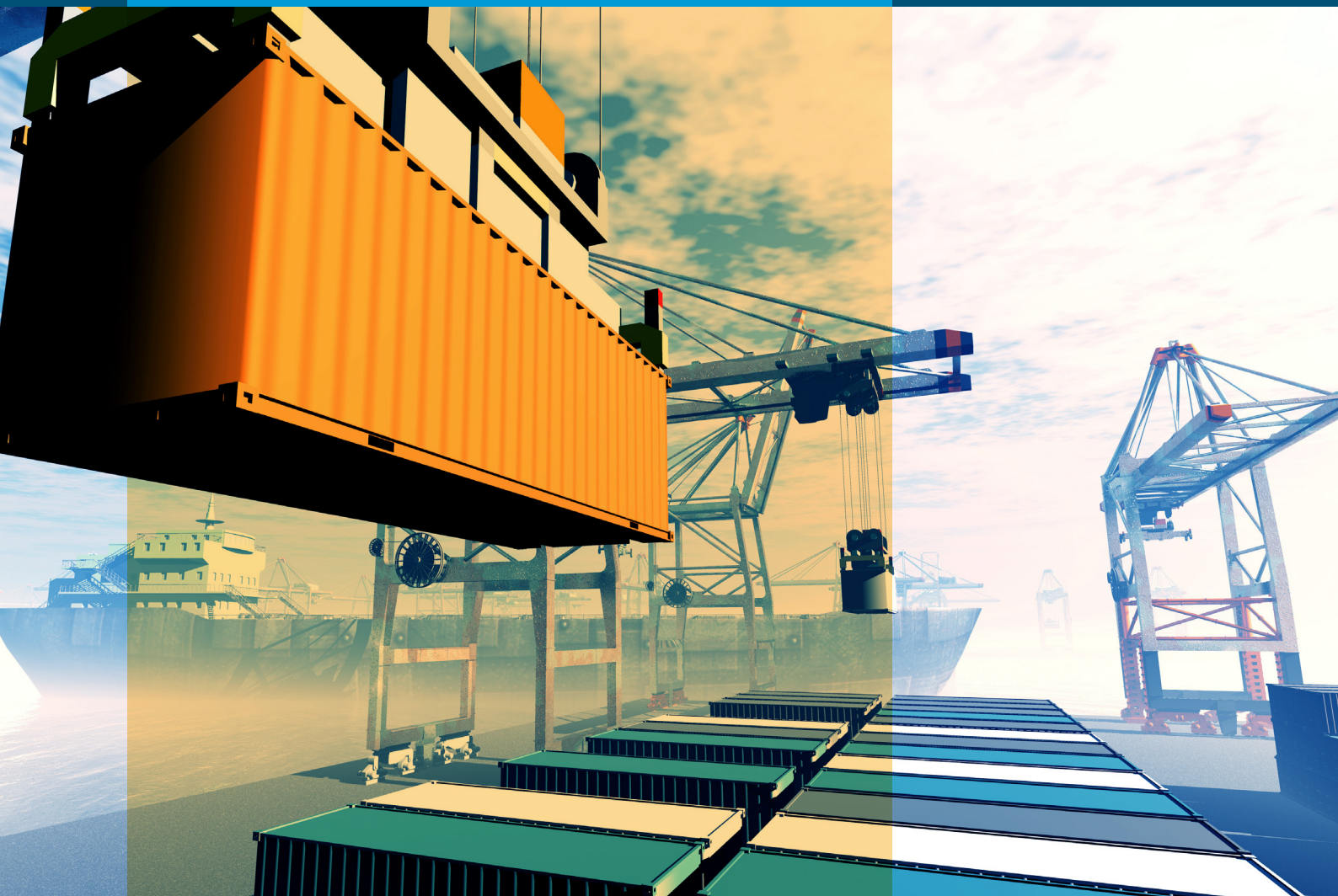


PUBLIC-PRIVATE  
PARTNERSHIPS IN PORTS:

## MAIN FIGURES AND TRENDS IN LATIN AMERICA AND THE CARIBBEAN



Inter-American Development Bank

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## STYLIZED FACTS - KEY MESSAGES

- 1** - 91% of containerized cargo of state-owned terminals is moved by terminals under Public-Private Partnerships. This scheme is predominant in most countries, though it still has a significant potential for growth in some parts of the region, especially in Central America and the Caribbean.
  - 2** - International port operators manage 61% of containerized cargo traffic in PPP terminals in the region, with SSA, Hutchinson, APM, and TIL playing a prominent role. Regional operators operate 32% of the traffic, Chilean, Colombian and Brazilian companies with a main presence in their country of origin are the most important ones. Only 4 companies move close to 50% of the regional traffic.
  - 3** - Most of the PPP processes in ports in the region have been brownfield projects (72%), for a 25 year term, with a public tender process with an average of 2 offers, and where the most recurrent tender factor has been a highest payment to the government.
  - 4** - PPP port terminals are self-sustainable and generate payments to the government through a combination of an annual fixed payment plus a variable percentage of revenue or a payment per container (with a high variability, reaching even 30% of the operator's total revenue, and with required investment and maintenance criteria. Overall, the private sector assumes business, operation, and construction risks, while the public side keeps land management, regulatory and force majeure risks.
  - 5** - Renegotiations are common (90%) in the cases analyzed, affecting the required investments (71% of cases), amounts of payments to the government (57%), or transferred areas (62%). On average, each PPP has 4 addenda, with a minimum of 1 and a maximum of 15.
-

1

# INTRODUCTION



# 1 INTRODUCTION

**In the last decades, Public-Private Partnerships (PPP) have become the norm in the port infrastructure context, with a particular emphasis on containerized cargo terminals.** During the 1960's and 1970's, port infrastructure in Latin America and the Caribbean (LAC), as well as in other regions, experienced in general a low level of maintenance and a poor management performance (Guasch et al., 2015). The situation was combined with low levels of productivity, as well as lack of strategies and planning for the development of long-term infrastructure (Wilmsmeier and Monios, 2016). All this caused a series of substantial reforms in the nineties that significantly changed the dynamics of the industry. In line with similar processes in other regions (Juhel, 2001), LAC went from a scheme in which ports owned and operated by the State dominated the port industry to the landlord model, where port authorities keep ownership of infrastructure and transfer operation to the private sector. Nowadays, public-private partnerships (PPPs) between port authorities and private companies are the most popular instrument to operate ports in the region<sup>1</sup>.

**Private sector participation in port operations has improved competitiveness of this sub-sector in LAC.** Evidence shows considerable increases in efficiency and productivity indicators in cargo management. Throughout the last two decades, there has been remarkable progress in the performance of ports in Latin America and the Caribbean. Operational efficiency of the ports has increased by an average of over 20% (Serebrisky et al., 2016; Suárez-Alemán et al., 2017). Globalization and introduction of the private sector in port operations have made cargo management more efficient. The average time used in managing vessels in most ports has dramatically decreased; from several days to one day, on average, for container ships (Merk, 2017).

**Private investments in the sector have been relevant, though there is still an important investment gap.** Overall, in the last two decades, the sector has received over USD 26 billion from the private sector in the region, through the development of PPP schemes in port terminals in Latin America and the Caribbean.

---

<sup>1</sup> For more details on the evolution of the port governance structure in LAC, see Suárez-Alemán, Serebrisky, and Ponce de León (2019).

It has been the region in the world where the largest concentration of PPP projects has taken place since 1990, with over 150 projects<sup>2</sup>. The subsector still faces challenges: processing a container in Latin American ports takes over three times more than, for example, in Singapore (World Bank, 2018). The need to continue increasing competitiveness of the sector, together with the lack of capacity in some facilities and the obsolescence of others, generate investment needs over USD 246 billion by 2040, according to the G20 initiative *Global Infrastructure Outlook*<sup>3</sup>. According to CAF (2016), LAC will have a deficit in the capacity of handling containers of 113 million TEUs by 2040, which will create investment needs over USD 15 billion by 2025 and USD 50 billion by 2040.

**This document creates a profile of PPP ports in the region, with a focus on container terminals, to identify main trends in the sector.** To develop the profile of PPP ports in the region, data were collected and consolidated at the port terminal level according to the availability for 23 LAC countries. We included terminals or ports of the list published by government agencies for Argentina, Brazil, Colombia, Jamaica, Mexico, Panama, Peru, Dominican Republic and Uruguay; and by specialized private agencies for Chile, Costa Rica, El Salvador, Guatemala, Honduras, and Nicaragua<sup>4</sup>. There is also a sample of terminals from Bahamas, Barbados, Belize, Guyana, Ecuador, Haiti, Suriname, and Trinidad and Tobago<sup>5</sup>. We consolidated information on the characteristics of port terminals from government entities in charge of planning, regulation, management and operation of port infrastructure, as well as other government entities in charge of PPP process, in addition to public information from the private operators. Information from the World Bank's PPI Database was also included. All in all, there is information on container movement in 171 port terminals. 133 are state-owned, out of which 111 are operated under a PPP, which represents 91% of regional traffic of State-owned ports. Transactions are included for the 1992-2019 period<sup>6</sup>. Annex A contains data, sources and definitions used in this document. Annex B shows the availability of information on the port industry and port PPPs in those countries with PPP ports or other type of private participation.

---

<sup>2</sup> Database of private participation in infrastructure, World Bank (2019).

<sup>3</sup> <https://outlook.gihub.org/>. Data for 9 LAC countries.

<sup>4</sup> See Annex A at the end of the document for information on the agencies considered.

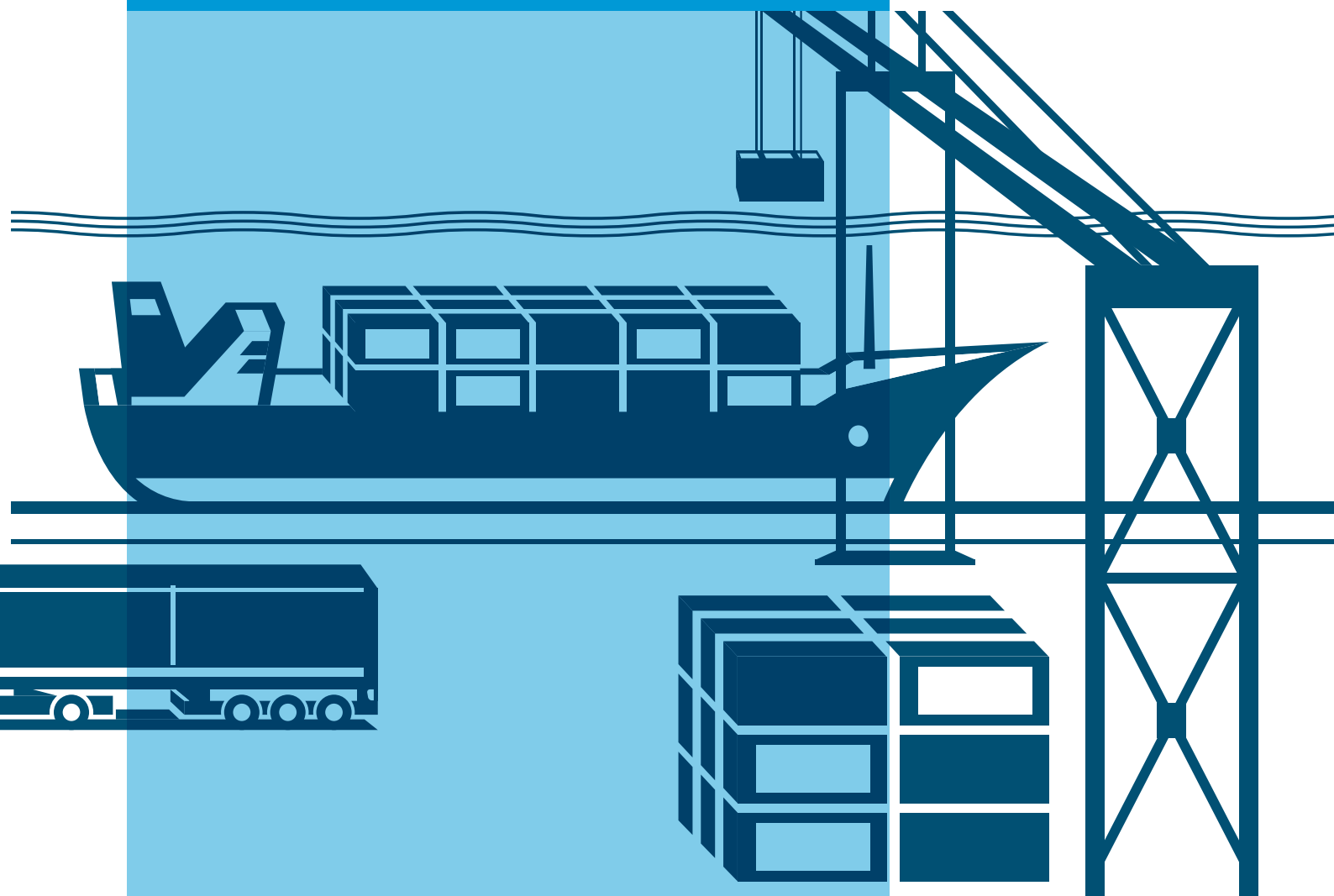
<sup>5</sup> For these countries, we have included public information found on the website of public and private agencies.

<sup>6</sup> The year taken into account for each project is, in order of priority according to the available information, the start year of the contract, the year of the financial closure or the start year of operations.



# 2

## PRIVATE PARTICIPATION SCHEMES IN LATIN AMERICA AND THE CARIBBEAN PORTS



# 2

## PRIVATE PARTICIPATION SCHEMES IN LATIN AMERICA AND THE CARIBBEAN PORTS

### A TERMINALS BY TYPE OF OWNERSHIP AND USE



**Private sector participation in port industry in LAC is predominant, whether through the operation of state-owned ports (under PPPs) or in privately-owned ports.** In the first case, the public sector involvement is significant and implies the design, assessment, tender and regulation of contracts and assets. As to the second case, it requires a minimum involvement of the public sector, which oversees permits and a certain level of regulation from the public. In addition, the use of port infrastructure may be public (open to mobilize individual cargo or cargo from third parties of a different nature) or private, exclusively devoted to the operator's mobilization of their own cargo. This distinction is explicitly acknowledged in Chile<sup>7</sup>, Colombia, Peru<sup>8</sup> and Brazil, where the ports had restrictions of use until 2013<sup>9</sup>. The table below shows some examples of port per type of ownership and use. The information is used for the purpose of classification throughout the document<sup>10</sup>. As from section 3, this report focuses on PPP terminals for containerized cargo (whether specialized or multipurpose ones).

<sup>7</sup> <https://www.mtt.gob.cl/pdl/maritimo-portuario/maritimo-portuario-antecedentes-del-sector>

<sup>8</sup> [https://www.apn.gob.pe/site/files/M3J4398CKFHE734WHS93904SDF88934/APN\\_VERONICA\\_ZAMBRANO\\_COPELLO.pdf](https://www.apn.gob.pe/site/files/M3J4398CKFHE734WHS93904SDF88934/APN_VERONICA_ZAMBRANO_COPELLO.pdf)

<sup>9</sup> The Act on Ports 2013 lifts restrictions on private ports to operate third party cargo. Before that, they could transport third party cargos if their own cargo represented the majority of the mobilized cargo. See ANTAQ (2015).

<sup>10</sup> Table 1 shows port terminals identified in the region by type of use and ownership. Out of a total of 722 terminals identified in the region, 277 are private use terminals (out of which 262 do not mobilize containerized cargo), 47 are privately-owned terminals of public use (of which 24 do not mobilize containerized cargo), 119 are state owned and run (of which 97 do not mobilize containerized cargo). Finally, 279 are PPP terminals, i.e. state owned and privately managed, out of which 168 do not mobilize containerized cargo and 111 mobilize containerized cargo.

**Table 1**  
**NUMBER OF TERMINALS BY TYPE OF USE**  
**AND OWNERSHIP AND SELECT EXAMPLES**

Port terminal type	Do not mobilize containerized cargo	Mobilize containerized cargo
	Number of terminals (percentage of total) Examples of terminals	
<b>Private use</b>	<b>263 (35%)</b> American Port Company (Colombia) Cayo Arcas (Mexico) TP Misky Mayo – Vale (Peru)	<b>14 (2%)</b> Private terminals
<b>Public use</b>		
Private property	<b>14 (2%)</b> Ponta Da Madeira (Brazil) Puerto Caldera (Chile)	<b>18 (2%)</b> DP World Santos (Brazil) Cabo Froward - Chile
State-owned/ State-run	<b>97 (13%)</b> Rosales (Argentina) Santo Tomas (Guatemala) Nueva Palmira (Uruguay)	<b>38 (5%)</b> Limón (Costa Rica) Acajutla (El Salvador)
<b>PPP:</b> State-owned/ Privately-run	<b>178 (24%)</b> Santos TGG (Brazil) Transportadora Callao (Peru)	<b>119 (16%)</b> <b>Buenos Aires (Argentina)</b> <b>San Antonio TI (Chile)</b> <b>Callao Norte (Peru)</b>

**Source:** Produced by the authors.  
**Total terminals by type** = 741.  
**Total terminals identified** = 751.

Table 2 shows a total of 197 port terminals that move containerized cargo in the region. Of the total, 14 terminals are of private use, 18, public use and privately owned, 38 are state owned and run, and 119 are operated under a PPP scheme. Brazil has the highest number of terminals (57), followed by Mexico (20), Argentina (16), Colombia (15), Chile (10), Peru (10), Ecuador (7), Panama (6), Dominican Republic (5) and Costa Rica (4). In Bahamas, Belize, Guatemala, Haiti, Honduras, Nicaragua, and Trinidad and Tobago, between 2 and 3 terminals were identified. Finally, in Barbados, El Salvador, Guyana, Jamaica, Suriname, and Uruguay, one terminal was identified in each country.

**Table 2**  
**NUMBER OF PORT TERMINALS WITH CONTAINER MOVEMENT BY TYPE OF USE, OWNERSHIP AND OPERATION<sup>11</sup> (2018)**

Country	Public use				Total Country
	Private use	Privately owned	State owned/ State run	State owned/ Privately run (PPP)	
Argentina	3	1	3	9	16
Bahamas	-	1	-	1	2
Barbados	-	-	1	-	1
Belize	-	1	-	-	1
Brazil	8	6	4	39	57
Caribbean - Rest (*)	-	-	16	1	25
Chile	-	3	-	7	10
Colombia	2	1	-	12	15
Costa Rica	-	-	2	2	4
Dominican Rep.	-	1	-	3	4
Ecuador	-	1	-	6	7
El Salvador	-	-	1	-	1
Guatemala	-	-	2	1	3
Guyana	-	-	-	1	1
Haiti	-	1	1	-	2
Honduras	-	-	2	1	3
Jamaica	-	-	-	1	1
Mexico	-	-	1	20	21
Nicaragua	-	-	2	-	2
Panama	-	-	-	6	6
Peru	1	1	2	6	10
Suriname	-	-	-	1	1
Trinidad and Tobago	-	-	1	1	2
Uruguay	-	-	-	1	1
<b>Total</b>	<b>14</b>	<b>18</b>	<b>38</b>	<b>119</b>	<b>197</b>

<sup>11</sup> In Panama, state-run ports are those defined as “state” by Panama’s Maritime Authority and PPP ports are those defined as “private”. PPP contracts were found for some of the latter. In Dominican Republic, state-run terminals are those defined as “state ports” by the Dominican Port Authority, PPP are those defined as “state ports – under concession” and privately-owned are those defined as “private ports – under concession”. In Chile, CAMPORT’s private and public use categories were used. This was supplemented with information from port operators. In Brazil, we used the categories of private, public terminal or others from ANTAQ. This was completed with information from port operators. In Colombia, the information from the Superintendency of Transport was used, combined with the information from port operators. In Peru, the Ministry of Transport and Communication’s categories of private and public use were applied, together with information from port operators.

(\*) This includes Anguilla, Antigua and Barbuda, Aruba, Bonaire, British Virgin Islands, Caiman Islands, Curacao, Dominica, French Guyana, Guadalupe, Grenada, Saint-Barthélemy, Saint Kitts and Nevis, Saint Lucia, Saint Martin, Saint Vincent and the Grenadines, Turks and Caicos, and U. S. Virgin Islands.

