

SOUTH AFRICA'S PORT PERFORMANCE: POLICY, PRICING AND GROWTH

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ABSTRACT

South Africa's commercial ports and established international shipping network serve not only a strategic role of trade facilitation, but also help to shape the economic growth and development of the entire Southern African region. By 2002, total port cargo handled stood at some 190 million tons, representing roughly 3.5 percent of world sea trade volumes or an estimated six per cent of global tonne-miles. This performance places South Africa within the top 12 international maritime trading nations. Beneath the veil of the aggregated trade statistics lies a fascinating evolution in South Africa's port policy and pricing. The role and evolution of South Africa's port policy and pricing are researched with a particular focus on a contrast between port tariffs engineered in the past to support an import-substitution economy and the present tariff structure that edges South Africa closer toward a globally competitive port pricing system. Trade trends and cargo growth through South African ports are revealed.

Keywords: South Africa's Ports; Port Policy; Port Pricing.

Topic Area: Port Policy; Port Economics.

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1. INTRODUCTION

With about ninety five per cent of South Africa's trade volume seaborne or about eighty per cent in value terms (Siko, 1996: 4; Jones, 2004), the country is strategically dependent upon the efficiency and effectiveness of her seven commercial ports. South Africa's commercial ports serve not only a strategic role through trade facilitation, but also help to shape the economic growth and development of the entire Southern African region¹. In 2002, total port cargo handled stood at some 190 million tons, representing roughly 3.5 percent of world sea trade volumes (ISL, 2002). Due to South Africa's geographic location, substantial hauls are required to link this country to its major international markets and suppliers. Consequently, South Africa accounts for approximately six percent of global tonne-miles (Jones 2002b)². This performance places South Africa within the top 12 international maritime trading nations (Jones, 2002b).

South Africa reduced its mean tariff for all products from 11.7% in 1994 to 4.9% by 2002 (Cassim, 2002: 11). By July 2000, nearly 60 percent of South Africa's imports faced a zero tariff (Economic Report on Africa, 2002). South Africa's trade liberalisation and the associated reduction in tariff and non-tariff barriers means that transport costs have become an increasingly important determinant of trade performance (Chasomeris, 2004). Micco and Perez (2001) confirm that distance is still the main factor behind transport costs; however, among the many other variables that affect transport costs, the efficiency of ports is the most important, and the one that can be most directly affected by government. Within competitive port environments, Haralambides and Veenstra (2002: 782) explain that "the right prices can lead a port to prosperity and growth; the wrong ones can guide it to extinction or to the proliferation of subsidies and inefficiency." South Africa has acknowledged the strategic role of ports and the necessity to promote effective and efficient transport throughout the logistics chain (DoT, 2004). Furthermore, the post-sanction drive towards an export oriented economy has resulted in significant trade liberalisation and increasing advocacy of competitive markets and liberalisation of services in order to promote investment, economic growth and employment in South Africa through increased integration into the global economy.

The purpose of this paper is to investigate and reveal South African port performance with a particular focus on the evolution of port policy and pricing. Through measuring the evolution in port costs, in particular from *ad valorem* wharfage to the current cargo dues, the paper aims to contribute towards a better understanding of South African port cost efficiency and tariff reforms

¹ In southern Africa, Botswana, Lesotho, Malawi, Swaziland, Zambia and Zimbabwe are all profoundly dependent on South Africa's transport network. This dependency, however, was reinforced by South Africa's deliberate strategy of economic and military destabilisation during economic sanctions. According to Hans Abrahamsson (1989 in Iheduru, 1996: 5): "The objective of this destabilisation process is two-fold. On the one hand, it aims to disrupt any sustained development in the majority-ruled neighbouring countries. On the other hand, by increasing dependency on South African ports, it aims at making the neighbouring countries victims of any future sanction policy, which in turn reduces international pressure for sanctions."

² Jones (2002b) attempted to estimate this real sea transport activity in 2002 by associating each regional tonnage flow with the steaming distance to a median port in each broad geographic region.

with their impact on cargo owners. Section 2 investigates aggregated sea-trade trends and the impressive cargo growth through South Africa's ports. Beneath the veil of the aggregated trade statistics, however, is the fascinating historical role and evolution in South Africa's port governance, policy and pricing, as concisely reviewed in section 3. Contemporary developments in South Africa's port policy, pricing and governance are revealed, in section 4, with a particular focus on a contrast between port tariffs engineered in the past to support an import-substitution economy and the present tariff structure that edges South Africa closer toward a globally competitive port pricing system. Section 5 concludes.

