PUBLIC FINANCING AND CHARGING IN EU SEAPORTS: THE CASE OF GREECE[1]

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ABSTRACT

An international study commissioned by the European Commission has been recently completed on the subject of public financing and charging practices in EU seaports. This paper relates to this study by focusing on Greece and highlighting the special characteristics of the Greek port system and of Piraeus in particular, Greece's largest port. The perspectives of port governance and of public financing and charging are looked at, together with financial flows to and from the port. Finally, the prospects for the future are discussed and some conclusions useful for policy formulation are attempted.

KEY WORDS: Port financing, port pricing, Greek ports.

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1. Introduction

An international study commissioned by the European Commission, Directorate General for Energy and Transport (DG-TREN) on the subject of public financing and charging practices in EU seaports has been completed (ISL, 2006). The study was led by the Institute of Shipping Economics and Logistics (Bremen, Germany) and had as objective to gain information on one hand about financial flows from the public sector into the port sector and on the other hand about financial flows back from the port sector to the state in terms of charges.

The rationale for commissioning the study was that the development of the port sector within the European Union continues to depend on public sector intervention in terms of financial flows and charging practises. The subject of financing and charging of terminal-related infrastructure and superstructure in European seaports has been proven as highly sensible since port authorities and port operators regard both categories as instruments of competition policy (Haralambides, 2002). However, existing inquiries and available information on financial flows from the state into the port have shown that the transparency regarding identification and measurement of the financial flows, as well as tracking of these flows was insufficient.

This author, having served as port of Pireaus CEO in the period 1996-2002, was tasked to cover Greece within the aforementioned study, with a particular focus on the port of Piraeus, the country's largest seaport. This paper draws from this work and updates it with additional information, data and developments. With respect to scope, the terms of reference of the study defined 2003 as the study's base year, but this paper provides financial data that span the years from 2002 to 2005, and selected other data that cover the wider period from 1978 to 2006. The special characteristics of the Greek port system and of Piraeus in particular are highlighted from the perspectives of public financing and charging. Some recent relevant developments are discussed and some conclusions useful for policy formulation are attempted.

It is not the purpose of this paper to be encyclopaedic on prior work on seaport public financing and charging. Particularly the literature on seaport public financing is scant. Many of the relevant issues in both areas are addressed in EU's seminal "Green Paper on seaports and maritime infrastructure" (EC, 1997). Among published work, one may look at Haralambides et al (2001) for pricing and financing issues, Psaraftis (2005a) for EU port policy, Psaraftis (2005b) for tariff reform in the port of Piraeus, and Pallis (2007) for general port governance in Greece. Certainly the Commission's study filled a knowledge gap with respect to public financing and charging, and this paper can be considered as an effort to partially disseminate its findings.

The rest of this paper is structured as follows. Section 2 presents a general picture of the port sector in Greece and Section 3 discusses port governance structure. Section 4 identifies and describes systems of public financing and Section 5 presents public financial data for the port of Piraeus. Section 6 discusses charging practices in Piraeus, and finally Section 7 presents the conclusions of the paper.

2. The general picture

Due to Greece's multi-island geography, its number of ports is significant. Also, the country's geographical location at the crossroads of three continents (Europe, Africa and Asia) makes the port sector's importance very significant both to the national economy and to the economies and trade of the Eastern Mediterranean regions.

With the possible exception of terminals dedicated to the needs of specific private or state-owned industrial enterprises (mainly in the oil, cement, grain and ore businesses), to date all general-use ports in Greece are under the control of the state. The relevant overseeing Government ministry is the Ministry of Mercantile Marine (YEN), although for a variety of issues other ministries come into play, including the Ministry of Economy and Finance (for budget and price approval matters), the Ministry of Environment, Physical Planning and Public Works (for construction of major works), and the Ministry of the Aegean and Island Policy (for ports in the Aegean archipelago).

YEN has set up a four-tier port classification scheme. The country's top two state-controlled ports, Piraeus and Thessaloniki, are considered 'large trans-european ports'. The inclusion of both these ports in the same tier may be misleading, as Piraeus is about three times the size of Thessaloniki in terms of annual turnover. The second tier consists of 10 ports that are considered 'national ports'. These are Alexandroupoli, Elefsina, Igoumenitsa, Iraklio, Kavala, Kerkyra (Corfu), Lavrio, Patra, Rafina and Volos. The third tier consists of 53 ports that are considered 'municipal portuary fund' ports, and the fourth tier comprises all other ports (some 1,250 of them), which are considered 'peripheral ports'.

The geographical locations of the 12 top-tier (1st and 2nd tier) ports are shown in Figure 1. Main gateways to the rest of the European Union via the Adriatic are the ports of Patra, Igoumenitsa and Kerkyra, whereas the ports of Thessaloniki, Kavala and Alexandroupoli are gateways to the Greek provinces of Macedonia and Thrace and to the Balkan countries north of Greece (mainly Bulgaria and FYROM[2], but also Romania, Serbia and Albania). The role of these ports (and especially of Thessaloniki) as gateways to the Balkan hinterland is expected to be enhanced with the accession of Bulgaria and Romania to the EU as of January 1, 2007. The port of Volos serves mainly the province of Thessaly, whereas the ports of Piraeus, Rafina and Lavrio are main passenger ports to the Aegean islands. Elefsina is mainly a cargo port complementary to Piraeus. The port of Iraklio is the largest port of the island of Crete. Piraeus is by far Greece's largest port, handling over 20 million passengers per year (of which about 40% come from a short ferry crossing to the nearby island of Salamina), and also being a major container hub in the Eastern Mediterranean.

[2] Former Yugoslav Republic of Macedonia.

Figure 1: Greece's 12 top-tier ports (Source: YEN)

The main activities of the 12 top-tier ports are summarised in Table 1.

Table 1: Top-tier ports main activities (Source: YEN)

Port	Main activities		Port	Main activities
Piraeus	Passengers/Ro-Ro Containers Automobiles		Igoumenitsa	Passengers/Ro-Ro
Elefsina	Dry bulk cargo General cargo (non unitised)		Kavala	Passengers/Ro-Ro Dry bulk cargo
Thessaloniki	Dry bulk cargo Containers		Lavrio	Passengers/Ro-Ro
Volos	Dry bulk cargo Containers		Kerkyra (Corfu)	Passengers/Ro-Ro
Patra	Passengers/Ro-Ro		Alexandroupoli	Dry bulk cargo General cargo (non unitised)
Iraklio	Passengers/Ro-Ro Dry bulk cargo Containers		Rafina	Passengers/Ro-Ro

For some 70 years, and up to 1999, the ports of Piraeus and Thessaloniki, officially known as Piraeus Port Authority (OLP) and Thessaloniki Port Authority (OLTh) respectively, have functioned as 'public law undertakings', an institutional model that can be found in many public sector organisations in Greece, such as universities, hospitals, municipalities, etc. All other ports were modelled according to the so-called 'portuary fund' ('limeniko tameio') scheme, which is also a public law undertaking, but much simpler in structure than that of OLP and OLTh. Each of these 'portuary funds' could include more than one port, and generally referred to a specific municipal area.

