

Reforming public port authorities through multiple concession agreements: The case of Cyprus



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ABSTRACT

There has been a continuous restructuring of port systems and governance models that deal with the organization and administration of the ports. The main reasons for such restructurings are related to the need for increased commercialization of ports, the inefficient administrative structure, the inability to operate through the application of modern commercial practices and inefficiency in capital investments and in operation. This paper describes and analyzes contextual issues leading to the initiation of port reforms as well as the implementation process and the envisaged outcomes following the changes in governance structure of the Cyprus Port Authority and the main port in Cyprus, the Port of Limassol. The port consists of a container terminal, a general cargo/multi-purpose/ro-ro terminal, and a passenger terminal all operated by the authority. In addition, the CPA was the main provider of marine services such as pilotage, towage etc. The objective has been to commercialize all terminals and marine operations either through one (single concessionaire) or multiple concession agreements. Reference is made to the underlying reasons and need for port reforms. The model adopted prior to the port reform process is described as well as the transfer of responsibilities to the newly created corporate entities. In addition, reference is made to the outcomes of the reform process and in particular the change in governance structure to a more distinct landlord model, the increased financial returns in the short and long term, the changes in pricing and the legal and regulatory reforms and the efficiency changes envisaged.

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1. Introduction

A contemporary model of port governance must safeguard adequate and economically viable investments in port superstructure and infrastructure whilst facilitate the efficient flow of goods and passengers through the port and protect the port system from monopoly situations as well as serve the general interest of the public and other stakeholders. There has been a continuous restructuring of port systems and governance models that deal with the organization and administration of the ports. Such governance models are well described in the extant literature (e.g. Baird, 2000, Baird, 2002, Baltazar and Brooks, 2001, Brooks, 2004, Brooks & Cullinane, 2007, Brooks & Pallis, 2008, Cullinane & Song, 2002, Everett & Robinson, 1998, Ferrari & Musso, 2011, Hoffmann, 2001, Notteboom, Langen, & Wouter, 2013, Pallis & Syriopoulos, 2007, Verhoeven, 2010, Pallis, Vitsounis, & De Langen, 2010, and Verhoeven & Vanoutrive, 2012). Ferrari, Parola, and Tei (2015) and Vieira, Neto, and Amaral (2014) provide thorough reviews of the relevant literature. The main reasons for such restructurings are related to the need for increased commercialization of ports, the

inefficient administrative structure, the inability to operate through the application of modern commercial practices and inefficiency in capital investments and in operation.

Suykens (1988) and Suykens and Van de Voorde (1998) identified three major port governance traditions in Europe. The first is the 'Hanseatic' tradition of local, mostly municipal, governance, which is dominant in ports around the Baltic and North Sea; the second is the 'Latin' tradition of central governance, which reigns in France and countries around the Mediterranean; and finally, the 'Anglo-Saxon' tradition of independent governance, which is a characteristic of ports in the United Kingdom and Ireland.

Port governance practices have evolved over time resulting in a declining influence for port authorities, the consolidation of traditional port operating actors such as stevedores and cargo-handling companies and the proliferation of global players that have gained bargaining power (Heaver, Meersman, Moglia, & Van de Voorde, 2000; Heaver, Meersman, & Van de Voorde, 2001; Slack & Frémont, 2005; Olivier & Slack, 2006; Jacobs & Hall, 2007; Vanelslander, 2011).

The aim of this paper is to describe and analyze contextual issues leading to the initiation of port reforms as well as the implementation process and the envisaged outcomes following the changes in governance structure of the Cyprus Port Authority and the main port in

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Cyprus, the Port of Limassol. The paper examines the port reform process of Cyprus which represents a very interesting case study due to the fact that the port consists of various different port terminals (container terminal, general cargo/multi-purpose/ro-ro terminal, passenger terminal and marine service operations such as pilotage, towage etc.) and the objective has been to privatize all at once either through one (single concessionaire) or multiple concession agreements. Reference will be made to the underlying reasons and need for port reforms which the literature has generally attributed to economic reasons (capital investment and efficiency reasons). The model adopted prior to the port reform process will be described as well as the transfer of responsibilities to the newly created corporate entities from joint ventures of local and foreign corporate entities. Other questions that will be answered include: which are the details of the port governance model in place and how it relates to generic port governance models? Which options have been endorsed as regards ownership; which is the role of the incumbent Port Authority and how it has devolved? What is the new role of the new, reformed port authority? Which have been the strategic objectives targeted via these reforms? Have there been any difficulties in implementation? What has been the role of private actors (i.e. stevedoring companies etc.), and other stakeholders (i.e. hosting communities) and institutions in shaping port governance? What type of conflicts between government regulators (or owners), managers, customers, local community stakeholders and the like were observed? Have port governance reforms been effective in achieving governments' intentions? Beyond serving governments intentions, have the endorsed port governance models been appropriate to resolve problems and challenges?

2. Port governance models

Port authorities and governance models have been classified based on whether state port authorities assumed responsibility for their operations, hence the distinction to landlord, tool and service ports. The customary way to classify port authorities in operational terms is to distinguish between 'landlord ports', 'tool ports' and 'service ports', depending on whether, respectively, port authorities are not involved in (cargo-handling) operations at all, operate superstructure and related services or provide full operations in an integrated manner (World Bank, 2007). The tool port (a mixed model where private sector operators perform some of the operations but under the direction of public sector managers) and the landlord port (the public sector retains ownership while the terminal management and operations are leased to private sector operators). The landlord function can be considered as the principal function of contemporary port authorities. Important issues here are land ownership, as well as the ability and autonomy in contracting land out to third parties. The regulator function is to a large extent performed by the harbour master's office, which can be an integral part of the port authority structure or a separate entity. As a response to this evolution, several port authorities reposition themselves by adopting pro-active strategies and developing activities in other nodes in the logistic chain, outside their own port perimeter.

