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**PRIVATE SECTOR PARTICIPATION IN  
PORT OPERATIONS AND PRIORITY  
CONTAINER STRATEGY**



# PRIVATE SECTOR PARTICIPATION IN PORT OPERATIONS AND PRIORITY CONTAINER STRATEGY

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**Submitted to:**  
USAID

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# Private Sector Participation in Port Operations and Priority Container Strategy

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## **Introduction**

Government policy for the South African ports is directed to making ports facilitate the safe and efficient movement of cargo and passengers so as to enhance trade and economic development. South Africa's geographic position and distance to markets of its major trading partners means that the performance of the country's ports has a profound effect on the foreign trade sector. Against a range of performance measures certain aspects of South African ports and cargo handling operations are unsatisfactory. Rather than facilitating trade such performance undermines government's overall economic policy objectives of creating the conditions to integrate South African production into global supply chains. In response to poor performance government has embarked upon a programme of infrastructure investment as well as efforts to secure Private Sector Participation ("PSP") in order to access expertise and tap private sector capital for infrastructure investment.

This report chapter comprises of two parts. Part one sets out the general principles that should govern PSP against a background of the policy and legislative context into which PSP in port operations will function. Options for PSP in the SOE port operations sector are presented. The report then discusses a strategy for the container sector, giving priority to that sector due to its role in the movement of high value cargo. It discusses the issue of the common user principle in SA ports and potential anti-competitive behavior. It concludes by raising a number of key issues for consideration by Government. Part two discusses options for alleviating container congestion at the Port of Durban container terminal by means of quick to implement opportunities whereby small volumes of containers might be handled elsewhere in the port by the private-sector.

## **Strategic choices made by Government**

Recommended options for private sector participation in port operations contained in this report have been framed within the strategic choices made, and the direction given, by the Department of Public Enterprises at a workshop on 2 February 2005.

Two core positions, restated here, inform the report.

- State Owned Enterprises cargo handling companies (currently in the form of the South African Ports Operation (“SAPO”) division of Transnet Limited) will endure, albeit in a restructured form, in the course of port reform. Accordingly SAPO will, through the course of port reform, retain a presence in containers, bulk, multi-purpose and car terminal operations, however, in a different configuration to its existing 13 terminals.
- The container terminals in the ports of Cape Town and at Durban, currently operated as separate business units, are to be merged into a single entity for the purpose of securing private sector participation.

### **High level objectives of port reform**

Port reform is located within Government’s economic development objectives.

Delivering the State of the Nation address in February 2005, President Mbeki stated “(o)ur programme for the coming year is premised on the broad objectives to increase investment in the economy, lower the cost of doing business, improve economic inclusion and provide the skills required by the economy” (State of the Nation address 11 February 2005). Continuing this theme expressed in the State of the Nation address of 21 May 2004, stating that specific interventions have been set that will contribute to lowering the cost of doing business in South Africa, namely “..to expedite the process of the restructuring of ports to bring in new investment and lower the cost of moving imports and exports” (Government’s Programme of Action 8 February 2005). Infrastructure investment plans are focused on transport logistics, water and electricity with the intent of driving the State Owned components of the logistics infrastructure organized in Transnet to support economic development.

### ***High costs of port inefficiency***

Transport is the means to span distance between production and consumption. The costs incurred in overcoming the obstacle of distance is a measure of the efficiency of transport systems. High costs indicate inefficiency and low costs efficient transport systems.

There is a growing body of literature that shows how transport inefficiencies affect development, investment and trade. Explicit quantification of inefficiency is given by Limao and Venables (2000), who examined an index of road, rail and telecommunications infrastructure and show that increasing transport by 10 percent can reduce trade volumes by 20 percent.<sup>1</sup> A study of shipping costs by Radelet and Sachs (1998) revealed that doubling costs can reduce annual economic growth rates by about a half percentage point.<sup>2</sup>

High transport costs and poor transport systems impact on economies was shown in UNCTAD's 2003 Review of Maritime Transport, quoted in the Minister of Transport 2004 Budget Speech. It found that in 2001, the total freight costs as a proportion of import value of goods for developing countries in Africa, was 12.65%, compared to an average of 8.7% for developing countries elsewhere in the world. Land-locked countries in Africa have to endure costs of some 20.69%, whilst the average cost for sub-Saharan Africa, excluding South Africa, was 13.84%. The report also found that non-distance related costs such as port tariffs and border post charges ranged between 12 and 40% of the total costs of inland transport. The cost to the SADC region of border post delays was estimated at some USD 48 million annually.<sup>3</sup>

Ports and border crossings are subject to particular attention because they represent controllable factors in the logistics chain. High transport costs are influenced by a number of factors such as low cargo volumes, trade imbalances, long distances and factors of geography. Port costs amount to 8-12% of total transport costs between product source and destination.

Studies of this problem show the impact of port inefficiency on trade and welfare. A study by Clark, Dollar, and Micco (2001) suggests that an inefficient port can increase the distance to a shipper's export market by 60 percent.<sup>4</sup> Wilson, Mann, and Otsuki (2003) link port efficiency to an index of port efficiency factors relating to Customs, and e-business and the regulatory environment and relate these to trade. They found that improvement in port efficiencies yields the largest increases in trade flows. Namely, an improvement of 0.55% in the port efficiency indicator has the same impact as 5.5% and 3.3% improvements in Customs performance and e-business indicators, respectively.<sup>5</sup>

A US – Mexico cross border transport efficiency study by Francois, Fox, and Londoño-Kent (2003) shows that the costs of inefficiency are not trivial. They calculate potential savings if bottlenecks were removed and welfare increases as follows. \$1.8 billion and \$1.4 for Mexico and the United States, respectively, and a nearly 10 percent increase in cross-border trade flows.<sup>6</sup>

A recent comparison between two Latin American ports of similar scope and scale serving comparable markets in central America, Port of Cartagena, Colombia as the efficient port operating at global standards and Puerto Santo Tomas de Castilla in Guatemala as the inefficient port. The inefficient port an additional 49% cost “penalty” due to delays.<sup>7</sup>

Venter and Goode (2004)<sup>8</sup> model the effect of introducing productivity gains into the rail and port sectors at two levels and aggregate the productivity gains estimated for the rail and port sectors into a single transport service price reduction for modelling purposes. Two possible price reductions are obtained for this exercise, the lower one of 15% and the higher of 29% as a best possible case. The range between the status quo and these figures represents the burden of the current performance of the State Owned transport infrastructure services.

Persistent delays in South African that ran over an agreed 16 hour grace period provoked shipping line conferences to impose a surcharge of 100 USD per box on South African destined and originated container shipments in an effort to stimulate improved service and to recover some of the costs shipping lines had to shoulder due to delays that interrupted schedules and high operating costs from extended periods in port and increased fuel bills from trying to keep to sailing schedules. Surcharges were removed from Cape Town and Port Elizabeth shortly after they were imposed as performance improved to outside of the penalty range. The surcharge remains in force at Durban and it remains classified as a congested port.

## **Policy context for PSP in port operations**

Private sector participation in South African ports will take place in a policy context set by the White Paper on National Commercial Ports, March 2002. Development will be guided by the vision for national commercial ports that reads “*A system of ports, seamlessly integrated in the transport network, that is jointly and individually self-sustainable through the delivery of high levels of service and increasing efficiency for a growing customer base, enhancing South Africa’s global competitiveness and facilitating the expansion of the South African economy through socially and environmentally sustainable port development*”.

The cornerstones of this policy have been carried through into the National Ports Act and do not need to be reiterated here. In three critical areas changes have been made to how this policy will be implemented, in light of the priority for the public sector to lead in the creation of economic infrastructure.

1. A National Ports Authority is established with landlord functions and powers. It will be located within the Transnet Group. Transnet will continue to have beneficial ownership of the NPA until a decision is taken to remove it from Transnet. For the period the NPA is located within Transnet it will serve to support Transnet to rebuild the group’s balance sheet and facilitate integrated infrastructure investment planning.
2. Operational responsibilities will be transferred to specialised operators through concession agreements or licenses, consistent with the landlord ownership model and established contractual relationships between the NPA (and its predecessors) and existing private sector lease holders. SOE involvement in port operations will not be phased out. The current mixture of SOE responsibility for port operations and private sector operations will change through the introduction of PSP into operations currently performed by the SOE sector.
3. A Port Regulator will be established with responsibility for economic regulation of port services as a whole rather than only regulating the NPA.

## **Legal framework for PSP**

Enabling legislation for the creation of National Port Authority contained in the National Port Act (the title National Ports Authority Bill will assume once promulgated) provides for comprehensive rights to be covered by concession or partnership agreements. Port operations will be authorized by the NPA to parties that enter into agreements with NPA or obtain a licence from the NPA.<sup>9</sup> Concession agreements are to be provided for under section 56 which reads:

The Authority may enter into an agreement with any person in terms of which that person, for the period and in accordance with the terms and conditions of the agreement, is authorised to—