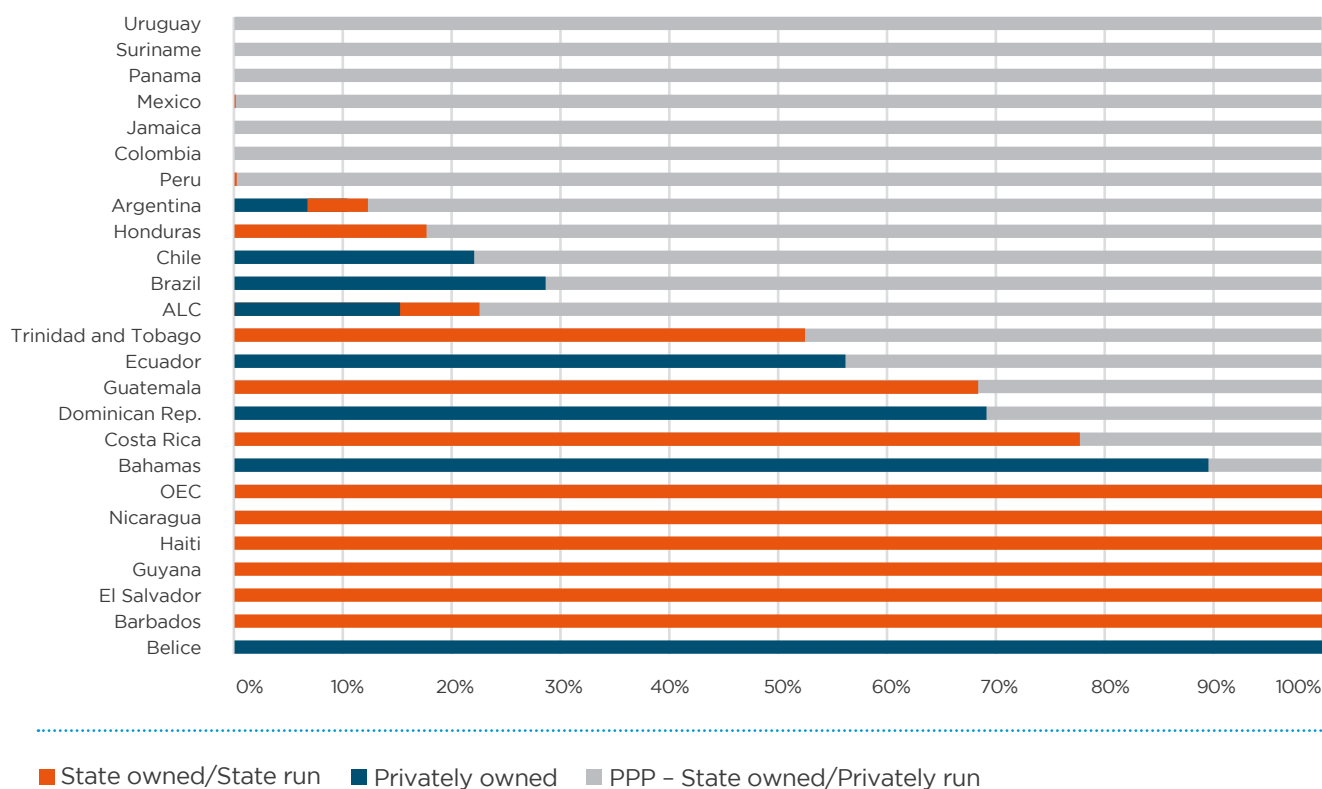
**Source:** Produced by the authors.

**Overall, 77% of total containerized cargo in LAC is mobilized in PPP ports, 15% in privately-owned ports, and 8% in state-run terminals.** Graphic 1 shows the share in each country of containerized cargo by type of operation in ports of public use:

- 1** - Privately owned;
- 2** - State owned and run; and
- 3** - State owned and privately run —implemented through a PPP.

100% of containerized cargo is mobilized in PPP terminals in Colombia, Guyana, Jamaica, Mexico, Panama, Peru, Suriname, and Uruguay. In Argentina, 88% of cargo is mobilized in PPP terminals, 5% in state-run terminals and 7% in privately-owned terminals. In Honduras, 83% is mobilized in PPP terminals, and the rest in state-run terminals. In Brazil and Chile, 72% and 78%, respectively, are mobilized in PPP terminals, and the rest, in privately-owned terminals. In Guatemala and Costa Rica, 32% and 23% of cargo, respectively, are mobilized in PPP terminals, and the rest, in state-run terminals. In Dominican Republic and Bahamas, 31% and 11%, respectively, are mobilized in PPP terminals, and the rest, in privately-owned terminals. In Nicaragua, Haiti, Guyana, El Salvador, and Barbados, 100% of cargo is mobilized in state-run terminals. Finally, in Belize, 100% of cargo is mobilized in privately-owned terminals. The graphic in Annex D at the end of the document includes the share in each country of total cargo by type of operation in ports of public use.

**Graphic 1**  
**PERCENTAGE OF CONTAINERIZED CARGO (TEU) BY TYPE OF OWNERSHIP AND OPERATION IN PORTS OF PUBLIC USE (2018)**

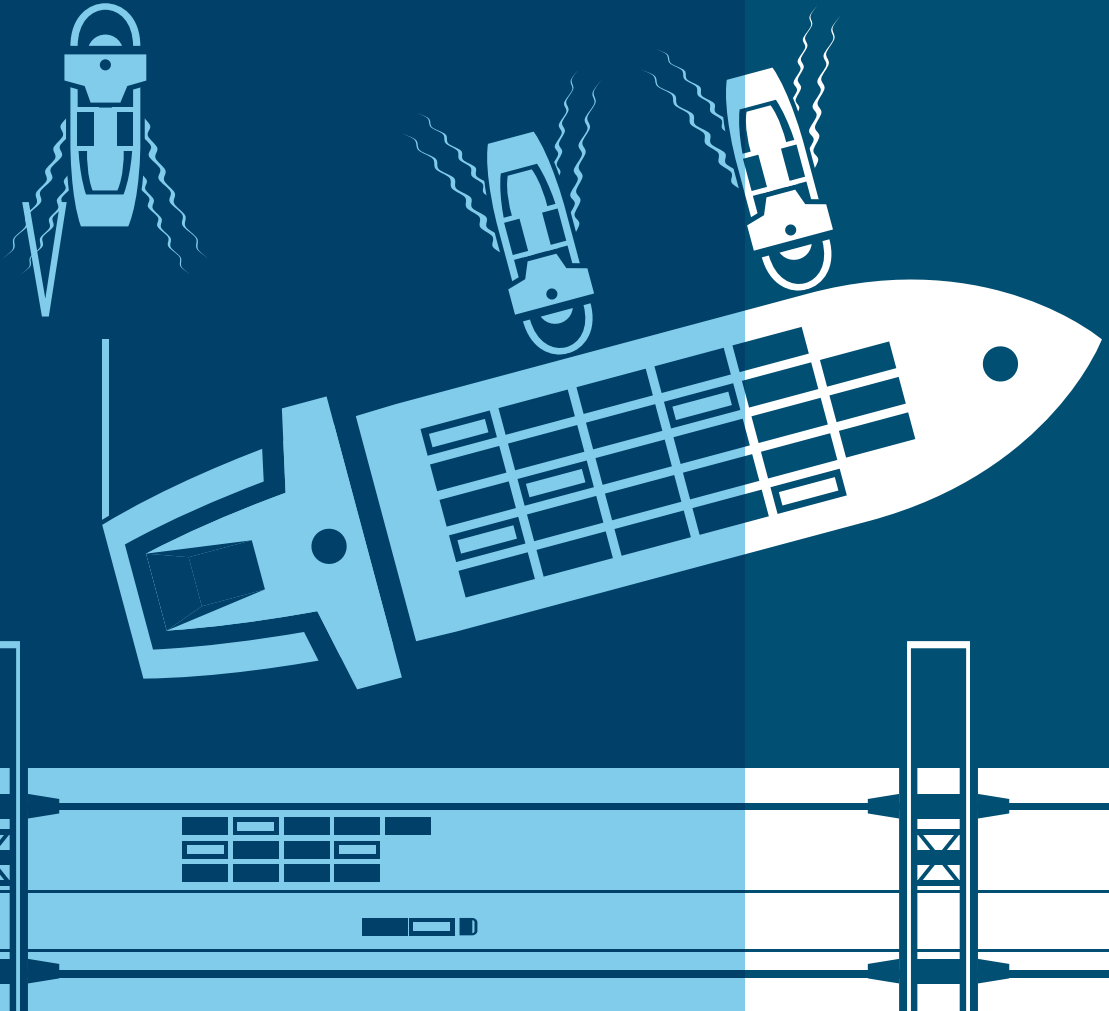


**Source:** Produced by the authors.

From section 3 onwards, figures presented in this document are focused on specialized or multipurpose container terminals operated under a PPP, except otherwise indicated.

# 3

## PUBLIC-PRIVATE PARTNERSHIPS IN LAC PORTS



# 3

## PUBLIC-PRIVATE PARTNERSHIPS IN LAC PORTS

**When it comes to ports, PPPs are long-term contracts involving capital investments to build, rehabilitate and maintain infrastructure for handling cargo and equipment, with minimum standards of service.** In most cases, revenue covers operation and investment costs, and the payments to the government (see Annex A for more details of the different port PPP schemes)<sup>12</sup>.

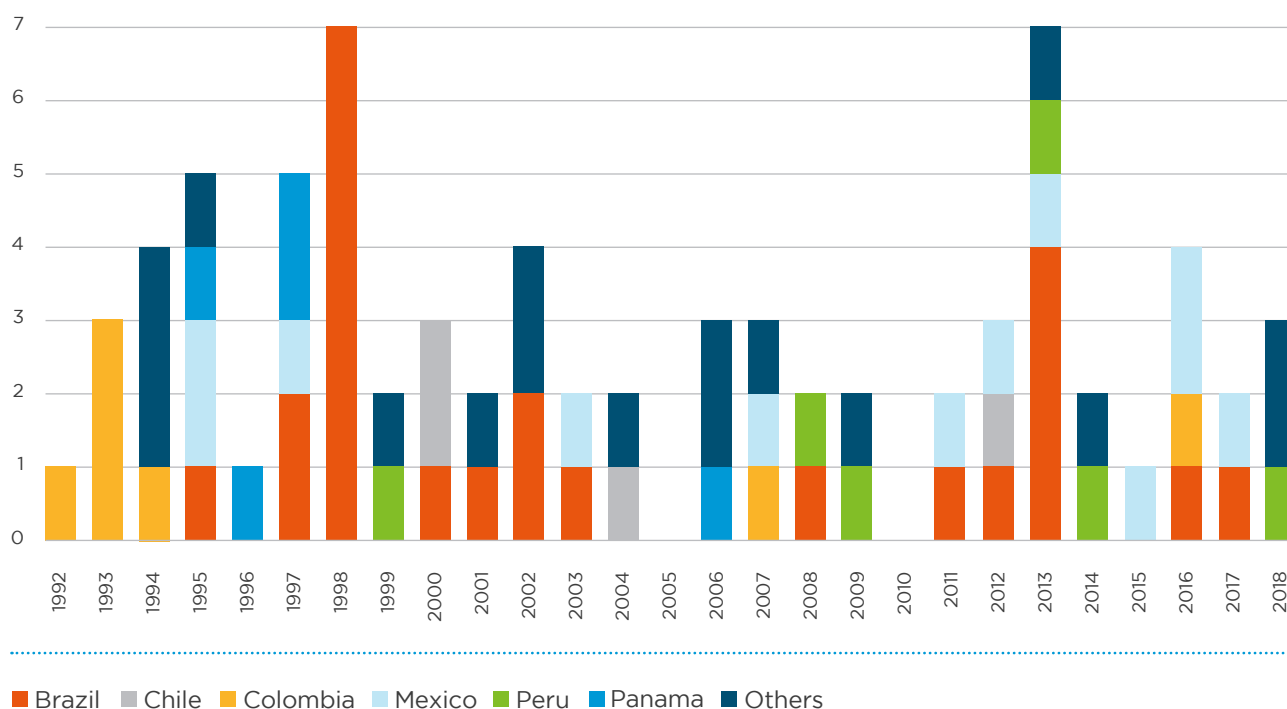
**Most countries in Latin America and the Caribbean have multipurpose or containerized PPP port terminals:** Argentina, Bahamas, Brazil, Chile, Colombia, Costa Rica, Dominican Republic, Ecuador, Guatemala, Honduras, Jamaica, Mexico, Panama, Peru, Suriname, Trinidad and Tobago, and Uruguay. As shown in the graphic below, from 1992 to 2018 every year (apart from 2005), at least a PPP in ports started in LAC. Between 2009 and 2018 there was an annual average of three new PPPs in ports<sup>13</sup>.

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<sup>12</sup> Annex A mentions the types of contracts considered as PPP in this report: BOT, ROT, BROT and RLT. Furthermore, due to the specificity of the cases observed in LAC, the terminals of Nassau (Bahamas) and Point Lisas (Trinidad and Tobago) were included under the PPP definition. However, it should be noted that their contractual schemes differ from the PPP definition established. APD (Arawak Port Development) owns and operates the Nassau terminal. In turn, APD is 40% State owned, 40% owned by a private agency and 20% was sold in a public tender (see [https://www.nassaucontainerport.com/about\\_apd.cfm](https://www.nassaucontainerport.com/about_apd.cfm)). PLIPDECO owns the terminal at Point Lisas. In turn, PLIPDECO is 51% state owned, and 49% owned by private shareholders (see <http://www.plipdeco.com/main/index.php?page=corporate-overview>). Finally, we have not included the ten-year concession or permit granted to Montecon in 2019 for the operation of the port of Montevideo (Uruguay). Said operator had already been operating with provisional permits (<https://www.elobservador.com.uy/nota/montecon-se-afianza-en-muelles-publicos-con-concesion-por-10-anos--201991919329>).

<sup>13</sup> PPP terminals for containerized cargo account for 60% of total PPP terminals in the period described. The remaining 40% moves non-containerized cargo.

**Graphic 2**  
**NUMBER OF PPP IN PORTS PER CONTRACT START YEAR**



Source: Produced by the authors.

**A brief overview of the historical process for PPPs in LAC ports:** The first PPPs in port container terminals from the nineties, from which there is comparable information for analysis, are located<sup>14</sup> in Colombia. Between 1992 and 1994, Colombia tenders all its main ports (Cartagena, Santa Marta, Barranquilla, Tumaco and Buenaventura). Similarly, in that period, Mexico starts the tender of terminals in its main ports (Altamira, Lázaro Cárdenas, and Veracruz). In 1994, Argentina tenders the terminals of its main port, Buenos Aires. In the 1995-1998 period, Brazil puts up for tender different terminals in its main ports (Santos, Itaguai, Paranagua, Rio de Janeiro, and Rio Grande). Likewise, Panama, in the 1995-1998 term, grants as PPP the main container ports (Colón, Cristóbal, Balboa and Manzanillo). In 2000, Chile puts up for tender terminals of its main ports (San Antonio and Valparaíso), a process that continues in the years 2011-2013. Peru tenders a terminal of its main port (Callao) in 2008, and another one in 2013. Jamaica and Ecuador tender terminals in their main ports, Kingston, and Guayaquil, in the second half of the nineties. Additionally, Costa Rica, Bahamas and Guatemala carried out their first tender in 2006, 2009 and 2014, respectively. The table below shows the start and end date of contracts for the main ports in countries with port PPPs<sup>15</sup>.

<sup>14</sup> Before this date, PPPs were started in non-containerized cargo terminals. For example, the first cases for which information is available took place in Brazil in 1987 (ports of Paranagua and Santos). Both were conducted by already established local logistics operators. The Act on Ports, which promoted private sector participation in port activities, was issued in 1992, within the framework of several economic reforms.

<sup>15</sup> The use of PPPs was and still is part of a strategy defined within the framework of reforms in the port sector in Colombia, Argentina, Brazil (largest number of tenders), Mexico, Chile, Uruguay, and Peru. In these countries, governments fixed specific goals to improve the performance of the sector and defined as an important instrument the participation of private operators. Studies suggest a significant improvement in port efficiency indicators because of these processes (Serebrisky et al., 2015; Suárez-Alemán et al., 2016). Graphic 1 and tables 1 and 2 in Annex E show the timeline for PPP processes in the region together with the applicable PPP legislation and the year of the port reforms. Chile is the only case where the tender for important ports started once the port sector reform was carried out and having PPP legislation as well. In the other countries, PPP legislation (actual law and regulations) were developed after starting with the first tender processes.



**Table 3**  
**START AND END DATE OF PPPS IN MAIN LAC PORTS**

Port	Start Year	End Year
Buenos Aires (Argentina) 5 terminals	1994, 1995	2020
Paranagua TCP (Brazil)	1998	2023
Santos Libra, BTP (Brazil)	2007	2027
Santos Libra (Brazil)	2000	2020
Santos SBP (Brazil)	1997	2047
Valparaíso (Chile)	2000	2020
San Antonio TI (Chile)	2000	2020
SPR Buenaventura (Colombia)	1994	2024
CONTECAR (Colombia)	2008	2038
Limón-Moin (Costa Rica)	2019	2039
Guayaquil Contecon (Ecuador)	2007	2027
Quetzal (Guatemala)	2012	2037
Cortes – Terminal Especializado (Honduras)	2013	2043
Kingston (Jamaica)	2016	2036
Lázaro Cárdenas APM (Mexico)	2012	2042
Lázaro Cárdenas Hutchinson (Mexico)	2003	2033
Manzanillo SSA (Mexico)	NA	NA
Manzanillo ICTSI (Mexico)	2013	2047
Callao APM (Peru)	2011	2041
Callao DP World (Peru)	2006	2036
Montevideo (Uruguay)	2002	2032

**Source:** Produced by the authors.

**State-owned container port terminals in LAC moved over 38 million TEUs in 2018, out of which 91% was moved through PPP terminals<sup>16</sup>.** Table 3 and Graphic 3 show details per country. Brazil, Mexico, and Panama are the markets with the highest number of mobilized TEUs, with around 7 million, followed by Colombia, around 4 million, Chile, 3.6 million, and Peru, 2.6 million. In all these countries, 100% of TEUs were mobilized in PPP terminals. In Argentina, Jamaica, Costa Rica, and Guatemala, between 1.5 and 1.8 million TEUs are mobilized. PPP terminals accounted for 94%, 100%, 23% and 32%, respectively. Ecuador, Honduras, and Uruguay follow in terms of volume and mobilized TEUs (between 800,000 and 1 million). PPP terminals accounted for 100%, 83% and 100%, respectively. In Dominican Republic, around 600,000 TEUs were mobilized, all of them in PPP terminals. The ports in Haiti, Nicaragua, Bahamas, Suriname, Barbados, and Trinidad and Tobago mobilized between 100 and 200 thousand TEUs each.

<sup>16</sup> State-owned terminals mobilize over 1 billion of total cargo, out of which 87% is mobilized in PPP terminals.

Graphic 4 shows the predominance of PPP terminals in 15 of the 21 countries represented. In 7 countries, Costa Rica and Guatemala being the most important, and El Salvador, Haiti, Nicaragua, Barbados and Guyana, there is considerable room to incorporate the use of PPP for the operation of state-owned terminals.

**Table 4**  
**SHARE OF PORT PPP BY CARGO AND NUMBER**  
**OF STATE-OWNED PORTS (2018)**

Country	Containerized cargo Thousand TEU			Number of terminals		
	PPP	Percentage of country's total	Total	PPP	Percentage of country's total	Total
Argentina	1,690	94%	1,795	9	75%	12
Bahamas	133	100%	133	1	100%	1
Barbados	-	0%	107	-	0%	1
Belize	-	0%	-	-	0%	-
Brazil	7,185	100%	7,190	39	91%	43
Chile	3,622	100%	3,622	7	100%	7
Colombia	3,976	100%	3,976	12	100%	12
Costa Rica	345	23%	1,533	2	50%	4
Ecuador	1,014	100%	1,014	6	100%	6
El Salvador	-	0%	231	-	0%	1
Guatemala	486	32%	1,531	1	33%	3
Guyana	60	0%	58	0	0%	1
Haiti	0	0%	177	0	0%	1
Honduras	671	83%	813	1	33%	3
Jamaica	1,560	100%	1,560	1	100%	1
Mexico	6,978	100%	6,988	19	95%	21
Nicaragua	-	0%	174	-	0%	2
Caribbean - Rest (*)	59	11%	523	1	6%	17
Panamá	6,872	100%	6,872	6	100%	6
Peru	2,640	100%	2,646	6	75%	8
Dominican Rep.	582	100%	582	3	100%	3
Suriname	112	100%	112	1	100%	1
Trinidad and Tobago	171	41%	417	1	50%	1
Uruguay	798	100%	798	1	100%	2
Total	38,973	91%	42,865	119	157	76%

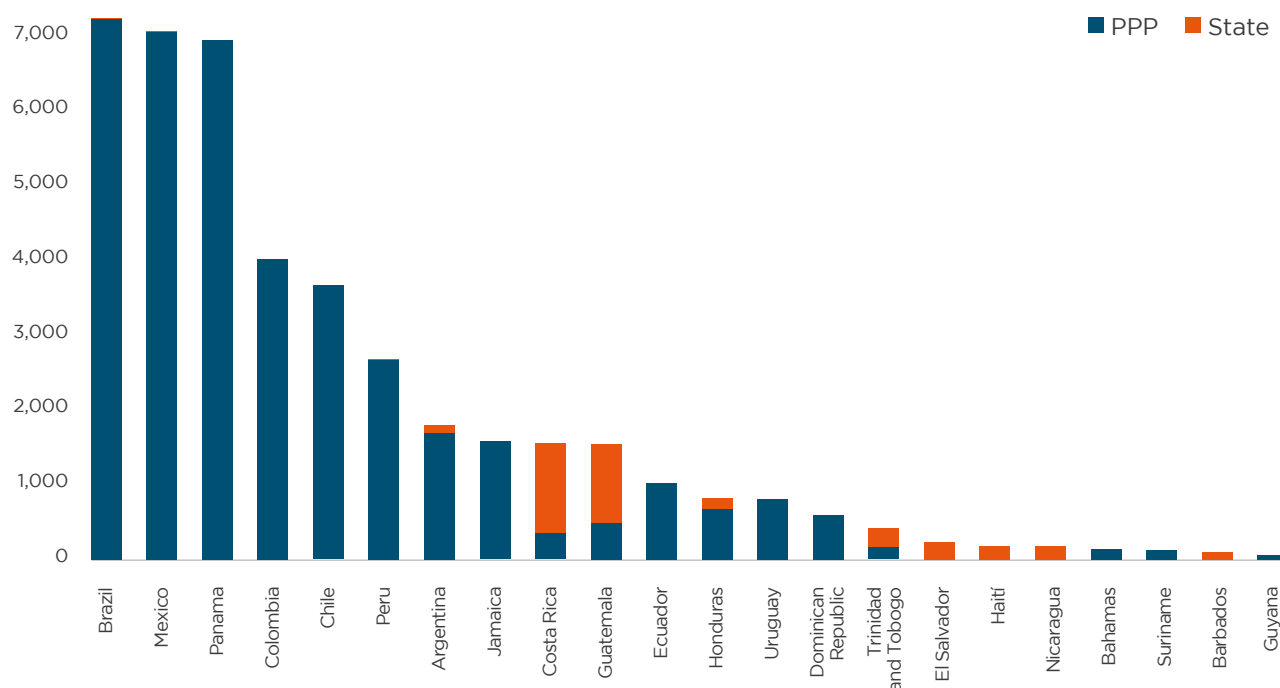
(\*): Containerized cargo includes Antigua and Barbuda, Caiman Islands, Dominica, French Guyana, Grenada, Guadalupe, Saint Lucia, and Saint Vincent and the Grenadines. Number of terminals includes Antigua and Barbuda, British Virgin Islands, Caiman Islands, Dominica, French Guyana, Grenada, Guadalupe, Saint Kitts and Nevis, Saint Lucia, Saint Vincent and the Grenadines, and U.S. Virgin Islands.

