The seaports of the Baltic states have played an essential role in the social and economic activities of the region since ancient times, as the inhabitants of the region have been concentrated in coastal areas, and ports formed the core trading centers. Harbors have served and strengthened their positions as focal points for the industrial, transportation, and distribution activities that support each country’s economy. Ports are not only quays for loading and unloading cargo, but assets of national importance, enabling a range of other essential industries to operate. The industries that ports make possible can be split into three broad types: first, those that use ships to access the sea or to service their facilities at sea; second, those which rely heavily on imports of bulky raw materials or exports of finished goods; and third, those which depend on the natural or historic heritage associated with the coastline, ports, or shipping.

Today the shipping industry is a crucial part of the transportation infrastructure, and benefits the economy by enhancing competition and raising productivity. There are 27 ports in Estonia, 10 in Latvia, and only one in Lithuania. The sector is very diverse, ranging from major all-purpose ports such as Tallinn, Riga, and Ventspils, and Klaipeda to smaller ports that cater primarily to local traffic or to specific sectors, such as fishing or leisure, the latter consisting mainly of sailing and tourism. The role of each port is influenced by many factors, including its physical attributes, especially size and nautical accessibility. Ships continue to be built bigger and bigger, particularly for long-distance routes, and the increasing size limits their maneuverability. Another major influence is location relative to major shipping routes, to inland freight transportation networks, and to passenger destinations. Industries that rely heavily on imports of bulk raw materials or export markets also influence ports near major industrial or urban areas. For smaller ports focused on recreation, proximity to a piece of attractive coastline, flora or fauna, or a heritage site is also influential.

The present article presents the results of a synthesis of the literature on port authority governance models worldwide. Our aim is to make a comparative analysis of existing governance models in four major seaports in the Baltic states – Tallinn, Estonia; Klaipeda, Lithuania; and Riga and Ventspils, Latvia – to identify key challenges and propose possible solutions for sustainable port authority governance. The synthesis of the literature encompasses the governance, functions, and competitiveness of port authorities, and the results include an evaluation of the existing legislative framework in each of the major Baltic states’ seaports. The research is based on bibliometric tools and publicly available quantitative and qualitative information on Baltic port authorities’ governance models and their efficiency and management. We have given special attention to prior research dealing with the role of port authorities, port economics, policy and management, the clustering of activities in ports, land use developments in port regions, studies of port authorities’ performance, and market structures in ports. Research papers on port engineering, terminal equipment, waterfront development, port history, terminal operations management, terminal layout, and other technical developments were not analyzed due to distinct differences from the present field of research.

From an empirical standpoint, the scope was narrowed to the governance of port authorities in the principal seaports in the Baltic states: Tallinn, Klaipeda, Riga, and Ventspils. In all, 53 articles on ports authority governance and management were analyzed and four ports examined.

In the Baltic states, port authorities share responsibility with national and municipal governments for the development of basic port and harbor infrastructure facilities: waterways, anchorages, breakwaters, quay walls and port traffic facilities for public use. In Klaipeda, a share of the costs of port construction and maintenance is borne by the Lithuanian national government under state budget allotments and other port funds. In Tallinn, Riga and Ventspils, port construction and maintenance costs are borne only by the port authority. National government ministries take a leading role in the nationwide development of ports and the transportation and logistics industry in general, and are responsible for the bulk of large-scale construction of basic public facilities. Article 87(1) of the European Union treaty on seaports prohibits any aid by a Member State or through any form of state resources that distorts or threatens to distort competition by favoring certain undertakings or the production of certain goods, insofar as it affects trade between Member States. However, the treaty permits state aid to public undertakings and undertakings charged with providing services of general economic interest. Member States generally consider they have a right and duty to facilitate and finance port development projects for reasons of economic strategy, as in the case of the Lithuanian port of Klaipeda, which is positioned as a seaport of national strategic importance and receives state budget allotments.

Port management and ownership structures vary widely between states, ranging from fully state-owned ports in Tallinn and Klaipeda to port authorities jointly governed by the municipality and the state in Ventspils and Riga (see table 1). In our research, we aim to analyze whether the governance models of the major port authorities in the Baltic states meet the objectives of effective asset utilization policy.