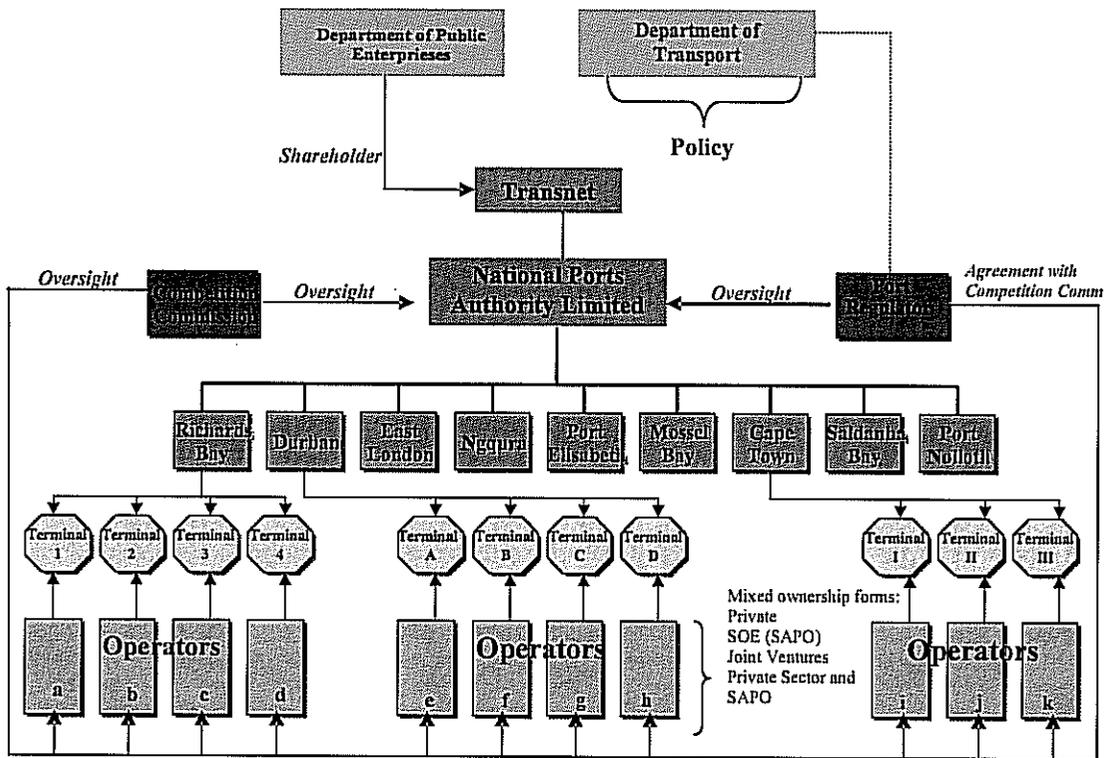
- (a) design, construct, rehabilitate, develop, finance, maintain or operate a port terminal or port repair facility, or provide services relating thereto;
  - (b) provide any other service within a port designated by the Authority for this purpose;
  - (c) perform any function necessary or ancillary to the matters referred to in paragraph (a) and (b); or
  - (d) perform any combination of the functions referred to in paragraphs (a), (b) and (c).
- (2) An agreement concluded in terms of this section must provide for the Authority to monitor and annually review performance with regard to the operation of the terminal or facility and the provision of the relevant services in terms of a performance standard specified in the agreement.
- (3) The services authorised under the agreement contemplated in subsection (1) may include stevedoring on board a vessel.
- (4) Notwithstanding any other provision of this Act, the Authority may enter into agreements in terms of which it contracts out any service which the Authority is required to provide in terms of this Act.

(5) An agreement contemplated in subsection (1) or (4) may only be entered into by the Authority in accordance with a procedure that is fair, equitable, transparent, competitive and cost-effective.

Port service operators who do not enter into concession agreements will be regulated by the conditions of licenses granted by the NPA. The principle terms of such licenses include conditions defining the scope of services provided, restrictions on transferring licenses and reporting requirements.

Upon promulgation of the National Port Act, incumbent operators will be granted automatic licenses. Over time such licenses will be converted to concession agreements or new licenses. Regulation over the NPA and operators will be exercised by a Port Regulator in terms of the Act save for matters that reside under the jurisdiction of the Competition Commission. A schematic representation of the institutional relationships in the port system after the commencement of the act and prior to a decision to move the NPA out of Transnet is show in figure 1.

**Figure 1** Institutional arrangement of SA ports after the commencement of the National Ports Act



## Priorities for PSP

Government's priorities for PSP have been separated into three levels to guide the selection of options conforming to government's objectives, strategic choices and the market characteristics of each terminal operation.

### Primary

1. To make South African ports a source of competitive advantage to the south African economy;
2. Improving productivity and efficiency at the country's commercial ports and their terminals to world class standards.

### Secondary

3. Attracting private sector funds and expertise for port infrastructure development and operation;
4. Operationalising Black Economic Empowerment through the process of implementing private sector participation.

### **Implementation considerations**

5. Protecting the interests of employees in SOEs;
6. Consulting interested and affected parties in the port community to ensure fair, transparent, understood and well supported reform;
7. Maintaining stability and the condition of SOE owned transport infrastructure during the port reform process that involves, inter alia, increased private sector participation, competition and regulation

This arrangement of priorities focuses on the trade facilitation role of ports and harnesses PSP as a means to achieve that objective. It also conditions the selection of options by taking account of the impact of change on the SOEs.

### ***Core principles of port operations efficiency***

Ships, especially special-purpose ships such as cellular container-carriers, are very expensive to operate, and their need is accordingly that their in-port time should be reduced to a minimum. In order to achieve this requirement two conditions need to be simultaneously fulfilled:

- **Minimise berthing delay** Ports need to be sufficiently resourced in terms of their marine services (provision of Pilots, tugs and berthing crews) and infrastructure (number of suitable berths) to enable ships to be berthed without delay; “on arrival” in the very best case.
- **Maximise nn-berth efficiency** Terminals need to be sufficiently resourced in terms of their equipment (gantry cranes, straddle-carriers, and so on), personnel (sufficient numbers of trained and skilled management and workers) and systems (yard management control systems) to enable cargo to be handled on and off ships at an acceptable-rapid rate.

Measures that contribute to reducing in-port time contribute to the realization of the objectives for South African ports.

## **Options for PSP in Port Operations**

Government has a wide range of options for the legal form in which increased private sector participation can be implemented. Within the policy prescripts, strategic choices of government and the framework provided for in the to be enacted National Ports Authority Act, agreements could range from outsourcing, contracting out, management contracts, lease and rental, partial divestiture to strategic equity partnerships, joint ventures, full divestiture, concessions and Build, Operate, Transfer concessions. Further discussions of these options are contained in chapter 3 of this report and in port reform literature<sup>10</sup> therefore the discussion here will be brief.

A distinction must be drawn between the ownership form of the entity, one the one hand, and the extent to which private sector participation is introduced into existing SOE operations and the licensing and regulation of port operations on the other. All port operations, irrespective of whether in the public or private sector will be subject to licensing by the port authority, in addition to other aspects of regulation on safety, security or environmental grounds, as well as the regulation that will be exercised by the to be established Port Regulator. The focus in this paper refers, therefore, to operations currently performed by the SOE sector, and SAPO in particular.

The degree of private sector participation for each option is determined by the extent to which investment and operational risk is shifted to the private sector. A crucial distinction is whether funding by the private sector in port operational infrastructure and superstructures and their ownership results from the transfer from the public to the private sector. This sets the distinction between partial and comprehensive privatization.

SAPO operates as a commercialised division within Transnet (Pty) Limited following financial accounting and reporting requirements of private companies in addition to those imposed by the Public Finance Management Act. Being an unincorporated profitable division is tax efficient for Transnet. Any operations that are to offered for PSP, however, will require corporatisation as a precursor to establishing a new operating entity involving the chosen form of private sector ownership.

## **Outsourcing**

Frequently used to lower the cost of functions considered to be peripheral, outsourcing is an effective instrument to transfer operations, services or functions to the private sector. Contracts for outsourced functions can be of any duration. The defining characteristic of outsourcing is that the function outsourced is a necessary part of the entities's operations, nevertheless responsibility that function is transferred to a third party better equipped to perform it.

## **Management contract**

Under a management contract operational responsibility is passed to a port management company who derived a management fee, and frequently incentive payments, for providing the expertise to run an operation. Management contracts typically provide for the installation of a new management team, who may have responsibility for training a local management team. Existing staff are retained and employment conditions not varied. Management contracts have the advantages of leaving the public sector's powers undiminished while certain skills deficiencies are remedied. International experience with port management contracts has highlighted a number of problems with this instrument, notably the prohibition on altering employment terms where facilities are overstaffed can prevent competitive cost structures being reached. The central weakness of management contracts is the lack of control by the management contractor over factors which determine the performance of the entity and consequently their inability to assign responsibility for failure to achieve performance objectives.<sup>11</sup> Port operating companies are, as a result, reluctant to enter into management contracts or similar arrangements where effective control is limited as they stand to gain relatively little for success against a considerable loss in financial and reputational terms. South African experience with management contracts in SOEs has been poor.

## **Strategic Equity Partnerships**

So named because the partners chose to combine for strategic reasons, strategic equity partnerships involve outside investors acquiring equity in a business at a premium because of its strategic importance to the investor. In the event that partial divestiture of equity in a SOE port operation to a minority equity partner is considered a

considerable discount for lack of control is to be expected. Minority equity partnerships with SOE port operators are unattractive to terminal operating companies in the absence of conditions that will allow the latter freedom to make investment and operational decisions they consider necessary to achieve the desired level of performance.

### **Joint Ventures**

Defined narrowly, joint ventures involve separate business pooling resources to establish a new venture for a specific purpose where management and control is shared. Advantage of joint ventures are in exploiting complementary resources and specialized skills. These are the evident advantages in the existing Joint Ventures operated by SAPO in cold storage, agricultural products and bulk storage.

### **Leases**

Leases confer the right to operate port services within specific boundaries. Leases are distinguished from concession agreements in two major respects, first by the absence of public service obligations and secondly by the absence of investment obligations. Long term leases do permit leaseholders to invest in equipment and facilities which is why they cover periods of 20 years or more with the option for renewal.

### **Concessions**

Agreements that provide for the provision of a public service on public land by a private entity for defined period of time constitute concessions. Concessions are the legal form under which the port authority transfers operating rights on land in the port estate for a pre-determined time and subject to concession contract terms to a private or public-private company. Concessions typify the separation of roles between the port authority responsible for land development and regulation of activities within port while operator companies (SOE operator, public-private entities or privately owned) are responsible for financing, developing and operating the terminals. Two major forms of concession contract apply in addition to the concession type features of lease and rental agreements. Either a regular concession in which operating rights without major investment responsibility in infrastructure and equipment, or one with

## *Private Sector Participation in Port Operations*

substantial responsibility for refurbishing existing or establishing new infrastructure and equipment, aptly referred to as Build Operate and Transfer. In all cases under a concession contract ownership of the infrastructure and most of the equipment and facilities ultimately remains or reverts to the port authority.

Any form of private sector participation in the ports sector will entail some public service obligations. The extent to which a concessionaire is required to perform public service obligations of non-discrimination and continuity of service are generally contained in licence conditions that are distinct from the contract based relationship between the concessionaire and port authority.

Build Operate and Transfer concessions are suitable instruments for the state to shift responsibility to the private sector for the provision of infrastructure, in addition to operations, while retaining overall control and ultimate ownership of port infrastructure assets.

### **PSP options that are excluded**

Strictly excluded by policy and legislation are options for private sector participation that result in the permanent transfer of ownership of port infrastructure and assets to private entities. Build, Own Operate type concession contracts are precluded from the range of instruments available to government for private sector participation.

The dilution of the state's ownership or complete divestiture from a terminal operating company holding a concession to operate terminal facilities would result in the privatization of a function performed by a SOE. It would not change the character of the concession agreement between the port authority and the concessionaire preserving the public ownership of the port estate.

## **Framework of Guiding Principles for Private Sector Participation in port operations**

Government's strategic approach to ports has shifted over the past four years in line with the emphasis it now places on creating enabling economic infrastructure through SOEs to support business to globalise. This framework replaces the concessioning architecture drafted in May 2003.