**Note 1:** For Brazil, we have included the following categories of terminals: public, rented and transshipment stations, and excluded terminals of private use. Besides, state-run ports are those public terminals ("cais publico") from which we have no information from the private operators, such as Itaqui, Imbituba and Porto Velho.

**Note 2:** Annex H includes a graphic showing total cargo (containerized and non-containerized) mobilized in state-owned terminals by country and type of operation.

**Source:** Produced by the authors.

**Graphic 3**  
**CONTAINERIZED CARGO BY TYPE OF OPERATION**  
**IN STATE-OWNED PORTS (2018)**



**Note:** This graphic shows containerized cargo by type of operation in state-owned ports. Annex F includes a graphic with the total mobilized cargo in state-owned terminals by country and type of operation.

**Source:** Produced by the authors.

**Three out of four state-owned terminals that mobilized over 100,000 TEUs in the region are under PPP schemes.** Table 4 shows 68 state-owned port terminals that mobilized over 100,000 TEUs annually in 2018. It also includes 4 privately-owned ports (located in Bahamas and Chile). The ten largest state-owned terminals are Manzanillo and Balboa (Panama), San Antonio TI (Chile) and CONTECAR (Colombia), with over 1.6 million TEUs each; Manzanillo (Mexico) and Kingston CT (Jamaica), with more than 1.5 million TEUs each; and Santos SB (Brazil), Lázaro Cárdenas (Mexico) and Callao Sur (Peru), with over 1.3 million TEUs each. If we consider the ports as a whole, the port of Santos (with 4 container terminals) reaches 3.2 million TEUs annually. It is the one that mobilizes the largest volume, followed by Callao (2 container terminals) that reaches 2.3 million TEUs.

Table 5

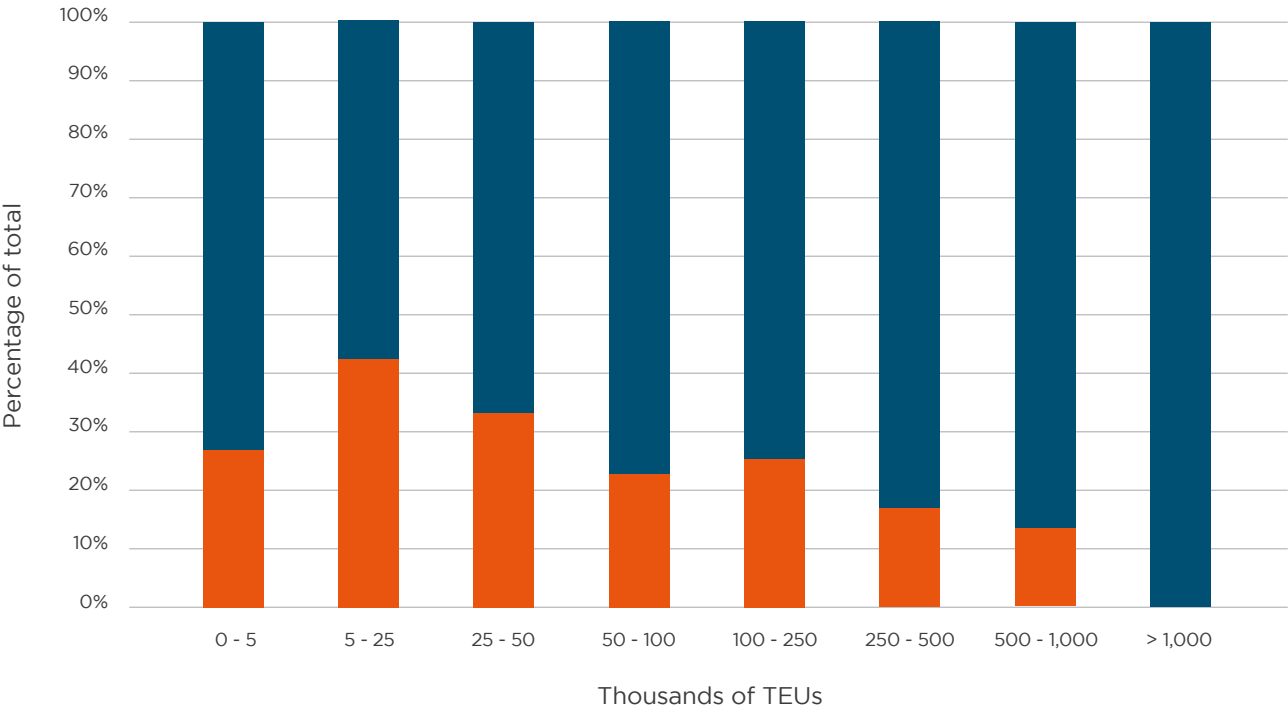
## PORTS WITH OVER 100,000 TEUs OPERATED BY PPPs, STATE AGENCIES OR OTHERS

Country	Port	Total cargo Thousand MT	Type	Country	Port	Total cargo Thousand MT	Type
1 Panama	Manzanillo TI	2,225	PPP	40 Ecuador	Guayaquil	846	PPP
2 Panama	PCP Balboa	1,912	PPP	41 Brazil	Itajaí Teconvi	405	PPP
3 Chile	San Antonio TI	1,661	PPP	42 Brazil	Itaguaí (Tecon)	366	PPP
4 Colombia	CONTECAR	1,658	PPP	43 Colombia	TCBuen	361	PPP
5 Mexico	Manzanillo SSA	1,567	PPP	44 Brazil	Porto Chibatão	344	Privately owned
6 Jamaica	Kingston CT	1,560	PPP	45 Costa Rica	Limon	321	State
7 Brazil	Santos (SB)	1,394	PPP	46 Chile	Lirquen	320	Privately owned
8 Mexico	Lázaro Cárdenas	1,315	PPP	47 Costa Rica	Puerto Caldera	310	PPP
9 Brazil	Santos (Btp)	1,306	PPP	48 Brazil	Salvador (Tecon)	309	PPP
10 Peru	DP World Callao Sur	1,305	PPP	49 Peru	Paita	274	PPP
11 Panama	PCT Cristóbal	1,283	PPP	50 Mexico	Ensenada	272	PPP
12 Dominican Rep.	Multimodal Caucedo	1,269	-	51 Brazil	Pecém	270	PPP
13 Bahamas	Freeport	1100	Privately owned	52 Chile	Iquique	260	PPP
14 Peru	APM Callao	1,035	PPP	53 Brazil	Super Terminais CI	250	PPP
15 Mexico	Veracruz Hutchinson	1,009	PPP	54 Trinidad and Tobago	Port of Spain	246	State
16 Mexico	Manzanillo ICTSI	1,008	PPP	55 Brazil	Santos Libra	491	PPP
17 Argentina	Buenos Aires	969	PPP	56 Chile	Arica	237	PPP
18 Chile	TPS	903	PPP	57 El Salvador	Acajutla	231	State
19 Costa Rica	Moin	867	State	58 Guadalupe	Jarry	224	State
20 Mexico	Altamira	820	PPP	59 Brazil	Vitória (Tvv)	210	PPP
21 Panama	Colon CT	816	PPP	60 Colombia	Aguadulce	206	PPP
22 Colombia	SPR Buenaventura	801	PPP	61 Brazil	Rio De Janeiro (Multi-Rio)	187	PPP
23 Uruguay	Montevideo	798	PPP	62 Haiti	Port-au-Prince	177	State
24 Brazil	Paranaguá (Tcp)	766	PPP	63 Trinidad and Tobago	Point Lisas	171	PPP(*)
25 Brazil	Rio Grande (Tecon)	737	PPP	64 Nicaragua	Corinto	170	State
26 Brazil	Portonave	736	Privately owned	65 Mexico	Veracruz	167	PPP
27 Honduras	Cortes - Terminal Especializado	671	PPP	66 Chile	Mejillones	164	Privately owned
28 Brazil	DP World Santos	615	Privately owned	67 Colombia	SPR Barranquilla	160	PPP
29 Panama	PSA Panamá IT	609	PPP	68 Brazil	Vila Do Conde	153	PPP
30 Argentina	Exolgan	605	PPP	69 Mexico	Progreso APM	146	PPP
31 Guatemala	Santo Tomas	554	PPP	70 Brazil	Rio De Janeiro (Libra)	136	PPP
32 Colombia	SPR Cartagena	541	PPP	71 Bahamas	Nassau	133	PPP(*)
33 Chile	Cabo Froward	528	Privately owned	72 Argentina	Zárate	129	PPP
34 Dominican Rep.	Haina	513	PPP	73 Suriname	Paramaribo	128	PPP
35 Guatemala	Barrios	490	State	74 Colombia	COMPAS Cartagena	125	PPP
36 Chile	Talcahuano - San Vicente	487	PPP	75 Ecuador	Puerto Bolivar	113	PPP
37 Guatemala	Quetzal	486	State	76 Honduras	Castilla	109	State
38 Mexico	Manzanillo OCUPA	448	PPP	77 Colombia	SMITCO Santa Marta	105	PPP
39 Brazil	Suape (Tecon)	439	PPP	78 Barbados	Bridgetown	101	State

(\*) Joint venture between government and private partners. **Source:** Produced by the authors.

Graphic 4 shows how PPPs are predominant in the different sizes of containerized cargo terminals, as well as how their relative importance intensifies as the size of the port increases in terms of mobilized TEUs.

**Graphic 4**  
**NUMBER OF TERMINALS BY RANGE OF CONTAINERIZED CARGO**



■ PPP ■ State run

Sample size: 141

Source: Produced by the authors.

# 4

## MAIN PPP PORT OPERATORS IN LAC



# 4

## MAIN PPP PORT OPERATORS IN LAC

**The port sector presents a high concentration in terms of port operators, where ten operators move more than 75% of regional traffic.** The table below shows the main operators identified. They account for 87% of total containerized cargo mobilized in PPP terminals. The largest operators are SSA and Hutchinson, with a market share of 16% and 14%, respectively. They are followed by APM, 13% of the market, TIL with 8%, and SAAM and ICTSI with 7% each. GPC has 6% and DP World, 5%. They are followed by Santos with 4%, Ultramar-ATCO and Wilson with 3% each. As to PSA, Evergreen, Tucumann and Libra, they account for 2% of the total each. Other operators with a share in the regional market of 1% or less are: Katoen Natie<sup>17</sup>, OCUPA, CSN, SP Santa Marta, SP Barranquilla, COMPAS, GEN, and Romero.

Aggregated, international port operators account for 55%, regional ones<sup>18</sup> represent 26% and partnerships between international and regional port operators, 6% of containerized cargo handled by state-owned ports. Table 5 provides more details of the partnerships among port operators.

<sup>17</sup> The corporate structure of Katoen Natie's PPP is different from the other PPPs in the region: 80% by Katoen Natie and 20% by Uruguay's port authority.  
<sup>18</sup> Regional operators have a higher market share in Brazil, Chile and Colombia. The main operators in said countries are: SAAM (logistics and port terminal operation, their corporate group controls CSAV shipping company), Ultramar (logistics services and port terminal operation) and GEN (maritime transport, cargo services, set up and operation of ports) in Chile; Santos Brazil, Wilson y Libra (logistics services and port terminal operation) and Tucumann (construction and port terminal operation), and GPC, SP Barranquilla, and SP Santa Marta (companies made up of multiple stakeholders; they were granted the first port concessions) and COMPAS (logistics and port operation) in Colombia.

**Table 6**  
**MAIN COMPANIES OPERATING PPP TERMINALS (2018)**

Operator (Host country)	#	Terminals	Total thousand TEUs	% of total LAC
SSA (USA)	6	San Vicente, San Antonio (Chile), SMITCO (Colombia), Manzanillo (Mexico), Manzanillo (Panama)	6,044	16%
Hutchinson (China)	8	Buenos Aires (Argentina), Manta (Ecuador) Ensenada, Manzanillo, Lázaro Cárdenas, Veracruz (Mexico), Balboa, Cristóbal (Panama)	5,532	14%
APM (Netherlands)	10	Buenos Aires (Argentina), Itajai, Santos BTP (Brazil), TCBuen, Compas Cartagena (Colombia), Moin (Costa Rica), Quetzal (Guatemala), Lázaro Cárdenas, Progreso (Mexico), Callao (Perú)	4,881	13%
TIL (Netherlands)	4	Exolgan (Argentina), Santos, Navegantes, Rio de Janeiro (Brazil), Callao (Peru)	3,133	8%
SAAM (Chile)	5	Antofagasta, Iquique, San Antonio, San Vicente (Chile), Caldera (Costa Rica)	2,790	7%
ICTSI (Philippines)	5	La Plata (Argentina), Suape (Brazil), Aguadulce (Colombia), Guayaquil (Ecuador), Cortes (Honduras)	2,747	7%
GPC (Colombia)	2	SPR Cartagena (Colombia), Contecar (Colombia)	2,199	6%
DP World (UAE)	5	Buenos Aires (Argentina), Posorja (Ecuador) (*), Callao Sur, Paita (Peru), Paramaribo (Suriname)	2,015	5%
Santos (Brazil)	2	Imbituba, Santos (Brazil)	1,478	4%
PSA (Hutchinson) (Singapore)	4	Exolgan (Argentina), Aguadulce (Colombia), PSA (Panama)	1,420	4%
Ultramar – ATCO (Chile-Canada)	2	Arica, Terminal Pacifico Sur (Chile)	1,142	3%
Wilson, Sons (Brazil)	2	Rio Grande, Salvador (Brazil)	1,045	3%
PSA (Hutchinson) (Singapore)	4	Exolgan (Argentina), Aguadulce (Colombia), PSA (Panama)	811	2%
Evergreen (China)	1	Colon (Panama)	816	2%
Tucumann (Brazil)	1	Paracas (Perú), Paranagua (Brazil)	766	2%
Libra (Brazil)	2	Santos, Rio de Janeiro (Brazil)	627	2%
HIT (Dominican Rep.)	1	Haina (Dominican Rep.)	513	1%
OCUPA (Mexico)	6	Manzanillo, Lázaro Cárdenas, Veracruz, Altamira, Ensenada, Progreso (Mexico)	448	1%
CSN (Brazil)	2	Tecar Itaguaí, Tecon Itaguaí (Brazil)	366	1%
Katoen Natie (Belgium)	1	Montevideo (Uruguay)	335	1%
SP Barranquilla (Colombia)	2	Barranquilla, BITCO (Colombia)	161	0.4%
COMPAS (Colombia)	3	Barranquilla, Cartagena, Compas Cartagena	125	0.4%
SP Santa Marta (Colombia)	2	Santa Marta, SMITCO (Colombia)	105	0.3%
GEN (Chile)	3	Talcahuano, Antofagasta	73	0.2%
Romero (Peru)	3	Matarani, Callao, Salaverry (Peru)	22	0.1%
PINFRA (Mexico)	3	Altamira, Tamaulipas, Veracruz (Mexico)	NA	-
Mexgal (México)	2	Altamira, Tampico (Mexico)	NA	-
CM (China)	1	Paranagua (Brazil)	NA	-
CMA GGM (France)	1	Kingston (Jamaica)	NA	-
<b>Total</b>	<b>81</b>		<b>34,063</b>	<b>87%</b>
<b>Total PPP Terminals</b>	<b>119</b>		<b>38,973</b>	<b>100%</b>

**Source:** Produced by the authors.

Privately owned ports managed by Hutchinson (Freeport, Bahamas), GEN (Cabo Froward, Chile), TIL (Freeport, Bahamas), among others, are not included. Containerized cargo data are estimated in Lázaro Cárdenas, Buenos Aires, Guayaquil. The total of the port was divided among containerized cargo operators: Lázaro Cárdenas between Hutchinson and APM; Buenos Aires, among Hutchinson, APM and DP World; Guayaquil, between Andipuerto and Contecon. In Uruguay, the participation in number of units was used to estimate participation per TEU.



**Table 7****PARTNERSHIPS AMONG PORT OPERATORS IN LATIN AMERICA AND THE CARIBBEAN**

Port operators' partnerships	Port (country)
<b>International operator – Regional operator</b>	
SSA & SP Santa Marta	SMITCO Santa Marta (Colombia)
SSA & SAAM	San Antonio, San Vicente (Chile)
APM & COMPAS (*)	Cartagena (Colombia)
<b>International operator – International operator</b>	
APM & TIL	Callao (Peru), Santos (Brazil)
PSA & TIL	Exolgan (Argentina)
ICTSI & PSA	Aguadulce (Colombia)
<b>Regional operator – Regional operator</b>	
SAAM & COMPAS	Buenavista (Colombia)

Source: Produced by the authors.

(\*) Does not move containerized cargo.

**Companies that carry out maritime transport and operate terminals handled 18 PPP terminals in 2018.** APM (of APM Maersk), a conglomerate that includes maritime transport operated 10 terminals, and SAAM, partnered with the shipping company CSAV, operated 5 terminals. Besides, CM (China Merchants), Evergreen and CMA GGM operated one terminal each, in Brazil, Panama and Jamaica, respectively. UNCTAD (2019) indicates a recent growth of vertical integration between port operation and maritime transport in the world. Furthermore, it mentions that vertical integration can affect the level of competition because the vertically integrated company has incentives to discriminate against other shipping lines providing services of lower quality or higher prices. Vertically integrated companies have a large market share in Chile and Peru. SAAM mobilized 69% of containerized cargo in Chile. APM mobilized 39% of the cargo in Peru.

**Cargo traffic is concentrated in a reduced number of operators, with the exception of Colombia and Brazil.** The table below shows the share of the main PPP terminal operators of the total container cargo in each country. Over 83% of cargo is concentrated in a single operator in Honduras (ICTSI), Dominican Republic (HIT, local operator), and Suriname (DP World). In Uruguay, 52% is concentrated in one operator (Montecon, local operator) and the rest in Katoen Natie. In Chile, 68% of cargo is concentrated in one operator (SAAM, local operator), and 100% is concentrated in two local operators (SAAM and Ultramar-ATCO, in partnership with SSA and DP World). In Panama, the largest operator concentrates 46%, and the three largest operators have 91%. In Peru, 60% of cargo is concentrated in one operator (DP World), and 99% is in the hands of DP World and APM-TIL. In Ecuador, 44% of cargo is concentrated in a local operator (Andipuerto) ICTSO), and 88% is in the hands of Andipuerto and ICTSI. In Colombia and Brazil, there is less concentration. The largest operator represents 24% in Brazil, 32% in Guatemala and 55% in Colombia. The five largest operators account for 76% and 82% of the market in Brazil and Colombia, respectively.

**Table 8**  
**PPP OPERATORS CONCENTRATION IN CONTAINER CARGO**  
**IN STATE-OWNED PORTS**

Operador	Argentina	Brazil	Chile	Colombia	Costa Rica	Dominican Rep.	Ecuador	Guatemala	Honduras	Mexico	Panama	Peru	Suriname	Uruguay
APM	NA	24%	-	12%	2%	-	-	32%	-	2%	-	39%	-	-
DP World	NA	-	-	-	-	-	-	-	-	-	-	60%	100%	-
TIL	34%	18%	-	-	-	-	-	-	-	-	-	39%	-	-
SSA	-	-	59%	3%	-	-	-	-	-	23%	32%	-	-	-
SAAM	-	-	68%	-	20%	-	-	-	-	-	-	-	-	-
Ultramar - ATCO	-	-	32%	-	-	-	-	-	-	-	-	-	-	-
Hutchinson	NA	-	-	-	-	-	2%	-	-	19%	46%	-	-	-
CSN	-	5%	-	-	-	-	-	-	-	-	-	-	-	-
ICTSI	-	6%	-	5%	-	-	44%	-	83%	15%	-	-	-	-
Evergreen	-	-	-	-	-	-	-	-	-	-	12%	-	-	-
GPC	-	-	-	55%	-	-	-	-	-	-	-	-	-	-
Santos	-	21%	-	-	-	-	-	-	-	-	-	-	-	-
Wilson, Sons	-	15%	-	-	-	-	-	-	-	-	-	-	-	-
Romero	-	-	-	-	-	-	-	-	-	-	-	1%	-	-
Katoen Natie	-	-	-	-	-	-	-	-	-	-	-	-	-	42%
Tucumann	-	11%	-	-	-	-	-	-	-	-	-	-	-	-
SP Santa Marta	-	-	-	3%	-	-	-	-	-	-	-	-	-	-
Libra	-	9%	-	-	-	-	-	-	-	-	-	-	-	-
GEN	-	-	2%	-	-	-	-	-	-	-	-	-	-	-
SP Buenaventura	-	-	-	20%	-	-	-	-	-	-	-	-	-	-
SP Barranquilla	-	-	-	4%	-	-	-	-	-	-	-	-	-	-
PSA	34%	-	-	5%	-	-	-	-	-	-	9%	-	-	-
COMPAS	-	-	-	5%	-	-	-	-	-	-	-	-	-	-
Andipuerto	-	-	-	-	-	-	44%	-	-	-	-	-	-	-
HIT	-	-	-	-	-	88%	-	-	-	-	-	-	-	-
Montecon	-	-	-	-	-	-	-	-	-	-	-	-	-	58%
Main operador	34%	24%	68%	55%	20%	88%	44%	32%	83%	23%	46%	60%	100%	58%
Two main operators	-	44%	100%	75%	23%	-	88%	-	83%	42%	79%	99%	-	100%
Three main operators	-	59%	-	88%	-	-	90%	-	83%	56%	91%	100%	-	-
Four main operators	-	70%	-	93%	-	-	-	-	83%	59%	100%	-	-	-
Five main operators	-	76%	-	97%	-	-	-	-	83%	-	-	-	-	-

**Note:** In countries such as Argentina and Mexico, there is limited public information on this topic. Therefore, it was impossible to identify cargo volumes per operator and analyze the concentration in these countries.

