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Infrastructures Privatization: New Options for Competition in Ports and Airports

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Abstract

During last decades there has been a worldwide trend towards revision of the traditional model of public financing and operation at ports and airports. Among other changes, private participation appears as a new alternative. Though there is not a unique model of private participation, the implementation of concession contracts stands out. The concession model seems to adequately provide governments with much needed funds for infrastructure expansion. At the same time, it allows them to keep property and retain the facilities at the end of the concession period. Furthermore, it provides a financial windfall for governments with restricted budgets. At the moment such a model is being widely applied to all types of transport infrastructures. For ports and airports important common features can be found. This paper deals with such peculiarities and the influence they have for the introduction of competition.

Key words: Infrastructures, privatization, ports, airports, competition.

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1. INTRODUCTION

Ports and airports share a series of elements and economic features. Both are non-network transport infrastructures where a set of essential activities and a group of complementary services can be separated. Such a distinction facilitates the introduction of private participation, that at both, ports and airports gains a greater weight every day, though still a relatively recent phenomenon. Arguments supporting privatization are also common: exploiting the private initiative comparative advantage in terms of efficiency and limiting the burden of financing upon the public sector. In such a process the role of concessions stands out. Concessions provide a new framework for participation of the private sector, that builds, develops or rents the infrastructure and will operate it for a given period of time, after which assets will return to public sector hands.

2. COMMON ECONOMIC FEATURES

Port and airport services demand is of *derived nature*. This means that services offered are generally demanded as a consequence of the economic activity of the region where they are located. Any variation in the rate of growth of the general economy usually determines the level of activity at ports and airports, hence being affected by economy cycles. This derived demand feature appears for all modes of transport and for transport infrastructures.

On the other hand, both ports and airports are *non-network* transport infrastructures that are placed in a given region functioning as interchangers between modes of transport. In the case of ports, between maritime and surface modes, and for airports, between air and surface modes.

Ports and airports industries are complex and *multi-product* enterprises. They produce services for vessels and aircraft, for ship-liners and airlines, for cargo and for passengers, though production even differs inside a given type of service. For instance, the productive process of containers unloading is very different from the unloading of bulk commodities or general cargo in terms of technology or productivity. In the case of airports it is very different to handle passengers instead of cargo.

There are two other basic characteristics that featured the organisation of activities at ports and airports. The infrastructures where the activities are developed (berths, docks, runways, terminals, storing surfaces, etc) have quite a *high construction costs* and are *long lasting elements*, what implies the need of a rigorous investment planning for this type of transport infrastructures. In addition there is the problem of *indivisibilities*, this is, berths and runways size, for instance, can not be continuously increased, instead, the construction ought to be made with a given dimension and for a certain production volume.

In order to analyse the operation of ports and airports it is advisable to distinguish among the provision of infrastructure, the services and activities that are carried out at them, and the organisation and coordination work that it is usually done by an authority of public nature. Hence, besides provision of infrastructure, there are also a great variety of services that are offered by a group of agents that act inside and outside ports and airports areas. Those services refer to the whole set of activities related to the connection of the user with the port or airport, starting with the approaching of vessels or aircraft to land till they finalise its relationship with the port or airport, and going, in the interim, through the services provided to vessels, planes, passengers, crews and commodities (De Rus et al, 1994 and 1996).

The diversity of activities developed inside ports and airports areas make necessary the existence of an agent that would coordinate services. In most countries such a task is carried out by an institution known as port or airport authority. In general the authorities are of public nature (either local, regional or central government), though it is also possible to find instances of authorities of pure private nature. This public feature does not necessarily implies that services would be operated by the public sector. Worldwide two types of organisational models according to the degree of intervention of the authority can be distinguished:

- The infrastructure is owned by the authority (public or private) that manages it, whilst services are operated by private firms that in addition are also the owners of assets constituting the superstructure (buildings,..) and any other assets needed for the production of services (cranes, transport elements,...). Examples of this type of

organisation for ports are Buenos Aires (Argentine) and Rotterdam (The Netherlands), and in general is the most frequent type of organisation for bigger ports. There are other cases in which the authority also owns and manages the superstructure and equipment, though as in the previous case, the private sector provides services by using assets under a concession or franchise agreement. Instances of this category for ports are Antwerp (Belgium) and Seattle (United States). In airports the distinction between infrastructure and superstructure does not make as much sense as in ports, and hence therefore this type of organisation at airports corresponds with a situation in which the authority owns and manages the infrastructure, whilst private operators may provide under a concession or rent agreement, almost any airport service. For airports, one example of this type of organisational model is given by airports at United States where a great deal of activities are contracted out to the private sector. However most airports around the world might be fitted inside this model, though the degree of private participation varies from one country to another.

- The authority (public or private) is the owner of the infrastructure and responsible for operating all services. Traditionally the port of Singapore have been considered as a clear instance of such a type of organisation (nevertheless the introduction of private participation is foreseen). In this case the authority carries out the handling of cargo, owns the harbour installations and other assets as gantry cranes. In airports this model would corresponds with a case in which the authority carries out all the activities, even offering commercial services itself and not resorting to concession instruments. However, such a type of organisation is very unlikely at airports, actually, even at airports with a high degree of public intervention, it is usual that commercial services would be provided by private firms under a concession contract.¹

At first, the main duty of ports and airports authorities would be to provide infrastructure and coordinate services, however, in many countries where the figure of an industry regulator does not exist, such institution usually assume other task as investments planning and financing and design and implementation of the pricing regulatory framework.²

3. TRADITIONAL VIEW OF THE ECONOMIC STRUCTURE

Traditionally, ports and airports have been considered as strategic infrastructures from both, the military and the commercial point of view. Such a feature was used to support their public sector property that was also supposed to finance all investments. Both were considered public utilities. In welfare terms, the benefits to society stemming from the operation of these services would always compensate for eventual financial losses, and would thus justify corresponding subsidies. In addition, there was the belief that it was more adequate to provide services in an integrated manner, being a public and integrated monopoly the best organisational model. Individual government regulation is almost absent in this context. Being public monopolies already means interference, making it unnecessary to have economic regulation aimed at greater efficiency.

As a consequence of this type of economic structure, main problem arising at ports and airports were common to other publicly managed industries. Most typical problems associated with this type of organisation are similar around the world: high fares, long waiting times, excessive labour, strong equipment investment needs and, in many times however, excess of capacity. This situation worsens when is accompanied by public sector financial difficulties, that can not cope with needed investments in order to convert port and airports sectors into competitive business.

In summary, port and airport infrastructures have been traditionally built, maintained and directly operated by the public sector. Nevertheless, when governments start worrying about the burden of airport financing and the lack of efficiency, the traditional model appears to be unsustainable. Nowadays there is an strong trend towards revision of this type of organisational model.

4. THE ARGUMENTS SUPPORTING THE REFORM

From an economic point of view, ports and airports are organisations that do not necessarily have to be operated by the public sector, on the contrary, they could be managed according to market forces by the private sector. Thompson and Budin (1997),

identify several reasons that in general have promoted private participation through concessions in the transport sector. First of all, private operators are able to provide services at a lower cost for the economy than the public sector due to efficiency gains. Second, if private participation is allowed, the public sector could apply scarce resources to other more priority areas. Finally, the private sector usually is more competent for discovering new business opportunities and more flexible to operate at competitive markets.

From a more general approach, there are several other reasons that give rise to reforms, standing out the fiscal crisis at many developing economies that are unable to face ports and airports investment needs. Therefore, restricting the role of the public sector seems necessary. Besides, developments at air and maritime transport have propitiated demand increases in port and airport services, and at the same time, transformations of the demand structure, motivated by increases in aircraft and vessels size, have been occurring. On one side, these influence investment, as there appears the need of infrastructure adjustment to the new trends; but, on the other side, they also affect service productivity that would have to be increased if more competitive ports and airports are aimed.