### ***Framework principles***

Private sector participation will be guided by the following principles. Specific terms and condition will be determined for each facility to be offered for private sector participation.

1. Government will adopt a framework for PSP in ports and agree an implementation strategy for specific facilities at Cabinet.
2. Facilities identified for PSP must fully take account of the port development strategies formulated by the NPA and approved by the Government.
3. On instruction from the shareholding Ministry, National Port Authority Limited, with due regard for the rulings of the Port Regulator and Competition Commission, is responsible for the implementation of the PSP process and accountable for the results obtained.
4. The fixed port assets of Transnet will transferred to a corporatised company the National Ports Authority (Pty) Limited with Transnet as the sole shareholder. The Minister of Public Enterprises may, in terms of section 4 of the National Ports Act, convert the company into a public company styled “National Ports Authority Limited”.
5. The state will retain a presence in cargo handling operations via State Owned Enterprises cargo handling companie(s) (currently in the form of the South African Ports Operations division of Transnet). The form of the SOE operations sector will change over time with increased private sector participation in ports.
6. Proceeds from superstructure (mobile) assets (with associated liabilities), presently given in usufruct (right to operate without ownership) to SAPO and the NPA, that are rented, leased, concessssioned or sold to new private sector

participants will be transferred to either Transnet or NPA or the National Revenue Fund.

7. Where new companies are created, employees will be transferred to employment in such companies at conditions not inferior to those presently offered. Pension fund benefits and other social security protections are to be carried over. Job security will be guaranteed for minimum periods, depending upon the nature of the facility.
8. During the transition period in which SAPO is re-configured and divesting from part or all of certain operations, threats to both the sustainability of SAPO and the facility undergoing PSP should be mitigated.
9. Employment legacy costs (notably pensions and post retirement medical costs) may be covered by funds raised from concession fees or sales from divestiture in the operations concerned.
10. Black Economic Empowerment compliance will be a requirement for PSP and the technical evaluation criteria for each transaction will be set accordingly. Codes of practice for Broad Based Black Economic Empowerment and sector charters will apply.
11. The common user principle will be maintained in each port, but not necessarily for every terminal in the port. The NPA will be responsible for arranging for one or more operators of last resort to ensure the continuity of public services in cargo handling, by negotiating and signing proper sub-contracts with individual private operators for well-defined activities and contract durations.
12. PSP contracts are to be awarded through a process that is fair, equitable, transparent, competitive and cost-effective.
13. Competition is to be created either 'in the market' and, or 'for the market' for the award of operating rights to terminals. The size and scale of the facilities

offered PSP will, however, take into account intrinsic economies of scale and commercial/operational demand factors.

14. For each PSP transaction a comprehensive bid document will set out, amongst others, the technical, financial, operational, human resource, BEE, investment obligations and restrictions criteria that will apply to that facility. Bid documents will set out the evaluation criteria for assessing bids.
15. Preference in selecting private sector partners will be given either to proposals from terminal operating companies or joint ventures of shipping lines with one or more terminal operating companies over proposals from individual shipping lines.
16. Provision for bringing existing leases and concessions in line with current operational and market conditions is made in the National Ports Act. Over time existing leases should be renegotiated and ultimately be harmonized.

## **Success factors for Private Sector Participation in South African port operations**

Good practice for implementing private sector participation in ports should follow approaches that are considered the international norm by prospective investors. To the core principles that may be considered the orthodox approach to redrawing the boundaries between the public and private sector in ports, need to be added specific national requirements and provision for geographic and historic circumstances.

Starting with the generic principles for good PSP, the following factors some of which are elaborated upon in more detail in chapter 3 dealing with the framework for PSP, need to be in place. As can be see from the summary below, they mostly are in place, paving the way for Government to proceed with PSP transactions.

- policy certainty

In the 2002 National Commercial Ports Policy the vision and objectives for South African ports is set forth. A National Port Authority with landlord powers and functions has been incontrovertably established through this policy. This implies the transfer of all operational responsibilities to specialised operators that are licensed to carry out such functions and contracted through leases and concessions. Over time private sector participation will result in a shift of services currently performed by the SOE sector towards the private sector.

Port users and interested and affected parties can obtain an understanding from the National Commercial ports policy with respect to how Government intends to steer the development of South African ports.

**It is recommended** that further attention should be given to clarifying policy with regard the application of Black Economic Empowerment and the retention the SOE sector in operations.

- legislative certainty

Of cardinal importance is the finalization and enactment of the National Port Act, the enabling legislation for the National Port Authority and with it the legal instruments that will be used for PSP. Over three years have passed since the legislation was first drafted. It is admittedly a complex piece of legislation, required to enable the creation of a port authority with due recognition of the historical development of South Africa's port and rail systems and the requirement for maintaining financial stability of the Transnet group during a large scale institutional reform process. Thus the draft legislation provides for the separation of the Port Authority from Transnet but does not prescribe the timing.

**It is recommended** that the Port Authority Act be enacted urgently.

- consultation with affected parties

Consultation with and accommodation of the legitimate concerns of interested and affected parties that are consistent with overall policy is a pre-requisite for effective PSP. Policy on consultation issues have been set down in both in the priorities and framework principles.

- Preparation of an execution strategy

Prior to starting the PSP transactions, an execution strategy needs to be developed with a mandate to first, raise interest in the market from prospective bidders for the facility or opportunity, secondly, equip the concessioning authority or SOE entity with the requisite technical, legal and financial capabilities and finally, taking steps to maximize the value of the entity concerned.

- commitment to follow through on reform

Once a programme for PSP in the ports sector is adopted as government policy and made public deviations from the programme should be avoided as they undermine confidence in prospective bidders.

- competitive, transparent and fair transaction procedures

Well established procedures for tendering, bid evaluation and award of contracts are established in SOEs. Supplemental expertise within government can be sourced from the body of expertise developed by the Public Private Partnership unit of the National Treasury.

- Effective risk transfer

At the center of a PSP agreement are mechanisms to transfer risk from the public to the private sector. The general principle governing this issues is that risk should be allocated to the party best able to manage and mitigate that risk.

- acceptance of international norms in measurement of productivity, performance and service levels

Performance targets will set for facilities earmarked for PSP. Furthermore, extensive reporting requirements are stipulated in the National Ports Act for port operator license holders and concessionaires. It is desirable that uniformly specified measures for productivity and performance levels that follow international norms be employed in contract

- flexibility to adjust to changing circumstances

PSP agreements in port operations will be entered into for lengthy periods that bare some relation to the amount of investment the private partner is required to make to establish the facility. The private sector party seeks contractual certainty to minimize and manage risk, however, both the private sector party and the public sector have a mutual interest in being able to adapt to changing circumstances that cannot be adequately foreseen at the outset of a long term operating agreement.

Strategic decisions need to be made by government on the treatment of issues that will have a major impact on the market response to PSP opportunities and the extent to which such changes are able to achieve the desired objectives.

### **Issues requiring urgent attention for PSP**

To create the conditions for PSP that will achieve the sought after objective to raise the performance of SA ports, decisions on the treatment of a three critical factors requiring urgent attention need to be made.

#### ***Regulatory effectiveness***

Prospective new private sector participants as well as incumbent operators, whether SAPO or private sector entities, will rely on the capacity of the Ports Regulator (or Competition Commission depending on the nature of a complaint) to protect them from the abuse of power by the Authority or a port service providers.

Given the structural arrangement where the Transnet Group will own the National Port Authority as well as SAPO, with the latter in direct competition to private sector operators, further that this ownership arrangement will persist for an unspecified period, the capacity of Ports Regulator will be crucial. Where private sector participation is introduced by SAPO as a minority partner, such investors will be concerned as to how much influence they will be able to have on the operations they become involved in and whether it they will face discrimination from other Transnet owned operations. SAPO will be concerned about potentially abusive behavior by shipping lines with respect to facilities it seeks to introduce private sector partners to.

To be able to perform its functions, the Port Regulator will have to be resourced and provided with the appropriate skills and support from the Minister of Transport.

The Ports Regulator will be a key factor in the risk assessment of prospective investors judging the attractiveness of opportunities for PSP in SA ports. The extent to which investors are confident that the regulatory structures will provide effective protection against anti-competitive and abusive behaviour will influence both the appetite for investing as well as the size of the discount factor applied to price an investment. Private Sector Participants need to be confident that the Port Regulator has the capacity to perform it's legislated functions.

**It is recommended** that the steps to establish the regulator as contemplated in the Ports Act be fast tracked.

### ***Competitive market structure***

Top priority for South Africa's ports it to make them support economic competitiveness. The rationale for PSP is underpinned by the desire to access expertise and finance to increase the performance of SA ports. With the shift from port operations under public ownership to mixed ownership and a greater share of operations in the private sector the issue of replacing public monopolies with private monopolies or oligopolies raises major policy concerns.

PSP framework principles address the need for competition either ‘in the market’ or in surrogate form ‘for the market’ while noting that conditioning factors such as size, external competition and the degree to which traffic is captive needs to be taken into account in determining the size of facilities offered for a concession. Summing up international experience of port reform over the past two decades, the World Bank observed “Most of the benefits of private participation in port activity results from competition”.<sup>12</sup> Analysis of port operations and industry performance trends show that concentration of ownership per-se is a poor indicator of anti-competitive operator behavior,<sup>13</sup> however, it is in the choice that port users have or alternatives available to them that serves to discipline operators. The beneficial effects of competition expresses at two levels. First, by disciplining operators and secondly by lightening the burden of regulators constructing regulatory regimes intended to simulate competitive influences on monopoly operators.

Traffic volumes at the Durban Container Terminal far exceed the minimum size required to create an economic and viable terminal business, put at 0.5 million TEU p.a.<sup>14</sup> An assessment of the viability of terminalising DCT into more than one concessionable unit in conducted by the Economic Impact Assessment and Ports Packaging study in 2002 concluded that terminal rail and road access configuration and costs of making major adjustments precluded separating it into multiple terminals.

Container Terminal and Cape Town Container Terminal as a single entity, into which a private sector partner will be introduced. Competition in the container market will therefore be restricted to that which will come from yet to be constructed facilities.

**It is recommended** that competition be introduced into the container terminal operations market by preventing SAPO from bidding for rights to operate to be constructed facilities and by accelerating steps for new private sector operators to bid for the right to build and operate such facilities.

