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Contact
porteconomics@porteconomics.eu

Transparency in governance: seaport practices

Mary R. Brooks, Dalhouse University, Canada
Geraldine Knatz, University of Southern California, USA
Athanasios A. Pallis, University of the Aegean, Greece and Universidad de Los Andes, Colombia
Gordon Wilmsmeier, Universidad de Los Andes, Colombia

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ABSTRACT

This technical report explores the levels and standards of transparency in the governance of ports. Key actors in port governance, such as government departments involved in port policy-making, port authorities, and port regulators need to be transparent about their behavior, policies and practices as a way of enhancing economic performance and accountability to their stakeholders, particularly the community that hosts the port. The report explores the availability of information to the general public and port stakeholders through the ports most public face—its website, and examines key transparency indicators used at public ports in North America, Europe, and South America. The constructed database includes 87 ports, 23 in the United States (U.S.), 17 in Canada, 21 in South and Central America and the Caribbean (LAC) and 26 in Europe.

This exploratory investigation centered on identifying the parameters that would be useful for the general public to have sufficient information to monitor, review and, in many cases, participate in the decision-making process carried out by the port authority, irrespective of whether or not laws mandate such disclosure. Fifty-one items were identified for the examination of each port's website, focusing primarily on four major categories: decision-making governance, port communications and accessibility, transparency in reporting and transparency in port operational activities. Beyond reporting the findings, and regional variations, with respect to each of these 51 items, nine have been selected as potential proxies that might serve as key indicators for recording and monitoring the evolution of port transparency levels over time.

The research reveals uneven levels of port transparency, as well as the need for further improvements in that transparency. At a practical level, the study reveals a need for increasing the existing levels and standards of transparency in the governance of the port industry, and for greater consistency between ports within a region. Our analysis also provides details on those aspects where port transparency is satisfactory. The report concludes with a research agenda for future research in this field.

Keywords: Port transparency, port governance, port policy, port decision-making, port communications, European Ports, North American ports, Latin American and Caribbean ports.

1 INTRODUCTION

Transparency in the governance of economic activities has emerged as a common expectation, as it is seen as a moral and political imperative related to goals such as accountability, inclusivity, legitimacy, justification, good governance and socially responsible outcomes. It is also linked with the improved performance of an industry, sector, or firm. For this reason, the term is routinely discussed when stakeholders seek to know what businesses are deciding and doing.

Ports are no exception to the expectations of greater transparency. While transparency related concepts have been studied in detail, it is surprisingly striking how under-analyzed the notion of transparency remains, particularly in the maritime and port sector. Thus, the knowledge on relevant practices applied in port governance is limited. This is surprising, as waves of port policy reforms have been examined over the last three decades (see contributions in: Brooks and Cullinane, 2007; Brooks, et al, 2017) but with limited investigation into transparency *per se*. This is despite the

devolution of power to more autonomous, frequently corporatized, ports and related entities aimed to reach the reform goals through increased transparency. It is further surprising as there are many government audits undertaken at a local level that examine port transparency (i.e. listed public port authorities, the Italian ports in Europe etc.).

This study explores the levels and standards of transparency in the governance of ports. The aim is twofold. First, to provide information regarding the existing practices in world ports. Second, to set a research agenda towards a better understanding of current levels of port transparency as well as ways to further enhance it.

In particular, the study surveys different dimensions of governance practices in a sample of 87 ports in the Americas and Europe, focusing on the behavior of the entities governing ports (port authorities) or the government departments involved in port policy-making. This does not imply that the behavior of private actors is not important. However, the nature of these entities is quite different; thus it would require a whole different analysis.

Starting with a definition of transparency, its dimensions and relevance of transparency in the port sector, this empirical research explores the visibility of information available to the general public and port stakeholders through each port's most public face—its website. For most port stakeholders, using or searching a port website is the first action taken by a member of the public or a port stakeholder to find information. The visibility of information and the ease with which it can be located is considered one dimension of a port's commitment to transparency.

The research explores transparency as a set of practices that promote good port governance. Transparency might be imposed through legislation or voluntarily adopted. Effective transparency includes an organization's willingness to consistently communicate and make transparent information available to internal or external stakeholders. The variance in transparency, and its potential implications, are further discussed in the last part of the study.

2 THE BACKGROUND: TRANSPARENCY AND SEAPORTS

2.1 What do we mean by 'transparency'?

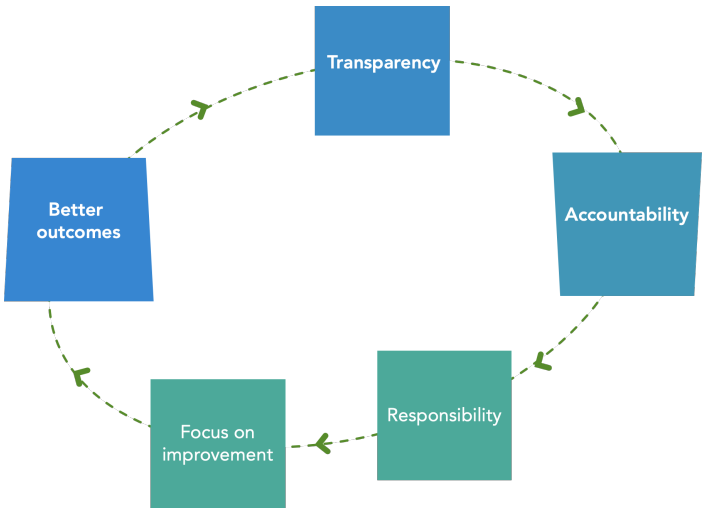
Transparency refers to 'seeing through' or making visible. This is the principle of enabling stakeholders to gain information about the operations and structures of a given entity, which is often considered synonymous with openness, disclosure and facilitating trust.

Transparency builds on the notion that information matters and that information can empower. Based on this notion transparency is connected with other concepts. **Figure 1** graphically illustrates the links between transparency, accountability, responsibility, and focus on improvement. It enables stakeholders to hold an organization accountable by comparing its stated goals to its actual performance and the performance of others. Further, transparency can support the performance of an organization as the access to information allows stakeholder groups and other companies to compare results in the same market.

The concept of transparency has at times been used as a synonym for accountability. Others argue that accountability is an aspect of transparency. We argue that accountability is a result that can be verified via transparency and relates to the generation of trust with stakeholders. Consequently, accountability originates from the responsibility of an organization towards its stakeholders. This responsibility is linked to the considerations that stakeholder empowerment is one way of seeking

and developing improvements and that the consequently altered nature of existing power relationships between actors contribute to better outcomes.

Figure 1. Links between transparency, accountability, responsibility and performance



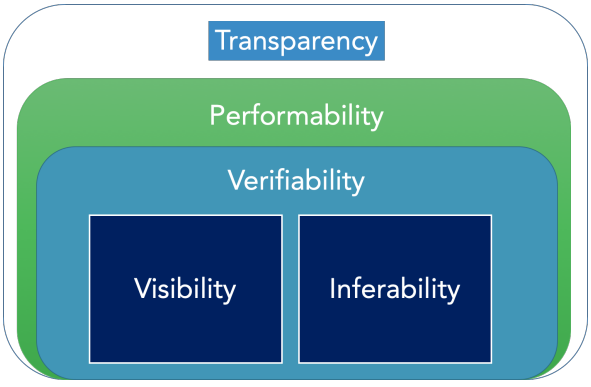
Source: Authors

Nested in this transparency concept are different dimensions that need to be considered in order to realize whether the existing levels of transparency facilitate improvement in the governance, and ultimately the performance, of a given entity (**Figure 2**),

The first dimension, which is the primary focus of this research, is the *visibility* of information, i.e. the degree to which information is complete and found with relative ease. In the case of this research, visibility refers to the existence of specific information within a port's website and the ease of locating it.

Public information is not automatically visible information. The first refers to information that is voluntarily or obligatorily rendered visible, while the second describes the possibility that information can be requested through a specific process. Consequently, public information only becomes transparent, if it is made visible, but not, by being kept in a repository or by simply being defined as 'public' through a freedom of information (FOI) act or law. This last point is important because many organizations hide key reports that should be visible but require FOI action to make them visible.

Figure 2. "Nested" dimensions of transparency



Source: Authors

Beyond the matter of accessibility itself, a characteristic of transparency is the degree of completeness of information. By way of example, a summarized unaudited financial report, makes the financial results of a port visible but does not reveal a complete picture, and without the auditor's opinion it may not be considered verifiable.

A second, dimension of transparency is *inferability,* which refers to the quality of the disclosed information and/or data, and the extent to which the information, in its form and content, can be used to draw accurate conclusions. Combined, these two interdependent dimensions, visibility and inferability, create transparency. The expectation is that the information provided by an organization is not just visible, but also valid and truthful. Inferable information can be used to draw an accurate interpretation, both about visible information and information we do not know. Inferability increases with the disaggregation, verification and simplification of disclosed data/information.

While the qualities of visibility are intrinsic to the information, inferability depends on the receptive capacity of the intended audience (Michener and Bersch, 2013). Simplification of data, thus, needs to be adequate, as does differentiation between indirect transparency (transparency understood by experts) and direct transparency, which reaches the wider public. Expecting information to speak to every stakeholder is idealistic. Generalizing information might result in less transparency as it limits accuracy.

The third dimension is *verifiability*. With transparency being a matter of information disclosure, the quality and quantity of information permits one to fully observe organizational action, and provides a means of solving organizational and societal problems by improving the effectiveness and quality of transparency efforts. Not all information that is visible is verifiable or even intelligible.

The fourth dimension is *performativity*. This is the extent that transparency enactment (i.e. acts of making things visible) stands as a process with (un)intended dynamics that induce (social) action, such as agreements, conflicts, tensions, and negotiations, and leads to the improvement of management in organizational settings. The basic identification of transparency does not reveal whether the information is useful. The latter can be analyzed in the context of the performativity dimension as it relates to why and how information is supplied to stakeholders.

As mentioned above, levels of transparency might be imposed or voluntary. The former refers to rules and requirements on disclosure. The latter refers to voluntary initiatives, practices and strategies. Over the last several years, more and more countries have endorsed rules that require a minimum amount of transparency in governing economic activities. One example is the U.S. 'sunshine laws' that aim to ensure certain government activities are conducted in an open and ethical nature, and they apply to both federal and state government agencies and/or to business activities where the public domain retains a key role. These regulations require openness in decision-making meetings, records, votes, deliberations, and other official actions available for public observation, participation, and/or inspection, as well as government meetings to be held with sufficient advance notice and at times and places that are convenient and accessible to the public, with exceptions for emergency meetings. However, several countries have yet to endorse and apply relevant regulatory obligations and, as a result, both the practices of government agencies and businesses develop in an *ad hoc* basis. Overall, an increasing number of countries are adopting open government reforms (in Latin America only Venezuela and Costa Rica have not legislated on access to information); yet, there remains wide variation in openness across countries, with political, administrative, historic and civic factors explaining this variation as well the disparity in implementation.

A problem that becomes apparent when analyzing transparency is that the notion of transparency can be reduced to a "catch-phrase," ignoring the complexity of these nested dimensions.

