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Competition Between New Port Governance Models on the Iberian Peninsula

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ABSTRACT *The aim of this article is to analyze the interaction between port devolution processes in Portugal and Spain in their common geographical environment, the Iberian Peninsula. Firstly a review is done of the different port devolution processes in the world which specifically analyses the transition of numerous public and centralized ports to the landlord model. Among the conclusions that we can highlight with respect to the Iberian port systems are the need for a reflection process before any change is made to the port governance model, and greater cooperation between the two countries to avoid any possible future port tariff price wars. The over-investment process that the Spanish port devolution process, especially, has generated must also be mentioned, for highlighting once again the almost inexhaustible ability of ports to eat up public funds for investment that precludes profitability.*

1. Introduction and Review

Following Talley (2009), port governance refers to the ownership, management and control of a port's operations. It is currently one of the most important research themes in port economics. To be specific, it was pronounced the third most frequent research topic during the 1997–2008 period in a recent survey on port economics (Pallis et al., 2011). The World Bank has also published the Port Reform Toolkit (World Bank, 2007) presenting the numerous changes that are being developed in port governance models worldwide, which is already in its second edition.

Since Liu (1992), ports have usually been classified into four categories depending on their port governance model. However, as is logical, a broad array of options regarding the specific form public–private partnership may take exists within these categories. Firstly, there is the service port, in which the public sector plays the dominant role. Specifically, according to Talley (2009), the service port and all its infrastructure and superstructure is owned by the government and managed by a port authority (the chairman or director general

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of which is a civil servant) that controls the port's operations. Cargo-handling activities are carried out by labour directly employed by the port authority. The number of port systems that use this model is on the decrease, even though it has been the model traditionally used by many Mediterranean countries, including Spain.

The second category is the tool port. Portugal came under this category before its port devolution process started. The main difference from the service port is that other cargo-handling activities, such as moving cargo to and from vessels as well as on the apron and on the quay, are usually carried out by private cargo-handling firms licensed by the port authority.

Thirdly, there is the landlord model, which is currently the most widespread in Europe, including ports such as Rotterdam and Antwerp. According to the World Bank (2007), under this model, the public port authority acts as a regulatory body and as a landlord, while port operations are carried out by private companies. In fact, this port type involves private investment in superstructure (Debie et al., 2007), specifically, private terminal operators may provide their buildings and their equipment on port ground (Talley, 2009). Finally, there are private ports.

Although this classification is commonly used at the current time (see, for example, Bichou & Gray, 2005; Debie et al., 2007; Castillo-Manzano et al., 2008; Talley, 2009), others also exist. Baird's (1995, 1997) stands out among the alternative classifications. The various categories in this classification depend on whether it is the public or private sector that is responsible for fulfilling and providing the three main functions of the ports (Regulator, Landowner & Operator). We therefore have: PUBLIC, if all three functions are in public hands; PUBLIC/Private, if the first two are in public hands; Public/PRIVATE, if only the first is in public hands, and PRIVATE, if all three are in private hands (see Cullinane et al., 2005, on the usefulness of this classification).

One of the hot topics in port governance is the description and, on occasion, the analysis of the effects of the port devolution processes that have taken place in a number of countries. Broadly-speaking, although port devolution processes have slight but, nonetheless, important differences depending on the geographical area they are in, they can be defined as representing a new governance of international port systems, transforming public ports into public or private port authorities with a greater degree of autonomy.

In general, these processes can be construed as the transfer of functions or responsibility for the delivery of programmes and services from the federal government to another entity, which may be another order of government or a non-governmental organization, community group, client association, business or industry (Rodal & Mulder, 1993) or, in a broader sense, devolution is understood as the transfer of responsibility for control, technical and financial organization and the channel of economic activity, from the central administration to other institutional agencies closer to the port (Brooks & Cullinane, 2006). However, the truth is that the term devolution is used in an increasingly loose way to identify the extent to which port management has been privatized, decentralized and/or corporatized (European Sea Ports Organization (ESPO) and Verhoeven, 2010).

According to a number of authors, port devolution is complex and goes through various phases (Baird, 1995; Debie et al., 2007). The different types of processes are usually represented as a continuum; as one advances through this continuum,

there is a decline in the financial and administrative involvement of the central government while, at the same time, there is a growth in commitment and management by some other third party, normally private bodies (Brooks & Cullinane, 2006), although regional and local governments also usually participate to a greater degree.

In general terms, port systems try to increase their competitiveness with these processes, and improve port efficiency and address the major trends in international maritime transport (Castillo-Manzano et al., 2008; Cheon et al., 2010). The following can be highlighted: the international containerization process (Notteboom, 2006); the increase in vessel size to favour economies-of-scale (see Montero Llacer, 2006); the development of port-logistics-industrial clusters (see examples in de Langen & Visser, 2005; Doloreux & Shearmur, 2009); technological improvements and the intensive introduction of ICT into maritime transport management (see Kogan & Tapiero, 2009), and improvements in the infrastructure that connects a port and its hinterland. This, in turn, has an impact on the better integration of distribution channels (Wang et al., 2004; Konings, 2007; Roso et al., 2009; Dias et al., 2010), and the stepping-up of short sea shipping (hereinafter SSS) and the more sophisticated Motorways of the Sea (Baird, 2007). Finally, another consequence of many of the above-mentioned trends is greater competition between ports to attract traffic and economic resources from private capital (see Marlow & Paixão Casaca, 2003). This and more efficient port operations (see González & Trujillo, 2008), lead to a fall in port tariffs.