**Source:** Produced by the authors.

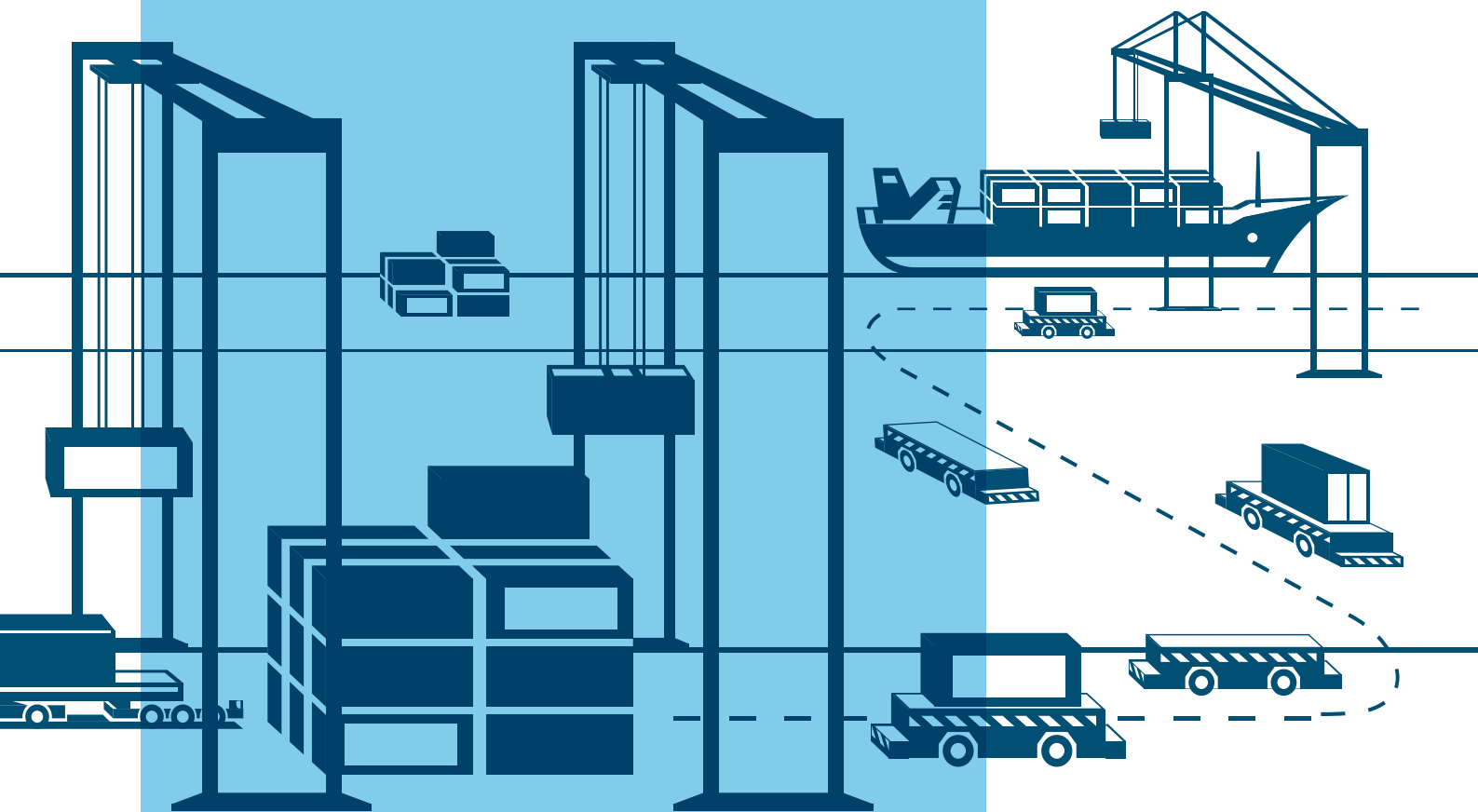
International operators account for 12% of container movements in Colombia, 34% in Brazil, 42% in Uruguay, 44% in Ecuador, 59% in Chile (in partnership with local operators), 99% in Peru and 100% in Panama. Local operators represent the largest market share in Uruguay (52%), Brazil (60%), Colombia (75%), Chile (70%, in partnership), and Dominican Republic (88%). In Brazil, the market is shared by 5 operators. In Colombia, 2 operators manage 3 port terminals. Two of these terminals were directly granted without a competitive tender (as was mostly the case elsewhere in the region). In Chile, the market is concentrated in 2 operators, though 84% of traffic is in terminals operated in partnership with international operators. In Dominican Republic, traffic is concentrated in a single local operator.

**Argentina, Brazil, Ecuador, Mexico, Peru, and Uruguay have promoted intra-port competition of specialized or multipurpose terminals for container movement in their main ports.** The countries mentioned, together with Colombia and Panama, have the largest container movement in the region. Each mobilized 2,000 thousand TEUs per year. Together, they account for 76% of regional traffic. Promoting intra-port competition is beneficial for competitiveness of ports, their local markets and export industries. According to De Langen and Pallis (2016), it prevents the existence of market power, and encourages specialization and innovation of port operators. Suarez-Aleman et al. (2018) state that, within the framework of tender processes for PPP terminals, in Argentina, Brazil, Chile, Ecuador, Mexico, Peru and Uruguay, intra-port competition was promoted through rules restricting the number of terminals per operator.

In the case of Uruguay, two private operators compete under different conditions. One of them, the terminal operator specialized in containers, was granted a PPP contract in 1996. The other one was at the port with permits. In 2019, this operator was granted a license to operate. In the case of Colombia and Panama, in addition to not promoting intra-port competition, no horizontal restrictions were applied, as pointed out by Suarez-Aleman et al. (2017). According to the same authors, Argentina, Brazil, Chile, Mexico, Panama (since 2016) and Peru applied horizontal restrictions to avoid concentration of operations in their main ports. Said restrictions were applied through specific regulations or via the intervention of competition agencies. With regards to the Colombian case, in 2005, the largest container cargo operator (GPC) acquired another important port in Cartagena, increasing its share from 42% to 65% of the total of the country in 2018 figures. In Panama, the government granted as a package two of its main ports, Cristóbal (19% of the market in 2018), and Balboa (28% of the market).

# 5

## INFRASTRUCTURE CONSIDERED, TYPES OF CONTRACTS AND TENDER PROCESSES IN LAC PPP PORTS



# 5

## INFRASTRUCTURE CONSIDERED, TYPES OF CONTRACTS AND TENDER PROCESSES IN LAC PPP PORTS

**Most container PPPs are *brownfield* projects.** 72% of PPPs in container terminals have developed projects on existing infrastructure (brownfield projects), while 28% developed new port infrastructure (greenfield projects). Brownfield projects are made up of BROT (build, rehabilitate, operate, and transfer) 37%, ROT (rehabilitate, operate, and transfer) 31%, and RLT (rehabilitate, lease, or rent, and transfer) 3%. The use of ROT brownfield contracts has decreased over time. They represented 69% of all brownfield contracts for the 1992-2002 period, while they accounted for 16% in 2003-2019. BROT was the predominant type in this last period. Greenfield contracts are made up, in turn, of BOT (build, operate, and transfer) 23%, and BLT (build, lease, and transfer) 6%.

**Table 9**  
**PERCENTAGE SHARE IN PORT PPPS BY TYPE OF CONTRACT**

PPP	Total percentage of PPP
<b>Brownfield</b>	<b>72%</b>
Build, rehabilitate, operate, and transfer (BROT)	37%
Rehabilitate, operate, and transfer (ROT)	31%
Rehabilitate, lease or rent, and transfer (RLT)	3%
<b>Greenfield</b>	<b>28%</b>
Build, operate, and transfer (BOT)	18%
Build, lease, and transfer (BLT)	10%

**Source:** Produced by the authors.

**Note :** It is a reduced sample due to the lack of public information available for all cases of the broad sample: N =67

**Most contracts last between 15 and 25 years.** As to the duration of the contracts, most of the concessions (57% of total concessions) are within the 15-20 and 20-25-year ranges (for example, most contracts in Chile and Peru). The minimum term found was 10 years (Manzanillo, Dominican Republic). The contracts with the longest terms are in Colombia (SPR Cartagena, SPR Barranquilla, among others) with 40 years, and Brazil (Santos), Ecuador (Posorja) and Panama (Balboa and Cristóbal) with 50 years. The table below shows the average duration of contracts per country. Average terms range between 24 and 26 years in most countries. In Colombia, Ecuador, Jamaica and Peru, average terms are 29 to 30 years. The graphic below indicates contract duration for selected PPP terminals. In most cases (11 out of 20), contracts have a fixed term, and the possibility of extending it is not explicitly established in the contract. In 8 out of 20 cases, a possible extension of the term is indicated. For Balboa and Cristóbal (Panama), an “automatic” extension is established in case the private actor fulfills their obligations. The average duration for the sample is 27 years. SPR Cartagena is the contract with the longest original duration (40 years). Santos SB, Itaguai Terminal Carbón and Itaguai TC (Brazil), and Balboa and Cristóbal (Panama) have a total duration (original term plus allowed extension) of 50 years. Nine contracts last around 30 years. Finally, 4 cases have an original duration of 20 years. Buenaventura Port (Colombia) stands out, as it has a 20-year duration, but can be indefinitely extended.

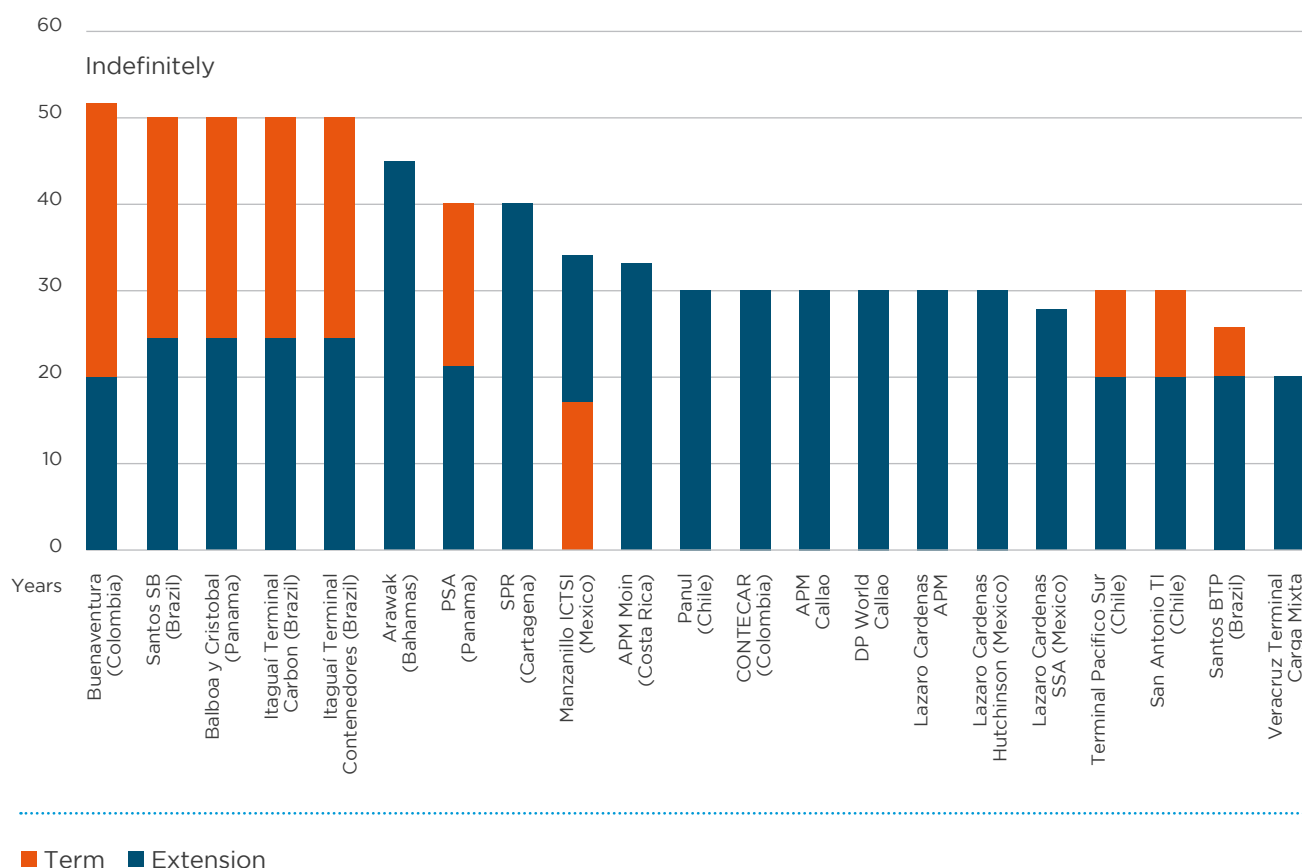
**Table 10**  
**CONTRACT DURATION FOR PORT PPPS BY COUNTRY**

Country	Average	Maximum	Minimum
	Years		
Argentina	24	30	18
Brazil	27	<b>50</b>	15
Chile	23	30	20
Colombia	<b>33</b>	40	20
Costa Rica	27	33	20
Rep. Dominicana	<b>10</b>	<b>10</b>	<b>10</b>
Ecuador	29	<b>50</b>	20
Guatemala	25	25	25
Honduras	30	30	30
Jamaica	30	30	<b>30</b>
Mexico	25	34	20
Panama	45	50	20
Peru	30	30	30

**Note:** N=65

**Source:** Produced by the authors.

**Graphic 5**  
**CONTRACT DURATION (YEARS) FOR SELECTED PPP TERMINALS**



Source: Produced by the authors.

**PPPs have mainly been executed by competitive public tenders.** Regarding the characteristics of the tender<sup>19</sup>, in most cases observed (83%), the method used to select the operator was a public competitive tender, and the standard business structure is a privately-owned company with a specific purpose. A competitive tender was used to grant terminals in the main ports of Brazil, Chile, Mexico, Costa Rica, Ecuador, Guatemala, Honduras, Jamaica, Mexico and Peru. The table below shows that these cases account for 90% of the total. In this type of scheme, usually prequalifying criteria are established to set up a list and then carry out a tender with the short list. In the tenders for San Antonio and San Vicente (Chile, 2000), minimum requirements were established for experience in operation of 100,000 TEUs annually in the first case and 50,000 TEUs in the second case. Additionally, a minimum value of shares held and a minimum long-term debt rating were required. In Peru, in Callao Norte (2010) and Sur (2006), the following minimum requirements of experience were established: 10 million TEUs annually in the company and 1 million TEUs as actual manager, and 2.5 million TEUs annually in the company and 500,000 TEUs as actual manager. Besides, a minimum wealth was required in each case.

<sup>19</sup> The tender aims at selecting the most competitive bidder, maximizing the benefits of competition among bidders, minimizing costs and time, and ultimately, allowing the scrutiny of the process on the part of the public and private sectors (Farquharson et al., 2011). On the one hand, private operators desire adequate returns and a stable environment. On the other hand, the public sector wants to limit monopoly behaviour from the private operator, and to maximize productive efficiency (i.e. production at the lowest cost) to allocative efficiency (i.e. through an optimal price structure). Furthermore, the State ensures adequate levels of services. Klein et al. (1998) indicate the following as good practices to structure the tender: simplicity and transparency, promoting economic efficiency, in terms of efficient consumption on the part of consumers, and efficient transactions and investments.

The second tender mechanism is direct negotiation. It was used in TP Transportadora Cal-lao (Peru) because of a private initiative, Posorja (Ecuador) and Amber Cove (Dominican Republic), and SP Barranquilla, SP Buenaventura and SP Cartagena. The Colombian case is the only one where the main ports were granted under concession directly. Unlike the standard practice in the region, where terminals were granted to port operators, in the first processes in Colombia, concessions were granted to stakeholders partnerships so that they could play simultaneously the roles of port authority and operator (see Suárez-Alemán et al., 2017)<sup>20</sup>.

**Table 11**  
**PPP BY TENDER MECHANISM**

Country	Tender mechanism	
	Competitive tender	Direct negotiation
Brazil	<b>33%</b>	-
Chile	<b>8%</b>	-
Colombia	-	<b>8%</b>
Costa Rica	<b>5%</b>	-
Ecuador	<b>8%</b>	<b>3%</b>
Guatemala	<b>3%</b>	-
Honduras	<b>3%</b>	-
Jamaica	<b>3%</b>	-
Mexico	<b>18%</b>	-
Peru	<b>13%</b>	-
Total	<b>90%</b>	<b>10%</b>

**Note:** Sample size: 40.

**Source:** Produced by the authors.

In addition to tenders, some operators use the acquisition of PPP companies in operation, such as DP World in Puerto Central (Chile, 2019), Paramaribo (Suriname, 2011). APM acquired a PPP terminal in Santos (Brazil, 2010), acquired shares in the PPP in Callao Norte (Peru, 2014), and when acquiring a regional port operator in 2016, it had the control of three PPPs: TCBuen (Colombia), Progreso (Mexico), and Quetzal (Guatemala). There were also acquisitions in privately-owned terminals such as Chancay (Peru), acquired by Cosco from a mining company in 2019, and Portonave Navegantes (Brazil) acquired by TIL in 2005.

<sup>20</sup> Concessions were granted to partnerships of stakeholders (exporters, logistics operators, workers representatives and municipal and regional government authorities). The Act on Ports had established that such partnerships should receive existing port infrastructure through PPP contracts (called "concessions" in the law) and under a diversified ownership. In 1993, the major ports were transferred to these companies. According to Navarrete (2004), there was only one group of interested people and one proposal per port in Cartagena, Santa Marta, Barranquilla and Tumaco. The port of Buenaventura received two proposals and the selection was made based on a first stage through a "beauty contest" according to the government's specific criteria.



**Evidence shows that in a port PPP tender process in Latin America and the Caribbean, receiving offers from 2 or 3 bidders is the most frequent situation (64% of cases). In general, in most of the cases, the number is below 4 (89% of total cases studied).** Honduras, Jamaica, Mexico and Peru stand out in this sense, as they have a high percentage of processes with 3 or 4 bidders. Finally, 26% of the sample had one single bidder.

**Table 12**  
**PPP BY NUMBER OF BIDDERS**

Number of bidders	Number of projects							
	Brazil	Costa Rica	Ecuador	Honduras	Jamaica	Mexico	Peru	Total
1	5%	0%	11%	0%	0%	5%	5%	26%
2	11%	5%	0%	0%	0%	11%	5%	32%
3	5%	0%	0%	5%	5%	5%	11%	32%
4	0%	0%	0%	0%	0%	5%	5%	11%

**Source:** Produced by the authors.  
**Note:** Sample size: 19.

**With regards to the tender factors, experience in the region shows that a higher payment to the government was applied in half the cases, being the most common practice in Brazil, Costa Rica, and Mexico.** Overall, there are six types of tender factors frequently used in the region:

- 1** - Larger investments, aimed at maximizing volume of investments to improve or adapt the infrastructure;
- 2** - Higher payment to the government, aimed at maximizing the state's revenue either as a fixed amount or a percentage of the revenue to share;
- 3** - Lower building or operation costs. With this factor, the government wants to indirectly reduce tariffs;
- 4** - Lower tariffs, aimed at minimizing tariffs to be paid by users;
- 5** - Lower tariffs and, if there is a tie, higher payment to the government.

These factors may be applied individually or combined among themselves. The most widely used factor is higher payment to the government. In 39% of total cases, the factor applied was a higher fixed payment to the government; in 4%, a payment of a percentage of revenue. The second most used factor is lower tariffs (14% of cases), followed by larger investment amount (11% of cases). Finally, a lower building or operation cost was used in 4% of cases.