This technical report aims to contribute to a differentiated use and analysis of transparency in the context of ports and, by doing so, to generate the relevance and understanding of transparency and its role in 'good governance' of these critical infrastructures. In this vein, for ports, like all other industries, information to be acknowledged as transparent must, to a certain extent, be visible (complete and findable). While the attributes of visibility (completeness and findability) are both necessary, those of inferability (disaggregation, verification, and simplification) are substitutable and adaptable to the intended audience. Within the context of verifiability the concept of information disclosure or visibility stands in the center of the discussion – and thus the focus of our research.

2.2 What do we already know about transparency in port governance?

The issue of transparency has been, in essence, touched by studies examining Port Authority (PA) communications in terms of disclosed contents. A content analysis of annual reports of 38 PAs by Parola et al (2013) examined the innovativeness and potential determinants of the disclosed corporate communication. Notteboom et al (2015) evaluated the annual reports of the Port of Rotterdam Authority investigating information disclosure as a tool for successfully managing the evolving interests of stakeholders and supporting the implementation of corporate strategy in the management of critical issues. These studies revealed a changing relative importance of topics reported over time; external pressures and internal key events have led to a shift from financial and governance issues towards broader community themes like environment and safety/security.

In a more explicit manner, port transparency has been part of studies targeting the assessment of national port governance models. Examining port governance in Canada, Brooks (2017) questioned, among other topics, whether given the potential for private equity participation, Canadian Port Authorities (CPAs) meet the 'good governance' principles expected of Canadian publicly traded companies. Focusing on how competition is driving change in port governance, strategic decision-making and government policy in the US, Knatz (2017) addresses action taken by the Texas legislature due to finding a lack of transparency at the Port of Houston as part of a 'fixing the governance' exercise.[1]

More than a decade earlier, Ubbels (2005) studied the Hamburg-Le Havre range in Europe, and advocated that the low levels of transparency and the differences in (national) port management styles are the two major institutional barriers to the creation of a level playing field in the European port industry. Given the competitive nature of the port industry, with almost all ports seeking to be industry leaders, the quality of governance must come into play. Verhoeven and Vanoutrive (2012) identified four port types using factor analysis on a database of 116 port authorities containing 72 variables. Corporate governance variables played a role in the allocation of ports to groupings by autonomy, port proactiveness, transparency in financial accounting and contracting out, and public versus private funding. In other words, they found four port types and concluded that governance matters.

In the beginning of the 2010s, Brooks and Pallis (2012) noted that 63 of the 69 major container ports of the world studied had a 'Board of Directors' (BoD) but what those BoDs did, how they were directed and what their priorities were differed, calling this 'the myth of the perfect model'. It is common in state-owned or state-related entities, and, not least, personally experienced by the researchers, that political influence and/or connections might be critical for the work of a port's BoD. Besides, public control in such entities frequently leads to the presence of many prominent local politicians and former bureaucrats and few independent directors serving the respective Boards. In this context, politically connected BoD members might go after other than expected goals. They

[1] https://www.governing.com/topics/finance/gov-special-districts-transparency-pirg.html

might prefer serving political alliances, in order to perpetuate their tenure on the board and keep themselves in the limelight. Following political masters (who appointed you) is the way towards reappointment or, in some cases, reelection. Other goals, like securing funding for the local community or pursuing a political mission, might be prioritized making the difference in a port's effort to compete. These practices have commonly been used in many networked industries (see: Menozzi and Vannoni, 2014), such as local public utilities, so that clear and good corporate governance practices are strongly required.

2.3 Transparency and this study

The aforementioned studies indicate that transparency issues come into play when discussing the effectiveness of port governance as well as decision making by the entity assigned with the responsibility of managing the port. As the spread of governance models endorsed increases (see the recap of trends in 24 different countries in: Brooks at al, 2017), a detailed examination of the level(s) of transparency in place would help evaluate (a) whether any or all ports are today more transparent, hence better governed, than in the past; and (b) whether different choices with respect to the interplay of the public and private sector in the governance of ports might affect transparency levels.

Embarking on an empirical study of ports in different regions and countries would also facilitate a better understanding of the extent that institutional factors might be decisive for the levels of port transparency, and good governance. Port governance and reforms are frequently highly politicized processes affected by the institutional setting, i.e., the rules and norms of the economies within which they are embedded (Ng and Pallis 2010).

The levels of transparency of any entity like a PA—whether public, private, or a hybrid one at the intersection of private and public—are frequently imposed by national legislation and regulatory mechanisms, which in turn are subject to the cultural dynamics of the political economy within which they are embedded. In Latin America, for example, this political economy is infused with cultural imprints, such as persistent military intervention, patronage networks and external intervention by powerful private or government forces, i.e., a context designed by a powerful set of actors unwilling to face up to the connected corruption. The transport sector would not be unaffected, both because of its vital role in the economy, and the magnitude of investments and accompanying financial operations. Due to the latter, transparency related to the governance, funding, and financing of transport infrastructure has been seen as important by both scholars (see: O'Brien et al. 2019), and government initiatives examining corruption worldwide (Transparency International, 2019). However, neither the relationship between transparency and the current institutional setting nor the role of past decisions (path dependency) might be linear; PAs' routines might demonstrate essential flexibility (Notteboom et al, 2013) to recombine and convert or reinterpret their institutional setting for their own objectives.

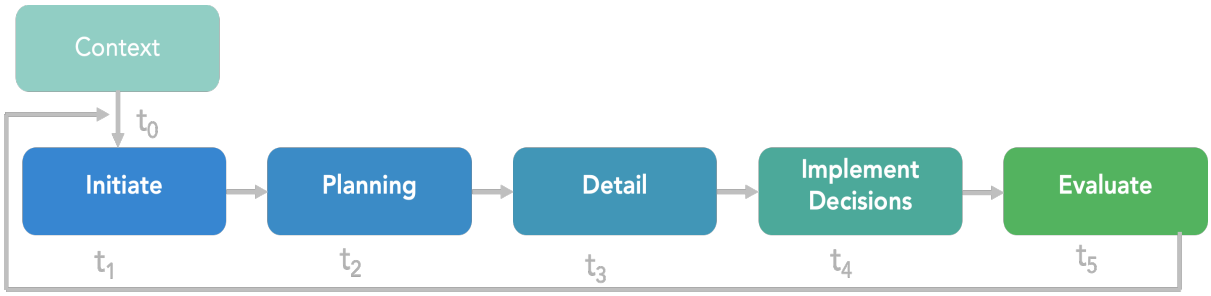
With ports being multifaceted entities, transparency is a multidimensional concept that can hardly be thoroughly explored by a single study. It is generally associated with information flows, formal disclosure policies, and publication approaches, as well as discussions and meetings with stakeholders. Communication protocols are also relevant; for example, has the port kept pace with newer ways to communicate, like websites and social media, or are they still publishing notices in newspapers that a good segment of the population no longer reads?

We propose three questions about transparency. First, what is transparency in the context of ports? Following the previously set dimensions of transparency, a basic condition is the visibility the information in terms of quantity and quality. In publicly accountable organizations, it has to be available—accessibility also becomes important—for the general public to assess the when, how and

why certain decisions are made, and to allow the stakeholders to participate in that review/oversight process that leads to the accountability of directors and management, and ultimately responsibility by them for outcomes as noted in **Figure 1**. The information has to be timely (available with sufficient time before a public meeting for a stakeholder to have time to read and digest the information); it has to be understandable, including availability in the languages used by that public to which the organization is accountable; and it has to be an accurate representation of what that organization is accountable for, e.g., complete reports are required; abstracts or summaries are therefore not transparent.

The second question is: when is transparency important? Transparency is a concept that applies to the various stages of a decision-making process (**Figure 3**): from the conceptualization (which takes place at time period t_0) to the initiation of port development, operation and management strategies (that take place at the later time t_1), the planning (at time t_2) and detail (at time t_3) of the decided actions (i.e., business plans, master plans, port works, environmental impact assessments and governance resolutions), and then during the phases of implementation (t_4), and evaluation of the produced outcomes (t_5) that could result in a restart of port reform (Brooks and Pallis, 2008).

Figure 3. When Transparency? The decision-making process



Source: Authors

The levels of transparency in each of these stages define the involvement and contribution of service providers, users, and stakeholders, determining the effectiveness of the decisions taken. With transparency having several components, i.e., governance/decision-making transparency, financial disclosure, and performance transparency, the availability of information at all stages of the process is a key determinant of the efficiency of resource allocation decisions; when organizations are opaque and their interests are secret, decision-making distorts efficiency.

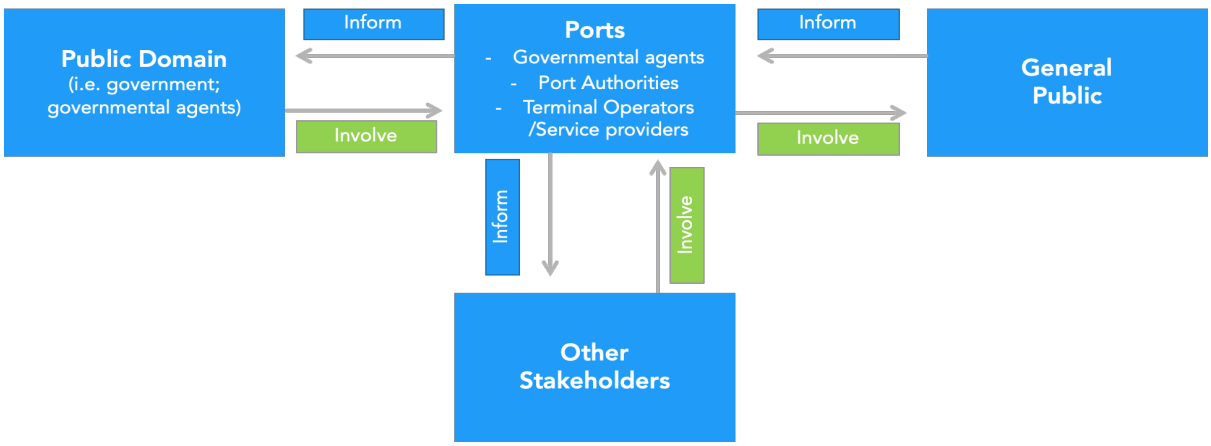
The third question is: Transparency for whom? The 'for whom' is key to what decision-making transparency refers to, whether the model is a private or corporatized port or a public port. In the case of a neither fully private nor fully public port, the governance model must balance the diverse expectations of shareholders (or government) and those of other stakeholders. In **Figure 4**, the various port stakeholders are represented and the governance model will determine if information is merely intended to inform or if it has both inform and involve roles to play.

The challenge is that 'hybrid' models (those that feature selected elements of both public and private models) are frequent in port governance, and in those models the reporting structure may not be clear, as the role of shareholder (private) or citizen/taxpayer (public) may not be adequately articulated in the governing legislation, regulations, or by-laws.

Consequently, transparency in ports might vary across both regions/countries and governance models, and requires more than publication and disclosure of information. By examining the current levels of transparency in ports—in particular the visibility dimension of transparency—in different

countries, port regions, and governance models, the intention is to develop a preliminary framework for evaluating the transparency of port policy and port regulation by governments and an agenda for further research.

Figure 4. Transparency for Whom?