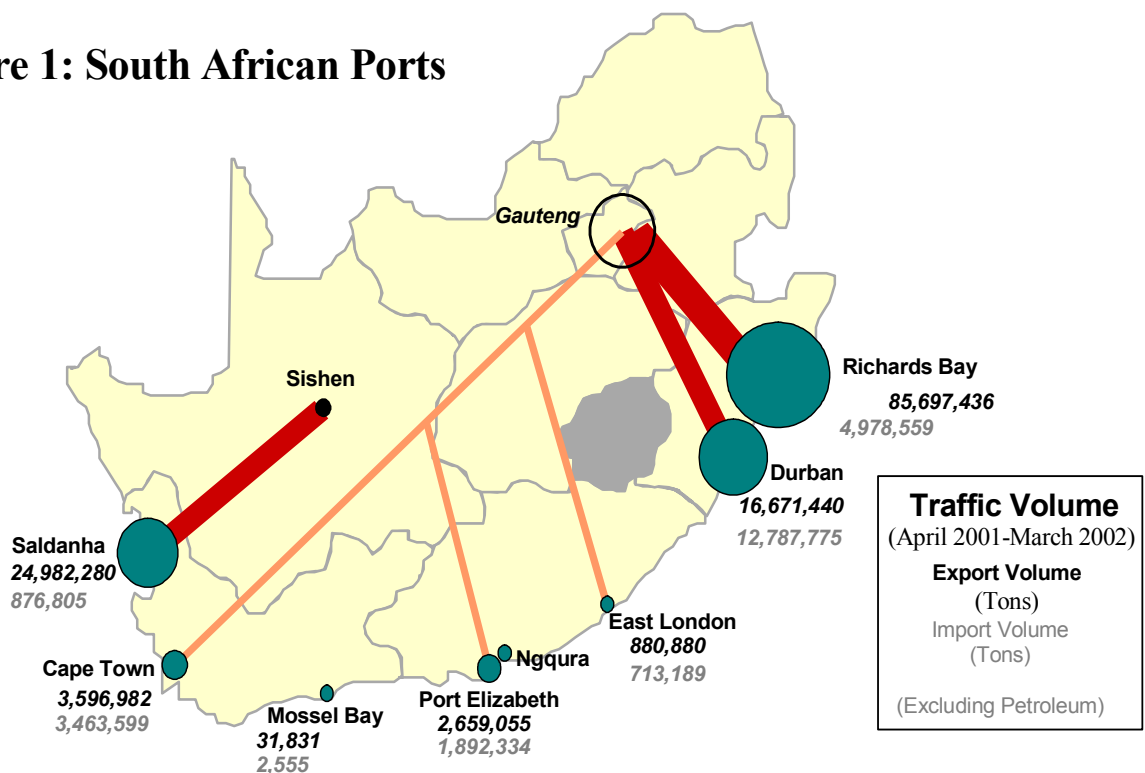
2. SOUTH AFRICA'S SEA-TRADE GROWTH AND PORT LOCATION

South Africa has become a major sea-trading nation. With more than 90 percent, by volume, of world trade seaborne, and approximately 98 percent of South Africa's exports conveyed by sea (Naude, 1999), South Africa's commercial ports clearly play a vital role in both the economic performance and the development of the entire Southern African region.

With port performance generally measured in terms of cargo volumes, an analysis on this basis shows that South African port traffic has doubled from 40 million tons in 1969/70 to 80 million tons by 1977/78, and roughly doubled again to reach 160 million tons by the mid 1990s (Jones, 2002b: 144). By 2002, total cargo handled stood at some 190 million tons (Ports of Southern Africa and Mauritius, 2003). Figure 1 presents the location and total annual import and export volumes passing through South Africa's seven commercial ports from April 2001 to March 2002. Briefly, South Africa's multipurpose ports include: Port Elizabeth; East London, the only river port; and Mossel Bay, a relatively small but specialised port serving the south coast fishing industry and the offshore gas fields (Department of Transport, 1998). The hub ports include: Cape Town, a terminal port oriented towards the western sea routes; and Durban which is ideally positioned to serve the eastern sea routes. The deepwater ports are Saldanha and Richards Bay that opened for business in 1976. Saldanha features a massive iron ore terminal that exports more than 20 million tons a year from Sishen. Richards Bay features a multipurpose terminal and a bulk metal terminal. It is also renowned for its multi-product dry bulk handling facilities and boasts the world's largest bulk coal terminal. Trade densities shown in figure 1 are largely generated by the industrial heartland in Gauteng. From the statistics in figure 1, which exclude petroleum, it is clear that Richards Bay handled the most cargo with volumes in excess of 90 million tons. Durban comes in second with total cargo handled at about 29.5 million tons or 56.8 million tons when including petroleum. However, if one looks at the value and cargo mix handled at the two ports, Durban handles much higher valued cargo than Richards Bay. As the busiest port in Africa, Durban cargo alone accounts for a little more than two-thirds of national imports and exports carried by sea (Pearson, 1995 and Jones, 1997 in Jones 2002b).

In terms of "real" sea transport activity, traffic passing through local ports generates some 12,200 million ton-miles of maritime freight activity, or about six per cent of global activity – a performance that places South Africa within the top twelve nations on the international maritime-trading league table (Jones, 2002b). This country's share of global maritime activity consequently exceeds its share of global GDP by more than twenty to one (Jones, 2002b).

Figure 1: South African Ports



Source: adapted from Department of Transport, 1998 and National Port Authority, 2002.

Note: 1. The port of Ngqura (Coega), currently under construction, is 20km northeast of Port Elizabeth. The port is of deepwater construction capable of serving Panamax dry and liquid bulkers and the new generation of cellular container ships.

Not only has there been impressive traffic growth through the ports, but also, as Jones (2002b: 144) correctly identifies, “the centre of gravity of Southern African seaborne commerce has shifted firmly eastward over time, and is now entrenched in KwaZulu-Natal.” In 1970, before the construction of Richards Bay, some 59% of total port traffic was handled in Durban. By 1983/84, the combined traffic share of Durban and Richards Bay had risen to 73 percent, and by 2000 to 76%. The losers in this process have been the Cape ports (see table 1), whose hinterlands, with few exceptions, have shrunk to their immediate geographic regions, and Maputo, which once commanded a guaranteed share of Witwatersrand traffic and rivalled Durban in terms of facilities and port activity (see Jones, 2002b: 144).

The country’s aggregated trade volume statistics partially mask the significant impact of economic sanctions (1985-1993). During 1960 to 2001, the import-to-GDP ratio was 23.8% on average, whereas the average export-to-GDP ratio was 27% over the same period (Du Toit, 2004: 54). During the sanctions years, the import-to-GDP ratio declined from 22.6% in 1985 to a low of 17.3% in 1992, whereas exports declined from 31.5% in 1985 to as low as 21.3% in 1992. These import and export ratios indicate the impact of isolation on the country’s foreign trade and the extent of inward focus in the economy. Since 1992, however, imports and exports as a percentage of GDP have increased to 27.1% and 31% respectively in 2001 (Du Toit, 2004: 54).

Table 1: Cargo handled at South African ports: 1969/70 to 2000, selected years

(all cargoes, including petroleum products, in million metric tons)

Year ¹	Richards Bay	Durban	East London	Port Elizabeth	Cape Town	Saldanha	Total Traffic ²
1969/70	-	24.0	1.7	6.7	7.8	-	40.2
1974/75	-	34.7	3.5	10.4	10.4	-	59.0
1976/77	6.7	34.5	3.1	9.3	9.4	5.5	68.7
1977/78	13.1	35.4	3.5	7.3	9.4	11.7	80.4
1978/79	15.7	34.0	4.0	7.3	9.7	14.1	85.0
1983/84 ³	37.9	32.8	2.6	5.9	7.9	9.7	96.8
1987	47.1	44.3	2.5	4.3	5.9	12.3	116.4
1990	52.6	38.4	2.5	5.3	7.1	25.0	130.9
1994	69.0	41.4	3.2	4.9	9.8	23.3	151.6
2000 ³	91.8	49.7	1.1	7.1	11.8	24.5	186.2

Source: (South African Railways & Harbours, Annual Reports, various years; Charlier, 1996; Port of Durban Statistics, 2000 in Jones, 2002b: 145).

