITIES IN INFRASTRUCTURE 2009–2010 6 (2009).

sector.[2] These projects generally fell under the government's purview because they offered some public good, addressed a public need that was not adequately serviced by the private sector, or had monopolistic characteristics.[3] The decision to undertake a project was often made by a government agency or state-owned company, which then oversaw every facet of the construction as well as the administration, management, and maintenance of the asset upon completion.[4] Private sector involvement was often limited to a contractor or consultant capacity.[5] The government also bore virtually all of the financial and construction risk associated with these projects.[6]

Governments finance infrastructure projects through public funding and foreign assistance.[7] Publicly funded projects are either undertaken on a pay-as-you-go basis, using tax revenues or treasury reserves, or funded through public borrowing from capital markets.[8] In developing countries

[2] *See* TONY MERNA & CYRUS NJIRU, FINANCING INFRASTRUCTURE PROJECTS 3 (2002). This is a trend that coincided with the decline of colonialism and the end of the Second World War. *Id.* at 1. Newly independent states sought to spur development through social infrastructure projects to make up for a dearth of investment by colonial rulers. *Id.* "The non-existence of capital markets in these countries also meant that private funding was not an option." *Id.* The large scope and high cost of the projects could only be financed by governments. *Id.*

[3] *Id.* at 3 (discussing the political and economic importance of infrastructure because of its ties to growth and development). Governments can offer public access to clean water, irrigation, transportation, communication, ports, and hospitals "at levels that [are] insufficient for self-financing." Alejandro Jadresic, *Regulating Private Involvement in Infrastructure: The Chilean Experience*, *in* CHOICES FOR EFFICIENT PRIVATE PROVISION OF INFRASTRUCTURE IN EAST ASIA 54, 55 (Harinder Kohli et al. eds., 1997).

[4] Jadresic, *supra* note 3, at 54. "Through government institutions and state-owned companies, it was the role of the state to plan, finance, build, and operate most of the country's infrastructure." *Id.*

[5] *See* Peter Lacina, *Public–Private Road Building in Latin America: Legal Advances and Challenges*, 15 L. & BUS. REV. AM. 661, 661–62 (2009) (referring to the limited private sector role in a traditional public road building project). Private involvement is relegated to contract work in the construction phases, subject to the "specifications and approval of a public agency." *Id.*

[6] MERNA & NJIRU, *supra* note 2, at 3. *See also* CHRIS CHAN ET AL., PRODUCTIVITY COMM'N., PUBLIC INFRASTRUCTURE FINANCING: AN INTERNATIONAL PERSPECTIVE 15 (2009) (discussing the various forms of risk associated with infrastructure investment). Any risk that is not diversifiable will be borne by the investor. *Id*. at 14. "Construction risk arises from unexpected design problems, cost overruns and delays in construction works. This risk, which can be substantial for capital intensive infrastructure projects, exists during the construction and warranty phases of a project." *Id.* "Financing risk arises because the expected availability and cost of finance might not materialize. This can occur as, for example, interest rates and exchange rates change over time. The financing risk is present throughout the life of a project." *Id.*

[7] MERNA & NJIRU, *supra* note 2, at 3. "During the past 40 or 50 years, most of the infrastructure projects around the world, both in developed and in developing countries, have either been funded by the public exchequer or through a combination of public funds and foreign assistance." *Id*.

[8] CHAN ET AL., *supra* note 6, at 20.

with unsophisticated capital markets, the government often is the "most creditworthy entity and is able to borrow at the lowest rates, making possible infrastructure projects that might not otherwise be financially viable."[9]

When public financing and capital markets fall short, countries can turn to foreign aid for help. Foreign assistance primarily comes from the United States, the European Commission, and Japan, as well as multilateral organizations such as the World Bank and World Trade Organization.[10] These entities offer aid in order to foster trade with developing countries, and, as a by-product of trade, to help reduce poverty in such countries.[11] The construction of infrastructure facilitates the delivery of basic necessities, increases productivity, and opens distribution channels for goods and services through transportation and communication grids.[12] While foreign aid can help meet short-term budgetary needs, a country cannot rely on aid as a means of long-term development and growth.[13]

Evidence suggests that, on average, aid has no impact on growth; however, it can work as long as the recipient nation implements sound economic policy.[14] "[A]id has a positive impact on growth in developing countries

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[9] MERNA & NJIRU, *supra* note 2, at 3.

[10] DANIELLE LANGTON, CONG. RESEARCH SERV., TRADE CAPACITY BUILDING: FOREIGN ASSISTANCE FOR TRADE AND DEVELOPMENT 1 (2007). This type of aid is called trade capacity building or "aid for trade," which, construed broadly, includes "all types of development assistance that directly affect a country's capacity to participate in trade." *Id*. at 2. The United States administers aid through a variety of agencies such as the U.S. Agency for International Development and the Millennium Challenge Corporation. *Id*. at 1. In 2009, total U.S. aid was $1.8 billion, down from $2.2 billion in 2008. *Trade Capacity Building Database*, U.S. AGENCY FOR INT'L DEV. (2010), http://tcb.eads.usaidallnet.gov. Worldwide aid for trade commitments totaled $25.4 billion in 2007. WORLD TRADE ORG. & ORG. FOR ECON. CO-OPERATION & DEV., AID FOR TRADE AT A GLANCE 2009: MAINTAINING MOMENTUM 51 (2009), *available at* www.wto.org/english/res_e/booksp_e/aid4trade09_e.pdf.

[11] LANGTON, *supra* note 10, at 2. A more cynical view of the donors' motives is the desire to garner favorable treaties and trade relationships with aid recipients in order to increase exports. *See id*. at 28.

[12] *See id*. at 7–8.

[13] There is some disagreement among scholars about the impact of aid on growth; however, many recent economic studies are skeptical of the impact, with some even finding a negative correlation between aid and growth. *See* CHANNING ARNDT ET AL., UNITED NATIONS UNIV. WORLD INST. FOR DEV. ECON. RESEARCH, AID AND GROWTH: HAVE WE COME FULL CIRCLE? 2–7 (2009) (reviewing literature related to aid and growth, with a focus on recent studies); Raghuram G. Rajan & Arvind Subramanian, *Aid and Growth: What Does the Cross-Country Evidence Really Show?*, 90 REV. ECON. & STAT. 643 (2008) (finding that aid had a negative impact on growth).

[14] ARNDT ET AL., *supra* note 13, at 3 (summarizing the findings from the most influential studies from the early-1990s through mid-2000s). Burnside and Dollar found that, on average, aid had no impact on growth. Craig Burnside & David Dollar, *Aid, Policies and Growth*, 90 AM. ECON. REV. 847 (2000). Dalgaard et al. found that aid has been less effective in the tropics in the last 30 years. Carl-Johan Dalgaard et al., *On The Empirics of Foreign Aid and Growth*, 114 ECON. J. 191 (2004). Roodman, while analyzing the relevant studies, determined that aid is probably not a decisive factor in growth. David Roodman, *The*

with good fiscal, monetary, and trade policies but has little effect in the presence of poor policies."[15] Thus, if a country wishes to maximize the benefit of aid, it should pursue economic policies that, in and of themselves, foster growth.

The public sector model has many flaws, particularly in developing countries. By the mid 1980s the pressure on the system began to mount.[16] Many of the same reasons that governments became the primary infrastructure providers—concerns over monopoly power, large investments, and pricing pressures—presented problems for governments. "Public sector monopolies tended to be plagued by inefficiency and failed to expand services to meet rapidly growing demand."[17] They faced budgetary shortfalls due to government pressure to hold prices below cost.[18] In turn, government budgets wrestled with the decision of diverting funds from social programs to fund infrastructure subsidies.[19] Existing infrastructure fell into disrepair due to lack of maintenance, while demand for services continued to grow.[20]

Governments could no longer rely on the traditional model to keep pace with population growth and the demand for modernization; nor could the decaying infrastructure bear the strains placed upon it.[21] Increasingly, governments turned to the private sector for investment and expertise to help solve the problems.[22] "Private participation in infrastructure implies

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Anarchy of Numbers: Aid, Development, and Cross-Country Empirics, 21 WORLD BANK ECON. REV. 255 (2007). Rajan and Subramanian found no systematic effect of aid on growth. Rajan & Subramanian, *supra* note 13.