### ***Container terminal at the Port of Ngqura***

The Port of Ngqura, with first phase construction by the NPA division of Transnet to be completed in 2005, will comprise initially of five berths totalling 1,800m of quay

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wall - two for containers, two for dry bulk and breakbulk cargo and one for liquid bulk cargo. The design capacity for cellular container vessels is to accommodate ships with up to 4500 TEU capacity and a loaded draft of 14.0m (SA Ports). Adjacent to the port is the Coega Industrial Development Zone, an industrial part suitable for export oriented manufacturing. Several large scale tenants for the IDZ have been pursued since the project was first mooted in 1998, however, the port will be ready for receiving vessels without a confirmed client. Transnet has invested R3.75bn in construction of the port. The construction of the port of Ngqura has created South Africa's third deep water port. The port and associated IDZ are major public sector backed economic infrastructure investments with a long term planning horizon to support industrial activity in the Eastern Cape province. To turn this investment to account and support economic development in the region, the NPA as landlord, Transnet and Government are expected to pursue strategies that will attract new business to the port.

Private sector participation in existing container facilities or to be constructed facilities will not be feasible while uncertainty exists about the status of a container terminal at Ngqura and the terms on which it will be offered to an operator. Due to uncertainty over critical factors such as the diversion of traffic for existing facilities to a new cellular container terminal, the relationship to the existing container facility in Port Elizabeth, the availability and pricing of landside transport infrastructure, particularly rail, to the major cargo destination and originating region of Gauteng, investor perceptions of PSP opportunities will be discounted by the continuing and material uncertainty related to the unresolved treatment of container terminal at Ngqura.

**It is recommended** that the container terminal at Ngqura be offered on a BOT basis to terminal operators, that the PE container terminal be included in this concession and that SAPO be excluded from bidding for this concession.

**It is recommended** that a government policy for the proposed container terminal at Ngqura be determined and be included in the overall policy for PSP.

## **The Common-user Principle and its impact on terminal concessioning**

Port cargo-handling terminals that are operated by SA Port Operations have traditionally been bound by what is termed the “common-user” principle, to provide the same standard of service to all terminal users, irrespective of any other considerations.

The purpose of this section is to describe the implications of the common-user principle in a future concessioned terminal environment with a range of PSP options. For the sake of convenience the container terminal environment has been used, but the argument applies just as well to other types of cargo and the terminals at which the carrying ships are worked.

The discussion starts with an exploration of some aspects of the “common-user” principle as they apply in port operations and assesses whether this principle supports the overall objective of raising efficiency.

### ***Common-user Principle***

The “common-user” principle has its origins in the Regulations for the Harbours of the Republic of South Africa (commonly referred to as the “Harbour Regulations”, and from the tenets of South African Administrative Law, although the term itself does not appear to be mentioned in either.

This latter seemingly minor omission is probably at the heart of the confusion over the application of the principle: a “principle” is routinely made use of, for the advantage of one party over another, which has apparently been neither defined by its proponent, nor ruled on by the courts. If the common user principle is to continue to play a role in the shipworking psyche then it needs to be subjected to a process that ultimately results in an acceptable and legally robust definition being adopted into day-to-day use.

### **Harbour Regulations**

Article 5 of the Harbour Regulations reads as follows:

***Assignment of Berths***

*The port captain or any deputy appointed by him for the purpose shall point out to the master of a ship arriving in the harbour as soon as practicable after the ship's arrival and, if possible, before the ship comes to anchor, the proper berth for such ship and, if considered necessary, the port captain or his deputy may board such ship.*

The term “port captain” is not defined as such in the Harbour Regulations, but it can reasonably be inferred that the term applies to the person employed by National Ports Authority who is responsible for effecting marine operations at the harbour.

Article 5 thus delegates to the port captain the decision as to the berth to which an arriving ship is to be directed. Although the sequence in which ships are to be assigned to berths is not specified in the Harbour Regulations, it can reasonably be inferred that ships will not be placed on berths before the terminal at which the berth is situated is ready to work the ship's cargo. In other words, it can be inferred that berths will be allocated in accordance with the readiness of the terminal at which the ship's cargo is to be worked.

The foregoing argument leads to an examination of Article 23 (Order of Working Ships) of the Harbour Regulations, which stipulates the order in which ship's cargo is to be worked, and which reads as follows:

***Order of Working Ships***

*Ships shall be worked as far as practicable in order of their arrival and subject to the discretion of the port manager in the interests of safe, orderly and efficient harbour working.*

The term “port manager” is also not defined as such in the Harbour Regulations, but as in the case of the “port captain”, it can reasonably be inferred that the term applies to the person employed by SA Port Operations who is responsible for effecting cargo-handling operations at the specific terminal.

A superficial interpretation of this stipulation is that the cargo of all ships will be worked strictly in the order of their arrival (the place of arrival would be the port reporting station). By reverse extrapolation, Article 23 can be further interpreted to imply that ships will be berthed in the same sequence, for there would be little point in berthing a ship at the best available berth if her cargo was not in such a condition to be loaded. Such a practice would hardly be in the interests of efficient harbour working.

The seemingly simple “first come/first served” nature of article 23 is, however, influenced by the discretion that is given to the “port manager” to work ship’s cargo in a “safe, orderly and efficient” manner, which suggests that where sufficient incentive exists the port manager would be well within his powers to depart, even to depart significantly, from the “first come/first served” principle. Such incentive would, however, have to be founded only on considerations of safety, orderliness and efficiency of cargo working operations.

Articles 5 and 23 read in conjunction, therefore, suggest that considerable discretion is given to the “port captain” to determine the order in which ships are berthed and to the “port manager” to determine the order in which their cargo is worked. In practice, what appears at first sight to be a fairly straight-forward application of the “common-user” principle is distorted significantly in the interests of achieving safe, orderly and efficient harbour working, which is as it should be.

### **Administrative Law**

The second source of authority for the “common-user” principle is South African Administrative Law. As the situation stands at the moment, National Ports Authority is the provider of marine services, and SA Port Operations is (by and large, and certainly insofar as any concessioning is envisaged) the provider of terminal services, and both of these are independent divisions of Transnet, which is itself a wholly State-owned business enterprise. Recent case law having clarified that Transnet is nothing but an “organ of State”, although perhaps marginally so, it follows that neither National Ports Authority nor SA Port Operations may act prejudicially to the interests of any person, firm, etc. that is subject to its laws.

In the case of ships arriving and working at the South African ports, administrative law therefore requires that a ship may not be berthed, or have its cargo worked, in such a manner as to prejudice the berthing or cargo-working of other ships at the port. It does not necessarily follow that the order of service should be dictated by a “first come/first served” rule. The order of service seems to be much more determined by the impositions of safety, orderliness and efficiency.

In a simplistic environment the notion of “common-user” and “prejudice” might once have sufficed. However, the ports are anything but simple environments, being subject to myriad and simultaneous perturbations that affect the manner in which port services are planned and managed. Moreover, the manner in which marine and cargo-working operations are effected has evolved considerably by comparison with the straight-forward practices of earlier years in which adherence to regulations dominated over considerations of commercial flexibility.

### **Instances**

Simple examples demonstrate just how far the strict “common-user” principle has had to be diluted in practice.

### **Berthing “Slots”**

Some port terminals have introduced berthing “slots”, which guarantees a specified ship the use of a specified berth for a specified period of time; in effect a time-based window of access. This practice has enabled ships to plan their arrival at a port just in time to berth within the designated slot, failing which the next most suitable ship is berthed there. To suggest that a ship, having arrived timeously at the port, should give up its slot to a ship that happened to have arrived at the port a little earlier would not be in the best interests of either ship, nor of those ships that are scheduled to make subsequent use of the berth in question, for the cargo of the “slot” ship would have been accumulated at or close to the berth, and terminal operations would have been planned such as to work that cargo at the optimum rate. Berthing another ship in its stead would thus considerably hamper the efficiency of its cargo-working operations, to the detriment of the “slot” ship, the substitute ship, and the terminal operator. All would have been prejudiced had the requirements of the “common-user” principle

been strictly adhered to, and the “orderliness and efficiency” rule contravened. The slot system is thus an instance in which the common user principle is beneficially subverted.

### **Terminal Operations Contracts**

Another instance in which the common-user principle is beneficially compromised is that of the “contract” that is entered into between the ship and the terminal at which it is berthed and worked. In most terminals a formal contract describes fully the nature of service that the ship will receive at the terminal. Such a contract would, for example, dictate not only the price of the service but also the means by which the service will be provided. For example, the contract might specify the number of cranes that would be deployed onto a ship, or at the very least the minimum rate at which its cargo would be worked.

In passing it is worth noting that although some port terminals have entered into such contracts, generally known as Service Level Agreements (“SLAs”) or Terminal Operating Contracts (“TOCs”), with a few of their client terminal users, they are in the minority, and a standard set of operating terms and conditions applies by default in instances where an overriding contract does not exist.

Take the case of a hypothetical port terminal, visited by two ships, one of which is suitably-sized and configured to be worked by three cranes and the other which can inherently only be worked by two cranes. It could be argued that rigorous compliance with the common user principle would necessitate the “better” (more suitable) ship being allocated fewer than optimal resources, which would result in it being less efficiently worked, so as not to give it any advantage over the “lesser” ship. It is obvious, however, that the dictates of efficiency will in fact be better served by working the “better” ship with three cranes, and the lesser ship with two cranes, than to inhibit the working of the “better” ship in order to satisfy the constraints of short-sighted adherence to a particular interpretation of the “common-user” principle that tries to enforce equal service levels. In this instance both the “better” ship and the terminal would have been prejudiced; the “lesser” ship would have been neither prejudiced nor advantaged in an operational sense.

It is self-evident that in both of the foregoing instances adherence to a simplistic interpretation of the common user principle would have harmed overall terminal efficiency, not only to the detriment of the main players as identified in either case, but to the interests of those ships that follow them.

### ***Assessment of common user principle***

The obvious conclusion is that the “common-user” principle, if rigorously applied, would reduce port efficiency rather than improve it, which would contradict the discretion that is granted by inference to the “port captain”, and by stipulation to the “port manager”, to effect port operations in their respective fields to best overall advantage.

In practice, the principle should be that marine and cargo-handling services should be provided “to best mutual advantage”, or some such. Decision for implementation should be left to the discretion of the individuals concerned as to how best to achieve it in each operational context. Protections from abuse via appeal routes are provided for by the Port Regulator.