- Notes:
1. Traffic volumes are shown for financial years (1 March to 28/29 February) up to 1983/84, and thereafter for calendar years.
 2. Total traffic excludes the activities of the small port of Mossel Bay, where volumes were tiny before the Mossgas project came on stream from 1992.
 3. Traffic magnitudes for 1983/84 and 2000 include estimates for unpublished oil and petroleum traffic. All other years include more accurate measures of these previously classified commodities.

Clearly, foreign trade makes an important and growing contribution to the South African economy. As impressive as the growth trends in South Africa's port traffic may appear, section 3 investigates beyond the statistics to gain a better understanding of the trade environment, governance and policy context within which this growth occurred.

3. SOUTH AFRICA'S PORT POLICY, PRICING AND GOVERNANCE: AN HISTORICAL PERSPECTIVE

Commercial ports play a crucial role in South Africa's transport system and should be treated as strategic entities operated on sound economic principles with an understanding that the country's ports do not only facilitate trade, but also may stimulate and shape the economic growth and development of the entire Southern African region. A brief reflection on the evolution of South Africa's port policy, pricing and governance shows that historically, commercial ports have reflected the political system along with the often undesirable market and industrial policies.

During the pre-Union period (1833-1908) the commercial ports were operated under varying degrees of state control. The harbours were financially autonomous and all revenue and expenditure accrued to the harbour administration. As such, each port authority administered its own tariffs and the revenue generated as a result accrued to harbour administrations and was easily identifiable (Jones, 1988a: 132). Since all of the harbours operated independently, inter-

port competition was rife and promoted competitive tariffs, as each port authority tried to secure as large a traffic base for itself as possible (Jones, 1988a: 132).

The South African Railways and Harbours (SAR&H, 1909-1981) was established by the unification of both the harbour and railway authorities as a result of increasing conflicts amongst the various colonies and considerable inter-port competition. The subsequent introduction of a uniform tariff structure brought to an end the prior inter-port competition. Under SAR&H control, the ports were supposed to be run according to sound business principles, generating enough revenue to remain self-sufficient, with the exception of providing preferentially cheap transport specifically for the agricultural and industrial sectors (Jones, 1984 in Giladi, 2003: 68). Furthermore, there was a large degree of cross-subsidisation from the surplus profits generated by harbour activities to cover the losses incurred by the railways (Jones, 1988b).

The South African Transport Services Act of 1981 transformed SATS into a business enterprise belonging to the state and brought about a shift in the emphasis of port governance and pricing policy. In April 1982 these changes came into effect whereby the ports' physical capital, from an expenditure and revenue perspective, was controlled by the new harbour administration called the South African Transport Services (SATS, 1982 to 1989). The Act also required that the "economic interest and the transport needs of the whole country" be taken into consideration (Giladi, 2003: 62), rather than just those of the agricultural and industrial sectors. SATS was thus to operate the ports according to business principles, with no exceptions. This, however, could not be achieved with the uniform tariff structure in place, which was unrelated to cost and took no account of the commercial differences between the South African ports, resulting in substantial inter-port cross subsidisation. SATS managed to avoid demarcation problems of the previous era between harbour and railways by ensuring that all cargo functions fell under the port administration (Jones, 1988a: 132). Although the new system reduced inter-modal cross-subsidisation that placed harbour profits in better perspective, there was still some surviving inter-modal and considerable intra-port cross subsidisation (see table 2).

In 1989 there was a decision to commercialise the activities of SATS. The legal structure of SATS, however, was inadequate to operate as a commercial entity. Hence a public company called Transnet was subsequently formed on the 1st of November 1989, with government as the sole shareholder. Transnet was the umbrella company which comprised eight transport divisions that included: Spoornet; Portnet; SAA; Petronet; Autonet; Fast Forward; Metro Rail and SAA. Portnet was the new port authority, which under the new arrangement posed a dilemma. Portnet had two conflicting objectives: firstly, it had to act as a port authority to safeguard public interest, and secondly to exploit its comparative advantage in the pursuit of its commercial and financial objectives. In essence it was thought by port users that Transnet, as a transport company had the potential to misuse its monopoly of South Africa's Ports. Thus having a national ports authority function as part of a transport company has resulted historically in the formation of several undesirable conditions that have detracted from the primary purpose of ports, skewing prices, misallocating port revenues and creating suspicion in the maritime and transport industries about the impartiality of the port entity within a transport company (White Paper, 2002: 13). This dismal port environment was not only inconsistent with the ideals of "international best practice" but also evidently incompatible with the goals of economic growth

and development through export orientation and re-integration of South Africa into the global economy.

Further insights into the historical evolution and impact of South Africa’s port policy and governance are revealed in section 3.1 that focuses on the controversial and highly contested arena of port pricing.

3.1 SOUTH AFRICAN PORTS PRICING POLICY

“The South African ports, and indeed the transport sector as a whole, have a long history of getting prices wrong. Consequently it is little surprise that they also have a history of misallocating resources across and within modes.”

(Jones, 2002a)

The legacy of South Africa’s freight system and port pricing strategy reflected a system designed to support an import substitution economy. Consequently, the current port administrators inherited a port tariff structure that was literally awash with distortions. The essence of these old tariff distortions is captured in table 2 that shows the broad cost-price skewness that existed in South Africa’s ports. Generally, the South African ports set prices well below full cost recovery for a number of port functions, including marine infrastructure and services. Port dues – payment by vessels for the use of marine infra-structural assets such as dredged approach channels, fairways and turning basins; berth dues; tug charges and pilotage charges generated revenues below associated costs. Cargo handling charges were closer to related costs, but fell short of full cost coverage. Cargo functions were thus being used to subsidise marine functions. This practice made the South African ports cheap for ships but very expensive for the cargo they carried. Prices that are structured in this way prejudice the carriage of marginal cargoes and deter vessels from working additional cargo at every port call (Jones, 1988b; Jones 2002a).