PORTS ARE VIEWED as a core responsibility of national and regional development. They are specifically planned as a strategic means of regional development, and constructed and administered accordingly. Ports function not only as mere marine transportation terminals, but also incorporate a multitude of other functions, including those related to industry, distribution,
honing, and recreation. The Law on Ports, which governs the management and administration of ports, stipulates that ports be managed by port management bodies, i.e. port authorities. In addition, in accordance with the European Union treaty, the laws on ports in the Baltic states forbid port authorities to interfere with private ventures or to conduct any business that competes with the private sector. In the course of managing and operating the port, they also forbid making any prejudicial distinctions in their treatment of persons or entities connected with the port. Systematic guarantees of operation by the private sector are thought to provide greater efficiency than direct operation by local governments.

The port authorities of the major ports in the Baltic states are proprietary-type organizations. In addition to building, maintaining, and managing port facilities, including navigation channels, breakwaters, quay walls, and other basic facilities, the port authorities formulate policies for basic development plans in consideration of the development of the inland regions. The port’s functional facilities are leased to the private sector under the management of the port authority, and actual operations – port transport, storage, transport on land, etc. – are entrusted to the private sector in accordance with the relevant laws and regulations.

Port authorities levy charges in the form of port dues and fees for use of port facilities. These fees are determined on a cost-accounting basis and fixed by the port authorities in regulations. Port dues are levied on all vessels in exchange for the use of the port as a whole; the port authorities levy these dues in accordance with enacted law. Port dues may be calculated and assessed based on the expenses necessary for managing the water area, the port’s land facilities, and port development facilities. Port dues vary both between the different Baltic states and between ports within a state.

**Table 1:** Baltic states port authorities (PAs)

<table>
<thead>
<tr>
<th>Country</th>
<th>Port</th>
<th>PA Owner</th>
<th>PA Legal Form</th>
</tr>
</thead>
<tbody>
<tr>
<td>Estonia</td>
<td>Tallinn</td>
<td>State</td>
<td>State enterprise, LLC</td>
</tr>
<tr>
<td>Latvia</td>
<td>Riga and Ventspils</td>
<td>Self-owned</td>
<td>Established by the city council, under the supervision of the Ministry of Transportation</td>
</tr>
<tr>
<td>Lithuania</td>
<td>Klaipeda</td>
<td>State</td>
<td>State enterprise, LLC</td>
</tr>
</tbody>
</table>

Source: authors’ research

**Table 2:** Economic contribution multiplier effects

<table>
<thead>
<tr>
<th>Multiplier Type</th>
<th>Formula</th>
</tr>
</thead>
<tbody>
<tr>
<td>Indirect effects multiplier</td>
<td>(direct effects + indirect effects) / direct effects</td>
</tr>
<tr>
<td>Induced effects multiplier</td>
<td>(direct effects + indirect effects + induced effects) / direct effects</td>
</tr>
</tbody>
</table>

Source: Hegeland, Multiplier Theory

Economic impact of seaports

Major seaports not only affect the regional economy, but also significantly increase national GDP through the Baltic states’ economy consists of the employment they create, their contribution to GDP, and the taxes their employees and constituent firms pay. These occur at the port. This activity causes a ripple effect in the rest of the economy, stimulating output and employment in other industries. The indirect impact captures the effect ports have on activity and jobs in their supply chain. These effects occur predominately through ports’ purchases of goods and services from many parts of the national economy. This spending generates output, profits, and employment in the supply chain of persons or entities connected with the port. Systematic guarantees of operation by the private sector are thought to provide greater efficiency than direct operation by local governments.

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Economic impact of seaports

Major seaports not only affect the regional economy, but also significantly increase national GDP through their supply chains on the rest of the economy through consumer spending: employees spend their salaries at retail and leisure outlets, purchasing imported and domestically produced goods. These effects typically occur close to where those employees live, but there are also second-round effects in the supply chains of retailers and leisure outlets. To the extent that the ports sector increases employment and economic activity at other firms, both in its supply chain and from induced spending, it also increases tax contributions, locally and nationally.

According to Hegeland’s theory of the multiplier effects of economic contributions, we can assess the indirect effects multiplier, which shows the impact on the supply chain resulting from the port sector’s purchases of inputs, by adding the direct and indirect effects and dividing the sum by the direct effects. To evaluate the induced effects multiplier, which shows the additional impact of spending by those who derive their incomes from the direct and indirect effects of the port sector, we add the direct, indirect, and induced effects, and divide the sum by the direct effects (see table 2).