However, the application of the privatization concept in ports and airports may be misleading. First of all, what is a privatized port or airport? If one understand by that a port or airport in which the private sector starts operations after a period of public administration, then the range of possibilities for private sector involvement is really wide. At least as wide as the set of activities that take place inside them. Besides, if we distinguish between assets property and management the playing field is still wider. Therefore a privatized port or airport is not necessarily one in which the property and operations are in public hands, actually this is one of the possible options, though only one among many others.

5. DESCRIPTION OF ACTIVITIES

The categorisation of ports and airports activities is a key starting point for the application of the privatization concept. Tables 1 and 3 provide a description of main activities carried out at them.

Description of port activities³

First, the *provision of infrastructure* services have been traditionally operated by port authorities. There are two types of customer requiring infrastructure services: vessels that utilize berths and all the necessary infrastructure to get into the port and that pay for it corresponding fares to the authority, and port operators that also make use of port infrastructure and pay a canon to the authority.

There is also a group of services related to *berthing*, which include pilotage, towing and tying. All these services can be directly provided by port authorities, or they can be offered by private firms. Pilotage is defined as those operations required for a ship to enter and exit a port safely, and it usually implies the presence in the vessel's bridge (or at least a contact by radio) of an expert with sufficient knowledge of the zone to avoid risks. Pilots can be independent private agents in some ports, licensed by the port authority, while in other cases they are public employees. Towage is the operation of moving a ship using small powerful boats (named tugs) to steer it more easily. Again, it is possible to have private firms providing services for these operations, while in other ports tugs and their operators are directly hired by the port authority.

One of the more important services provided to cargo ships is what is generically labeled as *cargo handling*. This encompasses all activities related to the movement of cargo from/to ships and across port facilities. There is a historic separation between the operations of moving goods from ship's side until they are safely stored within the vessel (*stevedoring*), and those movements from berth to ship's side (*loading*), as a result of these operations traditionally being performed by different workers. Today, however, there are specialized firms that provide all these cargo handling services, using equipment such as cranes and surface transport elements.

The process of cargo handling varies according to the type of goods involved. There is a trend toward the specialization of firms according to the type of cargo, since the equipment required can then be specially designed to be highly cost-efficient. Thus, specialization leads to the formation of *terminals*, defined as specialized berths where all operations are mainly concentrated on a given type of cargo. Container terminals constitute the best example of this trend, since the handling of containers requires large gantry cranes, and land storage is relatively easy with adequate trucks and lifts, but it is highly space-consuming. All these factors make it more convenient for a firm to have a specially designed berth in order to handle containers more efficiently than general cargo berths.

Of the total cost involved in moving goods through a seaport, cargo handling charges are the most important (between 70% and 90% of total cost, approximately, depending on the type of goods). Therefore, this is one of the services that must be supervised more closely by a regulator in order to ensure cost-efficient port operations.

Another type of service demanded by port users are those related to administrative paperwork and permits (sanitary certificates, import/export documents, taxes, etc). These are usually performed by specialized agents or *consignees*, who are hired by shipping companies to arrange in advance the paperwork and all matters related to the use of port facilities by a ship. Even before a ship calls at a port, consignees start working to arrange that all services required (handling, repairs, supplies, etc) are contracted for the ship and performed in the shortest feasible period.

It is essential for a modern port to have systems to minimize the burden of paperwork for port users, since delays originating in inefficiency in administrative procedures result in large economic losses to shippers, who do not receive their goods on expected dates and thus have to alter their productive plans, and to shipping companies, which have to keep their ships in ports for longer than necessary. In the European Union, there are some guidelines established to promote ports' investments in developing electronic data interchange systems (EDI). These systems are aimed at speeding up administrative paperwork and reducing waiting times for ships and land transport modes (trucks, railways) that deliver goods to/from ports (European Commission, 1997).