15 Burnside & Dollar, *supra* note 14, at 847.

16 Lacina, *supra* note 5, at 661; CARLOS CRUZ LORENZEN ET AL., WORLD BANK PROJECT FIN. AND GUARANTEES DEP'T, TOLL ROAD CONCESSIONS: THE CHILEAN EXPERIENCE 1 (2001); Clive Harris, *Private Participation in Infrastructure in Developing Countries: Trends, Impacts, and Policy Lessons* 4 (World Bank, Working Paper No. 5, 2003); MERNA & NJIRU, *supra* note 2, at 1.

17 Harris, *supra* note 16, at 3.

18 *See id.*; Jadresic, *supra* note 3, at 59.

19 LORENZEN ET AL., *supra* note 16, at 1 (discussing the trade-offs between commitments to social programs and infrastructure investment). If the government did not have to finance subsidies it would be possible to shift public expenditures to programs that provide high social returns, such as health care or welfare programs. *Id. See also* Harris, *supra* note 16, at 5.

20 *See* LORENZEN ET AL., *supra* note 16, at 1 (referring to the decaying transportation infrastructure in Chile during the 1980s). "Many governments are facing acute macroeconomic problems and are therefore being forced to tighten their budgets, limiting further investment in development and maintenance of infrastructure facilities." MERNA & NJIRU, *supra* note 2, at 4.

21 Lacina, *supra* note 5, at 661.

22 José A. Gómez-Ibáñez, *Private Infrastructure in Developing Countries: Lessons from Recent Experience* 9 (Comm'n on Growth & Dev., Working Paper No. 43, 2008).

Beginning in the late 1980s many developing countries turned to the private sector more than capital investment; . . . policymakers also rely on the private sector to plan, build, and operate infrastructure, and to manage the commercial risks associated with infrastructure projects."[23] The result was an expanded role for the private sector in infrastructure development. The degree of this role varied from country to country, ranging from the privatization of government monopolies through public auctions to management contracts between governments and private companies.[24] By the 1990s, an exceedingly popular arrangement was a partnership between public and private entities, commonly referred to as a Public–Private Partnership.[25]

B. Public–Private Partnership Model

Public–Private Partnerships represent the middle ground between the traditional model for infrastructure development and outright privatization though sale of government assets to the private sector.[26] "PPPs have been used for economic infrastructure such as roads, railways, water filtration plants and waste water services, electricity supply systems and ports. They have also been used for social infrastructure such as schools, hospitals, housing, and law and order facilities."[27] Generally speaking, PPP is an agreement between the private sector and the public sector where the private partner delivers a service or infrastructure asset that is traditionally

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> to provide basic infrastructure or utility services, such as highways, railways, water, sanitation, electricity, gas, and telecommunications. One hope was that private providers would be much more efficient than the state-owned enterprises that they replaced so that they could offer better service at reasonable tariffs and without the need for large government subsidies. A related goal was that the providers could tap private capital markets to finance badly needed modernizations and expansions of capacity.

Id.

[23] Jadresic, *supra* note 3, at 54.

[24] "[G]overnments in more than 100 countries have undertaken privatization programs since the mid-1980s." Alberto Chong & Florencio Lopez-de-Silanes, *The Truth About Privatization in Latin America*, *in* PRIVATIZATION IN LATIN AMERICA: MYTHS AND REALITY 1, 3 (Alberto Chong & Florencio Lopez-de-Silanes eds., 2005) (citing William L. Megginson & Jeffry M. Netter, *From State to Market: A Survey of Empirical Studies of Privatization*, 39 J. ECON. LITERATURE 321, 321 n.2 (2001)). See Gomez-Ibanez, *supra* note 22, at 10 for a discussion of the range of privatization methods.

[25] *See* Harris, *supra* note 16, at 5. Private sector investment in infrastructure projects grew from $18 billion in 1990 to nearly $130 billion in 1997. *Id.* The exuberance and enthusiasm faded in the first half of the past decade, with annual investment hovering between $50–80 billion from 2000 to 2004. However, investment has increased from $94 billion in 2005 to over $170 billion in 2010. *Private Participation in Infrastructure Database*, WORLD BANK, http://ppi.worldbank.org (last visited Sep. 26, 2011).

[26] *See* E.R. YESCOMBE, PUBLIC–PRIVATE PARTNERSHIPS: PRINCIPLES OF POLICY AND FINANCE 16 (2007).

[27] CHAN ET AL., *supra* note 6, at 144–45.

provided by the government.[28]

While these arrangements can come with a wide range of contractual provisions,[29] there are common threads among them. Regardless of the type of PPP, the agreements are characterized by their relatively long duration,[30] the source of funding,[31] the "strategic role of the private sector"[32] throughout the life of the project, and the significant transfer of risk from the government to the private sector.[33]

Risk in infrastructure projects can be divided into five overlapping categories:

> [C]onstruction risk, which is related to design problems, building cost overruns, and project delays; financial risk, which is related to variability in interest rates, exchange rates, and other factors affecting financing costs; performance risk, which is related to the availability of an asset, and the continuity and quality of service provision; demand risk, which is related to the ongoing need for services; and residual value risk, which is related to the future market price of an asset.[34]

The government will seek to transfer those risks that it believes will be better managed by the private sector.[35] In order to do so, the government must accurately price the risk and compensate the private sector according-

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[28] *See* Nestor M. Davidson, *Values and Value Creation in Public–Private Transactions*, 94 IOWA L. REV. 937, 952 (2009); Lacina, *supra* note 5, at 661–62. *See also* CHAN ET. AL., *supra* note 6, at 144 (outlining various definitions of PPP).

[29] "There are many different [PPP] structures, and the degree to which the private sector assumes responsibility—including financial risk[s]—differs from one application to another." *P3 Defined*, FED. HIGHWAY ADMIN., http://www.fhwa.dot.gov/ipd/p3/defined/index.htm (last visited Oct. 10, 2010). A non-exhaustive list of contract types, viewed from the private sector's perspective, include the following: design, build (DB); design, build, operate (DBO); build, own, operate (BOO); build, own, operate, transfer (BOOT); and lease, own, operate (LOO). CHAN ET AL., *supra* note 6, at 155.

[30] The duration is typically twenty to thirty years. Lacina, *supra* note 5, at 662; CHAN ET AL., *supra* note 6, at 144.

[31] The private sector finances the projects. *See, e.g.*, MERNA & NJIRU, *supra* note 2, at 4. PPPs were developed because cash-strapped governments "realized that only the private sector could provide the funds required to resume investment in expansion of domestic infrastructure." Jadresic, *supra* note 3, at 56.

[32] Christopher Bovis, *The Development of Public–Private Partnerships at European Level*, 2006 EUR. PUB. PRIVATE PARTNERSHIP L. REV. 1 (2006). These agreements "allow the public sector to utilize private sector experts, rather than trying to develop its own expertise in a particular area." Oliver Yandle, *Public Private Partnerships*, in *Financing Sources for Trade & Investment in Latin America*, 13 AM. U. INT'L L. REV. 815, 844 (1998).

[33] Bovis, *supra* note 32, at 1.

[34] FISCAL AFFAIRS DEP'T, INT'L MONETARY FUND, PUBLIC–PRIVATE PARTNERSHIPS 11–12 (2004) [hereinafter FISCAL AFFAIRS].

[35] *Id*. at 23. The private sector most often assumes the construction risk, financial risk, and demand risk. *See* Bovis, *supra* note 32, at 1.

ly—overpricing risk will cause government overpayment, and undervaluing can lead to reduced construction quality or deficient service provided by the private entity.[36]

There are many public benefits to transferring the risk infrastructure development to the private sector. Most importantly, the public gains an infrastructure asset, which can lead to growth and prosperity without taking on debt.[37] Governments can free up capital to pursue projects that have high social benefits but are otherwise unprofitable and therefore unattractive to the private sector.[38] Transferring risk also allows governments to tap private expertise and can lead to efficiency gains.[39] The private sector is incentivized to reduce costs and increase efficiencies in order to maximize profits.[40] On the whole, the cost over the life of the infrastructure asset can be cheaper than the traditional procurement model because the design, building, management, and maintenance are often bundled.[41]

The private sector benefits from PPP because it gains access to developing markets.[42] In addition, private partners are compensated for assum-

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[36] FISCAL AFFAIRS, *supra* note 34, at 14.

[37] *See, e.g.*, Mark D. Johnson, *Public–Private Partnerships in Latin America*, in *Financing Sources for Trade & Investment in Latin America*, 13 AM. U. INT'L L. REV. 846, 854 (1998). In the long run, the government can provide better service and expanded access because it can utilize more advanced infrastructure. *Id.*

[38] LORENZEN ET AL., *supra* note 16, at 1.