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3 METHODOLOGY

This research examines key transparency indicators used at public ports in North America, Europe, and South America. The constructed database includes 87 ports, 40 in North America, 21 in South and Central America and 26 in Europe (**Table 1**). In the United States, 23 public ports, both large and small, were selected from each of four coastlines (Pacific; Atlantic, Gulf; Great Lakes). This ensured coverage of all areas of the country, providing an opportunity to examine any regional differences within the US. In Canada, all 17 Canada Port Authorities (CPAs) were examined; these ports are 'corporatized federal agencies' under the *Canada Marine Act 1998* and responsible for almost all of the international container traffic and the majority of international bulk traffic. In Europe, the sample includes the major port in each of the 21 European Union (E.U.) member countries plus any other port listed in the top-15 container ports in terms of throughput using 2018 data. With the European sample being a multi-country one, the variance of governance models in these ports includes five different patterns. In South and Central America, the sample includes the major port in each country, and selected other major container ports.

Ports in different parts of the world have different governance structure and different mandates for public access and disclosure. Regardless of structure, the majority of ports had a board of directors. No evidence of the existence of a board of directors was found for some ports in Latin America. This exploratory investigation centered on identifying the parameters that would be useful for stakeholders, as well as the general public to have sufficient information to monitor, review and in many cases, participate in the decision-making process carried out by the port authority, irrespective of whether or not laws mandate such disclosure. Beyond the analysis of the extent to which ports supply such information to the general public, the analysis also looks at the regional differences and patterns that can be discerned from the ports examined. Research data was collected by a systematic review of each port's website. Where a port may be part of a larger government authority (an office within a state department of transportation in the case of some U.S. ports), the website of the higher government authority was also searched. Thus, the methodology focuses on the visibility dimension of information as previously defined.

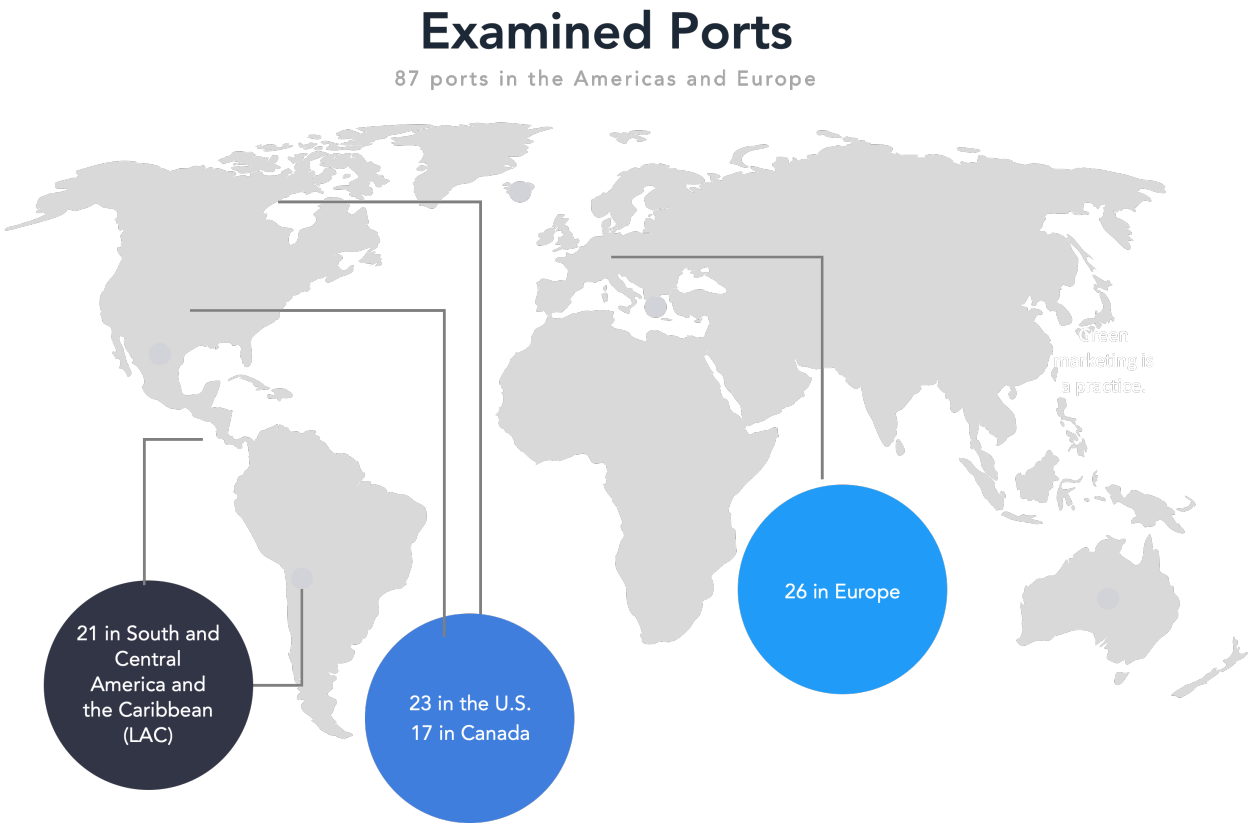

Table 1. Examined ports

Region	Sub-region	n	Port Governance	n
Canada (17)	Eastern Canada & St. Lawrence River	9	Corporatized public PA	17
	Western Canada	4		
	Great Lakes Canada	4		
Europe (26)	Mediterranean	11	Public Port Authority	15
	North Europe	8	Corporatized public PA	5
	Baltic	5	Listed company public sector majority	3
	Black Sea	2	Listed company / private majority	1
			National Port Authority	2
Latin America & Caribbean (LAC) (21)	South America	12	Public Port Authority	14
	Central America	6	State (national) Port Authority	7
	Caribbean	3		
U.S.A. (23)	Atlantic	8	Public Port Authority	23
	Pacific	6		
	Gulf	5		
	Great Lakes USA	4		
Total			87	

** For details of the examined ports per region see: Appendix I*

Fifty-one items were identified for the examination of each port's website. They comprised four major categories: decision-making governance, port communications and information accessibility, transparency in reporting, and transparency in port operational activities. The decision-making governance category included such items as board member biographies, whether there were public meetings, whether there were agendas posted prior to the meetings and the availability of meeting minutes. The port communications and information accessibility category included contact information for key executives and staff, and social media use. The transparency in reporting category focused on the availability of port-generated reports such as annual reports, financial statements or port development plans as well as the provision of tools or materials for non-national language speaking or reading members of the public. Finally, the category of transparency in port operational activities examined the content of port websites for information on port tariffs, sailing schedules and dashboards for port operations.

In all four categories, data were recorded as *yes*, when the data were found on the port website or in a downloadable report on that website, and could be downloaded by anyone. A *no* meant the data was not available or, at least, not found within one hour of searching the site or any downloadable report. There may be cases where the data are publicly available and may even be on the website but was not found by the investigators within that one-hour time limit. While this may mean that 'yes' may be understated, difficulty in finding information is one indicator of lack of transparency.

The data collected are analyzed in more than one dimension. This technical report starts with the analysis of the overall findings, examining regional/country approaches. In this part we have opted to report the findings in the two North American countries separately, in an effort to present a comparison that would make easier a future search for the reasons leading to the variance in transparency observed when ports in specific countries are under consideration. It is also appropriate as the regulatory environment in each is substantially different; Canada has a national port policy while the U.S. does not, and governance models there tend to be regional/local.

A second dimension is that of differences by port governance model. While public interest sustains in all port cases explored, the status and governance of the authorities governing these ports differ remarkably. It is thus worth searching for the implications of this differentiation. Third, the data collected is drilled down to just the 31 major container ports (MCP), aiming to confirm or reject the expectation that bigger ports have advanced further in relation to the transparency of their governance. The major container ports group includes the top-10 U.S. container ports, nine of the 10 major E.U. container ports (as the British port of Felixstowe is fully privatized – including the selling of land – and has been excluded from the list of the examined ports) and the four major Canadian ports that exceed a 500.000 TEUs annual throughput.

Beyond reporting the findings, and regional variations, with respect to each of these 51 items, nine items have been selected as potential proxies that might be serve as key indicators for recording and monitoring the evolution of port transparency levels over time; these are discussed in section 5.1.

4 MEASURES OF PORT TRANSPARENCY

4.1 Decision-making governance

The role of a Board of Directors (BoD) is to provide oversight of management and 'good stewardship' of the assets of the organization. A Board of Directors governs the vast majority of the examined ports; however several cases in Latin America are potentially not directly governed by a BoD. These cases include Nicaragua and Uruguay, where it has not been possible to determine if a Board does exist. The five-year port plan of Nicaragua for 2012-216 mentioned the establishment of

a Board of Directors, yet information on the stage of implementation is non-existent. In the case of Uruguay such information is absent on the website and annual reports are not accessible for confirmation[2]. Port authorities like the port authority of Buenos Aires, Argentina, the port authority of Guayaquil or Manta in Ecuador or the local port authorities in Mexico (APIs – Administración Portuaria Integral) do not have BoDs. One could assume that decisions are produced via other government mechanisms,

The same assumption could be made in the case of two other ports in Europe: Limassol in Cyprus, and Marssaxlokk in Malta, are governed by nation-state level authorities, the Cyprus Port Authority and Malta Freeport Limited respectively. Yet, both 'national' authorities are governed by a Board of Directors (in the case of Malta the corporatization of the Port Authority has been followed by minority shares selling of the company and issuing of bonds via the Luxemburg stock exchange), Adding the size of these island countries and the absence of other ports with significant international traffic, it is rather more accurate to assume that these BoDs govern the major ports of each country.

It is also safe to assume that whenever ports without a Board are corporatized public entities, decisions are the results of more personalized processes, for example adopted by one or a few members of the executive leadership, or decided elsewhere. Thus, in these cases, a lower level of transparency with respect to decision-making is obvious (and answers to the relative questions of this research are considered negative). In the other ports, without transparency and accountability, the Boards will fail to be fully responsible for their actions.

What are the mechanisms for Board accountability? In the private sector model, the Annual Report (AR) serves as a primary mechanism for accountability, and it is released in advance of the Annual Meeting (AM). If the port is publicly traded, stock exchange filings (annual, quarterly or of material business changes) are part of that public record. The Annual Meeting establishes director accountability as its purpose is to discuss the AR, and any shareholder motions arising from it. If shareholders are dissatisfied, that may be communicated by their votes on the continued tenure of specific Directors, their votes on the choice of Auditor, and their votes on specific shareholder motions for which there is advance notice. For public port authorities, the practice is less clear as each government will determine what accountability mechanisms it wishes to use of those available. These may vary from ARs to 'stakeholder reports' (annual or not), open meetings, televised/webcast meetings, publicly available Board meeting minutes, and so on.

Therefore, **Tables 2 and 5** viewed concurrently prove to be instructive, as the accountability mechanisms and the transparency of Board performance are related to the governance model for the port. Webcast or televised regular board (elected officials) meetings are common in public sector governance, with the government—be it national, state-level or municipal—having set times and broadcast programs for those who wish to view proceedings. To go even further, it may be possible for such viewing to be on-demand, but that is generally not the case now.