TABLE 2: INTRA-HARBOUR CROSS SUBSIDISATION

FUNCTION	TARIFF	PRICE / COST SKEWNESS	% OF TOTAL REVENUE
Marine Infrastructure	Port, berth dues	Price well below Average Cost	≈ 3
Marine Services	User Charges	Price below Average Cost	≈ 6
Cargo-working Infrastructure	<i>Ad Valorem</i> Wharfage	Price substantially exceeds Average Cost	≈ 55
Cargo Services	User Charges	Price ≈ Average Cost	≈ 30
Miscellaneous (Lights etc)	–	–	≈ 6

Source: Adapted from Jones (1988b: 5).

In stark contrast, if there was to be any cross subsidisation in South African ports, authorities should want to price in exactly the opposite fashion, making the ports cheap for cargo and more expensive for ships. This is logical since ports earn most of their income from cargo functions rather than marine functions. Port authorities, therefore, should not structure tariffs in a way that unnecessarily penalises cargo, especially in the context of aspirant hub and transshipment ports (Jones, 1988b).

Within this context, how was it possible for the ports as a whole, and Durban in particular, to manage to record sustained levels of significant profits for decades? The answer: *ad valorem* wharfage.

3.2 AD VALOREM WHARFAGE

Ad Valorem Wharfage has long been the most controversial and the most bitterly resented item in the old tariff book (see Jones, 1988; Jones, 2002b; Naudé, 1999). Historically, some port users have maintained that wharfage was a duty, tax or toll, based on the value principle, *ad valorem*, and as such resembled the ruling excise duties. On the contrary, the port authority maintained that “as is the case with any other charge prescribed in the Official Harbour Tariff Book, wharfage, which was applied to all cargo passing over the wharves in the harbours, was raised to cover specific and defined costs and should thus not be likened to a duty, tax or toll” (Skinner, 1983: 2). The “specific and defined costs” were those connected with the cargo handling infrastructure in the harbours such as the provision and maintenance of berths with adequate water depth alongside, wharves, roads, rail tracks, cargo warehouses, storage sites, hardened surfaces, and the like. Wharfage charges, however, had no bearing on the operational activities prior to placing shipment cargo in the appliances provided by the ship or subsequent to the placement of landed cargo on the wharfside, in respect of which landing and shipping charges were maintained. This meant that *ad valorem* wharfage expressly excluded such tangible items of superstructure as terminals, gantries, wharf-cranes or cargo handling equipment for which explicit charges were raised. Wharfage was then presumably to finance the costs of the provision of general rail and road access to berths, cargo handling aprons and other general cargo infrastructure (Jones, 1988a).

The principle of applying wharfage on an *ad valorem* basis had also been criticised for many years (for instance see Jones, 1988a). Much of the criticism centred around the fact that wharfage on an *ad valorem* basis favours low-valued commodities in that it is proportionately lower than high-valued commodities while utilising the same infrastructure and port services. Furthermore, the legacy of the import substitution regime was also clearly reflected by the differential in the level of import versus export charges; that is, port wharfage charges were higher for imports than for identical exports. These discriminatory situations are essentially the anti-thesis of both cost and equity-based pricing principles. While it would be unreasonable to expect prices to be exactly equated to costs, they should be reasonably related. Proposals that wharfage be changed to a more cost-based tariff, for instance a cost orientated charge per ton, were rejected on the grounds that this would hugely increase the amount paid on low-value cargo and undermine the competitiveness of South Africa’s exports (Skinner, 1983). Additionally, it was considered that changing the basis of wharfage would be unwise as wharfage on lower

valued cargo would be drastically increased while competitiveness on especially the export market would be seriously affected with far reaching implications for the national economy. Hence in order to prevent such a situation developing, the levying of wharfage on tonnage only (mass or volume, as the case may be) would necessitate the compilation of a comprehensive classification of the different commodities to provide for the appropriate rating of the various commodities. It was also considered “inevitable that such a system, would also require to be based, as in the case of *ad valorem* wharfage on the value principle and, furthermore, the classification will have to be continuously adapted in accordance with changing economic conditions and values” (Skinner, 1983: 4).

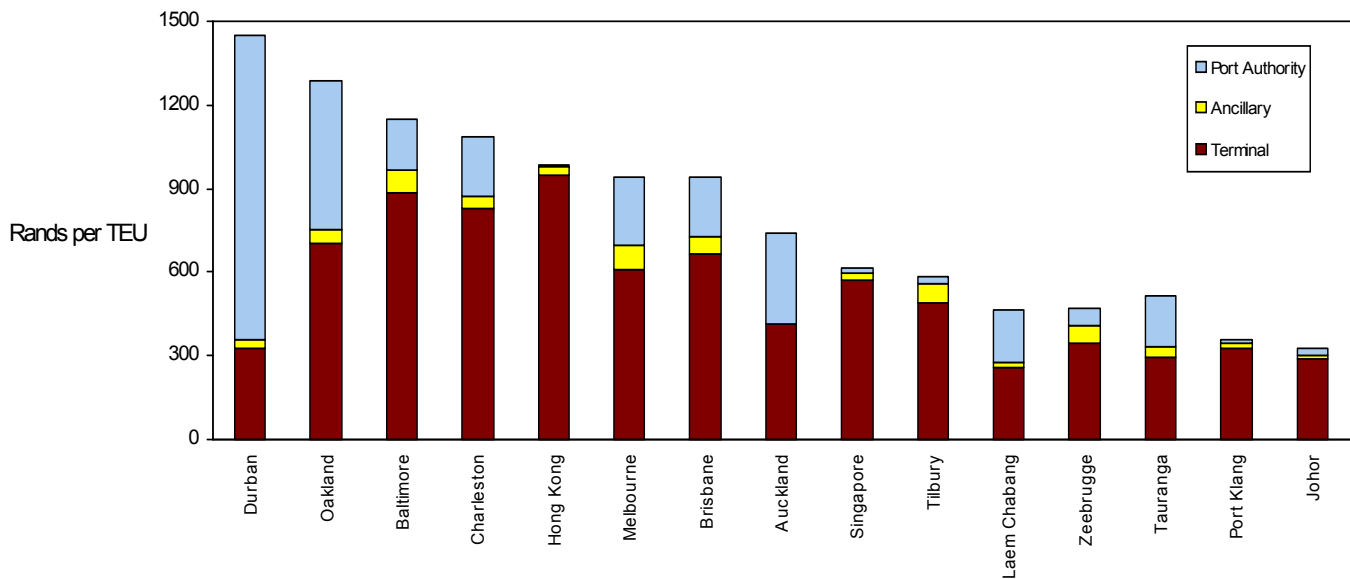
On the other hand, the levying of wharfage on an *ad valorem* basis not only eliminated the necessity for such a classification, but primarily kept pace with price changes and fluctuations in exchange rates; thus avoiding the need to increase the relevant tariffs unless absolutely necessary. Moreover, the *ad valorem* basis ensured that wharfage was actually applied to a specific type of traffic in relation to the extent that such traffic can bear the charge. The raising of wharfage on an *ad valorem* basis was thus seen by the port authority as a fair and most acceptable method of recovering the relevant infrastructural costs (Skinner, 1983). Although the ability-to-pay principle argues for some sensitivity of tariffs to the value of cargoes, the principle should not be used to defend *ad valorem* wharfage applied on a wholesale basis in all South African ports.