Existing literature discusses the importance of port governance, in particular the role that port authorities have gained since the 1980s when organizational changes were made to the world port's governance system (e.g. Goss, 1990a, 1990b). The reforms included the creation of a public body – i.e. the Port Authority – responsible for (1) managing port spaces and operations and (2) awarding concessions to private companies for operating port terminals. Under this new framework, port authorities would control concession contracts, which means that they would not only be responsible for assigning the right to use port land to terminal operators, they would also assure constant growth for the port and balanced development for the port region. The port authorities achieve this by reducing negative and encouraging positive externalities (Hall, 2002; Meersman, Van de Voorde, & Vanelander, 2009; Ferrari & Musso, 2011).

Baltazar and Brooks (2006) developed a theoretical approach to the concepts of port governance and proposed a conceptual model of governance called 'matching framework', based on contingency theory. The model contains three elements: (1) the operational environment, mainly its complexity and dynamism, (2) the established strategy defined by the product-market scope and vision and (3) the structure, considering the degree of centralisation and standardisation of operations. The application of the model is accomplished by checking the degree of fit between the elements (Environment-Strategy, Strategy-Structure and Environment-Structure) and the evaluation of performance indicators.

According to Verhoeven and Vanoutrive (2012), port governance is a broad concept, which encompasses seven distinct groups of parameters that can be used when analyzing governance practices including: (i) devolution, (ii) corporate governance, (iii) operational profile, (iv) functional autonomy, (v) functional pro-activeness, (vi) investment responsibility and (vii) financial autonomy.

Vieira et al. (2014) also provide a systematic review between governance, governance models and port performance, an approach and relationship that seems to have been well-established in the literature on port performance. The authors state that although the existing models make a contribution, they allow gaps in terms of evaluating governance outcomes, identifying governance elements and discussing governance actions. These gaps make it hard to answer the basic questions associated with governance models: Who governs? What is governed? How is it governed? And for what is it governed?

Gonzalez and Trujiilo (2008) quantified the evolution of technical efficiency in port infrastructure service provision in the major Spanish port authorities involved in container traffic and analyzed the extent to which port reforms that took place in the 90's had an impact on the efficiency of the Spanish container ports. The results showed that the reforms resulted in significant improvements in technological change, but that technical efficiency has in fact changed little on average. However, there was a significant movement of the efficiency within ports over time as a result of these reforms.

Cheon, Dowall, and Song (2010) evaluate how port institutional reforms influenced efficiency gains between 1991 and 2004 by constructing a panel data for port ownership, corporate structure, and port inputs and outputs for 98 major world ports, and implementing the Malmquist Productivity Index (MPI) model. The results illustrated that ownership restructuring contributed to total factor productivity gains and that the restructuring induced optimized operation of container terminals, especially for large ports, as it allowed specialized private entities to concentrate on terminal operation and cargo handling services.

Similar reasons have been provided for the need to reform ports and introduce new modern methods of port governance in studies taking place in the context of Greece (Pallis & Syriopoulos, 2007), China (Wang, Ng, & Olivier, 2007) and Mexico (Estache, dela Fe, & Trujiilo, 2004) among others.

Lacoste and Douet (2012) discuss the adaptation of the Landlord port model to major seaports in France following the French port reform process of 2008. This reform was implemented according to local conditions, and according to the activities of ports and terminals in comparison with other major European ports. This paper analyses the new organizational set-up and gives details about their features. Using the Matching Framework of existing literature, it assesses the degree to which the new structures and new strategies match and provides a before and after assessment of French ports in terms of environment, structure and strategy. It is concluded that the landlord model has been adapted with the involvement of the State (governance) and of the port authority (concessions) and also highlights the risk posed by State interference in the context of this adapted model.

Cariou, Fedi, and Dagnet (2014) provide a thorough account of the port reform undertaken by France in 2008 and coming into force in the period 2010–11. The authors indicate that the restructuring applied mostly a landlord port model to major French seaports with the prediction that doing so will restore competitiveness. It was also recognized

that a major limitation of the previous governing structure was the underperformance of container traffic. The authors focused on the port of Marseille and identified trends of the new framework in the sharing of responsibilities of the supervisory board (focusing on global issues), the advisory board (focusing on local issues) and the board of directors (considering internal issues). Importantly it is concluded that the application of this new framework demands a transition period, to move from port management with a dominant tool port culture toward a more entrepreneurial culture.

3. Port governance in Cyprus

3.1. The Cyprus Ports Authority

The Cyprus Ports Authority (CPA) is the responsible authority for the operation of the Cyprus ports and despite the fact that it is a semi-government organization, the CPA is entitled to operate the ports as a profit making entity. Its status, functioning and powers are set out in Law 38/1973 which provides powers to the Cyprus Ports Authority for the operation and exploitation of the ports of the Republic as well as the transfers of all assets and liabilities of the ports. The CPA operates at a national level, therefore there are no local port authorities or port agencies at the port system level. The CPA is supervised by the Ministry of Transport and Communications and it is managed by a Board of Directors, appointed by the Council of Ministers.

