

## **APPENDIX**

## MAJOR CONTAINER TERMINAL OPERATORS AND CONCESSIONS

The last ten years have seen a dramatic increase in private operation of container terminals. This has been accomplished primarily through concession agreements with special-purpose companies, which include significant foreign participation. A relatively small number of international companies have dominated these concessions.<sup>1</sup> They include both terminal operators and shipping lines.

### A Terminal Operators

There are five major terminal operators and these tend to concentrate on container terminal concessions. These companies and the terminals, which they are involved, are summarized in Table A1.1. The largest, in terms of volume, is Hutchinson Port Holdings (HPH) which handled 11 million twenty-foot equivalent units (TEU) in 1997. HPH is a subsidiary of Hutchinson Whampoa, a large property, trading and telecoms company, which produced US\$1 .5 billion profits on revenues of US\$4.7 billion in 1997. Their port operations were reported to generate US\$306 million of their profits and US\$1 .044 billion of their revenues. HPH began as the operator of Hong Kong International Terminals Inc. (HIT) which currently operates 12 berths with a volume in excess of 6.5 million TEU. The sites for these terminals are leased from the Harbor Board for a 100-year period, with the terminal operator financing both the civil works, including the reclamation of the site and the equipment. HPH also owns one of Hong Kong, China's largest midstream container-handling companies and has a joint-venture operation with Cosco shipping.

HPH's major acquisition over the last decade has been the Port of Felixstowe, which it acquired from P&O Ferries in 1991. It owns this port on a freehold basis and has a similar relationship for its new terminal in Freeport in the Bahamas. The former currently handles in excess of 2.25 million TEU and has done much to revitalize the container trans-shipment business in the United Kingdom (UK). The latter handled close to 0.5 million TEU in its first full year of operation and has led to the re-routing of container services on the East Coast of the United States (US) and Latin America by creating a central hub outside the Caribbean. HPH has also obtained the concession to operate the container terminals at both ends of the Panama Canal.

In Asia, HPH has also expanded aggressively in the People's Republic of China (PRC), most notably with its extensive operations in Shanghai where it enjoys a near monopoly position in joint venture with the Port Authority.

In selecting concessions, HIT looks for multiple-berth facilities where the Government provides adequate hinterland access and the market is already well-defined. While it prefers complete ownership, it has been involved in a number of joint ventures but seeks a major position in these companies. Because of the high cost of human resources, HIT is not interested in small ports and terminals. HIT finances most of its expansion through project finance but financed the terminals in the Delta ports in PRC with a US\$275 million bond issue.

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<sup>1</sup> There is a similar concentration of terminal operators for bulk cargos such as petroleum, grains and minerals but this is linked with ownership of the cargo.

P&O Ports of Australia is an off-shoot of P&O Shipping. Its initial experience in terminal operations was providing stevedoring services in Australia and operating the Port of Felixstowe. Its subsequent international expansion began with its participation in Bangkok Modern Terminals in 1988. There followed its participation in ATI terminal in Manila and the tortuous but eventually successful bid for a terminal in Buenos Aires.<sup>2</sup> Since that time, its focus has been primarily on concessions in the Far East. There were several unsuccessful attempts in PRC and Viet Nam. More recently it has expanded into South Asia with concessions in Colombo, Nhava Sheva, and Port Qasim.<sup>3</sup> It has also taken a significant stake in the company, which operates facilities in Genoa and Cagliari in Sardinia. P&O shipping also has large stakes in joint venture container terminals at Tilbury and Southampton. In Egypt, P&O has taken a position in the concession for the container terminal in Port Said on the north end of the Canal.

International Container Terminal Services, Inc (ICTSI) began its port operations in Manila with the concession for Manila Container Terminal, which it took over in the late 1980's. Since then, it has expanded aggressively winning concessions in Buenos Aires and Vera Cruz, Mexico. It has joined with American Presidents Line shipping in a concession in Karachi and won the concession for Dammam in Saudi Arabia. This concession has been very successful because shortly after winning the bid, the terminal operator was able to convince the Government to allow it to handle trans-shipment cargo for Bahrain and Doha, thereby producing a substantial increase in volume. Most recently, ICTSI obtained a 30-year concession to operate the port of Rosario in Argentina located on the Parana River upriver from Buenos Aires. This is primarily a bulk port but with the potential for development to handle containers. The agreement calls for an investment of US\$80 million over the next ten years to modernize the port's facilities. ICTSI has tended to look for positions, which offer a monopoly position and has won many of its concessions by submitting offers well above its competitors (Vera Cruz, Ensanada, Subic). It will also attempt to reduce the competition by seeking to buy out competitors (e.g., Buenos Aires)

Stevedoring Services of America is a US stevedoring company which operates a number of terminals in the US. Since 1992, it has expanded its operations to Latin America and Africa through its International Seaports subsidiary. So far, it has had limited success in its efforts to enter the Asian market but has taken on a concession in Chittagong. Its concession in Manzanillo, Panama, together with a local car importer, has proved immensely profitable, handling over 0.5 million TEU in its first year of operation. It has also established a joint venture in the port of Manzanillo Mexico with TMM, the national shipping lines. It involves itself in a full range of stevedoring activities in addition to container operations.

The Port of Singapore (PSA) has entered aggressively into the business of container terminal concessions. With the corporatization of the PSA, it has been able to invest overseas through a separate subsidiary headed by its former Chief Executive Officer. The company has been most successful in PRC, notably the port of Dalian where it achieved a throughput of about 0.5 million TEU in the first year of operation (jointly with Maersk). Singapore has recently entered the Indian market by obtaining a 30-year concession to operate the container terminal in Tuticorin and to procure ship-to-shore and yard gantry cranes for the terminal. PSA has also established a distribution park activity in Chennai.

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<sup>2</sup> It has since substantially reduced its position in this concession following a significant loss.

<sup>3</sup> The first is operational, the second is about to become operational, the last is still under negotiation.

The PSA has used its considerable cash reserves and its annual surplus of nearly US\$0.5 billion to catch up after a relatively late entry into the international market. To do this it has relied, in part, on taking positions in other companies. For example, PSA took over Sinport in Italy in order to obtain control of terminals in Genoa, Venice, Livorno, and Livitavecca.

The company has also been willing to bid high for projects and to take on concessions that others have rejected in order to establish itself in the market place. For example, in Aden it has entered into a 20-year concession for the new container terminal facility together with a local investment company after ICTSI and others had abandoned negotiations. As part of this agreement, PSA will provide 49 percent of the equity, much of it as cash. It will also have the engineering contract for construction of the new terminal and a 20-year management contract. Recently, the company has issued a US\$250 million floating rate note to finance its overseas expansion.

A second tier of terminal operators has appeared on the scene in the last few years, including the major terminal operators in Rotterdam, Hamburg, Bremen, Antwerp, and Dubai. Europe Combined Terminals in Rotterdam has taken on concessions including the port of Trieste and a barge port in Duisburg, Germany. The major terminal operator in Bremen has merged with Eurokai in order to be in a better position to take on concessions. In Amsterdam, the US stevedoring company Ceres has acquired a major container terminal operation. It is now seeking other overseas concessions following its joint venture agreement with the Port of Odessa to operate its container terminal. Dubai Ports Authority has recently taken on the port concession for the new port near Beirut.

## **B. Shipping Lines**

A number of shipping lines decided to invest in dedicated terminals. The leaders in this approach were US carriers Sealand and Matson. Sealand operates about 15 terminals most notably the one in Hong Kong, China where it provides service to itself and other carriers. It operates a number of terminals on both coasts of the United States. It has recently established trans-shipment terminals in the Mediterranean at Algeciras and in the Gulf at Salalah, Oman. The latter was developed largely with government funding and will be operated as a joint venture with Maersk and Omani shareholders. They are expected to move close to 0.5 million TEUs of traffic during the first year of operation. The Omani government is now seeking to develop a complementary free trade zone along the lines of Jebel Ali.

Maersk lines has an extensive network of terminals in Kaohsiung, Yokohama, Algeciras, and on both US coasts. These facilities will now be integrated with those of Sealand to serve their east-west services. Maersk is also seeking to establish a terminal in Qingdao in combination with the Hong Kong, China terminal operator, Modern Terminal Limited. Furthermore, it has joined with PSA in the operation of Dalian.

**Table A1.1: Major Terminal Operators and Their Port Involvement**

<b>Operator</b>	<b>Ports</b>
Hutchinson Port Holdings, Hong Kong, China	Hong Kong, China, Felixstowe, Thamesport, Harwich, Freeport, Balboa and Cristobal, Shanghai, Xiamen, Yantian, Shantou. Nanhai, Jiangmen, Delta Ports (Gaolan, Jiuzhou, Shanshan, Zhuchi, Gaosha), River terminal, Rangoon
P&O Terminals, Australia	Sydney, Melbourne, Brisbane, Fremantle, Southampton, Tilbury, Genoa, Cagliari, Nhava Sheva, Qasim, Colombo, Bangkok (Bangkok Modern Terminals), Laem Chabang, Shekou, Manila, Buenos Aires, Vostochny (with Sealand), Maputo
Port of Singapore Corporation, Singapore	Aden, Genoa, Dalian, Fuzhou, Tuticorin, Singapore, Nandong, Venice.
ICTSI, Philippines	Manila, Karachi, Buenos Aires, Vera Cruz, Ensanada, Dammam, Rosario.
Stevedoring Services of	Manzanillo (Panama), Manzanillo (Mexico), Various US ports including terminals America in Seattle (with Cosco), Tacoma, Oakland, San Francisco, Los Angeles, Charleston, Savannah, Jacksonville.
Europe Combined Terminals	Rotterdam, Trieste, Duisburg (barges).
Hessanatie	Antwerp, Zeebrugge.
Eckelmann Eurokai	Hamburg, Gioia Tauro and La Spezia (together with Contship).
Ceres Terminal	Montreal, Halifax, Nova Scotia, Baltimore, Norfolk, Charleston, Savannah, Houston, New Orleans, Odessa, Amsterdam.
Sealand	Hong Kong, China, Kaohsiung, Yokohama, Rotterdam, Algeciras, Long Beach, Oakland, New York, Baltimore, Tacoma, Rio Haina, Adelaide, Salalah, Tianjin (pending).
Maersk	Salalah (together with Sealand), Dalian (together with Port of Singapore Authority), Ylantin, Qingdao, New York, Oakland, Long Beach, Montevideo
Evergreen	Los Angeles, Charleston, Tacoma, Coco Solo (Panama), Kaohsiung, Laem Chabang, Taranto.
Cosco	Participation in various PAC ports with Hutchinson and P&O Ports, Naples, Long Beach.
Neptune Orient Lines/ American Presidents Line	Karachi, Oakland, Seattle, Los Angeles, Kaohsiung, Yokohama, Kobe, Ho Chi Minh.
Contship Italia Assoc. British Ports	Le Spezia, Savona. Cardiff, Grimsby, Immingham, Southampton, Tilbury.
Hamburger Hat- und Lagerhaus-AG	Hamburg, Buenos Aires.

## **CURRENT ROLE OF PRIVATE SECTOR**

The private sector's involvement in port operations has always been linked with the activities of merchant shipping. The responsibility for providing services both to the ship and its cargo has been assumed by the vessel's agent, the cargo owner or the port. The first two will undertake this responsibility by contracting services directly from the private sector where this is permitted or from the port where this is required or more convenient. As public ports have reduced their responsibility for operations, a natural division of responsibility has evolved between not only the public sector and the private sector but also between the port and the government as shown in Figure A2.1. Relatively few activities remain exclusively with the public sector although a number of activities can be performed by either the public or private sector. The major activities that should be undertaken entirely by the private sector are the provision of cargo-handling labor and equipment and the management of cargo terminals. The vessel services can be provided by any of the three. The port retains responsibility for planning and technical regulation. The government retains responsibility for regulation of customs, inspection of vessels, and provision of landside access to the port. It also has responsibility for economic regulation to the extent this is required.

### **A. Cargo-Handling Labor**

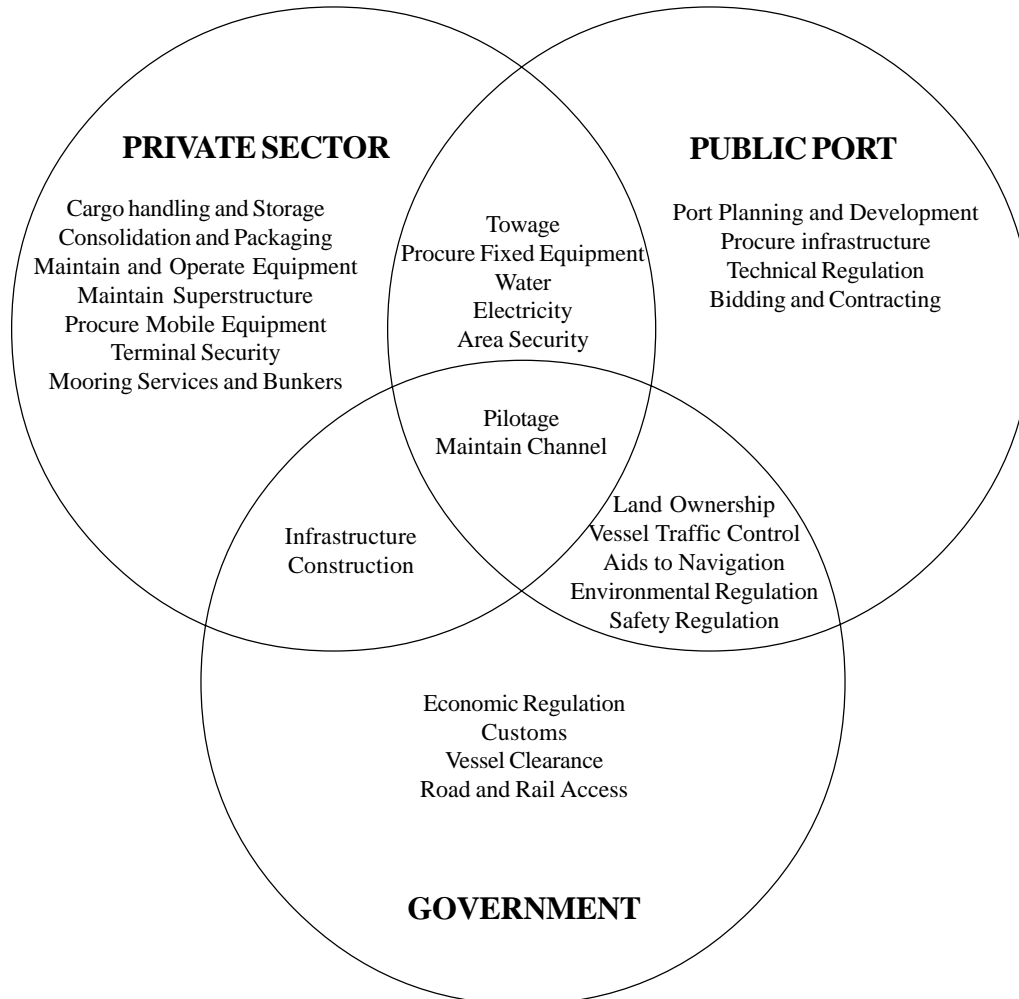
The transfer of cargo between the vessel and the apron (stevedoring) was traditionally performed by private stevedoring companies hired by the vessel. For resource ports, the vessel had responsibility for inbound cargo until the cargo was received on the apron by the consignee or his/her representative. The vessel's responsibility for outbound cargo began when it received the cargo at the apron for loading. For operating ports that provided intermediate storage for cargo, the stevedoring was performed by private labor and sometimes included the movement of the cargo between the apron and the storage. The movement between the storage and the shipper/consignee was performed by port employees or casual labor hired by the port. In the 1970's, there was a move to decasualize port labor. Wharf labor became permanent port employees and stevedores received minimum guaranteed employment. During the same period, the unitization of cargo and increased mechanization eliminated the distinction between stevedoring and wharf-handling and produced integrated gangs composed of port employees.

