

PORTS SERVICES – INDUSTRY PROFILE

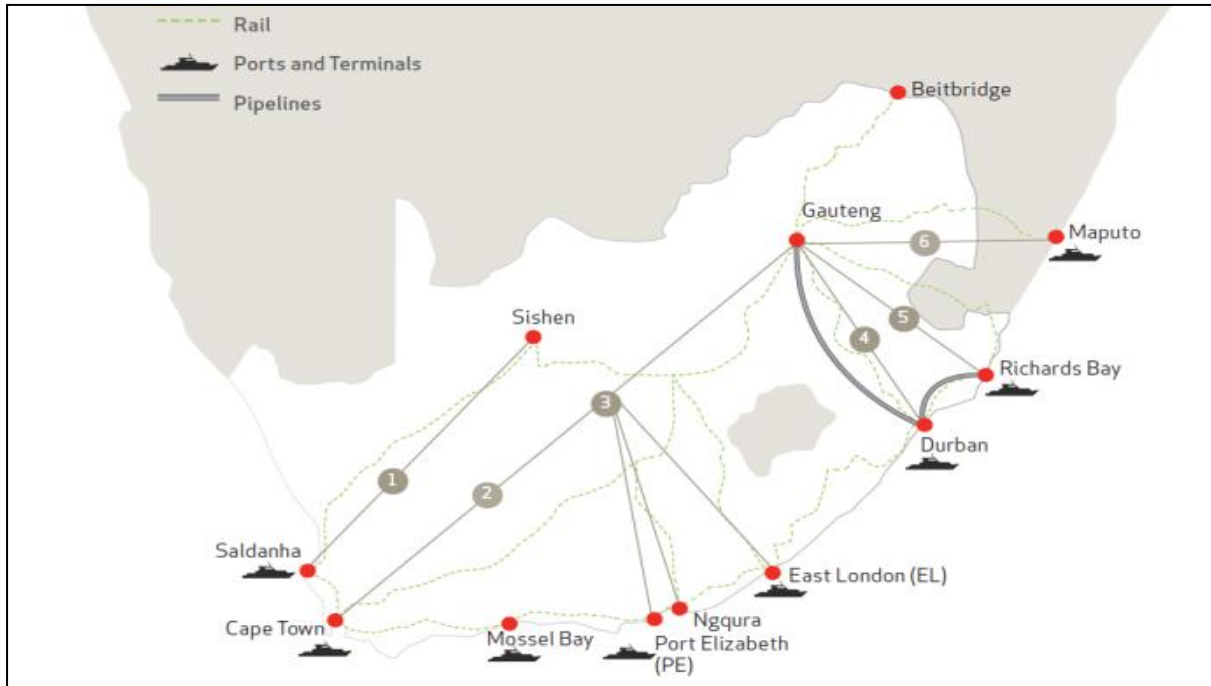


CENTRE FOR POLICY AND REGULATION
SAMSA

OVERVIEW OF THE PORTS SERVICES INDUSTRY

South Africa's ports serve as conduits for trade between South Africa and its trading partners in the Southern African region, but also as hubs for traffic to and from the rest of the world. The bulk of international trade (approximately 98%) is moved by sea through the eight commercial ports (Saldanha Bay, Cape Town, Mossel Bay, Port Elizabeth, East London, Ngqura, Durban, and Richards Bay) of the country. Accordingly, the performance of ports regarding prices, reliability and speed of cargo handling are crucial to the competitiveness of the country's (and by extension regional) international trade.

Map 1: South African ports



The South African port system comprises of both multi-purpose ports (Durban, Cape Town, Port Elizabeth and East London) and specialised bulk port (Saldanha, Richards Bay and Mossel Bay) as well as a port developed predominantly for future transshipment cargo – Ngqura. The former handle both unitised cargo in containers as well as break bulk and in some instances bulk cargoes at specialised terminals. There are systemic complementarities in evidence in the SA port system – and this is largely due to the singular nature of port ownership.

The state-owned entity, Transnet National Ports Authority (TNPA), controls and manages the country's eight major ports and is the dominant provider of port services, with limited private sector competition. Private sector involvement (under lease agreements) is primarily focused on repairs to the vessels in this sub-sector.