**Table 13**  
**NUMBER OF CONCESSIONS BY TENDER FACTOR BY COUNTRY**

	Award criteria						
Country	Largest investment amount	Higher percentage of shared revenue	Higher fixed payment to the government	Lower building or operation cost	Lower tariffs	Lower tariffs and higher payment to the government	Other
Brazil	-	4%	29%	4%	4%	-	-
Chile	-	-	-	-	-	11%	-
Costa Rica	-	-	4%	-	-	-	4%
Ecuador	4%	-	4%	-	-	-	-
Honduras	-	-	-	-	-	-	4%
Mexico	-	-	4%	-	-	-	11%
Peru	7%	-	-	-	11%	-	-
<b>Total</b>	<b>11%</b>	<b>4%</b>	<b>39%</b>	<b>4%</b>	<b>14%</b>	<b>11%</b>	<b>18%</b>

**Source:** Produced by the authors.

**Note:** Sample size: 28.

**The capacity range for container terminals is from 110,000 to 2 million TEUs. The range of the utilization rate, from 0.2 to 1.3 TEUs mobilized by each TEU of capacity.** Average capacity is 1,300 thousand TEUs annually. The terminals with the smallest capacity are Progreso APM (Mexico), COMPAS Cartagena and SMITCO Santa Marta (Colombia) and Quetzal (Guatemala) with less than 350 thousand TEUs of capacity. The terminals with the largest capacity are Balboa and Manzanillo (Panama) with 3,500 and 5,000 thousand TEUs, respectively, and Lázaro Cárdenas Hutchinson (Mexico), Itapoa (Brazil) and Santos SB (Brazil), all of them with 2,000 thousand TEUs of capacity. Average utilization rate is 0.7 TEUs mobilized per TEU of capacity. The terminals with lower utilization rate are Imbituba (Brazil), SMITCO (Santa Marta), Itapoa (Brazil), Lázaro Cárdenas Hutchinson (Mexico), and Buenos Aires DP World (Argentina) with less than 0.5. The terminals with the higher utilization rate are Progreso APM (Mexico), Santos SB (Brazil) and San Antonio TI (Chile) with more than 1.0.

**Table 14**  
**TERMINAL CAPACITY AND CARGO-CAPACITY RATIO FOR THE SELECT SAMPLE**

Country	Terminal	Capacity (thousand TEUS)	Utilization rate (Cargo 2018/ Capacity)
Mexico	Progreso APM	<b>110</b>	<b>1.3</b>
Colombia	COMPAS Cartagena	<b>250</b>	<b>0.501</b>
Colombia	SMITCO Santa Marta	<b>300</b>	<b>0.3</b>
Guatemala	Quetzal	<b>340</b>	<b>1.3</b>
Chile	Talcahuano / San Vicente	<b>409</b>	<b>1.2</b>
Brazil	Imbituba Santos	<b>450</b>	<b>0.2</b>
Brazil	Itajaí Teconvi	<b>581</b>	<b>0.7</b>
Colombia	TCBuen	<b>650</b>	<b>0.6</b>
Brazil	Suape (Tecon)	<b>680</b>	<b>0.6</b>
Argentina	Buenos Aires DP World	<b>740</b>	<b>0.4</b>
Brazil	Portonave - Navegantes	<b>900</b>	<b>0.8</b>
Brazil	Santos (Btp)	<b>1,200</b>	<b>1.1</b>
Mexico	Lázaro Cárdenas APM	<b>1,200</b>	<b>0.5</b>
Peru	Callao APM	<b>1,300</b>	<b>0.8</b>
Mexico	Manzanillo ICTSI	<b>1,500</b>	<b>0.7</b>
Chile	San Antonio TI	<b>1,600</b>	<b>1.04</b>
Brazil	Santos (Santos Brasil)	<b>2,000</b>	<b>0.7</b>
Brazil	Itapoá TP	<b>2,000</b>	<b>0.3</b>
Mexico	Lázaro Cárdenas Hutchinson CT	<b>2,000</b>	<b>0.3</b>
Panama	Manzanillo	<b>3,500</b>	<b>0.6</b>
Panama	Balboa	<b>5,000</b>	<b>0.4</b>

**Source:** Produced by the authors.

Annex I includes the types of port authorities in LAC, as well as their roles and, in general, the port governance scheme in the region<sup>21</sup>.

<sup>21</sup> For more details on regulation, governance and competition in the port sector in the region, see Suárez-Alemán, Serebrisky, and Ponce de León (2019).

# 6

## CHARACTERISTICS OF CONTRACTS AND RISK ALLOCATION IN LAC PPP PORTS



# 6

## CHARACTERISTICS OF CONTRACTS AND RISK ALLOCATION IN LAC PPP PORTS

**This section analyzes the main features of the contracts and those related to risk allocation in port PPPs in the region.** The cases studied show concessions that are financially self-sustainable. In other words, revenue charged for port services covers operation and investment costs and generates profits for the operator. In these cases, the operator's revenue comes from charging tariffs to users of the several regulated and non-regulated port services. The operator does not receive financial support from the government.

The following are analyzed:

- A** - Revenue and payments to the government
- B** - Tariffs
- C** - Mandatory investments

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### A REVENUE AND PAYMENTS TO THE GOVERNMENT

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**Most PPPs are self-sustainable and generate revenue to financially support the port and pay the canon to the government.** The table below shows that annual revenue varies between USD 17 million and USD 271 million. The percentage of total revenue that represents the payment to the government ranges from 3 to 4% (Paita, DP World Callao), 6-7% (Santos BTP, Compas, Paita), 21% (San Antonio and Terminal Pacifico Sur), and 30% in SPR Santa Marta.

Table 15

**DISAGGREGATED REVENUE BY ACTIVITY IN PORT PPPS (2018)**

Port	Revenue	Payment to the government	Payment to the government/ Revenue
	(USD million 2018)		
Santos SBP (Terminales in Imbituba and Santos) (Brazil)	271	18	7%
Callao APM (Peru)	194	15	8%
SPR Buenaventura (Colombia)	160	NA	NA
DP World Callao (Peru)	147	6	4%
Matarani (Peru)	120	11	9%
San Antonio TI (Chile)	94	20	21%
Terminal Pacífico Sur (Chile)	81	17	21%
COMPAS (Colombia)	58	4	7%
SPR Santa Marta (Colombia)	44	13	30%
Paita (Peru)	25	2	6%
TCVAL (Chile)	22	0.7	3%
Panul (Chile)	17	NA	NA
Paranagua Volkswagen (*)	NA	1.3	NA
Paranagua TCP	NA	1.6	NA

(\*) Does not operate containerized cargo.

Source: Produced by the authors.

**Payments to the government are usually presented as an annual fixed canon plus a variable amount according to the revenue. The range of payment as a percentage of revenue is from 4% to 30% in container terminals.** The table below contains the forms of paying the government and the amounts paid in 2018. In most cases, the government receives a fixed payment and another amount that varies according to the number of mobilized units (TEUs, MT, vehicles), as in Santos BTP, Santos SBP, San Antonio TI, Terminal Pacifico Sur and Balboa; or revenue charged, as in DP World Callao, APM Callao and Moin APM; or the export value of the cargo, as in the non-container terminals: Itaguai Terminal de Carbón, Itaguai Terminal de Minerales. In other cases, the government only receives a fixed payment (Contecar). In some cases (Paranagua and Itaguai), the fixed payment varies depending on the occupied area. The highest payments as a percentage of revenue are in SP Santa Marta, followed by 21% in San Antonio TI and Terminal Pacifico Sur. In Santos SBP, Callao APM, DP World Callao, COMPAS and Paita, payments range from 4% to 8%.

**Table 16**  
**PAYMENTS TO THE GOVERNMENT BY PORT PPP (2018)**

Terminal	Payment structure	Payment/ Total revenue 2018
PPP (includes movement of containers)		
Itaguai container terminal (Brazil)	USD 8.5 per container for those above the minimum set USD 0.9 per vehicle USD 0.6 per MT for steel products	NA
Paranagua TCP (Brazil)	Fixed payment - USD 1.5 million per year (according to occupied area) Plus USD 12.9 per container	NA
Santos SBP (Brazil)	USD 355 K per month (during 300 months) and USD 581 K per month (during 100 months) Plus: Zero per container for the range of movement of containers below twice the minimum set USD 1 per container for the range of containers between two and three times the minimum set USD 0.5 reales per container for the container range larger than 3 times the minimum set Plus payments to the Port Authority Council As per Addendum 2: replacement of USD 355 K per month (during 600 months) and USD 581 K per month (during 200 months) Replacement of the payment per container to 16.5 reales per container for the quantities above the minimum required movements	7% (*)
Santos BTP (Brazil)	USD 12.5 K per month, other payments in force to the Port Authority Council, which has the power to add payments through negotiation with the concessionaire As per Addendum 3: USD 24.2 K per month Plus USD 535 K per month (adjusted according to the container movement)	NA
Santos Libra (Brazil)	USD 37 per m <sup>2</sup> and USD 4.2 per container, varies according to the range of movement of containers Plus USD 512 K per quarter Plus payments to the Port Authority Council Addendum: payments per m <sup>2</sup> and container are modified to USD 1.3 and USD 9.6, respectively.	NA
San Antonio TI (Chile)	(1) Upfront USD 37 million (2) USD 121 million during the first 5 years (3) USD 4.8 million in year 1 (4) Payment, not below USD 4.8 million annually, depending on traffic, as from year 2 Average payment of USD 22 million in the years 2017-2018.	21%
Terminal Pacifico Sur (Chile)	(1) USD 100,6 million for the award, paid within the first five years of concession. (2) Annual canon of USD 4.6 million for the year 2000, and, from then on, a variable quantity depending on the mobilized cargo, with a annual minimum of USD 5.7 million.	21%
COMPAS (Colombia)	NA	7%
SPR Santa Marta (Colombia)	NA	30%

Terminal	Payment structure	Payment/ Total revenue 2018
PPP (includes movement of containers)		
SPR Buenaventura (Colombia)	17.5% of revenue from berth tariffs and tariff for the use of facilities charged to the cargo and port operator and storage. Addendum (2008), payment to the government from 2014 is: 17.5% of revenue from berth tariffs and tariff for the use of facilities charged to the cargo and port operator and storage. Plus 27.5% over the excess of forecasted revenue. If revenue is lower, the projected amount will be paid, except when the difference is caused by a reduction in tariffs	NA
CONTECAR (Colombia)	USD 15.8 million upfront Plus USD 2.1 million per year for 30 years	NA
Moin APM (Costa Rica)	6% of gross revenue	NA
PSA Panama	USD 9 per container Plus, income tax payment USD 6 per vehicle USD 0.01 per ton of cargo Both countries will have a revision every 5 years to adjust to inflation Plus a single payment of USD 750 K	NA
Cristóbal y Balboa (Panama)	USD 102 million upfront Plus USD 9 per container, USD 3 per MT of non-containerized cargo, USD 6 per vehicle	NA
Callao APM (Peru)	3% of net revenue Monthly obtained by the concessionaire, from the start of operations until the end of concession. 1% to the regulatory agency 17,01% of annual profits before taxes to ENAPU (port state agency)	8%
DP World Callao (Peru)	3% of net revenue Monthly obtained by the concessionaire, from the start of operations until the end of concession. 1% to the regulatory agency	4%
Paita (Peru)	2% of monthly net revenue obtained by the concessionaire Plus an annual amount of USD 196 K Plus contribution by regulation, equivalent to 1% of gross revenue of the concession IMAG Stages 1, 2, 3. Guarantee of investments carried out for the development of works of Stages 1, 2 and 3, the granting agency guarantees the concessionaire a level of guaranteed annual minimum revenue (IMAG). The amount of this revenue for works to be executed in phases 1 and 2 is USD 330.9 million, from 2015 to 2029. The guaranteed revenue for phase 3 is USD 27 million, from 2026 to 2035. Adding the total amount for the development of the three phases, the guaranteed amount IMAG is USD 357.9 million.	6%
PPP (does not include movement of containers)		
Paranagua Volkswagen (Brazil)	Fixed payment - USD 1.3 million per year (according to occupied area) Plus USD 1.7 per vehicle	NA
Paranagua Petrobras (Brazil)	Fixed payment - USD 0.7 million per year (according to occupied area)	NA



Terminal	Payment structure	Payment/ Total revenue 2018
PPP (includes movement of containers)		
Paranagua Fospar (Brazil)	Fixed payment - USD 0.2 million per year (according to occupied area) Plus USD 0.5 per MT	NA
Itaguaí Terminal Carbón (Brazil)	Between USD 0.25 and 1.75 per MT for some cargo For minerals, 2.8% of FOB price below 30 million MT; 1.5% over 30 million MT	NA
Itaguaí Terminal Minerales (Brazil)	1.8% of FOB price	NA
TCVAL (Chile)	Upfront single payment of US\$13 million Annual canon: USD 653 K readjusted to inflation at the start of each year	NA
Panul (Chile)	(1) Upfront payment of USD 2.4 million (2) USD 8.4 million during the first years (3) USD 0.18 million in year 1 (4) Payment, not below USD 0.18 million annually, depending on traffic, as from year 2 Average payment of USD 0.5 million in the years 2017-2018.	NA

(\*) Percentage of payment of terminals in ports of Santos and Imbituba.

Source: Produced by the authors.

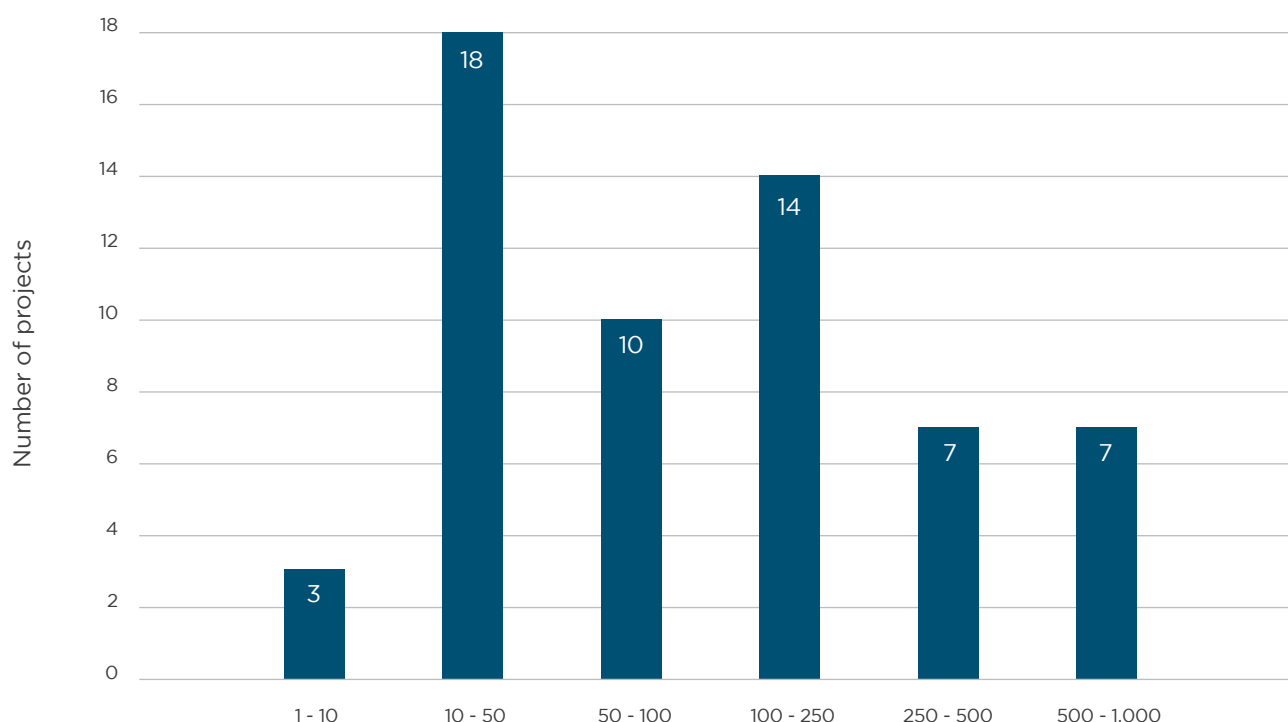
## B REQUIRED INVESTMENTS AND MAINTENANCE



**The investment requirement in specific assets and of predetermined amounts is a prevailing feature in port PPPs for containers in the region. The most frequently made investment is for a value between 10 and 50 million, with an average of around USD 192 million.** In most cases, specific requirements for works are set with estimated values<sup>22</sup>, and they are considered demand triggers for certain investments. Investments are made either for the construction of new facilities, terminals, and accesses or to rehabilitate or maintain existing ones. The range of investment amounts per project is wide. In 53% of projects for which information was available, the investment amount was less than or equal to USD 100 million; 36% of projects had investments between USD 100 and 500 million; and 12%, investments over USD 500 million. Investment in specialized or multipurpose container terminals is 3.8 times that for terminals that do not mobilize containers. Additionally, in 48% of the former there were investments over 100 million, versus 18% for the latter.

<sup>22</sup> Literature establishes that fixing future levels of investment (versus fixing levels of quality in provision of services) prevents the operator from adjusting them according to the changes in market conditions, is difficult to enforce and fosters investments that are excessive and unjustifiable from an economic point of view (Klein, 1998).

**Graphic 6**  
**NUMBER OF PPP PORTS BY RANGE OF INVESTMENT**



**Sample size:** 59

**Source:** Produced by the authors.

**It is also frequent for contracts to include the obligation to make investments during the life of the partnership to allow for certain levels of maintenance of the infrastructure and provision of adequate services.** In all cases, there is a timeline for mandatory investments for the medium term. There are also mandatory investments in case certain levels of movement of total cargo or containers are achieved (Santos and Callao) taking into account minimum standards of service in all the cases (for example, time to start unloading, time of sail for vessels, time of user service and average productivity in Callao). Additionally, in Santos, minimum obligations for the movement of cargo are established. In the Brazilian case, variable payments to the government usually change according to the levels of movement.

**Table 17**  
**TERM AND INVESTMENTS IN PPP CONTRACTS**

Terminal	Term	Total Investment (USD Million)	Additional
PPP			
Santos (BTP) (Brazil)	20	USD 12.9 million of mandatory investments. The contract has specifications for works and terms. Addendum 3 (2008): USD 373 million	Minimum cargo movement (liquid in the original version of the contract). Fixed at 240,000 tons for years 1-20. Amended through Addendum 3 to 1.2 million tons for liquids, and 3.7 million for containerized cargo. Modificado mediante Adenda 4 Amended through Addendum 4 to 1.4 million tons for liquids, and 4.3 million for containerized cargo.
Santos (Brazil)	25	Investment obligations to be subsequently defined. The concessionaire should present a plan within 5 months of starting the contract to be approved by the port authority. The fifth addendum (2015) defined investment obligations for USD 370 million with details of investment items in the addendum and capacity targets.	Minimum cargo movement of 275,000 containers for years 1-5; and 363,000 for years 6 onwards.
Santos Libra (Brazil)	25	Investment obligations of USD 33 million. The concessionaire should present a plan within 5 months of starting the contract to be approved by the port authority. The second addendum (2015) defined investment obligations for USD 315 million with details of investment items in the addendum and capacity targets.	Minimum container movement of 300,000 as from year 1; 450,000 from year 6; 600,000 from year 11; and 750,000 from year 6. Addendum 2 (2015) minimum container movement for all years changes to 400,000.
San Antonio TI (Chile)	20	Those projects with investment amounts over USD 3 million should be approved by the port authority. To this end, specifications, studies and implementation plans need to be previously submitted. Changes to the projects should be previously approved by the port authority. The contract includes mandatory design specifications and criteria.	Mandatory investments established in the contract. Develop a program of maintenance and conservation that complies with the requirements established in Annex X of the Bidding Conditions. These include maximum occupation time of berthing facilities by vessel and wait time.
Panul (Chile)	30	Those projects with investment amounts over USD 3 million should be approved by the port authority. To this end, specifications, studies and implementation plans need to be previously submitted. Changes to the projects should be previously approved by the port authority. The contract includes mandatory design specifications and criteria.	Mandatory investments established in the contract. Develop a program of maintenance and conservation that complies with the requirements established in Annex X of the Bidding Conditions. These include maximum occupation time of berthing facilities by vessel and wait time.

Terminal	Term	Total Investment (USD Million)	Additional
PPP			
SPR Buenaventura (Colombia)	20	Addendum (2007): mandatory investments for USD 450 million with items. Conditions to add new works changed, and they have to be made through negotiation.	-
CONTECAR (Colombia)	30	Investment obligations for USD 157 million with technical specific features and capacity targets. Subject to amendments in case that they do not exceed certain demand levels. The concessionaire will carry out additional works without compensation or acknowledgement.	-
Moin APM (Costa Rica)	33	Mandatory investments with minimum technical requirements and specific timeline. NPV of the reference project USD 237 million	-
Cristóbal y Colon (Panama)	50	USD 300 million in the first 10 years USD 500 million in the next 7 years (established in the contract in 1997) Addendum (2005) increase of investment obligations to USD 1 billion	-
PSA Panama	20	Minimum of USD 70 million in the first five years in container terminal with specific capacity milestones Government has the obligation to invest in dredging. In case of non-compliance, the company will make such investment, which shall not exceed USD 10 million (to be acknowledged by the state)	-
DP World Callao (Peru)	30	Investment in works: USD 218.4 billion Investment in equipment: USD 254.7 billion Additional: USD 144 Occupation rate of the berth shall not exceed seventy (70%) per cent of ratio with total annual availability time	Compliance with performance standards in time to start unloading, time of sail for vessels, performance of operation of boarding and unloading, time of user service
Paita (Peru)	30	Investment for the first 2 years: US\$ 114.11 million Additional investment in 2021: US\$ 100.80 million The additional investment shall be allocated by the CONCESSIONAIRE to all of some works of appendix 2 Annex 9.	The concessionaire undertakes to obtain an ISO 9001-2000 Certificate within a term not exceeding three (3) years since the date of operation. Waiting time for the vessel: Waiting time for any vessel at the Paita port terminal shall not exceed four (4) hours. Reception time of goods: For any user, reception time of goods shall not exceed thirty (30) minutes. Delivery time of goods: For any user, delivery time of goods shall not exceed thirty (30) minutes.