In 1999, OLP and OLTh were converted into corporations (societés anonymes) wholly owned by the Greek state (Law 2688/1999). In 2001 corporatisation was also adopted for all 10 'national ports' (Law 2932/2001). At that time, 53 other 'portuary fund' ports came under the managerial jurisdiction of the respective local municipalities. Law 2932/2001 also established the General Secretariat of Ports and Ports Policy, a YEN agency tasked to oversee ports in a systematic and structured way, and formulate a national ports policy. Greece's top two ports were eventually listed in the Athens Stock Exchange, OLTh as of 2001 and OLP as of 2003.

Although there have been attempts for the 12 top-tier ports to develop a coordinated strategy, and although YEN oversees and coordinates their operation at a high level, thus far they have been pretty much independent of one another[3]. Competition among them is rather meagre, as each seems to have carved a special niche. Exceptions mainly concern Rafina and Lavrio as alternatives to Piraeus for coastal and cruise shipping (situation in which the dynamics are in favour of Lavrio). In the container sector, Piraeus's dominant position (1.6 million TEU vs. 0.27 million TEU of Thessaloniki in 2003) seems unchallenged domestically, at least for the foreseeable future. The port of Volos is potentially a container alternative to both Piraeus and Thessaloniki for cargoes to and from central Greece, but significant infrastructure improvement is needed for that alternative to become serious. The completion of a rail connection to OLP's container terminal (a project that would be completed in the future) might expand OLP's hinterland to markets that Volos or even Thessaloniki serve. Last but not least, the completion of the Burgas-Alexandroupoli oil pipeline would see the latter port emerge as a major oil port in the region, and the completion of the 'Egnatia' east-west motorway axis (Igoumenitsa-Thessaloniki-Kavala-Alexandroupoli) would reinforce the role of Igoumenitsa as gateway of Adriatic ro-ro traffic.

In contrast to the lack of serious domestic competition, some competition currently exists with foreign ports, mainly as regards container transhipment, a sector in which Piraeus competes mainly with Gioia Tauro, and secondarily with other ports such as Malta, Limassol, Damietta, and Port Said. Piraeus was established as a Med hub port in 1997, with a doubling of its container traffic in just 4 years (1996 to 2000) and continuous growth until it reached a peak of 2003, after which traffic experienced a decline, as shown in Figure 2 (years 1978-2005)[4].

[3] The Association of Greek Ports (ELIME) was established in 2002 but was abolished in 2005. It was replaced in 2006 by the National Center for Port Development (EKAL), another umbrella organisation whose members are the 12 top-tier ports.

[4] At the time of completion of this paper, container traffic in Piraeus for 2006 was estimated at just over 1.4 million TEU. This represents a marginal increase (0,6%) over 2005, even though the last two months of 2006 witnessed a serious disruption of container traffic due to port union unrest in response to YEN's plans to privatise the terminal.

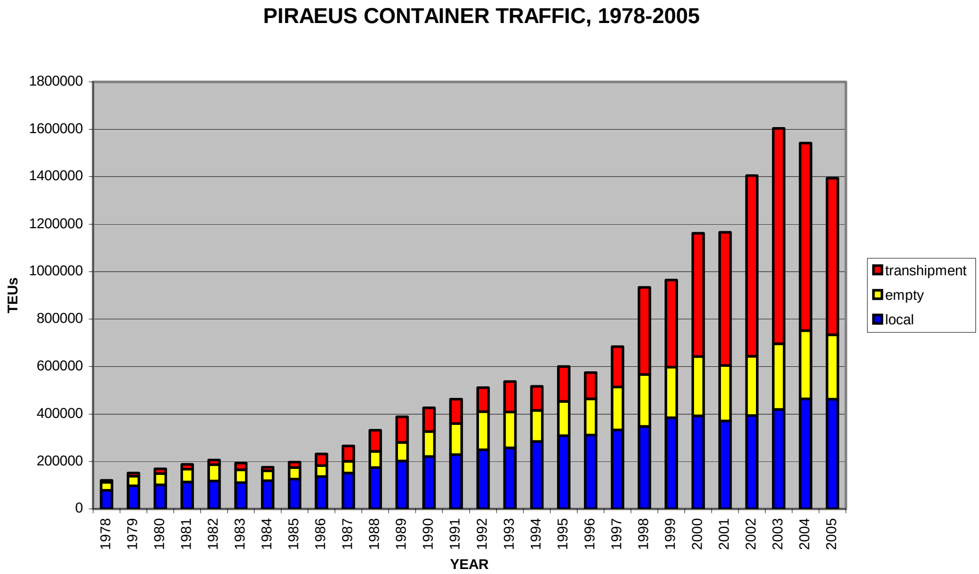

Figure 2: Evolution of Piraeus container traffic, 1978-2005 (Source: OLP)

Foreign competition of the port of Thessaloniki lies mainly with Bulgarian and (to a lesser extent) Albanian ports, as alternative gateways to the Balkans hinterland.

Table 3 displays cargo throughput for a broader list of Greek ports in year 2002[5].

Table 3: Port throughput, 2002 (Source: National Statistical Service of Greece - ESYE).

Port	Metric tons		Port	Metric tons
Piraeus	19,145,439		Politika	1,332,455
Elefsina	16,357,640		Paloukia Salaminos	1,235,598
Thessaloniki	14,197,280		Itea	1,117,430
Agii Theodori	11,824,708		Rodos	1,117,305
Volos	9,181,619		Souda Bay	933,173
Megara	7,626,745		Preveza	932,095
Rio	4,862,114		Korinth	924,716
Aliveri	3,652,794		Nissyros	853,312
Patras	3,399,034		Nafplio	829,685
Iraklio	3,235,758		Lavrio	824,527
Larymna	3,109,647		Hania	745,868
Milos	2,799,673		Sitia	687,377
Halkida	2,552,740		Aegina	655,725
Igoumenitsa	2,351,829		Kerkyra (Corfu)	642,432
Kavala	1,936,568		Naxos	581,165
Isthmia	1,782,876		Aspropirgos	579,609

[5] This table includes the throughput of independent industrial port facilities (private or public) that operate within the corresponding port area. In that sense, the fact that Elefsina is ranked second may be misleading, as this is due to the presence of a independent and dedicated industrial terminals in the Elefsina area (mainly oil), whose throughput does not count as part of the state-owned 'Elefsina Port Authority' (OLE).