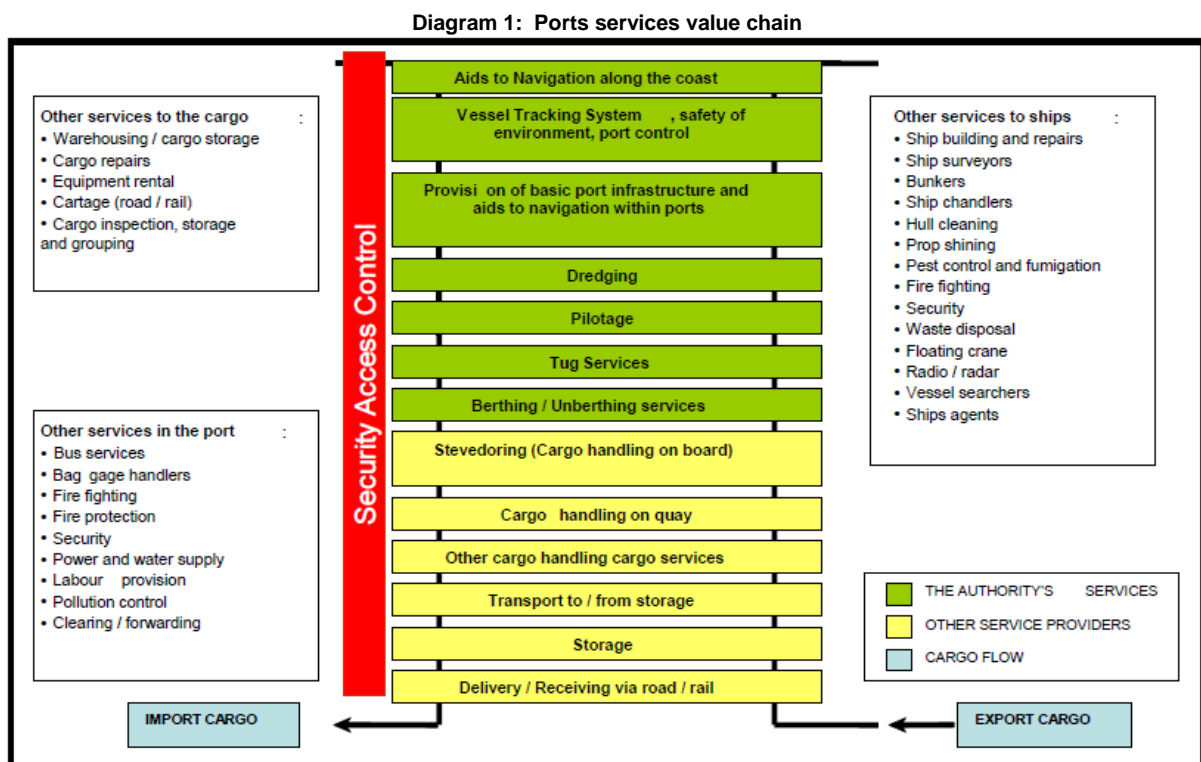
THE STRUCTURE OF THE INDUSTRY

MARINE SERVICES

Marine services such as pilotage, towing and tug assistance, fuelling and watering, garbage collecting and ballast waste disposal, port captain's services, lights and navigational aids, VTS services, mooring, anchorage, berth and berthing services constitute an integral part of the activities of a ports system,.

The Port Authority is the sole provider of marine services within South African ports.

The provision of port services is characterised by monopolistic practices – high transaction costs and inefficiencies. For example, total marine and infrastructure costs (including cargo dues) for an average container vessel offloading or loading at Durban were US\$182 151 on 1 April 2010. This is between 80 per cent and 170 per cent higher than costs at major European ports and ten times more than those charged by Taiwan’s Kaohsiung port¹, for example. Part of the reason for the high costs of port services in South Africa is the funding model used by the NPA, i.e. the end-user pay system in order to fund infrastructure improvements. Nevertheless, these high costs are not accompanied by high efficiency. The country’s ports have low container handling speeds and high container vessel turnaround time as compared to other international ports. For example, in 2008 the Durban container terminal achieved an average of 23 units of crane moves per hour, compared to 94 and 60 units of crane moves per hour at Antwerp and Brazil’s Santos port, respectively. Durban also achieved an average vessel turnaround time of 72 hours as compared to 12 hours of Thailand’s Laem Chabang port and 24 hours of the US’s Long Beach port².



Source: UNCTAD, 1995. *Strategic Port Pricing*. UNCTAD/SDD/PORT/2 21 February 1995, with modifications

CARGO HANDLING SERVICES AND TERMINAL OPERATIONS

Cargo handling services, terminal operations and supporting services such as storage and warehousing services, customs clearing, container station depot services, maritime agency services, freight forwarding services are the source of up to two thirds of user expenditure in typical ports and accounting for the bulk of port-related employment.

The market for these services is characterised by both public and private (including foreign) sector participation. Transnet Port Terminals, a division of Transnet Limited, has a monopoly in car handling and is dominant in container and break-bulk cargo handling. Private firms are allowed to rent port assets from the landlord (National Ports Authority) in order to provide maritime auxiliary services.

¹ Ports Regulator of South Africa, Port comparators for selected international ports, Ports Regulator of South Africa: Durban. 2010

² ibid

Barriers to entry in this market for both domestic and foreign private participation are very low. Moreover, the auxiliary sector in South Africa is very well developed and the country is already exporting these services to neighbouring countries.

In the four cargo-handling market segments in which Transnet Port Terminals (TPT) operates, it has a monopoly in car handling and in containers handled at terminals and is dominant in break-bulk cargo handling. The private sector's share of bulk cargo handling exceeds that of TPT due to the large volumes handled through petroleum and coal terminals. Private sector bulk (liquid and dry) and break-bulk terminals are found in Cape Town and Durban handling fruit, refrigerated cargo, sugar, edible oils, steel, chemicals and mixed cargo. TPT operates three dedicated deep sea container terminals yet it does not have a complete monopoly on the entire container trades as private sector stevedoring companies handle a small volume of containers on geared ships and at private multi-purpose berths, but effectively is the market.

Private provision is also present, most notably in the port terminal area, and dominates the handling of crude oil, petroleum products and other liquid-bulk cargoes in most ports; the large coal export terminal (RBCT) in the port of Richards Bay; and a wider range of dry-bulk and neo-bulk cargoes in the port of Durban. A complex and varied set of public-private interfaces therefore exists in the South African ports, also varying across ports, with larger private participation in Durban and Richards Bay and smaller in the remaining ports, but with the final interface in most cases sitting within the cargo-handling/terminals terrain. As a very rough rule of thumb, that cargo terrain is split by sector inasmuch as the public sector controls unitised/containerised cargoes, the vehicle trades and most break-bulk general cargoes, some neo-bulks and some major dry-bulks, while private terminal operators hold sway in the liquid-bulk and in some important areas within the dry-bulk sphere.

Public and private sector market share for major service categories

Service	National Port Authority	Port Operations	
		SOE – TPT	Private sector
Marine services	100%		
Bulk cargo handling		37%	63%
Break-bulk cargo handling		78%	22%
Container handling		97 ^a %	3 ^b %
Car (on wheels) handling		100%	

Table 9 summarises the current infrastructure at these ports.