Charging wharfage on a value basis put sea transport at a disadvantage compared to other transport modes, where the prices are not based on cargo value. *Ad valorem* tariffs also raised the cost of moving cargo through South African ports, reduced the country’s comparative cost advantage in foreign markets, reinforced the effect of high tariff barriers and discouraged imports in general, especially those of high value. Such a pricing structure is not conducive to efficient port operations and the proper utilisation of resources. It is in the public interest to adopt efficient economic pricing principles that would promote economic growth through lowering trade costs. In addition, it should have been more of a concern to port authorities that wharfage as an *ad valorem* charge had been eliminated in most ports elsewhere in the world (Jones, 2003a). South African ports were able to charge high wharfage rates due to the lack of inter-port competition. Most other top class world ports are unable to levy such a charge as they operate in highly competitive environments and are likely to lose customers to competing ports if they did so. For these reasons, *ad valorem* wharfage has been one of the most controversial and bitterly resented tariff items for the past fifty years (Jones, 2002a).

The consequence of the value-based, *ad valorem*, pricing strategy were that wharfage was the main source of harbour revenue and generated revenues that dwarfed associated costs by a factor of 300 to 400 per cent (Jones, 2002b). Losses associated with other mainly marine related functions were expunged, and the South African ports emerged as profitable entities with aggregate waterfront charges that were high by world standards, particularly when viewed against productivity levels that were low by those same standards. Hence the new administration inherited ports that were artificially cheap for vessels and artificially expensive for their cargoes, on the basis of tariffs that made sense for neither (Jones, 2002a).

Although *ad valorem* wharfage formed the principle source of revenue for Portnet and a major profit source for Transnet, these funds were not ploughed back into the ports in the form of infrastructure investment. Rather, the profits appropriated by Transnet were divvied up amongst its various divisions, used to subsidise less profitable transport modes of road and rail and to reduce the actuarial deficit in the company’s pension fund (Jones, 1988b). The profits made on the wharfage tariff item also allowed port authorities to keep the prices of other services and facilities artificially low (see table 2). Thus by international benchmarks, South African ports have been expensive for their users. A comparison of the unusually large Port Authority charges can be seen most clearly in figure 2 below, and resulted predominantly from *ad valorem* wharfage. Wharfage charges were levied in South African ports as early as 1925. The Moving South Africa study, in figure 2, showed that port charges in South Africa were high in comparison to both developed and developing countries.

Figure 2: Total Waterfront Charges.



Note: Breakdown of waterfront charges may vary due to different financial structures which affect pricing

(Source: Department of Transport, 1998, TEUs are twenty foot containers).

Terminal charges, in figure 2, are the cargo-handling costs, while the Port Authority charges represent port infrastructural charges. These charges would include port and berth dues but would be primarily composed of wharfage. The port tariff comparison in figure 2, showed that port authority charges in South Africa, exemplified here by the port of Durban, were relatively more expensive than the other selected ports.

South Africa’s trade liberalisation and acceptance into the international trading community has resulted in a fundamental shift in the country’s macroeconomic policy. *Ad valorem* wharfage helped to promote the government’s macroeconomic policy of an import substitution economy. Naudé (1999: 21) established that “claims that domestic transport costs are negatively impacting on exports are difficult to substantiate. Indeed, South Africa’s inland transport costs compare

favourably to those of selected overseas countries. The major problem as far as domestic transport costs are concerned may be the taxation of international trade through *ad valorem* wharfage fees...Because these *ad valorem* wharfage charges are a significant source of revenue for Portnet (the state owned enterprise responsibly for all ports in South Africa), their abolition seems unlikely.”

Due to the implementation of Value Added Tax in 1991, wharfage reduced from 1.8% on imports and 0.9% on exports to 1.78% and 0.89% respectively. In rand terms, however, due to the depreciation of the rand:US\$ exchange rate, wharfage paid per US\$ of import continued to rise³. In 2001, the *ad valorem* wharfage charge reduced from 1.78% on imports to 1.7%, and for exports, wharfage decreased from 0.89% to 0.85%. Although still a value-based tariff, with anti-import bias, the changes brought the Port Authority closer to ensuring globally competitive port rates. Despite the apparent decline in *ad valorem* wharfage rates, from a rand perspective, cargo owners were experiencing rising costs determined by the uncertain and increasingly volatile international value of the rand.

Skinner (2003 in Chasomeris 2003: 12) calculated wharfage revenues collected for both import and export cargo in the Port of Durban over the five year period from 1997 to 2001. The largest contribution towards export wharfage was from general cargo (39.6%). The largest contributors to import wharfage revenues were: general cargo (47.5%), vehicles and components (13%), and machinery (14%). Together these imports contributed 74.5% or R2,718,085,347 over the five year period. With South Africa’s trade liberalisation, and the expanding opportunities through preferential access to international markets, the government’s strategy shifted to that of export promotion. A large part of the new export promotion strategy was focused on the manufacturing sector whose contribution to total exports had doubled from 14% to 28% between 1994 and 2001 (Inggs, 2003 in Chasomeris, 2003: 12). Manufactured goods, however, are generally considered higher-value commodities, and by 2001, rand denominated wharfage costs to both importers and exporters were at their highest. Therefore, in order to contribute to the country’s new trade policy of reducing transport costs, improving export competitiveness and the move toward port privatisation, a new tariff structure was required.