Finally, there is a series of other ancillary services performed by different agents and firms, working within or even outside the port area. In this group, all supplies to ships must be included, of which fuel and water are probably the most important. There are also services to crew members (medical, etc), and general common services such as cleaning, refuse collection, safety and the like. Some ports can also offer repair facilities to ships, which may involve the use of some special infrastructures.

In summary, there are many different services offered by a port. These services can be performed by a combination of public and private initiatives, and there are several models of ports indicating how private participation is introduced. From the regulatory point of view, the provision of infrastructure and cargo handling are the more relevant services, since efficiency in seaports is dependent on these two services. Other services can be provided by private firms working in more or less competitive conditions. The need for regulation is, therefore, not so strong for them.

Table 1. Classification of Port Activities.

Infrastructure Provision	Berthing Services	Cargo Handling	Consignees	Ancillary Services
1. Ships 2. Port operators	1. Pilotage 2. Towing 3. Tying	1. Stevedoring 2. Terminals 3. Storage 4. Freezing (fish, others)	1. Administrative paperwork for ships and cargo 2. Permits (sanitary, customs, etc.) 3. Service hiring	1. Supplies 2. Repairs 3. Cleaning, refuse collection 4. Safety and security

Historically, the private initiative have been present at ports by carrying services through licences, concessions or permits. However, the lack of competition led to private monopoly situations guaranteed by permits to operate services for a long period of time. Table 2 shows possibilities for the introduction of competition in port activities. There may be till three competition fields. First of all if there is competition among ports, services would try to be as much competitive as possible in order to get traffic. When this option is not feasible, port size determines the level of competition inside each type of service. For

example, there may be several terminals competing among them inside the same port. When the port small size does not allow such alternative it is the moment to introduce competition for the right to serve the market. Table 2 shows that, in the case of infrastructure provision, competition among ports is the only chance to include competition in the market given the natural monopoly feature that appears for this type of infrastructure.

Table 2. Scope of Competition in Port Services

Port Services	Is it feasible to introduce competition?
Infrastructure provision <ul style="list-style-type: none"> • Ships • Port operators 	Usually operated by the port authority Unlikely Only when there is competition among ports
Berthing services: <ul style="list-style-type: none"> • Pilotage • Towing • Tying 	Depends on market size Competition for the market for small ports Competition in the market for big ports
Cargo handling: <ul style="list-style-type: none"> • Stevedoring • Terminals • Storage • Freezing (fish, others) 	Depends on type of service <ul style="list-style-type: none"> • Stevedoring: Competition in the market is feasible • Terminals: Competition among ports Competition among terminal inside the same port Competition for a unique terminal • Others Similar
Consignees: <ul style="list-style-type: none"> • Administrative paperwork for ships and cargo • Permits (sanitary, customs, etc) • Service hiring 	Yes
Ancillary services: <ul style="list-style-type: none"> • Supplies • Repairs • Cleaning, refuse collection • Safety and security 	Yes

Description of airport services⁴

The activities carried out at airports may be classified into three distinct groups: essential *operational* services and facilities, *handling* services, and *commercial* activities (Doganis, 1992). The first two are commonly referred to as *aeronautical services*, while the latter are considered *non-aeronautical*.

Essential operational services include the air traffic control system, meteorological services, telecommunications, police and security, fire, ambulance and first aid services, and runways, aprons, taxiways, grounds and building maintenance. These activities determine the safety of airport operations, and hence, are considered essential to the airport business. Handling services refer to a great variety of activities. We can distinguish between those that are directly related to the aircraft (ground and ramp handling), such as cleaning, providing power and fuel, and loading and unloading luggage and freight; and those that are traffic related (traffic handling), such as processing passengers, baggage and freight through the terminal building. Finally, commercial services involve a large variety of different activities that may either be located at the terminal building or around the airport. Duty free shops and other retail shopping, restaurants and bars, leisure services, hotel accommodations, banks, car rental and parking services, and conference and communication facilities are examples of the myriad of activities that are included in the non-aeronautical set of airport operations.