Antikyra	1,664,085		Alexandroupoli	514,663
Antirrio	1,631,707		Rafina	96,772
Perama	1,418,586		Others	20,233,264
			Greek ports Total	147,568,013

3. Port governance structure

The 'portuary fund' governance structure is very simple, as the local municipalities who manage the respective ports carry out all relevant investments. Funds are provided from port dues and the state, and port employees are civil servants. The management of the port is exercised by the municipal authorities and operations are monitored by Coast Guard officers.

Of more interest is the governance structure of the 12 state-controlled 1st and 2nd tier ports, all of which are corporations in which the Greek state has a majority stake. In fact, for the ten 2nd tier 'national ports', that is, with the exception of Piraeus and Thessaloniki, each respective corporation has a single share, wholly owned by the state. For Piraeus and Thessaloniki the scheme is different, with OLP having 25,000,000 shares and OLTh 10,080,000 shares. With the listing of both ports in the Athens Stock Exchange, the Greek state has retained a majority stake in both ports, 74.14% and 74.27% respectively, the rest being held by private investors (individuals, including port employees, and institutional).

All 12 top-tier ports are 'service' ports, at least on paper, with all basic services (of which more below) provided by port's personnel[6]. At a high level, the institutional regime of OLP and OLTh is very much the same, although lower-level differences do exist with respective to organisational structures, internal regulations, and business plans. The institutional regime of the ten 2nd tier 'national ports' draws from the OLP-OLTh scheme, being simpler as regards shareholder composition and organisational structure. All (former and current) civil servant personnel of Greek public ports are unionised under the Federation of Permanent Employees of Greek Ports (OMYLE), which, together with the Federation of Cargo Handlers of Greece (OFE), representing dockers, are the two main port labour unions in Greece. Lower-level unions also exist in all ports. Dockers work regulations vary among ports, with ports such as Piraeus and Thessaloniki having a strict employer-personnel relationship with their dockers workforce (which guarantees, among other things, a minimum salary), whereas others such as Elefsina having a more loose relationship (engaging dockers on an ad hoc basis).

It is important to state that the 12 top-tier ports have no formal relation with the municipalities in which they are located, as is prevalent in many other European ports. In fact, the facilities of the port of Piraeus are adjacent to as many as 5 local municipalities, including the city of Piraeus, and OLP is obliged by law to provide yearly support grants

[6] An exception concerns the unofficial (yet very much active) presence of "shipping line agents" within terminals (mostly of OLP and OLTh), for the provision of supporting services to the shipping lines, such as lashing of containers, yard planning, logistical support, and others. For these services, the agents charge the shipping lines on top of what the port charges. The computerisation of OLP's container terminal in 2001 reduced drastically the role of the agents in the terminal. Another exception to the 'service' rule are piers leased to industrial operators (mainly in the drybulk and liquid bulk trades) for their own exclusive use. As none of these leases is to stevedoring companies or private port operators, the 'landlord' model prevalent in other European countries is thus far by and large absent in Greece. But this situation is expected to change, at least for OLP's and OLTh's container terminals, which the government wants to function as landlord ports in the future.

to these municipalities. Other than the provision that one seat is reserved for one municipality representative on each port's corporate board, no other direct municipal control is exercised on these ports[7].

The same is true as regards the distinction between the commercial port entities, as described above, and harbour maritime authorities in Greece. Even though in English the name of all these corporate ports is 'Port Authority', this may be misleading, as all harbour maritime authority services come under the Hellenic Coast Guard, an agency under YEN which is independent of the port corporations. Indicative of this situation is the fact that the port of Piraeus harbour master is a Coast Guard officer who had a seat on OLP's board prior to corporatisation, but lost it when OLP was converted into a corporation in 1999.

As regards the spectrum of responsibilities and services rendered, Table 3, which is relevant to OLP, is indicative.

Table 3: Services and responsibilities, port of Piraeus (sources: various)

Category	Element	Responsibility
Maritime Infrastructure	Fairways, dredging	OLP
	VTS, navigational aids	YEN
	Lighthouses, buoys	Ministry of Defence/national hydrographic service
Port Infrastructure	Docks, quays, jetties, piers, mooring points, graving docks	Greek state (ownership) OLP (maintenance)
Superstructure owned by port	Cranes, gantries, cargo handling vehicles, tools and shops, trucks, buses and other vehicles, port service vessels, floating docks, furniture, computer and other equipment, software	OLP
Superstructure owned by the state and leased to OLP	Pavements, warehouses, sheds, silos, terminal buildings, office buildings, parking garages, exhibition centre	OLP
Links to transport modes	Roads	Ministry of Environment, Physical Planning and Public Works City of Piraeus and other municipalities OLP
	Rail tracks	National Railway Organisation (OSE)
Maintenance	Port infrastructure & superstructure	OLP
	Maritime infrastructure	Greek state
Port services	Cargo handling, ship-dock	OLP[8]
	Cargo handling, dock-gate	OLP[9]
	Storage	OLP
	Barge services	OLP
	Trucking & distribution	Private
	Baggage handling	OLP

[7] However, there may be indirect municipal control. For instance, as of 2003 licensing of building construction has to go through the Prefecture of the greater municipal area in which the port is located.
[8] Ships are allowed to load and unload under their own means under some circumstances.
[9] Private trucks are allowed to enter the terminal under some circumstances.

	Pilotage	YEN/pilotage service
	Towing	Private
	Mooring-unmooring	Private
	Waste reception	Private (contracted to OLP)
	Pollution control	Private (contracted to OLP) YEN/coast guard
	Cleaning & garbage removal	Private (contracted to OLP)
	Insect & mice control	Private (contracted to OLP)
	VTS	YEN/VTS service
	Customs control	Ministry of Finance/Customs service
	Port police	YEN/coast guard
	Port state inspections	YEN/coast guard
	Flag state inspections	YEN/coast guard
	Health & medical inspections	Prefecture of Piraeus
	Security	YEN/coast guard OLP
	Fire-fighting	Fire-fighting service
	Forwarding	Private
	Bunkering	Private
	Water supply	OLP Private
	Telephone supply	OLP
	Electricity supply	OLP
	Sewage disposal	OLP
	Passenger shuttle services	OLP
Ancillary services	Public parking	OLP City of Piraeus and other municipalities
	Parking garage of Exhibition Centre	OLP Private Ministry of Public Works[10]
	Bus services	Athens Urban Transport Organisation (OASA)
	Exhibition Centre	OLP
	Rental of land and buildings to private enterprises within the port	OLP
	Ship repair dry-docking	OLP
	Ship repair services	Private

Note that the port of Piraeus includes a comprehensive ship repair zone at the Perama-Keratsini-Drapetsona-Kynosoura areas, run by private yards and shops which lease their facilities from OLP, and OLP manages two floating docks and two drydocks. The table for other ports is similar, although some of the services may be different.