**The functional environment**

A port, according to Nottebohm’s definition, is a land area with maritime and hinterland access that has developed into a logistics and industrial center and plays an important role in global industrial and logistics networks. Nottebohm’s definition focuses on the role of the port in logistics networks and the port’s important role in global industrial networks. However, we cannot neglect ports’ contribution to the regional economy, in the Baltic states and other regions worldwide, where cargo is transferred between several nations, yet without representing a global economic zone or participating directly in the whole world’s industrial and logistics networks. Using Porter’s five forces model of strategic management insights, we may say that a port is a dedicated land area with maritime and hinterland access where a diverse set of economic activities occur, and has a port authority with the legal right to act as a land manager with corporate responsibility for the port’s efficient, effective, and safe development. Port authorities tend to function as either landlord, regulator, or operator, depending on their legal status.

**Port authorities as landlord**

The port authorities in the Baltic states analyzed here perform the functions of landlords, which include the management and development of the port’s land, with consideration for nautical access, international safety standards, and port infrastructure. The landlord function of port authorities has been defined in keeping with the literature on port governance models. Strategically, the major seaports in the Baltic states and their port authorities act as triggers for national infrastructure development plans, such as railway and road network expansion, giving due consideration to social responsibility and the environment. Nottebohm’s and Winkelmans’ focus on the logistics of ports and how port authorities should act in this challenging environment, stipulating that port authorities must be able to respond to fast-changing market needs, and see networking as a central prerequisite for port authority competitiveness. Chlomoudis and Pallis’ on the other hand develop a “smart port authority” concept, in which the port authority takes responsibility for improving interconnectivity and interoperability among port users.

**Port authorities’ mixed duties**

The regulatory function of a port authority is a mixture of duties such as ensuring environmental protection, the safety and security of ships and cargo operations in the port, and compliance with applicable laws and regulations in the pertinent fields. The regulatory function is likely to be performed by the port authority in cooperation with the local or national government. The regulatory function is an outdated approach to port authority governance that would involve conflicts of interest and violation of European Union treaties, and is not found at any of the Baltic states’ seaports.
A port authority functioning as an operator provides port services such as the transfer of goods and passengers, and nautical and ancillary services. Port authorities in the Baltic states, and a large proportion of port authorities in the European Union, function as operators or as landlords. After the collapse of the Soviet Union, the ensuing changes in the economy and in the transportation sector have followed the worldwide trend towards port devolution or port reform strategies. The privatization of the operational functions of ports, such as cargo handling, storage, and so on, has changed port authorities in the Baltic states from the operator to the landlord type, although they continue to provide nautical services and ship and passenger security and safety services.

**The institutional framework**

Competition among ports in the Baltic states encompasses competition for hinterland access and competition for national infrastructure development projects, and is impacted by competition in the established market and by the political situation. Ports do not compete directly as individual entities; rather, it is the performance of a complete infrastructure chain that determines the user’s port of choice. The port’s performance is linked to navigability, cargo handling facilities, the efficiency of terminal operators, and the overall industrial and logistics chain. In recent decades, the logistics of the port chains and hinterland access have played a major role in port authorities’ allocation of resources to development projects, as well as in motivating port user companies to invest constantly in facilities to improve the terminals’ cargo throughput.

The institutional positions of port authorities in the Baltic states have changed due to port governance decentralization, often simply called port reform. Reforms of the landlord and regulatory functions of ports is usually a matter of corporatization, commercialization, or some degree of privatization of operations – mainly cargo handling – while the actual management of the ports remains in public hands. These models are aimed at making public port authorities act on commercial criteria and respond to changing market conditions. Corporatization introduces professional management structures and amounts to a shift from public administration organizations to autonomous companies owned by the public sector, but with accounting procedures and legal requirements similar to those of private-sector companies, and with very limited direct government control. In commercialization, government retains control of the port organization, but in a business-like environment with some management autonomy and accountability.