4. SOUTH AFRICA’S CONTEMPORARY PORT POLICY, GOVERNANCE AND PRICING.

Early 2002 witnessed the dismemberment of the old Portnet into a landlord port authority (National Port Authority - NPA) responsible for port infrastructure and marine services, and a port operator (SA Port Operations - SAPO), responsible for terminal operations. The NPA performs landowner and regulatory functions and is responsible for the development and management of port property and infrastructure, the supply of marine services to vessels and marine safety (VTS, lighthouses and dredging services). The NPA considers its business to be of critical importance to the surrounding socio-economic environment. “The business plan of the NPA demands the company achieves productivity gains efficiently and effectively, while showing continued growth and economic viability” (Enslin, 2003). The NPA in turn leases out cargo-working infrastructure to SAPO, who have taken over all cargo-handling operations,

³ The country’s real effective exchange rate depreciated by 3.9% per annum during 1994-2001 (du Toit, 2004: 54).

effectively running all those terminals that fall under the ownership and control of Transnet. The mission of SAPO is to “be a world class, globally competitive cargo handling and logistics management business within the next three years” (SAPO, 2003).

The new port policy, revealed through the White Paper on National Commercial Ports Policy was approved by Cabinet in March of 2002. The purpose of this policy is “to ensure affordable, internationally competitive, efficient and safe port services based on the application of commercial rules in a transparent and competitive environment applied consistently across the transport system” (White Paper, 2002: Ministerial foreword). The new vision for a South African port system is (White Paper, 2002: 9):

“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 vision is relatively comprehensive and seeks to rectify the many ills of the past port governance, policy and consequent pricing. The “system of ports” to which the vision refers includes all the existing commercial ports, that is, Richards Bay, Durban, East London, Ngqura, Port Elizabeth, Mossel Bay, Cape Town, Saldanha Bay, Port Nolloth, and offshore cargo handling facilities as well as all future ports and offshore cargo handling facilities to be constructed. These ports will be financially self-sufficient, and will be managed and administered by the National Ports Authority that will instil commercial discipline in the ports, and pave the way for efficiency gains necessary for ports and users to become competitive in the global economy (White Paper, 2002: 9).

In order to deliver on this National Commercial Ports Policy vision, it is acknowledged that a number of broad goals need to be pursued. These are (White Paper, 2002: 10):

- “To invest in port infrastructure, superstructure, equipment and system in ways which satisfy social, financial, economic or strategic investment criteria;
- To improve the safety, security, reliability, quality and speed of port operations and services;
- To enable port users to access the port system in the most efficient way possible;
- To promote good employment practices and standards;
- To achieve the above goals in a manner which is economically and environmentally sustainable, and minimises negative externality impacts on non-users; and
- To promote intermodalism.”

These goals are expanded on through the specific objectives and guiding principles identified in the White Paper (2002: 10-12). There is also an acknowledgement of the ills of the past port environment (a necessary step towards sustainable transformation) and a willingness to lay down a new foundation with a spirit of goodwill toward all port stakeholders.

The White Paper on National Commercial Ports Policy has laid down a broad and generally acceptable policy environment from which a more formal instrument like the National Ports Authority Bill has been created. There is still debate, however, over whether the NPA will initially remain a division of Transnet, become a subsidiary of Transnet in the short or medium term or a separate State-Owned-Enterprise in the medium to long term. Irrespective of the outcome, the NPA Act will lay down the framework within which the NPA will be obliged to operate in the future. Commenting on the Ports Bill, in October 2004, Public Enterprise minister, Alec Erwin, said that the NPA will remain within Transnet as a strengthened regulator, with the intention of moving it to a public company (NPA newsletter, 2004).

4.1. CONTEMPORARY PORT PRICING IN PRACTICE

An important part of the transformation process is acknowledging that South African ports have inherited many performance and pricing problems. The NPA now acknowledge that there are pricing issues; more importantly, the NPA are willing and able to address many of these pricing anomalies. The new South African port tariff arrangement that came into effect from May 1, 2002, was the first full tariff structure to emerge after the dismemberment of the old Portnet into a landlord port authority, the NPA, and a port operator, SAPO. This functional split required that the old tariff set up be unbundled and repackaged to fit the new bipolar port structures. “The objectives of NPA tariff reform were clearly stated as being to create a transparent tariff structure based on user pay and cost coverage in relation to the provision and maintenance of basic port infrastructure” (Giladi, 2003: 102). These changes marked the first substantial reform of South African port tariffs over the past fifty years (Jones, 2002a).