Prior to the inauguration of the CPA, the Cyprus ports were controlled and operated directly by the State. Following the inauguration of the CPA, the CPA invested in the purchase of the ports and took all responsibilities that emanate from the law. The Cyprus Ports Authority Laws apply to specific geographical areas that are designated as port areas by the Council of Ministers. The areas that belong to the CPA include land areas and sea areas between the coastline and within the territorial waters of the State and are delineated as ports or port areas.

Cyprus has three commercial ports that are currently fully operational, viz. the Port of Limassol, the Port of Larnaca and the Port of Vasilikos. Overall the CPA is responsible for the management, operation, and development of the ports as well as the regulation of the port system through supervision of the providers of port services and the licensing of relevant activities and coordination.

The duties of the CPA include:

- (i) To provide and maintain at the ports under its jurisdiction adequate and efficient port services and facilities and to provide administration and operation of the ports,
- (ii) To define, regulate, control and prohibit the use of any port precincts or the movements or any other activities therein,
- (iii) To provide for or in relation to the port precincts and the territorial waters of Cyprus the necessary or desirable pilotage services, beacons, buoys and other navigational services and aids,
- (iv) To promote and provide for the use, improvement and development of the ports,
- (v) To perform any other duty which is assigned to it by the CPA Law or other Law, and
- (vi) To advise the Minister on any matter relating to the ports and the port services generally and any other matter, falling within the functions of the Authority.

3.2. The need for port reforms in Cyprus

The need for port reforms has been recognized on an international basis and has been manifested by the continuous restructuring of port systems and port property models, as well as by the changes in the organization, governance and administration of ports. The main reasons for restructuring derive from the need to adopt commercial principles as a way of improving port efficiency and value added to stakeholders

and as a way of minimizing adverse impacts of working and operational relationships within ports.

In Cyprus, port reform and transformation of the governance model seemed to have been essential for a number of years. This was because, despite the fact that the CPA has been a profitable organization (profit amounted to about 25–30 million euro per year in the last decade) business has been declining for the best part of the last 15 years. In fact, during this period transshipment traffic which was flourishing in the 1980s has declined to zero. It was the same situation for all other types of cargo and passengers, resulting in the port of Limassol handling only local cargo and the other major port, that of Larnaca virtually handling minimal amounts of localized cargo. This has been the case despite the location of Cyprus in the midst of Eastern Mediterranean trade activity.

The Port of Limassol has been the main commercial port of Cyprus and the driving force of the island's economy in the 1970s. Other ports include the port of Larnaca (attempts to commercialize it since 2011 have been unsuccessful due to minimal interest from investors) and the port of Vasiliko (a small cement/general cargo port already operated under a concession agreement with the main cement producer in Cyprus). **The Port of Limassol accounts for 80% of passenger traffic and 70% of all commercial activity.** The port gradually lagged behind other regional rivals and has become most uncompetitive, losing business for shipment and transshipment to the Ports of Piraeus, Malta and Haifa. The port, burdened with uncompetitive rates and unionization, handled in 2005 a mere 300,000 TEUs, while Piraeus that has gone through the privatization process a few years ago handled ten times as much in 2015. Malta Freeport, that underwent a privatization process of its own some ten years ago, currently handles 2.75 million TEUs and aims to increase that figure to 4 million over the next 1–2 years. Cyprus is strategically located across from the Suez Canal, that, too, is enjoying vast investments and there is great prospect to become competitive once again.

One of the main obstacles for port reform and port progress have been the political parties that had unofficially assumed the role of nominating members for the Board of Directors of the CPA to be appointed by the President of the Republic of Cyprus. This meant that in many cases, the BoD had a political agenda (and not a strictly economic one) and depending on who was in power it may have had a role to play in adopting pro or anti-government policy many times at the expense of economic development that required a strictly business and economic mind-frame. Political parties due to ideology but also due to pressures from trade unions and voters were apprehensive toward the implementation of port restructuring and port reforms.

The need for port reforms however, became all the more evident during the financial crisis that engulfed Cyprus in 2013 and resulted in the need for international creditors to bail out the State. One of the key demands for the bailout has been liberalization of inefficient State assets and the commercialization of the CPA has been viewed as fulfilling this key criterion. With regards to the port authority it was felt by the government and also by the appointed international consultants that the reform process and commercialization should be manifested by concession agreements to transfer port operations to private operators and tariff restructuring as well as the re-organization and change of the role of the incumbent port authority from owner-operator to owner-regulator.

The ports in Cyprus have been governed by the CPA since its inception in the early seventies and despite the growth achieved in the eighties, for about 25 years the ports have been experiencing a rather protracted demise that has its origins and is deeply ingrained in the governance structure that allowed bureaucracy, political influence that encouraged policies and decisions with no commercial sense and the presence of licensees and trade unions that could at times hold to ransom or even interrupt continuity in port operations.

The need for port reforms was quite evident by the lack of transshipment activity in spite of the geographical position of Cyprus, the absence of significant investment for port infrastructure (e.g. most of the cranes

used date back to the early seventies) and the lack of significant expansion of the port despite the deepening of the port and the more recent expansion of the pier for the container terminal from 300 m to 800 m. Port reform was needed because ports needed to respond to technological developments. Ship building technology, cargo handling technology, information technology and science/engineering developments in general have an enormous impact on the port industry which needs to be able to adapt to developments in these areas. The Port of Limassol has lagged behind across the entire spectrum.