When we focus on the various port devolution processes, it can be seen that these have been taking place all round the world. Beginning with Asia, reference should be made to those that have taken place in China (Wang et al., 2004; Cullinane & Wang, 2006; Talley, 2009), India (Gaur et al., 2011) and Korea (Song & Lee, 2006). All three started with highly centralized and public systems. In the case of China, a new Law came into effect in 2004 by which the Chinese central government transferred port ownership to local, provincial or municipal governments. However, the central government must approve all port strategic planning (Wang et al., 2004; Talley, 2009). In the case of India, we see how the country's thirteen main ports come under the jurisdiction of the central government, while the almost 200 non-major ports are under the jurisdiction of their respective provincial/state governments (Gaur et al., 2011). According to Gaur et al. (2011), the major ports are moving, not without difficulty, from the tool-port model to the landlord port model under pressure from competition from the development of the private ports of Mundra, Pipavav, Krishnapatnam and Andhra Pradesh. In Korea, ports are owned by the central government, although private terminal operators have been allowed to operate them since 1997 (Talley, 2009). The government is also developing a process of decentralization as it is gradually handing over its right of port administration to regional and local governments (Song & Lee, 2006).

Similar processes can be found in Australia, where the majority of ports adopted the landlord model in the 1990s and, with few exceptions, commercial operations were privatized (see Everett & Robinson, 2006). A few ports, such as Geelong and Portland were even privatized.

Processes can be seen along the whole length of the American continent. To be precise, in Canada from the mid-1990s, over 500 ports have been transferred from Transport Canada to other, mainly public, bodies, including autonomous port

authorities and regional or local ports (Dion et al., 2002; Debrie et al., 2007). According to Fawcett (2006) in the USA, we find a mix of public and private interests in the country's seaports and the system seems to function well. Specifically, US general cargo ports have evolved over time from private railroad ports, which on occasion took advantage of their mono-political power (Fawcett, 2006), to local and state government-owned ports, managed by port authorities. Container ports are often landlord ports, where port authorities have leased their container operations to private terminal operators (Talley, 2009). Port devolution processes are not unknown in Latin America, either. As an example, we can cite those in Argentina and Uruguay (see Sánchez & Wilmsmeier, 2006). In both cases, the original model was the tool service type and there has been a combination of different measures, such as the creation of autonomous port authorities, the decentralization of certain ports that have come under the jurisdiction of sub-national Governments, and even the privatization of the port operations of the Buenos Aires Puerto Nuevo and the container terminal at the port of Montevideo.

A large number of other cases can be found in some recent reviews on Port Economics, Policy and Management (Pallis et al., 2010, 2011).

With regard to Europe, a vast majority of port authorities are publicly owned. The general trend of port devolution processes in the last two decades and of those still ongoing has been convergence in the landlord model (ESPO & Verhoeven, 2010), and this is the case of the two countries analyzed in this paper, Portugal and Spain. The case of the UK and its two privatization processes at the beginning of the 1980s and 1990s require special mention. This is probably the most studied Port Devolution process of all (Baird, 2000; Baird & Valentine, 2006; Pettit, 2008; Talley, 2009; ESPO & Verhoeven, 2010). The success of this privatization would seem to be due to the prices that they were sold at being significantly below the market price, with discounts ranging between 75% and 95% (see Baird, 2000). It should, therefore, come as no surprise that for Saundry and Turnbull (1997), the sale of British public ports represents a significant loss to the taxpayer and other stakeholders.

According to Pettit (2008), one of the outcomes of this privatization is greater stability in the overall government approach towards the port industry compared to greater inconsistency during earlier periods. There has also been a greater concentration of traffic at the larger ports (Baird & Valentine, 2006) and even over-investment at these due to inefficient behaviours (Pettit, 2008). This is a point that needs to be highlighted as, *a priori*, over- or under-funding in port systems is usually more linked with public models, such as service ports (see Talley, 2009).

Contrary to this, recent studies maintain that post-privatization UK ports are the most efficient in Europe (Cullinane & Wang, 2006; Wang & Cullinane, 2006). From this, and from another study by the same authors (Cullinane et al., 2006), it cannot be concluded that on the international scale greater private sector involvement in the port sector irrevocably leads to improved efficiency, and neither should Everett and Robinson's (2006) assertion that the debate about whether publicly or privately owned ports are preferable has by no means been resolved come as a surprise. The reason could be the theory put forward by Saundry and Turnbull (1997). According to these authors, the improvements in efficiency at British ports can be attributed to the deregulation of employment (the abolition of the National Dock Labour Scheme) rather than privatization.

What is true is that this privatization process has had little influence on other European countries to date. However, the financial difficulties that many countries on the periphery of the Eurozone are currently experiencing might favour new privatization processes. It should be highlighted in this respect that the possible privatization of the Irish ports is currently under study (ESPO & Verhoeven, 2010).

Fully-privatized ports, such as Zeehaven IJmuiden, in the Netherlands, are the exception on mainland Europe. This port was privatized in 1989 but is of little importance compared to the three major Dutch public ports (de Langen & van der Lugt, 2006). According to Talley (2009), the port devolution processes in this area, Belgium included, have decentralized decision-making and increased the power of local and regional governments. However, there are exceptions, like the port of Rotterdam, in which the state government took a minority stake in 2004 alongside the, up-to-then, sole shareholder, the municipal government.