The first to convert to unified operations were bulk cargo terminals. The operator of the terminal was usually the cargo owner and often the charterers of the vessels. Their employees operated the equipment that transferred the cargo between the ship's hold and to storage. The next to convert were cellular container vessels where the movement of the box between the cells and the storage yard was controlled by the equipment operators who were port employees. The last to convert were breakbulk operations. The cargos were increasingly unitized or configured as neo-bulk reducing the risk of damage in the movement between the hold and the apron. With wider hatches and better handling equipment the risk was lowered to the point where the ports converted to unified gangs in order to increase the efficiency of the movement between the vessel and the storage.

The provision of labor by the private sector can be in the form of casual labor or employees of private cargo-handling companies. Casual labor is necessary where there is considerable fluctuation in the traffic from day to day or season to season. With the increase in mechanization, there was a need for a small regular workforce of skilled and semi-skilled workers. Public ports provided this workforce during the 1970's and 1980's but resistance to the changes in work rules limited improvements in productivity. In the Middle East, this problem was resolved through labor contracts under which foreign labor was brought in to handle cargo. This

was not appropriate in other countries because of issues of cost and domestic labor peace. They chose instead to bring in private cargo-handling companies to manage local labor.

**Figure A2.1: Allocation of Responsibility for Port-Related Activities**



## B. Equipment

The provision of cargo-handling equipment has changed substantially over the last 50 years. For bulk and container vessels, the use of ship's gear has declined as more efficient quayside equipment has been introduced. Self-sustaining vessels continue to serve underdeveloped ports, but are increasingly rare. For breakbulk cargo, the opposite situation has occurred. General cargo vessels are increasingly equipped with high-speed, heavy-lift cranes. Piers dotted with a multitude of three to five ton quayside cranes and multi-storied transit sheds have been replaced with open wharves and large sheds set well back from the berth. On the wharf, equipment for unitized general cargo is usually provided by the port except for the smaller mobile equipment provided by private cargo-handling companies. The fixed and mobile equipment used in containers and bulk terminals are provided by the port or a terminal operator under contract with the port.

Most of the large cargo-handling equipment owned by public ports is acquired through competitive bid,<sup>1</sup> a procedure which the multilateral development banks (MDBs) encourage. In many instances, the port will receive equipment from bilateral donors together with subsidized financing. In contrast, the private operators purchase the equipment directly from the manufacturers to ensure reliability and uniformity. They are able to negotiate a price, which is usually lower than that provided through open tender.

Equipment leases are less popular since supplier credits and MDB financing provides comparable value.<sup>2</sup> Operating leases with the supplier assuming responsibility for maintenance of the equipment are not yet common but can offer an effective solution for ports that are unable to maintain their equipment.<sup>3</sup>

### **C. Terminal Operations**

The increase in specialization of maritime shipping (dry bulk, liquid bulk, neo-bulk, containers, project cargo, reefer cargo) has led to a comparable specialization in cargo-handling services. Larger vessels and increased volumes being transported by individual shipping lines or consortia has allowed ports to increase berth throughput. This has led to a transformation of ports from wharves containing common user multi-purpose berths to a collection of special-purpose berths. The private sector continues to provide cargo-handling services for multipurpose berths but the terminalization of these berths in order to place them under private operation has become increasingly popular. This transformation lies at the heart of the current expansion of private participation in port operations.

Private operation of cargo terminals located in public ports is accomplished through various contractual agreements. Management contracts allow the port to control the use of the berths and to set the tariffs while allowing the private sector to provide more efficient supervision of operations and maintenance. However, this approach has not been popular with public ports or the private sector because it does not allow for reduction in labor or changes in work rules. This approach also has difficulties with the assignment of shared responsibility for maintenance and complementary services. The recent failure of the management contract for the container terminal in Mombasa provides a useful lesson. The private operator saw considerable opportunity for restoring operations to an efficient level but the port was first required to overhaul the gantry cranes and then to facilitate the landside clearance of containers. When the government failed to meet these obligations, the terminal operator canceled the contract. The management contracts in Jebel Ali and Jeddah were more successful, but their facilities and equipment were newer and the private sector had greater control over operations and labor.

Capital leases, in combination with an operating agreement, have been the most common mechanism for private terminal operations. They are used where facilities and major equipment are already in place and little additional investment is required. The private sector operates the terminal with far fewer constraints due to government regulation. This mechanism

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<sup>1</sup> There is also less commission for those arranging a lease rather than a sales/purchase agreement.

<sup>2</sup> Capital leases are relatively uncommon in part because there are no specific tax benefits for public ports.

<sup>3</sup> The recently acquired gantry cranes in Nhava Sheva were obtained through a lease which requires the lessor to maintain crane availability at international standards. These are well above the relatively low availability the port had been able to achieve. In Valparaiso, Chile, the handling of containers was performed for many years by a single Whirley crane operated with reasonable efficiency through an operating lease.

was used for the initial “privatization”<sup>4</sup> of container activities in Karachi, Laem Chabang, Manila, Port Kelang, Pusan, Qasim, and Surabaya.

Capital leases can be difficult to implement where there is overstaffing or difficulties with customs and land transport. This has led some ports to use concessions to create entirely new facilities.<sup>5</sup> Concessions are similar to capital leases but include a commitment by the private sector for substantial capital investment. These agreements are used not only when new terminals are being constructed but also when older facilities are being renewed or converted to special-purpose terminals. Concessions have become increasingly popular as a method of financing port investment.<sup>6</sup>

#### **D. Vessel Services**

The role of the private sector in the provision of services to the vessels varies from port-to-port. Because the overall efficiency of the port depends on providing effective vessel services, public ports often assume responsibility for these services, either directly or through outsourcing. This is frequently required in smaller ports where the demand is insufficient to attract competitive private sector services. However, where the port provides the services directly, there is a tendency for the quality to deteriorate due to poor equipment maintenance and delayed replacement, over-manning and restrictive work practices, poor coordination and lack of client orientation.

In the larger public ports, there is a growing tendency to allow open competition for vessel services. Ship repair, towage, provision of marine craft and lighters, mooring gangs, and water/garbage removal services can be performed efficiently by competing private sector companies. The collection and processing of ship wastes to meet MARPOL requirements was initially provided by the port primarily through outsourcing, but as the demand for these services increased, private companies began to compete for the provision of these services.

Pilotage has remained under public sector supervision because of the natural monopoly. Problems of high costs, restrictive practices and lack of client orientation are equally prevalent whether the pilots are government employees or professional associations of self-employed pilots.

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<sup>4</sup> The term privatization has been used inappropriately in a number of countries. In Port Kelang, the container terminal was leased by the public port to a consortium of government agencies and state-owned enterprises (SOEs). In the People’s Republic of China, the lessee is generally a joint venture which includes the port authority. In Pusan, the terminal operators are SOEs’s or joint ventures involving SOEs.

<sup>5</sup> The decisions to construct new terminals in Nhava Sheva and Colombo, rather than lease existing facilities, were intended to avoid the problem of rationalizing the existing labor force.

<sup>6</sup> In Laem Chabang, the initial five terminals were placed on the market through capital leases, but the sixth terminal was a concession. All subsequent terminals will be built through concession agreements in order to minimize port cash outflow for a rapid buildup in port capacity.

## PORT PRIVATIZATION IN INDIA AND THAILAND

The countries of India and Thailand have had similar experiences in their efforts to increase private sector participation (PSP) in the port sector. Their major ports are characterized by inefficiency, congestion, and over-staffing. As a result, the costs to the port users are high and these ports act primarily as feeder ports despite the size of the economies they serve. Container traffic is currently trans-shipped through Singapore, Colombo, and Dubai. The inefficiency of the ports, combined with problems in land transport, has meant that they have lagged in the introduction of intermodalism and improvements in logistic services.

Both countries have experienced considerable resistance to reform of the port sector. The reform that is occurring takes place not in the existing major ports but through the establishment of new public ports which do not have entrenched bureaucracies and militant unions and through the development of private ports which provide capacity that the public sector cannot finance. In both countries, the public ports are financially independent and have thereby avoided the initiatives to privatize the money-losing state-owned enterprises (SOEs). Their port sectors have generated considerable financial surpluses through a combination of under-investment and passing on their high costs for labor and administration to the port users and ultimately, the economy. Both countries have port operations that depend heavily on speed money and other forms of unofficial payment to move cargo through the port. The result is that the major ports discourage efficient transport and create a competitive disadvantage for the nation's trade.

There are several lessons to be drawn from the situation in these countries. The first is the high cost to the country from inefficient public port operations. The second is that increasing PSP is not only desirable but also inevitable and where it cannot be done directly it must be accomplished indirectly. The third is that there is considerable naivete on the part of the government and often the multilateral development banks (MDBs) about the willingness of the private sector to finance capital investment and to engage in active competition for port services.

### A. India

The Indian Shipping Act of 1908, divided the ports into: major ports under the jurisdiction of the federal government and minor ports under the jurisdiction of the state governments. The Major Port Trusts Act (MPTA) of 1963 established autonomous port trusts under the Ministry of Service Transport to operate six major ports, Calcutta, Mumbai, Chennai, Cochin, Tuticorin, and Vishakhapatnam. The number was subsequently increased to 10. Most recently, Jawaharlal Nehru Port Trust (JNPT) was added to this list. The state governments manage their ports through Maritime Boards, which have powers similar to the Major Port Trusts.

Both the Shipping Act and the MPTA permit private sector activity in the leasing and construction of port facilities but do not encourage it. In 1996, the government issued its Guidelines on Privatization, which more precisely defined the options for PSP in the Major Ports and attempted to expedite the procedures for increasing private sector involvement. The response to these initiatives has been slow.

The first major port to increase private participation in terminal operations was JNPT, because it was relatively new, had a relatively small labor force and was established under a different act. In 1994, it proposed the concession of the container terminal at Nhava Sheva. It required four years for this concession to be completed. During this period, it was decided not to

concession the existing terminal, but rather to use private sector finance to develop a new terminal.<sup>1</sup> The agreement was extended from 20 to 30 years and the license was converted to a lease. The concessionaire would construct a 600 meter extension of the existing wharf berth and equip it with six S-S gantry cranes according to specifications included in the agreement. The existing port labor would remain with JNPT and the consortium would hire directly from the marketplace. The concession was granted to Nhava Sheva International Container Terminals Ltd, a consortium of P&O Terminals (49 percent), Konsortium Perkepalan Berhad a Malaysian Logistics Group (46 percent) and DBP Port Management a Bombay stevedoring company (five percent). The investment was to be financed initially through shareholder equity but the proponents will then seek project finance from commercial lenders. Typical gearing for these types of concessions has been 1.5:1 (debt to equity). The consortium will also enjoy protection from competition until traffic reaches 90 percent of design capacity.

Following the 1994 initiative in Nhava Sheva, the Government proposed to allow private participation in other major ports in the form of leasing and creation of new assets. This would allow for 100 percent foreign equity (if approved by the Foreign Investment Promotion Board), and build-own-transfer (BOT) agreements for 30 years, with tariff revisions permitted every three years. Based on the experience in Nhava Sheva and elsewhere, the Ministry of Service Transport is now in the process of developing standard bidding documents and concession contracts. In May 1998, the government issued guidelines permitting joint ventures between the Major Port Trusts and foreign port trusts and between major and private sector controlled minor ports. These guidelines also permit the Major Port Trusts to establish joint ventures with private companies but only through a tendering process.

The Government has been slow to follow up on these initiatives. Most of the changes in the Major Ports have been incremental. For example, the Mumbai Port Trust has licensed two of its berths to the shipping lines XCL/Orient and has allowed the private sector to provide all of the container-handling equipment, except ship-to-shore gantry cranes. It is now considering private investment for the development of a chemical and coal berth. The latter is now under discussion with TATA.

Other initiatives include: a competitively bid container terminal concession in Tuticorin which was awarded to the Port of Singapore Authority; a build-own-operate-transfer concession for a coal terminal in the port of Mormugao negotiated with an equipment supplier, ABG; and a tender for the extension and operation of its container berths in Chennai which is about to be signed. Plans for private development of container terminals in Kakinada and Kandla and bulk berths in New Mangalore are underway. Feasibility studies have been prepared for all private investments but these have lacked rigor. These proposals take different approaches to the problems of labor. In Kandala, the concession would involve an existing berth and port labor whereas in Tuticorin the concessionaire could hire new labor but still use existing facilities.

Despite these initiatives, the federal government has been less effective than the state governments in increasing private sector involvement in port activities. The Maritime boards and minor ports have showed increasing interest in the development of port concessions. The sites under consideration do not require breakwaters or long access channels and thus avoid the problem of funding basic maritime infrastructure. Land access represents a significant cost for

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<sup>1</sup> The impetus for the concession was the combination of the rapidly increasing traffic and the indebtedness of the JNPT which prevented it from financing new capacity.

the new ports since most of the sites are isolated. In some cases, the proponents have agreed to construct their own access but others are relying on the state to develop the access, thereby significantly increasing the completion risk. The first state port to be concessioned to a private party was Krisnapathnam, in 1997, followed by Allewdadi in Maharashtra. The former was intended to handle coal for a large power plant. Since the power plant has not been constructed, the concession agreement has not been suspended.

The State of Gujarat has been the most aggressive in identifying potential ports. These are primarily special-purpose ports, however, two private ports, Mundra, and Pipavav, that became operational in 1997 are scheduled to handle third-party, general cargo. The former is a bulk port which its owner, Adani Exports, proposes to develop for container handling. The latter is a common-user facility to be under public-private control through a joint venture of Sea King Engineering and the Gujarat Maritime Board.

Pipavav is a four berth bulk cargo port at which containers and breakbulk cargo will be handled at one of the dry cargo berths using a Gottwald mobile crane. Negotiations originally began in 1991. Though most of the agreement has been defined, the master concession agreement is still being negotiated. This project faces two major risks. The first is the lack of a baseload traffic needed to cover the capital costs (about US\$80 million). The agreement requires that no more than half the cargo be liquid bulk but proponents are having difficulty attracting clients which handle large volumes of dry cargo.<sup>2</sup> The proponents are now trying to strike a deal with British Gas to establish an import facility with pipeline connections to the northwest. The other risk is the lack of land connections. The site lacks a road connection and the rail connection will require upgrading of 290 km of line.

Because of these risks, financing for the project remains problematic. Originally, Overseas Economic Cooperation Fund funding was to be provided for a shipwrecking facility but this has been separated from the project. The International Finance Corporation was considering financing the concession but has since backed away from the deal. The joint venture is planning to issue stock of which 49 percent is to be sold to the public. In order to encourage commercial lenders, the state government has agreed to step-in provisions and to allow subletting of the land. It has also given the proponent considerable tax incentives including a tax holiday for the first five years and a partial exclusion during the next five years. Finally, it has agreed to subordinate its claims to those of the proponent's lender.