Nevertheless, the classifications in Table 3 are not applicable to all airport activities. Sometimes the criteria that allow one type of service to be separated from another become blurred. Aeronautical or airside activities focus on the operation of aircraft and the movement of passengers and freight; while the non-aeronautical or landside activities are connected to commercial operations that occur in the terminal and on airport land, usually under a concession contract. Any concession that relates to aircraft or traffic handling would share some features with both aeronautical and non-aeronautical services. Fuel concessions and passenger and freight handling, when provided by an airport agent, are examples of activities that would not fit into the above table. Therefore, the classifications shown in Table 3 should be regarded as tentative.

Table 3. Classification of Airport Activities

Aeronautical or	Airside services	Non aeronautical or landside services
Operational	Handling	Commercial
1. Air traffic control 2. Meteorological services 3. Telecommunication 4. Police and security 5. Fire, ambulance and first aid services 6. Runway, apron and taxiway maintenance	1. Aircraft cleaning 2. Provision of power and fuel 3. Luggage and freight loading and unloading 4. Processing of passengers, baggage and freight 5. Catering	1. Duty free shops 2. Other retailing shopping 3. Restaurants and bars 4. Leisure services 5. Hotel accommodation 6. Banks 7. Car rental and parking 8. Conference and communication facilities

It has been common to have commercial activities being operated by private firms under a concession or rent contract. However the introduction of the private sector inside aeronautical activities is more a novelty. For handling services private participation is better known, though relatively recent for traffic handling. Regarding operational services we find that empirical evidence of private participation is really rare, though it deserves to be considered.

Operational services have been considered as the airport “core”. They are essential activities with important implications on safety. Bearing this in mind, can the private initiative successfully operate them?. Would not be the case that the searching of profits would deteriorate safety standards?. The air traffic control (ATC) has usually been left out of privatization schemes and remained under government control. Nevertheless, this trend is changing. For instance, the ATC in New Zealand has been corporatized and is operated by a limited liability company with two shareholders, the Ministry of Finance and the Ministry of State-Owned Enterprises. The Canadian government went even further in 1996, selling its ATC to a private operator, Nav Canada, which is subject to an economic regulatory regime. At the moment the British Government is also considering the privatization of this service. Most ATC systems, however, have not been privatized because of the fear that commercial pressures could compromise safety standards. This fear was also expressed by opponents of airline deregulation. In this situation, there are two possible views (Chalk, 1993), the *market-failure* view and the *market-response* view.

According to the former, privatized airlines or ATC private operators face negative financial and safety incentives, suggesting that they could be inclined to reduce their safety expenses in order to increase profits. The second view suggests that since reduced safety can be observed in the form of accidents, consumers will use this as an indicator of an operator's level of safety, therefore penalizing negligent firms, possibly forcing them to leave the industry. For the airline industry, there is enough evidence to support both views (Rose, 1990 and Borenstein and Zimmerman, 1988). The actual industry safety levels are influenced by both the market-failure and market-response views, indicating that safety regulation is necessary, although in practice, it has been imperfect and complemented by market mechanisms. That experience should be taken into account when introducing private participation in ATC systems. The case of El Dorado airport in Bogota (Colombia), in which a concession was applied for the construction and operation of a second runway illustrates the possibility for introduction of the private sector in the construction, maintenance and operation of runway systems.

In the strict sense, one airport would not be subject to competition until another nearby airport begins to compete for traffic.⁵ However, if one considers that the services carried out at airports are quite numerous and differ in nature, perhaps there is some other scope for the introduction of competitive forces. This is competition for the right to serve the market.