Table 9: Summary of SA port infrastructure

Port	Terminals	Berths	Sector	Max Draught
Richards Bay	6	22	Bulk/Break Bulk	17.5m
Durban	19	57	Containers, cars, Break Bulk	12.8m
Port Elizabeth	5	12	Cars, Containers, Break Bulk	12.2m
Port of Ngqura	3	5	Containers	16.5m
East London	4	11	Cars and Break Bulk	10.4m
Mossel Bay	1	8	Bulk, Fishing	6.5m
Cape Town	7	45	Containers, Break Bulk	22.5m
Saldanha	3	7	Bulk, Break Bulk	21.5m

Source: Transnet National Ports Authority

Port	Sector	TEU Capacity	Ton Capacity
Richards Bay	Bulk/Break Bulk		90 000 000
Durban	Containers, cars, Break Bulk	3 600 000	
Port Elizabeth	Cars, Containers, Break Bulk		
Port of Ngqura	Containers		
East London	Cars and Break Bulk		
Mossel Bay	Bulk, Fishing		
Cape Town	Containers, Break Bulk	700 000	
Saldanha	Bulk, Break Bulk		60 000 000

As Table 9 shows the main export ports for the South African mines are Richards Bay (e.g. coal) and Saldanha Bay (e.g. iron ore), while the other ports are used more for industrial products (cars, oil, grain, etc.) and fishery. Furthermore, Saldanha Bay and Richards Bay are designed for the largest bulk carriers in the world. For example, the design vessel for the Port of Saldanha is a 250 000 dwt bulk carrier with a draught of 21.5 metres. The ports also have the latest generation STS G-cranes both Panamax and Post Panamax, shiploaders and conveyor belts in excess of 65 kilometres, Pneumatic offloaders, mobile cranes with super grabs, Reach Stackers, and HD Forklifts with different attachments.

INDUSTRY PERFORMANCE

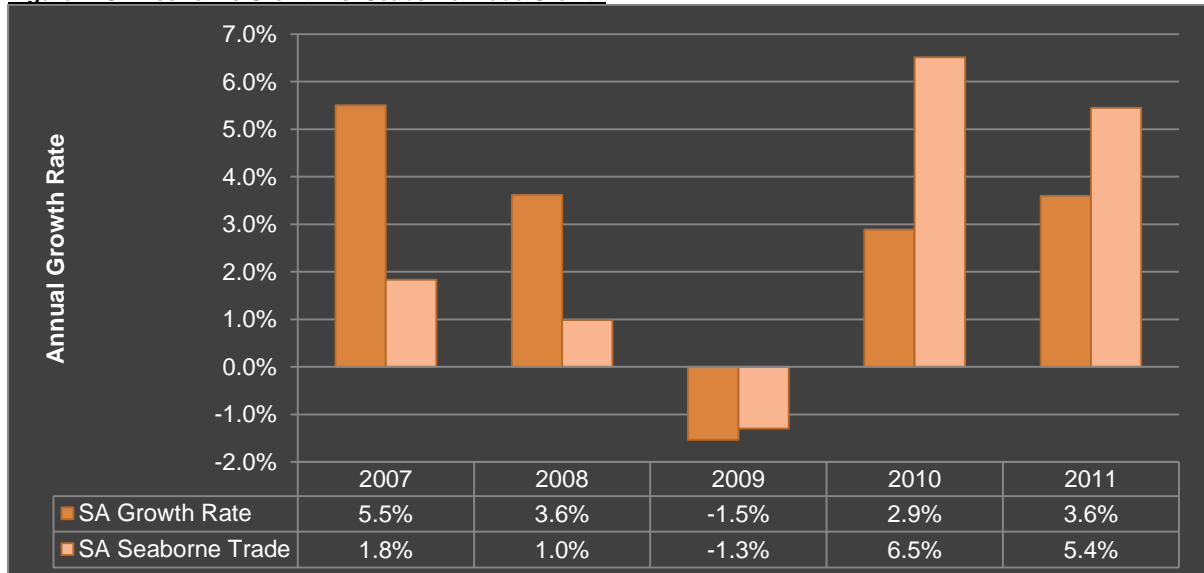
EMPLOYMENT AND TURNOVER

TRADE

Non-containerised Traffic

South Africa's ports handled 205 million tons of cargo in 2011. Compared to the preceding year, this represented a growth of 5.42% of cargo handled. Figure 2 also shows that seaborne trade is a derived demand, i.e. developments in the domestic economy drives developments in seaborne trade. Therefore, in line with the positive economic growth, SA's seaborne trade experienced similar evolution with an upswing in demand in 2010 and 2011, and a positive turnaround in volumes.