The two port systems analyzed in this article, those of Portugal and Spain, are part of the Mediterranean tradition. In the Mediterranean, where the port systems traditionally followed a centralized and public model up to the nineteen-nineties (Suykens & Van De Voorde, 1998), port devolution processes can be found both inside and outside the EU. With respect to the latter, the privatization processes of operations at Turkish and Israeli ports can be cited. The former began in the mid nineteen nineties with the granting of 30-year concessions (Centre for Economics and Foreign Policy Studies (EDAM), 2007). The latter have just commenced, in 2011, with respect to the management of Eliat Port and will foreseeably continue to 2020, with the privatization of the Haifa Port Company and the Ashdod Port Company. Finally, the new model used in Morocco for the Tangiers-Med port project, of management by an autonomous public corporation owned by the Royal family, is also worth highlighting.

If we focus on the Mediterranean countries in the EU, in recent decades there have been numerous changes in port policy and management. In a quest for greater efficiency these have followed the Northern European approach (Bergantino & Musso, 2011) given that ports there are amongst the most productive in the world (Wang & Cullinane, 2006; Brooks & Pallis, 2008).

Some of the main Mediterranean port devolution processes outside the Iberian Peninsula can be found in France, Greece, Italy and Malta. Port devolution in France has gone through two phases. The first started in 2004 with 19 *Ports d'intérêt national* being transferred to lower tiers of government, principally regional governments (see Debie et al., 2007). There is currently an ongoing second phase, 2008–11, that includes aesthetic changes, such as the seven largest ports changing their name from 'Ports Autonomes' to 'Grands Ports Maritimes', alongside other more far-reaching changes. One that should be highlighted is the completion of the port labour reform, notably the privatization of handling equipment and staff (ESPO & Verhoeven, 2010), which has faced strong protests from the trades unions.

With regard to Greece, in the late 1990s there was a major port governance reform aimed at overcoming observed deficiencies in the national port system (Pallis & Syriopoulos, 2007). Twelve major ports of national interest were transformed from 'public law undertakings' to government-owned port corporations. Responsibility for port governance was devolved to autonomous, commercially-driven port authorities. Also in 1999, the two largest ports, Piraeus and Thessalo-

niki, were listed on the Athens Stock Exchange although the Greek State retained 75% of their ownership. Subsequently, in 2003, state involvement was reduced to a third at both ports (Talley, 2009). A first appraisal of this reform, 5 years after it was passed (see Pallis & Syriopoulos, 2007) concluded that Greek ports do not appear to be ready as yet to fully reap or yield potential economic benefits, as a result of which they will foreseeably continue to lose market share to other Mediterranean ports.

As for Italy, the main changes took place after the 1994 passing of Act no. 84, which provided for the liberalization of cargo-handling services, and the larger size ports (Class I and II ports in the terminology of the Act) being turned into port authorities (Valleri et al., 2006). A variety of reform bills have been drawn up since then to satisfy the recurring demands of the sector, such as to establish financial autonomy for port authorities, but none have prospered (ESPO & Verhoeven, 2010). It could be that this bureaucratic bottleneck is now being circumvented, as in September 2010, the Italian Government presented a new bill on port reform (Ferrari & Musso, 2011), which seeks to facilitate ports' logistics functions, among other things, but without increasing their financial autonomy.

Finally, an extreme landlord model can also be seen to have been adopted in Malta in the last decade. As a result, all port services have passed from the port authorities to private industry, either through concession contracts or service level agreements (ESPO & Verhoeven, 2010).

All these processes should therefore be understood in a context where the various countries have tried to increase their competitiveness in a constantly growing and expanding Mediterranean container transshipment market. The recent assessment by a panel of the efficiency of 18 ports in five EU Mediterranean countries, specifically France, Greece, Italy, Malta and Spain (see Bergantino & Musso, 2011) shows that, in broad terms, the reforms have increased port autonomy from the central government and that, likewise, there have been increases in efficiency. What is more, this increased efficiency has placed the ports of the western Mediterranean amongst the most efficient in Europe, only behind those of the UK, and with levels that are very similar to those of continental Europe and higher than other peripheral regions, from Scandinavia to Eastern Europe (see Cullinane & Wang, 2006). Everything would seem to indicate that if the Mediterranean port devolution processes and these increases in efficiency continue, the dividing line between the two big Hanseatic and Latin traditions might become more blurred in the long term (ESPO & Verhoeven, 2010).

To complement all these studies, the aim of this paper is to analyze the interaction between port devolution processes in Portugal and Spain in their common geographical environment, the Iberian Peninsula, where there is a kind of port 'fiefdom' with shared hinterlands (see Notteboom, 2009). Firstly, the mutual interdependence of the two port systems will be examined. More specifically, port traffic series will be analyzed econometrically to discern any possible replacement relationship between the services offered by the two port systems. Subsequently, the cascade of political reforms that the two systems have been subject to since the 1990s will be put under the microscope. Unlike the earlier literature, which has been more inclined to highlight the positives of these processes, this study will also focus on an analysis of any outstanding issues and any negative effects that over-regulation might have, even questioning the long-term viability of certain management models.

In this regard, it will be highlighted how these reforms have gone hand-in-hand with an over-investment process, for example, especially in the case of Spain, underscoring once more the almost inexhaustible ability of ports to eat up public funds for investment that precludes profitability. Specifically, processes are now being seen at Spanish ports similar to those previously seen in countries like Germany, France and Holland (Goss, 1995) where, in short, it was easy to find a sharp *ex post* deviation in profit forecasts for port investments.

This paper is organized as follows. Section 2 will describe the evolution of traffic in the two port systems and the linkage between them. Section 3 looks at the port devolution processes in both Spain and Portugal and analyzes their various phases and legal reforms. Section 4 presents the conclusions of the study.