The Adani port is a more financially sound project. It has been in planning for some three and a half years and the engineering design has included a number of foreign consultancies. The port is being developed to handle the owner's cargo which includes grain imports, liquid bulk and coal for the IPP generating stations with total capacity of up to 500 MW. Together, these will provide a substantial baseload traffic. In order to provide year round operation, the proponent will construct a floating breakwater from stationary barges.<sup>3</sup> The proponents have opted for relatively simple pier structures to minimize development costs.

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<sup>2</sup> This provision was included to prevent the port from being simply a POL facility

<sup>3</sup> This structure, although carefully engineered, has not yet been proven to be effective, however, the level of investment is limited and the port can continue to operate for 10 months in the year even if it is not effective. Thus, it would be able to serve charter vessels but not scheduled services.

Although the total cost for the port is estimated to be US\$350 million, the initial investment will be much smaller. It includes a pier for mixed use and a 52 km rail line which is estimated to cost US\$50 million. If successful, the proponent has plans for construction of a 1,100 meter wharf for container and bulk cargo. The return on the initial phase includes the savings in transport costs for the owner's cargo which are sufficient to justify the project. The proponent has already lined up US\$50 million in financing from IFCI.<sup>4</sup> The state governments will provide the land under lease, while the private sector will construct the port under a build-own-operate-transfer arrangement.

Other attempts to establish private ports have been less successful. Maharashtra State was unable to attract interest in seven minor ports (Adewadi, Dighi, Vijaydurg, Ganeshgule, Redi, Jaigad, and Anjanvel) that were put up for bid and P&O's counter proposal to develop a terminal at Vadhavan rather than Adewadi had environmental problems. Although these projects each have a development project report (appraisal report) prepared by local and international consultants, the analyses are lacking in rigor. They do not include physical data and tend to rely on optimistic and poorly justified traffic forecasts.

Efforts to establish private terminals in the major ports are expected to continue but slowly and on a piecemeal basis. Difficulties with labor and the unwillingness of the Port Trusts to cede power will ensure that this is both a lengthy and contentious process. Nevertheless, this process will continue and is likely to accelerate for several reasons. First, the large amount of port investment required, estimated at US\$11.3 billion over the current five year plan (1998-2002) and the changing priorities for shrinking federal and state budgets. Second, the gradual improvement in inland logistics with the growth of Concor rail operations and the introduction of new, more powerful tractor-tractors. Third, growth in volume which will create greater interest in direct calls and will cause greater congestion at the existing facilities. The fourth is the difficulty of providing internal funding. In the past, capital investment has been funded through loans from the federal government or from other more profitable Port Trusts. For example, the development of the bulk port of Ennore is being funded through loans from ADB and the Madras Port Trust. However, many of the ports are experiencing financial difficulties and several are in technical default.<sup>5</sup>

Future investments in private terminals and ports are likely to be constrained by the availability of funding. The lack of long-term capital markets and real interest rates of more than 10 percent will limit the financially justifiable investments to ports, which have a large baseload traffic. This implies either expansion of existing facilities, or endorsing the bulk terminals having long-term agreements with cargo owners or multi-purpose ports that offer significant savings to shipping lines and are protected from direct competition.

Corporatization of the Port Trusts is needed to limit political influence and to establish a more commercial operation. However, this will require a number of changes. First, it would require a change in the legislation establishing the Major Port Trusts. Second, it would make the ports liable for corporate tax, something they are loath to incur. Third, it would make the management legally liable for its actions while taking away its civil service protection. Fourth,

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<sup>4</sup> These are funds provided from an ADB loan on-lent for 12 years including a two years grace period at a 300 basis points premium

<sup>5</sup> At the end of 1995, the ports of Cochin, JNPT, Paradip, Calcutta, Visakhapatnam, and Cochin were technically in default on government loans.

port labor is likely to resist any change that would reduce their power.<sup>6</sup> The new port of Ennore is expected to be the first to corporatize because it does not have any of these constraints. Other major ports that might introduce corporatization, if the necessary changes were introduced into the MPTA, are JNPT, Chennai and Tuticorin.

## **B. Thailand**

The port system of Thailand is nominally under the control of the national port authority, Port Authority of Thailand (PAT). The authority operates the principal port, Klong Toey, located in Bangkok. It also has control over the new port of Laem Chabang but does not operate it. The other major seaports, Songkla and Phuket, are under the control of the Harbor Department as are most of the river ports. The Government is currently developing a broad plan for privatization of the SOEs. For the Authority, this is expected to begin with separation of the regulatory function and the operating responsibilities. The former would remain with the Government, while the latter would be transferred to separate operating companies for each of the major ports. This restructuring would require a change in the Port Act of 1951. The timetable for this transition is unclear. Meanwhile, the Ministry of Communications has commissioned a study on the reorganization of the port sector. It has not yet been released, but its preliminary recommendations are to create subsidiaries for each port and for dredging and towage rather than to corporatize the authority.

The profitability of the Port Authorities together with their entrenched bureaucracies will make them difficult agencies to reform, especially for the national government, which tends to be short-lived. The Port Authority has a long history of corruption and inefficiency which has become more important following the development of the port of Laem Chabang.

The principal port, Klong Toey, has been infamous for the high cost of delay to its users for the last three decades.<sup>7</sup> These delays include not only the congestion at the berth and in the storage area but also the long passage up Chao Phya River and the land access. The seriousness of the congestion has been reduced through the efforts of the PAT to modernize the East Quay where containers are handled and to grant preferential berthing to five major shipping lines which use the port. The available storage area for containers is still limited, but the land side congestion has been reduced by the extension of the Bangkok expressway to the port and by the recession which has reduced the number of vehicles on the Street.

Despite Bangkok port's poor performance, the traffic through Bangkok has grown rapidly in parallel with the growth of the economy. The Government addressed this problem after more than 20 years by developing a reliever port at Laem Chabang. Prior to that, it allowed private container terminals to be established, but then limited their annual throughput. Initially, they were limited to a single berth and to between 50,000 and 75,000 twenty-foot equivalent units (TEU) but some have since been increased up to 10,000 TEU per month. Because the terminal sites were located on the other side of the river, and therefore outside of the city, and because they were limited by the available land as well as their own willingness to invest, these facilities have never reached their capacity of 640,000 TEU.

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<sup>6</sup> The stevedoring is private but the longshoring is performed by port labor

<sup>7</sup> Beginning with reference to its congestion problems in 1960's articles on queuing delays. Recent efforts to upgrade the facilities and services combined with the downturn in the economy have largely alleviated the problem but the container operations remain well below industry standards.

In order to reduce port congestion in Bangkok, the Government placed a limit on the volume of containers handled in Bangkok. While this target was set at 1.0-1.1 million TEU, the port has handled up to 1.4 million. It was not until Laem Chabang had resolved its initial problems of landside access and expanded the number of berths, that it was able to handle a significant share of the containers. Now that it has achieved critical mass, all of the larger lines have relocated there. Bangkok now serves only six feeder lines and handles only about 1.1 million TEU. This will be the first year that the container volume in Laem Chabang will exceed that of Bangkok.

The development of a reliever port for Bangkok was proposed more than twenty years ago. However, political in-fighting with regard to which site would be chosen from among those owned by different groups within the Government, delayed the start of construction until 1987. The port was intended to be an operating port but has gradually evolved into a landlord port. The PAT built the first basin, with one side for general cargo and the other for containers, at a cost of approximately US\$100 million. The PAT operates the general cargo facility berths but the container berths were leased out as five multiple berth terminals. PAT operated the first two terminals, B1 and B2, but then gave out 12 year management contracts to Terminal Import & Export Performance Service Co., Ltd. and Eastern Sea Laem Chabang Terminals for the next two terminals, B3 and B4. The former was a joint venture, including a trading company, Marubeni and Kamigumi. The latter a joint venture, including the Japanese shipping lines, Nippon Yusen Kaisha and Mitsui OSK. These arrangements had problems with accountability and flexibility.

Since the use of PAT labor and equipment at B1 and B2 led to inefficient operations, the Laem Chabang Port Authority absorbed the labor into its administration and allowed private labor to operate the terminals. B1 was taken over by Bangkok Modern Terminals, which also operates a river terminal. B2 was turned over to Evergreen, which negotiated for a straight capital lease. This led the operators of B3 and B4 to renegotiate their agreements as capital leases. Eventually, B1 was also converted to a capital lease. The last terminal, B5, also involved a capital lease but was different because the terminal operator had to fill in the terminal, construct the wharf and procure the ship-to-shore cranes. Each agreement is a 30 year lease with a mixture of a fixed rental and a royalty based on TEU. The rates are increased at a fixed rate each year.

The first basin, which was constructed with Overseas Economic Cooperation Fund funds, is now approaching capacity.<sup>8</sup> The second basin was to be developed with government funds and a contract was awarded to the local construction company, Italian Thai. However, there was considerably controversy regarding the amount of contract and the government no longer has funds for this investment. Hong Kong International Terminals proposed to develop the second basin in return for a long-term lease of the wharves in the basin, but the Laem Chabang Port Authority rejected this proposal because of the potential for monopoly. It is now proposed to build the basin in phases with soft loans. The first two-berth terminal has already been bid, with the Laem Chabang Port Authority requiring the winner to provide all equipment and to pay a US\$45 million up-front payment. Nearly all of the existing terminal operators are expected to bid for this terminal.

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<sup>8</sup> Although the operators of the first four terminals are suffering from berth congestion, these terminals should be able to handle about 2.0 million TEU versus current traffic of 1.3 million.

The other seaports in Thailand are the southern ports of Phuket and Songkla. The location of these ports far from Bangkok and near to Penang has limited their growth in traffic. In 1997, Songkla handled 0.9 million tons which included 70,000 TEU over 510 meters of berth. The port serves feeder ships operated by RCL, Straits Shipping, and Cosco. These were constructed by the Harbor Department and then transferred to the Ministry of Finance. Although the PAT sits on the committee which oversees the ports, it has not had any direct involvement in their development. The ports were concessioned to a private company in 1988 with a five+five year capital lease for which the concessionaire pays a fixed rental and 45 percent of the gross revenue above 100 million Baht.

The Harbor Department has proposed expanding both ports under the next concession. This would include the development of a passenger terminal in Phuket and a container terminal in Songkla. As part of the new concession, responsibility for dredging would be transferred to the concessionaire. It has not been decided whether the construction would be funded by government or by the concessionaire under a build-transfer-operate arrangement. Although the existing concession has been profitable, it is unclear whether this would continue to be so if the concessionaire must fund the capital expansion and pay for the annual dredging of some 600 thousand cubic meters (cost about US\$0.8 million)

In addition to the public ports, there are a number of private ports for handling specialized cargos. Siam seaport, located below Laem Chabang, is a bulk port financed largely by sugar interests and operated by the Siam Seaport Terminal and Warehousing company. Mab Ta Phut is a private bulk port on the Eastern Seaboard. It recently completed a second phase US\$80 million BOT agreement with a consortium of Siam Cement and National Fertilizer investing.

## **EXPERIENCES IN OTHER COUNTRIES**

The countries examined for this report have applied a wide range of strategies to increase the participation of the private sector in the port sector. This diversity results, in part, from a variety of government objectives in promoting private sector participation (PSP). These strategies can be grouped into the following six broad categories as follows:

- Liquidation of public assets to reduce government deficits.
- Generate finance for public infrastructure.
- Reduce problems with labor intransigence.
- Reduce the size of government.
- Improve operational efficiency.
- Commercialize the management of ports and develop new markets.

There are two complementary objectives that are often included in the formulation of these strategies; these are:

- Pursue a broad political program of privatization.
- Transfer profitable assets to politically well-connected interests.

The approaches that have been employed include:

- Decentralization and corporatization of port management.
- Conversion from operating port to landlord port.
- Privatization of individual port services.
- Joint venture efforts with private terminal operators.
- Terminal leases and concession arrangements to port users or third parties.
- Complete privatization of port assets.

### **A. Australia**

The Australian ports have been converted from departments of the State Maritime Boards to publicly-owned corporations. The conversion began in 1994 in Queensland. This was followed by New South Wales, with the corporatization of the container port of Sydney, Newcastle, the country's largest bulk port, and Port Kembla in 1996. In the same year, the Melbourne Port Corporation was formed after a long negotiation because of political problems and the complex nature of the Port Authority. The corporation manages the port's container facilities, which have been transferred to it by the government. Plans to sell off the Port of Melbourne were scrapped because of lack of interest. Smaller ports, such as Geelong and Portland, were sold to private interests. The port corporations are government-owned, with government-appointed boards and dividends paid to the government, but are operated as landlord ports.

The cargo handling was in the private sector prior to corporatization. Break bulk cargos are handled by a large number of stevedoring companies, but container handling is controlled by two large companies, P&O Ports and Patrick Stevedoring. These companies invest in equipment and, in the case of containers, the superstructure of the terminals.

**Table A4.1: Objectives of Program to Increase PSP  
in the Port Sector**

	<b>Downsize Bureaucracy</b>	<b>Finance Deficit</b>	<b>Finance Facilities</b>	<b>Improve Efficiency</b>	<b>Labor Problems</b>	<b>Commercialize Management</b>	<b>Widen Share Ownership</b>
Australia					X	X	
France					X		
New Zealand					X	X	
United Kingdom (UK)		X		X	X <sup>a</sup>		X
United States (US)			X	X	X		
People's Republic of China (PRC)			X	X		X	
Hong Kong, China			X			X	
India		X	X	X			
Indonesia			X				
Korea, Rep. of			X				
Malaysia	X		X				X
Pakistan			X	X		X	
Philippines			X	X			
Singapore			X				X
Sri Lanka			X		X		
Taipei, China					X		
Thailand			X	X	X		
VietNam			X	X		X	

<sup>a</sup> re-enforces earlier reforms

**Table A4.2: Approaches Used to Increase PSP**

	Decentralize	Corporatize	Partial Privatization		Landlord Ports		Capitalization	Sell Assets
			Services	Joint Venture	Leases	Concessions	Share Offering	
Australia		X			X			
France			X		X			
New Zealand		X	X					
UK			X				X	X
US			X		X	X		
PRC	X	X		X				
Hong Kong, China						X		X <sup>a</sup>
India						X		
Indonesia			X	X		X		
Korea, Rep. of		X	X		X			
Malaysia		X		X		X	X	
Pakistan					X	X		
Philippines			X			X		
Singapore		X					X	
Sri Lanka				X		X		
Taipei, China			X		X			
Thailand					X	X		
VietNam			X					

*a sale of development rights*

The primary problem that the corporatization was meant to address was the inefficiency of the ports. However, this is due largely to labor problems. The port workers have a strong union resulting in restrictive working rules, overstaffing, and labor action which have hurt productivity. The government attempted to resolve these problems through a labor reform bill designed to reduce the power of the unions. This led to a confrontation between Patrick Stevedoring and the Maritime Union of Australia, which created considerable havoc in the port sector in the spring of 1998. Patrick eventually gave in to the unions, despite strong Government support, but was able to obtain enterprise agreements. The subsequent job cuts have resulted in a significant increase in productivity and it appears that P&O will now follow Patrick's lead.

