

Revisiting Port Regulatory Governance & Substance: Towards a Holistic Supply Chain Approach

Constantinos Chlomoudis, Petros Pallis and Theodore Styliadis

Department of Maritime Studies, University of Piraeus, Piraeus 18532, Greece

Abstract: The evolution and integration of ports in global logistics chains has altered their traditional role while has initiated restructuring processes in many ports worldwide. While most of the research addresses this issue by highlighting the need for re-positioning and redefining the role of the port within the supply chains, not much attention has been given to the structure, scope and reach as well as to the tools of regulation that competent authorities could exploit in order to avert potential abusive actions of global powerful actors along the containerized transport chain, that would affect the competitive functioning of distinct segment or the integrity of supply chains. In this context, we propose the reconceptualization and reinforcement of the regulatory governance structures of ports on a national and international level as well as the extension of the scope of ports' regulations along the supply chain to counterbalance the globalization, consolidation and integration of containerized transport actors.

Key words: Ports, concentration, supply chain integration, regulation.

1. Introduction

In the context of globalization and of dispersed production and consumption, modern maritime transports along with ports are the backbones of international trade, as well as a key contributing factor in the economic growth and development of countries around the globe. To adapt to the novel characteristics of the industry (containerization, lack of public funds etc.), liberalization of the port industry and introduction of competition was promoted as the solution which would allow more integration along the transport chain and would render the production of the port product and services more efficient and more effective.

The port devolution wave that followed on a global scale [1], through various privatization schemes led eventually on the one hand to the establishment of various novel port governance models while on the other to the shift of power from the public to the private sector. While ports became prominent fields of private investment, port managing bodies, i.e., port authorities

in the majority of occasions remained public, however their functions as well as their roles within the port were reconfigured [2].

The globalization of players within the port industry and the concentration of more and more terminals in the investment portfolios of a handful of operators, as well as the interconnection of the latter through subsidiaries, both with liner carriers as well as with companies providing hinterland and value-added services [3], brought about a reorganization of the port services market while reshaping the relations and integration amongst the members of the supply chain [4]. More particularly, such evolutions have led to the formulation of an intricate market environment of robust inter-firm relationships [5] where the boundaries of competition and cooperation, amongst market players, are very often blurred.

Especially, while these organizational developments did not initiate the necessary changes to upgrade the regulatory framework within which ports and extension supply chains operate, they have rendered the existing

framework rather ineffective and outdated. As such, it has been increasingly challenging and difficult for port regulatory agents (either Port Authorities or Independent Port Regulators) to implement and enforce effective tools to regulate global and interconnected players solely at a local port level; Such lack of competent regulatory structures is thus posing a potential threat to the competitive functioning of the supply chain markets and extension of international trade. In this context, we argue that both at the port level and at the level of the supply chain as a whole, issues for the re-examination of the role and effectiveness of the regulatory function should be raised and revisited both by academia as well as by policy makers.

The remainder of the paper is structured as follows. In section 2, we revisit ports' regulatory governance, proposing the reinforcement of port regulatory structures as well as the extension of their regulatory reach along the supply chains while Section 3 summarizes the conclusion of the paper.

2. Revisiting Port Regulation

The deregulation of the port industry facilitated the insertion of private capital in container terminals and motivated investment risk assumption. On top of that however, as ports amongst the few remaining sectors within the transport industry sheltered from competition, reform also enabled the establishment of an entirely competitive door-to-door supply chain. Containerization and the subsequent standardization it provided along with advancements in telecommunications i.e. logistics revolution and in intermodal technologies, led to enhanced prospects for supply chain integration while transformed ports from simple nodes to major intermodal distribution centres, service providers and critical coordinators of freight flows along supply chains [6].

Amidst this transitional stage for the port industry, port governance models along with the roles and functions among the public and the private sector were reconfigured. On the one hand, with concessions

becoming the "dominant design" for awarding container terminals, port managing bodies (i.e. Port Authorities), withdraw from terminal operations while, retained their functions as landlords and regulators of the port. However, while many Port Authorities were also corporatized re-orienting themselves towards the market, they focused more on developing profitable roles as landlords, cluster managers, facilitators and/or even entrepreneurs [2], rather than on their regulatory responsibilities and/or the establishment of a sector-specific framework for the monitoring the competitive functioning of the port market.

On the other hand, private terminal operators (stevedores, liner shipping companies, financial holdings) taking advantage of the massive devolution wave and the opportunities occurring across the world, initially opted to scale up their operations expanding their terminal portfolios, thus internationalizing and consolidating their operational status in the global market. Subsequently, the enhanced possibilities of further integration along the post deregulated and fully competitive door-to-door transport chain, allowed terminal operators as well as other market players to vertically expand their activities to gain greater control over the total door-to-door movement of freight [7].