2. Iberian Peninsula Port Traffic

A descriptive methodology would normally be used to analyze the effects of port devolution processes and an explanation given of the legal reforms that have sparked the port devolution process. This would usually be followed by a description of the evolution of port traffic and finally, of the process itself (see Baird & Valentine, 2006; Debrie et al., 2007). This paper seeks to offer a wider view based on port traffic. To do this, a bivariate unobserved components model (Harvey, 1989) was used to filter port traffic series in Spain and Portugal. The aim of this was to eliminate spurious effects, whether of a temporal nature or due to changes in the way the variables are historically computed over the long time period of the study (from 1970 to 2008). To be specific, we broke down the global traffic series Y_t , where $y_t = \ln(Y_t)$, in the following way:

$$\begin{aligned} Y_t &= \mu_t + \varepsilon_t, & \varepsilon_t & N \text{ iid } (0, \sigma_\varepsilon^2), \\ \mu_{t+1} &= \mu_t + \beta_t + \eta_t, & \eta_t & N \text{ iid } (0, \sigma_\eta^2), \\ \beta_{t+1} &= \beta_t + \zeta_t, & \zeta_t & N \text{ iid } (0, \sigma_\zeta^2). \end{aligned} \quad (1)$$

Figure 1 shows the slopes of the trend-cycle component (β_t), that is, the growth rate of maritime traffic after removing residual effects. The interdependence relationship between the two port systems thus becomes potent, with greater dynamism on the part of one being accompanied by a period of decline in the other. As an example, it can be seen that the major growth in the Spanish port system traffic on the back of the success of the first legal reform of 1992 (Coto-Millán, 1996; Castillo-Manzano et al., 2008; González & Trujillo, 2008) would coincide with a period of lesser dynamism, almost stagnation, on the part of the Portuguese port system, with growth rates of under 2%. This is logical if we bear in mind the Iberian Peninsula's almost square shape and the absence of trade barriers within the EU. The new road and rail links between Spanish and Portuguese ports on the Peninsula also mean that the distance, both physically and in time, is very similar from any port, whether Spanish or Portuguese, to the major markets in the interior, especially Madrid with its six million plus inhabitants. The centre of the Peninsula can, therefore, be regarded as a huge shared hinterland for the two port systems. This hypothesis has also been put forward indirectly in a recent EU study (Notteboom, 2009) from which Figure 2 is taken. This shows the inland

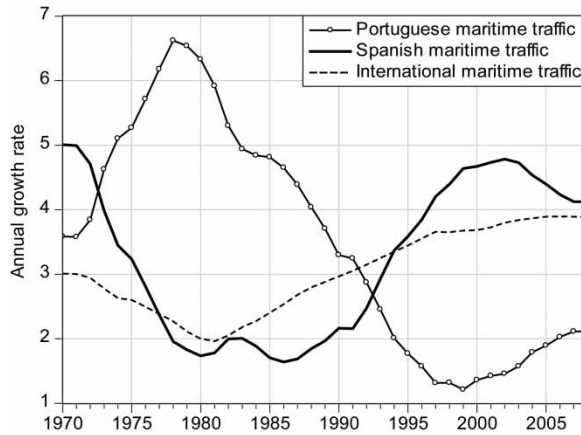


Figure 1. Percentage change rate of the trend-cycle component of total maritime traffic of Portuguese first-tier ports, total port traffic of the Spanish State ports of general interest and total international maritime traffic. *Source:* Authors.

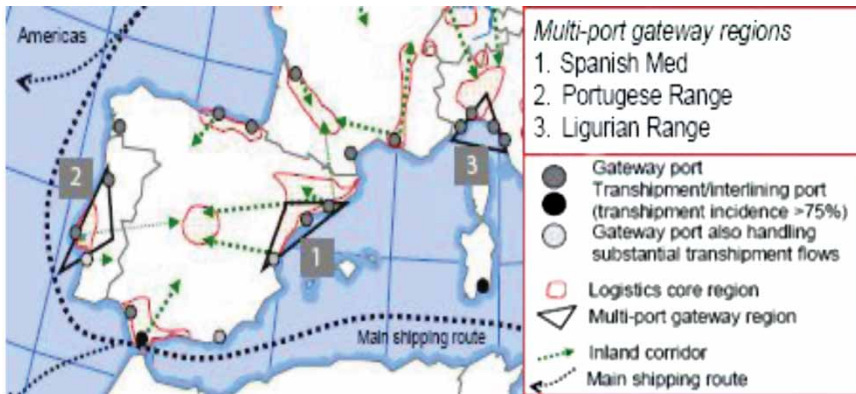


Figure 2. Spain’s central shared hinterland, according to Notteboom (2009). *Source:* Notteboom (2009).

corridors to the centre of the peninsula from all the points of the compass, including Portugal.

One clear example that this is a trend that will continue to grow is the recent agreement under the name of Iberia Link between the two public railway companies, the Spanish RENFE and *Comboios de Portugal* with a view to increasing traffic between the two countries and boosting the maritime-land container market on the peninsula. Another interesting example is the Coslada (Madrid) dry port which has stable railway links with the ports of Algeciras Bay, Barcelona, Bilbao and Valencia. However, as a result of the 2009 worldwide crisis, only the Valencia link has remained regular.

Figure 1 shows the relationship between the two systems and the international average, as represented by the slope of the trend-cycle component of World Maritime Traffic.¹ It is striking that since the end of the 1970s, the two port systems have been incapable of exceeding the average international growth rate at the same time.