Despite the expansion of the container terminal pier (to be completed within 2016) it is rather obvious that the port authority has failed to attract additional business and to support that business by investment in superstructure and port expansion. On the contrary the port authority decided to invest a sizeable chunk of the total budget available for port development for a specific time period to build a rather unnecessarily expensive passenger terminal without any contract or indication for that matter, of additional cruise ship port calls. In any case, even in the situation where cruise business increases (not due to the existence of the new passenger terminal) it is questionable whether had the funds been invested in alternative port development superstructure and infrastructure, the returns would have been much higher.

The catalyst for port reforms has been the financial and economic crisis of 2013 that resulted in Cyprus requiring bailout by international creditors. This led to a 10 billion euro programme jointly funded by the EU and IMF. Among the government's obligations to international creditors was to proceed with reforms, including privatization of state-owned assets, utilities and services that would raise about 1.4 billion euro including privatization of the port terminals.

The transformation of the governance model of the Cypriot port system required the effective separation of operational and regulatory responsibilities between government, port authority and the private entities that may be involved in the port system.

The main responsibilities were classified as follows:

- a) Port policy configuration,
- b) Regulatory role – supervision of the functioning of the port system,
- c) Land and sea port area exploitation, and
- d) Port operation and provision of port (marine) services.

The intention was to distribute the aforementioned activities between the port authority and the private entities. The aim was for the port authority, to undertake a landlord port model role with respect to the port of Limassol will remain responsible for regulation and policy, whereas the private concessionaires would undertake the operation of the port which includes the investment of superstructure.

4. The port reform process

Despite the fact that the ports of Cyprus were governed by the Cyprus Port Authority, the process for port reform was assumed by the Ministry of Communications and Works, which may indicate to some extent that government and port authority were not totally aligned as to the need for commercialization/privatization and the way for achieving that including alignment on relevant time frames. This is despite the fact that the CPA's role is largely the implementation of government policy. External consultants (the independent advisory group Rothschild) were appointed by the Ministry to oversee the process and also prepare the legal documents and undertake a restructuring of the tariff that would be adopted by the private operators. The tender document for the privatization of the port was published in June 2015 and included three potential concession opportunities, viz., a 25 year (± 5 years) services concession for the container terminal, a similar services concession for the multi-purpose and passenger terminal and a 10 year concession to provide marine services. Interested parties had the

opportunity to bid for one or all three of these potential opportunities. The contracting authority was the Ministry of Transport.

Prior to the implementation of the privatization process, the port authority in conjunction with the ministry had to deal with a number of stakeholders who were directly affected by the concession agreements and were to some extent objecting to their implementation. This was the independent licensed porters and the employees' trade unions. The Licensed Porter's Association (LPA) was a private independent entity operating under a long-term license to service the horizontal movement of the cargo from pier to yard/warehouse. They were responsible for making the capital investment for the purchase of the equipment required for the operations and also pay the operating costs. The tariff for this service had to be approved by the CPA. The licenses were personal and at the time of the port reform process there were about 30 licensees operating within and according to the terms of the association and employing about 60 people. The operation was extremely lucrative and the licensees were quite apprehensive to give up their licenses without substantial compensation. However, an important goal of port reform was to remove the operations of independent licensees in the port supply chain as they would often be the major cause of glitches and inefficiency. The ministry was advised as to the value of the LPA by independent consultants but due to the fact that the operation was profitable in the range of 8–10 million euro per year the ministry agreed to pay a much higher amount that would also take into account to some extent foregone earnings for the licensees for the period up to their retirement. Once the deal was in place, the operations passed to the CPA who was now also responsible for the LPA's operations.

The trade unions of CPA employees were the second stakeholder group that needed particular attention at a very high level since the employees believed that their interests would be affected by the concession agreements and have been threatening strikes and closure of the port. In fact during the process of privatization there have been strikes on at least three occasions that lasted a few days but had nevertheless an impact on the country's economy and of course on the port's reputation and operations. The approach taken by the government and the minister has been greater involvement through exchange of information, communication and dialogue with the trade unions and a public undertaking that employees will not lose their jobs and livelihoods even after the implementation of the concession agreements.

The first phase of the concession process entailed a call for an 'expression of interest' from prospective operators. In fact during that period the consultants sounded out a number of international operators who showed firm interest in the project. After a short-list was assessed by consultants Rothschild, the new operators were selected in early 2016 and are due to undertake management in the last quarter of 2016, initially in a parallel transition phase with the CPA. After that, the CPA will cease to act as an operator and will be limited to the role of landlord and regulator of all three major commercial ports – Limassol, Larnaca and Vassiliko cement terminal (see Table 1).

A consortium comprising EuroGate International GmbH, which has the majority holding (60%), Interiorient Navigation Company Ltd. (20%), and East Med Holdings S. A headquartered in Luxembourg (20%), was granted the concession for the port's container terminal. EuroGate International GMBH has been an operator of container terminals since 1999 and is operating in 11 ports in Germany, Italy, Portugal, Morocco and Russia handling a total of 14.8 million TEUs (2014). It is owned by the Municipality of Bremen (50%), and Eckelmann GmbH (40%) and J.F. Mueller & Sons AG (10%). EuroGate is an independent company and not affiliated with a liner shipping company. Interiorient Navigation Co Ltd. is a Cyprus based company managing a fleet of more than 100 ships, mainly bulk carriers and tankers. East Med Holding is a shipping and logistics company. The aim of the consortium is to operate the container terminal as a profit center in order to increase revenues and cash flow to facilitate the sustainable investments and maintenance of a modern facility.