Source: Produced by the authors.



**In general, in the development of ports through a PPP, the private sector assumes business, operation and construction risks. The public sector bears land management, political and regulatory risks.** Table 21 shows the risk allocation for a sample of projects in the region.

- In all cases studied, the **land risk** is assumed by the public sector. In Colombia, Chile and Peru, the government establishes that the operator shall undertake all steps and activities related to obtaining land and rights of way. The government shall help only in case of any impediment.
- In most cases, the private sector bears the **design risk**. However, in two cases (Chile and Colombia), this risk is shared. In both cases, government authorities establish detailed obligations and regulate aspects related to the design, as well as requirements to provide the services. They can also request new works on their own initiative. In Chile, changes to existing works or inclusion of new ones shall rigorously be approved by the port authority. In Colombia, with some exceptions, additional works are not acknowledged by the concessionaire. In contrast, in Brazil and Peru, the government establishes operational and quality requirements, and, to a lesser extent, aspects of the infrastructure design.
- In all the cases, **construction risks** (cost and terms), as well as **operation risks**, are assigned to the private operator. Costa Rica is an exception; the government bears the risk of an increase in construction costs because of significant delays in the timeline. In all but one case, the **demand risk** is transferred to the private partner. In Paita, the government provided a minimum revenue guarantee. In all cases, the **inflation risk** is transferred to the users through the indexation of tariffs. In all cases, the **exchange rate risk** is also transferred to the tariffs that are in dollars. In most cases, the **force majeure risk** is assumed by the government, apart from insurable risks in some cases. In Chile and Peru, it is borne by the government if the event affects the private partner in a very significant way.
- The **operation risk** is mostly transferred to the private partner. In all cases, the rights of the private operator are subject to the compliance with service standards. In Brazil, this risk is limited, as even if the private operator is responsible for the operations, he is under the obligation to hire personnel from the workers union (OGMO). The OGMO plays a significant role in choosing and assigning personnel. In Peru, the contract includes a minimum revenue guarantee for the operator.

Table 18

## RISK ALLOCATION IN PPP PORTS IN LATIN AMERICA AND THE CARIBBEAN

PPP Terminal	Land	Design	Construction	Operation	Commercial (demand)	Tariffs, inflation, exchange rate	Social and environmental	Political and regulatory	Force majeure
San Antonio TI (Chile)	Rights of way - Public	Shared	Private	Private	Private	Maximum tariffs -berth tariff for cargo, berth tariff for vessel, tariff per container, tariff per MT	Private	-	Shared. Private up to 33% of impact of operation capacity. Public from 33%, with more responsibility if the destruction is over 66%.
Panul (Chile)	Rights of way - Public	Shared	Private	Private	Private	Tariffs	Private	-	Shared. Private up to 33% of impact of operation capacity. Public from 33%, with more responsibility if the destruction is over 66%.
Santos (BTP) (Brazil)	Private	Private	Private	The private partner is responsible for operations. However, the contract forces the concessionaire to hire from the workers union (OGMO)	Private	Maximum tariffs per MT	Private	Public	Private
Santos (Brazil)	Private	Private	Private		Private	Tariffs	Private	Private	-
Santos Libra (Brazil)	Private	Private	Private		Private	Tariffs	Private	Private	-
Santos DP World (Brazil)	Private	Private	Private	Private	Private	Private	Private	Private	Private
SPR Buenaventura (Colombia)	Private	Private though the government	Private	Private	Private	Private	Private	Private	Private
CONTECAR (Colombia)	Private	Establishes in the contract the details of the investments and assets required for the operation	Private	Private	Private	Private	Private	Private	Private
APM Callao (Peru)	Public	Private	Private	Private	Private	Tariffs Maximum amounts adjusted by price cap regulation	Private	Private Compulsory insurance	Private If capacity loss is over 50%, the private partner may solve unilaterally
Paita (Peru)	Public	Private	Private	Private	Shared Government provides a minimum revenue guarantee		Private		

PPP Terminal	Land	Design	Construction	Operation	Commercial (demand)	Tariffs, inflation, exchange rate	Social and environmental	Political and regulatory	Force majeure
APM Moin (Costa Rica)	Public	Private	Private Public partner will acknowledge increases if the 6-year construction term is exceeded in phases 2b and 3	Private	Private	Tariffs will be calculated by the regulator taking into account average costs, conditions for competition for the port and demand forecasts.	Private	Private	Public
Cristóbal y Colón a (Panama)	Public	Private	Private	Private	Private	Private	Private	Private	Private
PSA Panama	Public	Private	Private	Private	Private	Private	Private	Private	Private

**Source:** Produced by the authors.

# 7

## PERFORMANCE OF LAC PPP PORTS





# 7

## PERFORMANCE OF LAC PPP PORTS

It should be highlighted that the little availability of information for the performance of PPPs in the operation phase does not allow for comparisons of compliance with obligations and performance in services and quality. In addition, lack of transparency weakens the PPP scheme, as it does not let the interested agents know the terms of the agreements or the fulfillment of obligation by the parties. As shown in the table below, according to the selected sample, in LAC there is a low level of transparency and publication of bidding conditions, contracts and performance indicators of the operators. In Argentina, Mexico, Jamaica, Guatemala, Panama, El Salvador, Haiti, Nicaragua, Trinidad and Tobago, and Bahamas, none of the information mentioned is published.

Peru has an independent regulatory agency for transport PPP and is the only country to publish all the items. With that exception, in no country do the government agencies publish information on the fulfillment of operational and investment obligations, or payments to the government. In Chile and Colombia, there is information of the contracts (and the amendments in Colombia). In Brazil, there is information on contracts and amendments and, in some instances, depending on the operator, on their financial information. The table below presents the minimum elements that should be published by the government agencies that play a role in regulating the oversight of the sector.

**Table 19****ANNUAL AVAILABLE INFORMATION IN THE OPERATION PHASE  
IN PPP PORTS IN MAJOR TERMINALS**

Port	Contract	Amendments to the contract	Level of services (requirements and compliance)	Investments (requirements and compliance)	Payments to the government	Tariffs	Concessionaire's financial indicators
PPP							
Callao (Peru)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Paita (Peru)	Yes	Yes	Yes	Yes	Yes	Yes	Yes
Buenaventura (Colombia)	Yes	Yes	No	No	No	Yes	Yes
Cartagena (Colombia)	Yes	Yes	No	No	No	Yes	Yes
CONTECAR (Colombia)	Yes	Yes	No	No	No	Yes	Yes
Santos Libra, BTP (Brazil)	Yes	Yes	No	No	No	Yes	No
Valparaíso (Chile)	Yes	Yes	No	No	No	Yes	Yes
Itaguai (Brazil)	Yes	Yes	No	No	No	Yes	No
San Antonio (Chile)	Yes	No	No	No	Yes	Yes	Yes
Montevideo (Uruguay)	No	No	No	No	No	Yes	Yes
Limón-Moin (Costa Rica)	Yes	No	No	No	No	Yes	No
Buenos Aires (Argentina)	No	No	No	No	No	Yes	No
Kingston (Jamaica)	No	No	No	No	No	Yes	No
Santos DP World (Brazil)	No	No	No	No	No	Yes	No
Guayaquil (Ecuador)	No	No	No	No	No	Yes	No
Balboa y Cristóbal (Panama)	No	No	No	No	No	Yes	No
Lázaro Cárdenas (Mexico)	No	No	No	No	No	Yes	No
Manzanillo (Mexico)	No	No	No	No	No	Yes	No
State run							
Quetzal (Guatemala)	No	No	No	No	No	No	No
Bridgetown (Barbados)	No	No	No	No	No	No	No
Acajutla (El Salvador)	No	No	No	No	No	No	No
Port-au-Prince (Haiti)	No	No	No	No	No	No	No
Corinto (Nicaragua)	No	No	No	No	No	No	No
Lisas (Trinidad and Tobago)	No	No	No	No	No	No	No
Terminales de propiedad privada							
Manzanillo (Panama)	No	No	No	No	No	No	No
Caucedo (Dominican Rep.)	No	No	No	No	No	No	No
Freeport (Bahamas)	No	No	No	No	No	No	No

**Note:** This takes into account the availability of information in public and private agencies.

**Source:** Produced by the authors.

**The incomplete nature of contracts, the long-term horizon and the high likelihood that unexpected events impact the project are sometimes circumstances leading to the renegotiation of the contracts. Data show how all the ports in this study went through some type of renegotiation, mainly focused on changes in required investments or related definitions, payments to the government or area under concession.** The table below illustrates the use of amendments in selected cases. The extensive use of amendments (through addenda or other instruments) to modify the original contractual conditions justifies the need to strengthen contract oversight and monitoring processes and the correct performance of infrastructure and its associated services; as a result of solid and transparent regulatory frameworks.

**Table 20**  
**RENEGOTIATIONS IN A SAMPLE OF PPP PORTS**

Terminal (Country) Start year	Addenda
COMPAS Cartagena (Colombia) 1992	15 addenda. Highlights: Addendum 3 (1992): change in payment to the state Addendum 4 (1994): change in payment to the state and areas under concession, Addendum 5 (1996): change in payment to the state Addendum 7 (1994): change in payment to the state Addendum 8 (2004): change in investment and obligation plan Addendum 9 (2005): change in payment to the state and in investment and obligation plan, and extension of concession term Addendum 10 (2006): change in investment and obligation plan
SPR Buenaventura (Colombia) 1993	3 addenda. Highlights: Addendum 1 (2004) Addendum 2 (2008): extension of areas, amendment to the investment plan, inclusion of required operation indicators Addendum 3 (2010): amendments to investment plan
SPR Cartagena (Colombia) 1993	6 addenda. Highlights: Addendum 1 (1993): amendment of the environmental management plan Addendum 2 (1993): amendment to the payment to the government Addendum 3 (1993): on environmental impact studies Addendum 5 (1998): extension of areas, term, concessionaire's obligations, payment to the government and investments
Santos Libra (Brazil) 1995	4 addenda. Highlights: Addendum 2 (2015): increase of investment obligations (with details of items and capacity goals), extension of area, addition of performance standards, change in payment to the government.
CONTECAR (Colombia) 1994	No amendments
Rio Grande Tecon (Brazil) 1997	1 addendum to the rent contract, 3 additional permits (including payments to the state) Addendum 1 to the rent contract (2006): change in the payment to the state and the area under concession 2 addenda to the use permit
Santos SB (Brazil) 1997	6 addenda. Highlights: Addendum 1 (2006): amendment to the payment to the government and investment terms Addendum 5 (2015): increase in investment obligations, extension of area, extension of concession term, addition of performance standards, change in payment to the government.

Terminal (Country) Start year	Addenda
Paranaguá Tcp (Brazil) 1998	11 addenda. Highlights: Addendum 4 (2002): amendment to investment obligations, area under concession and operation specifications Addendum 6 (2008): change in area under concession Addendum 9 (2012): operational specifications Addendum 10 (2016): change in investment obligations, operational specifications, payment to the state and area under concession
Matarani (Peru) 1999	4 addenda. Highlights: Addendum 1 (2001): amendment to mandatory investments Addendum 3 (2013): extension of area under concession
San Antonio TI (Chile) 1999	Addendum 1 (2013): change in mandatory works and terms, and maximum term for concession
Suape Tecon (Brazil) 2001	3 addenda. Highlights: Addendum 3 (2010): change in payment to the State, operational specifications, economic-financial balance conditions and area under concession
Aguadulce (Colombia) 2007	3 addenda. Highlights: Addendum 1 (2009): change in technical operation specifications, obligations and investment plan, and payments to the State Addendum 2 (2010): change in area under concession Addendum 3 (2014): change in technical operation specifications, obligations and investment plan
San Andrés (Colombia) 2007	3 addenda. Highlights: Addendum 1 (2009): amendment to the payment to the State
TCBuen (Colombia) 2007	3 addenda. Highlights: Addendum 2: change in area under concession Addendum 3 (2014): change in technical operation specifications, obligations and investment plan, and payments to the State
DP World Callao (Peru)	1 addendum (2010). Definitions of mandatory investments and procedure for their approval.
Paita (Peru) 2009	Addendum 1: bankability that allows access to financing to develop the project. Related definitions or investment obligations, timeline and amounts
Puerto Bahía (Colombia) 2011	1 addendum (2013): change in area under concession and investment plan
Santos (BTP) (Brazil) 2011	5 addenda. Highlights: Addendum 2: increase in the minimum cargo movement. Addendum 3 (2008): amendment to the area under concession, addition of new investment obligations, amendment to payment to the government. Addendum 4 (2010): amendment to minimum cargo movements and payments to government. Addendum 5 (2012): changes related to the expiration of the contract.
APM Callao (Peru) 2013	No amendments
Paracas (Peru) 2014	1 addendum (2016): amendments related to financial closure and tariff regime
Balboa y Cristóbal (Panama)	1 addendum (2005): changes in investment obligation, amounts and structure of payments to the state

Source: Produced by the authors.

According to the previous table:

- In 90% of cases, there was at least one addendum. In two of the 20 cases, CONTECAR (1994) and APM Callao (2014), there were no contract amendments.
- Over 25% of addenda were signed during the first 3 years of operation.
- In 71% of cases, original conditions of the investment obligations were amended.
- In 62% of cases, the areas occupied by operators were modified.
- In 57% of cases, terms or values of the payments to the government were changed.

There is little or incomplete information on the delays and cost overruns of five port terminals. For example, in the Cerros de Valparaíso terminal (Chile), a 60-month delay was recorded, as a result of a delay in the approval of environmental studies (it started in 2013). In 2019, the concessionaire decided to terminate the 30 year concession in an anticipated and unilateral way at year 9. In Mexico, there were 9-month delays in the Veracruz terminal, and 24-month delays in APM terminal of Lázaro Cárdenas. Besides, in Veracruz, there was a 9% increase in budgeted costs. In Costa Rica, the APM Moin terminal had a 12-month delay. In Peru, in the APM Callao terminal, there were delays and cost overruns for over 25% over the concessionaire's international budget. Lack of systematic information makes the delay and cost overrun data anecdotal.

## FINAL SUMMARY

The table below summarizes the main features of PPP port terminals selected for the main countries of the region in volume of passengers.

Table 21

## FEATURES OF PPP PORTS WITH LARGEST MOVEMENT OF CONTAINERS (2018)

	Package of 2 ports: Balboa and Cristóbal (Panama)	Buenos Aires (Argentina)	Callao (Peru)	Cartagena (Colombia)	Guayaquil (Ecuador)	Kingston (Jamaica)	Manzanillo (Mexico)	Moin (Costa Rica)	San Antonio (Chile)	Santos (Brazil)
<b>Intra-port competition</b>	No	Yes	Yes	No	Yes	No	Yes		No	Yes
<b>Competition factor in the tender</b>	NA	Higher payment to the govt.	(1) lower tariff, (2) larger investment	1 terminal Direct selection 1 terminal NA	Higher payment to the govt.	Higher payment to the govt.	NA	NA	(1) lower tariff, (2) payment to the govt.	NA
<b>Payment to the govt. (**)</b>	Fixed, government has 10% of the capital	-	% of net revenue, % profits	fixed	NA	NA	NA	% of gross revenue	% of net revenue	fixed, variable per container
<b>Duration/ (maximum extension) (years)</b>	50	18-25	30 (NA)	30-40 (Open)	30 (NA)	NA	20-34 (NA)	33 (NA)	20 (+10)	20-50 (+6-25)
<b>Tariff regulation</b>	NA	NA	Price cap	NA	NA	NA	NA	NA	Established in the contract	Established in the contract, amended through renegotiation
<b>Design risk/ higher costs</b>	Private	Private	Private	Private	Private	NA	Private	Private/ Shared in some cases	Private	Private
<b>Investment requirement</b>	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes	Yes
<b>Renegotiations (economic aspects)</b>	Yes Addendum amended investment obligations, and structure and value of payments to the govt.	NA	Yes 1 terminal 1 addendum 1 terminal no amendments	Yes 6 addenda, including investments, payments to the govt., areas	NA	NA	NA	Yes at least 2 addenda	Yes at least 1 addendum, change in investment and concession term	Yes 1 terminal 5 addenda, 6 addenda, include investments, payment to the govt.
<b>Transparency after the start of the contract (*)</b>	Low	Low	High	Medium	Low	Low	Low	Low	Medium	Low

(\*) Availability of six items in government websites is taken into account, namely: (1) amendments to the contract, (2) level of services or quality (requirements and compliance), (3) investments (requirements and compliance), (4) payments to the government, (5) tariffs, and (6) concessionaire's financial indicators. Low Transparency means that it has 2 or less items; Medium, 3 or 4 items; and High, 5 or 6 items.

(\*\*) Fixed payment includes payment per square meter of occupied area.

Source: Produced by the authors.

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# ANNEX A

## DATA AND DEFINITIONS USED IN THE DOCUMENT – PPP PORTS



We have included terminals or ports as per information provided by government agencies of Argentina (government's website), Brazil (Antaq), Colombia (Superintendency of Transport), Ecuador (Ministry of Transport and Public Works), Mexico (Secretary of Communications and Transport), Panama (Panama's Maritime Authority), Peru (Ministry of Transport and Communications), Dominican Republic (Dominican Port Authority) and Uruguay (National Port Administration), and private entities for the case of Central American countries (Central American Maritime Transport Commission), and Chile (Camport). For the rest of the countries, we used websites of ports or port operators when available. The initial database includes information, such as the name of the port, type of port (use, ownership, cargo), quantity of total and containerized cargo, type of operation (private or state-run, and type of private operation), year of start of operations, operator, and other variables. Additionally, we incorporated information from the World Bank's PPI Database, with variables such as type of contract, operator, start year, among others. All in all, the document analyzes 111 PPP container terminals for the 1992-2018 period<sup>23</sup>.

**Port PPPs in LAC studied in the analysis, by type of contract:** Likewise, the projects analyzed can be divided into categories based on different types of contracts, namely<sup>24</sup>:

- *Greenfield* (19 projects, 28% of total). A private entity or a joint venture builds and operates a new facility for the period specified in the contract. The private entity bears much of the financial and operational risk and recoups its investment through the life of the project. There are different types:

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<sup>23</sup> The year considered for each project is, depending on the available information, the start year for the contract or the year of financial closure in those cases where the contract has not started.

<sup>24</sup> In this document, the following are not considered PPPs: 1) Management contracts. These usually include performance indicators and requirements similar to those of PPPs. However, "they usually last less than PPPs and do not involve important investments of private capital, as performance incentives are mainly created through payments and fines schemes"; 2) Privately-owned ports. In this case, the private actor owns and operates the assets. Even in the case of ports of public use, the government does not impose specifications as to the assets or services. This category includes merchant agreements, where a private sponsor builds a new infrastructure in a liberalized market in which the government does not contribute with revenue or payment of guarantees. The private actor bears the construction, operation and market risks. Also excluded from the definition are contracts whose duration is less than 10 years (including management contracts, leasing and short BROT contracts).

- *Build Operate Transfer* (BOT) (12 projects, 18% of total). A private sponsor owns and operates the infrastructure at their own risk, then transfers the infrastructure to the government at the end of the contract period.
- *Build Operate Own* (BOO) (7 projects, 10% of total). A private sponsor builds a new infrastructure at their own risk, then owns and operates the infrastructure at their own risk.
- *Brownfield* (48 projects, 72% of total). Like Greenfield projects, except that, instead of building a new asset, the private entity takes an existing asset and usually upgrades, rehabilitates or expands it. In general, they control the operations of the existing asset first and then undertake the capital investment. The private sponsor is usually responsible for the operations for a period, during which they recoup their investment from operation of the project. Afterwards, they revert the asset to the government. There are different types:
  - *Rehabilitate Operate Transfer* (ROT) (21 projects, 31% of total). A private sponsor rehabilitates an existing facility, then operates and maintains the infrastructure at their own risk.
  - *Rehabilitate Lease / Rent Transfer* (RLT) (2 projects, 3% of total). A private sponsor rehabilitates an existing facility, then rents it to the government, and operates and maintains the infrastructure at their own risk.
  - *Build Rehabilitate Operate Transfer* (BROT) (25 projects, 37% of total). A private sponsor builds an add-on to an existing facility or completes a partially built infrastructure and rehabilitates the existing assets. Then, the sponsor operates and maintains the facility at their own risk for the contract period.

All the types listed above, except for the BOO contract, are considered PPPs in this report.

- Distressed projects (5 projects, 5% of total): projects in which the government or the operator has requested contract termination or are in arbitration.

Definitions taken from the glossary of terms in the PPI Database.

# ANNEX B

## AVAILABILITY OF INFORMATION ON THE PORT INDUSTRY AND PORT PPPs



The table below shows the availability of information on the port industry and port PPPs in those countries that have PPP ports or other type of private participation, because of our own research. Most countries with port PPPs, except Ecuador and Bahamas, publish the list of ports in their port networks, and cargo statistics. It is thus possible to identify PPP ports and state-run ports, as well.

Most countries do not publish specific PPP information, i.e. bidding conditions, contract, and list of bidders and winner. The three elements were present only in Peru. Colombia publishes everything except for the list of bidders and winner in some cases. Brazil, Chile, and Costa Rica publish the PPP contract for some cases. In Mexico, Argentina, Dominican Republic, Uruguay, Jamaica, Ecuador and Bahamas, no specific information on the PPP contracts or bidding processes was found.