[39] Contractual provisions must clearly dictate baseline quality and availability of service requirements, otherwise the private sector may be incentivized to skimp on service or reduce access to the infrastructure. "The private sector can use its better management skills and capacity for innovation to more actively pursue opportunities to reduce costs, but service quality may be compromised in the process. However, private provision may be workable if the government can write a fully specified, enforceable contract with the private sector." FISCAL AFFAIRS, *supra* note 34, at 11.

[40] Contracts should also specify pricing caps to prevent the private sector from exploiting monopoly market power to garner excessive profits. *See* Yandle, *supra* note 32, at 845; *see also* Dieter J. Angerer & Gerhard Hammerschmid, *Public Private Partnership Between Euphoria and Disillusionment: Recent Experiences from Austria and Implications for Countries in Transformation*, 5 ROMANIAN J. POL. SCI. 129, 134 (2005). "However, the challenge is to design well-functioning regulation which increases output (towards the social optimum), holds down prices, and limits monopoly profit while preserving the incentive for private firms to be more efficient and reduce costs." FISCAL AFFAIRS, *supra* note 34, at 14. Alternatively, in monopolistic markets the agreement may also call for the private partner to share excessive profits with the government. *Id.*

[41] "This provides opportunities to align incentives for low cost construction with minimising life-time costs of operation, thereby reducing whole-of-life costs." CHAN ET AL., *supra* note 6, at 173. "Design, build, finance, and operate" (DBFO) road projects had an average savings of 15% compared to traditional procurement. *DBFO—Value in Roads. A Case Study on the First Eight DBFO Road Contracts and Their Development*, HIGHWAYS AGENCY, http://www.highways.gov.uk/roads/2988.aspx (last visited Dec. 23, 2011).

[42] *See* Yandle, *supra* note 32, at 844. "For example, fiber optic companies that provide the conduit for telecommunications services are in a very good position to take advantage of the liberalization of the telecommunications market in Latin America." *Id.*

ing the government's risk in the form of profits.[43] When it comes to financing, the private sector is generally at a disadvantage compared to the government.[44] The cost of borrowing is higher because of the greater risk of default.[45] However, "the private sector can spread risk across financial markets, which may not put it at a significant disadvantage, and private sector risk managers may be more skilled than those in government. The outcome is likely to be that project risk is lower in the private sector."[46]

Common problems with PPPs include the inability to accurately project the market for service delivery[47] and the failure of the private sector to meet supply demands in areas where delivery is not cost-effective.[48] However, PPP agreements often offer the private entity minimum guarantees to shift some of the demand risk back to the public sector.[49] In addition, the government can subsidize service delivery to remote areas that would otherwise be neglected under pure profit motives.[50] To avoid these problems altogether, PPPs are best suited to sectors and services that are open to competitive market pricing, using agreements with clearly articulated quality of service requirements.[51]

II. PPP IN PRACTICE: TOLL ROADS

A. PPP Example

Given the topic of this paper, it is important to detail a PPP model used in Chile: the toll road concession.[52] The typical toll road concession is a

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[43] Angerer & Hammerschmid, *supra* note 40**,** at 134.

[44] Governments generally have the ability to borrow at lower rates because the risk of default is low thanks to the ability to raise revenues through taxes. FISCAL AFFAIRS, *supra n*ote 34, at 12.

[45]

> The government's ability to forcibly spread risk across taxpayers, while financial markets have to be provided with an incentive to accept risk, may put the private sector at more of a disadvantage as far as large and very risky projects are concerned. The scope for the private sector to spread risk will also be somewhat limited in countries with less developed financial markets.

Id.

[46] *Id*. The key issue is whether the increased financing costs are offset by the private sector efficiency gains. *Id*. Depending on the credit risk of the government, financing may actually be cheaper for the private sector borrower. *Id*.

[47] Yandle, *supra* note 32, at 845. This can have an adverse impact on the revenue projections by the private partner and lead to insolvency. *Id.*

[48] Jadresic, *supra* note 3, at 60.

[49] Angerer & Hammerschmid, *supra* note 40, at 134.

[50] *See* Jadresic, *supra* note 3, at 60.

[51] *See* FISCAL AFFAIRS, *supra* note 34, at 11.

[52] Chile built over 2,000 kilometers of roads through PPPs in the 1990s alone, for a total

build, operate, and transfer (BOT) arrangement.[53] In this arrangement, the government decides that a stretch of transportation infrastructure should be built over a prescribed route. It then solicits bids from the private sector for the rights to the project. The winning bidder provides the financing for the project[54] and then builds, operates, and maintains the asset for a specified amount of time. The private partner collects toll revenue from third parties in order to recoup its expenses and earn a profit.[55] Often "[t]he contract is . . . subject to performance indicators and quality standards, with penalties imposed for any failure to maintain service standards on a continuing basis."[56] When the concession period expires or a specific monetary figure is met, the ownership of the asset is transferred back to the public sector.[57] The government can then manage and operate the asset itself, or enter into a new agreement, either with the same or different private entity.[58]

B. Chile's Experience

Chile's experience with infrastructure development has been similar to the experiences of many other developing countries around the world. The Chilean government was the sole provider of infrastructure through the 1970s and was confronted with enormous infrastructure deficits that could not be sustained.[59] Beginning in the 1980s, Chile began the process of privatization, selling many of the state-run infrastructure companies to private buyers.[60] Despite these measures, the country still struggled to keep pace with the growing burdens placed on its infrastructure.[61] By 1990, the Chil-

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investment of $3.3 billion. LORENZEN ET AL., *supra* note 16, at 3.

[53] *See* CHAN ET AL., *supra* note 6, at 144; *see also* FOREIGN INV. COMM., *supra* note 1, at 40–41.

[54] There are many sources of construction financing, but the most common source for toll road concessionaires is to utilize projected income from toll revenues as collateral for private loans. FISCAL AFFAIRS, *supra* note 34, at 9.

[55] *See* Reto Thoenen, *Private Sector Participation in the Provision of Basic Infrastructure* 7 (African Trade Policy Ctr., Working Paper No. 66, 2007).

[56] CHAN ET AL., *supra* note 6, at 144.

[57] *Id.*

[58] *See* J. Luis Guasch et al., *Concessions of Infrastructure in Latin America: Government-led Renegotiation* 2 (World Bank Policy Research, Working Paper No. WPS 3749, 2006). "A concession provides its holder the right to operate a service for a limited period of time (usually 20 to 30 years), at the end of which all the assets revert back to the government." *Id.* at 6.

[59] Jadresic, *supra* note 3, at 55.

[60] *Id.* These included the gas distribution company, an airline, the telephone company, and various public utilities.

[61] *See* FOREIGN INV. COMM., *supra* note 1, at 40. "During the 1980s, underspending for design, construction, and maintenance left Chile's heavily traveled highways in need of major improvements." LORENZEN ET AL., *supra* note 16, at 1. "It has been estimated that during the 1980s only 30 percent of road investment needs were met. Road traffic has increased almost fourfold in the past twenty-five years, while the road network has remained nearly

ean government was still facing deteriorating infrastructure and decided to pursue other sources of financing.[62] The government's solution was to create a PPP concession program to rebuild and improve the nation's highways.[63]

The decision to create PPP concessions was met with widespread support. In fact:

> The decided political will to create a model of Public–Private partnerships . . . was crucial for the system's launch and it was supported by all the country's political sectors. This permitted the rapid development of a model to reduce the country's infrastructure deficit and satisfy the needs of its economic growth.[64]

The first concessions law was approved in 1991, establishing the framework for private sector participation.[65] The entire concessions system is overseen by the Ministry of Public Works, which offers the projects, controls the bidding process, and supervises the construction and operation of the projects.[66] The first concessions were awarded in 1993,[67] and the first PPP infrastructure project was completed in 1995.[68]

Between 1995 and 2008, fifty-five concession contracts were awarded, representing a total investment in infrastructure of close to $11.5 billion.[69] Over that period, 120 private companies have participated in projects ranging from $8 million to $850 million in value.[70] While the concessions system's initial focus was on improving transportation infrastructure, it has reached far beyond that. Between 2003 and 2010, the Chilean government's focus shifted beyond transportation concessions.[71] Chile has used

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unchanged." Jadresic, *supra* note 3, at 65.

[62] The Ministry of Public Works estimated the infrastructure deficit was $12.5 billion in 1990. FOREIGN INV. COMM., *supra* note 1, at 40.