Table 1
Stages and evolution of port reforms in Cyprus.

Stage/date	Evolution	Players involved
1973/2012	CPA operates as a semi government port operator. Gradual decline in port performance and traffic. Reluctance to adopt commercial principles	Consecutive Cyprus governments CPA
2013	Economic crisis in Cyprus. Economic Adjustment Programme for Cyprus by the EU, IMF, ECB demand reforms and privatization of state assets including the CPA	Cyprus Government European Commission Eurogroup European Central Bank International Monetary Fund Cyprus Government
2013	Government announces decision to privatize state assets including the CPA	
2014	Ministry of Communications, Works and Transport undertakes port privatization process. International Consultants Rothschild are engaged to work with the CPA to facilitate the process	Ministry of Communications and Works CPA Rothchild
2015	The commercialization process for the Port of Limassol was facilitated by a new provision in the CPA Law	Cyprus Government Cyprus Parliament
June 2015	Commencement of the process, Invitations for the expression of interest (Eol)	Ministry of Communications Works and Transport Rothchild
September 2015	Selection of parties expressing interest on the basis of prior expertise and financial criteria. Parties could express interest in more than one LOT	
October 2015	Invitation to Tender: Stage of due diligence and negotiations. During this stage the interested parties could proceed with a comprehensive due diligence study (technical, economic, legal, commercial) through local visits, the virtual platform for information exchange and consultation meetings	
October 2015	The Licensed Porter's Association (LPA) was bought by the CPA	Ministry of Communications and Works CPA
January 2016	The Ministry announced receipt of 14 bids from 10 interested parties for the commercialization of Limassol Port	Ministry of Communications and Works
February 2016	A special committee decided on the winning bids	
March 2016	The Minister of Communications and Works announced the winning bids, Eurogate and DPW	Ministry of Communications and Works Eurogate Dubai Ports World
March 2016	Parliament passes legislation to finalize the process	Cyprus Government Cyprus Parliament
April 2016	Concession agreements are signed Multi-purpose terminal and Marine Services operations to be taken over by Dubai Ports World (DPW). Limassol Port Container Terminal operations to be taken over by EuroGate. Down payment by concessioners	Cyprus Government Ministry of Communications and Works Eurogate Dubai Ports World
June/December 2016	The transition period. CPA manages income and expenses The role of CPA in a transition phase to an independent regulator The concessionaires undertake preparations	CPA Eurogate Dubai Ports World
January 2017	Takeover is completed	Eurogate Dubai Ports World

The operations of the general cargo terminal were awarded to a joint venture comprising DP World Limited (75% majority holder) and GAP Vassilopoulos Public Ltd. (25%). DP World is a publicly listed company operating more than 65 container terminals in 27 countries. In 2014 it handled 15.6million tonnes of bulk and general cargo, 28 million tonnes

of liquid bulk cargo and 1 million TEU units and RO-RO as well as 800,000 passengers. GAP Vassilopoulos is a Cyprus based company of offering shipping and logistics services as well as warehousing, ship supplying and customs clearing. The aim of the consortium is sustainable growth in an efficient safe and environmentally friendly port operation serving a variety of ships and users.

A consortium consisting of DP World Limited (majority holder – 100%), consisting of P&O Maritime FZE (75% share) and GAP Vassilopoulos Public Ltd. (25% share) was selected to take over the port's marine services. P&O Maritime is an international provider of maritime services operating also a fleet of 140 ships. The aim of the consortium is to offer high quality services contributing to the growth and development of the port of Limassol.

5. Issues of commercialization

As in the case of other initiatives to reform ports in Europe, the main envisaged benefits related to financial, strategic, operational and pricing issues. It was estimated that the historical earnings at Limassol port alone (which have been about 28 million euro per year) will increase substantially as the new operators have set targets of about 4–5 times that amount. The operators will also make investments in infrastructure and superstructure upgrades, investment in modern equipment, and in more efficient and technologically advanced systems. The main issues of commercialization can be summarized as illustrated in Table 2.

5.1. Financial issues

Revenues from the commercialization of the Port of Limassol deal consists of two parts. There is the concession fee for the three operations that was paid upfront upon signing the concession agreements. This payment amounted to €10 million in total. However, the major financial return comes from the government's cut on the revenues of the concession-holders down the years.

It has been estimated and announced by the Government that the economic returns of the agreements for the commercialization of the services of the Limassol port, as well as the business plans of the concessionaires are quite beneficial for Cyprus and its economy and that the gross revenues for the state on the basis of net present value will be €1.16 billion. The Government maintained that the outcome has been especially beneficial and that gross revenues may reach a value of €2 billion in the 25-year period which is in excess of what was anticipated. In accordance to the terms of the agreement, the State would receive a royalty that would vary according to each concession. The royalty for the container terminal concession will be 62.71% of gross revenues, for marine services it will be 10.1% of gross revenue and for the multi-purpose and passenger terminals concessions it will be 52.1% of the gross revenue. In addition, it is noted that there would be guaranteed annual income of 9.15 euro million from the three concession agreements irrespective of turnover for the concessionaires. According to the business plans presented to the government, the expected profit for the government will be in excess of €40 million per year reaching €45 million after taxation is applied. This has been contrasted to current profit from the operations of the Cyprus Ports Authority which amount to about €25–30 million per year. In addition, the concessionaires are expected to invest more than €100 million in infrastructure (see Table 3).