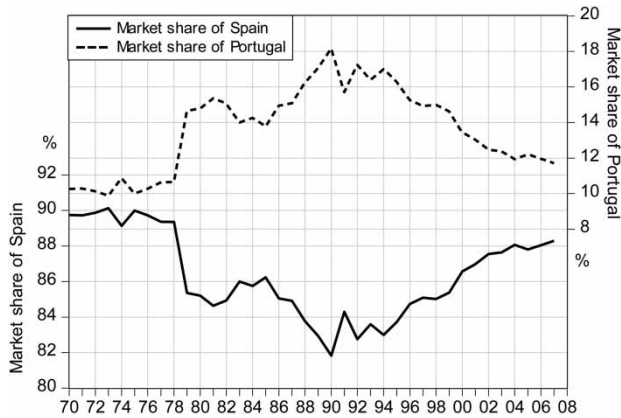


Figure 3. Market shares of Portugal and Spain of the Peninsula maritime transport market. Source: Authors.

Finally, Figure 3 presents a timeline of how the two port systems' market shares of the Iberian Peninsula maritime traffic have developed.

3. Features of the Port Devolution Process in Spain and Portugal

3.1 Spain

During its first phases, with Laws 27/1992 and 62/1997, the Spanish port devolution process was one of the most studied worldwide. Initially, both descriptively (Coto-Millán, 1996; Suárez de Vivero et al., 1997) and, more recently, in a more analytical way, attempts were made to quantify the effects of the first reforms on the ports (Castillo-Manzano et al., 2008; Díaz-Hernández et al., 2008; González & Trujillo, 2008; Jara-Díaz et al., 2008; Castillo-Manzano et al., 2009). This huge number of studies should be of no surprise since Spain has succeeded in becoming the European country with the highest number of ports—three, Algeciras Bay, Valencia and Barcelona—in the list of the world's Top Fifty Container Ports.

Over the last two decades, there have been far-reaching changes in the Spanish port system compared to the pre-1992 model, which was highly centralized, as were most Mediterranean port systems at that time. As a result of these changes, today we have autonomous ports with management organizations in the hands of regional governments and coordinated on a national level by the *Ente Público Puertos del Estado* (Public State Ports Authority), which comes under the central government.

Before the first reform of 1992, the Spanish port system was set up as an asymmetric port system with two different port management models. On the one hand, there were just four autonomous ports, Barcelona, Bilbao, Huelva and Valencia, and, on the other, the majority came under a highly-centralized decision-making regime (Castillo-Manzano et al., 2008).

Thanks to a large number, possibly too large a number, of reform Bills (the two above-mentioned Laws 27/1992 and 62/1997, and subsequent Laws 48/2003 and 33/2010), we have now moved from a situation based on administrative criteria to one which seeks to favour the criterion of trade and commerce in port services, for

which greater autonomy, regional decentralization and promotion of the private sector (Coto-Millán, 1996; Castillo-Manzano et al., 2009) have all been boosted.

Law 27/1992 meant that the Spanish port system was no longer set up as a service port system, but instead was turned into a landlord system (ESPO, 2005). This Law divided the existing ports into two different types. Firstly, there were the ports of general interest, according to the role they played in the Spanish port system as a whole (Art 2.5). These ports were placed under the control of the public State Ports Authority, dependent on the central Government. Secondly, secondary ports, which had little commercial traffic and were mainly used for fisheries traffic and as marinas, passed into the hands of the Regional Governments of the areas in which they were located (Castillo-Manzano et al., 2008). Nonetheless, most ports of general interest continued to keep their own fisheries traffic going, albeit with little success and only a residual investment effort which has not halted its decline (Castillo-Manzano et al., 2010).

Law 27/1992 was amended by Law 62/1997, which regulated the participation of the Regional Government in the structure and organization of ports and, once again, encouraged the involvement of the private sector in port activities (González & Trujillo, 2008).

The principle of self-financing was in force in the Spanish port system up to 2003. This meant that the investments made in all the ports and all their expenses were funded with the revenue from the system as a whole, with the ports that generated the most income aiding investment in ports with a funding deficit. However, after the initial reforms (Laws 27/1992 and 62/1997), most port authorities envisaged, and still envisage, the need to improve facilities or, simply, build new docks in areas further away from the cities in which they have historically been located.

Figure 4 provides data on investments made in the Spanish port system in constant year €2000, i.e. with inflation deducted. In short, when 1991, that is, the year before the first legal change was made, is compared to 2008, it can be seen that the investment effort has tripled from €322.4 million to €998.31 million, endangering the model's long-term economic sustainability. To be precise, the annual average investment made by the 28 Port Authorities has risen from €11.5 million to almost €35.7 million. This investment effort has not only favoured the large ports, but has also enabled major projects to be undertaken in medium- and small-sized ports.

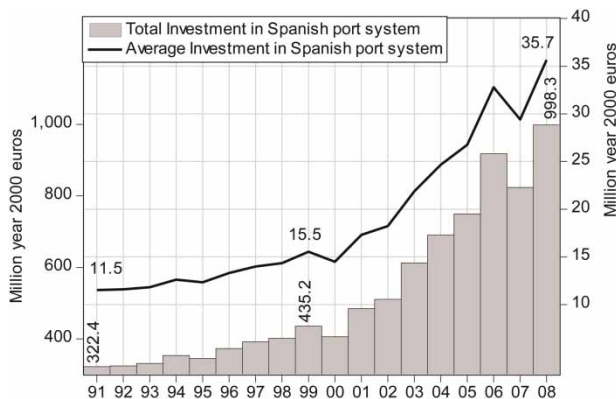


Figure 4. Evolution of investment in Spanish port system in constant year €2000. Source: Authors.