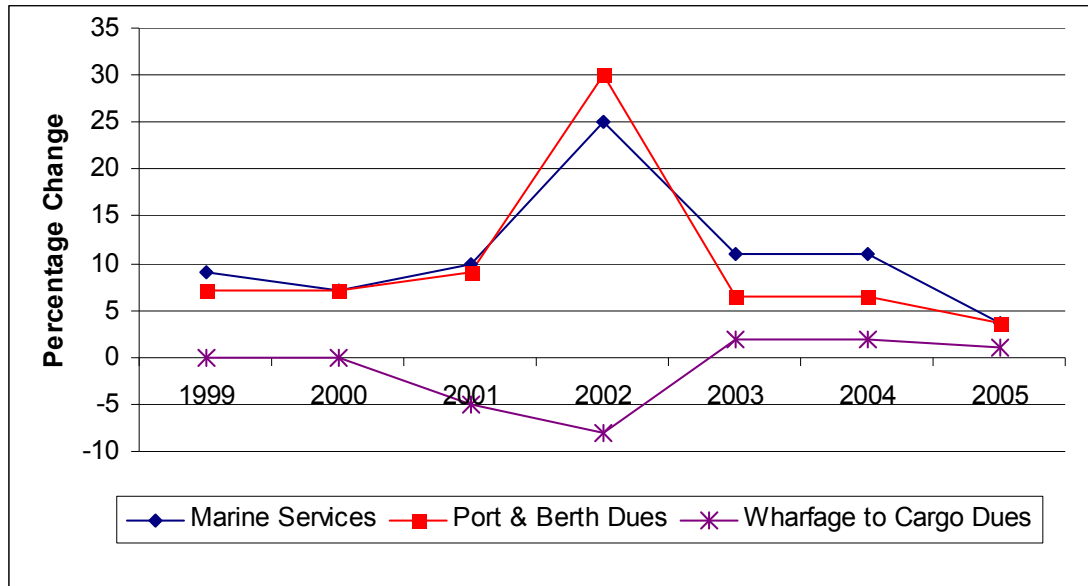
To achieve a more fair, efficient and competitive system, it was essential that *ad valorem* wharfage be eliminated. In 2002, wharfage charges were replaced with a set of cargo dues. Cargo dues are levied on a unit basis (set box rate) for containers and a tonnage (volume) basis for other forms of cargo. The new tariff also embodies a degree of rate flexibility, with preferential rates for break-bulk and neo-bulk cargoes on a commodity and volume-driven basis (Port Tariffs, 2002 and Jones, 2002a). Rather than the value-based *ad valorem* wharfage, cargo dues are cost related and remove the previous discrimination against high value cargo, bringing South Africa more in line with international practices (Jones, 2002b; Jones, 2003a). This means, however, that there were clearly gainers and losers from the new dispensation. According to the NPA’s CEO, Siyabonga Gama, cargo importers and exporters were to be the main beneficiaries of the reduced wharfage rates (Rodrigues, 2002). The introduction of cargo dues has stabilised the port cost environment for cargo owners through removing *ad valorem* wharfage and the associated burden of exchange rate fluctuations. Hence cargo dues are expected to make a positive contribution to trade growth through the ports. Gama (in Rodrigues, 2002) did concede, however, that some of the high-volume, low-value cargoes would have been affected detrimentally by the introduction of cargo dues, but indicated that this was necessary to ensure that they paid for their fair share of port infrastructure. As a result of the introduction of cargo dues, table 4 shows that some high value cargo owners have gained, experiencing decreases in costs of 67 per cent. The move has, however, attracted widespread criticism from exporters of low-value cargoes who benefited from subsidised rates in the past and now claim to be bearing the brunt of tariff reform. Some traders may have seen costs soar by 150% on a 12m container

(Chasomeris 2003: 25; and table 4). While using a value-based approach in the past may have been less than perfect, some form of differentiation should be retained between different commodities, based on their ability to absorb costs within the import or export market (Rodrigues, 2002). This is more commonly referred to as “charging what the traffic can bear.” For instance, charcoal exporters from the Natal Midlands, who feared that the new dues would kill off their export business, raised concerns. Such special interests can, hopefully, be resolved by negotiation, but the nub remains the level of cargo dues, on an aggregated basis. If the revenue reductions from the replacement of wharfage with cargo dues substantially outweigh the additional expenditure on marine infra-structural and specific service charges, then the generalised cost of transport through the South African ports will fall and trade should be stimulated. If increased expenditure commitments by users exceed real wharfage gains then seatriade will be stifled (Jones, 2002a). Despite the very high volume of commodities traded, most cargoes will pay less because of their value. The creation of cargo dues, along with the split of the NPA and SAPO, has also increased transparency within the port. While Transnet historically appropriated wharfage revenue for other uses, cargo dues are now retained by the port itself and reinvested in harbour infrastructure.

The transformation of wharfage into cargo dues attempts to close the extent of cross subsidisation and cost-price irregularities across marine and cargo functions (see table 2). Figure 3 shows the percentage changes in the country’s marine services, port dues and cargo dues from 1999 to 2005. Marine tariffs are charged for the rendering of marine infrastructure like pilotage, tug assistance and berthing. Port dues are raised to cover the “wet” infrastructure of the port, that is, breakwaters, turning basins, aids to navigation inside the port and maintenance dredging of the port. Cargo dues are raised to cover the “dry” infrastructure of the port, that is the provision and maintenance of quaywalls, roads, railways, buildings, fencing, security, lighting – outside terminal boundaries (Nicco Walters, NPA, personal communications, 2005). When the NPA changed from *ad valorem* wharfage to unit cargo dues in 2002, there was a significant reduction in the costs for cargo owners (see figure 3). Marine services, however were historically charged below cost recovery. This was subsequently adjusted in the tariff reform process with the result that marine tariffs became time or distance and cost based which led to marine tariffs being adjusted by 25 per cent and then 11 per cent to address below cost adjustments. Port dues were adjusted once-off by 30 per cent in 2002. The increase in marine charges helps to lessen the effects of intra-port cross subsidisation. It appears that rather exorbitant profits continue to be made on cargo dues (the highest tariff revenue generator) that are used to subsidise far less profitable marine tariff items, such as port dues, pilotage and tug assistance (McPherson, 2003). These tariff changes have created a shift away from wharfage and cargo dues towards a more cost-based tariff. Additionally, South Africa’s attempts to improve trade competitiveness partially lie in targeting below inflation adjustments. The NPA have expressed intent to keep adjustments in port costs aligned with the country’s inflation targets (Nicco Walters, NPA, personal communications, 2005). Cargo dues will remain a major revenue source, as the future investment in port infrastructure remains high, especially as the provision of appropriate capacity and infrastructure timeously is vital to facilitating growth in South Africa’s trade (Nicco Walters, NPA, personal communications, 2005). The 2005/6 adjustments of 1 per cent in Cargo Dues and 3.1 per cent for Marine and Port Dues are clearly well within the country’s core consumer inflation targets of between 3 and 6 per cent, thus not only facilitating but also promoting growth

in South Africa's trade. Table 3 shows a summary of the changing port tariff environment and the resulting impact on South African ports and port users.

FIGURE 3: PERCENTAGE CHANGE IN SOUTH AFRICA'S PORT CHARGES, 1999-2005



Source: Adapted from Kamlesh Sanjee, Senior researcher, NPA, Personal Communications, 2005.

Table 3: Port Tariffs and the Impact on Ports and Cargo Owners.