Efforts to reform the port sector appear to have stalled. The two major port corporations, Sydney Ports Corporation and the Port Corporation of Queensland, remain under Government ownership. P&O and Patrick continue to control most of the country's stevedoring services. However, both Sealand and Orient Overseas Container Line have both been able to establish dedicated container terminals so the reform of the sector may eventually go ahead.

## **B. France**

The ports of France have allowed only a limited introduction of private sector involvement. The Government continues to be responsible for developing and managing port infrastructure. The Chambers of Commerce, which represents a combination of public and private interests, has played an important role in developing and managing port superstructure since the early 1800's. The major ports remain in the public sector and continue to control operations and provide most of the cargo-handling equipment.

The cargo-handling labor is provided by private stevedoring companies. The Government introduced dock labor reform in 1992. Following the reform in 1992, the stevedores were integrated with the dockers who were port employees through the mechanism of unitized gangs. While this initially created serious problems, it has, in the long-run, allowed the ports to recapture some of the market lost to other Northern European ports.

Although France has been slow to allow greater private sector involvement, some changes have been occurring. Recently Le Havre gave a concession for its new container terminal to a private stevedoring company, although the gantry cranes continue to be maintained and operated by the port employees. Also, the terminal serving the channel ferry is operated by the steamship line. There are some private bulk terminals as well. The largest are the grain terminals in Rouen, the largest grain port in Europe. These are operated by a mix of the Chamber of Commerce, Chamber of Agriculture, and autonomous port and private companies.

## **C. Germany**

The situation in Germany is similar to that in France. The municipality owns the port. According to legislation, the city is responsible for development, planning, construction and maintenance of infrastructure including quay walls, renting out of the port land and traffic surveillance. The private sector assumes responsibility for construction of aprons and superstructure, all operations, marketing and public relations. In the case of Hamburg, the local legislature requires that there be internal competition among private sector service providers. It also separates responsibility for infrastructure development between the city and state governments, with the former developing quay walls and leasing them out and the latter developing the fairway, basins and reclamation areas.

## **D. Italy**

The terminals in Southern Italy have been converted to private terminals following passage of the 1994 Reform Law 84, which removed cargo-handling including stevedores and other workers from port authority. The current configuration provides a vision of the future in which terminal concessions are established by one group and then the ownership is shared among a changing group of partners. In Trieste, 18 of the 20 terminals have been converted to private operation. Among these are Pier VII which was concessioned to Europe Combined Terminals for a period of 30 years. In Venice, the container terminal has been owned since 1988 by Vencon, a private limited company. The company sold 53 percent of its shares to Sinport, which also manages the Voltri Terminal Europe in Genoa. Subsequently, PSA bought 60 percent of Sinport. The other container terminal in Genoa, Southern European Container hub, is owned by Grupo Investimenti Portuali, in which P&O has a 20 percent stake. The same group has a 35 year concession for a trans-shipment hub in Cagliari. Meanwhile, Evergreen has been looking to establish a hub in Taranto. The most successful port is Gioia laura, which was established in 1995 and by 1998 has a volume exceeding 2 million twenty-foot equivalent units (TEU). This was started by Contship Italia which also operators the La Spezia container terminal.

## **E. New Zealand**

New Zealand has been one of the most successful countries in achieving port reform. This was accomplished through a combination of corporatization, labor reform, and public offerings. The ports suffered from a monopolistic labor regime characterized by aver-manning and other restrictive practices. These problems were resolved during the 1980s. Efforts to reform labor began with the phasing out of the tradition pool employment system and the regulation by the Waterfront Industry Commission. In 1989, 44 percent of the workforce was made redundant, with the shipping lines picking up the tab.

Up until 1988, the ports were under the control of locally elected autonomous Harbor Boards, which reported to a National Port Authority. In that year, the New Zealand Port Companies was formed and the Harbour Boards were required to establish port companies to operate their commercial facilities. This occurred after two years of consultation between various stakeholders in port activities. Initially, the shares in these companies were 100 percent owned by the Boards but they were allowed to sell up to 49 percent. This avenue of privatization was only partially successful. Currently, five ports, including Auckland, are listed on the stock exchange - most of the shares are owned by the regional authorities. As a result, the pattern of over-investment in port facilities and equipment continues. Nevertheless, some concessioning of terminals has begun.

## **F. United Kingdom**

The reform of the UK port system took place as part of the general privatization initiatives of the Thatcher Government, which led to the Port Act of 1991. The UK has a long history of private terminals, beginning in the 1800's. While most private ports were relatively small, dedicated facilities for bulk cargos, they also included Southampton, Felixstowe Port, Mersey Docks, the Tees and Cardiff. Most of the common-user ports were placed under the control of either independent port authorities, governed by commercial objectives, and port trusts, operating as non-profit organizations. This system was meant to ensure public access and to avoid monopolistic behavior. However, the ports suffered from decreasing efficiency and

increasing labor tension during the latter half of the century and lost opportunities in the transshipment business to competing ports in Northern Europe.

The Government sought to resolve these problems first by resolving the labor problem. During the 1980's the Dock Labor Scheme, under which all cargo-handlers were non-casual and were regulated by the state, was ended. Then, in the 1990's, the ports were sold off (full privatization). This privatization was accomplished in two stages: first, the transfer of the port's rights and liabilities to a port authority that acted as a limited liability company under the Companies Act and second, the sale of these companies to holding companies whose shares are publicly traded. The privatization of the Trust ports required the creation of a temporary (and very short-lived) project vehicle into which the assets could be dumped prior to being sold, rather than the creation of port authorities. There was a debate at the time as to whether the Government had the right to privatize the Trust ports as it was not the owner of the assets, and the corporate vehicle was one way of getting around that particular legal problem in a way which protected the buyer.

In 1993, five trust ports were privatized. They were sold through competitive bidding, but the financial bid had to be accompanied by a Business Plan, and the Government was not obliged to accept the highest offer. It did so in four of the five cases (Forth, Clyde, Tilbury, Medway) which were won by Management/Employee Buyouts. In the fifth case (Tees & Hartlepool) the Management/Employee Buyouts again was the highest bid, but was rejected by the Government. There were other bidders for all five ports, but the response was lukewarm because of the Government's stated intention to give preference to Management/Employee Buyouts if they came within 5-10 percent of the highest bid. Potential bidders were also discouraged by the speed with which the bidding process was carried out, uncertainty about how the unions would respond to new owners, and fears about a potential price war between the newly privatized ports. Today, only a few small public ports remain. Although these ports are private, their activities are still governed by local acts of parliament, which define what activities may or may not be undertaken on port land.

The process of port privatization has been the subject of considerable controversy because of difficulties in the process of bidding out the ports. One port was transferred to the management without competitive bidding and then 18 months later sold to Mersey Dock and Harbor Company at considerable profit for the management. MDHC has bid for other ports. Felixstowe, after being controlled by P&O, was bought out by Hutchinson Whampoa, which subsequently purchased Southwick and Thamesport.

Thamesport initially had a competitive advantage in terms of costs because it was not a part of the National Dock Labor Scheme. When this was taken away, the port was privatized through a leveraged management buyout. When the management organization, Maritime Transport Ltd, failed to improve the situation in the port and defaulted on their loans, the port was taken over by their bankers. This occurred in 1993 and two years later the Rutland Trust purchased the port from the bank, keeping in place the management. They invested in the port and improved its performance. Then, in 1998, Hutchinson Whampoa purchased the port and it continues to thrive.

The Port Act also created Associated British Ports which became a holding company for the assets of the British Transport Dock Board. The Associated British Ports is a wholly-owned subsidiary of a larger holding company that is listed on the London exchange. The Associated British Ports has a portfolio of operating and landlord ports and also derives revenues from the redevelopment of redundant dockland and continues to exercise considerable control over the

activities in the ports it owns. It derives a significant financial benefit from a large asset base that it received and has been partially shielded from competition.

## **G. United States**

Private terminals first appeared in the US in the late 1800's and by the early 1900's they were common in New York, Boston, Baltimore, Seattle, etc. There was strong opposition to these private ports as a result of the monopoly practices by both the railroads and municipalities that controlled the ports. In the late 1800's and early 1900's, port authorities were established. These were not meant to operate the ports but rather to develop the port and regulate private sector activity within the port. Currently, the US port system is primarily a mix of public landlord ports and privately operated terminals. While there are some operating ports, such as the Virginia Ports Authority and the Alabama State Docks, these tend to be the exception.

## **H. People's Republic of China (PRC)**

Port reform in PRC has been accomplished through the mechanism of joint ventures. The ports were formally under the control of the Ministry of Communications but in 1984, the major ports were placed under the control of the municipal governments. These ports were controlled by the Bureaus in the municipal or provincial government. Within these bureaus are a number of specialized organizations providing specific port services. Since that time, the larger ports have been corporatized as financially autonomous port authorities but still under the jurisdiction of the municipal government. The operations of the individual port terminals are often assigned to management companies. These companies are state-owned enterprises and are often nothing more than wholly-owned subsidiaries of the authorities.

The port authorities frequently take part in joint venture agreements with international companies. Under the 1985 regulations, the foreign companies were allowed to own a majority share in the joint ventures, but in 1994 this was restricted to a minority share.<sup>1</sup> At the same time, the period of the operating agreements was limited, generally to 20 years. For the major container terminals, joint ventures have been established between Hutchinson International Port Holdings (holding company for Hong Kong International Terminals (HIT)) and Shanghai Port Authority, PSA and Dalian Port Authority, Sealand and Tianjin Port Authority and P&O and Shekou Port Authority.<sup>2</sup> These joint ventures lease the land and facilities from the authority and invest in equipment and new facilities.<sup>3</sup>

In some cases these joint ventures have been able to establish a monopoly in the port and considerable control over the ports within the region. As an example, Shanghai Port Authority and Hutchinson Whampoa Ltd. own and operate the Shanghai container facilities through a terminal agreement that guarantees nearly all of the container must be handled through their facilities.<sup>4</sup> This has led to the development of new ports upstream in order to provide competition. At the same time, HIT also operates one of the three container terminals in

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<sup>1</sup> For example, HIT has a 70 percent ownership of Yantian Container terminal

<sup>2</sup> The Shekou Container terminal joint venture also includes Cosco, Swire, and China Merchants.

<sup>3</sup> For example, Dalian Container Terminal Co. and PSA propose to spend an estimated US\$500 million to develop Dayaowan terminal.

<sup>4</sup> The joint venture also has the right to develop Wai Gao Qiao(Pudong) and Jin Shan Zui.

Shenzen, the Yantian Container Terminal,<sup>5</sup> as well as other terminals in Gaolan, Jiuzhou, and Jiangmen. The Port of Singapore is operating the Dalian container terminal in joint venture with the Dalian Port Authority.

The joint venture agreements allow the terminals to set fees, which are different from the central tariffs established by the Ministry of Communications. In the case of Shanghai, the tariffs are about 50 percent higher.<sup>6</sup>

The government has considered privatization of the ports but has not acted. One of its problems is whether to float ports as single companies or to break them up into competing terminals and float them as separate companies

## **I. Hong Kong, China**

The port of Hong Kong, China is comprised of a number of private terminals. Cargo is transferred at the terminals as well as at public quays and in the harbor. The greatest problem faced by the port is the lack of land on which to construct new terminals. The container terminals are concessioned as water and land rights under long-term lease agreements (formerly 99 years). The operator is responsible for filling in the area, developing the infrastructure and superstructure and providing equipment.

There are currently eight container terminals in Hong Kong, China which handle about 12 million twenty-foot equivalent units (TEU). In addition, about three million TEU are transferred from between the smaller feeder vessels and barges in the harbor using floating cranes.

The development of the port is under the control of Hong Kong Port Development Board (PDB) a semi-government entity established in 1990. The PDB provides a forum in which all interested parties (but mainly the private terminal operators) can talk to the Government. The Marine Department has always been responsible for technical supervision of the harbor (Vessel Tracking Management System, navigational aids, pollution control, etc.) but the development of the container terminals has been led by two government departments - Economic Services and Land.

New sites for terminals are offered in response to market demand. The operators bid for the right to fill in the site and develop the terminal. The bidding is in one of two forms, a private treaty grant or an open public tender. Because of the rapid growth in traffic, high land prices and the time required to complete the bidding process and to develop the terminal, Hong Kong, China has suffered a chronic shortage of berth space. This has meant that the terminal operators have had to constantly improve berth productivity, consistently achieving the highest berth throughput in the world.

The development of the initial site at Kwai Chung was through private treaty grant under which three terminals were developed, Hong Kong International, operated by Hutchinson

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<sup>5</sup> This is partly a defensive strategy as Yantian represents one of the major competitive threats to HIT's operations in nearby Hong Kong, China.

<sup>6</sup> This is not unreasonable given that the Ministry of Communications tariffs are below the long-run marginal cost for a container terminal.

Whampoa, Modern Terminals Limited operated by a consortium of lines, and Asia Container Terminals, operated by Sealand. For subsequent developments, the Harbor Board favored the use of public tender. However, this approach ran into trouble with the development of Terminal 7. The winner of the public auction, HIT, offered twice as much as the other two competitors. This had the effect of giving HIT a dominant position in the market but also raising the cost of operations. The result was an increase in container handling charges which reduced Hong Kong, China's market share of trans-shipment cargo (relative to Singapore and Kaohsiung). This loss in market share was made up by the dramatic increase in PRC cargo for which Hong Kong, China became a gateway.

HIT also won the bidding for Terminal 8 but this time in joint venture with Cosco. Because of their limited space, the Modern Terminal Limited and Sealand both increased productivity dramatically. Modern Terminal Limited by replacing straddle carriers with RTGs and Sealand by tighter logistics and better labor allocation. However, demand continued to outpace capacity and the PDB offered Terminal 9. Since the cost for terminal development had risen so high, other potential bidders were effectively shut out of the market. Therefore, the government focused on allocating capacity between the three operators. To do this it again used the private treaty grant in order to avoid having HIT dominate the market.

The development of Terminal 9 involved a lengthy negotiation between the Government and the terminal operators, with the PRC Government also weighing in. The private treaty approach was used because the Government wanted to use Terminal 9 as the basis for rationalizing existing operations, to include some free assets such as a new Tsing Yi bridge, removal of contaminated spoil, etc., and to avoid the very high prices paid for Terminal 7. As originally proposed, the terminal was to have two berths for HIT and two for the Sealand-Tsingyi joint venture. Four years after Terminal 9 was proposed, it was decided to give HIT two berths plus a barge berth and Modern Terminals Limited two berths, while Modern Terminals Limited would give two of its berths to Sealand-Tsingyi. This was meant to maintain competition in the market while rationalizing the use of existing terminals so that each operator would have contiguous berths.

## **J. Indonesia**

The ports in Indonesia are owned by the Government. Over the past twenty years, the port system has been divided into five groups, each with a major port and a number of secondary and tertiary ports. Each of these was converted into an authority and then a Government-owned corporation. While these reforms have improved the performance of the ports, they continue to suffer from low productivity and under-investment.<sup>7</sup> In recent years, the government has attempted to introduce private sector investment into the port. This initiative has suffered from two problems: the determination of the government corporations to maintain control and the predominance of crony capitalism. Most of Indonesia's "privatizations" have been either an Initial Public Offering of a small portion of the shares in a government corporation or concession arrangement, involving well-connected individuals. Since the existing ports enjoy substantial monopoly power, considerable regulatory structures would be required if these were to be transferred to private control.