In North America, all meetings of the Boards of Directors of U.S. ports are open to the public; and most webcast meetings are live and then they are there to view whenever you want—not at specific times. The 96% value for public meetings for the U.S. is due to a seasonal Great Lake port not having any information posted on Board meetings during the survey period (which occurred during the winter months). Canadian ports have one open meeting per year called the Annual Meeting (**Table 2**). In the U.S., the concept of one open annual meeting does not apply; rather, the U.S. version of the annual meeting is often a regular board meeting when officers are elected (**Table 5**). On the other hand, Canadian ports, as public port authorities with a corporatized model, follow a more

[2]. Website note "under construction", http://www.anp.com.uy/inicio/institucional/memoria_anual/ [accessed 12/6/2020]

private sector pattern than many of the others examined. As section 37 (1) of the *Canada Marine Act* requires the public to have access to audited financial statements at least 30 days prior to Annual Meeting, this implies that prior notice of the meeting takes place. However, **Table 2** indicates a casual approach to communication about the meeting and its agenda is evident for some CPAs. Neither attendance lists nor meeting minutes are seen as required under the Canadian legislation, and so therefore are generally not available.

Table 2. Information on Annual Meetings (AM)

Annual Meetings	Total (N=87)	Total (%)	Canada (n=17)	Europe (n=26)	LAC (n=21)	USA (n=23)
Open to the Public (1)	33	37,9%	59%	0%	5%	96%
By Invitation Only (2)	3	3,4%	0%	12%	0%	0%
Public access to the AM (1) + (2)	36	42.3%	59%	12%	5%	96%
Available via webcast	23	26.,4%	0%	0%	5%	39%
Prior Notice of AM is given	37	42,5%	65%	12%	5%	96%
Agendas posted in Advance	28	32,2%	41%	12%	0%	78%
Agendas publicly available	29	33,3%	41%	12%	0%	83%
Lists of Attendance published	18	20,7%	0%	0%	5%	74%
Minutes are published	23	26,4%	0%	12%	9%	78%

Table 3. Information on Annual Meetings (AM) by Port Governance Model

Annual Meetings	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Open to the Public (1)	42%	45%	0%	0%	11%
By Invitation Only (2)	0%	0%	67%	100%	0%
Public access to the AM (1) + (2)	42%	45%	67%	100%	11%
Available via webcast	42%	0%	0%	0%	11%
Prior Notice of AM is given	42%	50%	67%	100%	11%
Agendas posted in Advance	31%	32%	67%	100%	0%
Agendas publicly available	37%	32%	67%	100%	0%
Lists of Attendance published	33%	0%	0%	0%	0%
Minutes are published	35%	0%	67%	100%	11%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 4. Information on Annual Meetings (AM) – Major Container Ports (MCP)

Annual Meetings	Total MCP (n=31)	Total MCP (%)	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Open to the Public (1)	13	42%	50%	0%	13%	100%
By Invitation Only (2)	1	3%	0%	11%	0%	0%
Public access to the AM (1) + (2)	14	45%	50%	11%	13%	100%
Available via webcast	7	23%	0%	0%	13%	60%
Prior Notice of AM is given	14	45%	50%	11%	13%	100%
Agendas posted in Advance	11	35%	25%	11%	0%	90%
Agendas publicly available	11	35%	25%	11%	0%	90%
Lists of Attendance published	7	23%	0%	0%	0%	80%
Minutes are published	9	29%	0%	11%	0%	80%

Table 5. Public Access to Board Meetings (BM)

Board Meetings	Total (N=87)	Total (%)	Canada (n=17)	Europe (n=26)	LAC (n=21)	USA (n=23)
Open to the Public (1)	23	26,4%	0%	0%	5%	96%
By Invitation Only (2)	1	1,1%	0%	4%	0%	0%
Public access to the meeting (1) + (2)	24	27.6%	0%	4%	5%	96%
Available via webcast	10	11,5%	0%	0%	5%	39%
Prior Notice of BM is given	23	26,4%	0%	4%	0%	96%
Agendas posted in advance	18	20,7%	0%	0%	0%	78%
Agendas publicly available	20	23,0%	0%	0%	5%	83%
Lists of Attendance are published	19	21,8%	6%	0%	5%	74%
Minutes are published	21	24,1%	6%	0%	10%	78%

Table 6. Public Access to Board Meetings (BM) by Port Governance Model

	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Open to the Public (1)	42%	0%	0%	0%	11%
By Invitation Only (2)	0%	0%	0%	100%	0%
Public access to the meeting (1) + (2)	42%	0%	0%	100%	11%
Available via webcast	17%	0%	0%	0%	11%
Prior Notice of BM is given	42%	0%	0%	100%	0%
Agendas posted in advance	35%	0%	0%	0%	0%
Agendas publicly available	37%	0%	0%	0%	11%
Lists of Attendance are published	35%	5%	0%	0%	0%
Minutes are published	37%	5%	0%	0%	11%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 7. Public Access to Board Meetings (BM) – Major Container Ports

	Total (n=31)	Total %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Open to the Public (1)	11	35%	0%	0%	13%	100%
By Invitation Only (2)	1	3%	0%	11%	0%	0%
Public access to the AM (1) + (2)	12	38%	0%	11%	13%	100%
Available via webcast	7	23%	0%	11%	13%	60%
Prior Notice of AM is given	11	35%	0%	0%	0%	100%
Agendas posted in Advance	9	29%	0%	0%	0%	90%
Agendas publicly available	9	29%	0%	0%	0%	90%
Lists of Attendance published	7	23%	0%	0%	0%	80%
Minutes are published	8	26%	0%	0%	0%	80%

In Europe, the ports holding an Annual Meeting that might be attended by more than just the shareholders are those ports that are listed on the stock exchange, with this attendance being subject to shareholding or invitation only. The same ports are the ones that provide a prior notice of the AM, posting their agendas in advance and the AM minutes afterwards. There are four publicly-

listed European PAs and these are the ones that provide data with respect to Annual Meetings traceable to stock exchange obligations.

In the case of the Latin America and Caribbean (LAC), information on annual meetings is not available as found in the other regions. Some countries are implementing "transparency dashboards" where information is accessible. In the case of Argentina, this internal search tool called "Digesto Normativo de Puerto Buenos Aires" that contains all Resolutions, Provisions, Agreements, Minutes, and Authorizations[3]. Puerto Rico is the most 'transparent' port among those surveyed in LAC, seemingly implementing the U.S. principles. In the case of Peru, a consultation website does exist, but access is limited, thus this is a good example of passive visibility of information[4].

As for Board Meetings being accessible/transparent, the U.S., where the trend is toward increased transparency with many ports webcasting their meetings, is the exception. The dominant model is to follow the private sector approach; Board meetings for publicly-traded companies are not open to the public. There are few exceptions; in Canada one port makes its archived decisions and minutes available online for community relations purposes. As for both Annual Meetings and Board meetings in Latin America, there was little to be found (**Tables 2 and 5**).

A key factor in governance transparency is knowing who Board members are and identifying both conflicts of interest and specific skills they bring to the Board. Therefore, a best practice is a port website identifying port Board Members, or in cases without a BoD governance model key decision-makers, with pictures, bios and information on (a) which nominating group they represent, and (b) what other organizations that they currently hold an executive, officer or board appointment (so that conflicts of interest may be clear). Finally, it is also good to know which skills they bring to the table, which may be either stated explicitly or inferred from the bio.

Such disclosure is evident in about half of the port cases examined. There is no consistency among ports on the ability for the public to know about each Director and any (potential) conflicts of interest they may have (**Tables 8, 9 & 10**). Ports in each of the examined four regions follow a different pattern.

The provision of details of Directors and Officers (i.e., CEOs, CFOs, etc) in bios is the norm in the U.S., happens in about half of the Canadian CPAs, is less frequent in the Latin American case, and in only about a quarter of the European ports examined. Ports reveal less detail with respect to the specification of qualifications of those who serve. If the taxpayer/ citizen (public) or the shareholder (private) is to be confident in those whose fiduciary responsibility is to serve the objectives of the port without personal or political gain, it is clear that there is some improvement needed in this measure of transparency in its various forms. Which of these is the best mechanism for accountability is not being addressed, but is a consideration for future research. The first four items in **Tables 8-10** are not mutually exclusive, and so the key question is one of overlap; the non-transparent port is the one that does not meet any of these tests for conflict of interest.

Another measure of transparency is the availability of port executive salaries. For public ports, this should be public information but it is rarely posted online or easy to find. The difficulty in finding this information indicates the desire to keep this information confidential. If a port CEO is working under contract and that contract required board approval, then the information is disclosed at that time. It may be impossible to find later. The only port in the United States where all port employee salaries is found on the port website is the Port of New York/New Jersey. In California, all port employee

[3] http://www.e-puertobue.com.ar/infoleg/index.php [accessed 16/6/2020]
[4] http://consultadoc.apn.gob.pe/consulta-documento.jsf [accessed 16/6/2020]

salaries can be found on an independent website called TransparentCalifornia.com. Here again, South American ports stand out, this time with the greatest number of ports providing executive salaries; in several cases all port employee salaries are public. A good example is Valparaiso as a representative of the Chilean ports[5]; in the case of Guayaquil[6] in Ecuador, a monthly update of all PA employees is available; in either example, the publication of the information is in compliance with national laws. In Canada, the *Canada Marine Act* requires the publication of all remuneration for Directors, and for management staff above a 'certain threshold'. That threshold is not indicated by Transport Canada, and not all ports comply with the legislation. In Europe, the salaries of the executives are reported only by two ports listed on the stock exchange (i.e., Piraeus and Tallinn) as well as by two companies that have assumed responsibility for operating ports (i.e., Hamburg and Dublin). In the other 22 cases, salaries of executives are not available (at least) on the website, while in only half of these cases information regarding the salaries of BoD members are reported in aggregate as part of the reporting of the financial accounts.

Table 8. Visibility of Potential Conflicts of Interest

	Total (N=87)	Total (%)	Canada (n=17)	Europe (n=26)	LAC (n=21)	USA (n=23)
Web/AR provides bio of BoD members	44	50,6%	47%	27%	38%	91%
Web/AR specifies Board Member qualifications	21	24,1%	24%	27%	43%	4%
Web/AR specifies the organizations represented	40	46,0%	65%	58%	0,0%	61%
Web/AR provides information on other Board appointments held by each Member	16	18,4%	41%	19%	0%	17%
Executive salaries reported	34	39.1%	58%	15%	81%	13%

Table 9. Visibility of Potential Conflicts of Interest by Port Governance Model

	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Web/AR provides bio of BoD members	52%	45%	67%	100%	44%
Web/AR specifies Board Member qualifications	19%	27%	67%	100%	22%
Web/AR specifies the organizations represented	46%	59%	67%	100%	0%
Web/AR provides information on other Board appointments held by each Member	8%	41%	67%	100%	0%
Executive salaries reported	33%	50%	33%	100%	44%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

[5] https://www.puertovalparaiso.cl/empresa/remuneraciones [accessed 15/6/2020]

[6] http://www.puertodeguayaquil.gob.ec/ [accessed 15/6/2020]

Table 10. Visibility of Potential Conflicts of Interest – Major Container Ports

	Total (n=31)	Total %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Web/AR provides bio of BoD members	19	61%	75%	33%	38%	100%
Web/AR specifies Board Member qualifications	6	19%	25%	33%	25%	0%
Web/AR specifies the organizations represented	16	52%	50%	100%	0%	50%
Web/AR provides information on other Board appointments held by each Member	7	23%	75%	22%	0%	20%
Executive salaries reported	14	45%	75%	22%	88%	20%

The types of committees a port's Board has, and who chairs or serves on them, is another indicator of transparency in a Board's decision-making (**Tables 11-13**). At the most basic level, there is an expectation that the Board's Committees will be listed; even better is greater detail and specificity about a particular Committee's composition.