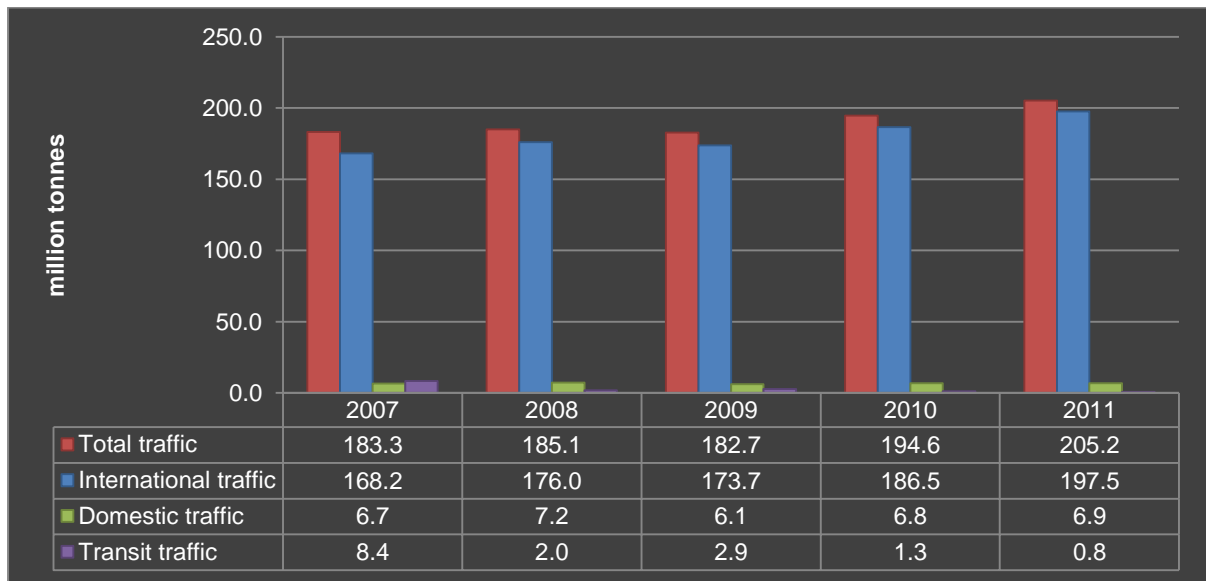
Figure 2: SA Economic Growth vs. Seaborne Trade Growth



Source: Transnet National Ports Authority, SARB and African Economic Outlook estimates

Figure 3 shows that non-containerised traffic grew by 2.79% over the past five years. South African exports grew by 5.87% whilst imports contracted by 1.72% over the same period. The figure further illustrates that transit traffic has consistently declined from 8.4 million tonnes handled in 2007 to just 800 thousand tonnes handled in 2011 – an average decline of 40.5%. This is a dent on South Africa's aspirations to become South-South trade transshipment hub, especially for non-containerised cargo.

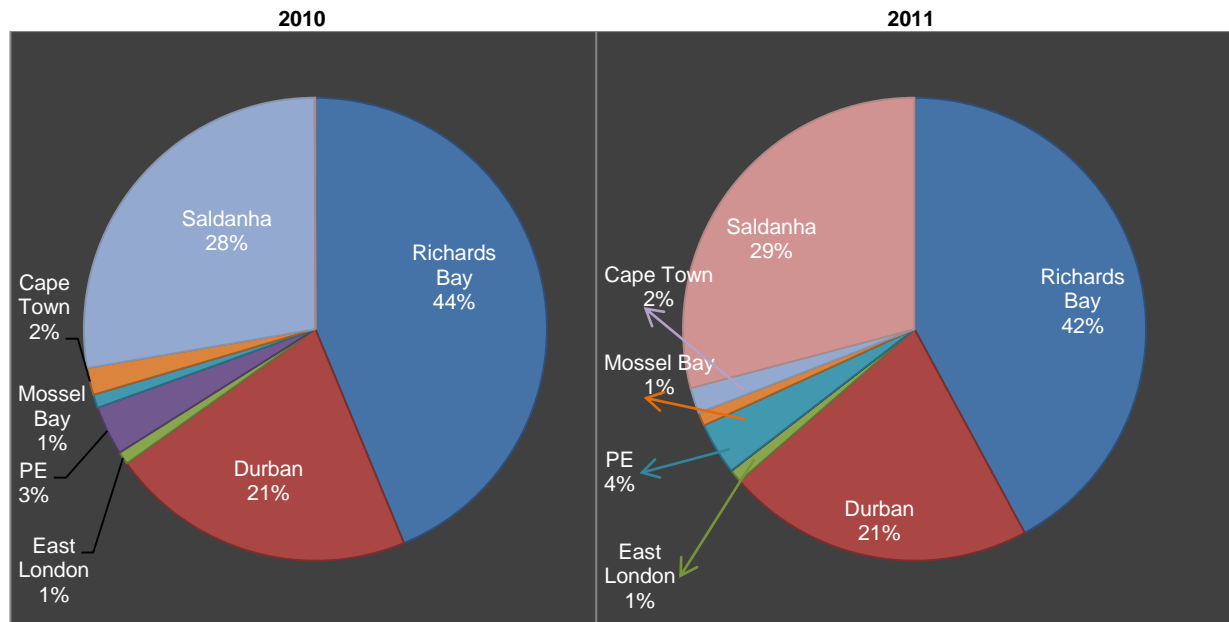
Figure 3: Non-containerised traffic (2007- 2011)



Source: Transnet National Ports Authority and SAMSA calculations

According to figure 4, the ports of Richards Bay, Durban and Saldanha Bay together accounted for approximately 92.0% of total cargo handled in South Africa in 2011. Port Elizabeth and Saldanha Bay experienced a significance increase in cargo handled in 2011 as compared to 2010, registering a year-on-year growth of 11.49% and 10.98%, respectively.