As shown in Table 4, most airport activities, with the exception of operational services, may be subject to competitive forces, at least in the form of competition for the market. Hence, if subcontracting takes place, any concern regarding the exploitation of monopoly power should mainly regard operational activities. This is the reason why most regulatory provisions affecting airport charges concentrate on the operational side of activities. In fact, most cases of airport pricing regulation, either discretionary or contract regulation, principally aim to control operational charges.

Looking more closely at handling and commercial activities, the question arises whether the introduction of competition for the market will be sufficient to reduce monopoly power, or should some regulatory mechanism be in place? Let us assume that an airport authority concerned with maximizing profit decides to concession a given facility or

service.⁶ It may award the concession to one or to several competitive operators. For instance, it may allow only one handling agent to operate the whole airport, in which case the monopoly reproduces itself; or it may allow several competing agents to serve the airport. Alternatively, it may allow only one or several restaurant operators to cater the whole airport. In this way, a regulator also needs to worry about these aspects of airport operations, even if they represent only a small part of airport revenues.

Table 4. Scope of Competition in Airport Services

	Competition for the market	
	Feasible	Desirable
Operational		
Air traffic control*	YES	?
Meteorological services	?	?
Telecommunication	YES	?
Police and security	YES	?
Fire, ambulance and first aid	YES	?
Runway, apron and taxiway maintenance	YES	YES
Handling		
Aircraft cleaning	YES	YES
Provision of power and fuel	YES	YES
Luggage and freight loading and unloading	YES	YES
Processing of passengers, baggage and freight	YES	YES
Commercial		
Duty free shops	YES	YES
Other retailing shopping	YES	YES
Restaurants and bars	YES	YES
Leisure services	YES	YES
Hotel accommodation	YES	YES
Banks	YES	YES
Car rental and parking	YES	YES
Conference and communication facilities	YES	YES

*:The ATC may be subject to other forms of private participation.

6. THE NEW TRENDS

The introduction of private sector participation appears as the most appealing alternative in order to solve port and airport problems and to develop successfully their activity in a competitive environment. Jointly with developing economies financial needs, the change in orientation of the European Union policy, in terms of elimination of subsidies in both sectors, have given rise to a worldwide trend. Such a trend emphasises that ports and airports are organisations for which public authorities can retain property avoiding the risk of monopolisation of essential assets by private firms, though it might hand it over to the private sector that would carry out operations, investments, improvements and maintenance.

The traditional model is gradually transformed into an organisation in which the public sector keeps carrying organisational and coordination works, whilst private operators are responsible for provision of services and, in many cases, for infrastructure and equipment investments. More specifically, it may be noticed a higher participation of private funds in construction and operation of infrastructure elements through concession contracts (see Table 5). Public financing is considered as a non-realistic option.

With implementation of concession contracts private operators are motivated to invest in construction and maintenance, however, and in order to avoid the exertion of anti-competitive practices, there is also the need to regulate the utilisation of port and airport assets. Obviously, private initiative participation in the development of new infrastructure, and in many cases the subsequent operation, is quite different from the simple operation of activities described at Tables 1 and 3. However, both alternatives share the need of regulation. In this sense, the government has to assume a new role, it must become an efficient regulator and leave behind its past as an inefficient operator. Correct design of concession contracts appears as a key element for ports and airports at present.

Table 5 shows number of projects with private participation at port and airports during the last fifteen years. It is at Latin American countries where most projects are related to ports mainly due to infrastructure deterioration. In the rest of the world airport

projects are more numerous as a result of the spectacular increase in air transport and the taking off of the tourism industry.