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<sup>7</sup> The port corporations have the authority to issue bonds to fund infrastructure investment but have not used this authority. PT Pelindo II proposed to issue US\$1bn in shares overseas to fund expansion of Tanjung Priok but decided not to.

While cargo-handling for general cargo is performed by private stevedoring companies, in most ports<sup>8</sup> container handling remains under the control of the port corporations and managed by its subsidiaries. The exceptions are the new terminal in Tanjung Prior, described below, and the concessions given for the expansion of the container terminal at Surabaya.

At present, there are four major private sector investments in new container handling equipment. The first is in the major port of Tanjung Priok where a new container terminal was established under a BOT agreement. This concession was awarded to a company headed by one of the Suharto family. It involved a joint venture with the Port Corporation allowing it to draw on the manpower of the Port Corporation and providing significant revenue guarantees to the private company. It is likely that the next government will unwind this agreement. At present, six bidders have pre-qualified for two concessions for the container terminals in Tanjung Priok. These are being structured as joint ventures with the government. The prequalified firms include: International Container Terminal Services, Inc (ICTSI), P&O, and Stevedoring Services of America. It remains to be seen whether the current government will be able to complete these tenders prior to elections and whether they will be upheld if a new government is elected.

The second is a container terminal to be established at the Port of Cigading which is owned by Krakatoa steel. The joint venture undertaking this investment includes the steel company, PT Krakatau Bander Samudera, the Singapore port corporation, together with Sembawang and the Salim group. The latter is owned by a close associate of the President. This port has the advantage of an existing site and good road and rail access.

The third is a new container port to be developed at a greenfield site near Bojonogera. The terminal is to be developed by a joint venture involving Hutchinson Port Holdings, the port corporation of Tanjung Priok, and BJH, an investment company controlled by one of the Suharto family. This project has the disadvantage that it will compete against the two other terminals which are much further along in their development, and it lacks good land access.

The fourth project is near Surabaya, at the proposed site for the new port of Gresik. This is to be developed by a joint venture including the port corporation, PSA, and a company-owned by another member of the Suharto family.

## **K. Japan**

All of the ports in Japan are under the control of public port authorities established by the city or prefecture. The development of the ports and the setting of tariffs are controlled by the Ministry of Transport. There is a National Ports Council which reviews all development plans. The infrastructure is financed by a combination of central and local government grants. While the Japanese ports have provided reasonably efficient services, they have suffered from high costs and restrictive work practices. The problem of labor premiums for Sunday work, the requirements for consultation on any changes in vessel activity and other structural impediments have both increased costs and restricted competition. These problems led to a major confrontation with the US Federal Maritime Commission and to a set of proposed reforms.

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<sup>8</sup> Surabaya Port Corporation recently took control over the general cargo operations complaining that the private stevedoring companies were inefficient and had not invested in sufficient equipment.

The ports also allow private terminals for handling specialized cargos. They also lease backup area to cargo-handling companies. For the container terminals, they have introduced preferential berth agreements as part of the leases for backup area. The authorities have continued their involvement in the container terminal operations by establishing terminal management companies.

Port operations are performed by private stevedoring companies, many of which are owned by the major shipping lines. Some of the local container terminal operators have expanded overseas, as is the case of Mitsui OSK, Nippon Yusen Kaisha, which also operates in Laem Chabang, Kaohsiung and K Line, which is a partner in International Transport Services in Long Beach and Tacoma. Private companies also provide the other port services including pilotage, towage, warehousing and cargo-handling equipment.

The possibility for direct private financing of common-user terminals is precluded under current laws.

## **L. Korea**

The Korean ports remain in the public sector. The Ministry of Maritime Affairs and Fisheries is responsible for construction of basic port infrastructure. The individual ports are under the control of Port Authorities, which act as landlords. The container terminals are developed by a separate authority, the Korean Container Terminal Authority (KCTA). Under this system, the public ports have been able to provide a highly efficient port operation. However, in recent years, it has had difficulty in providing sufficient infrastructure to meet demand, especially in the main port of Busan. As a result, about one third of the containers handled in 1996 and 1997 went across conventional wharves.

The cargo-handling is undertaken by a mix of public and private companies. General cargo is handled by private stevedoring companies. In Busan, the leased container terminals are operated by a government corporation, Busan Container Terminal Operations Corporation, a private company with a 25 percent equity stake from KCTA, Pusan East Container Terminal, and a consortium of shipping lines.

The Government has continued to assume responsibility for financing new infrastructure, especially the development of Kwangyang Bay, a five-kilometre wharf with completely filled in backup area. In order to finance this investment, a mix of funding was used. For the first phase, the KCTA will cover 23 percent through self-financing and the rest through government grants (37 percent), government loans (four percent), commercial bank loans (one percent), and domestic bonds (21 percent). The latter were sold to shipping lines in exchange for leases of future berths in Kwangyang, as well as preferential leases for facilities in Busan.<sup>9</sup> For the second phase, the KCTA will use a mixture of self-financing, government grants, bonds issued in the Japanese market, and World Bank loans. The Government's investment is limited to basic infrastructure and the port users are expected to finance the superstructure and the equipment.

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<sup>9</sup> Local currency bonds with a life of 10 years, an initial grace period of five years, and an interest rate of six percent. These carry a government guarantee and were sold together with an exclusive 10-year lease for a berth in Busan and a Berth in Kwangyang. Bidders were limited to the large shipping companies.

## **M. Malaysia**

The Malaysian ports were formally controlled Port Commissions and Authorities established under the Port Authorities Act in 1963. The intention was for these to be financially autonomous entities but the Government provided the funds for some of the initial development. The divestiture and reform process began with the Port Privatization Act of 1990, followed by concessioning of the Kelang Container Terminal in 1992. The Act allowed for private operators licensed by the authority to operate terminals but with continuing regulation of safety and tariffs by the port authority.

The Kelang container terminal concession was widely reported as a major privatization. It was, in fact, merely a transfer of assets and franchise for handling containers from the government to government corporations. The initial concession went to Kelang Container Terminal, a joint venture between the Kelang Port Authority, 49 percent and Konnas Terminal Kelang Sdn Bhd, 51 percent. The latter was composed of a Government container haulage company (Kontena Nasional) and minority participation by P&O Terminals. In 1992, 40 percent of the shares were transferred to the public including five percent to the employees and the remainder in an initial public offering.<sup>10</sup> The remaining port operations, including container berths not included in the original concession, were transferred to another company - Kelang Port Management, owned jointly by Government companies (Kontena Nasional, Malaysian Intl. Shipping Corporation), a provincial government (Selangor) and an investment fund (Pilgrim).

The growth in traffic through Kelang rapidly created demand for additional capacity and the Kelang Port Authority embarked on the construction of Westport. This was eventually bid out as a BOT with the understanding that the concessionaire would complete the construction and assume payments for the expenditures undertaken by the Kelang Port Authority. During the period of concessioning, Kelang Port Authority was converted from an authority to a corporation but remains a government-owned enterprise.

The other main ports in Malaysia have applied different approaches. Penang split its organization into a government owned landlord corporation and an operating company. The latter was converted to a limited liability company with private equity. Bintulu has applied a similar approach but a large portion of its traffic is under the control of a private company that produces natural gas and its derivatives. Both Bintulu and Johore split into a landlord authority and a government-owned operating company. It had proposed to issue shares in order to finance a new port but this was not undertaken.

## **N. Pakistan**

The port system remains under the control of the Government and continues to suffer from labor problems and under-investment, but in the last few years private sector involvement has been increased and promises to offer significant gains in productivity. There are two major ports, Karachi and Qasim. Karachi is operated as a traditional port trust whereas Qasim is

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<sup>10</sup> The initial public offering was through private placement arranged by the government and reduced KPA's share to 20 percent and Konnas Terminal Kelang Sdn Bhd's share to 40 percent. The Kelang Container Terminal benefited from the sale but its return was limited since all shares were placed at the offering price. The subsequent rapid increase in share price produced significant capital gains for those selected by the government to purchase the shares.

operated as a port authority. Both are owned by the government and are under the supervision of the Ministry of Communications.

Qasim has benefited from being newer with better infrastructure and a relatively low level of staffing. It has relied extensively on terminal concessions to provide bulk-handling services, including the chemical jetty and storage facility operated by a Dutch concern. There is also a privately operated oil terminal that has received partial funding from the International Finance Corporation. More recently, the Authority has entered into a concession agreement with P&O terminals to operate the Qasim International Container Terminal.

Karachi has a badly deteriorated infrastructure and is overstaffed with a management that has changed little over the last several decades. Despite its inefficiencies, the Karachi Port Trust remains one of the few state-owned enterprises with a positive cash flow. This cash flow is due, in part, to the failure to renew its facilities. The World Bank is currently participating in four studies to improve the situation in the port, including the redrafting of the port charter to permit more private sector involvement and an analysis of how to reduce excess labor and improve operational efficiency. The World Bank is also pushing for corporatization of some of the port activities, including the dredging fleet and the container freight station operation.

Meanwhile, the Karachi Port Trust has given a concession to American Presidents Line to construct a terminal. The American Presidents Line will supply ship-to-shore gantry cranes and will bring in ICTSI to operate the terminal. Together they propose to invest US\$80 million in a BOT concession. Prior to this, the American Presidents Line had a preferential berth agreement equipped with its own mobile cranes. The Port of Karachi uses private stevedoring but the dock labor remains port employees. The transit sheds are leased to stevedoring companies. The port regulations allow for PSP in other port services but these have not been permitted. The government and the privatization commission are interested in increasing PSP.

## **O. Philippines**

Nearly all of the large public ports in the Philippines are under the control of the Philippine Ports Authority. The exceptions are: Cebu, which has a separate port authority and the ports of San Fernando and Subic, which are part of local Free Trade Zones. The smaller ports are under the control of the Department of Transport and Communications or local governments. There are a large number of private ports but these are specialized facilities operated by cargo owners.

Perhaps East Asia's earliest effort to allow private sector involvement in common-user facilities occurred in 1987, when the Philippine Ports Authority established a 25-year concession for the Manila International Container Terminal. The initial concession agreement, granted under the Marcos government, failed, but was re-bid under the administration of former President Aquino and won by ICTSI (initially together with Sealand), which has operated it successfully for the last decade. Subsequently, a lease was granted to Asia Terminal International (together with P&O Terminals) for international container operations in South Harbor. The two now compete actively for international traffic with Asia Terminal International steadily increasing its market share.

Recently, the Philippine Ports Authority granted a concession to a joint venture between Asia Terminal Int'l and Aries Arrastre Services for a cargo-handling franchise in the port of Batangas. It has also given concessions for grain terminals in Marivelles and Manila, although the latter has been delayed awaiting the outcome of the current economic turmoil. ICTSI has also proposed, together with Marubeni trading company and a local stevedoring company, to

develop a private container terminal in Batangas. A similar arrangement was proposed by a joint venture of a construction firm (FF Cruz) and a terminal operator in Cebu, but this was never realized.

In 1994, the Government issued Order 212 to promote private sector activity in the port sector. This included allowing private ports to compete for third party cargo. This has had relatively little impact because of the low public port tariffs in the subsidized regional ports. Cargo-handling is provided by private Arrastre companies, but the Philippine Ports Authority licenses only a few companies to provide the services in each port. Attempts to open up cargo-handling to competing firms, as part of Order 212, were stymied by the efforts of the existing licensees.

Many of the port services in Manila have been licensed to private providers. However, recent efforts by the Philippine Ports Authority to attract private investors into joint ventures and concession arrangements for new port investments have met with lukewarm interest. However, it is expected that more concession agreements will be implemented. In addition, it is likely that more of the large ports will follow the example of Cebu and establish themselves as independent port authorities acting as landlords.

## **P. Singapore**

The Port of Singapore is the largest and most efficient public operating port in the world. It has benefited from two decades of strong management efforts to increase labor productivity and berth throughput. While some of the cargo-handling is performed by private companies, the equipment operators in the container terminals are PSA employees. Despite its efficiency, reputation for quality services, profitability and timely investment in new capacity, the Government decided to privatize the port administration. In 1996, the Government created the Maritime and Port Authority of Singapore to take over regulatory responsibilities from the PSA. The chairman and board will continue to be appointed by the Government. The PSA was then converted to a corporation with plans developed to sell some of the corporation's stock through an Initial Public Offering, although the timing of this offering is unclear. The corporation has the same staff as the authority with the exception that the chairman is no longer appointed by the government.

Although the port has continued to be an operating port, it has made a number of accommodations to its users. It has allowed preferential berthing and leased out the backup area in general cargo berths. Although it would not lease its container facilities,<sup>11</sup> it did develop the concept of virtual terminals, which allowed the shipping lines to specify the type of services and equipment to be provided.

## **Q. Sri Lanka**

The principal port of Sri Lanka, Colombo, has become the trans-shipment hub for much of the Indian and Pakistani container traffic. This public port, despite its success, remains overstaffed and has difficulty providing sufficient capacity. Recently, it has begun to look for private capital to provide much needed capacity.

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<sup>11</sup> They had earlier considered this, but felt that the leases would result in loss of throughput for its berths and therefore chose to continue operating its container facilities.

The Sri Lanka Port Authority (SLPA), which is under the Ministry of Shipping, Ports, Rehabilitation and Reconstruction, operates Colombo. The port of Colombo is an operating port. The Authority's employees provide cargo-handling services. The Authority also provides all the services to the vessel. The result is a staffing level of about 18,000 employees. The SLPA does permit the private sector to operate ODCYs. Despite its inefficiencies, the port has enjoyed a continuing increase in traffic, due in large part to its location on the major East-West trade route and the inefficiency of the other major ports of South Asia.

Due to rapid growth, the port has been unable to provide sufficient capacity and has recently suffered from congestion. The port has two container terminals, the main one is Jaya container terminal (eight ship-to-shore gantries). The smaller one, Queen Elizabeth Dock (three ship-to-shore gantries), is to be expanded to meet demand. In order to provide this additional capacity, the SLPA has entered into a joint venture with P&O Terminals and P&O shipping to rehabilitate, operate and expand the Queen Elizabeth Dock. This will be a 30-year BOT agreement brokered with the help of the Board of Investment. The negotiation for this investment was contentious because of conflicting objectives of SLPA and Board of Investment. The P&O investment in three new berths will be under the control of the Board of Investment, rather than the Ministry of Transport.

The negotiations for this agreement have been extremely problematic. The Port Authority has resisted the concession. The Ministry of Finance took a lead in the negotiations, including their UK-based legal counsel, however, the contract they developed was too one-sided in favor of Government. The contract was rejected by P&O's financial backers, which include Commonwealth Development Corporation, because it was not bankable. The contract is asset driven and focuses on a fixed investment schedule because the port badly needs additional capacity. It should have been possible to develop a simple agreement because the site is essentially new without labor problems or the need to allocate existing assets.

The initial agreement proposed to concession the Jaya Terminal, with the Elizabeth Docks to be concessioned later, but this was modified because of the increasing demand. The SLPA will continue to operate the Jaya Terminal but plans to form a corporation and bring in a private partner. A consultancy is underway to explore this possibility.