Figure 4: Non-containerised traffic by ports (2010 vs. 2011)



Source: Transnet National Ports Authority and SAMSA calculations

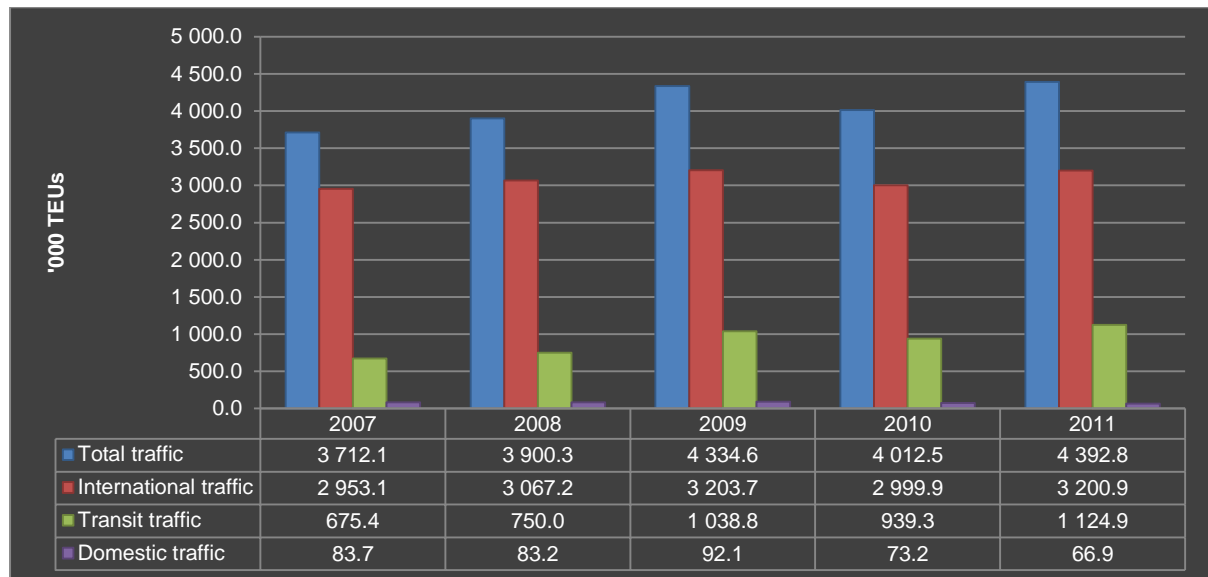
Container Traffic

Container throughput stood at a combined total of 4.4 million TEUs in 2011. This represented a year-on-year growth of 9.5% from 2010. Of the total containers handled in 2011, approximately 28% were empties. Over the past five years container traffic grew on average by 3.72%. During this period domestic container traffic registered an average decline of 5.56%. This rings alarm bells for the

development of coastal shipping in South Africa and suggests that the country should rather focus its efforts on regional trade arrangements for the development of this important mode of transport.

In contrast to non-containerised traffic, containerized transit traffic recorded an average growth of 13.26% for the past five years. This shows that South Africa should rather focus its efforts on this type of cargo in order to fulfill its aspirations of becoming a South-South trade transshipment hub.

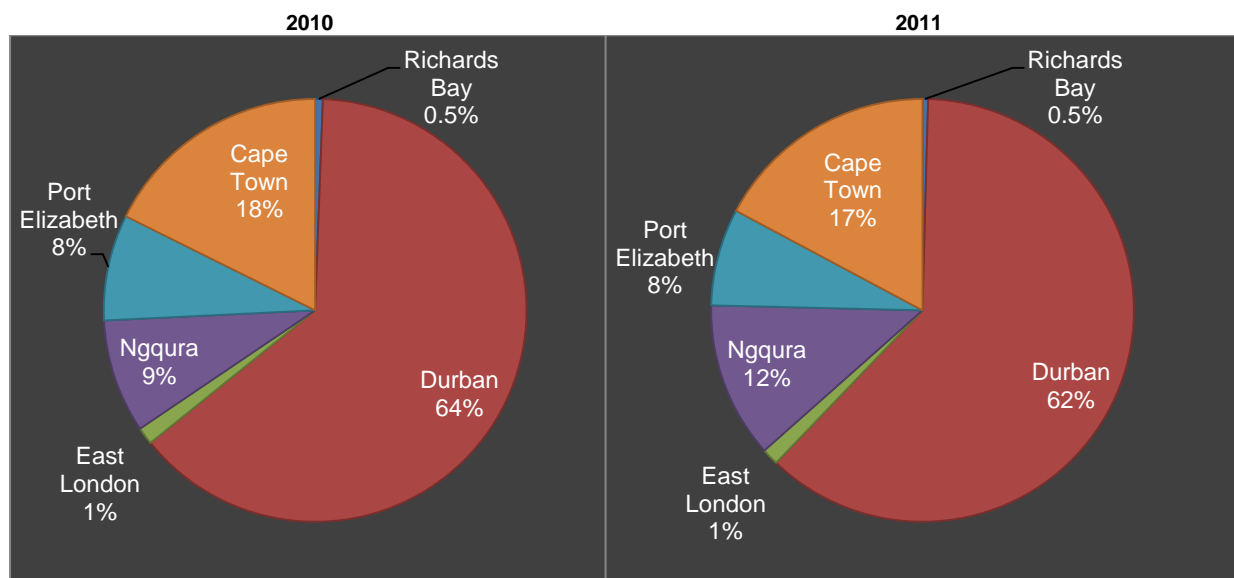
Figure 5: Container traffic (2007-2011)



Source: Transnet National Ports Authority and SAMSA calculations

Figure 2 shows that Durban, Cape Town and Ngqura container terminals accounted for approximately 91% of total South Africa’s container throughput in 2011.