[63] Jadresic, *supra* note 3, at 66.

[64] FOREIGN INV. COMM., *supra* note 1, at 40.

[65] Jadresic, *supra* note 3, at 66. The law set the maximum contract length at fifty years and provided government guarantees for minimum income from toll revenues. *Id.* at 66–67.

[66] *See id.* at 67. The Ministry must also determine when penalties should be imposed on the concessionaire for failure to comply with contractual agreements and service provisions. LORENZEN ET AL., *supra* note 16, at 5.

[67] *See* Jadresic, *supra* note 3, at 67.

[68] FOREIGN INV. COMM., *supra* note 1, at 40. The El Melón Tunnel is north of Santiago along Route 5, the country's main freeway. Jadresic, *supra* note 3, at 67.

[69] FOREIGN INV. COMM., *supra* note 1, at 6.

[70] *Id*. at 8.

[71] *See id.* at 14–15. There have been three distinct phases of PPP concessions: from 1991 to 1994, Chile expanded its freeway network; from 1995 to 2002, the focus was on urban highways and airports; and finally, from 2003 to 2010, Chile built social infrastructure such as hospitals, prisons, and public buildings. *Id.*

concessions to build airports, seaports, roads, and prisons.[72]

Looking forward, Chile will continue to focus on improving and maintaining transportation infrastructure, including the renovation of 400 bridges and expanding the electronic tolling capabilities throughout the transportation network.[73] However, Chile will also continue to support its other diverse infrastructure needs through concessions, including expanded maritime access to Chile's remote southern islands.[74] The Ministry of Public Works is dedicated to streamlining and consolidating the concessions process for hospitals and prisons, as well as improving safety standards for existing concessions.[75]

III. CHILE'S REGULATORY FRAMEWORK

Much of Chile's success with PPP is due to a strong regulatory framework.[76] The existing regulatory framework can be divided into two categories: laws directly concerning concessions and general laws concerning investors and investments.

A. Concessions Law

A strong concessions law should touch on many key areas in order to foster investor confidence and encourage investment. The law should address all phases of a PPP project, from the proposal to the eventual transfer of the completed asset at the end of the concessions agreement.[77] A successful concessions law creates an "enabling environment for PPPs and it also serves as a possible marketing tool for investors."[78]

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[72] *See id.* at 8.

[73] Close to $1.4 billion of the $1.58 billion in projects slated for bidding in 2011 are transportation-related. The key project is an estimated $1.1 billion roadway called AmericoVespucioOriente. MINISTRY OF PUBLIC WORKS, GOVERNMENT OF CHILE, PRIMER PROGRAMA DE CONCESIONES 2010–2014 9 (2010). In 2012, anticipated projects include another $200 million for roads. *Id.* at 10. Finally, in 2013, the Chilean government anticipates another $1.3 billion for roads. *Id.* at 11.

[74] The other $180 million in bidding for 2011 will be allocated to a prison and a marina. *Id.* For 2012, close to $500 million will be allocated to the construction of airports, and another $44 million for a prison. *Id.* at 10.

[75] FOREIGN INV. COMM., *supra* note 1, at 15.

[76] A stable legal system ensures that investors will have recourse in court should a deal go wrong, protects and enforces contractual agreements, and provides certainty for financial markets. All of these factors contribute to lower risk for investments and reduce borrowing costs.

[77] The law should also address the remaining phases of PPP, such as bidding, construction, maintenance, and operation. *See* CESAR QUEIROZ, WORLD BANK, LAUNCHING PUBLIC PRIVATE PARTNERSHIPS FOR HIGHWAYS IN TRANSITION ECONOMIES 3 (2005), *available at* http://web.worldbank.org/WBSITE/EXTERNAL/TOPICS/EXTTRANSPORT/0,,contentMDK:20930097~pagePK:210058~piPK:210062~theSitePK:337116,00.html.

[78] *Id.*

The first, and most important, Chilean concessions law was passed in 1991 (1991 Law).[79] It set the "general standards for the execution, operation, and maintenance of public works, as well as for bids for public works contracts."[80] The 1991 Law worked with the enabling power granted by Supreme Decree 294 of 1984 by the Minister of Public Works, which amended Article 52 of Law 15840 of 1964.[81] This amendment gave the Minister of Public Works the legal authority to enter into contracts related to public works.[82] In conjunction with the 1991 Law, the Minister of Public Works had the power to grant concessions for public works.

The 1991 Law not only empowered the Minister of Public Works, it also prescribed terms pertaining to concessions contracts. The legislation created a system of competitive bidding based on flexible arrangements for awarding concessions, establishing mutual rights and obligations, and setting up conflict resolution procedures. "It also provided for the use of incentives—including subsidies and government guarantees—to promote private investments."[83]

The 1991 Law has been amended twice since its enactment, once in 1993 and again in 1996.[84] The 1996 amendment allowed other public agencies to delegate the concessions process to the Minister of Public Works and broadened the authority of the Ministry to offer concessions on all types of public works.[85] The amendment also "allowed more flexibility in contractual arrangements and created a special lien that enables public works to be used as security in the financing of concessions."[86]

Under this framework, concessions for public works can originate through private proposals or directly from recommendation of the Ministry

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[79] Jadresic, *supra* note 3, at 66. Law No. 19068, Julio 3, 1991, DIARIO OFICIAL [D.O.], *available at* http://www.leychile.cl/Navegar/?idNorma=30435&idVersion=1991-07-13&idParte.

[80] LORENZEN ET AL., *supra* note 16, at 22.

[81] *Id.*

[82] *Id.*

[83] *Id.* at 4. In addition, the 1991 Law established a maximum contract length of 50 years. *Id.* at 22.

[84] Law no. 19252, Oct. 11, 1993, DIARIO OFICIAL [D.O.], *available at* http://www.leychile.cl/N?i=30619&f=1993-10-20&p=; Law No. 19460, Jun. 27, 1996, DIARIO OFICIAL [D.O.], *available at* http://www.leychile.cl/N?i=30827&f=1996-09-30&p=.

[85] FOREIGN INV. COMM., *supra* note 1, at 52.

[86] LORENZEN ET AL., *supra* note 16, at 4.

> The pledge can be structured as a lien on the concession rights granted under the contract, on payments from the state to which the concessionaire is entitled under the contract, and on all direct revenues the concessionaire receives. The concessionaire may also pledge shares of the company formed to build and operate the concession.

Id. at 6. The changes help remove uncertainty for lenders, make lending less risky, and lower corresponding interest rates on loans. *Id.* at 6.

of Public Works.[87] Once a proposal is accepted it enters a transparent, open bidding stage.[88] There is no bilateral negotiation allowed, though if a project is accepted from a private proposal, the company that proposed it receives a marginal advantage during the bidding stage.[89] The company "may also receive a full or partial refund of the development costs associated with the project."[90]

Once a concession is granted, the regulations stipulate that the concessionaire inherits all risk associated with the project.[91] The Ministry can change the terms of the contract if the change is in the best interests of the public, and the concessionaire is obligated to comply.[92] The private partner is compensated for such changes through the structure of the concession.[93] The regulations also provide for the creation of a conciliation commission in the event of a disagreement among the parties.[94]

Once the asset has been built, the concessionaire has a fair amount of flexibility to adjust rates during the management and operation phases.[95] Contractual rates are typically adjusted on an annual basis to account for inflation.[96] The laws also specify that the contract can be terminated at any time upon the mutual agreement of the parties,[97] or be unilaterally terminated by the Ministry of Public Works should the private partner seriously

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[87] *Id.* at 12.

[88] *Id.*

[89] Jadresic, *supra* note 3, at 67. ("If a project is accepted, the company that proposed it receives a bonus in its bid").

[90] *Id.*

[91] LORENZEN ET AL., *supra* note 16, at 6. The concessionaire bears the risk above the minimum revenue guarantees granted by the contract, including construction budget overruns or *force majeure*. Minimum revenue guarantees normally cover expected maintenance costs and up to 70% of operating and capital costs. Any profits exceeding 15% are usually shared with the government. *Id*. *See also* Jadresic, *supra* note 3, at 66. In the case of *force majeure*, the project may be suspended or cancelled through mutual agreement between the government and the private party.