In the absence of a regulatory framework specifically designed to accommodate the operational dynamics within the port industry and the complexity, interconnectedness and specificities of the distinct transport markets that build-up the containerized transport chain, an increasing proportion of container shipping, handling and distribution capacity ended up in the hands of fewer, larger companies. With the rise of market concentration, port authorities, saw their bargaining power and negotiation position diminish against the emerging global transport actors, making them more vulnerable to the dispositions and market power of these incumbent transport groups. In addition, despite the fact that market actors expanded along the chain, operate as a single unit which is simultaneously integrated in multiple transnational hyper-networks

(terminal operator's networks, supply chain network), port regulations remained confined within the premises of the port, making it rather challenging and difficult for port authorities to enforce effective tools (for effective price gauging, service bundling, raising rival's costs in upstream and downstream markets monitoring) to regulate global and vertically integrated players solely at a local port level.

In this context, as it is likely that the consolidation trend will continue for the foreseeable future, the danger of competition distortions, market dominance and abuse is becoming more eminent. As such, if ports do not want to further remain local spectators with limited influence over the market-driven processes, a reconceptualization of the structures and scope of ports' regulatory governance and substance is necessitated.

2.1 Reinforcing Ports' Regulatory Governance and Substance: Towards a Holistic Supply Chain Approach for Ports

Every regulatory system is comprised by two core dimensions, (a) the "who" of regulatory governance i.e., which entity assumes the role of the regulator, and (b) the "what" i.e., the essence and content of regulation [8]. However, these dimensions appear to be increasingly at odds in the particular case of the port industry.

Port authorities neither have the capacity and resources as port regulators, nor the mechanisms, and the tools to monitor the competitive functioning of the market and assess the local, national and international implications introduced by incumbent market actors (terminal operators and liner shipping companies) within the development framework of ports. In addition, while supply chains extend across the globe and transport actors increasingly operate along them as a unified unit, regulators should ought to do so too, by expanding the regulatory reach and the scope of regulations, beyond the port's perimeter.

Ports due to their position amidst the waterside and hinterland transport segments could evolve into the regulatory "stronghold" of the supply chains. However,

since the competency and the suitability of the average port authority to implement and enforce regulations within the supply chain network is questionable, alternative and complimentary modes of regulatory governance should be assessed. As such, to restore the center stage position and bargaining power of port authorities within supply chains, it is arguing that port's regulation could be reinforced by novel structures and additional layers of governance (regional, international).

Following the paradigm of network industries such as energy and telecommunications [9], which are governed by national as well as international independent regulatory agencies with explicit regulatory competencies across the network's segments, regulation of the port as well as of the entire supply chain could be devolved (in part or in whole) from the port authority to an independent national regulatory authority which would in turn be complemented and assisted by a respective international/regional regulatory body. The rationale behind the aspect of independence is also manifold. The first argument lies in the fact that task specialization results in efficiency gains [10]. Gains in terms of credibility and efficiency are also highlighted in Maggetti [11]; while the performance-oriented management and innovative behavior of independent authorities is assessed in Verschuere and Bouckaert [12]. Thatcher [13] in turn, argues that independent authorities are considered less bureaucratic, more independent of political influences, and able to safeguard interests of customers.

Similar examples on an EU level, include the CEER (Council of European Energy Regulators), the ACER (Agency for the Cooperation of Energy Regulators), and the BEREC (Body of European Regulators for Electronic Communications) which are the voice of Europe's national network industry regulators. Respectively, on a national level as international practice has shown [14], apart from the Greek Independent Regulatory Authority for Ports, other countries have turned to the establishment of similar agencies with explicit port economic regulatory competencies. According to the authors, while differences