The €310 million for the new lock and dredging at the port of Seville and the €800 million plus invested in expanding the port of Gijon are good examples of this. If to the latter example of Gijon, we add the new ports at Corunna and Ferrol, we can see that three large ports are being constructed along less than 300 km of the Cantabrian coast. Examples like these, where neither past traffic, nor the traffic predicted for the future, however optimistic the predictions are, would justify these investments, mean that it is possible to speak of an over-investment process in the Spanish port system. According to the Spanish Strategic Infrastructure and Transport Plan, €22 480 million will be invested in port infrastructure between 2005 and 2020. These greater investments have drastically increased the need for funding beyond what ports' revenues can cover.

The Spanish port system's self-financing principle was inflexible and did not allow for the type of over-investment that is currently being seen. To get round this principle, Law 48/2003 sought to find other sources of funding for ports by increasing the involvement of private operators in port facilities and delivering port services by granting licences and concessions (Castillo-Manzano et al., 2008).

However, the major point of this Law is that it allows for public subsidies to be made to the port sector, as a result of which the port system succeeded in attracting a significantly greater amount of public funding during the past decade. Law 48/2003 regards port infrastructure and superstructure as regional development instruments that can be financed with other economic resources from the various Public Administrations. The basic aim was to make port expansion and improvement schemes eligible for applying for funding from the latest EU 2000–06 European Regional Development Fund (ERDF). The enlargement of the European Union (EU) towards the East that included countries with a lower income than the EU average (Audretsch et al., 2009) ruled out renewed applications for these funds for most Spanish regions and their ports.

Another widely used source of financing not strictly linked to port business has been real-estate investment. Ports have increasingly obtained extraordinary income from selling or letting assets and land that was no longer useful for port activities but which, for historical reasons, were located in city centres—which meant that they were highly profitable for real-estate developments, given Spain's spectacular real-estate boom-bubble during this period (Fernández-Kranz & Hon, 2006; Martínez, 2008; Royo, 2009). This trend took an upturn with the economic success of Port Vell del Barcelona,² which a number of ports have tried to replicate with their own recreational/commercial projects, although generally meeting with limited economic and aesthetic success.

Despite all these new sources of funding (ERDF; revenue from the management of real estate, and the greater involvement of the private sector in the owning and management of infrastructure), there have still been insufficient resources to defray the costs of new investment in the Spanish port system. This has led to a spectacular increase in the amount of debt that Spanish port authorities owe to financial institutions. As an example, in 2009, the debt with commercial and savings banks rose by almost 22% to €1983 million, which represents over 200% on the net income from turnover for all Port Authorities together during the said period.

The environmental costs must also be added to this process of port over-investment. Greenpeace (2011) has devoted a specific analysis to analyzing this and defines it as the number one threat to the Spanish coastline.

The latest reform to the Spanish port system has been Law 33/2010, which was the result of negotiations in which representatives from port community business associations, dock workers and municipal and regional government institutions all took part. During the administrative proceedings, the above-mentioned collective representatives were allowed to state their cases in the State Parliament itself. The upshot of this was that, of all the Spanish port Laws, this was the one that received the greatest parliamentary backing since the days of the dictatorship, receiving the support of 302 MPs out of the 327 that sit in the chamber.

The main innovation is that Port Authorities see their discretion increased for setting their harbour dues based on a rebate system. This principle implies that the idea of increasing inter-port competition through the freedom to set tariffs, subject, in theory, to the port achieving an objective annual yield return, is once more up for debate. This idea had already been passed as part of Law 62/97 but had to wait for further legislation before coming into effect. However, this legislation was never enacted.

3.2 *Portugal*

The Portuguese port sector has operated as a hybrid system since the December 1998 reform. Firstly there are the co-called 'first-tier' ports, which coincide with the Spanish concept of 'general interest' ports. These are: Leixoes, Aveiro, Lisbon, Setubal and Sines. In a similar way to what happened in Spain with the 1992 Law, these ports have been established as autonomous Port Authorities. Theoretically they are private organizations, although in reality the State is the sole shareholder.

There are also second-tier ports that depend totally on a centralized body, the Port and Maritime Transports Institute (hereinafter IPTM) (Carvalho & Marques, 2007). However, the volume of traffic in these second-tier ports is insignificant as far as this analysis is concerned. According to 1999 data, when the reform of the Portuguese port system came into effect, the volume of freight at first-tier Portuguese ports stood at 96.4% of total freight in the Portuguese port system, which means that only 3.5% of freight went through second-tier commercial ports (Barros, 2003). According to the IPTM, for 2008 this predominance of first-tier ports has grown as they now account for 97.49% of traffic, with only 2.50% going to second-tier commercial ports. Despite the similar sizes of all the Portuguese first-tier ports, as in the case of Spain traffic can be seen to have become concentrated over the last decade, but not to the same degree.³ The port of Sines has managed to achieve a consolidated share of over 40% of traffic.

The 1997 publication of the EU's 'White Paper on the Maritime and Port Policy: towards the 21st century', which recommends the landlord model as the best model for attracting private sector participation (Carvalho & Marques, 2007), is considered to have been one of the reasons for the change in legislation. Another possible reason may have been the initial success of the port reforms in neighbouring Spain, which were accompanied by a decline in the growth rate of Portuguese ports (see Figure 1) and, consequently, of their market share for the peninsula (see Figure 3). It can also be seen that Portuguese arguments for the legal reforms centre on a greater participation of the private sector in order to increase the efficiency of port activities, and for new private capital investments to be made (ESPO, 2005).