4. Identification and description of systems for public financing

Financing of port infrastructure has traditionally been provided by port dues, charges for services rendered, rents of leased space, own funds of port corporations, state funds, and, occasionally, European Community funds (Cohesion Fund, 2nd and 3rd Community Support Frameworks, and others) and bank loans. The Operational Programme "Road Axes, Ports and Urban Development" (OP-RAPUD) of the General Secretariat of Public Works of the Ministry of Environment, Physical Planning and Public Works includes projects of a total budget of some 117 million euros for the ports of Lavrio, Volos,

[10] Can provide subsidy (see also next section).

Mykonos, Souda, Patra and Nafplio (2002-2006). The European Community provides 50% funding for these projects, the rest being provided by the Greek state.

For Piraeus and Thessaloniki, the provision of state and Community funds has been the exception rather than the rule. The rule has been that these ports take care of all their costs and infrastructure and superstructure development by revenue generated by the system of tariffs they charge for their services. However, external funding has been occasionally provided for major projects. As an example, the completion of OLP's container terminal Pier II (the largest of its two container piers) has been a 74 million euro project (1994-1998), and was financed in part by a grant of 13.8 million euros from the Cohesion Fund, a loan of 29.2 million euros from the European Investment Bank, and a grant of 7.9 million euros from the European Free Trade Association (EFTA). The Cohesion Fund also contributed to 80% of the 14.5 million euro budget of a new cruise pier in the Piraeus passenger port, completed in 2003. Last but not least, in late 1999 the Greek state gave OLP 35.21 million euros, registered as an equity capital increase, as its contribution to various OLP infrastructure projects.

From a financial flow perspective, the most significant changes for the country's two largest ports came (a) in 1999, when OLP and OLTh were transformed into corporations, and then (b) in 2001, when legal adjustments were made to prepare for the subsequent Initial Public Offering (IPO) of these two ports in the Athens Stock Exchange. Prior to 1999, it was difficult to precisely delineate the financial transactions between the two ports and the state, and the accounting system of both (following the state's 'public accounting' scheme) was rather cumbersome, inefficient and non-transparent. The previous situation also allowed two-way transactional distortions between the ports and the state. As an example, on the one hand the ports were exempt from income and other taxes and enjoyed a variety of additional privileges, such as monopoly of service and others. On the other hand, pensions to retired permanent personnel were paid out of the ports cash reserves, the same being true for medical benefits to all permanent employees, active and retired (dockers being an exception). As the number of retired employees was higher than those active, and as this rising expenditure was close to 20% of the port's annual costs, this represented a serious problem in the late 90s.

Law 2688/1999 that converted OLP and OLTh into public corporations in 1999 corrected part of this problem, by exempting the ports from the obligation to pay pensions and medical benefits from their own accounts, that obligation taken up by independent social security agencies in the public sector. However, the law stipulated that both ports owed money to these agencies for all port employees retired prior to corporatisation, and that this debt would be settled from the proceedings of the eventual IPOs of the ports in the Athens Stock Exchange.

Theory and practice sometimes differ significantly. When the present value of OLP's debt to the social security agencies was computed at 255 million euros, or about twice the port's annual turnover, it was realised that such an amount would be very difficult to be raised, whatever method of port privatisation were followed[11]. OLTh had exactly the same problem, but on a smaller scale. This problem was solved later by a specific provision to Law 2932/2001, which stipulated that for both OLP and OLTh the debt to the

[11] Suffice it to realize that the cash that was eventually raised in OLP's IPO in 2003 (54.23 million euros) was only about 1/5 of OLP's debt to the social security agencies!

social security agencies would be taken up entirely by the Greek state, which would be reimbursed only partially from the proceedings of the ports IPOs. Thus, the proceedings of these IPOs (54.23 million euros for OLP in 2003 and 15.22 million euros for OLTh in 2001) were not granted to the ports to finance their own investment plans, but went wholly to Greek state coffers in both cases. Whether or not these funds went to cover (only a part of) the debt burden of the social security agencies as opposed to the general public debt of the Greek state is something that is not known to this author. Even though these IPO funds were used this way, the use of the stock exchange as a source of port investment funds in the future should not be ruled out.

Law 2688/1999 stipulated that OLP and OLTh were to function as corporations, with the service of the public interest as a goal, but functioning under the rules and criteria of private corporations. This stipulation is certainly not void of ambiguity, as the goal of public interest is not necessarily consistent with that of private profit maximisation, which is most pressing for companies listed in the stock exchange. This ambiguity has not been resolved to date and creates a non-uniform picture in port operation, as certain port sectors (and most notably the passenger port) seem to function as if societal 'public good' criteria are most prevalent, while other sectors (most notably the container and car terminals) seem to function like monopoly profit maximizing private operations.

For both ports, the income tax exemptions that existed prior to 1999 were abolished upon corporatisation. However, the corporate ports being 'whole successors' of their previous institutional regimes, they retained some of the other privileges previously granted to them, monopoly of service being the most notable. For instance, and by contrast to any private corporation, OLP is exempt from municipal taxes and other dues to public agencies (such as courts, customs, and other). Several other exemptions and privileges of the prior regime still exist. For instance, property of the port cannot be seized as a result of legal disputes. Similar provisions pertain to OLTh. A quantification of the economic value of these exemptions is not available. In addition, ambiguities in the law have rendered some of these exemptions the subject of legal dispute with various external parties, some of which are actually in the public sector!

Two years after corporatisation, new laws stipulated the signature of the so-called 'concession contract' between each of the corporate ports and the Greek state. Such a contract recognised each port corporation as the exclusive operator that could use and exploit the port's facilities, under prescribed terms and obligations, including the payment of a yearly concession fee. For OLP and OLTh the duration of the contract was set to 40 years and the fee was set at 1% of the port's adjusted gross turnover (excluding extraordinary income, previous years income and interest income) for the first three years and 2% afterwards. The concession contract for OLTh was signed in mid-2001, just prior to the port's listing in the Athens Stock Exchange, while OLP's was signed in early 2002.

It is important to state that as concessionaires, the corporate ports do not own the port infrastructure (such as docks, piers, quays, jetties, etc). Nor do they own a significant part of the port superstructure (such as pavements, buildings, sheds, etc). Such fixed assets were built and are being maintained using the ports' own funds. However, these assets belong to the Greek state, which leases them to the ports under the terms of the concession contract. For OLP, the official number of fixed assets leased to the port under the concession contract is estimated at 188. By contrast, OLP owns all the rest of the port superstructure, including vehicles, cranes, vessels and other equipment.