[92] LORENZEN ET AL., *supra* note 16, at 5. The changes usually come in the form of additional construction costs. *Id.*

[93] *Id*. The concessionaire is compensated through "changes in the rate structure, the concession period, the amount of state subsidies, or other mechanisms. Bidding documents usually specify the maximum additional investment that the concessionaire may be required to make under a unilateral modification for reasons of public interest," normally not exceeding 15% of the initial project amount. *Id.*

[94] *Id.* at 5–6. This commission arbitrates disputes and gives the concessionaire recourse in the event relief is sought during the concession period. *Id*. Each party assigns one member to the committee, with the third member—a mutually agreed upon party—presiding as president. Concessionaires can also take the dispute to a court of appeals. *Id.* at 5.

[95] *See id.* at 6. Rates can be adjusted along the contractually specified range. *Id.*

[96] *See id.*

[97] *See id.* The secured lenders are also involved in these discussions and will be the first ones paid should a contract be willingly terminated. *Id.*

breach its contractual obligations.[98]

B. Impact of 2010 Amendments to Concessions Law

New amendments to the Chilean concessions law were first proposed in 2007.[99] A consensus was reached in late 2009 and the amendments were officially enacted on January 20th, 2010 (2010 Law).[100] The new 2010 Law made three significant changes aimed at increasing guarantees to both the government and private sector.[101]

The first alteration helped address issues with conciliation and arbitration of disputes.[102] The amendments created an independent, specialized technical panel in charge of investigating and referring disputes to arbitration or court for resolution.[103] The second change aimed to better regulate contract changes by requiring added clarity and transparency during the bidding phase.[104] This limits the profits that concessionaires can reap from government changes to service level requirements.[105] The final change looked to improve toll collection processes to reduce toll debt levels.[106]

Overall, these changes reflect the ability of the Chilean concessions law to adapt to changes in the market. The flexibility of the regulatory framework allows the Ministry of Public Works to react to the needs of the concessions system, while providing a stable environment to foster investment. Whatever changes are made, key elements must remain in order to demonstrate the transparency and fairness of the concessions process.[107]

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[98] *See id.* This ensures that minimum service guarantees are met. The law proscribes rigid procedures for termination due to a serious breach.

[99] Eva Medalla, *New Concessions Law Could be Signed by Year-End, Says MOP Official*, BUS. NEWS AMERICAS (Nov. 2, 2009, 2:27 PM), http://www.bnamericas.com/news/infrastructure/New_concessions_law_could_be_signed_by_yearend,_says_MOP_official1.

[100] *Id.*; MINISTRY OF PUBLIC WORKS, GOV'T OF CHILE, LEY Y REGLAMENTO DE CONCESIONES DE OBRAS PUBLICAS 2010, (2010), *available at* http://www.concesiones.cl/acercadelacoordinacion/funcionamientodelsistema/Documents/Nueva%20Ley%20y%20Reglamento%202010.pdf.

[101] *See* FOREIGN INV. COMM., *supra* note 1, at 52.

[102] *Id.* A common complaint about the Conciliations Commission was that it served to operate solely as an arbiter because the commissioners were not independent and disinterested. *See supra* note 94.

[103] Alexander Galetovic, *Cambios a la Ley de Concesiones*, CENTRO DE ESTUDIOSPÚBLICOS (Aug. 5, 2007), http://www.cepchile.cl/dms/lang_1/doc_3965.html. Under the old system, the Conciliation Commission would generally seek to find a middle ground during a dispute, which presented the concessionaire with a zero risk method of garnering a more advantageous contract. The new panel prevents abuse of the system.

[104] *Id.*; FOREIGN INV. COMM., *supra* note 1, at 52.

[105] "The ministry will compensate the concessionaire for any additional costs," but will not grant additional profits. Medalla, *supra* note 99.

[106] *Id.*

[107] *See* Lacina, *supra* note 5, at 666 (citing QUIROZ, *supra* note 77, at 4). Well-drafted

Chile's concessions law requires public disclosure of bids and contracts, an open and competitive bidding system,[108] provisions covering government-prompted contract changes and cost overruns, and ample access to conciliation and arbitration.[109]

C. Investor and Investment Laws

A country can have a perfectly designed concessions framework and still fail to attract investment if investors are not protected by law. Laws governing investments and investors work in concert with concessions laws to ensure money flows into infrastructure projects. Investors need assurances that their investments are secure and must have legal recourse in the event a deal goes wrong. Chile affords strong legal protection to both foreign investors and nationals alike.

The principles of Chile's foreign investment regulation are contained in Chile's Political Constitution.[110] Foreign investors wishing to invest in Chile can do so through two main avenues: under the general rules for foreign exchange found in Chapter XIV of the Central Bank's Compendium of Foreign Exchange Regulations (CFER),[111] or through the Foreign Investment Statue Decree Law No. 600 (DL 600).[112] Of the two options, most large foreign investors choose to invest under DL 600, [113] so this discussion will focus primarily on it. Between 1990 and 2004, more than 81% of all foreign direct investment entered Chile through DL 600.[114]

Chile's foreign investor protection laws date back to 1974.[115] The National Congress of Chile promulgated DL 600 to govern the influx of for-

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concessions laws contain the following provisions: public disclosure of agreements; an open and competitive bidding process; assurances the private entity will be repaid for contract changes or government appropriation; and a provision for arbitration of disputes. *Id*.

108 *See infra* Part IV.

109 See *infra* notes 120–123 for international arbitration bodies that are accessible to foreign investors.

110 FOREIGN INV. COMM., *supra* note 1, at 24. The bedrock principles are non-discrimination, non-discretionary treatment, and economic freedom. These principles ensure that foreign investors have a stable legal foundation supporting their investments.

111 "Chapter XIV establishes regulations that govern foreign exchange operations related to credits, deposits, investments, and capital contributions originating abroad. Investments made under Chapter XIV do not involve signing a contract with the Chilean state. Instead, the Central Bank grants authorization for a given investment." U.S. DEP'T OF COMMERCE, DOING BUSINESS IN CHILE: 2010 COUNTRY COMMERCIAL GUIDE FOR U.S. COMPANIES 62–63, (2010), *available at* http://www.buyusainfo.net/docs/x_5054965.pdf.

112 *Id.* at 63.

113 *FDI in Chile: Investment Mechanisms*, FOREIGN INV. COMMITTEE, http://www.foreigninvestment.cl/index.php?option=com_content&view=article&id=135&Itemid=100 (last visited Dec. 23, 2011).

114 Roberto Guerrero V., *Chile and Foreign Investment: An Example in the Latin American Context* 2 (2008), .

115 *Id.* at 25. The National Congress of Chile restated and ratified the Law in 1993.

eign capital.[116] The law's guiding principle is that foreign investors should receive the same legal treatment as nationals.[117] Title 2, Article 9 of the Foreign Investment Statute establishes that foreign investment and the enterprises participating in it shall also be subject to the regular legal regime that applies to national investment, and may not be discriminated against either directly or indirectly.[118]

Equal treatment and non-discrimination provide certainty for investors and encourage capital inflows. Under the Foreign Investment Statute, investors have the right to enter into investment contracts with the Chilean government,[119] to freely invest in all sectors of the economy,[120] and to appeal any judicial rulings that may be discriminatory.[121]

"Capital inflows with foreign-exchange guarantees under the formal investment regime of DL 600 are required to stay for at least 12 months"[122] and require a minimum investment of $5 million. Profits can be freely repatriated so long as remittance information is given to the central bank and proper procedures are followed.[123] The regulatory framework generally

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[116] *See id.*; Foreign Investment Statute Decree Law No. 600 of 1974 tit. 1, art. 1 (ratified 1993). "The regulations of this Statute shall apply . . . to foreign individuals and [corporations] and to Chilean individuals resident and domiciled abroad that transfer foreign capital into Chile and enter into a foreign investment contract." *Id.*

[117] FOREIGN INV. COMM., *supra* note 1, at 24. Foreign investors should be treated the same as local investors, no better, no worse.

[118] Wenhua Shan, *Is Calvo Dead?*, 55 AM. J. COMP. L. 123, 149 (2007) (highlighting the Chilean legislation that has led to the decline of the Calvo Doctrine). The Calvo Doctrine is a movement that seeks to provide equal legal treatment for national investors compared to foreign investors. It is a

> rejection of superiority or imperial prerogatives of powerful states and their nationals. In other words, the Calvo Doctrine is essentially 'anti-super-state' or 'anti-super-national-treatment,' focusing on the opposition and rejection of any discriminatory treatment by western powers against weak, developing host states and their nationals, as compared to the treatment those western power accord each other and demand for their citizens in these host states.

Id. at 124.