Table 5. Transport Projects by Region (cumulative between 1985 and Oct. 1999)

	Airports		Ports	
	Number of Projects	Costs (US\$ million)	Number of Projects	Costs (US\$ million)
North America				
Total Planned	33	12238	5	1624
Construction started as of 10/99	10	4112	1	309
Latin America				
Total Planned	30	5949	46	5183
Construction started as of 10/99	2	347	11	774
Europe				
Total Planned	26	13165	12	1119
Construction started as of 10/99	6	3820	4	94
Asia				
Total Planned	59	69996	46	19245
Construction started as of 10/99	17	29261	11	3306
Total				
Total Planned	165	103648	119	31895
Construction started as of 10/99	38	37798	27	4483

Source: Public Works Financing (1999)

7. INSTRUMENTS FOR THE REFORM

In general main instrument for reforming port and airport are presented at Table 6. First of all, it shows that in order to clarify the new role of private operators in traditionally public sectors, a reform of the legal framework is necessary. The establishment of an adequate framework is essential to favour the introduction of private money in a transparent fiscal and legal environment.

Centralisation in public hands of business units is another feature of traditional organisation systems. Decentralisation aims autonomous and self-financing units, in a way that the new governmental role would be to supervise and regulate.

For the introduction of private participation to be effective it is important to disintegrate activities. At a first stage one should distinguish between infrastructure provision and services that are carried out at them. Secondly, it is important to select the type of activities where the introduction of competition is feasible and those with public utility aspects. Once such a clarifications have been made, what would be dependent on the market size, the process of introducing competition is ready to start. If competition among ports or airports is not feasible it is essential to analyse if competition in the market for some service can take place, for instance several container terminals competing in the same ports or several handling operators competing at the same airport. If the market dimension does not allow it, hence competition for the market through a public bidding process is the last choice.

Finally, the set of contract available for regulating the relationship between the public and the private sector is numerous. From the simple licence or permit to operate a service till more complex contract the require infrastructure investments. Concessions are perhaps the most well known contracts, and include a wide range of possibilities (BOT, BOO, BOOT, etc.), though the key important element is that at the end of the concession period facilities return to public sector hands.

Table 6. Instruments for Ports and Airports Reforms

- | |
|--|
| <ul style="list-style-type: none"> • Legal framework reform • Decentralisation of business units • Sector disintegration. Vertical and/or horizontal <ul style="list-style-type: none"> - Services versus infrastructure - Competitive versus monopolistic • Introduction of competition <ul style="list-style-type: none"> - In the market versus for the market versus among markets - Deregulation versus re-regulation • Introduction of private participation <ul style="list-style-type: none"> - Licences, permits, concessions...for services - BOTs, BOOs... for new projects |
|--|

8. CONCLUSIONS

Ports and airports share important common features. They are both non-network transport infrastructure and complex and multi-product enterprises where a set of essential activities and a group of complementary services may be separated. Private participation in both types of transport infrastructure have been present during the past, though the view of ports and airport as strategic infrastructures limited its expansion and the chance to take advantage of its ability to obtain efficiency gains. It is only at present when such a participation have been considered as a way of getting away of public sector financing problems and lack of efficiency.

Classification of activities is a useful tool in order to understand the potential of private participation and the scope for the introduction of competitive forces as well. In the strict sense there would be competition only if two ports or airports compete to get traffic. However disintegration of activities opens up new alternatives for the private sector. Among these concessions stand out. Nowadays, the private sector not only participate at ports and airports by carrying out some services inside them. The private sector may also build, improve and expand the infrastructure. In a context where public investments transport infrastructures are limited or out of consideration , the alternative of concessions contracts in which the public sector retain assets property is good news. However, if public monopolies are being turned into private monopolies and if consumers interest are to be protected, the government must assume a new role, the role of an efficient regulator.

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¹ At ports where the authority is of private nature (mainly small ports) , there is usually only one firm which is the sole responsible of the port as a unit, operating all services.

² If public monopolies are being turned into private monopolies, and if consumers’ interests are to be protected, some regulatory provisions are required. At ports and airports regulatory controls are mainly established upon fares and levels of service quality.

³ See Trujillo and Nombela, 1999.

⁴ See Betancor and Rendeiro ,1999.

⁵ A special case would be one airport with several terminals that are run separately.

⁶ Of course, it might decide just the opposite. In such a case the exertion of monopoly right is clear.