Due to the fact that fixed assets leased to each port belong to the Greek state, their value does not appear in the port's books. For OLP this value has been estimated to run as high as 810 million euros, which is much higher than OLP's social security debt of 255 million euros assumed by the state. However, this value counts solely in favour of the owner of these assets, the Greek state. The concession contracts for OLP and OLTh did not stipulate that the ports would receive a compensation from the Greek state for monies historically paid for by the ports to build and maintain these assets, but nevertheless mandated that maintenance of these assets would be the responsibility of the ports themselves. This arrangement is tantamount to a significant (yet undocumented) reverse financial flow from the ports to the state, flow which concerns both the construction of these fixed assets and their yearly maintenance, and which is estimated to be at least as important as the yearly concession fee (see also later). Similar concession provisions hold for the other 10 'national ports'.

Yet another indication of the difficulty of delineating the financial transactions between ports and the Greek state (at least prior to 1999) has been the financing by OLP of part of the so-called 'peripheral highway', a major road project that links the passenger port in the city of Piraeus with the cargo port in the Drapetsona-Keratsini-Perama industrial area, located a few miles outside Piraeus. The project started in 1994 and is not finished yet. The portion of the project that is handled by OLP has a budget of 42.55 million euros, with funding of 24.94 million euros from the EC's Cohesion Fund. As with other infrastructure assets, this highway is the property of the Greek state rather than OLP's. However, in contrast to the other fixed assets leased to OLP, the highway has *not* been included in the concession contract among the assets that OLP can exclusively use and exploit. In fact, this highway is a toll-free road, which is available to (and is being used by) the public at large. This means that the Greek state has essentially used OLP as a conduit to partially finance the construction of one of its own highways, even though there may be ancillary (yet undocumented) benefits to OLP from the connection provided by the highway. In that sense, OLP has provided to the Greek state up to 17.61 million euros (42.55-24.94) of its own funds for this project.

A similar situation pertains to an unspecified number of other port area buildings, which historically have been built and maintained by OLP's own funds, until they were completely removed from OLP's jurisdiction when the concession contract was signed in 2002, by virtue of the fact that they housed other public agencies (such as the Customs, the Coast Guard, and even an old warehouse that was taken over by the state to house the new ministerial building for YEN, after appropriate refurbishment). For these buildings previously rented to other public agencies, OLP not only lost the corresponding rent (which was nominal but certainly not negligible), but also was deprived of any compensation for monies spent for these facilities over the years. The economic value of this indirect reverse flow from OLP to the Greek state is not readily available, but is speculated to be considerable.

At least two additional schemes of port infrastructure financing are now contemplated. The first is self-financing by private investors or co-financing with them, along the Public-Private Partnership (PPP) model. Law 3389/2005 on PPP specifies the general terms under which such scheme can be applied in Greece. The law stipulates a limit of 200 million euros on the amount payable from public entities to private entities per PPP project. OLP's relevant near-term investment plan (2003-2007) has a total budget of about 240 million euros and lists a number of PPP projects, including terminals for cruise and coastal shipping, conversion of old warehouses into shopping centres, construction of a luxury hotel, and even the development of a monorail or similar transit system for the passenger port. Thus far this list has not included the container or car terminals, although YEN has announced in late 2006 that the container terminals of both OLP and OLTH would be conceded to private operators in the future, after a public tender process. Although there are signs that such a development might be postponed for after the next general elections in Greece (fall 2007 or spring 2008), if or when it happens it would signal a radical change in the country's institutional model for ports.

The first PPP project that became operational in Piraeus concerns an ancillary activity, a 700-space underground garage in front of OLP's Exhibition Centre, completed in 2004. OLP contributed 3.2 million euros to its 14.4 million euro budget. A subsidy of some 3 million euros from the state (Ministry of Environment, Physical Planning and Public Works) is also available (roughly 4,100 euros per parking space), but so far has not been received.

The second financing scheme is a new 3 billion euro loan protocol signed in 2006 between YEN and the European Investment Bank, and concerns future financing for all Greek ports. The protocol concerns the general terms of loans to be granted to ports for infrastructure and superstructure development. Loan applications would be evaluated and loans would be granted on a case-by-case basis, and an umbrella tender on which projects would be financed is due soon.

5. Public financial data/flows for the port of Piraeus

2003, the base year of the study, happened to be the year OLP was listed at the Athens Stock Exchange. Demand for its shares was very strong, reflecting the good financial position of the company, and its IPO was oversubscribed 16 times. Perhaps by coincidence, 2003 was also the year the Piraeus container traffic reached a peak of about 1.6 million TEUs, a figure that declined in subsequent years.

Although 2003 was the base year of the study, in Table 4 we provide some aggregate traffic statistics for years 2002 to 2005.

Table 4: Port of Piraeus traffic statistics, 2002-2005 (source: OLP)

	2002	2003	2004	2005
Container traffic (TEU)	**1,404,939**	**1,605,135**	**1,541,563**	**1,394,512**
Local (import+export)	393,695	419,348	464,019	462,240
Transhipment	762,433	909,220	790,727	660,461
Empty	248,811	276,567	286,817	271,811
Automobiles	**321,445**	**335,072**	**423,575**	**379,589**
Local (import+export)	276,351	270,694	309,891	281,115
Transhipment	45,094	64,378	113,685	98,474
Passengers	**19,966,352**	**20,933,900**	**20,255,879**	**20,388,425**
International	672,083	823,339	757,552	925,782

Domestic	19,294,269	20,110,661	19,498,327	19,462,643
Ship calls	**27,902**	**26,333**	**29,206**	**26,742**
Passenger ships	22,196	20,925	24,323	22,856
Cargo ships	5,706	5,408	4,883	4,257
Cargo (metric tons)	**18,424,180**	**21,425,378**	**20,586,765**	**19,814,061**
International general cargo (incl. unitised)	13,990,955	16,209,747	15,724,084	14,216,615
Domestic general cargo (incl. unitised)	4,019,423	4,769,810	4,587,299	5,386,499
International bulk cargo	413,802	445,821	275,382	213,278
Domestic bulk cargo	761,760	801,250	303,749	122,750

The port's income statement for years 2002 to 2004 is presented in Table 5.