Figure 6: Container traffic by ports (2010 vs. 2011)

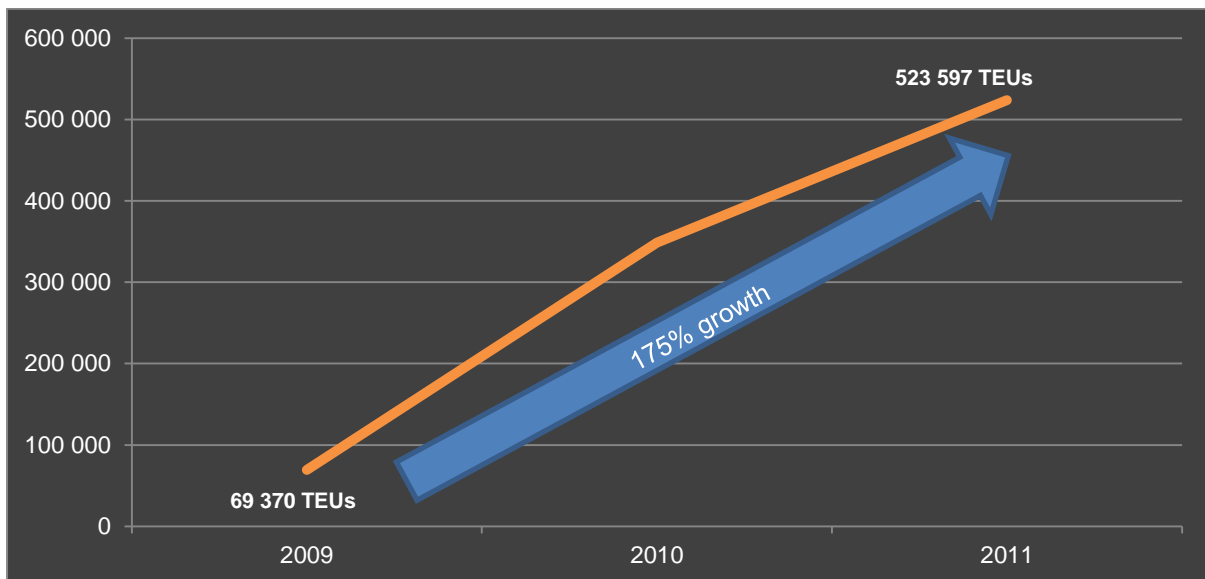


Source: National Ports Authority and SAMSA calculations

According to Figure 7, the Port of Ngqura has experienced a phenomenal increase in container traffic handled since it began its operations towards the end of 2009. From a low base of 69,370 TEUs handled in 2009, the port handled over 500 thousand TEUs in 2011 – an exponential growth of 175%.

At a glance, this would seem it was at the expense of the Port of Cape Town and the Port of Elizabeth, whereby both ports experienced an average decline of 26.07% and 14.02%, respectively.

Figure 7: Container traffic at the Port of Ngqura (2009-2011)



Source: Transnet National Ports Authority and SAMSA calculations

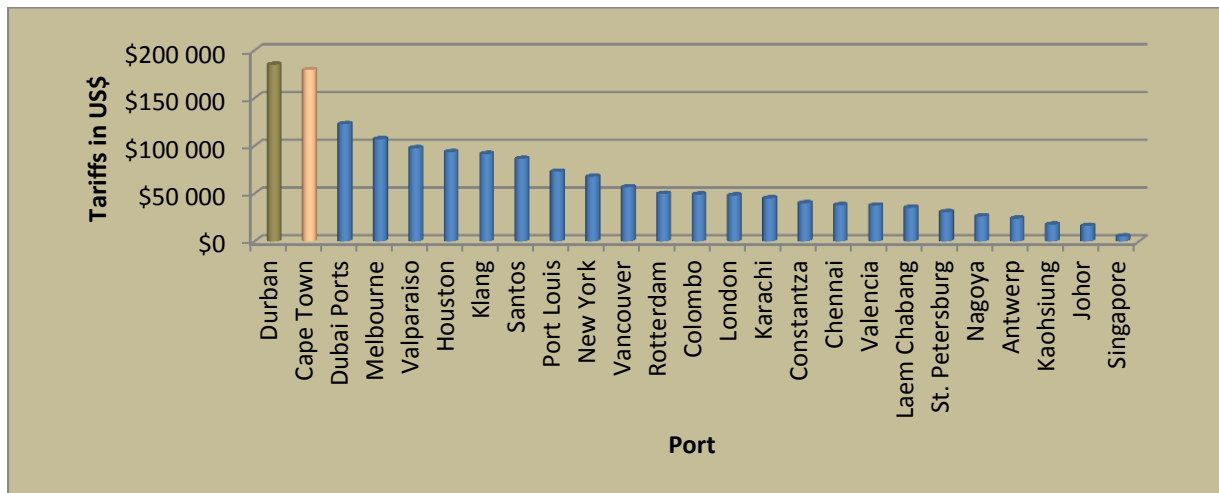
OPERATIONAL PERFORMANCE

South Africa's eight commercial ports serve as gateways for approximately 98 per cent of the country's international trade. Accordingly, the performance of ports regarding prices, reliability and speed of cargo handling are crucial to the competitiveness of the country's (and by extension regional) international trade.

A study commissioned by the Ports Regulator indicates that South African prices for port services and operations places South Africa the most expensive of a range of comparator countries with respect to port call costs for vessels and terminal handling charges on cargo.

Compared with other container ports - including those in the United States, the Netherlands and Saudi Arabia - Durban and Cape Town charged the most for total marine and infrastructure costs, including cargo dues reaching more than \$182 000 per container ship. For example, total marine and infrastructure costs (including cargo dues) for an average container vessel offloading or loading at Durban, SA's largest port, were US\$182 151 on 1 April 2010. This is between 80 per cent and 170 per cent higher than costs at major European ports and ten times more than those charged by Taiwan's Kaohsiung port (see Figure 1). The average tariff was just over \$86 000.