Theoretically, the change of model in Portugal was less traumatic than in Spain as the move was from a tool-port to a landlord model (ESPO, 2005; Carvalho & Marques, 2007), as opposed to the Spanish change, which was, as explained above, from a service model to a landlord model in 1992. Nevertheless, the above-mentioned second-tier ports still adhere to the tool-port model, although there does seem to be a certain degree of political will for them to be transferred to the first-tier port authorities at some time in the future (Marques & Fonseca, 2010).

The functions of the Portuguese Port Authorities are similar to their counterparts' in Spain, that is, they specifically include: promoting port activities, granting licences and concessions, and coordinating activities and access by sea and land (Carvalho & Marques, 2007). The five Portuguese Port Authorities enjoy administrative and financial autonomy and flexible management with the clear aim of achieving positive results (ESPO, 2005).

The IPTM was created by Decree-Law no. 257/2002 and its functions are national supervision, coordination and planning, strategic development, standardization, regulation and taxes in the port and harbour areas, as well as the navigability of the Douro River (Carvalho & Marques, 2007). It is divided up into three regional offices based on the Northern, Central and Southern Port Institutes which had been created in 1998 and incorporated into the IPTM (ESPO, 2005). An advisory council was subsequently created within the IPTM called the National Council for Ports and Maritime Transport (CNPTM). Representatives from all the economic agents that make up the port community sit on this new council (Marques & Fonseca, 2010).

Both the respective Port Authorities and the IPTM are dependent on the Secretariat of State for Transportation, which is, in turn, part of the Ministry of Public Works, Transport and Communications (Barros, 2003, 2005; Carvalho & Marques, 2007).

There is currently a new preliminary draft bill going through the study stage in the Portuguese legal system: Draft Law 280/X of 13 May 2009. According to the draft bill's statement of reasons, it is aimed at simplifying, clarifying and harmonizing previous existing legislation in a bid to guarantee national ports' competitiveness compared to foreign ports, probably with the Spanish ports in mind.

Unlike its Spanish counterpart, however, passing the Portuguese Port Law is becoming a long drawn-out and complicated matter, with a lack of consensus among the Portuguese parties, and strong opposition from a variety of economic and social agents. The dock workers have come out on strike in protest, for example, while the National Association of Portuguese Municipalities considers the preliminary draft bill to be an attack on their autonomy and competences.

The following table summarizes the main legal changes to the Spanish and Portuguese port systems (Table 1).

In short, the foregoing table shows that, with a slight time lag, Portuguese port reforms follow a similar pattern to the Spanish reform process of previous years. The following similarities can be highlighted: the use of a landlord regime, the great autonomy of the Port Authorities and the existence of a central organization in charge of coordination and control. In Spain, this is the State Ports Authority, whereas in Portugal it is the IPTM. There is, however, one major and fundamental difference: the Spanish organization coordinates the main ports while the main duty of the Portuguese organization is to coordinate the secondary ports. The management of secondary ports in Spain is the responsibility of regional governments and the central government does not exercise coordination of any type.

Table 1. Summary of legal reforms in the Spanish and Portuguese port devolution processes

Spanish port devolution process	Portuguese port devolution process
<p><i>1992 Reform</i></p> <p>Creation of port authorities and 'Public State Ports Authority'</p> <p>Change from a 'service port' model to a 'landlord port' model</p>	<p><i>1998 Reform</i></p> <p>Creation of port authorities</p> <p>Creation of Northern, Central and Southern Port Institutes</p> <p>Change from a 'tool-port' model to a 'landlord port' model</p>
<p><i>1997 Reform</i></p> <p>Autonomous Communities allowed to name members of Port Authority governing council</p> <p>Proposed freedom of tariffs that does not materialize</p>	<p><i>2001 Reform</i></p> <p>Legal regime of tug services established. These may be provided either by concession, licensing or directly by the port authorities</p>
<p><i>2003 Reform</i></p> <p>Seeks the entry of massive public economic resources with no link to the port system and the greater involvement of private initiative</p>	<p><i>2002 Reform</i></p> <p>Creation of IPTM which absorbs the three preceding institutes</p> <p>Establishes PA's responsibility for security issues in the port area</p>
<p><i>2010 Reform</i></p> <p>Flexibilization of each PA's tariff model</p> <p>Seeks greater liberalization of services and port activities</p>	<p><i>2009 Preliminary draft bill n°. 280/X</i></p> <p>Clarifies functions of public and private sectors in port system</p> <p>Reinforces position of existing IPTM</p>

The Portuguese ports have also increased their spending on investment in recent years and, as a result, their funding requirements. By way of example, we can refer to the cases of the ports of Leixoes and Sines. Whilst the former is seeking to develop a Motorway of the Sea service between France and Portugal, the latter, the port of Sines, has just concluded an enlargement of the PSA-owned Terminal XXI container terminal alongside the Logistics Activities Zone

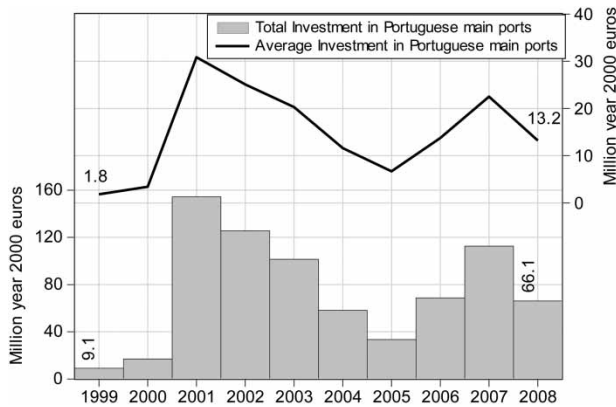


Figure 5. Evolution of investment in first-tier Portuguese ports in constant year €2000. Source: Authors.