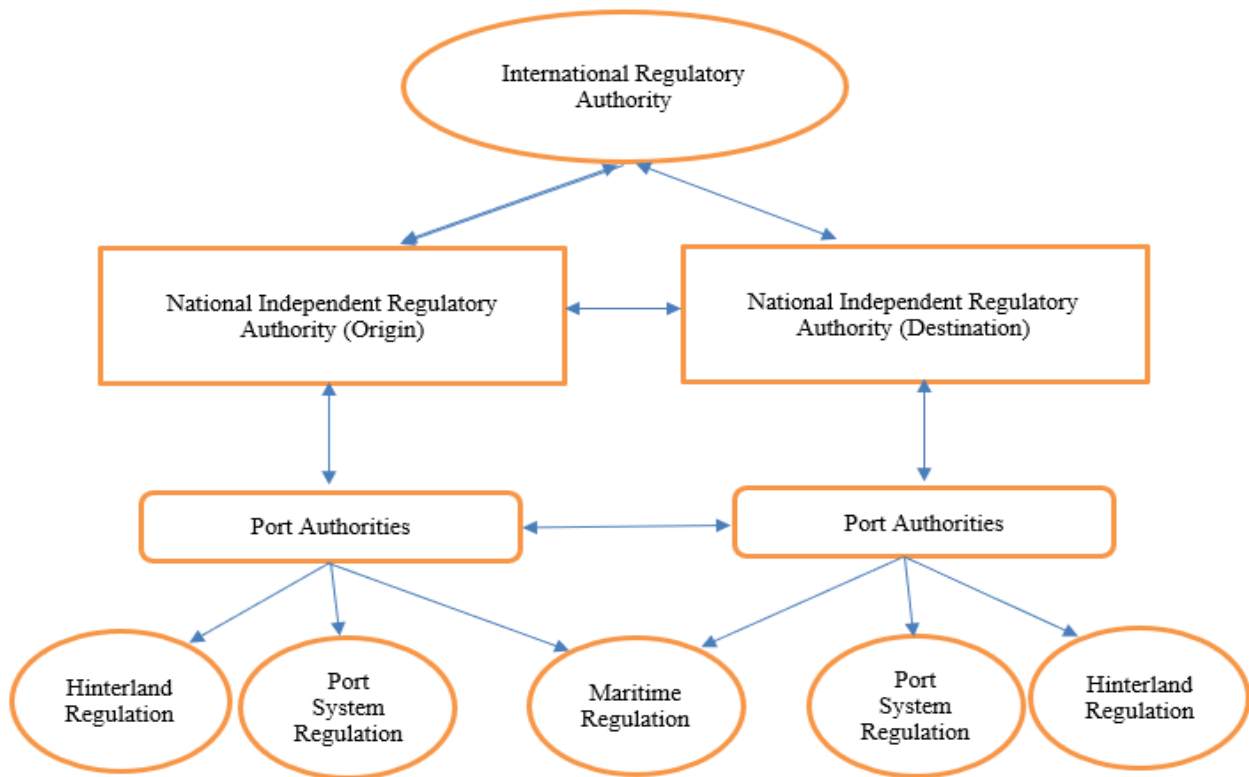


Fig. 1 International, national & local tiers of regulatory governance within supply chains.

in the organizational and institutional approaches as well as in the scope, regulatory reach (tools) and efficiency of those agencies exist, port economic regulation provides a more coherent and holistic framework in the process of enhancing the credibility and the quality of regulatory results, and hence of competition.

Thus, the adoption of a similar multi-level regulatory governance approach could be seen as part of a broader initiative towards a model of “network governance regulation” [15]. A model which could foster greater cooperation, coordination and harmonization among the different tiers of regulatory governance and port authorities (Fig. 1), with regards to the regulatory procedures, the measures adopted and the mechanisms to effectively regulate globalized and interconnected players in a manner which enhances the integrity and competitive functioning of the supply chains.

The overall purpose of the proposed reconfiguration and reinforcement of regulatory structures is to enhance and promote more integrated supply chains, as well as

a monitored and transparent transport network which safeguards public interest, fair rates and a limitation of abusive behaviors from incumbent market actors.

3. Conclusions

The formation of an oligopsonistic and oligopolistic market structure in terminal operations and liner shipping respectively, has undermined the capacity of port authorities to efficiently regulate global players within the context of the port system.

As our analysis indicates, in order to regulate the globalized and powerful port actors, rethinking and repositioning the port system in today’s complex supply chains will not be enough. If ports want to regain control over such global actors, they must enhance, adapt and invent new tools to face today’s challenges. To do so, appropriate updating of the regulatory function should be coupled by the re-invention of the role of the regulator on a national and international level as well as by the extension of the regulatory reach beyond the port context and throughout the supply chain network.

Paradigms from network industries, could be creatively utilized, with respect to their approach to governance of regulation and provide a base for institutional reform within the port sector. We argue that an institutional restructuring based on the delegation of regulatory function to independent authorities of national and international competence, can restore the center-stage position of economic regulation in the port and supply chain network, allowing for policy convergence and, consequently, for the creation of a common network-wide regulation framework along the supply chain, whose stronghold and epicenter will be the port node.

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