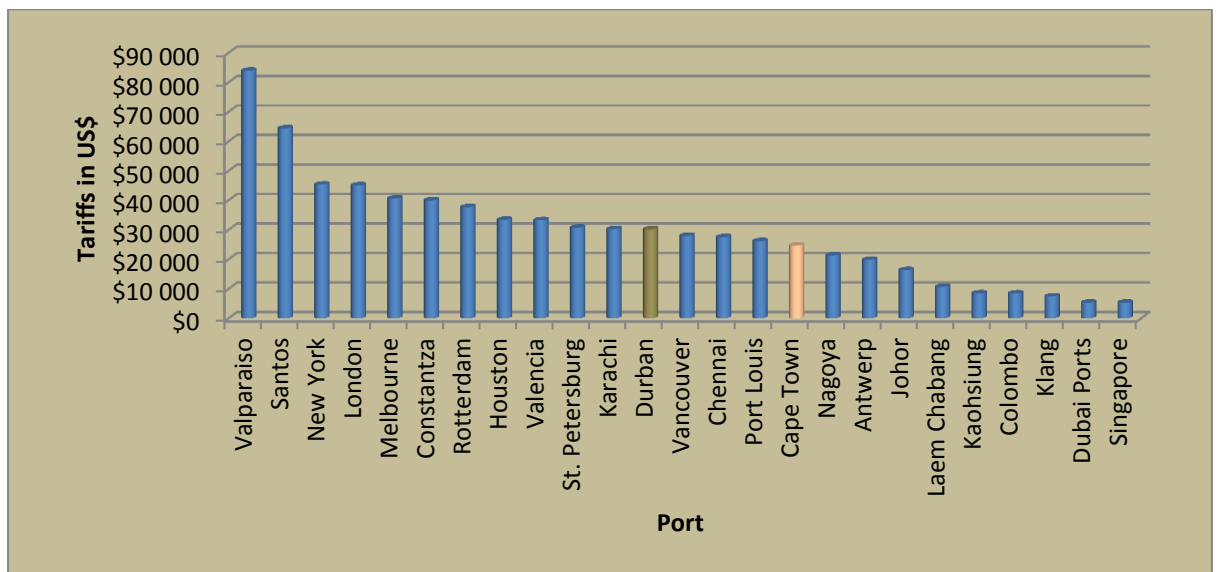
Figure 1: Total Port Authority tariffs for the unitary container vessel (2010)



Source: Ports Regulator of South Africa, Port comparators for selected international ports. Ports Regulator of South Africa: Durban. 2010

Cargo dues contribute to the high total port costs in South Africa. Figure 2 shows that Durban and Cape Town's total port costs excluding cargo dues are relatively moderate when compared to other international ports. Figure 2 shows that Cape Town's total port costs excluding cargo dues were US\$24 702 compared to the global average tariff of US\$26 427.

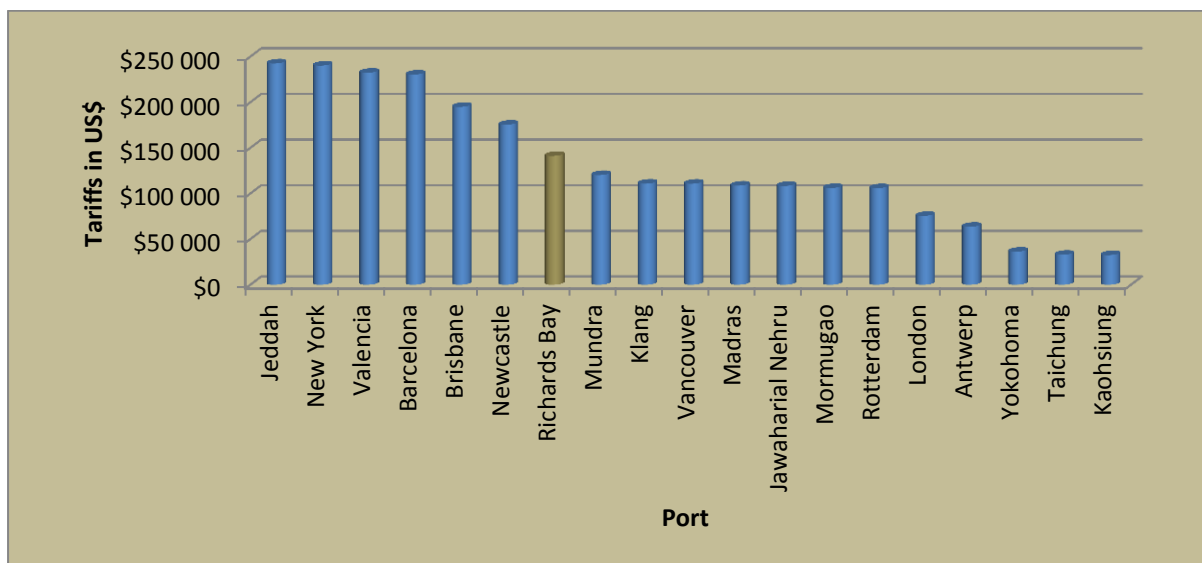
Figure 2: Total Port Authority tariffs excluding cargo dues for the unitary container vessel (2010)



Source: Ports Regulator of South Africa, Port comparators for selected international ports, Ports Regulator of South Africa: Durban. 2010

Richards Bay proved similarly expensive when compared with other bulk port terminals. To export one shipment of coal from Richards Bay cost approximately \$141 000 compared with an international average of approximately \$129 000 (see Figure 3).