## **Options for PSP in South African Port Operations**

Table 1 summarises, in matrix form, a spectrum of options for PSP in port operations from which Government can select the preferred option where SAPO is the operator of record or preparing to obtain the operating right on to be constructed facilities. At either end of the spectrum are options that do not share ownership of the facility. In the first option PSP is precluded where SAPO enters a new market on its own. In sixth option SAPO is prevented from bidding to run a facility on policy grounds where Government aims to satisfy one or other objective such as creating competition in the market, or encourage the development of new, possibly Black owned, private sector port operations companies.

Accelerated efficiency improvements resulting from PSP are premised on two factors. First, that a competitive market structure is established in which a degree of choice is available to users to switch between operators. It is noted that effective competition

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will be limited as it will not be possible, nor desirable, to introduce competition into every cargo market nor in every port due to the natural hinterland they serve.

Providing shippers with some choice will strengthen their bargaining power the market discipline over oligopolistic operators. Secondly, that different operating systems, techniques, technology, capital choices, corporate decision making processes, work organization, reporting relationships, and individual performance based incentive systems are introduced via PSP which represent a break from the established practices and existing labour regime. The extent to which such changes occur will determine the extent to which accelerated efficiency improvements can be achieved.

Mobilising private capital for infrastructure and operating superstructures and transferring risk to the private sector increases with extent to which responsibility is transferred to the private sector. Options that constitute joint responsibility continue to expose the state via the SOE to market risks.

The promotion of BEE at an equity level is but one aspect of empowerment and transformation in the economy. The SOE sector as a whole has followed a more closely monitored BEE procurement policy and more rapidly transformed their management structures to advance black people in the maritime sector. The PSP options provide for increasing BEE equity participation in port operator companies.

Parties most affected by the changes that will increase or retard PSP, change ownership, revised employment terms and pose major risks for all new parties are identified. While this is not an exhaustive list, it identifies major parties affected by a particular option. Support for change or opposition to change from significantly affected parties will have a major impact on the ease of implementing any option selected.

Table 1 Matrix of options for Private Sector Participation in Port Operations

Form for Private Sector Participation	Accelerated Efficiency improvements	Risk and investment transfer	BEE equity (excl. procurement, training & ops)	Retention of SOE presence in operations	Party Impacted and Magnitude	Corporate structure for SAPO	Condition for success
1) Expand into new operations. E.g. bulk in Durban	Low	Added risk	None	Growing	Pvt sector: Severe Gov policy: Severe SAPO: Positive	Division of Transnet	Availability of investment capital Govt tolerate anti-competitive activity
2) Retain share of current operations. Selective Contracting in of management expertise	Low and slow	None	None	High	Maintains status quo; small impact	Division of Transnet	Selecting right participants Transferring skills Retaining skills Over-coming Transnet institutional constraints
3) Majority shareholder in existing operations with minority ITO participants	Medium	Low	Low (ITO would partner)	High	Commitment to PSP boost to investor confidence: small Labour: small	Corporatise terminal into SPV	Securing interest from prospective ITO investors with skills and capital Investor interest limited to terminals generating positive returns
4) Minority shareholder in existing operations with majority ITO participants who accept reserved stake	Medium	Medium	Medium	Medium	Investor confidence: medium Labour: medium	Corporatise terminal into SPV	Investor control of business. Transnet group willingness to permit change. Degree to which new culture and practice spreads in ops. without sharp break from past.
5) Join with bidders for concessions as minority shareholder. If not in winning consortium employment guaranteed to workers not management	High	Med to High	High	Medium or low	Risk for bidder: high Labour: high SAPO management: high	Corporatise terminal into SPV	"Forced marriage" valuation bidders place on SAPO is greater than zero. Protection from Transnet domination. Complicates bid evaluation
6) Not permitted to bid on terminals	High	High	High	None	Labour: high Management: high Port users: high	Divestiture to new company	SOE withdrawal from operations. Aggressive competition for the market. Good transaction practice

The minority interest option or strategic equity partnership for which the PSP will be required to provide expertise and take a leading role will not be attractive to investors if their equity position is small. Conditions that will increase the attractiveness of such a position are guarantees that the private sector investor has the freedom to perform their functions and undertake changes they consider necessary to meet the goals set for the operating entity or terminal joint venture.

### ***Potential private sector partners***

Prospective private sector partners in port operations will need to be judged on their suitability with respect to operating expertise, experience, track record and financial standing. Any prospective bidders for port operations concessions would be required to comply with Black Economic Empowerment criteria and other applicable policy and would take this into account in the composition of their bid entity. The generic categories for bidders are as follows.

- International Terminal Operator (ITO) from the pool of 6 or so global operator companies with expertise and specialist knowledge. Such a bidder would typically combine with local companies and investor groups, particularly where major terminal investment costs are required. International Terminal Operators with corporate links to shipping lines invite scrutiny due to the concern that such a situation of vertical integration may create the potential for anti-competitive behaviour. The issues that this poses are discussed in the section below on the application of container concessioning and the common-user principle.
- Cargo owners in association with, or without, a contracted ITO. Typically for bulk terminals where the handling operations may be run by their own staff or outsourced to logistics companies.
- Domestic port operations companies or freight logistics companies singly or in consortia with investors seeking to enter the port operations sector.

**Factors influencing market responsiveness to PSP opportunities**

Factors to be taken into account to determine the suitable form for PSP are principally Government policies and objectives and the commercial attractiveness of the facility to secure private sector interest on favorable terms. Government objectives have been defined above. Commercial attractiveness is a function of the following factors, summarized below.

1. Profitability. Terminals that are currently earning the high profits will attract the highest interest for PSP.

**Table 2** Budgeted income for SAPO terminals 2004/05 Rm

Terminal	Revenue	%	Net Operating Profit	
			Profit	%
Durban container terminal	998	31%	356	49%
Durban multi-purpose terminal	286	9%	-16	-2%
Durban Car terminal	98	3%	53	7%
Durban Maydon wharf	83	3%	10	1%
East London	67	2%	2	0%
Port Elizabeth container terminal	175	5%	53	7%
Port Elizabeth multi-purpose terminal	58	2%	1	0%
Cape Town container terminal	391	12%	107	15%
Cape Town multi-purpose terminal	161	5%	25	3%
Saldanah multi-purpose terminal	91	3%	37	5%
Saldanah Iron Ore terminal	207	6%	46	6%
Richards Bay dry bulk terminal	367	11%	82	11%
Richards Bay multi-purpose terminal	211	7%	-23	-3%
<b>Total SAPO</b>	<b>3,193</b>	<b>100%</b>	<b>733</b>	<b>100%</b>

Source: SAPO

2. Size. Large facilities with high volume facilities will attract investors. To this must be added the effects of increased productivity and management.
3. Growth rates. Growth rates and growth potential over life of an operating agreement. Noting that different rates of growth apply to different cargo segments and also the growth rates of the hinterland served by each facility.
4. Concentration of cargo handled by or owned by large users. Captive traffic may need protection from monopoly operators which will restrict such

operator's freedom to price. A shipping line that holds a very large share of the market for traffic for a facility that seeks vertical integration by acquiring a share in the facility poses risks of engaging in anti-competitive behavior against rival shipping lines.

5. Inter-modal links. The quality of road and rail transport links to a terminal's hinterland is important. Effective inter-modal links expands the size of the hinterland and thus increases volume. Time critical cargo, particularly containers require timely shipment from the port to customers.
  
6. Quality of the skills of the workforce and their receptiveness to training and the introduction of new operating methods and work organization required to improve productivity. Employment guarantees at facilities where PSP is introduced is laid down in the framework principles, which prospective investors will have to factor into their assessments of the opportunity. Employment guarantees raise the cost and increase the length of time required to train and deploy the appropriate skills which are necessary to achieve higher productivity.
  
7. Physical layout of the terminal. Some terminal have constraints to operations based on their physical characteristics which imposes limits on separating terminals into separate competing units to increase competition. Physical layout can prevent a facility optimizing its performance if it were to be separated into smaller units.

## **Container strategy for DCT and CT proposed by SAPO**

Consultants on this project have worked within the brief provided by the DPE regarding Government's approach to SAPO's container terminals in the ports of Cape Town and at Durban, namely that these two terminals, currently operated as separate business units, are to be merged into a single entity for the purpose of securing private sector participation. Following the SAPO briefing of October 2004, the intended approach is as follows.

Lack of management expertise, skills and experience commensurate with operating South Africa's primary container handling facilities is diagnosed as the core challenge to be overcome to achieve higher performance, coupled with the capital expenditure programs already underway. The strategic objective for PSP is allow SAPO to access best practice skills and operating expertise to raise operational performance to international norms. As the primary objective is to acquire and transfer skills to the running of the container facilities, a strategic equity partnership with an international terminal operator and a merged DCT and CTCT corporatised entity is proposed to avoid conflicts of interest were SAPO to attempt to partner with ITOs on either DCT or CTCT separately.

DCT and CTCT together handle 87% of South Africa's container traffic. These two facilities contributed 45% of SAPO's projected revenue for 2004/05 and will generate 64% of its net operating profit, R1.3bn and R461m respectively. For a PSP investor these facilities are large and with growing volumes represent an attractive opportunity.

Competitive bidding terms for the selection of a PSP would provide competition for the market. The implications of the huge market share possessed by this combined operation poses a major policy choice for Government, that is the extent to which competition is to be created in the container market. A strategic equity partner for SAPO would accelerate the development of expertise and raise the performance of current operations, however, in the absence of competition the full benefits of PSP would be limited.

**Is recommended** that a strategy which will introduce significant competition in addition to retaining a presence for the SOE sector in operations should be pursued.

## **Container strategy proposal**

Government's objectives for creating the conditions for sustained performance improvements in the container sector can be achieved by three major PSP interventions. The three need to be considered together as the impact of new capacity on the economics of existing or planned facilities will be profound.

To maximizing the benefits of transferring responsibility for operations and investment to private operators requires designing the market to maximize the opportunities for competition. Given the decision to introduce PSP partners into DCT and CTCT in the form of a strategic equity partner, points of entry in the container market for competition will come from the treatment of facilities created to cater for future growth. Under such an approach the determining factor for the timing of building new capacity will be the rate of growth in the container market. Container volumes at Durban are increasing at 8% pa. Further growth at DCT will be limited by the yard storage limit, using current handling methods, of 1.86 million TEU, which it is estimated will be reached in 2007/08.

New container capacity for Durban is being created by the conversion of Pier 1 from a multi-purpose terminal to dedicated container terminal, currently underway by the NPA. The construction of a new container terminal at Pier 1 provides a PSP opportunity to government to transfer operational and investment risk to the private sector through a Build Operate Transfer concession agreement. Selecting this option would create two further desirable outcomes. First, it would create competition for DCT, albeit from a facility that at full size will be a third of the size of DCT. Second it would introduce inter-port competition as a factor for the small proportion of traffic that could switch from other ports. Introducing PSP via a BOT concession would shift investment responsibility to the private sector and relieve Transnet from funding the terminal operational infrastructure and superstructures for Pier 1.