The types of Committees established reflect Board priorities, but there is a minimum expectation in Canada, for example, of a Governance Committee and an Audit (or Finance and Audit) Committee. Executive Committees are sometimes found. There are differences between francophone and anglophone ports in Canada. Given the size of port, there may be more committees than the basic minimum. Continuing with the Canadian example, only nine CPAs meet the test of transparency on a listing of Board committees. The remaining eight either (a) have no information at all on Board committees or (b) the existence of Board committees is intuited by a text search of documents but not explicitly reported. Clearly, there is room for improvement from a citizen perspective.

Table 11. Information on Board Committees

Factors	Total (N=87)	Total (%)	Canada (n=17)	Europe (n=26)	LAC (n=21)	USA (n=23)
Board committees identified	37	42,5%	53%	38%	9,5%	70%
Board committee members listed	27	31,0%	53%	35%	4,8%	35%
Governance committee	19	21,8%	71%	19%	0,0%	9%
(Finance &) Audit committee	35	40,2%	71%	35%	4,8%	57%

Table 12. Information on Board Committees by Governance Model

Factors	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Board committees identified	42%	50%	67%	100%	11%
Board committee members listed	25%	0%	0%	0%	11%
Governance committee	12%	59%	0%	0%	0%
(Finance &) Audit committee	29%	73%	67%	100%	11%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 13. Information on Board Committees – Major Container Ports

Factors	Major (n=31)	Major %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Board committees identified	15	48%	100%	56%	25%	77%
Board committee members listed	14	45%	100%	56%	0%	23%
Governance committee	8	26%	100%	22%	0%	0%
(Finance &) Audit committee	13	42%	100%	44%	13%	62%

In the U.S., it is interesting that Board committees are identified but many times their members are not specified. This contrast in pattern to that found in Canada is puzzling; it is the combination of committee lists and committee membership that indicates the level of openness to examining potential conflict of interest at the committee level. So while more is known about what committees exist in the U.S., less is known about who serves. This raises the question about which of these items is a better indicator of transparency of Board decision-making. Europe and Canada appear to have more in common in this sense. In Europe, the corporatized port authorities and three of the four listed port authorities reveal details about Board committees. These committees are mostly dealing with financial issues (i.e., the Remuneration Committee in Rotterdam and the Executive Committee for Economic and Financial Affairs in Valencia) but also with management (i.e., Valencia, Tallinn) and occasionally about monitoring the strategic plan of the port (Valencia); or for promoting the territorial integration of the port (Barcelona). Still 16 of the examined European ports did not provide any information on any Committee that might operate within their Board. Again, Latin America trails the others in Board committee level decision-making transparency.

Transparency in port decision-making extends to both the existence of port community committees and the Board's use of non-Board committees. As practices throughout the world vary widely, **Tables 14-16** present these two together. Again, the pattern of activity varies but this time it appears the European ports and U.S. ports have more in common, making greater use of public community and stakeholder meetings than is the case in Canada and Latin America. In Europe the reported non-Board Committees deal with a variety of themes, ranging from operational issues (i.e., the Breakbulk Committee' in Rotterdam, and operations committees in Piraeus and Bremen), but also with marketing issues (i.e., the Consultative Commission for Markets in Le Havre, and the Port Promotion Committee in Rotterdam), Community Outreach and Societal Integration (Barcelona) and Corporate Social Responsibility (Dublin). The geographical distribution of the European ports reporting on the presence of such committees is perhaps of interest as well; ports located at the Eastern part of the continent are less probable to report leading to the assumption that port authorities that in the previous century experienced decades of central planning continue to lack a culture of openness and reporting. With respect to stakeholders meetings, the evidence that is provided by the reports of international port and port-city associations (i.e., the European Sea Ports Organisation [ESPO] and the network of port-cities [AIVP]) as well as the experiences of the authors lead to the conclusion that community/stakeholder meetings occur in more ports than in the ones that report them.

Few of Canada's CPAs rely on Standing Advice Committees, unlike airports in Canada, many of which have Community Consultative Committees specified in their By-Laws. On the other hand, there are some 'best practice' Canadian examples of transparency in terms of information on non-Board committees like community liaison committees, and environmental committees. Some Canadian ports have community engagement activities, but have, for unknown reasons, not been explicit about these in Annual Reports or stakeholder reports. By way of example Limón Moin, Costa Rica, provides a port community link, as do the Mexican ports and Valparaiso, Chile. Overall, there seems no clear pattern in the provision of information and contents. In general stakeholder

engagement does not seem to be a key consideration in transparency efforts of LAC ports. Community and stakeholder links on a port website and reports on community investment are relatively common in both Canada and the U.S. but do not appear to have found favor in Europe and Latin America.

Table 14. Information on Other Committees and Port-Community Relations

	Total (N=87)	Total (%)	Canada (n=17)	Europe (n=26)	LAC (n=21)	USA (n=23)
Standing advice committees	10	12%	18%	8%	0%	22%
Ad hoc or project committees	8	9%	6%	4%	5%	22%
Do public community/ stakeholder meetings exist	29	33%	24%	38%	19%	48%
Website has a community or stakeholder link	34	39%	71%	15%	14%	65%
Website has a stakeholder report	18	21%	29%	23%	14%	17%
Web/AR reports community investment	27	31%	65%	19%	0,0%	48%

Table 15. Information on Other Committees and Port-Community Relations by Governance Model

	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Standing advice committees	12%	14%	33%	0%	0%
Ad hoc or project committees	10%	9%	0%	0%	11%
Do public community/stakeholder meetings exist	38%	32%	67%	0%	0%
Website has a community or stakeholder link	37%	59%	0%	0%	22%
Website has a stakeholder report	19%	27%	33%	100%	0%
Web/AR reports community investment	25%	59%	0%	100%	0%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 16. Information on Other Committees and Port-Community Relations – Major Container Ports

	Total (n=31)	Total %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Standing advice committees	5	16%	50%	11%	0%	23%
Ad hoc or project committees	3	10%	0%	11%	13%	23%
Do public community/stakeholder meetings exist	11	35%	25%	44%	0%	46%
Website has a community or stakeholder link	4	13%	25%	11%	0%	31%
Website has a stakeholder report	16	52%	100%	22%	0%	54%
Web/AR reports community investment	8	26%	50%	33%	0%	15%

4.2 Port Communications and Information Accessibility

The ease of finding information and its completeness define the visibility of information and thus transparency. This section explores different elements of communication of and accessibility to information about a port, considering active and passive transparency and the use of social media. The difference between 'active' transparency (visibility) and 'passive' transparency (visibility) is that

the prior refers to information that is voluntarily rendered visible, while the latter describes the possibility that information must be requested through a specific process.

The ease with which one can find information on the website and communicate with port staff is a barometer of how well the port uses its website for communication purposes to the various audiences it serves: stakeholders, customers, etc. Unless there are legal requirements for ports to make specific information available, the information found on a port website is information the port has consciously selected to make public. Port stakeholders may be seeking different or additional information, and thus the ability to communicate online, via email or to contact a port staff member on the phone indicates a willingness on behalf of the port to be open and accessible. To evaluate the transparency based on accessibility to information, contact information for port personnel, and the availability of key reports were sought on each port's website. The ability to find information in multiple languages is also relevant, depending on the port's location and the diversity of its users and stakeholders.

Beginning with communications access, a website user needs to be able to contact the appropriate person at the port authority for assistance and additional information. As a best practice, this information would include the individual's name, title and contact information. (Not all ports provide name but might just have job title.) In addition, not all ports update their websites with adequate frequency and website users need to know who to contact at the port for up-to-date information.

All 87 ports had some mechanism for a member of the general public to contact the port online (**Tables 17-19**). More than half of all public ports in the United States, Canada, Europe and Central America have contact information available for senior or department level positions within the authority on their websites. In South America only 42% of the ports provide this information, and none of the Caribbean ports do so. Where contact information for members of the senior staff was not found, two other approaches were commonly used: a single point of contact, like a communications/customer service representative and/or a form to be filled out and submitted online. Latin American and Caribbean ports relied most heavily on these later two mechanisms rather than providing senior staff contact information. In the case of Latin America, turnover in staff can be high and thus a less 'personal' information access through forms might reflect this. A website user, unsure about whom to direct a question to, might find this approach more appropriate. The high percentage of ports that provide a form to be filled out and submitted indicate that many ports are providing more than one way for connecting with port staff. This illustrates that active and passive transparency may co-exist at the same port.

In the United States, the approach is an 'all or nothing' one—either all senior staff information is available or a form. All of the U.S. Gulf ports and all but one port on the U.S. West Coast provide contact information for the senior staff. However, only 13% of East Coast ports provide contact information for their senior staff, a situation that is somewhat unexplainable considering that both coasts have ports in highly urban areas and ports of different sizes. In fact, examining just the large U.S. urban ports would lead to the same conclusion, more contact information is available from west coast ports versus east coast ports.

The assessment of CPA websites in Canada reveals that providing the contact information for staff, or at a minimum a communications individual to contact, has increased over time. In 2017, at the time of an earlier port governance research project (Brooks, 2017), it was difficult to find the individual in a port to answer questions on traffic, environmental policies, etc. There appears to have been a significant improvement in accessibility to port staff in recent years; however, inconsistencies remain.

Having specific contact information for different individuals, while providing the appearance that a port is transparent, does not necessarily translate into increased responsiveness to public inquiries. Having the names of individuals as contacts is useful only if those individuals respond or ensure that someone handles responses. However, a primary point of contact could provide the opportunity for tracking inquiries and confirming responses, assuming tracking of the requests in and out is made. This may, or may not be the case. The larger container ports in Europe and Canada were more diligent in providing senior executive contact information compared with all ports within their respective regions.

Table 17. Communications Access

Staff contacts	Total (N=87)	Total (%)	Canada (n=17)	Europe (n=26)	LAC (n=21)	USA (n=23)
E-mail/phone of executive staff available on website	47	54%	65%	54%	43%	56%
Only communication personnel email/phone available on website	27	31%	23%	37%	62%	4%
Form required to be submitted	49	56%	53%	50%	86%	39%

Table 18. Communications Access by Governance Model

Staff contacts	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
E-mail/phone of executive staff available on website	56%	59%	67%	0%	33%
Only communication personnel email/phone available on website	21%	27%	0%	100%	100%
Form required to be submitted	56%	59%	67%	0%	56%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 19. Communications Access – Major Container Ports

Staff contacts	Major (n=31)	Major %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
E-mail/phone of executive staff available on website	18	58%	75%	67%	50%	50%
Only communication personnel email/phone available on website	12	39%	50%	33%	75%	10%
Form required to be submitted	15	48%	50%	44%	75%	30%

The past decade has witnessed increased use of social media by the port industry. Initially focused on Facebook, today many ports take advantage of multiple social media channels (Tables 20-22); this research only included Twitter and LinkedIn in addition to Facebook.