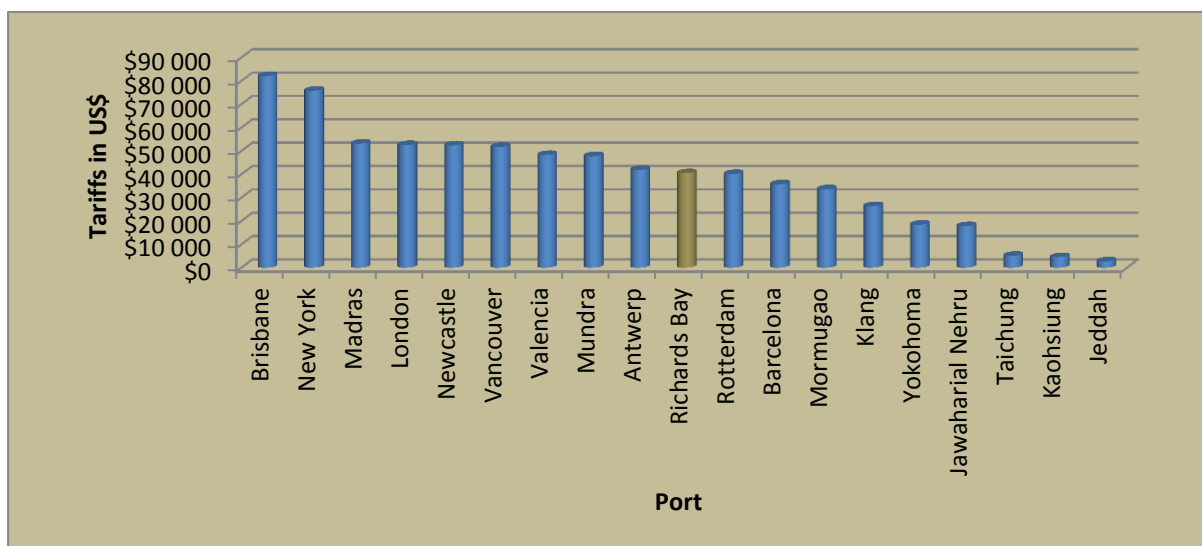
Figure 3: Total Port Authority tariffs for the unitary bulk vessel (2010)



Source: Ports Regulator of South Africa, Port comparators for selected international ports, Ports Regulator of South Africa: Durban. 2010

Similar to container handling, cargo dues also contribute to the high total port costs for bulk handling in Richards Bay. Figure 4 shows that Richards Bay’s total port costs excluding cargo dues are slightly on par with other international ports. For example, it costs US\$40 500 excluding cargo dues to ship coal from Richards Bay compared to the international average tariff of US\$38 460.

Figure 4: Total Port Authority tariffs excluding cargo dues for the unitary bulk vessel (2010)



Source: Ports Regulator of South Africa, Port comparators for selected international ports, Ports Regulator of South Africa: Durban. 2010

At a glance the above analysis clearly indicate there is a *prima facie* case for high port costs undermining South Africa’s international trade. However, testing the relationship between port costs and trade is beyond the scope of this study.

One needs to caution against making judgements without proper context. For example, are all the ports used in the analysis operating in the same way and is it correct to compare the ports without an

in-depth understanding of the environment of each port? In jurisdictions where port charges and dues are determined by the budgetary needs of the tier of government that own the ports, price setting outcomes will differ from South Africa. In this regard it is also important to point out that part of the reason for the high costs of port services in South Africa is the funding model used by the NPA, i.e. the end-user pay system in order to fund infrastructure improvements.

LEGAL AND POLICY REGULATORY ENVIRONMENT

POLICY FRAMEWORK

Commercial Ports Policy

South Africa's Commercial Ports Policy recognises that there is a need to provide South African importers and exporters with more efficient and higher quality of port services. The policy envisions a "port system 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."

According to the policy, the government, through Transnet, will reduce and phase out its direct involvement in port operations where feasible. As the landlord, the NPA shall ensure that the licensees and concessionaires provide adequate, efficient and affordable terminal operations and port services to all port users. This also implies in a later phase, marine services such as tug services and berthing services provided by the NPA could also be licensed out.

REGULATORY FRAMEWORK

The National Ports Act, No.12 of 2005 creates a dual role for the NPA whereby it is responsible for the port regulatory function at the ports - i.e. controlling the provision of port services through licensing or entering into agreements with port operators.

The National Ports Act also lays down the framework within which the NPA is obliged to operate in the future. At the time of writing this paper, there was still a debate over whether NPA will remain a division of Transnet or a separate private entity in the medium to long term. Whether this change will benefit the maritime transport sector is open to debate – a subject which is beyond the scope of this paper.

INSTITUTIONAL GOVERNANCE

Ports Regulator of SA

WTO issues

South Africa has not made offers in maritime transport services. The only restrictions which exist relate to Mode IV services where they are unbound and apply horizontally. This implies that South Africa retains full freedom to act as it may desire, however, temporary presence for a period of up to three years is allowed, unless otherwise specified, without requiring compliance with an economic needs test, of three categories of natural persons providing services. These are services of salespersons, intra-corporate transferees (executives, managers, specialists and professionals), and personnel engaged in establishment.

SECTOR CHALLENGES

Perceived Inefficiencies

High logistics costs

South Africa is not on the busiest trading routes of the world (the country had a lower Liner Shipping Connectivity of 32 compared to Egypt and China's connectivity of 52 and 132, respectively in 2009)³ and geographically the country is distant from its major markets such as the EU, China, US and Japan. Given the distances to markets, high transport costs (see Table 2) make South Africa's goods uncompetitive.

SECTOR OPPORTUNITIES

INDUSTRY ASSOCIATIONS

- SA Shippers Council

SKILLS DEVELOPMENT

INDUSTRY CAREERS

Table 6: Career path mapping in the ports services industry

Career Path Level	Specialisation	Qualifications	NQF Level	Years Exp
Strategic Management				
Senior Management				
Middle Management				
Supervisory				
Work Group				

³ UNCTAD, Review of Maritime Transport, 2009: Report by the UNCTAD Secretariat, United Nations: Geneva. 2010

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