[119] FOREIGN INV. COMM., *supra* note 1, at 26. This establishes the rights and obligations for both parties and cannot be unilaterally rescinded by either party.

[120] *Id.* at 27. The constitution guarantees the right to make any investment provided it is not "contrary to morality, public order or national security." *Id.* at 24.

[121] Foreign Investment Statute Decree Law No. 600 of 1974 tit. 2, art. 10 (ratified 1993). Appeals are heard by the Foreign Investment Committee, which was created under Title 3 of the Statute. The Committee has the authority to reverse discriminatory rulings.

[122] ViewsWire, *Chile: Forex Regulations*, ECONOMIST INTELLIGENCE UNIT (Feb. 15, 2011), http://www.eiu.com/index.asp?layout=VWPrintVW3&article_id=1517809936&printer=printer. There is no minimum-stay requirement under Chapter XIV, but investors cannot avail themselves of the benefits of DL 600, such as fixed exchange rates. *Id.*

[123] *Id.* The procedure under DL 600 is as follows:

> First, the remitter needs authorisation from the Foreign Investment Committee to remit a specific amount. Second, this certificate is presented to the [Central Bank].

seeks to level the playing field and treat all investments alike, regardless of the source. However, there are some differences.

The Chilean tax regime is structured to discourage foreign investment capital from leaving the country. Title 2, Article 8 subjects foreign investors to the Chilean tax regime.[124] This imposes a 17% corporate income tax on foreign investors.[125] In addition, foreign investors are also subject to an additional tax on remittance of income.[126] There are two regimes to choose from: the standard regime[127] and the special regime.[128] Both regimes function to encourage capital to remain in Chile rather than returning to the country of origin because they impose an additional tax on repatriated capital.

Bilateral tax treaties help reduce some of the financial disincentives for foreign investors by eliminating double taxation.[129] Repatriated profits from investments are still subject to the Chilean tax rates under the standard regime or special regime; however, the capital will not be taxed upon reentry to the investor's home country.[130]

> Third, the remitter must deposit the amount in local currency corresponding to the sum to be transferred. The transfer of foreign currency abroad is normally implemented within ten days, during which time the central bank issues a certificate acknowledging transfer.

Id.

Chapter XIV allows for the annual remittance of profits and dividends, or on a quarterly basis if the business files audited financials with the Central Bank. *Id*.

[124] Foreign Investment Statute Decree Law No. 600 of 1974 tit. 2, art. 8 (ratified 1993).

[125] Both foreign and local investors are taxed the same on income derived from investment activities in Chile. Local investors are also subject to a general tax on income regardless of where it is generated. FOREIGN INV. COMM., *supra* note 1, at 27. Following the devastating earthquake that struck Chile in 2010, the government levied an additional corporate tax to help pay for rebuilding efforts. ViewsWire, *Chile: Tax Regulations*, ECONOMIST INTELLIGENCE UNIT (Feb. 15, 2011), http://www.eiu.com/index.asp?layout=VWPrintVW3&article_id=1527809937&printer=printer&rf=0. "The rate will rise to 20% for income accrued in 2011, then fall to 18.5% for 2012, and then back to 17% for 2013." *Id*.

[126] FOREIGN INV. COMM., *supra* note 1, at 27.

[127] This imposes a variable tax rate on profit remittance that was 35% in 2009. The 17% corporate tax is included in the computation, so the total tax burden does not exceed 35%. *Id*.

[128] This regime allows the foreign investor to choose a fixed rate tax of 42% on profit remittance for 10 years. The investor can opt out of the regime in favor of the standard regime at any time, but may not return to the fixed rate regime. *Id*. Investments over $50 million allow for 15 years of fixed rate tax, or 20 years if the investment is related to mining. ViewsWire, *supra* note 125.

[129] *See* ViewsWire, *supra* note 125. At the end of 2010, Chile had 24 bilateral tax treaties in force. *Id*. The U.S. and Chile signed a treaty on February 4, 2010 that has yet to be ratified by the U.S. Senate. *Id*.

[130] The funds will be taxed to the extent that the tax rates in the investor's home country exceed the Chilean rate. Therefore, if an investor's country taxes dividends at 40%, and the investor is subject to the 35% Chilean tax rate, the repatriated funds will be taxed an addi-

D. Free Trade Agreements and Arbitration of Investment Disputes

Chile is a party to twenty trade agreements with fifty-six different countries.[131] These broad agreements can cover everything from eliminating import tariffs on pork shoulders[132] to outlining the criteria for investment in telecommunications.[133] A closer examination of the U.S.–Chile Free Trade Agreement, which was signed in 2004, provides insight into how these types of trade agreements fit into the regulatory framework to promote foreign direct investment in Chile.[134]

The U.S.–Chile Free Trade Agreement is a comprehensive trade agreement modeled after the North American Free Trade Agreement (NAFTA).[135] It aims to promote investment and trade between the two countries by eliminating trade barriers and providing protection to investors.[136] Upon its ratification, it immediately eliminated tariffs on 90% of

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tional 5% upon reentry.

[131] *Why Chile?—Internationally Integrated*, FOREIGN INV. COMMITTEE, *available at* http://www.foreigninvestment.cl/index.php?option=
com_content&view=article&id=171&Itemid=80 [hereinafter *Why Chile?]*. These agreements range from bilateral investment treaties (BIT) to free trade agreements (FTA). A BIT is an:

> [A]greement between two countries that governs the treatment of investments made in their respective territories by individuals and corporations from the other country. The BIT serves to attract foreign investment by granting broad investment rights to investors and creating flexibility in the resolution of investment disputes. This flexibility typically includes allowing for any investment dispute to be resolved by international arbitration,

rather than seeking a remedy in the courts of the country where the dispute arose. Jarrod Wong, *Umbrella Clauses in Bilateral Investment Treaties: Of Breaches of Contract, Treaty Violations, and the Divide Between Developing and Developed Countries In Foreign Investment Disputes*, 14 GEO. MASON L. REV. 135, 139 (2006).

[132] *See Fact Sheet: U.S.–Chile Free Trade Agreement*, FOREIGN AGRICULTURE SERVICE, (Sep. 2009), http://www.fas.usda.gov/info/factsheets/ChileFTA/ChileDetailed09.pdf [hereinafter *Fact Sheet*].

[133] *See* U.S.–Chile Free Trade Agreement, art. 13, U.S.–Chile, June 6, 2003, Pub. L. 108-77 (2004).

[134] *Why Chile?*, *supra* note 131. Chile also has free trade agreements with Australia, Canada, Central America, China, Colombia, EFTA (Norway, Switzerland, Iceland, and Liechtenstein), Mexico, Panama, Peru, and South Korea. *Id.*

[135] "The FTA employs product-specific rules of origin similar to those contained in the NAFTA." *Fact Sheet*, *supra* note 132. In fact, Chile initially discussed joining NAFTA, but the move failed during the Clinton administration. *NAFTA Timeline: Chile and NAFTA*, N. AM. FORUM ON INTEGRATION, http://www.fina-nafi.org/eng/integ /chronologie.asp?langue =eng&menu=integ (last visited Sep. 13, 2011).

[136] "The [agreement] eliminates tariffs and opens markets, reduces barriers for trade in services, provides protection for intellectual property, ensures regulatory transparency, guarantees nondiscrimination in the trade of digital products, commits the Parties to maintain competition laws that prohibit anticompetitive business conduct, and requires effective labor and environmental enforcement." *Chile Free Trade Agreement*, OFF. U.S. TRADE

U.S. exports to Chile and 95% of Chilean exports to the U.S.[137]

The Agreement also contains extensive rules governing the treatment of investors and the procedures for settlement of investment disputes. Investors and investments are provided national treatment under Article 10.2 and most-favored nation treatment under Article 10.3.[138] This ensures that investors will be duly compensated should their investments be expropriated.

Should a dispute arise between an investor and a state, the Agreement prescribes the process for resolving the issue.[139] First, the parties must commit to negotiating before any further steps can be pursued.[140] If the parties fail to resolve the issue through negotiation, they must submit to binding arbitration under International Centre for the Settlement of Investment Disputes (ICSID).[141] Foreign investors are allowed to "lodge a claim directly before an international arbitral tribunal. As a consequence, the foreign investor does not need to wait for the exercise of the right of diplomatic protection by his state of nationality."[142]

Chile has signed a variety of conventions related to arbitration of international investments. "Chile is an ICSID[143] signatory, as well as a signa-

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REPRESENTATIVE, http://www.ustr.gov/trade-agreements/free-trade-agreements/chile-fta (last visited Sep. 13, 2011).