The primary drivers of port social media use is to engage the public in port activities and, over time, educate and build trust with its stakeholders. From the port perspective, it is a quick and inexpensive way to raise their public profile and become better known within their local communities. Ports also

use social media to inform a younger audience of stakeholders who are less likely to rely on traditional sources of media like newspapers and port press releases. Caliskani and Esmer (2018) examined the use of social media at ports in Turkey and compared that usage with the Ports of Los Angeles, Antwerp and Rotterdam. They noted which social media tools were used by each port but additionally compared how the engagement statistics (likes, comments, shares) correlated with message content. They found that posts with higher public engagement scores were not the port-centric posts about investments and port business but the more socially oriented posts about events and community activities. Even the four European listed ports' Facebook pages were used to provide visitor information rather than information about port business activities.

Table 20. Social Media Use

	Total (N=87)	Total (%)	Canada (n=17)	Europe (n=26)	LAC (n=21)	USA (n=23)
Facebook	66	75,9%	71%	61%	71%	100%
Twitter	64	73,6%	65%	54%	76%	100%
LinkedIn	52	59,8%	59%	61%	24%	91%

Table 21. Social Media Use by Governance Model

	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Facebook	79%	73%	100%	100%	56%
Twitter	83%	68%	33%	0%	56%
LinkedIn	67%	59%	67%	100%	11%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 22. Social Media Use – Major Container Ports

Staff contacts	Total (n=31)	Total %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Facebook	25	81%	100%	56%	75%	100%
Twitter	27	87%	100%	78%	75%	100%
LinkedIn	23	74%	75%	78%	38%	100%

Social media can also be used as a way to communicate quickly during a crisis as demonstrated by the COVID-19 pandemic. Ports are using social media to keep their user community informed about any restrictions put in place related to the pandemic. Other media sources, like TV and news outlets, also relied on the port social media channels as a way to collect information when emergency situations made it difficult to reach the port communications staff.

Across the regions the use of social media was very high. The U.S. and Canada exhibit similar patterns with Facebook edging out Twitter as the social media channel of choice. While LinkedIn shows solid usage in the U.S., Canada and Europe, its use in Latin America is still low, reflecting a much later start of the Spanish and Portuguese versions in 2008 and 2010, respectfully. Like a port website, however, content posted on social media channels is what the port wants to share or what they believe the public and their stakeholders are seeking. Further research is necessary to determine if the use of social media is serving as a two-way dialogue with stakeholders or a one-way information channel from the port.

4.3 Transparency in Reporting

The availability of reports is a measure of transparency and also an indication of a port's desire to help educate its stakeholders and the general public about its mission. The research examined the availability of the following reports on port websites: annual reports, budgets, Corporate Social Responsibility (CSR) and Environmental, Social and Governance (ESG) reports, audited financial statements, and master development plans and whether materials were available in more than one language (Tables 23-25).

A port's primary informational document typically is its Annual Report and its usefulness is directly related to the level of information included. Although no standard exists for what goes into an Annual Report, ports typically include cargo volumes, employment, terminal investments, and environmental initiatives, often combined with pictures of customer activities and port workers. The report served as the port's primary 'give-away' for both marketing and public information purposes. Today, most port Annual Reports are downloadable documents found on the port website and there is an increasing trend to replace the traditional Annual Report in favor of a combined annual report/consolidated audited financial statement (CAFR). The availability of an audited CAFR is considered a pillar of public transparency, and the existence of an auditor's letter with those financial statements assures the public that there has been adequate scrutiny of the details of a port's financial statements so that they may be relied on/trusted by the public. Therefore, a best practice is a website containing audited financial statements with the auditor's signed opinion letter.

There was consistency across all the regions in the availability of Annual Reports. Over 70% of the ports examined provided an audited financial statement, although in a few cases, the statements were condensed or did not include the auditor's letter. All listed ports provided audited financial statements and nearly all large container ports except in Latin America. The highest percentage of compliance was found among Latin American ports, which can originate from different motivations. Since disclosure of information is one vehicle to generate trust among stakeholders, Latin American countries have taken considerable effort to counter the historic image as corrupt and opaque. This has also been driven by the influx of international terminal operators as a consequence of the region's port reforms, as these often require certain accepted international standards. While all the U.S. west coast ports provide audited financial statements, a few notable exceptions occurred among large U.S. East Coast container ports. Virginia provided monthly financial statistics but no audited financial statements. Georgia Ports Authority included a two-page summary in its annual report. No audited financial statement was found for New Orleans and some of the seasonal Great Lakes ports. While some of these ports are governed at the state level and their financials are part of a larger state-wide financial statement, in no cases were links available from the port website to the appropriate document on the state website.

The *Canada Marine Act* requires the public to have access to a CPA's audited financial statements at least 30 days prior to an Annual Meeting open to the public. Thus, there is an expectation that the Canadian ports will release audited financial statements and they should be available to the public, both before the annual meeting and afterwards. However five of the Canadian ports did not provide full audited statements, just summaries meaning they are not really compliant with the intent of the law. Not all ports make the statements available in a transparent form; requiring the citizen/taxpayer to view the report at the port's offices was particularly non-transparent in 2020 when a port's stakeholders may not have been able to travel across provincial boundaries due to pandemic restrictions, thus making website transparency more important than ever.

Unlike annual reports, annual budgets are not readily available in any region with the exception of Latin American ports. In the United States, budgets are approved by the appropriate board or governing body in a public meeting. As such they likely are available at some point to the public but

finding them on the website is often not easily done without knowing the specific meeting in which the budget was approved. In Canada, there is not an expectation that budgets will be publicly available, and indeed are only to be supplied to the Minister in accordance with the *Canada Marine Act*. This is consistent with a corporatization approach.

Table 23. Availability of Reports

	Total (N=87)	Total (%)	Canada (%)	Europe (%)	LAC (%)	USA (%)
Annual Report publicly available on the website	64	74%	82%	65%	76%	74%
Budget reports publicly available on the website	25	29%	0%	15%	57%	39%
CSR & ESG Reports publicly available on the website	41	47%	53 %	62%	19%	52%
Master Plans - Public consultation at Initiation	17	20%	24%	8%	10%	39%
Master-Plans publicly available on the website	38	44%	65%	27%	52%	39%
Financial reports publicly available on the website	61	70%	100%	65%	81%	65%
Audited financial reports publicly available on the website	60	69%	71%	65%	76%	65%
Multi-Language Materials (reports/press releases) available on the website	57	66%	100%	92%	24%	48%

Table 24. Availability of Reports by Port Governance Model

	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Annual Report publicly available on the website	75%	82%	100%	100%	33%
Budget reports publicly available on the website	38%	5%	33%	0%	33%
CSR & ESG Reports publicly available on the website	48%	59%	67%	100%	0%
Master Plans - Public consultation at Initiation	21%	23%	0%	0%	11%
Master-Plans publicly available on the website	42%	55%	67%	0%	22%
Financial reports publicly available on the website	67%	73%	100%	100%	67%
Audited financial reports publicly available on the website	67%	73%	100%	100%	56%
Multi-Language Materials (reports/press releases) available on the website	56%	95%	100%	100%	33%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 25. Availability of Reports – Major Container Ports

	Total (n=31)	Total %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Annual Report publicly available on the website	27	87%	100%	89%	63%	100%
Budget reports publicly available on the website	12	39%	0%	11%	63%	60%
CSR & ESG Reports publicly available on the website	20	65%	100%	89%	13%	70%
Master Plans - Public consultation at Initiation	6	19%	25%	0%	25%	30%
Master-Plans publicly available on the website	14	45%	100%	0%	75%	40%
Financial reports publicly available on the website	24	77%	75%	78%	75%	80%
Audited financial reports publicly available on the website	23	74%	75%	78%	63%	80%
Multi-Language Materials (reports/press releases) available on the website	20	65%	100%	100%	25%	50%

Unlike budgets that ports develop internally, the creation of a port development plan is often done in consultation with port businesses and stakeholders. Given that, one would assume such documents would be readily available online. The *Canada Marine Act* notes requirements for business plans (provided to the minister) and land use plans, but only requires transparency when the land use plan is to be altered. In Canada and the United States, evidence of public meetings on the topic of a development or master plan could be found, indicating a port's willingness to engage the public on its development plans, but in many cases the authors did not find a copy of the current plan online.

Corporate Social Responsibility (CSR) and Environmental Social and Governance (ESG) reports are the documents most frequently found, and more European ports supplied CSR reports than those in other regions. EU environmental policies are the strongest in the port industry and ports that have significant investment and initiatives in the environmental area make it a point to showcase their efforts. On the other hand, Latin American ports stand out with few examples of such reports being available. In the case of LAC it also becomes clear that CSR and ESG reports are not a regular feature. One example might be the port of Valparaiso, who published very detailed sustainability reports in 2015 and 2016, but none since then.

Finally, to be transparent the website information and documents have to be useful. If documents are only available in one language, their usefulness may be limited depending on the marketplace they serve and the diversity of their stakeholders and customers. A best website practice was a link on the home page that would translate the entire website with one click into other languages. Some ports supply data reports in several specific languages depending on their locale. Most countries have one official language, despite the diversity of their population. Canada has two national languages, English and French, so all Canadian ports supply information in both languages as they are required to do by law. In LAC bi- or multi-lingual websites are not common. An interesting example, though, is the Empresa Portuaria Talcahuana in Chile, which, beyond being bi-lingual (Spanish and English), has a feature for the visibility impaired on the websites. It is worth noting that

in 2020 the International Association of Ports & Harbors (IAPH) activated this option at its website, offering access and information about its activities and initiatives to all ports and stakeholders.

4.4 Transparency in Port Operational Activities

Transparency in operations/activities is often appreciated by both port users and the port community (**Tables 26-28**). Tariffs are established and published by ports to set rates for services rendered. Tariffs can include charges for wharfage, dockage, pilotage and other services. In some countries, tariffs may be regulated or set by a government authority. As many of the world's ports have evolved into landlords, leasing operations to private operators under concessions, the tariff rates may have less importance, depending on how the concession compensation provisions are linked to the tariff rates. Nevertheless, publicly available tariffs are still used for any remaining services provided by the port authority. In addition they also establish rules and regulations, such as ship waste disposal or ballasting, to regulate such activities that might occur within a port jurisdiction. For example, the Ports of Los Angeles and Long Beach used their published tariffs to implement its Clean Truck program, with the tariff banning entry by heavy-duty trucks based on model years.