Table 5: OLP's income statement, 2002-2004 (000 euros) (source: OLP)

	2002	2003	2004
Turnover	**130,846**	**142,362**	**148,892**
Minus: Cost of sales before depreciation	93,854	99,836	110,738
Gross profit, before depreciation	**36,992**	**42,536**	**38,154**
Plus: Other exploitation income	8,847	7,628	7,944
Total	**45,839**	**50,154**	**46,098**
Minus: Administration costs	12,803	12,761	13,840
Operating margin, before depreciation	**33,036**	**37,393**	**32,258**
Extraordinary income	266	232	906
Extraordinary profits	250	3	0
Previous years income	1,262	18.3	
Minus: Extraordinary costs	13	1.4	38
Extraordinary losses	4	0.5	0
Previous years costs	462	656	875
Profits before interest, depreciation and taxes	**34,335**	**36,988**	**32,353**
Plus: Credit interest and related income	2,885	1,705	678
Minus: debit interest and related costs	976	655	516
Profit before depreciation and	**36,244**	**38,038**	**32,515**

taxes			
Minus: Depreciation	6,173	7,493	9,434
Profit before taxes	**30,071**	**30,545**	**23,082**
% of turnover	23%	21.46%	15.5%
Minus: Income taxes for year and other taxes	10,683	10,836	8,314
Profit after taxes	**19,388**	**19,709**	**14,767**
Minus: Taxes for previous years tax audits	1,589	813	0
Net profit after taxes and previous years audits	**17,799**	**18,896**	**14,767**
% of turnover	13.6%	13.27%	9.92%

Data for year 2005 is also available, however that was the year the port's accounting system converted to International Accounting Standards (IAS) and a comparison with previous years accounts is not straightforward. This is shown in Table 6, which compares the 2004 and 2005 income statements according to the IAS scheme, which is being used from 2005 on.

Table 6: OLP's income statement, 2004-2005 (000 euros), according to IAS (source: OLP)

	2004	2005
Income from sales and other services	**147,995**	**139,978**
Minus: Cost of sales	120,451	115,369
Administration expenses	15,132	15,375
Misc. operating income	8,661	9,167
Minus: Misc. operating expenses	365	1,092
Operating margin	**20,708**	**17,310**
Minus: Financing costs	197	227
Profit before taxes	**20,905**	**17,083**
Minus: Income taxes	10,889	5,763
Net profit after taxes	**10,016**	**11,320**

For year 2004, if one compares the figures of Table 6 with those of Table 5, the non-trivial difference between the two accounting schemes can be clearly seen.

Personnel costs typically account for the bulk of the costs of provided services, as shown in Table 7 for years 2002 to 2004 (a similar breakdown applies for 2005, but is not shown here as it cannot be compared directly to previous years).

Table 7: Analysis of cost of provided services, including administration costs (000 euros) (source: OLP)

	2002	2003	2004
Personnel salaries	81,291	88,295	99,478

Third party personnel costs and benefits	12,681	11,232	11,252
Taxes and dues	414	215	155
Miscellaneous costs	8,417	8,805	9,402
Consumables	3,854	4,050	4,291
TOTAL	**106,657**	**112,597**	**124,578**

Broken down by source of income, the situation is depicted in Table 8.

Table 8: Analysis of income source (000 euros) (source: OLP)

	2002	2003	2004
A. Main activities			
Cargo handling	72,712	84,373	85,422
Storage	20,778	26,481	31,652
Services to ships	37,356	31,508	31,818
TOTAL A	**130,846**	**142,362**	**148,892**
B.Ancillary activities			
Services to 3rd parties	946	1,082	962
Land leases	5,099	3,743	4,051
Building leases	2,424	2,786	2,893
Misc.	378	17	39
TOTAL B	**8,847**	**7,629**	**7,945**
TOTAL A+B	**139,693**	**149,991**	**156,837**

The 'horizontal' structure of Table 8 can be observed, making difficult the delineation of sources of income by port activity (e.g., container terminal, car terminal, passenger port, etc). Still, it can be seen that the bulk of income comes from cargo handling and storage, which can be attributed mostly to the container terminal (and secondarily to the car terminal). Even though this cannot be seen from Table 8, income from services to passenger ships is low, even though the number of passenger ship calls is way above the number of cargo ship calls. The reason for this is the very low level of tariffs levied on passenger services, both for ships and for passengers and vehicles (see also Section 6).

This picture is to be contrasted with the distribution of investment funds across the port, as seen in Table 9.

Table 9: Analysis of investment fund uses (000 euros) (source: OLP)

INVESTMENT CATEGORY	2002	2003	2004
Buildings and other civil engineering works	2,199	35,558	19,553
Mechanical equipment	9,412	1,530	13,122
Transport means	2	1,933	1,235
Furniture and misc.	522	900	540

equipment			
Works in progress	11,926	221	8,696
TOTAL	24,061	40,142	43,136

A striking difference between 2002 and 2003 (and to a lesser extent 2004) can be observed, particularly as regards buildings and other civil engineering works. Much of the difference can be attributed to works associated with the passenger port preparation for the Athens 2004 Olympics, involving the berthing of 13 large cruise ships as floating hotels, to account for the shortage of hotels in the Athens area. The Olympics preparation included a new water-sewage system, refurbishing of passenger terminals and land spaces, anti-terrorist measures, etc. The total investment cost of these works was estimated at 24.5 million euros, spread through 2004. In 2003 OLP received 11.4 million euros from the Greek state as partial funding for the Olympics works. The rationale here was that a part of these port infrastructure improvements would take place irrespective of the Olympics, and OLP should pay for these, whereas those strictly related to the Olympics should be paid for by the state. No other external financial support was received. Among other investments, the expansion of the car terminal (one of the most profitable sectors of the port, albeit much lower in revenue than the container terminal), whose total cost was estimated at 7.8 million (through 2004) is the most notable.

The amount paid for by OLP for the 'peripheral highway' project in 2003 is estimated at 0.49 million euros. As mentioned earlier, this fixed asset, the construction of which is not yet completed, belongs to the Greek state and is intended for general public use. Also, in 2003 OLP paid 2.14 million euros for the maintenance of all fixed assets belonging to the state and leased to OLP under the concession contract.

Due to the 2004 Athens Olympics, the investment financial figures for 2003 and 2004 are certainly not representative of the uses of funds for port infrastructure. However, this by no means deemphasizes the fact that investments in the Piraeus passenger port have a low return, and need to be cross-subsidised by more profitable port activities, such as the container and car terminals. The economic value of the cross-subsidy is not available, but the distortion created by it runs the risk of delaying investment plans for the container and car terminals. In fact, OLP's 2003 Annual Report announced the start of the expansion of Pier I of the container terminal in 2004, with an estimated cost of 35 million euros for infrastructure alone (plus 35 million for superstructure), of which the 3rd Community Support Programme would finance 30 million. But this work has started in 2005 and no Community funding was secured for it. In lieu of such funding, OLP signed in 2006 a 35 million euro loan from the European Investment Bank for this project, in the context of the recent 3-billion euro loan protocol signed by YEN and the EIB. The expansion of Pier I would raise the capacity of OLP's container terminal from 1.6 to at least 2.1 million TEUs per year. Its construction schedule is 3 years and its prompt completion is considered of paramount importance if OLP is to regain its competitiveness in the Mediterranean container market, something that has not been the case in recent years[12].