	Import	Export	Impact
Wharfage (Before 1991)	1,8%	0,9%	<p>Ports: Inflated port profits, cross subsidisation from ports to other government ventures. Revenues highly vulnerable to exchange rate fluctuations. Promoted government's goal of an import substitution economy.</p> <p>Cargo owners: exploited and burdened. Uncertainty, as port costs were highly vulnerable to exchange rate fluctuations.</p> <p>* Wharfage calculation capped: 9000</p>
Wharfage (Value Added Tax) (Since 1991)	1,78%	0,89%	
Wharfage (2001/2002)	1,70%	0,85%	<p>Ports: Projected reduction of NPA revenue as a result of the tariff change: R250 million.</p> <p>Cargo owners: Decreased costs, still value based tariff. Port authority edges closer to ensuring globally competitive port rates.</p> <p>* Wharfage calculation capped: 9423</p>
Cargo Dues (2002/2003)			<p>Ports: Anticipated reduction in NPA's cargo dues revenue in the order of 400million.</p> <p>NPA's CEO Siyabonga Gama said the organisation expected to see about R896m coming off the top line, or revenue, during 2002. Port reduced the effect of this reduction on net profit by focusing on cost reduction.</p> <p>Cargo owners: High value cargo benefit through lower costs. Low value cargo owners may experience a rise in costs (table 4)</p>
Per Container: 6m / 20 foot 12m / 40 foot	R 1 480,00 R 2 960,00	R 735,00 R 1 470,00	
Cargo Dues (2003/2004)			<p>Ports: Anticipated real as opposed to nominal reduction in NPA's cargo dues revenue in the order of 388 million (Skinner, 2003 in Chasomeris, 2003).</p> <p>Cargo owners: the 2% increase in cargo dues is well below the inflation rate thus reducing real costs to cargo owners, facilitating/stimulating trade.</p>
Per Container: 6m / 20 foot 12m / 40 foot	R 1 510,00 R 3 020,00	R 750,00 R 1 500,00	
Cargo Dues (2004/2005)			<p>Ports: Anticipated real as opposed to nominal reductions in NPA's cargo dues revenue.</p> <p>Cargo owners: Although annual inflation has been reduced, the 2% increase in cargo dues is still well below the inflation rate thus reducing real costs to cargo owners.</p>
Per Container: 6m / 20 foot 12m / 40 foot	R 1 600,00 R 3 200,00	R 795,00 R 1 590,00	

(Sourced from: Port Tariffs, various years; Skinner, 2003; Jones, 2002b; Rodrigues, 2002; Chasomeris, 2003).

TABLE 4: TARIFF STRUCTURE, NOMINAL IMPORT COSTS AND THE IMPACT ON CARGO OWNERS:

HIGH VS LOW VALUE CARGO IMPORTS, AN EXAMPLE

Commodity	<i>Ad Valorem</i> Wharfage (Pre-2001)	Wharfage 2001/2002	Box Rate 2002/2003	Box Rate 2003/2004
High value cargo One 6m container Cargo value: R700 000	R4 485	R4 485	R1 480 (Costs decrease 67%)	R1 510 (Nominal costs +2%)
Low value cargo One 6m container Cargo value: R70 000	R1 246	R1 190	R1 480 (Costs increase 24%)	R1 510 (Nominal costs +2%)
6m calculation:	28M3 * 9000 * 1,78%	28M3 * 9423 * 1,7%	Set Box Rate	Set Box Rate
High value cargo One 12m container Cargo value: R700 000	R8 971	R8 970	R2 960 (Costs decrease 67%)	R3 020 (Nominal costs +2%)
Low value cargo One 12m container Cargo value: R70 000	R1 246	R1 190	R2 960 (Costs increase 149%)	R3 020 (Nominal costs +2%)
12m calculation:	56M3 * 9000 * 1,78%	56M3 * 9423 * 1,7%	Set Box Rate	Set Box Rate

Source: Own calculations from data in table 3.

5. CONCLUSIONS

South Africa's seven commercial ports have served not only a strategic role through trade facilitation, but have also helped to shape the economic growth and development of the entire Southern African region. Port traffic volumes continue to show significant growth with total cargo of some 190 million tons handled in 2002 (Ports of Southern Africa and Mauritius, 2003). The paper investigated South Africa's port performance with a particular focus on the evolution of port policy and pricing. Historically, port users have expressed a justified discontent with port governance, policy and pricing that promoted: import substitution of high value domestic substitutes; intra- and inter-port cross subsidisation; inter-modal cross subsidisation; insufficient investment in port infrastructure and superstructures; bureaucracy; skewed prices; and created suspicion in the maritime and transport industries about the impartiality of the port entity (Jones 1988b; White Paper, 2002: 13). This dismal background provided an opportunity to appreciate the current port policy and governance with the functional separation of Portnet into SAPO, as the port operator, and the NPA as port landlord. The functional split was also, arguably, necessary to facilitate the port planned concessions of which the DCT is supposed to be the first with already 15 per cent of the concession earmarked for Black Economic Empowerment (Radebe, 2003); there is still uncertainty as to the timing and nature of the concession. The government's and the NPA's willingness to acknowledge and address many of the ills of the past has resulted in: increased government and Transnet funds allocated for the upgrade and maintenance of port infrastructure and superstructure; improved pricing principles that include a transformation from value-based (ad valorem wharfage) pricing towards a more cost-based (and user pays) pricing approach while concurrently attempting to reduce the historical imbalances between port dues and cargo dues and the consequent intra-port cross subsidisation.

There are still many challenges to address if South Africa is to continue to improve overall port performance. Port pricing areas that still need to be addressed include: the lack of port competition; the inefficient pricing across all seven port; the gross skewness of port revenues compared with costs; and the charging of cargo dues on import containers at twice the rate of identical export containers. Additionally, there are some costs and performance issues – congestion problems; low container moves per hour; aged equipment; high staff turnover and inexperienced staff (45% new); and facilities that have not kept pace with demand (CSIR in DoT, 2004) – these performance issues may not be directly reflected through port pricing and may contribute towards a rise in overall costs. Nonetheless, the governments' recent commitments to increase capital expenditure and improve the efficiency and effectiveness of not only South Africa's ports, but the entire logistics chain is welcomed and necessary if the country is to reduce the costs of doing business in and from South Africa.

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