Table 26. Port Website Operational Content

	Total (N=87)	Total (%)	Canada (%)	Europe (%)	LAC (%)	USA (%)
Port Tariffs	72	83%	100%	77%	76%	83%
Sailing Schedules information	45	52%	65%	54%	48%	43%
Published Privacy Policy	35	40%	47%	38%	9%	65%
Website has a Public Dashboard	9	10%	41%	0%	5%	4%
Ethics Hotline (on website)	18	21%	0.0%	8%	38%	35%

Table 27. Port Website Operational Content by Governance Model

	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
Port Tariffs	81%	100%	67%	100%	56%
Sailing Schedules information	48%	64%	100%	0%	33%
Published Privacy Policy	27%	5%	0%	0%	33%
Website has a Public Dashboard	81%	100%	67%	100%	56%
Ethics Hotline (on website)	48%	64%	100%	0%	33%

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 28. Port Website Operational Content – Major Container Ports

	Total (n=31)	Total %	Canada (n=4)	Europe (n=9)	LAC (n=8)	USA (n=10)
Port Tariffs	28	90%	100%	100%	63%	100%
Sailing Schedules information	18	58%	100%	33%	75%	50%
Published Privacy Policy	15	48%	100%	22%	13%	80%
Website has a Public Dashboard	10	32%	0%	11%	63%	40%
Ethics Hotline (on website)	28	90%	100%	100%	63%	100%

It was interesting to find that only Canada had tariffs uniformly available on the port's website, though in all three other regions tariffs are made available by most ports. Sailing schedule information is really only expected at ports where there is a common user service, i.e. container ports and cruise ports. Many large container ports like Los Angeles and Long Beach rely on a separately run organization (the Los Angeles-Long Beach Marine Exchange) for real time vessel information. The availability of port tariffs will depend on the relationship between the port authority and the terminal operator and on how the charges are applied. In some cases only maximum port tariffs are published. Thus, the only information to be gathered is the structure and differentiation of tariffs, but no information on the actually applied tariff.

A best practice in transparency in operations is the availability of a public dashboard with real-time information about port conditions, and the practice has been most widely adopted among Canadian ports. The Port of Halifax's operations center is a best-practice example that supplies ship arrivals and departures, import rail dwell time, truck fluidity and container tracking. Geared towards the business customers, the operations center can be accessed at no cost to anyone who registers; some of the information is available on the home page and registration is not required. Another example of a dashboard is the Port of Buenos Aires, where, within the initiative 'epuerto',[7] the status of vessels in the port can be visualized and consulted publicly in full detail. However, in many regions, particularly the U.S., real-time information, like webcams, may be supplied by port customers or industry groups rather than the port.

An ultimate beacon of port transparency would be a readily available process for any member of the public to complain about an unfair business practice or report abuse of public resources in a manner that is protective of their privacy. One way a port can facilitate this is by making public a process for confidential reporting. This usually takes the form of an ethics hotline (a phone number anyone can call to report questionable activity). This is not a common practice among ports and seems to be something that is more common in the U.S. and Latin America than in Europe or Canada.

While a hotline is generally not a requirement, privacy laws around the world require the posting of a privacy policy on websites that collect user information, even if only email addresses are collected. The inclusion of a privacy policy is a safeguard that alerts website users about information that might be collected and how it will be used. The U.S. West Coast ports were the only region where full compliance with privacy laws was found. Generally, compliance among the ports was poor. Some Canada Port Authorities have a posted privacy policy; several just have a link to 'Info source' as a substitute. While required under the Canada's Privacy Act, one port had neither a posted privacy policy nor an Info Source link. In the case of the European ports the presence of an ethics hotline is rare. In the current era, a stated privacy policy is a minimum expectation, and ports need to improve their implementation of privacy policies.

5 FINDINGS AND THE WAY FORWARD

5.1 SELECTION OF PROXIES

As noted in the section on methodology, this research began with a long list of 51 items to be identified for examination on each port's website in four major categories. Although the last section reported our findings on these, the item number is simply too high to be useful in future research. For the purposes of this discussion of findings, we have selected nine proxies to serve as indicators of transparency.

[7] http://www.e-puertobue.com.ar/focus/escalas/ [15/6/2020]

In examining decision-making governance, after surveying eight specific items each for Board and Annual Meetings as accountability mechanisms, it became clear that in some jurisdictions Board meetings are the primary mechanism for accountability to the public, for example the U.S., while in others like Canada it is the Annual Meeting that encourages Board accountability. Therefore, these two categories were collapsed for reporting purposes in this section and two items were chosen as a proxies for the 16—'Annual Meeting (AM) and/or the Board Meeting (BM) are open to the public', and 'Board/Annual Meeting minutes are published'. The decision-making governance category also included items that would allow citizens/taxpayers seeking to identify any potential conflicts of interest held by Board Members through the reporting of board member biographies, items on Board Committee structure and membership, executive salaries, and items on non-Board committees and community relations. In the case of Conflict of Interest identification, the proxy for these five items was chosen to be 'Website or Annual Report provides bios of Board Members'; while in the case of non-Board committees and community relations, the chosen proxy was 'Website has a community or stakeholder link'.

The primary purpose of the items chosen for the port communications and accessibility category was to understand how and what ports were communicating to their audiences. These items included openness/transparency on the appropriate person in the organization to deal with requests from outside, and what social media was in use. Here the proxy chosen was 'contact information for key executives and staff'. As for transparency in reporting, the availability of port-generated reports for reading/downloading we identified three proxies: (1) annual reports, (2) audited financial statements, and (3) CSR and/or ESG reports. Finally, for transparency in port operational activities we identified the availability of port tariffs as a relevant proxy.

The research reveals different levels and types of port transparency across the four regions, and identifies areas where there is a need for further improvements. Within each region, transparency levels in decision-making governance, the reporting of these decisions, and the consequent port activities were found to be inconsistent. Reporting on relations with stakeholders and public consultations are often irregular and therefore unreliable to the intended audience. On all of the other proxies for transparency, inconsistency is the primary finding. Comparing these results with indications in few relevant studies of the past demonstrates that, in general, transparency has improved over time but, for many ports, there is a considerable distance to go and further improvements are possible.

The relatively low levels of port transparency are underlined when the focus is on those port transparency indicators that might be considered as the key ones, what we have chosen as proxies. **Table 29** provides this summary, with the indicators also demonstrating that ports in different countries and/or regions of the world have endorsed different information disclosure practices, decision-making procedures, and communication and accessibility strategies. Similar are the findings when comparing transparency levels on the basis of the different models of port governance (**Table 30**) and for major container ports (**Table 31**).

At a practical level, these findings reveal a need for increasing the existing levels and standards of transparency in the governance of the port industry. The analysis also provides details on those aspects where port transparency might be considered as satisfactory. Yet this exploratory study has also revealed a number of questions that need to be further studied in order to facilitate port authorities, and relevant decision makers at national or regional level, to proceed to implement corrections to the existing policies and actions.

The research emphasizes that **the need to define port transparency is not only conceptual.** Some ports include statements of policies on transparency on the website. Prince Rupert in Canada,

Barcelona in Spain, and New York/New Jersey in the U.S. are three examples where a "Transparency" Web Page exists, yet the links on the first two take the visitor to quite different types of information from that on the transparency tab on the website of the Port of New York/ New Jersey, which links to employee salaries. The ports of Genoa/Savona and Gioa Tauro in Italy on the other hand maintain transparency sections at their website, yet these are limited in complying with a related legislative Decree that was adopted in 2013, and, thus, focus on reporting bureaucratic administrative procedures, such as appointment of the president and executives of the port managing entity, procurement practices, expenses made and other financial issues. In practice, they disclose a significant amount of information and very specific details on the particular issues, yet very few as regards other types of information. In fact, another European port, the publicly owned Dublin Port Company, that without devoting any section of its website to transparency as such, provides a number of documents that enable the reader to find plenty of information on what happens or is planned to happen.

Table 29. Key Port Transparency Indicators

	Total (n=87) (%)	Canada (n=17) (%)	Europe (n=26) (%)	LAC (n=21) (%)	U.S.A (n=23) (%)
PROXY 1: Port Website and/or Annual Report provides bio of Board of Directors (BoD) members	44 (51%)	8 (47%)	7 (27%)	8 (38%)	21 (91%)
PROXY 2: Annual Meeting (AM) and/or the Board Meeting (BM) are open to the public	34 (39%)	10 (59%)	0 (0%)	2 (10%)	22 (96%)
PROXY 3: Minutes of the Annual Meeting (AM) and/or the Board Meeting (BM) are published	26 30%	1 (6%)	2 (12%)	4 (19%)	18 (78%)
PROXY 4: Website has a community and/or a stakeholder link	34 39%	12 (71%	3 (15%)	3 (14%)	15 (65%)
PROXY 5: Email/ phone of executive staff available on website	47 (54%)	11 (65%)	14 (54%)	9 (43%)	13 (57%)
PROXY 6: Annual report publicly available on the website	64 (74%)	14 (82%)	17 (65%)	16 (76%)	17 (74%)
PROXY 7: Audited financial reports publicly available on the website	60 (69%)	12 (71%)	17 (65%)	16 (76%)	15 (65%)
PROXY 8: CRS & environmental and sustainability reports publicly available on the website	41 (47%)	9 (53%)	16 (62%)	4 (19%)	12 (52%)
PROXY 9: Port Tariffs publicly available on the website	72 (83%)	17 (100%)	20 (77%)	16 (76%)	19 (83%)

Note: The authors remind the reader that the data only reflect that found in a reasonable amount of time. Therefore, the numbers will always be understated in terms of existence but not understated in terms of accessible transparency.

Table 30. Key Port Transparency Indicators by Governance Model

	A (n=52)	B (n=22)	C (n=3)	D (n=1)	E (n=9)
PROXY 1: Port Website and/or Annual Report provides bio of Board of Directors (BoD) members	27 (52%)	10 (45%)	2 (67%)	1 (100%)	4 (44%)
PROXY 2: Annual Meeting (AM) and/or the Board Meeting (BM) are open to the public	22 (42%)	10 (45%)	0 (0%)	0 (0%)	2 (22%)
PROXY 3: Minutes of the Annual Meeting (AM) and/or the Board Meeting (BM) are published	20 (38%)	1 (5%)	2 (67%)	1 (100%)	2 (22%)
PROXY 4: Website has a community and/or a stakeholder link	19 (37%)	13 (59%)	0 (0%)	0 (0%)	2 (22%)
PROXY 5: Email/ phone of executive staff available on website	29 (56%)	13 (59%)	2 (67%)	0 (0%)	3 (33%)
PROXY 6: Annual report publicly available on the website	39 (75%)	18 (82%)	3 (100%)	1 (100%)	3 (33%)
PROXY 7: Audited financial reports publicly available on the website	35 (67%)	16 (73%)	3 (100%)	1 (100%)	5 (56%)
PROXY 8: CRS & environmental and sustainability reports publicly available on the website	25 (48%)	13 (59%)	2 (67%)	1 (100%)	0 (0%)
PROXY 9: Port Tariffs publicly available on the website	42 (81%)	22 (100%)	2 (67%)	1 (100%)	5 (56%)

Models of port governance: A=Public Port Authority (PA); B= Corporatized Public PA; C=Listed company –public majority; D = Listed company- private majority; E= National level Authority

Table 31. Port Website Operational Content – Major Container Ports

	Total (n=31) (%)	Canada (n=4) %	Europe (n=9) %	LAC (n=8) %	USA (n=10) %
PROXY 1: Port Website and/or Annual Report provides bio of Board of Directors (BoD) members	19 (61%)	3 (75%)	3 (33%)	3 (38%)	10 (100%)
PROXY 2: Annual Meeting (AM) and/or the Board Meeting (BM) are open to the public	13 (42%)	2 (50%)	0 (0%)	1 (13%)	10 (80%)
PROXY 3: Minutes of the Annual Meeting (AM) and/or the Board Meeting (BM) are published	9 (29%)	0 (0%)	1 (11%)	0 (0%)	8 (80%)
PROXY 4: Website has a community and/or a stakeholder link	16 (52%)	4 (100%)	2 (22%)	2 (25%)	8 (80%)
PROXY 5: Email/ phone of executive staff available on website	14 (45%)	3 (75%)	6 (67%)	4 (50%)	5 (50%)
PROXY 6: Annual report publicly available on the website	27 (87%)	4 (100%)	8 (89%)	5 (63%)	10 (100%)
PROXY 7: Audited financial reports publicly available on the website	23 (74%)	3 (75%)	7 (78%)	5 (63%)	8 (80%)
PROXY 8: CRS & environmental and sustainability reports publicly available on the website	20 (65%)	4 (100%)	8 (89%)	1 (13%)	7 (70%)
PROXY 9: Port Tariffs publicly available on the website	28 (90%)	4 (100%)	9 (100%)	5 (63%)	10 (100%)

5.2 Towards a more transparent port industry

Having explored the practices of 'transparency' of port authorities, several dimensions emerge as questions to the practitioner with respect to both the current levels of transparency and the observed variance in the 87 ports examined. We propose six streams for future research.