As mentioned earlier, in late 2006 YEN announced that both OLP's and OLTh's container terminals would function on a landlord basis. Public tenders to that effect have been prepared, much to the consternation of the ports unions, which are strongly opposed

[12] Piraeus dropped from the list of top 50 world container ports for the first time since 1998 (then at position No. 41), to position No. 56 in 2004, and No. 60 in 2005. The 2006 ranking is not yet available.

to the idea, and as a result have engaged in protests that have all but shut down the two terminals for close to two months. The exact way on when and how this major departure from the ports' current operating and institutional model would evolve is still not clear, although for OLP YEN predicted private investment on the order of 500 million euros and annual container traffic raising to 4,500,000 TEU, which is about three times higher than current traffic. It is not clear, at least to this author, where this traffic will come from and how it can be accommodated. Nor is it clear under what regime the expansion of the Pier I and the payment of its EIB loan would proceed.

6. Financial flows from port, vessel and cargo operators in Piraeus to the public sector

We split our analysis into two parts. First we examine financial flows from port operators to the public sector, and second, flows from vessel and cargo owners to the port itself.

6.1: Flows from OLP itself to the public sector

Thus far, the only port operator in Piraeus is OLP, something that would change in the future whenever the port functions as a landlord port. According to the concession contract signed in 2002, the rent to the Greek state for OLP's exclusive use and exploitation of the Piraeus port facilities is 1% of the company's adjusted gross turnover during the first three years of the agreement (that is, for years 2002, 2003 and 2004), and 2% thereafter. This means that for year 2003 OLP paid the sum of about 1.5 million euros as concession fee.

Naturally, in addition to the above fee, as a corporation OLP pays to the Greek state corporate taxes and (when profitable) dividends to the state-shareholder. For year 2003, taxes paid amounted to 10.84 million euros (plus 0.81 million euros for previous years tax audits). Dividends paid amounted to 6.4 million euros, of which 74.14% (i.e., 4.74 million euros) went to state coffers. This means that for year 2003 the total direct financial flow from OLP to the Greek state amounted to about 18.1 million euros, or 12.7% of total turnover, compared to which the 1% (or even the 2%) concession fee certainly looks meagre. Prior to corporatisation, none of these financial flows from OLP to the state existed, but OLP had other serious burdens at that time (pension and medical expenses).

The grants legally paid by OLP to the 5 municipalities adjacent to it (a total of 689,600 euros for 2003) can be considered as an additional financial flow from OLP to the public sector, perhaps as user fee providing compensation for the possible environmental burden and other external costs imposed by OLP on these communities. However, some of these municipalities claim that OLP owes them substantial 'municipal fees', as is the obligation of any corporation established in them. OLP was exempt of these fees prior to 1999, and municipalities contest the fact that OLP is still exempt from such fees. The accumulated amounts claimed by these municipalities run at 18.24 million euros as of 2003 (including penalties for non payment), and this matter is currently in the courts.

Complicating this matter further is the fact that since 2003 a new law specified that the licensing of all major civil engineering works of OLP would have to go through the Prefecture of Piraeus, the umbrella municipal agency above all Piraeus area municipalities, which shares their position vis-à-vis the payment of municipal fees. A recent objection to OLP's various expansion plans on environmental grounds is an indication that the Prefecture's new licensing authority can be used for serious political leverage. The fact that the Prefecture of Piraeus and Greece's central government are controlled by opposing political parties since 2004 adds another dimension to the political power game that is being played in this area, and is something that would get even more complicated whenever works of future terminal concessionaires are to be licensed. Under the present distribution of political power, the Prefecture of Piraeus strongly opposes the transformation of OLP into a landlord port. This, coupled with the fact that parliamentary elections will be held by 2008 (and likely within 2007) means that the road to port privatisation is likely to be a long one.

As said earlier, in addition to the direct payments from OLP to the public sector, one could consider as additional (indirect) financial flows all expenditures related to the construction and/or maintenance of fixed assets belonging to the state (even for the peripheral highway which is outside the port), and for which no provision for reimbursement to OLP exists. For maintenance alone, the 2.14 million euros paid by OLP in 2003 was higher than the 1.5 million euro concession fee for the same year. One may be led to believe that the Greek state, irrespective of all privileges still enjoyed by OLP (monopoly position being the most serious), is also using OLP as an instrument for financing projects or other expenditures that it is unwilling or unable to undertake itself. This is irrespective of these projects' return on investment for OLP (return that is very low for the passenger port and zero for the peripheral highway). Also, and as will be seen in the section that follows, the Greek state imposes an additional financial burden on OLP, by (a) not allowing it to charge to port users what it should in sectors where prices are kept artificially low, and (b) not providing compensation for such a practice.

6.2 Flows from ship operators and cargo owners to OLP

As OLP offers a broad variety of services, its tariff structure is comprehensive and extensive. OLP itself has over 25 so-called 'regulations', each being a document governing a specific aspect of its operation, internal or external. Ten (10) of these regulation documents have tariffs embedded within them, collectively displaying the prices for all of the port's services**.** As the port is a monopoly in the Piraeus area, all of its regulations and tariffs are mandatory by law to clients using the port's services. With the exception of confidential rates that are embedded into contracts between OLP and shipping lines (and this is an exception rather than a rule), all tariffs of the port are public and are published in the Greek government's official journal. The process of rate approval is first by the port's Board of Directors, and then by the Ministry of Economy and Finance. An exception concerns rate decreases, which do not need Ministerial approval. No sophisticated costing or pricing tools are used to produce OLP's tariffs, although obviously the rule is for each service to be profitable. Nevertheless, there may be occasional exceptions to this rule, as will be seen below.

The reader is referred to Psaraftis (2005b) for a comprehensive account of the tariff reform at OLP during the period 1996 to 2001, after which (and until early 2006) port prices did not change[13]. The tariff reform was extensive and targeted, and covered the following areas:

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[13] An exception was in the 3 weeks of the Olympics in August 2004, when special rates were applied for services rendered to cruise ships parked at the passenger port as floating hotels. These rates increased passenger port revenues only marginally.

- Cargo handling of transhipped containers
- Cargo handling of local containers
- Storage of local containers
- Fees for delay and cancellation of a ship call
- Ship berthing
- Fees for vehicles & passengers
- Ship repair zone
- Port exhibition centre
- Car terminal
- Rental of various spaces in the port area
- Grain silos (recently shut down)
- Dry docks, floating docks
- Water supply

As an example, for the transhipment of containers, a 'flat rate' scale existed from year 2000 until early 2006 (see Table 10):

Table 10: Transhipment scale (source: OLP, as cited in Psaraftis, 2005b)

Moves/year	Price (euros)
1-5,000	60
5,001-10,000	54
10,001-20,000	51
>20,001	48

'Flat' means the rate is the same for 20 ft or 40 ft container, laden or empty. A 'move' is a loading or unloading operation (a transhipment operation involves two moves). Lines that have signed a transhipment contract with OLP may get a special rate. Tariff reform in the transhipment sector is associated with the emergence of Piraeus as a major transhipment hub in the Eastern Mediterranean in recent years. A new, 8-step transshipment scale is in effect as of April 1, 2006. The new scale begins with 63,78 euros per move from 1 to 5,000 moves/year and ends with 41.50 euros per move above 100,000 moves/year.