Based on the strategic plans of the three selected concessionaires, it was estimated by the Government that an added value of €51 million annually in revenue including capital investments will accrue after commercialization. In terms of total revenue it is estimated that in addition to the total €10 million down-payment the net present value of the total fees to accrue to government on the basis of the presented strategic plans are 1.020 m, the capital invested in NPV will amount to €110 million and taxes in NPV will be €22 million. The total NPV from the concession agreements is estimated to be €1.163 billion over the concession period.

Table 2
Main issues of commercialization.

	ISSUES			
	Prior to agreement	During transition period and upon handover	Medium-term	Long-term
Takeover of LPA by CPA	X			
Tariff restructure	X			
Port personnel indemnity		X		
Termination payments		X		
Input into performance standards monitoring		X		
Asset transfers		X		
Detention of vessels, insurance of quay walls, environmental liability, provision of marine services		X		
Transparency and end of uncompetitive costs and indirect subsidization			X	
Operational costs and maintenance			X	
Financial investment by operator			X	X
Productivity impact			X	X
Efficiency			X	X
Reliable port in East Med			X	X

5.2. Tariff and pricing issues

Prior to the concession agreements, port tariffs were set by the CPA. Following commercialization, the concessionaires were authorized to charge two distinct categories of tariffs: non-regulated tariffs in respect of the services and facilities provided within the relevant port area in its sole discretion and regulated tariffs. When setting or levying regulated tariffs the obligation of the concessionaire is to charge as a maximum no more than the higher of the figure set out in the relevant schedule for each regulated tariff, subject to the relevant regulated tariff indexation adjustment.

If a new category of regulated tariff or non-regulated tariff is required for the purposes of the port activities, the concessionaire would be obliged to submit a proposal for the tariff levels (including any maximum levels) together with an explanation and all relevant supporting information as to how such tariff levels have been calculated or determined. The grantor shall provide its written consent (not to be unreasonably withheld) to such proposal within three months.

5.3. Operational and governance issues

In terms of operations it is envisaged that specialist companies will be able to improve efficiency substantially both for the general cargo terminal and the container terminal. In addition, the investors have undertaken the responsibility for making significant investment in new Super Post Panamax cranes for the new container terminal.

Fig. 1 illustrates the changes in the governance structure and Table 2 the shifts in responsibility of the CPA following the change in governance.

As indicated in Table 2, the new governance structure passes ownership of assets but also ownership of major responsibilities to the private operators. The CPA will retain those functions and responsibilities associated with a landlord rather than operator role (see Table 4).

5.4. Strategic issues

In addition to the above benefits, it is expected that there will be extensive and multiple strategic benefits. For instance, it is expected that the managers (of one or all three concessions) will utilize their know-how and experiences to transform Limassol port to a leading port in the Mediterranean and that would include additional volume of business and significant contribution to the economy. In fact during the sign-on ceremony all concessionaires expressed that their major goal is to increase the volume of cargo and the number of ships that utilize the port of Limassol.

With respect to human resource issues it was stated that all of the Authority's staff will retain their jobs or moved to other services, while licensed port workers are negotiating compensation, as are dockworkers, all of whom may be re-hired by the new operators.

In addition it was stated that the concessioners expressed their willingness to employ local personnel and that there would be a scheme whereby existing personnel may elect to be re-employed by the concessionaires or take early retirement with specific terms and conditions that would be beneficial to them.

It is also worth noting that in accordance to the terms of the agreement between the CPA and the government that was required in order for the new role of the CPA to be defined and agreed to, the government has undertaken to guarantee that it would provide the budget

Table 3
Financial value added following concession agreements implementation.
Source: compiled from CPA annual reports and published data.

Before concession agreements			After concession agreements		
	Amount (€m)		Amount (€m)		Amount (€m)
EBITDA CPA	22	Dividends to government	20	Fee accruing from concession agreement and down-payment	44.4
EBITDA LPA	6	Dividends to government	8	Taxes	0.6
Annual revenue of CPA	28	Annual revenue to government	8–20	Capital investment (amortised during concession agreement)	6
Capital investment (amortised during concession agreement)	6			Annual revenue to government including capital investments by concessioners	51
Annual revenue (after capital investments)	22				