**It is recommended** that a concession on a Build, Operate, Transfer basis be offered to the private sector for Pier 1.

Challenging choices for Government are posed by a to be constructed container facility at Ngqura to support Coega Industrial Development Zone and generate traffic for the new port. Key factors to take into account are as follows:

1. Container volumes at the PE CT are at 281 000 TEU for 2004/05 are growing at 4% pa. The terminal has reached the limits of available stacking space.

Further investment in the terminal will be curtailed in relation to Government's decision on the treatment of container facilities at Ngqura.

2. PE and its hinterland serves container traffic originating and destined for PE in the main. Significant new cargo volumes to support a new terminal are not being generated by the IDZ and would only become a factor in the medium term.
3. Significant improvements to the rail link to Gauteng and associated costs in comparison to the Durban - Gauteng rail link would be required to compete for traffic with Durban. It recommended that Government through Transnet encouraging PSP on this rail link to improve the rail service. Explicit subsidies to compensate for the additional distance would be contrary to Government policy.
4. Built as a greenfields facility, a Ngqura container terminal would be highly productive and capable of handling large vessels efficiently. Shipping lines that deploy large vessels on their South African service may restrict calls to a maximum of two ports, forcing a choice between the West Coast terminals at Durban and Ngqura.
5. Several factors militate against a container terminal at Ngqura to position itself as a specialist common purpose transshipment hub. Container transshipment traffic relies on the easy of hubbing through a particular port to be viable, a port with limited connecting services fails this essential requirement. Container transshipment traffic at South African ports amounts to approximately 20% of the total volume. The rate of growth in Transshipment traffic is a function of the rates of growth in the container cargo markets served by transshipment, that is predominantly SADC countries and traffic destined for the East African coast. South African has a limited coastal shipping fleet to operate feeder services.
6. A viable scenario for a new terminal at Ngqura can be conceptualized on the following basis. A new operator in alliance with shipping lines or acting for a

single shipping line and consolidating all their South African cargo to obtain a critical mass could make a new terminal investment viable, provided that as a new greenfields development highly efficient equipment, systems and work practices are established from the outset. Coastal hubbing services and efficient intermodal connections, referred to above, are essential.

From the foregoing factors the following conclusions can be reached. First, a new facility established in the short term at Ngqura will cannibalise the PE CT terminal and draw traffic from DCT and CT terminals. In the medium term such a facility will slow the rates of growth for facilities that will remain under SAPO control. Thus, it will invariably reduce SAPO's revenues contributed from the container segment. Second, deferment of a decision on the treatment of a Ngqura container terminal creates a high level of uncertainty in the market for PSP options available to SAPO and will undermine its strategy to secure a SEP for DCT and CTCT. Therefore it is desirable to eliminate such uncertainty by adopting a policy on Ngqura.

An option in which the PSP partner is responsible for operations of the PE CT and the construction of a new Ngqura terminal would allow the operator to optimally manage traffic during the transition phase of establishing the new terminal. It would also allow Government to salvage some value from the closure of the PE CT.

**It is recommended** the option for PSP at Ngqura be through a concession to take over the PE Container terminal and transfer container operations to a new terminal constructed in the port on a build operate and transfer basis, thereby transferring investment responsibility for the terminal infrastructure and superstructure to the private sector.

### **Shipping lines as concessionaire terminal operators**

An assessment of whether, in a discretionary common-user environment, shipping lines may aspire to become operators of concessioned port terminals was undertaken. The results synthesised here were obtained by one-on-one interviews with major container shipping lines serving South Africa.

## **Methodology**

In order to avoid a presumption about Government's strategic intent and policy choices for PSP,<sup>15</sup> a hypothetical scenario was used to solicit responses from shipping lines constructed on the following basis. Consider a hypothetical South African container terminal, currently operated by an SOE. Consider further that this terminal is offered up for competitive concessioning, that a shipping line (let's call it shipping Line A) bids on the concession, and furthermore that shipping line A wins the concession, thereupon becoming the terminal operator of record.

The situation that would then prevail is that shipping line A is the operator of the port terminal, at which its own ships are served, as are those of at least some of its competitor shipping lines as well. The question then becomes whether the competitor shipping lines would be prejudiced by such an arrangement, on the assumption that the terminal operator would inevitably be partial to his own ships, and might therefore, wilfully or otherwise, prejudice the working of competitor ships, and if so, by what means the prejudice might be mitigated.

Several major container shipping lines were interviewed in order to gauge the degree to which future shipping line operation of a concessioned terminal would impact on their competitor shipping lines, the following postulate being used as the basis of the discussion:

*Consider a hypothetical, common-user South African container terminal, neither Durban Container nor a future terminal at Ngqura (Coega). Assume the operation of this container terminal comes up for concessioning and that a shipping line bids, amongst other bidders. Assume further that the shipping line wins the bid contest, thereby becoming the operator of the concessioned common-user container terminal, servicing not only its own ships but those of its competitor shipping lines also. To what extent would your shipping line be prejudiced by such a situation?*

## **Views of Shipping Lines**

Without exception, the shipping lines confirmed that in principle they would not be prejudiced at all, and that they experience similar situations all over the world without any difficulty at all. They were quick to point out, however, that the situation in a

future concessioned South African container terminal might not duplicate the situation of other world terminals, specifically in respect of the absence of inter-port and intra-port competition.

Shipping lines suggested that it would be unlikely, as a general rule, that a shipping line would bid on a container terminal concession, as most shipping lines prefer to concentrate on their core business, which is shipping, rather than to become involved in terminal operations. If anything, “shipping line” bids would generally be made in the name of a sister terminal operating division within the same group. For example, P&O Nedlloyd is the shipping line subsidiary division of the holding company, as is the terminal operating subsidiary division P&O Ports. Similarly, Maersk is the shipping line subsidiary division of the AP Møller Group, as is APM Terminals, which already operates a number of terminals. It is not unknown for a shipping line to have a shareholding interest in the terminal operating company at which their ships are accommodated, but this is for investment reasons only. In terms of the operation of the terminal the shipping line and the terminal operator function at arms length from each other, irrespective of the shareholding and ownership arrangements between them. In terms of local context, the situation is exactly mirrored in the arms-length relationship between National Ports Authority (as port landlord) and SA Port Operations (as terminal operator) in respect, for example, of land rentals, despite both being divisions of the “holding company” Transnet.

### **Terminal operator – shipping line relationship**

Successful container terminals generally offer service level agreements and commercial agreements, sometime in separate contract documents, sometimes in a single document, which are considered jointly in determining the conditions under which the ship would be worked, and the tariff that the terminal operator would charge to the shipping line. Such agreements generally define the following attributes:

#### **Berthing Guarantees**

The terminal and the shipping line agree that the ship will berth at a specified time, and the shipping line then adjusts the schedule of the ship accordingly. Inferred in such an agreement would also be the depth of water that would be maintained, which is obviously of relevance to the size of ship that can be accommodated at the terminal.

### **Productivity Guarantees**

The terminal operator guarantees to turn the ship around with a specified number of hours, deploying sufficient resources onto its working to ensure that he complies. At least one shipping line talked of a desired norm of some 60 moves per hour, measured over the whole ship, irrespective of the number of cranes deployed. Failure to comply would result in the terminal operator incurring a penalty.

### **Stipulated Tariffs**

Tariffs would not only stipulate the cost that the shipping line would pay to the terminal operator, generally on a “per TEU” basis, but also the formula by which this tariff would be discounted in accordance with the volume of containers that the shipping lines brings.

The tariff might also specify the “gantry friendliness” of the ship; very “friendly” ships as fully-cellular container carriers would then enjoy a preferential tariff over a cellular container with deck-cranes, than a non-cellular container carrier, and so on.

### **Information Exchange**

Electronic interchange of data (EDI) is more and more becoming the standard by which world terminal work, and those relying on now-antiquated voice and paper systems for data transmission are becoming steadily fewer in number.

Shipping lines suggested that the terminal operator’s tariff should be stepped down in accordance with increasing container volumes provided to him. In other words the greater the volumes that a shipping line gives to the terminal, the lower the per-unit tariff would be. The general opinion was that these stepped tariffs need not be confidential; what would be very confidential would be the “rung” on which a particular shipping line had been placed. This is often the point at which a shipping line might take up a shareholding in a terminal, the basis of the arrangement being that the shipping line shareholder would benefit from the inverse tariff/volume relationship, which would encourage him to increase the volumes he brings to the terminal.

The terminal operator might stream the ships of a particular shipping line towards the same berth, or group of berths, but this would be done for operational convenience and would not be indicative that the particular berth/s “belong” to the shipping line.

***Mitigation concerns over discriminatory treatment of shipping line or other stakeholder***

Shipping lines or other stakeholders have prima-facia concerns about discriminatory treatment. There are three mechanisms by which the effect of terminal operator partiality might be mitigated. These are:

- The effect of competing terminals
- The effect of Service Level Agreements
- The effect of the statutory port authorities (the Port Authority and the Ports Regulator)

**Competing Terminals**

In theory, a shipping line that is prejudiced at a competitor-operated container terminal will simply divert its ships to a competing terminal. The broad argument is thus that inter-terminal competition, rather than a statutory provision such as the “common-user” principle, will ensure that a shipping line-operated container terminal does not prejudice the ships of its competitors.

This provision applies very well in a multi-operator environment such as prevails in North-West Europe, where many container terminals, often more than one per port, are so positioned as to be able to compete for container traffic destined for or originating from a common hinterland. From Hamburg in northern Germany to Antwerp in Belgium there are no less than ten container terminals on both sides of the English Channel, all of which are sufficiently well equipped and well-located to be able to compete for west- and east-European container traffic.

Under such circumstances shipping lines can and do switch their ships from one terminal to another, for reasons of price as much as service levels. They would surely

do the same in the event of their ships being prejudiced, but the likelihood is that the terminals are so fiercely competitive that wilful prejudice is highly unlikely to occur.

The situation is a little more complex in the South African ports inasmuch as only the ports of Durban, Port Elizabeth and Cape Town have container terminals, and that in each of them there is only one container terminal. Planned development of Durban's Pier 1 to convert it into a fully-fledged container terminal will bring into being a second container terminal at the port. At Port Elizabeth it may be that the activity of the current in-port container terminal will be re-located to the new port at Ngqura and at Cape Town it is not likely that the planned widening of the current container terminal into Table Bay will result in a second terminal being established at the port.