Berthing fees for domestic ferries in the passenger port have been traditionally very low, even after a 200% increase that took place in 1998. The apparent (but officially unstated) rationale for this situation seems to be the idea that due to societal cohesion reasons the port should subsidise maritime transport to and from the Aegean coastal archipelago. However, this subsidy is not given by the Greek state to inhabitants of remote islands, but by OLP to private shipping lines. Also, as OLP receives no compensation from the state for keeping such fees to a low level, this policy results in very low revenues for the passenger port and the need to cross-subsidize it from more profitable port sectors, most notably the container terminal. This is at the expense of the container terminal's competitiveness.

A serious distortion also existed (and still does) between the domestic ferry berthing rates and the equivalent rates for passenger ships going to destinations abroad, which were 33% to 64% higher, even for two identical ships. This is a clear violation of EC Regulation 4055/1986, according to which no discrimination with respect to destination can exist. In fact, such a discrepancy existed in all Greek ports, and at some point the European Commission threatened to take Greece to the European Court of Justice if no corrective action were taken on this matter. In year 2000 OLP tried to take advantage of the situation by adopting a new tariff package which, among other things, increased the domestic ferry berthing rates significantly, and made them equal to the level of the international rates, which were marginally decreased. However, and even though the Damocles sword of legal action by the European Commission was hanging, the Ministry of Economy and Finance refrained from approving the new OLP tariff package, and in fact it explicitly rejected it two years later! The reasons for the rejection were unclear, but in this author's opinion they were due to fears that higher domestic port dues would have an impact on inflation[14].

The rest of this story is worthy of note from a pricing policy perspective. Sometime in 2003 all 3rd -tier ports in Greece corrected the rate discrepancy in the opposite way attempted by OLP in 2000, that is, by *lowering* the international rates to the domestic level. This was not exactly the best way to raise revenue to pay for their infrastructure improvement, but it was a move that had legal merit nonetheless. However, lack of action on this issue by any of the twelve 1st and 2nd -tier corporate ports lead the European Commission to eventually take Greece to the European Court in 2005. It should be noted that until the end of 2005, domestic ferries paid to OLP the same berthing fees as in 1998, even though the Government had allowed ferry operators to raise their ticket prices several times since then (and in fact, most of the ferry tickets have no price restrictions anymore, due to Greek cabotage deregulation).

In order to respond to the impending court case, the OLP tariff reform effective January 2006 'fixed' the existing discrepancy. But this was not done as in 2000, but in an artificial way, that is, by dropping the berthing fee differentiation with respect to *destination*, and introducing a differentiation with respect to *ship type*. In that respect, a cruise ship would still pay a higher berthing fee than an equal size coastal vessel. This means that from a substantive viewpoint the tariff gap has been maintained, and in fact berthing fees were kept approximately the same as before, even though the difference in fees was henceforth attributed to ship type rather than destination. The 168 euros paid to OLP by "FESTOS PALACE", one of the largest coastal ferries in Greece (length of 216 m, capacity of 2,182 passengers and 700 private cars) for one day's parking in Piraeus is to be contrasted with the 486 euros paid to the vessel by two people for a return ticket between Piraeus and Iraklio, Crete (175 nautical miles, two-berth 1st class cabin plus car, low season, early 2007).

The question whether from a legal standpoint this scheme would satisfy the European Court of Justice was put to rest in January 2007, when the Court agreed with the Commission and finally condemned Greece for violation of EC Regulation 4055/1986. As this development took place about the same time as this paper was being finalized, the way Greece will eventually resolve this issue is unclear.

7. Conclusions

[14] These fears are unfounded, as the impact of a berthing fee increase on inflation has been estimated to be negligible.

Developments in recent years, and most notably 1999 when OLP was transformed into a corporation and 2003 when the port was listed in the Athens Stock Exchange, rectified much of the lack of transparency of financial transactions between the port and the state. However, as the analysis of the previous sections has shown, the situation is still not completely acceptable, as it still involves indirect financial flows to and from the port, the economic value of which is not available. These indirect flows may cause distortions to port operation that can create problems.

For the port of Piraeus, Greece's largest port, years ahead will certainly involve new challenges. The most serious will be whenever the container terminal functions on a landlord basis, as the government has recently announced. In a landlord port regime, the terminal's charging practices would be essentially the domain of the terminal's concessionnaire(s). Such a change would drastically change the structure of financial flows to and from OLP. The challenge would be to achieve a scheme so as to stay competitive within the Mediterranean port market, particularly in the container sector. It is noted that OLP has witnessed a severe 'cargo drain' when most of its non-unitised general cargo fled to the nearby port of Elefsina in the late 80's and early 90's. The reason for this loss, most of which has been irreversible, has been OLP's inability to offer competitive rates, and the main reason for this has been the intransigence of dockers to reform their work regulations. The transformation of OLP's container terminal into a landlord port might provide the opportunity to offer a significant push for Piraeus's position within the Mediterranean container sector, particularly if serious investment in port infrastructure and superstructure is pursued. Similar considerations pertain to the port of Thessaloniki, which has the additional advantage of being a closer gateway to the Balkan hinterland than Piraeus.

Further institutional reform, whenever it occurs, needs to go hand in hand with the Greek ports ability to set tariffs in sectors that currently do not achieve an acceptable return on investment. By refusing to approve requested increases in low domestic ferry berthing rates, the Greek state is essentially providing a subsidy to private coastal shipping companies, many of which are listed in the Athens Stock Exchange. Ironically, much of this subsidy (the economic value of which is unknown) is provided through OLP and OLTh, two public corporations that are also listed in the Athens Stock Exchange and, as such, have an obligation to their shareholders to maximize profits. The notion that any increase in the rates should not exceed inflation or other indices set by the Ministry of Economy and Finance is outdated and essentially means that the country's ports are not free to formulate an effective pricing policy. Also, the notion that ports are a 'public good' for activities like coastal shipping needs to be reconciled with the necessity that ports should have sufficient funds to finance their infrastructure plans. If the state wants to keep ferry berthing rates low for whatever reason, it should compensate the corporate ports to keep rates low, rather than entice them to pay for passenger port infrastructure improvements via profits from other port sectors (such as the container terminal). Last but not least, in an era of rapid port expansion in Greece's back yard, flexibility in port pricing and aggressiveness in port investment is a must.

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