(Zalsines) with a new total capacity of 375 000 TEU. Investments to attract the cruise ship traffic, for which there is ferocious competition among the various ports on the Iberian Peninsula, also merits mention. In Portugal the future cruise terminals at Leixoes and Lisbon-Santa Apolonia stand out, with respective investments of €50 and €90 million envisaged.

Figure 5 provides an overview of the last 10 years. It can be seen how, starting from negligible levels of €1.8 million per port authority, there was a spectacular increase in investment at the beginning of the last decade, even surpassing the Spanish average during this period. The rate has slowed down and, although the latest figures show an increase of over 600% on the initial figures for 1999, it has now fallen far behind the Spanish average. However, according to Marques and Fonseca (2010), the high level of competition between Portuguese ports is doubling the port system's need for investment as a whole.

4. Conclusions

The numerous port devolution cases analyzed in the introduction might lead to the conclusion that there is a global trend among public and centralized port systems towards the adoption of the landlord model, as a clear example of the accelerating transnationalization of policy norms and practices (see Peck & Theodore, 2010). However, it should not be concluded from this that the transition is homogeneous, as there are various degrees of autonomy for port authorities and of stake-holding by the private sector in the model. It has not necessarily been simple or quick, either, as a number of reforms are frequently required.

In this context, the Iberian Peninsula has been subject to a number of changes since the 1990s, with Spain and Portugal alike seeking to increase their shares of sea transport both on the peninsula and internationally. This process began with the passing of the Spanish port system's Law 27/1992 which brought the decline in its ports to a halt and started spiralling development that has allowed three of its ports to be placed in the world ranking of the top fifty container ports. Leaving these major successes aside, the last 10 years have also seen spiralling investment by Port Authorities, using funding from outside the system limited either in time—the ERDF funds—or in amount—the real-estate operations. Together with the economic crisis and the bursting of the real-estate bubble, this left the Spanish port system in a very complicated situation, and in recent years there has been a spectacular increase in the debt the Port Authorities have accrued with financial institutions. This has put the viability and concluding of some major investment projects and even the financial sustainability of a number of ports, at risk.

Meanwhile, Portugal joined the port devolution process trend slightly later. This later start could have been due to its beginning from a better position, as it was the tool-port model that was in use rather than the services port model which was Spain's starting point in the 1990s. Nevertheless, the process in Portugal followed a parallel path to the one in Spain, with autonomy being given to the main ports and favouring greater competition in the services delivered by private agents. Even so, the greater dynamism seen in recent years has not allowed Portuguese ports to secure greater shares of the peninsula port services market nor to put forward a clear challenger for the international container transshipment market.

Both the Spanish and the Portuguese processes offer important lessons that can be learnt by other port systems that start from a position of public property and

with no autonomous management at all, as is the case in many Mediterranean countries. One major point is the need for a reflection process before any change is made to the port governance model. This reflection process should clearly define the goals that are to be achieved by the reforms and the experiences of nearby countries should be taken into account; otherwise, as has been seen in the experiences under study, there will be a risk of embarking upon a process that is poorly defined due to over-regulation, and where public and private agents constantly see the rules of the game changed, even to the point that there is an about-turn in some issue every few years, such as the freedom to set tariffs. This over-regulation can negatively affect port performance (Clark et al., 2004) and even hamper policies heavily backed in the EU, such as SSS (Styhre, 2009).

Moreover, if a cap is not put on port borrowing and the use of—almost always public—money not generated by the port systems themselves, a greater autonomy might lead to spiralling investment processes, often based on imitation effects, such as in the case of the Cantabrian ports. It should, therefore, come as no surprise that the new bill governing the Spanish port system allows the central government to intervene at ports where there are unviable over-investment projects which put the economic viability of the port at risk. This would *de facto* bring a complete end to the port devolution process at ports where intervention was to take place. This mechanism has already had to be put into operation, albeit with a limited scope and only temporarily, to bring a halt to the Gijón Port Expansion Project with no cost overruns.

Finally, the potential risk that ports on the Iberian Peninsula are heading towards future port tariff price wars should be highlighted. Among the factors that have brought this situation about are: the lack of cooperation between the two countries in the field of transport (a situation which one could suppose has worsened since the high-speed link between Lisbon and Madrid was frozen), the huge capacity of many ports which are still expanding their infrastructure, and the greater freedom that has been sanctioned for Spanish ports to set tariffs. This war will lead to a further drag on many ports' economic results, especially the medium- and small-sized ports that, generally-speaking have smaller margins for lowering their tariffs. In this context, and despite all the ruthless competition to corner the international container transshipment market, there might be the possibility, and the need, for greater cooperation. One example might be the development of SSS, where any joint project could count on economic aid from the EU through the EIB, Marco Polo, and TEN-T programmes and even from the ERDF, especially in the case of Portugal. A good SSS network around the peninsula might be a very interesting option, given the marginal character of peninsular rail freight.

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Notes

1. Data taken from the annual reports of the UNCTAD.

2. A large shopping-mall located on land that used to belong to the port of Barcelona.
3. Over the ten years 1999–2008 the four top Spanish ports, Algeciras Bay, Valencia, Barcelona and Bilbao, increased their share from 46.85% to 54.64%.

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