First, as this explorative study deals with the findings an emerging question emerges on what are **the key parameters of port transparency from a PA and industry stakeholder perspective, and how can a joint definition of these parameters can be developed**. The researchers embarked on a study of port transparency having proposed a number of different indicators for the dimensions of port transparency that from an academic standpoint are consistent with the overarching need for information that is useful, relevant, accessible, timely, and accurate/complete in reporting as noted in Section 2. This exploratory study, for example, revealed that stakeholder reporting is inconsistent across ports. Some ports provide a colorful, graphic brochure or report on what they are doing in general with little detail on internal management decision-making; others have thorough reports that would meet the tests imposed on publicly traded companies. Some ports provide minimalist financial statements, while others are detailed and complete with the unqualified auditor's opinion letter. Some ports, regrettably, limit their reports to only a few pages that do not even contain the detail required under the applicable legislation. While legislation in each country will have minimal requirements to be met, the question is whether compliance with local legislation is sufficient from different stakeholder perspectives. Or does industry have expectations on specific indicators of port transparency that should be comparable across countries. Thus, it is important to both validate the indicators proposed in this exploratory study as not only meeting a minimum of expectation of port governance researchers, but that they are tested to determine if they are sufficient for the governments to whom they report, and are useful to the different port industry stakeholders in meeting their accountability obligations. From this research, it will become clearer if the nine proxies used in Tables 29-31 are the correct proxies that should be used in future port governance research, and in developing a port transparency index.

A second dimensions emerging is to understand if there **are specific dimensions of transparency that are crucial yet underestimated or not included**? There are two aspects to this dimension—information that is geared more toward the port users and customers, and information that is focused towards the general public. Ports that engage both users and their port community through a dashboard are to be lauded for transparency of activities (as opposed to our governance and decision-making categories). There are many types of public dashboards and these can be a great means of community engagement and customer support. There are plenty of opportunities to examine the types of public engagement, the success of particular dashboard models, and other approaches to engagement with community. Further, an emerging question relates to the port authority´s use of social media. Are these media really creating channels of communication with stakeholders or are they just today's format of former monthly newsletters or press releases? Thus, are ports using social media as a one-way channel to push selected information out to the public or are they also responding to inquiries and questions via social media? What is the PA's vision on how social media can be used for any required public notification of port development issues?

A third dimension for discussion with the practitioners is that of **compliance, be it obligatory or voluntary, and whether there are evolving cultural norms that play a role**. As noted by Hofstede (1980), cultural norms influence not only management decision-making but government regulation. Here, country- or region-level studies would be most useful, as governments make decisions whether compliance should be monitored and be enforced. In some cases, transparency becomes part of compliance efforts. In others, port-managing entities may choose voluntary adoption, and this good governance practice would be endorsed and then disclosed. Studying disclosure in the Annual Reports would allow for comparison of actual legislation to what the Annual Reports contain.

Exploring patterns of voluntary/mandatory adoption against cultural norms might reveal suitable governance patterns for known cultural biases.

Fourth, **the detailing of best practices through further case studies** would be useful to port authorities wishing to improve their governance transparency. Survey results indicated notable examples that could serve as best practices. During the review of the Port of Oakland, a chat box opened with an inquiry asking if help was needed. This could be particularly useful if a port does not have a search engine on its home page. A chat box also opens when visiting the website for the Port of Iquique in Chile. In Chile the national regulation on information disclosure is implemented across all local port authorities (empresas portuarias), which allows a good possible comparison of ports. Several ports had a translation tab on their home page so the entire site could be translated into multiple languages with one click. Greater depth on best practice examples would provide a service to ports interested in improving transparency.

Fifth, we did not examine **the role of gender and diversity in board composition** and the ranks of port executives. Significant analysis of Board of Director performance in the corporate world has found that the presence of women on boards, particularly when they reach a critical mass of three members, has improved business outcomes. Today, most port boards, whether public or corporatized, have women on their boards, however in many regions of the world, female tokenism, i.e., only one female board member, is common. Whether the gender balance and diversity in the board room is reflected in the port's transparency is not known but an intriguing avenue of study.

Finally, we excluded from the analysis **the fully privatized ports**, i.e., those ports where privatization has gone as far as privately owned port land (on different privatization scale, see: Brooks and Pallis, 2012). The grounds for this exclusion has been that in these cases the companies that own and operate the ports have different perspectives on accountability, publicly disclosed information, and, thus, transparency. Taking as an example, the two biggest U.K ports—Felixstowe and Southampton—would have been included in the study; yet, when searching the website of these ports it was realized that the level of transparency, as defined in our study, is in both cases minimal; both ports disclose less information than any of the 87 ports examined in the study. Expanding research to the study of fully privatized ports and comparing the findings with the rest of the ports where the public sector maintains a direct interest and/or involvement in their governance could be an additional path to follow.

These emerging areas for discussion and further analysis hopefully provide food for thought for academic, public and private exchange on this issue, as well as for improvement in port transparency, beginning with a critical look at what and how information is provided to the public via a port's website.

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APPENDIX I: LIST OF EXAMINED PORT (N=87)

Port	Region	Governance model
Aarhus	Europe	A-Public PA
Acajutla	C. America	E-State level Authority
Alabama SPA	N. America (USA)	A-Public PA
Alberni	N. America (Canada)	B-Corporatized Publicly owned PA
Algeciras	Europe	A-Public PA
Antofagasta	S. America	A-Public PA
Antwerp	Europe	A-Public PA
Austral	S. America	A-Public PA
Baltimore	N. America (USA)	A-Public PA
Barcelona	Europe	A-Public PA
Belledune	N. America (Canada)	B-Corporatized Publicly owned PA
Boston-Data	N. America (USA)	A-Public PA
Bremen	Europe	A-Public PA
Buenos Aires	S. America	A-Public PA
Callao	S. America	E-State level Authority
Charleston	N. America (USA)	A-Public PA
Chicago	N. America (USA)	A-Public PA
Cleveland	N. America (USA)	A-Public PA
Constanta	Europe	C-Corporatized Publicly owned PA /Listed
Coquimbo	S. America	A-Public PA
Corinto	C. America	E-State level Authority
Corpus Christi	N. America (USA)	A-Public PA
Detroit	N. America (USA)	A-Public PA
Dominican Republic	Caribbean	E-State level Authority
Dublin	Europe	B-Corporatized Publicly owned PA
Duluth	N. America (USA)	A-Public PA
Galveston	N. America (USA)	A-Public PA
Gdansk	Europe	A-Public PA
Genoa	Europe	A-Public PA
Gioia Tauro	Europe	A-Public PA
Gothenburg	Europe	A-Public PA
Guayaquil	S. America	A-Public PA
Halifax	N. America (Canada)	B-Corporatized Publicly owned PA
Hamburg	Europe	A-Public PA
Hamilton	N. America (Canada)	B-Corporatized Publicly owned PA
Helsinki	Europe	B-Corporatized Publicly owned PA
Houston	N. America (USA)	A-Public PA
Hueneme	N. America (USA)	A-Public PA
Iquique	S. America	A-Public PA
Jacksonville	N. America (USA)	A-Public PA
Kingston	Caribbean	E-State level Authority

Klaipeda	Europe	A-Public PA
Koper	Europe	C-Corporatized Publicly owned PA /Listed
Lazaro Cardenas	C. America	A-Public PA
Le Havre	Europe	A-Public PA
Limassol	Europe	E-State level Authority
Limon Moin	C. America	A-Public PA
Long Beach	N. America (USA)	A-Public PA
Los Angeles	N. America (USA)	A-Public PA
Manta	S. America	A-Public PA
Manzanillo	C. America	A-Public PA
Marsaxlokk	Europe	E-State level Authority
Miami	N. America (USA)	A-Public PA
Montevideo	S. America	E-State level Authority
Montreal	N. America (Canada)	B-Corporatized Publicly owned PA
Nanaimo	N. America (Canada)	B-Corporatized Publicly owned PA
New Orleans	N. America (USA)	A-Public PA
North West Seaport Alliance	N. America (USA)	A-Public PA
Oakland	N. America (USA)	A-Public PA
Piraeus	Europe	D-Corporatized PA /Listed/private majority
New York & New Jersey	N. America (USA)	A-Public PA
Prince Rupert	N. America (Canada)	B-Corporatized Publicly owned PA
Quebec	N. America (Canada)	B-Corporatized Publicly owned PA
Riga	Europe	A-Public PA
Rijeka	Europe	A-Public PA
Rotterdam	Europe	B-Corporatized Publicly owned PA
Saguenay	N. America (Canada)	B-Corporatized Publicly owned PA
Saint John	N. America (Canada)	B-Corporatized Publicly owned PA
San Antonio	S. America	A-Public PA
San Diego	N. America (USA)	A-Public PA
San Juan	Caribbean	E-State level Authority
Savannah	N. America (USA)	A-Public PA
Sept. Iles	N. America (Canada)	B-Corporatized Publicly owned PA
Sines	Europe	B-Corporatized Publicly owned PA
St. John's	N. America (Canada)	B-Corporatized Publicly owned PA
Talcahuano	S. America	A-Public PA
Tallinn	Europe	C-Corporatized Publicly owned PA /Listed
Thunder Bay	N. America (Canada)	B-Corporatized Publicly owned PA
Toronto	N. America (Canada)	B-Corporatized Publicly owned PA
Trois Riviere	N. America (Canada)	B-Corporatized Publicly owned PA
Valencia	Europe	A-Public PA
Valparaiso	S. America	A-Public PA
Vancouver	N. America (Canada)	B-Corporatized Publicly owned PA
Varna	Europe	B-Corporatized Publicly owned PA
Veracruz	C. America	A-Public PA

Virginia	N. America (USA)	A-Public PA
Windsor	N. America (Canada)	B-Corporatized Publicly owned PA