## **R. Taipei, China**

The major ports of Taipei, China are landlord ports. While these ports have benefited from the strong growth in Taiwanese trade and added to this a substantial trans-shipment trade, they still suffer from problems with the cargo-handling labor.

The major ports were formerly controlled by the Harbor Bureaus of the municipalities in which they were located. Last year, the four major international ports, Kaoshiung, Keelung, Hualien, and Taichung were transferred to the MOTC in an effort to coordinate the investment in expansion of these ports.

Kaoshiung and Keelung lease out the terminals to the major shipping lines and their consortium. Among these are the Taipei, China shipping companies and also Hyundai, Maersk, Hanjin, etc. The lessees are required to use the port's dockworkers. This labor organization is a separate group from the Harbor Bureau. A 1995 proposal for port privatization focused not on the ports but on the cargo-handling labor in an attempt to reduce the monopoly power of the dockworkers, which would be downsized and broken up into separate stevedoring companies.

Other efforts at privatization schemes include BOT concessions at Kaoshiung in which the private sector would provide the superstructure and equipment. In addition, P&O/Nedlloyd plans to construct its own terminal at Kaoshiung. In Keelung, a proposal has been made to establish a public private partnership for funding expansion of the port, which would include extension of the breakwater and wharves.

## **S. Viet Nam**

Efforts to involve the private sector in the port activities in Viet Nam have focused on the use of joint ventures. These have had limited success because of difficulties between the local and foreign interests. The early joint venture efforts with HIT and ICTSI fell apart in 1995 because of disputes over the value of the equity of local joint venture partners. More recently, efforts have included the Viet Nam International Container Terminal in Ho Chi Minh City along Saigon River. This is to be developed by a joint venture of Neptune Orient Lines, Mitsui and two Viet Nameese partners. Further, the Haiphong deep-sea port and industrial area is to be developed by AIG (the US and its Thai subsidiary) and Belgian Port engineering and development. Another deepwater container terminal with 500 meters of berth is planned for Vung Tau. This US\$200 million investment would be funded by an international consortium including Evergreen (40 percent), Tredia (Malaysia - 30 percent), MMC (30 percent). The partners would then give five percent to their Viet Nameese partner, Vinaline.

## **T. Brazil**

The most recent Latin American country to pursue port reform is Brazil. It presents a useful point of reference because Brazil, like India, suffers from severe labor union problems and has extremely poor cargo-handling performance (far worse than India) in its major ports, especially Santos. The result is a box handling rate that exceeds US\$500 and vessel queues that are typically two or more days. The impact of this inefficiency upon Brazil's economy is considerable and adds to other costs associated with a relatively high level of trade protection.

In 1997, the effort to concession the major terminals in Santos was undertaken as part of a broader program to reduce government's role in the economy. The Ministry established regulations that permitted private operators to select their own labor, whereas before they were required to use the union labor. However, the union is extremely strong and militant and the government has been unwilling to confront the unions directly. The government established a new labor management board but then failed to appoint independent members, resulting in most of the board being from the union. Under the terms of the concession, the operator was allowed to hire labor up to the amount required for efficient operation and to draw additional labor from the pool.

The Government also revised the law on the structure of the port so as to allow for increased PSP. However, the law created a relatively convoluted structure involving a port commission, a port operating company and a separate port administration without clear distinctions between their roles and responsibilities.

In Santos, a 25-year concession for the main container terminal, TECON, was bid out utilizing a live auction, presumably to improve transparency or increase the bid. There were problems with one of the bidders being disqualified and HIT withdrawing shortly before the bid. The winner of the bid was a consortium including pension funds, investment banks and a terminal operating company, Multi-terminal, which took a 10 percent position and, in return, will operate the port. This company has as its major shareholder, Transportes Fink, which also owns a majority of the major shipping line Transroll, as well as a participation in one of the

terminals in Rio de Janeiro. The terminal currently handles about 500,000 TEU on a 510-meter wharf equipped with five cranes and with 36 hectares. The winning bid was for an up-front fee of US\$140 million and a total estimated cost of US\$251 million. The bid includes the option for a 250-meter expansion of the wharf and an additional 12 hectares.

The concession contract requires the terminal operator to reduce the handling charges to US\$150/box within two to three years. The current charges are about US\$500/box, due to high stevedoring costs because of restrictive practices and a gang size about four times that actually required. The up-front cost included the pre-determined value of the equipment transferred to the concessionaire plus the additional amount bid in order to secure the concession. The total amount was determined by an open bidding process (a live auction in which the pre-qualified bidders submitted verbal bids) and is to be recovered from the existing traffic (approximately 500,000 TEU) and the future growth. The principal objective of the government in establishing a very high up-front cost and, by implication, a lower annual payment, is to address what is a growing financial debt crisis.

The concessionaire is having difficulty in reducing charges because of problems with rationalizing the labor. It is also unclear what incentives it has for reducing charges given that it must recover this large fee. At the same time, the concessionaire has little incentive to lower the price prior to the end of the five year period, since this would reduce their profit. A smaller terminal, T37, has also been concessioned but for a much smaller amount because the terminal did not have any container handling equipment, very little backup area and poor road access.

The port of Rio is attempting to develop a new facility at Sepetiba to compete with Santos. The port put the facility up for concession but there was very little response from the private sector. It appears that the proposed up-front fee of nearly US\$100 million made it financially unviable, especially given the need to develop the facilities and then compete for market share with Santos.

## **U. Panama**

The ports of Panama have been operated as public ports. They are inefficient and have handled relatively little transit or trans-shipment traffic, despite their strategic location near to the Panama Canal. Recently, a number of concessions have been granted for the ports. The initial concession was granted for the port of Manzanillo. This was created as a joint venture involving a stevedoring company, SSA, and a major importer of automobiles. The concessionaire obtained financing from the International Finance Corporation, among others. It handled large volumes of containers beginning with the initial year of operation. The result was a payback period on investment of less than two years.

This was followed by the establishment of another new port facility at Coco Solo. The concessionaire was Evergreen Lines and the facility benefited from a large amount of traffic provided not only by Evergreen but by other lines as well. Following on from the success with greenfield terminals, the Government concessioned the ports at either end of the canal, Balboa and Cristobal. The winning bidder was Hutchinson Whampoa, which agreed to pay a total of US\$200 million for the concession. In addition, a complementary concession was given to Kansas City Railroad to operate the rail line connecting the two ports. These concessions have dramatically changed the port sector of Panama and placed it as a major trans-shipment port for containers headed between the East and Pacific and the Gulf/Atlantic.

## LEASES AND CONCESSION AGREEMENTS

### A. Forms of Privatization and the Related Objectives

There are six basic contractual relationships that can be used to increase private sector participation (PSP) in the port sector.

- The **sale** of part or all of an existing public port to the private sector. The land is transferred on a freehold basis but with the requirement that it be used only to provide port services. The objective of the sale is to remove from the public sector the responsibility for the provision of port services. There are very few examples of direct sale of a port, which is often through Management Employee Buyouts, although there are increasing examples of share flotation. In contrast, there are many number of examples of the sale of private land or leasing of public land for the development of private ports. The latter are intended to transfer special cargos or provide special cargo-handling capability.
- A **concession agreement** which includes both a long-term lease of port land and facilities and the requirement that the concessionaire undertake specified capital investments to establish, expand, or renew the cargo-handling facilities, equipment, and infrastructure. The primary objective of this form of agreement is to mobilize private sector financing for port development without giving up ownership of the port's facilities.
- A **capital lease** together with an operating agreement. This is typically a long-term arrangement that is similar to a concession except that the private sector is not explicitly required to invest in the facilities and equipment other than for normal maintenance and replacement over the life of the agreement. The objective of this agreement is to transfer responsibility for the provision of port services to the private sector without transferring ownership of the basic assets used to provide these services. The port improves the quality of services provided to the port users without giving up ownership of its assets.
- A **management contract** under which the private sector assumes responsibility for the allocation of port labor and equipment and provides services to the port users in the name of the port. This arrangement differs from a capital lease in that the port retains control over all the resources and continues to function as an operating port. The principal objective is to improve the quality of supervision of labor and the allocation of equipment for specific port services.
- A **service contract** which assigns to the private sector responsibility for performing specific port activities. The arrangement differs from a management contract in that the private sector provides the management, labor, and equipment required to accomplish these activities. The activities are inputs to the port services. The objective is to allow the port to outsource activities that can be accomplished more efficiently by the private sector while continuing to provide port services.
- An **equipment** lease which can be in various forms involving leaseback arrangements or supplier credits. These agreements are used to amortize the costs to the port for new equipment and to ensure a reliable supply of spare parts and, often, a guaranteed level of service/reliability from this equipment.

## **B. Structure of Concession**

Port concession agreements are fundamentally different from power production concessions, which have accounted for a majority of the efforts to privatize public infrastructure and services. Both concern the nodes in their respective networks rather than the links or the network as a whole, but there the similarity ends. The power concessions are concerned with the production of a homogeneous product for a well-defined market with a relatively simple pricing structure. The purchaser is very often the government or a utility under government regulation. The agreements are for long periods, often matching the productive life of the major assets. There are well-structured contractual documents that can be used with relatively little modification throughout the world. The risks are objective, well-defined, and relatively limited. The commercial risks are assigned to the government or the utility through take or pay agreements. The costs involved in producing the electricity are relatively easy to identify, as are the returns on investment. The concessions are usually capacity constrained, i.e., the private sector is asked to provide a fixed amount of output with well-defined options for providing additional output from the same production base. The contracts have been developed to meet the requirements of project finance. The greatest concern in implementing these concessions is to ensure that the government honors its commitments and that the clearances and other requirements for constructing the power plant are in place.

In contrast, the port functions are more diverse, provided to a wide range of clients under a relatively complex pricing scheme and subject to a greater level of competition. The type and quality of services required by users are constantly changing. The costs for providing services from existing facilities change with technology, organization, and allocation of labor. There is a higher proportion of fixed costs but the productivity of the assets is steadily increasing. The allocation of risk between the public and private sector varies but most or all of the commercial risk is transferred to the private sector. The contracts are more flexible allowing for changes in the type, quality, and amount of services provided in response to the changes in the market. The contract must also accommodate a flexible schedule of investment, since the timing of investment will depend not only on the growth in traffic and the type of services required but also on the productivity of existing assets.

These concessions focus not on the type of specific assets provided, but on their capacity. The concessions contain performance targets to monitor the efficiency with which the assets are utilized, as well as the volume of traffic. This implies a continuous interaction between the port management and the concessionaire to ensure that the needs of the port user are met. Port concession agreements are a mix of standard clauses and special conditions, which reflect the objectives of the port in assigning assets and responsibilities to the private sector.

## **C. Scope of Capital Leases and Concessions**

Concessions and capital leases are used to transfer specific port assets to the private sector for a stipulated period of time. The infrastructure and facilities are transferred through a leasehold. At a minimum, this involves the transfer of a section of the quay wall and undeveloped backup area, with the requirement that the private sector constructs and maintains the berth and service the backup area. At a maximum, the port provides a fully developed terminal but requires the private sector to maintain the terminal and expand it as required to serve the growth in traffic. The concession or capital lease may also provide the private sector with buildings to be used to deliver port services. Again, the private sector assumes responsibility for maintenance of the structures. This arrangement can include the lease of fixed

equipment such as quay cranes, bulk loaders, and yard cranes. In this situation, the private sector usually operates and maintains the equipment and replaces equipment as required. These agreements may also involve the transfer of mobile equipment, but this is generally done through a sales/purchase agreement.

#### **D. Scope of Management and Service Contracts**

The management, or service contract, can be used to transfer responsibility for a variety of port services. The most common contract is for the provision of cargo-handling services, either stevedoring or longshoring. These arrangements can be limited to the movement between the vessel and the shore, or extended to the land transport and to storage of the cargo. The contract may also encompass various logistics services, such as consolidation/deconsolidation and cargo clearing. These contracts can be applied to vessel-related services, such as towage and garbage removal and to port maintenance and security, including dredging, equipment repair, and facility maintenance. These contracts will generally include licensing agreements, which authorize the private sector to provide common-user services to the vessels and their cargo. These contracts may be combined with sales/purchase agreements, which transfer the mobile equipment to the private contractor.

#### **E. The Private Sector's Objectives**

For the private sector, the attractiveness of the different types of contractual arrangements will depend on whether they are consistent with private sector objectives. One of the primary objectives is to have autonomy in the management of resources and the provision and pricing of port services. This includes the right to decide on the quality of the services to be provided and the extent to which services will be bundled or differentiated. It also includes the right to differentiate the quality of service, in order to meet specific requirements of port users and to develop new value-added services for them. The other primary objective is to earn a reasonable return on investment and entrepreneurship and to generate a sufficient cash flow to sustain the activity. While there has been considerable concern about monopoly behavior on the part of the private sector, this occurs relatively infrequently. The private sector will always seek protection from competition and, if overly protected, will display the same inefficient behavior as the public sector. However, attempts to maximize profits at the expense of increased traffic are rare. Most private operators seek to increase their profits by improving the productivity and utilization of their assets, thereby reducing their costs. This implies the ability to recruit labor and to avoid restrictive labor practices. The private sector will focus more on increasing market share and developing complementary value-added services than on increasing per-unit profit margins. This is consistent with the objective of long-term sustainability, rather than short-term gain.

One of the more confusing requirements introduced by governments in the tendering of concessions is the limit placed on the return on capital that can be earned by the private sector. First of all, it is relatively easy to circumvent this restriction, through creative financing and a leveraging of the investment. Second, this constraint ignores the fact that increased returns should be earned through greater efficiency not higher prices. Third, capital is a scarce resource and limiting the rate of return discourages firms that invest efficiently while encouraging those

who are willing to accept a lower rate of return.<sup>1</sup> Finally, it places a limit on the autonomy of the private sector, while encouraging investment and the passing on of the investment to the port users.

## **F. Elements of a Lease**

A number of common clauses are found in concession agreements, capital leases and even management contracts. These agreements generally conform to the existing format of either domestic or international contracts. They are rather lengthy during the initial phases of privatization because the government is attempting to anticipate all possible outcomes and minimize the chances for a politically unfavorable result. Once there is sufficient experience with these types of agreements and a body of precedence has been established, then the format can be greatly simplified. Long and complex contracts are found in countries that have only begun to increase PSP in the port sector and where arbitration and contract law are not well developed. On the other hand, relatively simple contracts are found throughout Europe and North America.

### **1. Parties to the Agreement**

Following the basic legal boiler-plate, which is particular to a given country, there is the clause which identifies the parties to the agreement. These include the lessor — the owner of the assets — which are being leased/concessioned, and the lessee — the private party — which assumes responsibility for these assets. The lessor will usually be the port organization, but in some situations the port will not have the legal authority to enter into a lease agreement. The government may then have to sign the agreement. It is incumbent on the lessee to ensure that the port has the legal authority to make the commitments contained in the contract.

The lessee will be a limited liability company incorporated within the country and subject to local corporate law. This or other laws may limit the extent of foreign ownership of the company. The lessee may, through its tender offer, restrict the participation of specific entities so as to prevent potential monopolistic behavior. Thus, shipping lines may be excluded from agreements involving common-user facilities. Similarly, companies that already have concessions in the same or competing ports may be excluded. Alternatively, the port may require that it be included as a joint-venture partner in the company or require that the company be publicly listed.