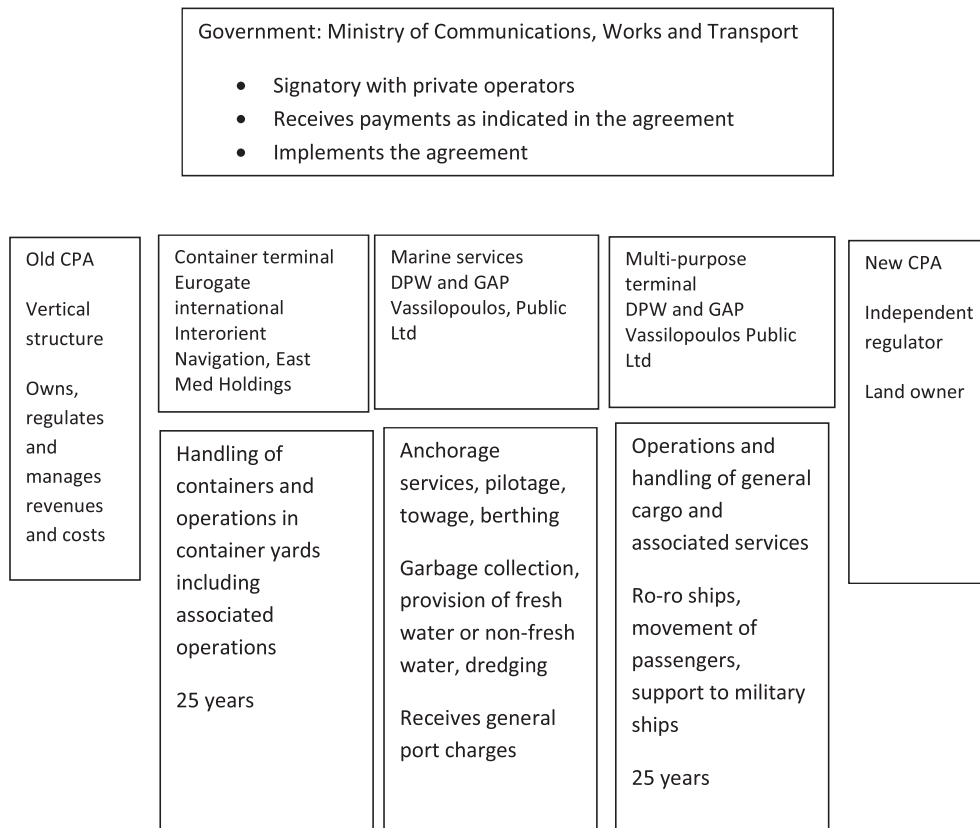


Fig. 1. The new governance structure of the CPA and the port of Limassol.

required for the new CPA to operate but also to fulfill its investment and development programme.

5.5. Legal and regulatory issues

The commercialization process was facilitated by a new provision in the CPA Law (section 16A of 2011) regarding Larnaca Port and in 2015 regarding the Port of Limassol. The provision has given the Council of Ministers the power to conclude a contract, such as a concession

agreement, under which to lease the port of Limassol to a concessionaire in return for the construction, management, development, expansion, modification, management or operation of the whole or part of the port.

Before concluding such a contract, the Council of Ministers had agreed another contract with the CPA for the licensing of the port facilities concerned. The conclusion of a contract by the Council of Ministers with the concessionaire will not affect the ownership of vessels or vehicles included in the CPA's assets.

The regulatory role of the CPA is described in a separate section of the CPA Law which provides that following the approval by the Council of Ministers, the CPA has the power subject to the provisions of any section 16A Contract, such as a concession agreement to issue such Orders in order to regulate the operations which take place in a port or port area and specifically in respect of the following (a) regulating traffic or movement within port precincts, including the entry, exit, movement, change of position, position, maneuver, stay in port, arrival departure, anchoring, berthing, mooring, parking, leaving, loading or unloading vessels or vehicles and relating any matter concerning means of transport within port precincts (b) prescribing and regulating the services to be rendered or any activity within port precincts (c) regulating the entry and exit of persons or animals within port precincts or the performance of any act therein (d) regulating the safe and orderly discharge of business within port precincts and providing for the exclusion and removal of unauthorized persons (e) regulating the loading, unloading, stowing, sorting, delivery and otherwise handling of goods and the custody thereof, and the taking in or discharge of ballast by ships and transfer of passengers (f) regulating matters concerning pilotage services (g) regulating the manner in which ships may be boarded by officials of the CPA on arrival or at any other time, the provision of information to masters (h) regulating matters concerning porters, carriers and other labourers to be employed within the port and the issue of licenses for the performance of such occupations (i) regulating matters concerning the wharves, docks, piers, and other places within port limits (j)

Table 4
Shifts in responsibilities following the new governance structure.

	Retained by CPA	Undertaken by private operator
Tariffs regulation and range	X	
Tariffs setting within range		X
Maintenance of moveable assets, facilities and infrastructure		X
Site lease (e.g. flat fee or per m ² , inflation, etc.)		X
TEU fee (optional, may also specify min. Throughput)		
Setting operator's operational performance standards		X
Regulating operator's operation's standards	X	
Port authority's port services (navigational rules, passage etc.)	X	
Berthing priorities		X
Security	X	X
Operational subcontracting		X
Change in future law (e.g. tax increases)	X	
Insurance	X	X
Ownership of assets		X
Option to continue	X	
Information technology license	X	

regulating other matters such as moorings or buoys, signals, flags, beacons, lights, prevention of pollution, prevention of noise etc.

6. Discussion

Notteboom (2006) discusses the role of concessions as a tool in port governance under the landlord port authority model. According to the author, the specific design of the concession agreement, its regulatory regime, the tariff regime and the way the concession is awarded reveal the priorities of port authorities and government agencies. It is suggested that through concession policy, port authorities can retain some control on the organization and structure of the supply side of the port market and can encourage port service providers to optimize the use of scarce resources such as land. In the case of Cyprus and the CPA what has been more important than land optimization is the ability of the private operators to improve efficiency by adopting commercial principles of terminal operation and to attract additional business mainly transshipment traffic. It is also important to note that according to the analysis of the financial results of the new governance model there will be significant improvements compared to those of the old CPA.

The reform of the major port in Cyprus and the CPA reflects the changes that have occurred in most European countries, toward greater rationalization and modernization of governance structures (Verhoeven, 2010). As recognized by Cariou et al. (2014) for the case of French ports, in transferring responsibility for terminal operations from the public to the private sector, the government of Cyprus subscribed to a landlord port governance model (Brooks & Pallis, 2008).