The seaports of Tallinn, Estonia, and Klaipėda, Lithuania, where the port lands, port waters and port infrastructure are state property (see table 3) and the port authority has the right to rent port lands for the purposes of port activities, prove more efficient than the port authorities of Riga and Ventspils, Latvia, where the dry portion of a port’s territory may be the property of the state, the municipality, or another legal entity or natural person. Although the port authority is a state enterprise established by a decree of the government, its primary asset is its land, and the infrastructure is operated by the right of trusteeship, pursuant to the laws and by-laws regulating its operations. Because the port authorities’ income flows come from land rents and port dues, a port authority with more land in trust gains financially by accommodating more companies and maximizing its rent. The estimated annual revenues and expenditures of the Klaipėda and Tallinn port authorities are approved by one ministry: in Lithuania this is the Ministry of Transport and Communications, in Estonia it is the Ministry of Communications and Economic Affairs. This gives the port authority greater flexibility and financial autonomy to respond effectively to market conditions and port users’ needs. Under existing legislation in Latvia, port authorities use their financial resources in accordance with the principles of nonprofit organizations, and any expenditure above fifty thousand lati must be approved by a port board, whose eight members include four officials from the local government and four from various ministries. As a result, any major development plan in the ports of Latvia must be approved by board members who are at the same time members of the ruling political parties or persons directly nominated by the competent minister. This would tend to limit financial autonomy and favor political influence, an imperfect situation that would appear to put port authorities in a weak and uncertain position.

Table 3: Institutional frameworks of major port authorities (PA) in the Baltic states

<table>
<thead>
<tr>
<th>PA owner</th>
<th>Tallinn, Estonia</th>
<th>Riga, Latvia</th>
<th>Ventspils, Latvia</th>
<th>Klaipėda, Lithuania</th>
</tr>
</thead>
<tbody>
<tr>
<td>LLC, state enterprise</td>
<td>State</td>
<td>Self</td>
<td>Public body under municipal and national control</td>
<td>State</td>
</tr>
<tr>
<td>No</td>
<td>No</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
</tr>
<tr>
<td>State</td>
<td>National or local government, or other legal or natural person</td>
<td>National or local government, or other legal or natural person</td>
<td>State</td>
<td></td>
</tr>
<tr>
<td>Private</td>
<td>Private</td>
<td>Private</td>
<td>Private</td>
<td></td>
</tr>
<tr>
<td>Yes</td>
<td>N/A</td>
<td>N/A</td>
<td>N/A</td>
<td></td>
</tr>
<tr>
<td>No</td>
<td>N/A</td>
<td>N/A</td>
<td>Yes</td>
<td></td>
</tr>
</tbody>
</table>

Air view of the Lithuanian port of Klaipėda.

According to the European Commission’s “Assessment of the 2013 National Reform Program and Convergence Program for Latvia”, efficiency gains could be made in the Latvian ports in particular. The European Commission emphasizes that the quality of governance observed in the biggest Latvian ports and the government’s tools for achieving greater efficiency seem inadequate. “The World Bank has been invited to conduct a comprehensive study on the biggest ports’ competitiveness, governance, and return on investment. Because port authorities increasingly need to develop their facilities to face the challenges of the dynamic market they operate in, governance reform or a retreat from direct government involvement is crucial for port authorities to obtain the strong and independent position necessary to meet the challenges of the logistics sector and the social environment. Port management reform is motivated by reasons of economic efficiency, with the objective of reinforcing the port authority as an entity that reconciles private and public interests. According to Brooks, a port governance system that is fragmented between municipal and national political opponents does not allow ports to sustain long-term investment plans and does not allow port authorities to act as efficiently and effectively as possible. Following this theory, we may argue that the degree of fragmentation in the governance model also makes a difference. A scenario of equal shares, i.e. a governance model in which municipal and national interests are equally represented, would definitely not lead to sustainable port development, especially if the municipal and national representatives on the port authority board are political opponents. A good example is the port of Rotterdam, which has evolved from a traditional municipal port to one in which the city owns a 66.7% share and the Dutch state a 33.3% share. Most port authorities in the European Union have gone through a process of devolution towards corporatization or commercialization, and most of
them are governed by specific legislation and have a separate legal form, or operate as limited liability companies. Corporatization is seen to prevail here over commercialization. The official legal status of the port authority does not reveal its actual degree of autonomy: the fact that many port authorities declare that they enjoy only partial financial autonomy, and that several indicate that their board of directors includes political appointees, seems to suggest that the process of corporatization has not led to the desired degree of financial autonomy, while political influence deserves further investigation.21