## Annex B - Table 1

### AVAILABLE INFORMATION ON PPP PORTS AND TRANSACTIONS

Country	Port network / Cargo statistics		Bidding conditions	Contract	List of bidders and winner
	Ports operated by a state agency	PPP ports			
	Information available in websites of public or private entities? (Yes, No, In part)				
Peru	Yes	Yes	Yes	Yes	Yes
Colombia	Yes	Yes	Yes	Yes	No
Brazil	Yes	Yes	No	In part (*)	No
Chile	Yes	Yes	No	In part (*)	No
Costa Rica	Yes	Yes	No	In part (*)	No
Argentina	Yes	Yes	No	No	No
Mexico	Yes	Yes	No	No	No
Dominican Rep.	Yes	Yes	No	No	No
Uruguay	Yes	Yes	No	No	No
Jamaica	Yes	Yes	No	No	No
Panama	Yes	No (**)	No	No	No
Ecuador (***)	No	No	No	No	No
Bahamas	No	No	No	No	No

(\*): Information not available for all PPPs.

(\*\*): Distinction is not clear between PPP ports and private ports.

(\*\*\*): Aggregate information available to 2017; no difference by type of operation.

**Sources:** Argentina (government's website), Brazil (Antaq, port authorities and port operators), Colombia (Superintendency of Transport and ANI), Mexico (Secretary of Communications and Transport), Jamaica (Port Authority), Panama (Panama's Maritime Authority), Peru (Ministry of Transport and Communications and OSITRAN), Dominican Republic (Dominican Port Authority), Uruguay (National Port Administration), Costa Rica, Guatemala, El Salvador, Honduras and Nicaragua (Central American Maritime Transport Commission and Aliarse), Chile (Camport and port companies of the Ministry of the Economy).

# ANNEX C

## INFORMATION ON CONTRACTS - SOURCES OF INFORMATION AND LINKS



**Annex C - Table 1**

**LINKS TO GOVERNMENT AGENCIES PER COUNTRY WITH INFORMATION ON PORTS: IF APPLICABLE, CONTRACTS, AMENDMENTS, BIDDING DOCUMENTS, CARGO STATISTICS AND MORE**

Country	Links
Argentina	<a href="https://www.argentina.gob.ar/puertos-vias-navegables-y-marina-mercante/estadisticas-de-carga">https://www.argentina.gob.ar/puertos-vias-navegables-y-marina-mercante/estadisticas-de-carga</a>
Barbados	<a href="http://www.barbadosport.com/about-us">http://www.barbadosport.com/about-us</a>
Belize	CEPAL (2017). Perfil Marítimo y Logístico de América Latina y el Caribe <a href="https://portofbelize.com/">https://portofbelize.com/</a>
Brazil	<a href="http://portal.antaq.gov.br/index.php/acesso-a-informacao/licitacoes-e-contratos/">http://portal.antaq.gov.br/index.php/acesso-a-informacao/licitacoes-e-contratos/</a>
Santos	<a href="http://intranet.portodesantos.com.br/lei_acesso/proaps.asp">http://intranet.portodesantos.com.br/lei_acesso/proaps.asp</a>
Chile	Camport 2018 <a href="https://estadisticas.sepchile.cl/AtlasSBI/Private/BIMenu.aspx">https://estadisticas.sepchile.cl/AtlasSBI/Private/BIMenu.aspx</a>
Colombia	<a href="http://www.supertransporte.gov.co/documentos/2019/Marzo/Puertos_26/2019-03-19_BOLETIN_TRAF_PORT_2018_OBSERVACION.pdf">http://www.supertransporte.gov.co/documentos/2019/Marzo/Puertos_26/2019-03-19_BOLETIN_TRAF_PORT_2018_OBSERVACION.pdf</a> <a href="https://www.mintransporte.gov.co/documentos/15/estadisticas/genPagDocs=1">https://www.mintransporte.gov.co/documentos/15/estadisticas/genPagDocs=1</a> <a href="https://www.colombiacompra.gov.co/secop/concesiones-de-las-sociedades-portuarias">https://www.colombiacompra.gov.co/secop/concesiones-de-las-sociedades-portuarias</a> <a href="https://www.contratos.gov.co/consultas/detalleProceso.do?numConstancia=05-1-1033">https://www.contratos.gov.co/consultas/detalleProceso.do?numConstancia=05-1-1033</a>
Costa Rica	<a href="http://www.cocatram.org.ni/">http://www.cocatram.org.ni/</a> <a href="http://www.japdeva.go.cr">http://www.japdeva.go.cr</a>
Dominican Rep.	<a href="https://www.portuaria.gob.do">https://www.portuaria.gob.do</a>
El Salvador	<a href="http://www.cocatram.org.ni/">http://www.cocatram.org.ni/</a> <a href="http://www.proesa.gob.sv/">http://www.proesa.gob.sv/</a>
Guatemala	<a href="http://www.cocatram.org.ni/">http://www.cocatram.org.ni/</a> <a href="https://cpn.gob.gt/">https://cpn.gob.gt/</a>

Country	Links
Guyana	-
Haiti	<a href="http://apn.gouv.ht/news/">http://apn.gouv.ht/news/</a>
Honduras	<a href="http://www.cocatram.org.ni/">http://www.cocatram.org.ni/</a> <a href="http://sapp.gob.hn/services/puertos/">http://sapp.gob.hn/services/puertos/</a>
Jamaica	<a href="https://www.portjam.com/">https://www.portjam.com/</a>
Mexico	<a href="http://www.sct.gob.mx/index.php?id=6315">http://www.sct.gob.mx/index.php?id=6315</a>
Nicaragua	<a href="http://www.cocatram.org.ni/">http://www.cocatram.org.ni/</a> <a href="https://www.epn.com.ni">https://www.epn.com.ni</a>
Panama	<a href="https://amp.gob.pa/servicios/puertos-e-industrias-maritimas-auxiliares/infraestructura/terminal-de-contenedores/">https://amp.gob.pa/servicios/puertos-e-industrias-maritimas-auxiliares/infraestructura/terminal-de-contenedores/</a>
Peru	<a href="https://www.apn.gob.pe/site/estadisticas.aspx">https://www.apn.gob.pe/site/estadisticas.aspx</a>
Suriname	CEPAL (2017). Perfil Marítimo y Logístico de América Latina y el Caribe
Trinidad and Tobago	<a href="http://www.patnt.com/">http://www.patnt.com/</a>
Uruguay	<a href="http://www.anp.com.uy/Inicio">http://www.anp.com.uy/Inicio</a>

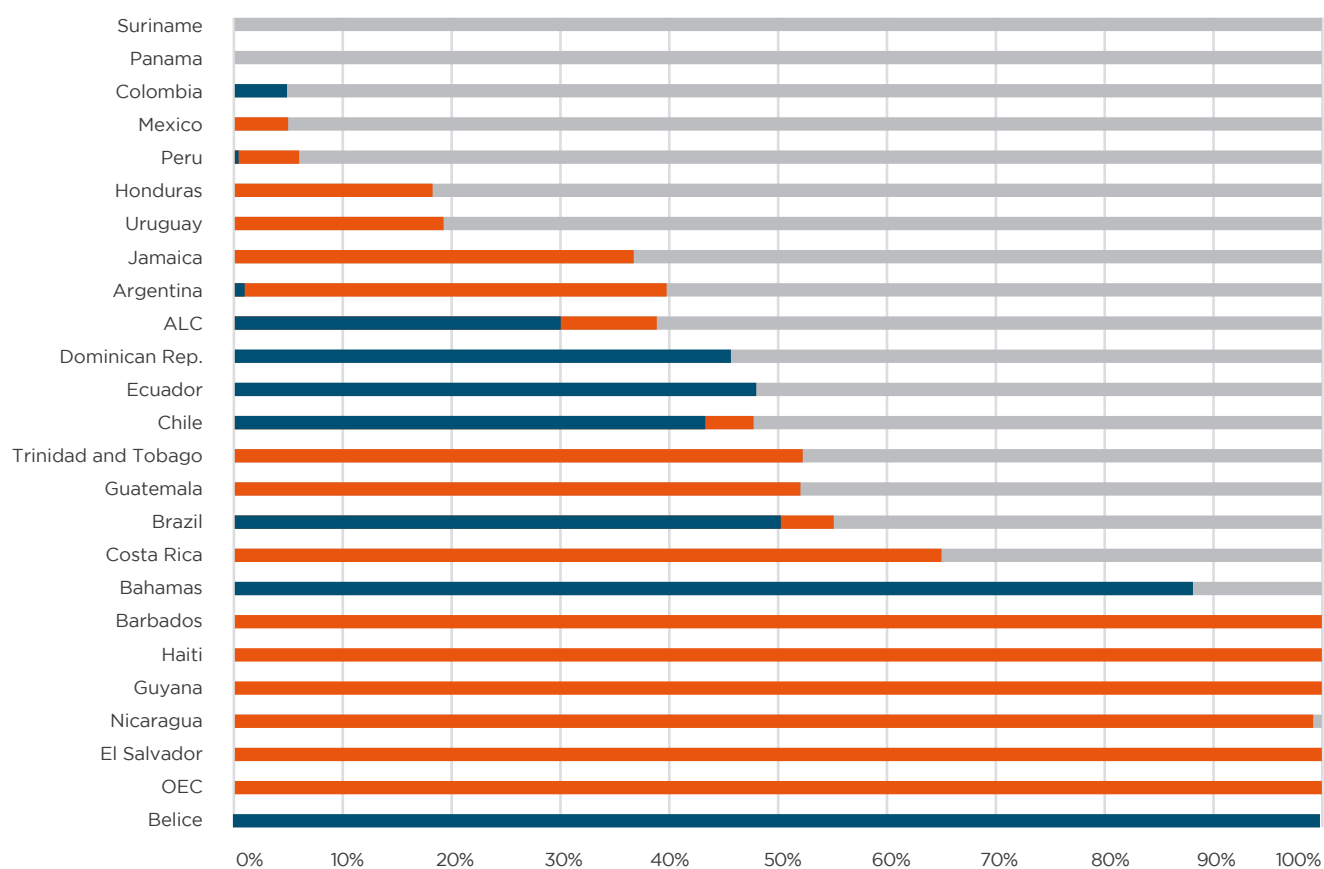
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**Source:** Produced by the authors.

# ANNEX D



**Annex D - Graphic 1**  
**TOTAL CARGO BY TYPE OF OWNERSHIP**  
**AND OPERATION IN PORTS OF PUBLIC USE (2018)**



■ State owned/State run ■ Privately owned ■ PPP - State owned/Private run

Source: Produced by the authors.

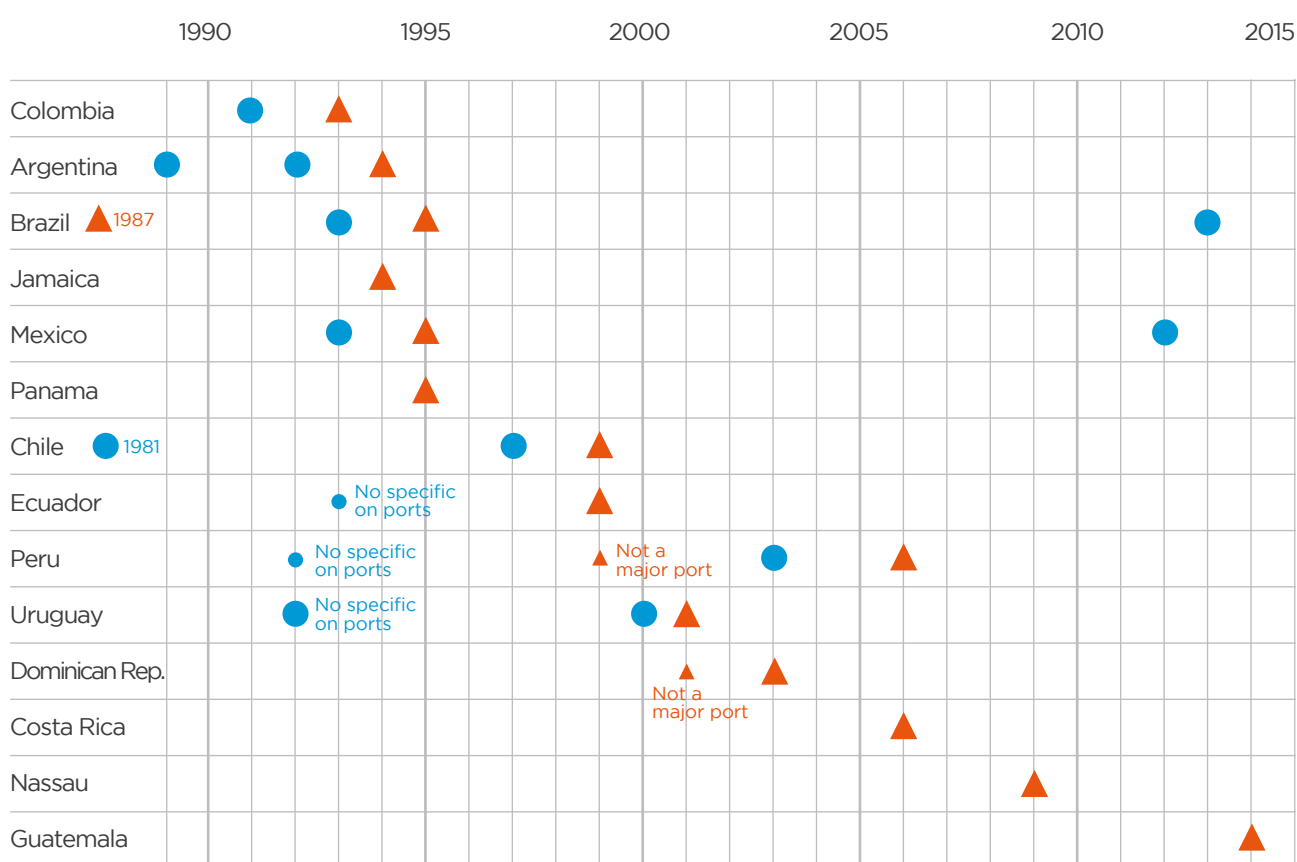
All in all, 61% of total cargo in LAC is mobilized in PPP ports, 30% in privately-owned ports and 9% in state-run terminals. 100% of cargo is mobilized in PPP terminals in Colombia, Ecuador, and Panama. In Mexico, Peru, Uruguay, Honduras, Jamaica, and Argentina, between 61% and 95% of total cargo is mobilized in PPP terminals. The rest, in state-run terminals. In Dominican Republic and Cost Rica, 54% and 35% of container cargo is mobilized in PPP terminals. The rest is handled in state-run terminals. In Chile and Brazil, 52% and 47% respectively is mobilized in PPP terminals, 4% and 5%, in state-run terminals, and 46% and 48%, in privately-owned terminals. In Nicaragua and El Salvador, 100% of cargo is mobilized in state-run terminals. Finally, in Belize, 100% of cargo is mobilized in privately-owned terminals. And, in Bahamas, 98%.



# ANNEX E



**Anexo E - Graphic 1**  
**TIMELINE OF THE FIRST AND LAST PORT PPP**  
**AND PPP LEGISLATION PER COUNTRY**



● Port reform  
 ▲ 1st concession

Source: Produced by the authors.

**Annex E - Table 1****LEGISLATION APPLICABLE TO PORT PPPs PER COUNTRY**

Country	Legislation relevant for PPPs in ports
Argentina	PPP National Regime (2005), Act on Public-Private Partnership Contracts and Regulation ( 2017)
Brazil	Law - National Destatization Program (1997) Creation of the National Civil Aviation Association - ANAC (2005) Law - "for tenders and contracts of public-private partnerships (...)" (2004) Differentiated Regime for Public Procurement" (2011)
Chile	Concessions Act (1996), Regulation of the Concessions Act (1997)
Colombia	Law - Legal Regime for PPPs and Regulation (2012)
Costa Rica	Regulation for PPP contracts (2016)
Dominican Rep.	Act of procurement of goods, works, services and concessions (2006) and Regulation (2012)
Ecuador	Incentives for PPPs Act and Regulation (2015)
Honduras	PPP Act and Regulation (2010)
Jamaica	Framework for the Implementation of the PPP Program (2014), Manual for procurement in the public sector (2014)
Mexico	PPP Act and Regulation (2012)
Peru	Private Investment Promotion Act (1991) PPP Act (2008) Regulation of PPP Act (2014) Decree - Private Promotion Framework (2015), Amendments (2016, 2017)
Uruguay	Public-Private Participation Act (2011), Regulation (2012) and amendments

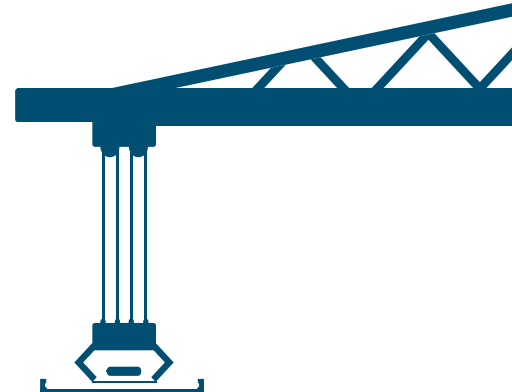
**Source:** Produced by the authors.

**Annex E - Table 2****PORT REFORMS**

Country	Year of reform/port legislation
Argentina	1993
Brazil	1993 / 2013
Colombia	1991
Chile	1981 / 1997
Ecuador	No reform
Jamaica	No reform
Mexico	1993 / 2012
Panama	No reform
Peru	2003
Uruguay	1992 / 2000
Venezuela	1991 / 2009

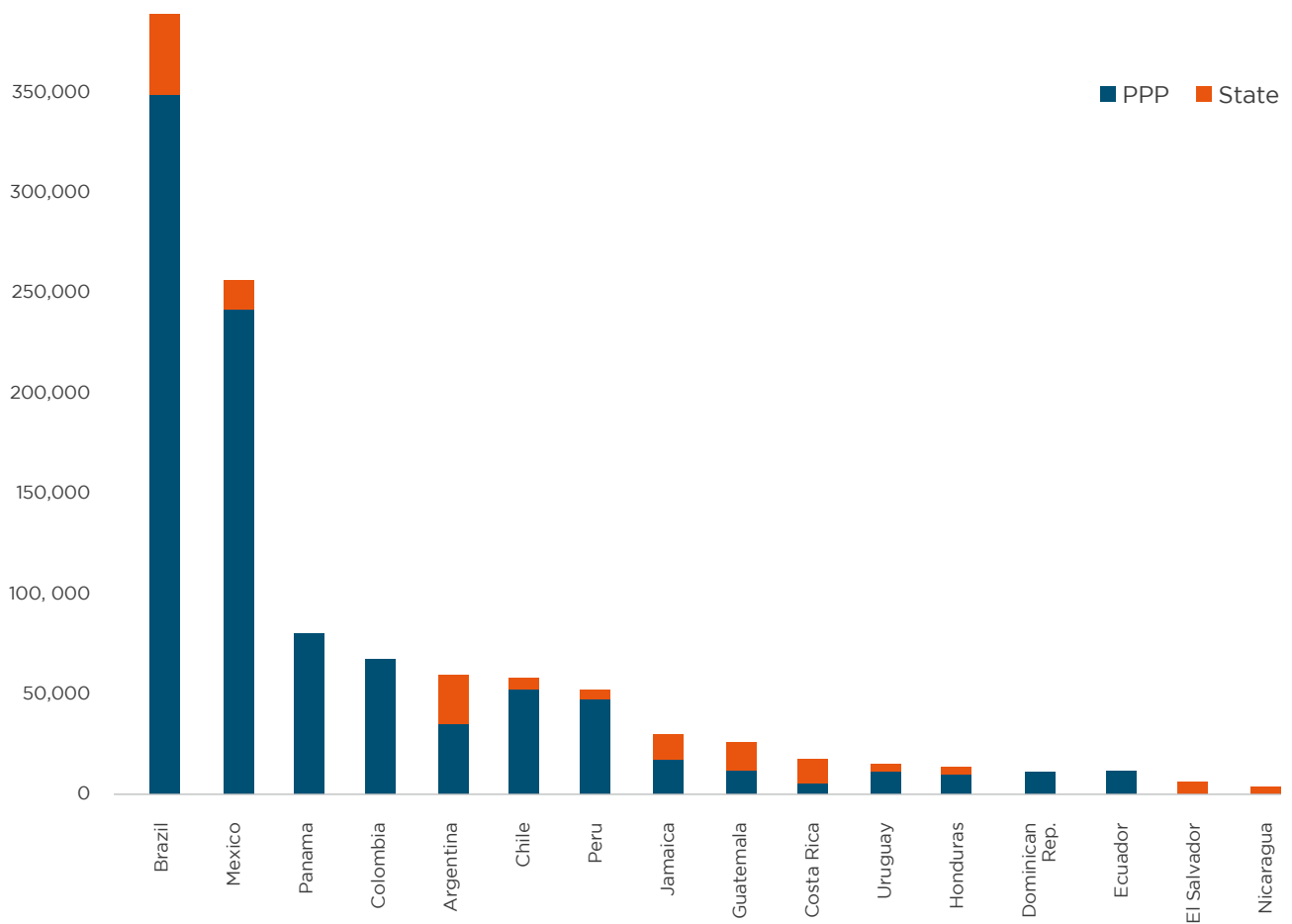
**Source:** Produced by the authors.