Baltazar and Brooks (2001) and later Brooks and Cullinane (2007) addressed the issue of governance structure and port functions, considering the port's activities and the assignment of responsibilities of these activities. Baltazar and Brooks (2006) developed a theoretical approach to the concepts of port governance and devolution and proposed a conceptual model of governance referred to as the 'Matching Framework'. Port devolution is regarded as a broader concept than 'privatization' because it involves concession, sale and also other forms of shared responsibility between the public and private sectors of port management. According to Baltazar and Brooks (2006), the devolution of ports are part of a government's attempt to apply new public management concepts to ports and base operations management on business principles derived from the private sector. Indeed this was one of the most significant reasons that led to the decision by the Cyprus government to embark on the devolution process, which is to limit the involvement of the government with the rather anachronistic business practices and to inject modern methods of management that would lead to overall benefits.

Verhoeven (2010) and Verhoeven and Vanoutrive (2012) present a hypothetical typology of the port authority governance models classifying port authorities on their functional dimension (landlord, regulator, operator, community manager and a geographical dimension) and respective types as 'conservator', 'facilitator' and 'entrepreneur'. The CPA prior to the concessions adopted a governance model that adhered to most dimensions of the 'conservator' model. As a landlord the port authority relied on financial revenue from real estate on a 'tariff' basis. It was mostly involved in an administrator role, overseeing maintenance and basic expansion of the port of Limassol on a slow and gradual process (dredging, expansion of pier etc.) but took no action whatsoever for attracting new business despite the geographical position of the port. As a regulator it provided a passive application and enforcement of rules and regulations and gained financial revenue from its regulator role again on a tariff basis (general port charges). The trade the CPA and the port of Limassol has been serving for a period of over 25 years has been almost exclusively local with little interest or ability to expand by attracting transshipment traffic. These characteristics suggest that the old CPA was a conservator and the new CPA aims to become a facilitator according to the said model. Following the governance model by Verhoeven (2010) and Verhoeven and Vanoutrive (2012) the risk of

running the concession policy on a mechanistic basis must be avoided. Instead, the concession policies provide the opportunities for the CPA to develop a new governance model and the advantage of the opportunities presented by the strategic plans of the concessioners to attract more traffic by expanding other areas of the port of Limassol and indeed other ports such as the ports of Vasilikon and Larnaca.

7. Conclusion

The proposed governance model for the port of Limassol combines elements from similar governance models of successful port systems as well as from the European Union ports. The central concept is the development of the landlord model. The European experience requires the separation of regulatory and commercial roles in the port system. The main premise in such models is the creation of an independent regulatory authority. A similar structure was created in the case of the Greek port system and it has been quite successful in the concession and operation of the port of Piraeus. The landlord port model is adopted by many European countries including Belgium Germany, Denmark, Estonia, France, Bulgaria, Italy, Lithuania, Malta, the Netherlands, Portugal, Poland and Romania.

Even in other European countries such as Finland, Ireland and Sweden, where a public-centred model of integrated management of the port has been adopted, and where the port authority is a provider of port services at the same time, they have gradually adopted some of the functions of the landlord model. In the case of Cyprus the port reform process resulted in the devolution of the old port authority to a "new" port authority with greater regulatory powers over the private operators and fewer operational responsibilities with regard to the port of Limassol.

The port services' and infrastructures' concession to individuals is the most applicable strategy that creates positive growth prospects for the port community. Though this process, the port authorities retain a degree of control of the port authority and the supply of port services, while they optimize the land use of the port. Despite the fact that the activity is the best way of attracting private providers and investors in the port industry, there are a number of issues that need attention in the implementation process as recognized in the case of Cyprus.

In terms of managerial implications, one of the most important lessons for implementing reforms fast is the decisiveness that emanates from the top. The relevant ministry and the Board of Directors of the CPA showed decisiveness as to the need for port reforms and commitment to its implementation and these were very important for the successful achievement of the targets set. The appointment of external consultants did have a positive influence albeit at a very high financial cost for the government. The CPA has assumed a new role, that of regulator but also has a say in strategic planning for future port expansions outside the areas included in the concession agreements. The paper highlights that there have been certain problems in the port reform process particularly the fact that the process was assumed by central government and not the CPA and the negotiations with the LPA regarding the level of their pay-off.

Regarding the outcomes, it is suggested that there are potentially several benefits that may accrue such as an increase in port throughput which is correlated to higher employment in port regions. In fact private ports have the largest employment impacts in the port regions. The evolving model for port reform has been the greater involvement of experienced private operators through concession agreements. The trends as observed from the case of Limassol Port and the CPA seem to confirm the models proposed by scholarly work (e.g., Baird, 2000; and World Bank, 2007) suggesting the need for such taxonomies. As suggested by the case reviewed in this paper, the state in a country's economy may act as a catalyst for port reform, but in this case the seaport governance structure departed from traditional state-owned traditions, institutional frameworks and political practices. The exact impact of the port reform process needs to be assessed in more detail, however, it is quite clear

that if private operators achieve their goals of increased business and turnover, the port reform process would have worked for the case of Cyprus.

Based on this study, it may be suggested that the landlord model can be broken down to several variations that take into account country and port-specific circumstances. On this basis it can be suggested that future research focuses on two issues in particular, viz. (1) the identification and taxonomy of the variations of the landlord model and (2) the relationship between adoption and adaptations of the landlord model and long-term performance.

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