[137] *The U.S.–Chile Free Trade Agreement: An Early Record of Success*, OFF. U.S. TRADE REPRESENTATIVE, http://www.ustr.gov/about-us/press-office/fact-sheets/archives/2004/june/-us-chile-free-trade-agreement-early-record-suc (last visited Sep. 13, 2011).

[138] U.S.–Chile Free Trade Agreement, *supra* note 133, art. 10.2–3. Most-favored-nation treatment "clauses link investment agreements by ensuring that the parties to one treaty provide treatment no less favourable than the treatment they provide under other treaties in areas covered by the clause." Directorate for Fin & Enter. Affairs, *Most-Favoured-Nation Treatment in International Investment Law*, 2 (OECD Working Papers on International Investment, No. 2004/2, 2004). Thus any investment treaty with an MFN clause will automatically gain the protections of the most favorable treaty governing investments with another State. *Id.*

[139] Articles 10.14–.26 cover the dispute resolution process between investor and state. *See* U.S.–Chile Free Trade Agreement, *supra* note 133, art. 10.14–.26.

[140] *Id.* art. 10.14.

[141] *Id.* art. 10.15–16.

[142] Guerrero, supra note 114, at 2.

[143] The International Centre for the Settlement of Investment Disputes (ICSID) "provides facilities for the conciliation and arbitration of disputes between member countries and investors who qualify as nationals of other member countries. Recourse to ICSID conciliation and arbitration is entirely voluntary. However, once the parties have consented to arbitration under the ICSID Convention, neither can unilaterally withdraw its consent." NORTON ROSE GRP., GLOBAL ARBITRATION MANUALS: REFERENCE (2011), http://www.nortonrose.com/files/arbitration-reference-26054.pdf. Decisions under the ICSID are final—"[t]here is no appeal. Awards are final and binding; a contracting state must enforce the pecuniary obligations imposed by an award within its territory as if it were a final judgment of a court in that state. Awards are enforceable immediately." *Id.*

tory to the MIGA Convention,[144] the New York Convention,[145] and the Panama Convention[146]."[147] These conventions provide additional assurances to investors and have also shaped the way Chile structured its arbitration framework under concessions laws.[148]

IV. EVOLUTION OF CONCESSION BIDDING IN CHILE

Chile's preferred method of PPP investment involves granting concessions for infrastructure projects under a competitive bidding process. While the system has remained in place since the first concessions were granted in 1993, the criteria for evaluating bids have undergone a large transformation. Chile has shifted from awarding the concession to the bidder who offers the lowest toll price, to awarding the concession to the bidder who offers the lowest overall cost (expressed in terms of revenue).

A. Traditional Concession Bidding

The traditional bidding process was conducted in two stages. First, the Ministry of Public Works considered the technical aspects of the bid, including the engineering and operational designs.[149] Firms that did not meet technical requirements were dropped from contention at this stage.[150] Se-

[144] The Multilateral Investment Guarantee Agency (MIGA) "insures cross-border investments made by investors in a MIGA member country into a developing member country." *Investment Guarantees*, MULTILATERAL INVESTMENT GUARANTEE AGENCY, http://www.miga.org/guarantees/index_sv.cfm?stid=1548 (last visited Dec. 23, 2011). MIGA insures investments from the risk that governments repudiate contracts, expropriate assets, or restrict currency conversions without providing legal recourse to the investor. *See* Ibrahim F. I. Shihata, *The Settlement of Disputes Regarding Foreign Investment: The Role of the World Bank, with Particular Reference to ICSID and MIGA*, 1 AM. U. J. INT'L L. & POL'Y 97, 109 (1986).

[145] This is also referred to as the New York Arbitration Convention. "The two basic actions contemplated by the New York Convention are the recognition and enforcement of foreign arbitral awards and the referral by a court to arbitration." *The New York Arbitration Convention—Summary*, N.Y. CONVENTION, http://www.newyorkconvention.org/new-york-convention (last visited Dec. 23, 2011). There is the general obligation for a contracting state to recognize arbitration awards as binding. In addition, when there is an arbitration agreement among parties involving a contracting state, the court must refer the dispute to arbitration upon request of one of the parties. *Id.*

[146] This is also known as the Inter-American Arbitration Convention of 1975. *Inter-American Convention on International Commercial Arbitration*, AM. ARB. ASS'N, http://www.adr.org/sp.asp?id=31620 (last visited Dec. 23, 2011).

[147] Shan, *supra* note 118, at 149–50.

[148] As a signatory to the various conventions, Chile must comply with the mandates and structure its arbitration system accordingly. This protects investors from being adversely affected by an unfavorable arbitration venue. For example, should an investor win an arbitration decision in another country, the Chilean courts cannot simply discard the decision and rule in favor of the government. *See supra* notes 143–145.

[149] LORENZEN ET AL., *supra* note 16, at 7.

[150] *Id.*

cond, the cost portion of the bid was publicly released and reviewed by committee.[151]

The first concessions weighed a variety of factors in determining the winning bid.[152] The concession was granted to the winning bidder for a fixed term based on the specifications of the bid. This method was difficult to apply because the factors "did not always result in efficient and sustainable operation by the concessionaire."[153]

In the next wave of concessions, projects were awarded to the bidder offering the lowest toll rate over the concession period.[154] This method also led to inefficient allocation because bidders would offer unsustainably low tolls in order to win the contract and then renegotiate when they got into financial trouble.[155]

The Chilean government and taxpayers were forced to reassume the risk that they had been trying to shift to the private sector in the first place.[156] When the toll rate is artificially low, the concession may not be financially sustainable even if demand is high. Further, the supposed safeguard of the government guarantee will also fail because it represents a fraction of the artificially low toll projection used to win the bid.

The Ministry of Public Works responded to these concerns by instituting minimum and maximum toll rates.[157] This measure did little to truly address the problem underlying the auctions, which was the difficulty of projecting usage levels based on different toll rates over a fixed time period.[158] The next step in the evolution of bidding was to remove the fixed

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[151] *Id.* at 8.

[152] Selection was "based on such criteria as the requested toll level, the tariff structure, the concession period, the subsidy requested or payments committed to the state, the score on the technical evaluation, and environmental considerations." Jadresic, *supra* note 3, at 65. However, the most important factor was the toll rate. LORENZEN ET AL., *supra* note 16, at 13.

[153] LORENZEN ET AL., *supra* note 16, at 8.

[154] *Id*.

[155] Eduardo M. R. A. Engel et al., *Least-Present-Value-of-Revenue Auctions and Highway Franchising*, 109 J. POL. ECON. 993, 1015 (2001).

[156] *See* Montek S. Ahluwalia, *Financing Private Infrastructure: Lessons from India*, *in* CHOICES FOR EFFICIENT PRIVATE PROVISION OF INFRASTRUCTURE IN EAST ASIA, *supra* note 3, at 87, 93. This is the demand risk or market risk above the contracted level of government guarantees. Renegotiation leads to the assumption of a greater level of risk on the part of the public sector.

[157] LORENZEN ET AL., *supra* note 16, at 8.

[158] *See* Eduardo Engel et al., *Privatizing Roads—A New Method for Auctioning Highways*, VIEWPOINT, Sept. 1997, at 1, 3.

> The main defect of fixed term mechanisms is that they create unnecessary risk for the franchise holder. Since demand is uncertain and competitive bidding dissipates ex ante rents, the winner of the franchise chooses a franchise term (or toll) such that it faces significant losses if traffic turns out to be considerably below expectations.

time period from the equation.

One of the major problems with traditional concession bidding is the high incidence of contract renegotiation shortly after the award.[159] This phenomenon undermines the entire bidding process and encourages inefficient allocations of concession contracts.[160] Bidders, operating under the assumption that they will be able to renegotiate, will systematically underbid their competitors to win the concession and then demand favorable changes to the contract after the deal is consummated.

These renegotiations not only undermine the competitive bidding process[161] but also harm the consumer[162] and lead to other inefficiencies.[163] Governments are particularly vulnerable to renegotiations by opportunistic concessionaires shortly after a concession auction because of the highly politicized and publicized nature of privatization deals.[164] While much of the risk of renegotiation can be eliminated by a transparent, open bidding process, clear contracts, and the rejection of aggressive bids,[165] Chile has adopted an innovative solution in the bidding method itself.

Id.