# ANNEX F



Annex F - Graphic 1

## TOTAL CARGO BY TYPE OF OPERATION IN STATE-RUN PORTS



Source: Produced by the authors.

Brazil is the country with the largest total cargo, with over 400 million MT, of which 90% is mobilized in PPP terminals and the rest by state port authorities. It is followed by Mexico, with over 250 million MT. 95% is mobilized in PPP terminals. In Colombia, over 70 million MT were mobilized, 100% in PPP terminals. In Argentina, Chile and Peru, between 50 and 60 million MT were mobilized. 61%, 92% and 94%, respectively, were mobilized in PPP terminals.

The following countries in terms of cargo volume are Jamaica and Guatemala, with between approximately 30 and 27 million MT. 63% and 48%, respectively, mobilized in PPP terminals. Costa Rica, Uruguay and Honduras mobilized between 14 and 19 million MT. 35%, 80% and 81%, respectively, were mobilized in PPP terminals. Dominican Republic and Ecuador mobilized around 12 million MT each, with 100% PPP terminals in both cases. Finally, El Salvador and Nicaragua mobilized between 4 and 7 million MT, 100% mobilized in state-run terminals.

# ANNEX G



**Annex G - Table 1**

**PORTS WITH OVER 5 MILLION MT IN TOTAL CARGO OPERATED BY PPPS, STATE AGENCIES AND OTHERS**

Country	Port	Total cargo Thousand MT	Type	Country	Port	Total cargo Thousand MT	Type
1 Mexico	Dos Bocas	34,086	PPP	19 Mexico	Tuxpan	14,507	PPP
2 Mexico	Manzanillo	33,585	PPP	20 Panama	PCP Balboa	13,530	PPP
3 Brazil	Itagüí (Tecar)	32,865	PPP	21 Guatemala	Quetzal	12,801	State
4 Mexico	Lázaro Cárdenas	31,185	PPP	22 Chile	Talcahuano - San Vicente	12,569	PPP
5 Mexico	Coatzacoalcas	28,995	PPP	23 Uruguay	Montevideo	12,437	PPP
6 Mexico	Veracruz	28,974	PPP	24 Panama	PTP Charco Azul	12,192	PPP
7 Mexico	Altamira	23,410	PPP	25 Chile	San Antonio TI	11,874	PPP
8 Brazil	Paranaguá (C. Exportação)	19,885	PPP	26 Honduras	Cortes - Terminal Especializado	11,503	PPP
9 Brazil	Itagüí (Temin)	19,327	PPP	27 Argentina	Bahía Blanca	11,420	PPP
10 Peru	APM Callao	19,104	PPP	28 Jamaica	Kingston Outports	11,108	State
11 Jamaica	Kingston Container terminal	18,895	PPP	29 Dominican Rep.	Puerto Río Haina	10,858	PPP
12 Brazil	Itaqui (Cais Público)	18,843	State	30 Panama	PCT Cristóbal	10,737	PPP
13 Colombia	SPR Buenaventura	17,187	PPP	31 Brazil	Vila Do Conde (T. Múltiplo Uso)	10,100	PPP
14 Brazil	Santos (SB)	16,138	PPP	32 Panama	PTP Chiriqui	9,951	PPP
15 Colombia	CONTECAR	15,843	PPP	33 Chile	Mejillones	9,925	Privately owned
16 Panama	Manzanillo IT	15,234	PPP	34 Brazil	Santos (C. Público - Ponta Da Praia)	9,889	State
17 Brazil	Santos (Btp)	15,050	PPP	35 Dominican Rep.	Multimodal Caucedo	9,755	PPP
18 Peru	DP World Callao	14,686	PPP	36 Brazil	Santos (C. Público - Outeirinhos)	9,692	State

Country	Port	Total cargo Thousand MT	Type	Country	Port	Total cargo Thousand MT	Type
37 Argentina	Rosales	9,437	State	55 Brazil	Santos (T. Granéis Do Guaruja)	7,304	PPP
38 Argentina	Caleta Córdova	9,188	PPP	56 Chile	Caldera	7,238	Privately- owned
39 Brazil	São Francisco Do Sul (Cais Público)	9,185	State	57 Peru	TP Matarani - TISUR	7,175	PPP
40 Costa Rica	Moin	9,170	State	58 Colombia	SPR Santa Marta	6,739	PPP
41 Brazil	Paranaguá (Tc)	9,169	PPP	59 Brazil	Santarém Cargill	6,696	PPP
42 Brazil	Paranaguá (Cais Público)	9,133	PPP	60 Mexico	Progreso	6,599	PPP
43 Mexico	Guaymas	8,997	PPP	61 Mexico	Tobolobampo	6,213	PPP
44 Chile	Terminal Pacifico Sur	8,902	PPP	62 Costa Rica	Puerto Caldera	6,107	PPP
45 Brazil	Rio Grande (Tecon)	8,619	PPP	63 Argentina	Dock Sud	6,084	State
46 Mexico	Salina Cruz	8,199	PPP	64 Brazil	Suape (Graneles Líquidos 3°)	6,082	PPP
47 Mexico	Tampico	8,153	PPP	65 Chile	Ventanas	5,832	Privately- owned
48 Brazil	Santos (Cais Público - Alamo)	8,085	State	66 Brazil	Suape (Graneles Líquidos 2)	5,810	PPP
49 Chile	Puerto Coronel	7,773	Privately- owned	67 Brazil	Santos (Teaçu 2)	5,795	PPP
50 Brazil	Rio Grande (Cais Público)	7,671	State	68 Argentina	Quequén	5,581	PPP
51 Brazil	DP World Santos	7,518	PPP	69 Brazil	Santos (Teaçu 1)	5,482	PPP
52 Brazil	Rio Grande Tergrasa	7,459	PPP	70 Brazil	Santos (Teaçu 3)	5,479	PPP
53 Guatemala	Santo Tomas de Castilla	7,395	State	71 Chile	Puerto Lirquen	5,343	Privately- owned
54 Chile	Puerto Central	7,345	PPP				

**Source:** Produced by the authors.  
In blue, ports under PPP schemes.

# ANNEX H



**Annex H - Table 1**

## MAJOR PRIVATE OPERATORS IN STATE-OWNED TERMINALS BY COUNTRY OF ORIGIN – TOTAL CARGO (2018)

Operator (host country)	# Terminals	Total cargo Thousand MT	% of total LAC
APM (Netherlands)	12 Buenos Aires (Argentina), Itajai, Itapoa, Pecem, Paranagua, Santos BTP (Brazil), TCBuen, Compas Cartagena (Colombia), Moin (Costa Rica), Quetzal (Guatemala), Lázaro Cárdenas, Progreso (Mexico), Callao (Peru)	56,209	6%
SSA (USA)	10 San Vicente, San Antonio (Chile), Barranquilla CT, SMITCO (Colombia), Lázaro Cárdenas, Manzanillo, Progreso, Tuxpan, Veracruz (Mexico), Manzanillo (Panama)	39,677	4%
CSN (Brazil)	2 Tecar Itaguai, Tecon Itaguai (Brazil)	37,308	4%
TIL (Netherlands)	4 Exolgan (Argentina), Santos, Navegantes, Rio de Janeiro (Brazil), Callao (Peru)	36,734	4%
SAAM (Chile)	9 Antofagasta, Corral, Iquique, San Antonio, San Vicente (Chile), Buenavista (Colombia), Caldera (Costa Rica), Guayaquil (Ecuador), Mazatlán (Mexico)	35,406	4%
Hutchinson (China)	10 Buenos Aires (Argentina), Manta (Ecuador) Ensenada, Manzanillo, Lázaro Cárdenas, Veracruz (Mexico), Balboa, Cristóbal (Panama)	28,020	3%
ICTSI (Philippines)	7 La Plata (Argentina), Suape (Brazil), Aguadulce (Colombia), Guayaquil (Ecuador), Cortes (Honduras), Manzanillo, Tuxpan (Mexico)	26,993	3%
DP World (UAE)	9 Buenos Aires (Argentina), Santos (Brazil), Puerto Central, Lirquen (Chile), Posorja (Ecuador), Callao Sur, Paita (Peru), Caucedo (Dominican Rep.), Paramaribo (Suriname)	24,704	3%
GPC (Colombia)	2 SPR Cartagena (Colombia), Contecar (Colombia)	20,452	2%
Vale (Brazil)	6 Ponta Da Madeira, Tubarão, Angra Dos Reis, Ilha Guaíba, Itaguai, Gregorio Curvo (Brazil)	19,327	2%
Santos (Brazil)	4 Imbituba, Santos, Vila do Conde (Brazil)	17,052	2%
Wilson, Sons (Brazil)	2 Rio Grande, Salvador (Brazil)	12,877	1%
Ultramar – ATCO (Chile-Canada)	6 Arica, Terminal Pacifico Sur, Coquimbo, Mejillones, Angamos, Coronel (Chile)	12,481	1%
Katoen Natie (Belgium)	1 Montevideo (Uruguay)	12,437	1%

Operator (host country)	#	Terminals	Total cargo Thousand MT	% of total LAC
Romero (Peru)	3	Matarani, Callao, Salaverry (Peru)	<b>10,072</b>	<b>1%</b>
Tucumann (Brazil)	1	Paracas (Peru), Paranagua (Brazil)	<b>9,169</b>	<b>1%</b>
SP Santa Marta (Colombia)	2	Santa Marta, SMITCO (Colombia)	<b>6,739</b>	<b>1%</b>
Libra (Brasil)	3	Santos, Rio de Janeiro (Brazil)	<b>6,581</b>	<b>1%</b>
SP Barranquilla (Colombia)	2	Barranquilla, BITCO (Colombia)	<b>5,224</b>	<b>0.5%</b>
PSA (Hutchinson) (Singapore)	2	Exolgan (Argentina), Aguadulce (Colombia), PSA (Panama)	<b>3,573</b>	<b>0.4%</b>
COMPAS (Colombia)	3	Barranquilla, Cartagena, Compas Cartagena	<b>2,790</b>	<b>0.3%</b>
GEN (Chile)	3	Talcahuano, Antofagasta	<b>2,586</b>	<b>0.3%</b>
Aleatica (Australia)	1	Valparaíso (Chile)	<b>1,466</b>	<b>0.1%</b>
OCUPA (Mexico)	10	Manzanillo, Lázaro Cárdenas, Veracruz, Altamira, Ensenada, Progreso, Chiapas, Coatzacoalcos, Guaymas	<b>NA</b>	<b>-</b>
PINFRA (Mexico)	3	Altamira, Tamaulipas, Veracruz (Mexico)	<b>NA</b>	<b>-</b>
Mexgal (Mexico)	2	Altamira, Tampico (Mexico)	<b>NA</b>	<b>-</b>
Cosco China	1	Chancay (Peru) (*)	<b>-</b>	<b>-</b>
CM (China)	1	Paranagua (Brazil)	<b>NA</b>	<b>-</b>
CMA GGM (France)	1	Kingston (Jamaica)	<b>NA</b>	<b>-</b>
<b>Total</b>	<b>85</b>	<b>-</b>	<b>367,727</b>	<b>38%</b>
<b>Total PPP Terminals</b>	<b>404</b>	<b>-</b>	<b>966,764</b>	<b>100%</b>

(\*) In pre-operational phase  
**Source:** Produced by the authors.



# ANNEX I

## PORT AUTHORITIES, PORT GOVERNANCE AND MANAGEMENT IN LATIN AMERICA AND THE CARIBBEAN



In LAC, four types of port authorities are identified (Suárez-Alemán et al., 2018):

- 1 -** Authorities managed directly by government bodies. These include the ports of Mexico, where authorities depend on or are directly managed by the Secretary of Transport and Communication, the port of Buenos Aires, which depends on the Ministry of Transport, and ports in Brazil managed by regional governments, such as Paranaguá, and port authorities of Ecuador, El Salvador, Guatemala, Honduras, Jamaica, Panama and Uruguay. In Peru, most of the functions have been transferred to private operators, and the Ministry of Transport and Communications acts as the port authority.
- 2 -** Semi-autonomous agencies managed by a board made up of representatives from different government agencies (case of Chile);
- 3 -** Authorities owned and managed by a group of stakeholders. These include ports in the hands of the national government in Brazil, such as Santos, where the national government is the main shareholder, the board is made up of representatives of the ministries, agents related to port operations, workers representatives and other. Another example is the port of Rosario, Argentina, where the regional government is the majority shareholder and the board has representatives from the government, workers, port operators, importers, and others. Likewise, in Dominican Republic, the board of the port authority includes representatives from shipping companies, exports, and producers; and
- 4 -** Agencies owned and managed by stakeholders' associations, which have also obtained the operation of the port through a PPP (case of Colombia). The table below shows those agencies playing the role of landlord, management, planning, regulation, tender and oversight during the operation stage.

## Annex I - Table 1

### GOVERNMENT BODIES INVOLVED IN PORT OPERATION IN LAC

Country	Port	Landlord	Manager	Planning	Regulator	Tender	Oversight during operation
Argentina - type 1	Buenos Aires	Ministry of Transport	Port Authority	Port Authority, Ministry of Transport			Port Authority, Ministry of Treasury
Argentina - type 2	Dock Sud, Rosario	Port Authority, Regional Government	Port Authority	Port Authority, Regional Government			
Brazil - type 1	Santos, Itaguai	Secretary of Ports	Port Authority	Port Authority, Secretary of Ports	Regulatory Agency, Secretary of Ports, Port Council		Secretary of Ports
Brazil - type 2	Paranaguá, Rio Grande	Port Authority, Regional Government	Port Authority	Regional Government	Regulatory Agency for Waterways, Port Council	Regional Government, Port Council	Regional Government
Chile	Valparaíso, San Antonio	Port Authority					
Colombia	Cartagena, Buenaventura	National Infrastructure Agency	Port Authority	National Planning Authority	Superintendency of Transport (*)	National Infrastructure Agency	Superintendency of Transport
Ecuador	Guayaquil, Bolívar	Ministry of Transport	Port Authority	Ministry of Transport			
Jamaica	Kingston	Port Authority					
Mexico - tipo 1	I. Cárdenas, Manzanillo	Secretary of Transport	Port Authority	Port Authority, Secretary of Transport		Secretary of Transport	Secretary of Transport, Port Authority
Mexico - tipo 2	Campeche	Regional Government	Port Company	Regional Government	Port Authority, Regional Government		Port Authority, Regional Government
Panama	Main ports	Completely private	Private operator		Port Authority		
Peru	Callao, Paita	Ministry of Transport	Private operator	Ministry of Transport, Port Authority	Regulatory Agency for Transport	National Concessions Agency	Ministry of Transport
Uruguay	All ports	Port Authority					

(\*) Division of the Ministry of Transport

Source: Produced by the authors..

- In Chile, Jamaica and Uruguay, all functions are centralized in one entity. In the rest of the countries, there are multiple government agencies involved. In all the cases, except for Colombia, Panama and Peru, there is at least an agency specialized in ports. The port authority plays this role in most cases.
- In Argentina, Brazil, Colombia, Ecuador, Mexico and Peru, regional or national governments (through ministries, secretaries or the national infrastructure agency) play the landlord role. In contrast, in Chile, Jamaica and Uruguay, port authorities or companies play the landlord role.
- In Colombia, Panama and Peru, private operators carry out directly the tasks of managing the port. In Colombia, port companies, with a majority of private shareholders, manage and operate ports. In Peru, PPP operators manage and operate ports. In the rest of the countries, a government agency is the manager.

Planning, regulation, tender and oversight activities during the operation stage are carried out by national or regional government bodies. Colombia and Peru are the exceptions, as they have bodies specialized in tenders. Finally, Brazil and Peru have bodies specialized in regulation.

The table below shows some examples of port authorities that have their own revenue, and also invest directly in ports (mainly in public areas and accesses).

**Annex I - Table 2**  
**PORT AUTHORITIES, REVENUE AND INVESTMENT**

Port authority	Revenue	Investment	Type of body
Veracruz Port Authority (Mexico)	<b>99</b>	<b>NA</b>	Secretary of Communications and Transport
Parana Port Authority (Brazil)	<b>90</b>	<b>9</b>	State Company of the Government of Parana
Lázaro Cárdenas Port Authority (Mexico)	<b>88</b>	<b>94</b>	Secretary of Communications and Transport
Manzanillo Port Authority (Mexico)	<b>63</b>	<b>NA</b>	Secretary of Communications and Transport
EP San Antonio (Chile)	<b>32</b>	<b>25(*)</b>	Semi-autonomous company of the National Government

(\*) Annual investment average for 2014-2018 period.

Source: Produced by the authors.

The table below shows the types of port management (see World Bank, 2007 and Rodrigue, 2017): public service, landlord, corporate and private service.

## Annex I - Table 3

### TYPES OF PORT MANAGEMENT ACCORDING TO PRIVATE AND PUBLIC ROLES

Type	Description
Public service	Port authority is a government agency and performs all the range of port services. Infrastructure and land are state owned.
Landlord – Public service	Coexistence of both landlord and public service terminals.
Landlord	Operation of terminals and other port services is provided by privately-owned companies through a lease, PPP agreement or others. Port authority is a government agency. Infrastructure is state-owned.
Corporate	Operation of terminals and other port services is provided by privately-owned companies. Port authority is partially private. Infrastructure and land are state owned.
Private service	Operation of services and ownership of infrastructure are completely private. Port authority only plays an oversight role.

**Source:** Produced by the authors taking as a reference World Bank (2007), and adapted from Rodrigue (2017).

According to the previous definitions, Table 17 shows the type of port for each of the main ports of each country. In addition, it includes the granting government agency (for the implementation of PPPs and other types of contracts) and the organization of the port in terms of number of terminals and operators. The landlord model is predominant in most of the terminals in Buenos Aires, Limón-Moin, Quetzal, Kingston, Montevideo, and Santos, and in all terminals in Itaguaí, Valparaíso, Guayaquil, Lázaro Cárdenas, Manzanillo, Callao and Paita.

The ports of Buenos Aires, San Antonio, Limón-Moin, Quetzal, Kingston and Montevideo are managed with a combination of landlord and public service types. All of them have at least one PPP terminal and at least one terminal operated by the port authority. In the cases of Limón-Moin, Quetzal and Montevideo, the PPP operator oversees those terminals specialized in containerized cargo.

The port of Santos in Brazil is mainly managed with a landlord model (55 terminals with PPP operators). A new privately-owned terminal was developed, and it is not subject to the regulations of the areas publicly owned in the rest of the port. The landlord model prevails in Itaguaí, Valparaíso, Guayaquil, Lázaro Cárdenas, Manzanillo (Mexico), Callao, Paita, and Freeport.

The largest ports in Panama, Dominican Republic and the Bahamas are completely privately owned and managed by a private service model. Finally, in Barbados, El Salvador, Haiti and Nicaragua, ports are managed under a public service scheme, with the port authority being responsible for operations.

**Annex I - Table 4**  
**PORT MODEL OF THE MAIN PORTS BY COUNTRY**

Port	Port model	Granting agency	Port organization
Buenos Aires (Argentina)	Landlord – Public service	National Government	5 terminals with private operators 1 terminal operated by the port authority
San Antonio (Chile)	Landlord – Public service	Port authority	3 terminals with private operators 1 terminal operated by the port authority
Limón-Moin (Costa Rica)	Landlord – Public service	National Government / Concessions Council	1 terminal with private operators 2 terminals operated by the port authority
Quetzal (Guatemala)	Landlord – Public service	NA	1 terminal with private operators other terminals operated by the port authority
Kingston (Jamaica)	Landlord – Public service	Port authority	1 terminal with private operators 1 terminal operated by a private-government joint venture 1 terminal NA
Montevideo (Uruguay)	Landlord – Public service	NA	1 terminal with private operators other terminals operated by the port authority
Santos (Brazil) State-owned zone	Landlord	Port authority	55 terminals with private operators
Santos (Brazil) Privately-owned zone (*)	Private service	NA	1 terminal
Itaguaí (Brazil)	Landlord	Port authority	4 terminals with private operators
Valparaíso (Chile)	Landlord	Port authority	2 terminals with private operators
Guayaquil (Ecuador)	Landlord	Port authority	2 terminals with private operators
Lázaro Cárdenas (Mexico)	Landlord	Port Authority	13 terminals with private operators
Manzanillo (Mexico)	Landlord	Port Authority	6 terminals with private operators
Callao (Peru)	Landlord	Ministry of Transport and Communications	3 terminals with private operators
Paita (Peru)	Landlord	Ministry of Transport and Communications	1 terminal with private operators
Balboa, Cristóbal (Panama)	Landlord	National Government	1 terminal in each Privately-operated, government keeps 10% of capital
Freeport (Bahamas)	Landlord	National Government	Private port
Caucedo (Dominicana Rep.)	Landlord	NA	Private port
Buenaventura (Colombia)	Corporate	Superintendency of Transport	Port operated by a port company (with minority public capital)
Cartagena (Colombia)	Corporate	Superintendency of Transport	Port operated by a port company (with minority public capital)
Terminal de Contene- dores de Cartagena S.A. CONTECAR (Colombia)	Corporate	ANI (Regulatory and bidding agency)	Port operated by a port company (with minority public capital)
Bridgetown (Barbados), Acajutla (El Salvador), Port-au-Prince (Haiti), Corinto (Nicaragua)	Public service	-	-
Lisas (Trinidad and Toba- go), Nassau (Bahamas)	-	-	Port operated by a private-government joint venture

(\*) Privately-owned zone belongs to DP World Santos

Source: Produced by the authors.

# 2020-2021

## 2020-2021

### 2020-2021

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