### **2. Period of the Agreement**

There follows a clause stipulating when the agreement becomes effective and how long it will remain in effect. This can create a problem for the lessee if there is a fixed start date prior to which the lessee must obtain regulatory approvals and complete negotiations with labor.

The period of the agreement will be fixed but may allow for one or more set extension periods. The basis on which these extensions can be granted will determine their value to both parties. The extension will usually require the approval of both parties, but the basis on which the port can withhold approval should be set out in the agreement. The extension will generally

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<sup>1</sup> This is not to argue that private parties interested in very high rates of return over short periods of time are not to be avoided, but rather in selecting among those interested in a long-term involvement in the port, the rate of return by itself is an inappropriate criteria.

involve some negotiation regarding the terms and conditions of the extended agreement, especially the financial terms.

### 3. Basic Responsibilities of the Port and the Lessee

The essential clauses of the agreement assign to the port and the lessee the basic responsibilities for operations and maintenance and for investment in equipment, facilities, and infrastructure. These contracts can accommodate a wide variety of allocations of responsibility. Of particular concern for the lessee are the port's obligations to **maintain unencumbered land and water** access to the leased facilities and to provide basic protection including fire, rescue, and security services. This includes maintaining the depth in the channel and alongside the berth<sup>2</sup> and ensuring that towage and pilotage services are available upon request.

Another concern is who has **the right to assign vessels to berths** and to authorize storage of cargo in specific areas within the port. Logically, both would be the responsibility of the lessee, but many ports retain the right to assign vessels to berths. It is important that this is done in coordination with the lessee allowing the port to assume control of the berths only in emergencies.

A third area of concern is the assignment of **responsibility for maintenance**. The port is usually assigned responsibility for maintenance of the infrastructure, while the lessee is responsible for maintenance of buildings and paved areas. The maintenance of the fixed and mobile equipment operated by the lessee is usually assigned to the lessee. However, some ports split this responsibility, with the lessee operating the equipment and the port maintaining it. Since well-maintained equipment is essential for efficient operations, the lessee will want to have complete control over the equipment. Where this is not possible, the lessee will seek to include performance criteria in the agreement (e.g., availability, maximum downtime.)

The fourth area of concern is the assignment of **responsibility for capital investment**. This is important not only for concession agreements but also for leases, since the private party assumes responsibility for the renewal of the facility. Most concession agreements will stipulate the initial capital investment to be undertaken by the lessee. This includes the type of facilities and equipment to be provided. Subsequent investments are generally at the discretion of the lessee, but must be sufficient to provide an acceptable level of service to port users. The lessee will not want the port to stipulate future investments, as this will compromise the benefits it obtains from improvements in productivity. While many ports enter into these agreements to mobilize private sector investment, the agreements should not quantify how much is to be invested, but rather how to operate cost-effectively and provide better quality port services. The cost of all capital investments is ultimately passed on to the users. Excess investment will increase port charges and dampen demand.

Where the private sector is responsible for the capital improvements, the port retains some responsibility for the specification of these investments. It approves the design of civil works and structures and ensures that the construction conforms to local building codes. It may supervise the construction to ensure that it is in conformity with the plans as approved, or, alternatively, certify the work once it has been completed. A similar procedure applies when the private sector is removing structures and fixed equipment at the termination of the agreement.

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<sup>2</sup> In some cases, the private sector will be responsible for maintaining the depth alongside the berth.

A final area of concern is the **ownership of assets**. This can be an important issue for the lessee's potential lenders who seek some sort of security for their investment. Since the assets are fixed and have no resale value, most lenders concentrate on the right to assume control over the assets for the remaining period of the agreement in the event that the lessee fails to meet its obligations (see step-in provisions).

#### **4. Allocation of Physical Assets and Labor**

The agreement sets out the modality for the transfer of the port's physical assets and labor to the private sector. The simplest form of transfer is for the port to retain the existing labor force and to sell the physical assets through a sales/purchase agreement, however, this is rarely done. The ownership of the infrastructure usually remains with the port, even for infrastructure that is developed by the lessee. It is rare for ports to enter into an agreement where the lessee retains ownership of the assets it develops until the end of the agreement (a so-called build-own-operate-transfer agreement). Instead, the port assumes ownership of the infrastructure developed by the lessee at the time it is completed in return for which the lessee is entitled to exclusive use of the infrastructure for the period of the agreement (build-transfer-operate). The same practice can be applied to superstructure, but often the port will allow the lessee to retain ownership. This gives the port the option of requiring the lessee to remove the superstructure at the end of the agreement if it no longer has any commercial value.

The choice between sale or lease of the port's existing equipment is generally determined by the life of the equipment relative to the period of the agreement. The port will sell equipment which has an economic life that is less than the period of the agreement. The economic life is shortened by technological obsolescence for most cargo-handling equipments.<sup>3</sup> Some ports require the lessee to renew the equipment during the period of the agreement and to transfer the equipment to the port at the conclusion of the contract. This procedure makes little commercial sense for longer-term agreements.

The sale of equipment can be optional where the port sets the price for the existing pieces of the equipment and the lessee has an option to purchase them at the designated price. Alternatively, the purchase is mandatory and the sale price is included in the lease payments. The latter approach is used when the port wants to dispose of its equipment in a way that avoids cumbersome government procedures and does not raise questions as to why the residual value is so low for equipment obtained by the government through a non-transparent process at a relatively high cost.

One of the difficulties for the lessee is that they usually have established operational procedures, which rely on specific types of equipment. They are used to operate and maintain this type of equipment. The used port equipment with its uncertain reliability, limited operational capacity and questionable lineage may well represent a liability to the operator. The requirement that the lessee maintain or renew this equipment is merely an added expense to be passed on to the port users. The most efficient means for dealing with the port's existing equipment is to give the lessee the option of purchasing the equipment for a specified price.

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<sup>3</sup> Ship-to-shore gantry cranes have a physical life of more than 20 years, but over the last two decades the cranes have increased in speed by about 50 percent and have increased in lifting capacity by about 25 percent. Also, the rail gauge, crane weight and reach have increased dramatically. As a result, a fifteen-year-old crane has little value other than for new ports with little traffic.

It is often a major political problem to reallocate the labor that is involved in those port activities and services that are to be taken over by the lessee. The private sector, with its experience in dealing with private labor through a mix of financial incentives and the ability to hire and fire, is usually more sanguine.

In many of the recent concessions, the lessees have been willing to accept the existing labor force, together with a requirement that it continue to employ them for a specified period, and that it assume liability for at least part of their pensions. These same lessees are reluctant to agree to maintain restrictive work practices. Some ports have been able to absorb the labor and allow the lessee a free hand in choosing its labor (especially where the lessee will operate a new facility). Others have allowed the lessee to determine the size of the labor force, but require that the redundant port labor be given the right of first refusal for the private sector jobs. Other ports have required the lessee to assume some of the costs for making the existing workforce redundant.

The most effective arrangement appears to be for the port to give the greatest freedom possible to the lessee in staffing its operations. Where there is resistance on the part of labor, it is best to allow the lessee to resolve this problem through direct negotiation. During the period prior to entering into concessions, the port should reduce the amount of excess labor through voluntary retirement schemes and hiring freezes and actively seek to reduce restrictive labor practices. Plans for more draconian measures, such as decertifying the cargo-handlers union or large-scale redundancy programs, risk creating bad labor relations that will carry over to the agreements with the private sector.

## **5. Interaction Between the Lessee and Other Members of the Private Sector**

The agreement will contain clauses that define the potential interaction between the lessee and other commercial entities. These clauses may limit the competition by providing exclusive franchise rights for a specified period or introducing other barriers to direct competition from other operators with the port. The granting of exclusive franchises is not in the interest of the port or the port users, but is frequently required by the lessee for agreements that include a significant level of capital investment at the beginning of the agreement. The lessee may also require this form of protection if the market has not been developed or if there is significant competition for market share with existing service providers. The negotiation regarding these forms of protection can be quite intense. There are sufficient examples of the port users suffering due to limitations on competition and the private sector suffering from excessive competition, to make both parties wary.<sup>4</sup> This is one of the areas in which outside arbitration can provide a valuable input.

The clauses in the agreement relating to subleasing and subcontracting raise the same set of issues, but the interests of the port and the private sector are reversed. The lessee wants to have the option to bring in others who have resources and experience, which complement its own. The port is interested in limiting these options in order to avoid situations where the lessee acts as a middleman, retaining the economic rents and passing on operational responsibilities and commercial risk to third parties. Attempts to sublease part of the lease/concession area for

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<sup>4</sup> The situation in Shanghai is an example of the former, whereas that in Buenos Aires is an example of the latter.

uses unrelated to the agreement or to contract out management or labor are usually prohibited. Equipment leasing, contract maintenance and short-term rental of storage space are usually permitted. It is the subcontracting of services to be provided to the port users that must be dealt with on a case-by-case basis. This is generally to be discouraged, especially for concessions that have been bid out under competitive tender and for which the winning bidder has proposed to perform these functions.

## 6. Pricing

The agreement defines the charges that the lessee can levy for services provided to the port users or to the port and the payments to be made by the lessee to the port. Both allow for some flexibility. While the initial charges to the port users are stipulated, the evolution of these charges over time can be influenced by market forces. The payments to the port generally allow for adjustment to account for inflation and may also allow for adjustment for the changing value of the concession.

Where the contract involves the transfer of activities from a public monopoly to a private operator, some degree of regulation is required. Lessees may be required to apply the charges listed in the official port tariff or to follow the tariffs set out in the agreement. This can lead to two difficulties. First, if the existing prices do not reflect the market value of the services being provided, then the agreement may preserve this distortion. Second, if the market is changing and the quality and types of services required is changing, then the agreement may discourage the lessee from introducing these changes.

In most circumstances, the port charges are based on the costs of an inefficient public monopoly. In this situation, the existing tariffs can be used but should be stated as maximums, thus allowing the lessee to offer discounts. The contract may further stipulate under what circumstances the lessee can differentiate among users in offering discounts. Public port tariffs also tend to have a complex structure developed from monopolistic pricing practices or arcane cost-based pricing formulas. One of the benefits that the private sector brings to these concessions/leases is a simplified pricing structure. Another is the use of commercial pricing based on the value to the user, rather than the average cost to the port. It is important to the efficiency of port operations, that the lessee be able to introduce these changes over time. This implies either a relaxation of the pricing regulation over the period of the contract or a broad definition of the maximum charge for port services.<sup>5,6</sup> Over the short-term, it is important to protect the port users against unreasonable increases in total charges and excessive discrimination. Over the long run, it is desirable to introduce competitive forces to regulate the charges to the user.

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<sup>5</sup> One approach that has been used with limited success is to base the financial bid for a concession on the minimum average charge levied to the port user. For this bid, the payments to the port are fixed and the bidders compete to see who can offer the lowest user charges. The obvious problem is to determine what constitutes the lowest charge given a differentiated tariff. The other problem is that the port is defining the value of the concession (in terms of payments to the port) rather than letting the market decide this value. If it is over-valued then the concessionaire must pass this on in the form of higher charges.

<sup>6</sup> Some concession agreements have attempted to apply a limit on the charges based on a maximum rate of return to be earned by the lessee. This is generally used to set the initial rates but does not provide an effective mechanism for evaluating adjustments in charges over time.

Regulations of charges to the users should be limited to those services for which there is no direct competition, e.g., the cargo-handling charge in dedicated terminals. This will allow the lessee to set prices so as to compete for market share in those logistic services offered by other private parties or by the port. The difficulty is to develop an unambiguous definition of competition. This will vary depending on the market. The primary factors to consider are the barriers to entry for potential competitors and the market power of the port users. Regulation should be limited to situations in which there are relatively few service providers who enjoy a distinct cost advantage over potential competitors and where the port users do not have options in terms of different ports, modes, routes, forms of shipment and do not have the market concentration to negotiate effectively with the lessee. Since the level of options available to the port users (both vessel lines through consortia and conferences and cargo owners through forwarders and non vessel operating common carriers) are increasing, the requirement for regulation is decreasing.

One of the issues which concession agreements have failed to address is the transition from non-competitive to competitive pricing. In larger ports, it is likely that the growth in traffic over the life of the concession would allow for competing agreements and at some point pricing regulation should be eliminated. This situation may also occur with the liberalization of trade and transport and the improvements in intermodal transport. Beyond this, there is the dilemma that items get added in response to circumstances but are never removed when the circumstances change.

Where pricing regulation is maintained, the agreement must establish a method for adjusting the regulated prices over time. This can be accomplished by indexing the prices to an agreed measure of inflation, by allowing the tariffs to be denominated in a foreign currency, or by allowing periodic negotiation with the port on rate increases. The latter creates the greatest risk to the lessee. Perhaps the most successful procedures have been to use an index that provides an allowance for both inflation and improvements in productivity where the resulting rates are applied as maximums.

The need for flexibility in pricing is most important where the traffic is changing and the logistic services are evolving. For longer-term contracts, it is certain that the pricing structure in place at the start of the agreement will be irrelevant by the time the agreement ends and likely that it will be ineffective well before that time. This is true for a number of reasons. For example, prices which have been set, based on existing assets, may not reflect the cost for replacing these assets. Also, changes in the relative costs of labor and capital, especially in developing countries, will affect not only what is an appropriate price for port services, but how these prices should be differentiated according to the proportion of labor and capital used by different groups of users. Attempts to anticipate these changes in a regulatory process are cumbersome. Where formulas are used, they reduce flexibility, but where negotiation is used, the uncertainty of the lessee's income is increased.

The most important area where regulation is to be discouraged is the development of new value-added services to meet the changing logistics requirements of the port users. The pricing of these services not only lack a precedent, but also require that different prices be set when offering discounts to build demand and when earning a return from a mature market. The agreements need to allow for competitive pricing of new services, rather than attempting to bring them under a broad regulatory framework.

Public ports have set their tariffs through evolution and relied primarily on comparative pricing. The concept of cost-based pricing was introduced by development agencies to eliminate

government subsidies for specific port services. This concept was never effective in improving port efficiency or innovation. Instead, public ports have relied on a few innovative ports to develop new services and define the pricing structure and rates for these services. While this will continue under a system of private concessions, the evolution is expected to become more rapid.

The payments made to the port by the lessee are simpler in structure and unlikely to change in format over the life of the agreement. They are of three basic forms: a fixed periodic payment (rental), a volume related payment (royalty), and a percentage of gross revenue (surcharge). Where this is a fixed annual rental, the agreement will stipulate the level of payment over the period of the agreement. This will include a fixed adjustment from year to year or an index to be used in making this adjustment. Where this is a royalty payment, the agreement will stipulate the unit of measure and the amount of the royalty to be paid per unit. It will indicate if there is any change in the unit rate as the volume increases and whether there are minimum and maximum amounts of royalty to be paid on an annual basis. Again, the amount of adjustment, or the procedure for determining this amount, will be set out in the agreement. Surcharges have not been widely used, but they do offer the benefit that the income to the port automatically increases with the increase in the business of the lessee. This approach avoids the need for adjustment based on inflation and provides a closer approximation to the value of the concession (which depends on cash flow rather than asset value). It can be difficult to implement where reliable, independently audited accounts are not available, or where the lessee needs to treat the information on revenues as confidential.