The other ports (Richards Bay, East London, Saldanha Bay) do not currently have fully-fledged container terminals per se, although containers are handled at all of them in varying quantities, nor is it apparently the intention to develop container terminals at any of them in the foreseeable future. Of the six South African ports, therefore, only Durban is likely to have competing container terminals, and even then it is not possible at this time to determine the identity of the respective terminal operators.

The absence of multiple container terminals in the South African ports results in the mitigating effect of intra-port competition not being available as a means of discouraging prejudicial behaviour. The possibility of inter-port competition is of equally little value, since all existing container terminals are operated by a single operator (at this time SA Port Operations). In a post-concessionary environment it is possible that some container terminals will pass into the hands of other terminal operators, but even then the "playing fields" of the container supply chain will hardly create an environment in which the container terminals can compete with each other on an even footing.

The reason is that the South African container market is relatively small, and the distances that containers have to travel to and from the sea-ports are not only relatively large but unequal, resulting in land transport charges not only being relatively high but unequal port to port. For example, many containers are sourced from or destined for the industrial heartland of Gauteng, but the rail distance from

there to Port Elizabeth/Ngqura is significantly greater than is that to Durban. Unless the rail subsidy to Port Elizabeth/Ngqura is sustained in the long-term, then for reasons of practical economics Durban will continue to be the preferred port for Gauteng container traffic.

### **Service Level Agreements**

The second means by which the concerns of competitor shipping lines might be mitigated is the obligatory introduction of service contracts (sometimes termed service level agreements) between the terminal operator and the terminal user shipping line. Although relatively new in the South African context, shipping lines that call at international ports worldwide are very accustomed to the use of such contracts, and they will in all likelihood welcome their introduction.

Whilst service level agreements in general specify the services that are to be performed (often detailing the operational procedures), they generally contain three major sets of clauses:

From a legal perspective the agreement would define the terms contained in it, and it would specify issues such as the duration of the agreement, legal jurisdiction, domicilium, arbitration, assignments, translation (where necessary), liabilities one to the other, confidentiality, and so on.

From an operational perspective the agreement would specify the information that the parties require of each other and the means by which it will be transmitted, the minimum rate at which the services will be provided, and so on.

From a commercial perspective the agreement would stipulate the structure and quantum of the price or price schedule, as the case may be, any special discounts that might be allowed, terms of payment, and so on.

SA Port Operations has recently released what amounts to a two-part service level agreement, comprising separate Container Terminal Operations Contracts (CTOCs) and a Standard Conditions of Trade document (rather confusingly shortened to COT).

### *Private Sector Participation in Port Operations*

Having been negotiated one-on-one between terminal operator and shipping line the Container Terminal Operations Contract documents have not been made available for scrutiny, but their contents are not thought to extend beyond a description and the price of the services, although there is a suspicion that volume-related discounts might have been provided for.

The Standard Conditions of Trade documents have been made public, and provide for many of the items that other terminals include in their terminal contracts, thus guaranteeing the equivalence of the service offering to all clients.

Read in conjunction therefore, SA Port Operations' two documents have exactly the same effect as do the single documents of other terminal operators.

The mitigatory effect of service level agreements (or whatever name they may be known by) arises from two sources:

The services that are to be provided, and the complete set of terms and conditions under which they are to be provided, are stipulated in advance, and agreed to by the parties. There is thus established a clear benchmark against which to measure the degree to which the terminal operator succeeds in providing the services.

Every ship that calls at the terminal is covered by either a shipping line-specific specific service level agreement (the general case), or by a standard conditions of trade document.

In the small family of international shipping, whilst a shipping line might not have intimate knowledge of the contents of a competitor's service level agreement, it would be painfully obvious were the competitor to receive more advantageous service to the detriment of the shipping line, so the mere existence of service level agreements, albeit confidential, acts as a significant brake on any tendency on the part of the terminal operator to respond knee-jerk-wise to arbitrary, short-interval requirements of individual terminal user clients, which he could only satisfy by acting prejudicially to the interests of other clients.

In practice, the only significant differences between these confidential service level agreements are likely to be those that affect the price of the service, where the terminal operator might differentiate on:

The basis of the configuration of the ships that a shipping line will send to his terminal (in South Africa sometimes termed their “gantry-friendliness”). Less “gantry-friendly” ships will, by definition, work less efficiently under container-handling gantries, and will therefore attract a higher service price than will a “gantry-friendly ship”.

The volume of business that the shipping line might bring to the terminal. In such a circumstance the terminal operator is often willing to slightly discount his mark-up (sometimes referred to as a volume-related discount), trading-off lesser margin against higher volumes.

### **Statutory Authorities**

Providing protection against discriminatory behaviour are explicit functions of both the Port Authority and the Port Regulator. With respect to the former, the National Ports Act when enacted stipulates that the NPA functions are, inter alia, to:

Regulate and control the entry of vessels ... and their ... operations (sub-section g ii)

Regulate and control the loading, unloading and storage of cargo ... (subsection g iii)

Promote efficiency, reliability and economy on the part of the licensed operators ... (sub-section n)

Section 12 defines the aims of the NPA being, amongst others, to:

Enable port users to access the port system in the most efficient way possible (sub-section c)

Co-ordinate the general activities of the ports (sub-section e)

Ensure that orderly, efficient and reliable port services ... are provided (sub-section f)

### *Private Sector Participation in Port Operations*

In the current context it is significant that there is no explicit mention of the need to provide the same level of service to all port users. What is clear from the foregoing extracts from the Bill is that the onus of efficiency is very clearly placed on National Ports Authority as one of its over-riding objectives, and that it has considerable latitude to interpret its obligations in the interests of efficiency rather than of equality.

The Ports Regulator has a remit to:

- Promote equity of access to ports and to services provided in ports (S30(1) b);
- Monitor the activities of the authority to ensure that it performs its functions in accordance with the act ((S30(1) c);
- Hear appeals and complaints ... ((S30(1) a).

Grounds for complaints to the Ports Regulator specified in the bill in section 47 include:

- access to ports and port facilities are not provided in a non-discriminatory, fair and transparent manner; (s47(2) a);
- small and medium-sized enterprises owned by historically disadvantaged groups do not have an equitable opportunity to participate in the operation of facilities in the ports environment (s47(2) b);
- Transnet is treated more favourably and that it derives an unfair advantage over other transport companies (s47(2) c).

In this case too, the intention seems to have been (at least partly, perhaps) to provide oversight over the discretionary decision-making of National Ports Authority. It is therefore reasonable to anticipate that the Port Regulator will not interfere in the consequences of the application of a decision of National Ports Authority, provided that National Ports Authority can defend its decision on the basis that it contributes to the achievement of greater efficiency in the port or port system.

### ***Needs of Shipping Lines***

It can be fairly stated that shipping lines are at worst neutral in their reaction to the possibility of their ships having to be accommodated at a competitor-operated

terminal. The question then arises as to what exactly do shipping lines want to see in a terminal.

This question is very simply answered. Ships, especially special-purpose ships such as cellular container-carriers, are very expensive to operate, and their need is accordingly that their in-port time should be reduced to a minimum. In order to achieve this requirement two conditions need to be simultaneously fulfilled:

### **Berthing Delay**

Ports need to be sufficiently resourced in terms of their marine services (provision of Pilots, tugs and berthing crews) and infrastructure (number of suitable berths) to enable ships to be berthed without delay; “on arrival” in the very best case.

### **On-berth Efficiency**

Terminals need to be sufficiently resourced in terms of their equipment (gantry cranes, straddle-carriers, and so on), personnel (sufficient numbers of trained and skilled management and workers) and systems (yard management control systems) to enable cargo to be handled on and off ships at an acceptable-rapid rate.

Simply stated, shipping lines have no operational interest whatsoever in the identity of the terminal operator. What is of interest to them is the efficient turnaround of their ships at a reasonable price.

### **Conclusion**

Shipping lines have justifiable, but not crippling, concerns at the possibility of a concessioned container terminal being operated by a competitor shipping line. These concerns are effectively mitigated by one or a combination of the following effects:

### **Competing terminals**

Of these, the likelihood of significant competition being brought about in the foreseeable future is virtually non-existent except at Durban, where a second container terminal is planned to be created, and a third has already been conceptualised. The effect of a container terminal at Ngqura could significantly affect Durban’s hold on its current and anticipated future volumes, and could therefore

influence not only the rate at which these growth opportunities are exploited, but the very rationale behind their existence, to the detriment of fair competition in the port.

### **Service level agreements**

Service level agreements have been in use worldwide for many years, and play a valuable role in “levelling the playing fields”. Moreover, their widespread use in the shipping industry ensures that shipping lines will not resist their introduction in South Africa.

### **Statutory authorities**

National Ports Authority, and the Ports Regulator, the jurisdiction of both of which will be guaranteed by statute, will be the resource of last resort in issues of unfair competition, or unfair advantage.

There is therefore no need for concern at the possibility that a shipping line might become the operator of a concessioned terminal, there being adequate worldwide precedent and practical mitigation to allay any fears of prejudice.

## **Key Issues**

### ***Container market share***

Implementation of the three main options for PSP in the container sector described above would create conditions for the following factor to contribute to increased efficiency of operations.

First, it would create a measure both intra-port and inter-port competition between SAPO combined with a PSP strategic partner and privately run terminals. Secondly, it would involve the private sector in the funding of terminal infrastructure and superstructures.

How quickly the effects of these options would begin to contribute to increased operational performance depends upon decisive steps to start the process securing PSP. However, for to be constructed facilities a considerable lead time is involved.

*Private Sector Participation in Port Operations*

To illustrate the possible effects of implementing the recommended container strategy options, a rudimentary modeling exercise was conducted. The principle assumptions for this exercise were as follows

1. The financial viability of new facilities is dependent on estimated rates of growth. Rates of growth for container traffic are assumed to decline from 8% pa for DCT and CTCT and 4% for PECT given by SAPO to 7%, 6% and 2.5%. These are above the long term growth rates estimated by the NPA of 6% for DCT, 4.5% for CTCT and 2.2% for PE. Container volumes growth is typically 2-3% above nominal GDP growth, thus the projected traffic volumes are strictly a function of the prospects for growth in the SA economy. The container market is growing at rates in excess of other cargo markets and will maintain higher rates of growth as a result of the conversion of break-bulk cargo handling methods to full containerization.
2. Pier 1 in Durban takes traffic from DCT once storage capacity limits have been reached and traffic diverted to Ngqura accounted for.
3. A Ngqura terminal diverts traffic from DCT, assuming a 60% diversion of traffic handled by a major user, rising to 10.2% per year over three years and manages the transfer and closure of PE CT over three years.