[159] *See* J. Luis Guasch et al., *Renegotiation of Concession Contracts in Latin America* 3 (World Bank Policy Research, Working Paper No. WPS 3011, 2003). In the past fifteen years "53% of the concessions in the transport sector and 76% of those in the water sector were renegotiated, and this took place on average only 3.1 and 1.6 years after the signing of the contract respectively." *Id.*

[160] *See* J. LUIS GUASCH, GRANTING AND RENEGOTIATING INFRASTRUCTURE CONCESSIONS: DOING IT RIGHT 33 (World Bank ed. 2004).

[161] *Id.*

[162] When a firm underbids with an artificially low toll price or shorter concession period, a renegotiated concession will lead to higher prices for the consumer. *See* ANTONIO ESTACHE & LUCÍA QUESADA, CONCESSION CONTRACT RENEGOTIATIONS: SOME EFFICIENCY VS. EQUITY DILEMMAS 16 (2001). "[T]he welfare of the . . . consumers decreases when *the firm* initiates renegotiation, because the price increases." *Id.* (emphasis in original).

[163] *See* GUASCH, *supra* note 160, at 35.

> [An] adverse factor of renegotiations is the added costs and dead-weight welfare losses it induces. The process of renegotiations can be fairly long and costly on both sides, that of the operator and that of the regulator or government. It requires a fair amount of information gathering and analysis and the running of costs and financial models. It often lasts three to twelve months and can tie up the regulator's limited resources—human and otherwise—for that entire period, at the expense of the other tasks and operations the regulator is responsible for.

Id.

[164] *See id.* at 33. "[T]he operator has significant leverage, because the government is often unable to reject renegotiation and is usually unwilling to claim failure—and let the operator abandon the concession—for fear of political backlash and additional transaction costs." *Id.*

[165] In practice, governments rarely reject low-ball bids because they make for good headlines. The "bids are celebrated as a sign that [the] government has secured a very high transfer fee or very low tariff." GUASCH, *supra* note 160, at 39.

B. Least Present Value of Revenues Bidding

The Least Present Value of Revenues bidding method eliminates the variables that most often lead to renegotiations[166] in favor of a variable that does not fluctuate under varying levels of consumer demand.[167] Under Least Present Value of Revenues (LPVR) concessions, the bids are still reviewed for technical soundness. The major innovation involves the cost portion of the bid and the criteria for selecting the winner. The government issues informational documents to the potential concessionaires specifying the toll rate as well as the discount rate to use during bidding.[168] The discount rate is "a good estimate of the loan rate faced by [the potential concessioners]."[169] The concession is awarded to the bidder who offers the least present value of toll revenues.[170] In effect, the winning bidder is demanding the least amount of money for the concession.[171]

Contracts awarded under this method always have a variable term date.[172] The concession ends when the present value of the toll revenue equals the concessionaire's bid.[173] The flexibility of the contract ensures that the private partner gets the specified return on investment and greatly reduces the need to renegotiate the deal.[174] This method eliminates the need

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[166] Firms most often renegotiate a concession where the bid is awarded based on the lowest toll price or shortest concession term. "The odds of renegotiations are the highest when the auction criteria is [sic] driven by the desire to minimize the average tariff to be paid by users of the services bided out." ESTACHE & QUESADA, *supra* note 162, at 2; *see also* GUASCH, *supra* note 160, at 98.

[167] *See* Engel et al., *supra* note 155, at 1008.

[168] *See id.* at 995; LORENZEN ET AL., *supra* note 16, at 8.

[169] Engel et al., *supra* note 158, at 3.

[170] *Id*.

[171] The winner is not technically charging money to the government. The concessionaire must still finance, build, manage, and maintain the asset. The fee comes in the form of toll revenue just like a traditional concession bidder.

[172] Bernardo Weaver, *Examples of Chile's Innovative Approach to PPPs*, PRIVATE SECTOR DEV. BLOG (Sep. 23, 2009, 4:49 PM), http://blogs.worldbank.org/psd/examples-of-chile-s-innovative-approach-to-ppps. This is in contrast to traditional PPP concessions, which always specify an end date in advance. The contract must still be completed within the fifty-year maximum set by concessions laws.

[173] Engel et al., *supra* note 158, at 3.

[174] *See* Weaver, *supra* note 172. The variability and uncertainty of the term is priced into the bid. Concessionaires know that their investment may take longer than projected to recoup. *Id.*

> In regular projects concessionaires are pressed to meet lending deadlines under penalty of renegotiation and risk of defaulting on loans. Hence, sometimes a contract comes close to its end date, and tariff revenues have not been earned to cover the concessionaire's cost. If the concessionaire's full cost is not met, then there is a risk that maintenance will lag, or legal disputes over tariffs might mount in court and administrative venues.

Id.

for accurate traffic projections because the term will adjust to fluctuations in usage. The term is shorter when traffic flows are higher than anticipated and longer when flows are lower.[175]

A conceptual issue with this bidding format is that the private sector is not incentivized to increase efficiencies and is not rewarded for cost savings.[176] As a result, the bidders will charge a premium upfront under this bidding scheme. On balance, the reduced incidence of renegotiation means less risk for the government and a cheaper concession in the long run.[177]

CONCLUSION

Chile's experience with private participation in infrastructure development has served as a model to other developing nations.[178] Since its inception in 1991, the concessions law has provided the framework for the successful participation of the private sector in infrastructure projects ranging from roads to airports, seaports, schools, hospitals, and prisons. Over the past twenty years, the system has been altered and fine-tuned, but three critical elements have remained in place.

First, Chile's concessions process has remained clear, transparent, and fair. The private sector knows the criteria for evaluation of bids; the bid and contract details are publicly available; and the process is fair, without bilateral negotiation or backhanded dealing. Second, Chile's regulatory framework has remained stable and predictable. This further assures private sector investment because the risk of government expropriation is low and contracts clearly specify that any unilateral changes will be compensated for. Stability allows for the accurate pricing of risk and valuation of the projects. Should a deal go wrong, foreign investors are assured that they will have recourse through arbitration or the courts, just the same as a national investor.[179] Finally, the Chilean government and the public can be confident that the terms of the deal will be honored because the contracts clearly define service levels and expectations throughout the term of the

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[175] LORENZEN ET AL., *supra* note 16, at 8.

[176] *Id*. at 9.

[177] There are also cost savings in the form of reduced government monitoring costs. Weaver, *supra* note 172. "The government's only burden to enforce the concession is to closely monitor the concessionaire's operational cash-flow revenue. There is still a need to verify solvency and overall performance and maintenance of the project itself, but those can be achieved under much less pressure." *Id.*

[178] "At least nine Latin American countries are currently working with Chile's public works ministry and the private sector to imitate the country's concessions framework." Eva Medalla, *Nine Countries Look to Emulate Chile's Concessions Framework*, BUS. NEWS AMERICAS (Aug. 26, 2009, 4:23 PM), http://www.bnamericas.com/news/infrastructure/FEATURE:_Nine_countries_look_to_emulate_Chile*s_concessions_framework1.

[179] Foreign investors also have additional recourse through international arbitration. *See supra* notes 143–148 and accompanying text.

concession. Chile's law allows for the termination of a contract due to a serious breach by the private partner and encourages compliance at every stage of the deal.

Chile's concessions law also works in concert with the country's foreign investment laws to promote investment in Chile. The regulatory framework empowers the Ministry of Public Works to administer the program effectively and clearly. And the private sector is allowed to freely invest and apply its expertise to infrastructure sectors that were traditionally dominated by government. The result is increased efficiency and expanded infrastructure investment benefiting the public at large. The trade-off of increased efficiency is often a decrease in the quality of service. However, this downside can be reduced through clear, enforceable contracts with specific quality benchmarks. PPPs are "well suited to situations where the government can clearly identify the quality of the services it wants the private sector to provide," and can translate them into quantifiable measurements.[180] For toll roads, these quality benchmarks could be related to road safety and maintenance levels where the service payments occur on a per usage basis.

[180] *See* FISCAL AFFAIRS, *supra* note 34, at 11.

> The trade-off facing a government seeking to arrange for the provision of a particular service is between quality and efficiency. The government has the capacity to achieve a desired quality standard, but it may have difficulties doing so while also containing costs. The private sector can use its better management skills and capacity for innovation to more actively pursue opportunities to reduce costs, but service quality may be compromised in the process. However, private provision may be workable if the government can write a fully specified, enforceable contract with the private sector . . . . The government can then enter into a contract with the private sector which links service payments to monitorable service delivery.

Id. at 10–11.