The determination of an appropriate pricing structure depends on the level of risk associated with the concession and the willingness of the parties to the agreement to share this risk. The initial level of payments is best determined through a competitive bidding process, since public ports generally lack the information needed to set a market price on the concession. While fixed rentals and large up-front payments are the easiest to administer and offer the most visible return to the government, they generally yield the lowest value. It is important that ports seek the greatest value from their concessions not by passing on increased charges to the port users, but by offering the most attractive form of payment to the lessee.<sup>7</sup> The income from the agreement can then be used to develop additional facilities and services that will be subsequently concessioned.

## **7. Performance Standards**

Where the agreement between the port and the private sector is intended to increase port traffic and to promote the commercial activities of the port, it is important to measure the effectiveness of the lessee in achieving this objective. One possible set of measures is based on the growth in traffic from year-to-year during the period of the agreement. Since the growth is affected by macro-economic conditions, a more useful measure is market share, which compares the traffic growth with that of other ports in the region.

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<sup>7</sup> This takes advantage of the difference in discount rates of the public and private sector in the last decade, budget deficits have increased government discount rates, often above those of the private sector. Although the development banks have helped to increase these rates by encouraging countries to sell off public assets and reduce budget deficits, they have yet to recognize this fact in their appraisal of projects.

Another set of measures concerns productivity of assets. These measures include the throughput and utilization of the berths, storage facilities and major equipment. They have frequently been used to define minimum performance requirements, but are rarely used to define targets for improving efficiency over the life of the agreement. This is because the lessee is usually able to achieve an initial improvement in efficiency merely through the reallocation of labor and equipment and the change in management. Subsequent improvements require continuing investment and innovation by management. Often the private sector fails to deliver a continuing effort to increase productivity even though the market requires it.

## **8. Liabilities for Damage and Mitigation Measures**

The liabilities of the lessee with regard to damage to vessels, cargo, and port resources are covered by a set of standard clauses. These define the point at which the private sector assumes responsibility for the cargo and under what circumstances the lessee is liable for damage to the vessel. These clauses are important to avoid situations in which port users do not have clear recourse in the event of damage or loss of cargo or damage to the vessel.

These clauses also stipulate the type of protection the lessee must carry to cover these situations, i.e., insurance, performance bonds, bank guarantees, etc. The agreement will often stipulate the period over which this protection must be maintained and it will often include a specific amount of protection.

Similar protection is required for the port assets under control of the lessee. This includes protection against natural disasters. Most agreements will stipulate that the assets be returned to the port in their original condition, allowing for normal wear and tear. The procedures for inspection of the assets at the end of the agreement and the valuation for damage will also be set out.

One area in which the issue of liability for damage is becoming increasingly important is environmental damage. This is a difficult area because the legal environment is continually evolving and the port may be held responsible for actions of the private sector under agreements that were in force prior to the enactment of new environmental laws. Although this concern has been slow to make its way into the contract agreements, it will be increasingly important in the future.<sup>8</sup>

## **9. Conditions for Early Termination and Remedies**

These clauses describe the events that lead to default and the remedies available to both parties. The conditions of default include:

- The failure of either the port or the lessee to meet their obligations.
- Changes in the conditions affecting both parties at the time the agreement was reached.

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<sup>8</sup> Of particular concern is the requirement that the port clean up toxic wastes or restore sites to their original condition. This can be a costly issue, as in the case of the Port of Mobile which had to clean up an area used for creosoting telephone poles long after the lessee had departed. It may also affect port development, as in the case of Rotterdam where the contaminated soils in sites leased to refineries must be disposed of once the land is no longer used for this purpose.

For the lessee, defaults generally occur due to a failure to provide services to the port user of the type and quality stipulated in the agreement. For a concession involving a commonuser facility, defaults can also result from unfair discrimination among users of the port. Another common basis for termination is the failure to meet financial obligations. This includes nonpayment of rent or misrepresentation in the required financial reporting. It also extends to problems of bankruptcy.

For the port, defaults generally occur due to failure to provide the complementary services required for efficient operation by the private sector. This includes failure to maintain equipment and facilities and to provide free access. The financial basis for early termination generally refers to the failure to allow for adjustment in the level of charges. The conditions for early termination due to failure of the port to meet its obligations are less important because the concessionaire is in a better position to unilaterally cancel an agreement.<sup>9</sup>

Another important condition for termination is the failure of the commercial environment to perform as expected. Either specific markets do not develop, the services required in these markets are significantly different from what was proposed, or the competition in the market is greater than expected, resulting in much lower returns. Both the lessee and the port will seek protection from these events through early termination.

For the lessee, a particular concern is the entrance of new competitors. The port can limit entry under a franchise agreement. This is introduced where there are large capital investments or a new market is being developed as discussed above. Even without these conditions, the lessee will seek some protection from competition. The lessee will be especially concerned to avoid competition from the port, which can take advantage of its non-commercial status to compete for market share with the private sector. It will also seek to prevent the port from allowing others to compete for market share under terms that are more favorable than those currently in effect. It may also occur where the country develops new ports or changes to rules affecting the way business is conducted in the port sector.

For the port, early termination is an important method for adapting to the changing demands of the marketplace. It can be used to replace lessees that have failed to develop business for the port or, worse, have caused the port to lose business. It can be used to reclaim port resources which are not being properly utilized, or are no longer being used to provide the intended port services.<sup>10</sup> Early termination can also be used to re-bid a concession where the lessee is not meeting their obligations. In this way, the port can capture a part of the enhanced value of the port's resources, rather than allow a lessee who is not meeting obligations to sublease or subcontract to third party's willing to pay for the right to provide these activities. The same situation applies when there is a substantial change in ownership of the lessee's company. The attempt by the lessee to transfer the concession to another party, through a change in corporate ownership, is a ground for early termination.

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<sup>9</sup> The concessionaire is footloose and usually does not have complementary agreements with the port. However, the port has obligations with other concessionaires, which will be undermined by unilateral action.

<sup>10</sup> Without a basis for early termination, the port may be forced to buy back the contract where the port land and other assets are not being utilized.

In order for early termination to be effective, it should be based on:

- Objective criteria.
- Undertaken in an expeditious manner.
- Not be disruptive to normal port operations.
- Include compensation where appropriate.
- Allow for a quick re-bidding of the contract.

The clauses for early termination will specify:

- The actions to be taken for notification of the party concerned of its failure to meet its obligations.
- The period allowed for that party to resolve the problem.
- The person(s) responsible for determining whether the problem has been resolved.
- The steps to be following if the problem is not resolved to the satisfaction of the other party and the period of time required between each step.
- The procedures to be followed by the lessee in vacating the concession area and returning the physical assets to the port.

Within this context, penalties are often introduced in order to discourage the lessee from being negligent with regard to its obligations. However, penalties can often act as a deterrent to an expeditious termination and lead to lengthy litigation. For this reason, it is important to limit the use of penalties and to avoid expectations that these will lead to more efficient operations. In this context, arbitration is an important element of any contract. While many countries will require local arbitration, it is important to provide impartial judgement. This can be done through the participation of institutions such as the Chambers of Commerce, which represent a broader constituency or through formal international arbitration. The latter is more costly, but provides greater comfort to foreign investors and lenders.

It is in the interests of efficiency that the conditions leading up to early termination be based on the inability of the parties to the agreement to meet their common objectives. It is in the interests of the port users and the efficiency of the port, that neither party be held to an agreement when they are unable to meet their commercial objectives. In most concession agreements, the early termination clauses focus on the performance of the lessee. It is equally important that the lessee have no serious impediment to canceling the agreement if he/she is unable to meet his objectives. It is also important that more attention be given to the port's failure to meet its obligations. As long as the port remains in the public sector, there is a risk of political interference in the relationship between the port and the lessee. The port must be held accountable for its failure to meet its obligations in order to avoid politicians forcing a lessee out of the port so as to allow a better connected party to take over the concession. This does not necessarily mean financial penalties, but it does require some form of retribution, which will force the port to be accountable for its failure to meet its obligations.

The clauses that relate to early termination and remedies are of particular importance for the lenders and investors who are providing capital for the lessee. Since the money is being borrowed by special purpose companies that are established specifically for the concession, the only recourse of the lenders and investors is to the revenues generated through the agreement. In order to maintain this recourse, the lenders will focus not only on the ownership of assets, but more importantly, on the step-in provisions that allow them to preserve their recourse to the cash flow generated by the concession. Under these provisions, the lender will have the right to retain the concession and select a new lessee in the event that the original lessee defaults. This

selection will be subject to the approval of the port. These procedures allow the lenders to transfer the debt obligations to the new lessee, or to recover part of their outstanding principal by charging the market value for the residual agreement.

The early termination clauses are most important during the early stages of privatization of the port sector. At this time, the ports have relatively little experience with long-term agreements and potential for impropriety in the selection process is greatest. It is also at this time that the market distortions resulting from public management of the port are still in place but will be changing in somewhat unpredictable ways. Also, the expectations of both the government and the private sector with regard to the results of the privatization process are most likely to be at odds with the realities of a competitive marketplace. In this situation, there is a natural tendency of government to introduce an extensive list of conditions and remedies as a means for avoiding controversy or accusations of fraud and negligence.<sup>11</sup>

Once the port sector has introduced a few lease and concession agreements, the legal precedence for these contracts has been established, commercial pricing has been introduced and the expectations of the market are better understood, then the conditions for early termination will be less critical. It is at this point that the format of the contract should be greatly simplified. Fewer termination clauses should be included, but these would have a standard form.

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<sup>11</sup> As has occurred in the United Kingdom following the full privatization of the port sector (and of much of the public services) which allowed individuals to capture the economic rents associated with the public monopolies. The phenomenon of the instant millionaires and the new oligarchies has been one of the more notorious features of privatization throughout the world.

## OBJECTIVES OF PORT PRIVATIZATION

**Table A6.1: Positive Objectives of Port Privatization**

General Objective	Objectives	Strategies
Privatize	Fulfill government policy to transfer state-owned enterprises to the private sector	Concessioning of port terminals. Divestiture of Port Operations through corporatization. Divestiture through sale of assets or Capitalization through sale of shares
Increase Efficiency	Increase utilization and throughput of port assets Improved cost control and budgeting.	Private cargo-handling and equipment, leasing of storage area and concessioning of terminals.  Commercialization and corporatization of port management.
Promote Port Services	Effective marketing of port services. Use of commercial networking.	Terminal Leases and concessions to shipping lines, international terminal operators,
Mobilize Financial Resources	Provide access to private finance and develop more financially attractive projects to the markets.	Sale of Assets. Concession of port terminals Capitalization through sale of shares.
Introduce Private Management	Reduce political interference in appointment of managers. Professionalize port management. Introduce performance incentives	Corporatization of port operations. Commercialization of port management. Management contracts. Lease storage areas Concession terminals.
Improve Labor Relations	Introduce modern labor relations. Eliminate restrictive labor practices. Reward labor productivity.	Private cargo-handling labor Concession terminals.
Decentralize Ports	Provide local representation. Mobilize local entrepreneurial talent.	Corporatization and creation of subsidiaries. Concession of terminals.
Promote Public Ownership	Increase public share-holding. Strengthen market capitalization.	Capitalization through sale of shares. Concession of terminals to publicly held companies.
Increase User Participation	Increase role of shipping lines, cargo owners, land transport and logistics companies in port operations	Lease berths and storage areas. Concession terminals to user

## OBJECTIVES OF PORT PRIVATIZATION

**Table A6.1: Positive Objectives of Port Privatization**

General Objective	Objectives	Strategies
Reduce Government Deficits	Reduce deficit through sale of government assets	Divestiture through sale of assets.
	Reduce capital and operating subsidies.	Capitalization through sale of shares.
De-politicize Labor	Remove cargo handling labor from government employment,	Deregulate cargo-handling, transfer cargo-handling responsibilities to private sector, concession terminals.
Downsize Government	Downsize port bureaucracies.	Institutional reform through corporatization of port operations and commercialization of port management.
	Reduce pension liabilities.	

## **FINDINGS OF WORKSHOP ON PRIVATE SECTOR PARTICIPATION IN INFRASTRUCTURE**

### **A. Specific Observations Regarding the Port Sector**

The following points pertaining to the port sector were presented at the Workshop, held in Manila on 9-10 December 1998.

Effective port operations and investment require the unbundling of port networks to produce more client-oriented autonomous ports. The tendering process should encourage unbundling of both the network and the services within the ports. Where ports are not financially viable, they should not be bundled with profitable ports, but rather treated as stand-alone facilities that are turned over to local government or put under management contract using a competitive tender.

The landlord port structure is more robust than the traditional resource (tool) port or operating port because it accommodates different forms of public-private partnership, while recognizing that the only fixed responsibility of the public port is the ownership of the site.

The most effective and efficient procedure to promote private sector participation (PSP) in the port sector is to lease existing facilities with relatively short-term lease agreements that allow for reorganization and improvement in productivity. Subsequently, concession agreements can be used to encourage private investment in additional capacity. Where this capacity is required immediately, or labor problems make it difficult to unbundle existing facilities, then concessions might precede lease agreements.

The critical element in any effort to promote PSP is competition, or at least the potential for competition. This can be done through direct competition between private sector service providers, between public and private sector providers and between bidders in the case of a tender for an activity with only one supplier.

The private sector should assume all commercial risks. Other risks should be negotiated based on which party has the capability to mitigate the risk.

Continued public investment in basic infrastructure will be required, since it is difficult to recover the costs in a period that is reasonable for the private sector. Public investment may also be required to reduce the barriers to entry. This is important where a new entrant must make a large investment before competing with existing service providers.

The best form of tariff regulation is market regulation. Failing this, the second best is through the terms of the contract. These would identify non-competitive services requiring regulation, clearly state the maximum rates, the formulae for escalation, and arbitration procedures in the event of discriminatory behavior in excess of that justified by commercial pricing. The third best is through the establishment of a regulatory agency outside of the port, which would evaluate requests for tariff increases. All of these are preferable to a vague procedure for negotiating future changes in tariffs.

Reforms in the port sector requiring changes in legislation consume a considerable amount of time. In many cases these reforms will change institutional structures and responsibility but not the people or the corporate culture. Therefore, they are of limited value. Transactions involving the transfer of specific facilities and services to the private sector are

faster and should precede sectoral reform, since it introduces new management and a new culture into the port.

The participants identified other issues, including:

- The difficulty in selecting between the different contractual mechanisms discussed in the report.
- The need to separate the regulatory functions from the residual public port functions.
- The concern as to whether the private sector will meet the long-term needs of the port and the need for a continuing dialogue between private service providers, the users and the public port after the contract has been signed.

The propensity of the private sector to attempt to transfer commercial risks to the public sector during negotiation.

- The importance of communications and information exchange in the efficiency of port operations and the need to include this in considering the future role of the public sector in port activities.
- The difficulties in introducing PSP when there are strong unionism and the need to look at both the financial and human dimensions of downsizing port labor.
- The potential for monopoly behavior where large multinational terminal operators gain control of several terminal operations in a trading range.
- The questionable value of introducing foreign exchange pricing in ports where most of the operator's costs will be local exchange.
- The need for a continuing role of government in planning the development of megaports to limit investment in excess capacity.

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