**Table 3** Hypothetical container terminal traffic distribution (Million TEU pa)

Year	2004/05	2005/06	2006/07	2007/08	2008/09	2009/10	2010/11	2011/12
DCT	1.550	1.666	1.791	1.860	1.860	1.860	1.860	1.860
Pier 1				0.066	0.043	0.120	0.258	0.407
Ngqura					0.244	0.359	0.581	0.606
PE	0.281	0.291	0.301	0.312	0.234	0.197	0.000	0.000
CT	0.603	0.648	0.697	0.746	0.794	0.846	0.896	0.950
Total	2.434	2.605	2.789	2.983	3.175	3.381	3.596	3.823
Market share								
SAPO & PSP	100%	100%	100%	98%	91%	86%	77%	74%
Private sector	0%	0%	0%	2%	9%	14%	23%	26%

What this exercise illustrates is that the confidence prospective PSP partners have in future growth will determine the viability and the timing of bringing into operation any

new facilities. Given that the that construction lead time for new facilities are considerable, estimated at 24 months or longer from the date a award of a concession, the full effects PSP in port operations on new facilities will not be felt for several years.

SAPO with its PSP partner(s) monopoly on the container market will cease when new facilities are commissioned, however, as the incumbent operator it will continue to have a dominant position in the market.

### ***Transnet revenue loss***

Private sector participation in port operations will result in a dilution of the SAPO's market share. The container sector makes up just under half SAPO's revenue, yet it makes up 71% of net operating profit and a significant positive contribute to the Transnet group. PSP in the container sector will contribute to raising the efficiency of port operations and reduce infrastructure investment requirements on the part of SOEs. Significantly, the effects of these policy decisions on Transnet will result in a reduction of the contribution it receives from port operations.

### ***Pricing***

To reap the full effects of PSP a new tariff setting structure for terminal operations is required. Effective inter-port or intra-port competition will rely on a price-setting mechanism that allows and encourages both intra-port and inter-port price competition in addition to service level competition. Inland transport services and physical characteristics of the main transport corridors limit direct competition between ports. A policy of uniform tariffs has eliminated price competition to this point. A key task for the new Port Regulator in interpreting its function to "promote regulated competition" Section 30 (1)(e) will be to decide on the treatment of tariff setting.

Revenue collection by the NPA that is unrelated to the investment it makes in marine infrastructure as a landlord both undermines the objective of increasing the competitiveness of South African ports and the prospects for PSP supporting that objective. Tariff rebalancing stated by the NPA in 2001 was curtailed due to concerns for their impact on Transnet group finances. For shippers, port charges are passed on

to customers and outside of an operator's control, however, if PSP concessionaires are required to make substantial investment, the current terminal charges are unlikely to permit them to obtain a return on new investment. Higher prices for cargo handling from the combined charges for terminal charges and payments to the NPA would undermine the objective of lowering the costs of doing business. Further NPA tariff reduction is a key policy decision for Government that will have to be balanced against port infrastructure requirements.

### ***Risk of destructive competition***

Introducing greater PSP into the mixed ownership structure of port operations and seeking to create competition where it has hitherto not existed invites the question as to whether harmful competition might arise. International privatisation experience has shown in one well researched case the original concession design for the port of Buenos Aires into seven terminals was unviable generating destructive competition and leading to consolidation among terminal operators. The robust competitive structure that was subsequently established has provided strong evidence for the positive effects of Argentine government deregulation.<sup>16</sup> For South African ports the prospects of destructive competition will likely be held in check, aside from the role of the Port Regulator, by the uneven distribution of market share in which new private sector operators will have to build their market share by running highly efficient operations, pricing in the full capital costs of newly constructed facilities, against an incumbent operator using depreciated assets.

### ***Expansion***

Proposal made in this report for container capacity expansion options, if implemented, would be sufficient to cater for projected traffic volumes in the medium term to around 2015. However, the potential for expansion is a key issue both for long term port planning and for the prospects of PSP, given that prospective operators will be entering into long term agreements for operating rights.

### **Durban**

The existing Durban Container Terminal occupies a site at Pier 2 Durban and is operated by SA Port Operations. The adjacent Pier 1 was constructed in the 1940s and

has been operated (also by what is now SA Port Operations) ever since as a terminal for breakbulk cargo, and is nowadays referred to as a multi-purpose terminal.

During 2003 the Pier 1 terminal was partitioned lengthwise into two approximately equal halves, separated by a shared rail terminal along the central spine. The western (Berea) half was reorganised to handle containers only, and became known as MPT-West. It has proved to be capable of attracting and servicing with reasonable efficiency the containers carried by smaller, self-gearred ships that were able to be re-deployed there from Durban Container Terminal.

Transnet has recently announced its intention to convert the entire Pier 1 into a container terminal, having relocated traditional breakbulk cargo to a newly-constructed terminal on the northern (city) side of the port. As far as is known, Pier 1 terminal will not be operated as an extension of Durban Container Terminal, but as a completely separate, autonomous entity. The result will be two independent and capable container terminals, in full and free competition with each other.

Further long-term container expansion has been envisaged at Salisbury Island, which is currently the site of a naval base; SA Navy has reportedly recently indicated its willingness to contemplate its facilities being downscaled and relocated to alternative sites in the port. The new site will have the working title of Pier 3. Realisation of this opportunity will, however, require significant fixed investment by the port authority, mainly in quay walls, for the concept is to construct a new quay wall linking Pier 1 to Pier 3 and then to reclaim the enclosed basin that will thereby be created, followed by further significant investment, probably by the terminal operator, in terminal superstructure. The magnitude of the investment will have to be sustained by secure container volumes, but given the consistent increase in container volumes through Durban Container Terminal, which has averaged 8% per year for several years, the port will run out of container capacity at both Pier 1 and at Pier 2 (Durban Container Terminal) within a foreseeable timescale.

In the longer-term the NPA will be required to develop new port capacity. Proposals such as the current site of Durban International Airport at Mobeni have been mooted.<sup>17</sup> re-development of the current site of Durban International Airport at

Mobeni has been conceptualised into a second port, with its own entrance channel and pool, surrounded by port-related industries. Although the general view is that the site should be used for downstream processing of petro-chemicals that originate at the nearby oil refineries, such a development might be ideal as a terminal from which to containerise the proceeds of such processing sites, many of which would be likely to find their way into containers.

### **Cape Town**

National Ports Authority has planned to increase the port's container-handling capacity by reclaiming land into Table Bay, to enable the existing container terminal to be widened by some 300m. National Ports Authority has announced the successful conclusion of the Environmental Impact Assessment into this proposal, and the allocation of substantial investment funding.

However, an appeal against the award has recently been upheld, but on procedural rather than substantive grounds. At this therefore time it is not possible to state with any accuracy whether the expansion plan will ultimately be approved by all the relevant statutory authorities, although the likelihood seems to be high that it will.

Assuming that the expansion of Cape Town Container Terminal is ultimately approved of, its additional capacity will be created by the enlarged terminal will continue to be the premises of a single terminal operator, SAPO together with a private sector partner, however, the port does not offer unrestrained growth opportunities.

### **Port Elizabeth and Ngqura**

The new port at Ngqura comprising of two entrance breakwaters and a new quay wall, is expected to be capable of accommodating its first ship during September 2005. Expansion potential at Ngqura is high, based on its greenfields design. Assuming that a shipping line or lines will elect to make use of Ngqura port as their South African hub, withdrawing their direct volumes from Durban and/or Cape Town, capacity for increased container volumes could be provided.

Redevelopment of the Port Elizabeth Container Terminal after its current traffic is relocated to a new terminal at Ngqura will expand capacity for other cargoes.

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<sup>1</sup> Limao, N. and A. J. Venables. 2001. Infrastructure, Geographical Disadvantage, and Transport Costs. *World Bank Economic Review* 15, pp. 451-479.

<sup>2</sup> Quoted in Londoño-Kent, M and Kent, P. 2003 A Tale of Two Ports: The Cost of Inefficiency. World Bank

<sup>3</sup> Minister of Transport 2004 Budget Speech to National Assembly 12 July 2004.

<sup>4</sup> Clark, Ximena, David Dollar, and Alejandro Micco. Maritime Transport Costs and Port Efficiency. The World Bank.

<sup>5</sup> Wilson, John S., Catherine L. Mann, and Tsunehiro Otsuki. 2003. Trade Facilitation and Economic Development: Measuring the Impact. World Bank Policy Research Working Paper 2988.

<sup>6</sup> Francois, Joseph F., Alan K. Fox, and María del Pilar Londoño-Kent. 2003. Measuring Border Crossing Costs and their Impact on Trade Flows: The United States-Mexican Trucking Case. Mimeo. Quoted in Londoño-Kent, M and Kent, P. 2003 A Tale of Two Ports: The Cost of Inefficiency. World Bank

<sup>7</sup> Londoño-Kent, M and Kent, P. 2003 A Tale of Two Ports: The Cost of Inefficiency. World Bank

<sup>8</sup> Venter, K and Goode, R 2004. Scenario Development for Economic Impact Modelling of Reforms in the Railways and Ports. (Work in Progress)

<sup>9</sup> In this report the National Ports Authority of South Africa, a division of Transnet Limited, and its successor the National Ports Authority Limited, a corporatised public company provided for in the National Ports Act are both referred to as the NPA.

<sup>10</sup> Port Reform Toolkit, World Bank 2001. G de Monie Draft Concession Architecture for the South African Ports, 2002

<sup>11</sup> *ibid.*

<sup>12</sup> Infrastructure Privatization Regulation and Competition. World Bank 2004.

<sup>13</sup> Kent, P. Monitoring for Port Antitrust Behavior: an Operational Model and Future Challenges

<sup>14</sup> Kent, P Monitoring for Port Antitrust Behavior: an Operational Model and Future Challenges, Concession Strategy Report, Cornell Group, Infrastructure Privatization Regulation and Competition. World Bank 2004

<sup>15</sup> Interviews were conducted with shipping lines serving South Africa in February 2005.

<sup>16</sup> Estache, Garbajo, de Rus, Argentina's transport privatisation and re-regulation. World Bank paper no 2249

<sup>17</sup> Re-development of the current site of Durban International Airport at Mobeni has been conceptualised into a second port, with its own entrance channel and pool, surrounded by port-related industries. The desirability of using this site for a new port against use for downstream processing of petro-chemicals that originate at the nearby oil refineries, remains contested.