Port authorities in the Baltic states have gone through a process of corporatization, as in the Estonian port of Tallinn, or of commercialization, as in the Lithuanian port of Klaipėda. These processes are not yet complete, and a high degree of direct government involvement is still visible. Port management reform is essential in order to obtain a strong and independent political and financial position. As a model of such financial independence, the Port of Tallinn, which consists of five harbors around Estonia – Muuga Harbor, Tallinn Old City Harbor, Paļšājare Harbor, Paldiski South Harbor, and Saaremaa Harbor – is a joint-stock company whose shares are owned entirely by the State of Estonia. A landlord-type port, the Port of Tallinn operates under the same business laws as any other private company in Estonia: it receives no subsidies from the state; on the contrary, the port pays yearly dividends to the state as its shareholder. From the point of view of financial independence, management reform here has achieved its goals. Empirical evidence shows, however, that the political sector remains responsible for the port functions, as the company’s supervisory board consists of eight members, of whom four are appointed by the Minister of Communications and Economic Affairs and the other four by the Minister of Finance. While this does not necessarily imply that all members of the supervisory board are ministry officials or politicians, the existing legislation offers enough influence over decision-making. The procedure for selecting supervisory board members should therefore be revised to meet the criteria of port authority independence.

The Lithuanian port of Klaipėda has followed a commercialization path, and its port authority functions as a landlord. Nevertheless, the present law governing the Klaipėda seaport stipulates that port funds may include state budget allotments, which is in conflict with the relevant European Union treaties. Port authorities, whether they are in public or private ownership, are subject to the provisions of the EC Treaty, under which states may not grant aid, refuse access, discriminate between customers, or otherwise act unilaterally.22 The Klaipėda port authority is owned by the state of Lithuania and governed similarly to how the port of Tallinn is governed: it meets the criterion of financial independence, since its annual revenue and expenditure estimates are approved by the Minister of Transportation and Communications. The board of the port of Klaipėda is made up of representatives of the Ministry of Transportation and Communications, the Klaipėda county administration, the city of Klaipėda, the port authority, port users, and their associations and institutions. There are distinct differences between the Tallinn and Klaipėda port authorities’ board member selection processes: strategically speaking, the port of Klaipėda has a more effective governance structure because of the involvement of all parties, which ensures that development plans fit port users’ needs, which are addressed in round-table brainstormings.

Riga and Ventspils are major seaports and trading hubs in Latvia. Both of their port authorities are institutions established by the city councils under the supervision of the Ministry of Transportation. The highest decision-making body in both ports is the board of the port, which is managed by eight board members, of whom four are representatives of the municipality and four from various ministries. This empirical evidence suggests that the governance system in the two seaports follows neither the corporatization nor the commercialization path, and that the ports are subject to the direct influence of municipal and national politicians. National and municipal cooperation is no reason why the present system should be reassessed: it is rather a benefit than an obstacle. However, in comparison with the industry practice in port devolution, it makes the ports both financially and politically dependent. Everett23 comments that inadequate legislative frameworks frustrate statutory corporations such as ports by making them unable to operate as commercially oriented and market-driven businesses, and unable to operate independently of political and bureaucratic control.

Conclusions

This study has described governance models of the port authorities of major seaports in the Baltic states, and the fundamental differences between them. From the ports’ perspective, the goal is to reinforce sustainable development to meet the objectives of commercially effective management. From the perspective of the port authorities, the goal is to efficiently manage the primary assets – land and infrastructure – by trusteeship, to cover investment and port development costs, and in the cases of Lithuania and Estonia, to pay yearly dividends to the shareholders.

In relation to global industry trends and empirical evidence on the governance of port authorities, the port authorities should improve their economic attractiveness and establish their political and financial autonomy. Because each port in this study has its own unique character and political heritage, a single governance system to fit all of them should not be recommended. In this paper, we have rather evaluated the present situation and analyzed the existing governance systems in comparison with the best industry practices conducive to the financial and direct political independence of port authorities from states and cities.

Future studies might benefit by using the logical framework of Per Ewing and Lars Samuelsson24 to structure the types of different actions and organizations operating in the various ports by activity centers, cost centers, profit centers, and investment centers. Classic profitability analysis from financial management theory might also be applied.

Note: All essays are scholarly articles and have been peer-reviewed by specialists under the supervision of Baltic Worlds’ editorial advisory board.

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