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The Development of Container Terminals in South Africa: Towards a Hub for Sub-Saharan Africa?*

by

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KEYWORDS. — South Africa; Port System; Containers; Hub.

SUMMARY. — The South-African container port system is subject to a major revision of the existing port hierarchy. The aim is to move away from a set of gateway ports to a hub port configuration. Transnet has selected the new port of Ngqura, near Port Elisabeth, to become the future hub. Ngqura is said to allow the South-African port system to better benefit from market dynamics. In this paper recent and future changes in the South-African container port system and the crucial role of public company Transnet are analysed.

TREFWOORDEN. — Zuid-Afrika; Havensysteem; Containers; Hub.

SAMENVATTING. — *De ontwikkeling van container terminals in Zuid-Afrika: naar een hub voor de Sub-Sahara regio?* — Het Zuid-Afrikaanse havensysteem is onderworpen aan een grondige herziening van de bestaande havenhiërarchie. Het doel is een ontwikkeling in gang te zetten van de bestaande set van 'gateways' naar een 'hub'-configuratie. Transnet heeft de haven van Ngqura, nabij Port Elisabeth, geselecteerd als toekomstige hub. Ngqura zou het Zuid-Afrikaanse havensysteem moeten toelaten om beter in te spelen op de marktdynamiek. Deze paper analyseert welke veranderingen het Zuid-Afrikaanse containerhavensysteem ondergaat en welke cruciale rol het publiek bedrijf Transnet hierin vervult.

MOTS-CLES. — Afrique du Sud; Système portuaire; Conteneurs; Hub.

RESUME. — *Le développement des terminaux de conteneurs en Afrique du Sud: vers un hub servant la région subsaharienne?* — Le système portuaire sud-africain est sujet à une révision en profondeur de la hiérarchie portuaire existante. Le but est de transformer le système actuel de *gateways* en une configuration de *hub.* Transnet a choisi le nouveau port de Ngqura, près de Port-Elisabeth, pour devenir le futur *hub.* Ngqura devrait permettre au système portuaire sud-africain d'atteindre une meilleure dynamique du marché. Le présent exposé analyse les changements survenus dans le système portuaire sud-africain et le rôle crucial joué par la société publique Transnet.

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1. Introduction

There is an abundant literature in maritime economics dealing with container liner service design and in particular port calling strategies of shipping lines (Fagerholt 2004, Guy 2003, Wijnolst & Wergeland 2008). One of the key decisions in liner service design relates to the number and order of port calls (Notteboom 2006). Limiting the number of port calls for mainline vessels shortens round voyage time and thus increases the number of round trips per year, also minimizing the number of vessels required for that specific liner service. However, fewer ports of call mean poorer direct access to more cargo catchment areas.

When point-to-point markets cannot support direct calls in the container trade, shipping lines need to make decisions about transhipment locations. The carrier's choice between one or more direct calls at mainland load centres with the mother vessel or an indirect call via a feeder vessel is determined by a set of market-related factors such as the diversion distance from the main shipping route, the nautical accessibility of the port, the container volume per call, the possibility to combine transhipment activities with a strong cargo-generating power of the port's regional hinterland, the related costs, port productivity and the strength of the individual carrier in the markets served. The limitation of the number of port calls for mainline vessels through the use of hub-and-spoke networks allows considerable economies in equipment scale, but the cost-effectiveness of larger ships might be not sufficient to offset the extra feeder costs and container lift charges involved. The creation of transhipment hubs does not occur in all port systems, but around specific regions which are ideally suited for maritime hub-and-spoke distribution patterns as a result of geographical, nautical and market-related factors. Some markets seem to offer the right conditions for the emergence of more than one transhipment hub (*e.g.* the central Mediterranean and Caribbean). Other port systems do not feature any transhipment hub development. In the US, many impediments in American shipping regulations gravitating around the Jones Act have favoured a process of port system development with limited (feeder) services between US ports and the absence of US-based transhipment hubs (Freeport and other ports in the Caribbean to a limited extent take up this role).

This paper addresses the shift in the development of the South-African container port system towards a hub configuration. The mounting challenges in port system development in southern Africa have not been addressed by scholars. This paper aims at providing an insight in the ongoing discussion of a change in the port system concept in South Africa from a multiple gateway system to a single hub. Strengths and weaknesses of the ports which have been considered for hub development are also analysed.

2. Current Profile and Future Perspectives for the South-African Container Port System

The South-African container port system consists of the ports of Durban, Cape Town and Port Elisabeth, while East London and Richards Bay at present play a far more modest role (fig. 1). The South-African container port system at present is a multiple gateway system with Durban as the dominant gateway. The gateway ports are each serving a part of the South African hinterland. Notwithstanding the large scale of Durban, overlaps in the hinterland coverage among the ports are not so extensive. A new development is taking place at Ngqura, near Port Elisabeth. The total container volume handled in South African ports reached about 3.8 million TEU in 2008. Durban has a long-term average market share of between 60 and 65 % (fig. 2).

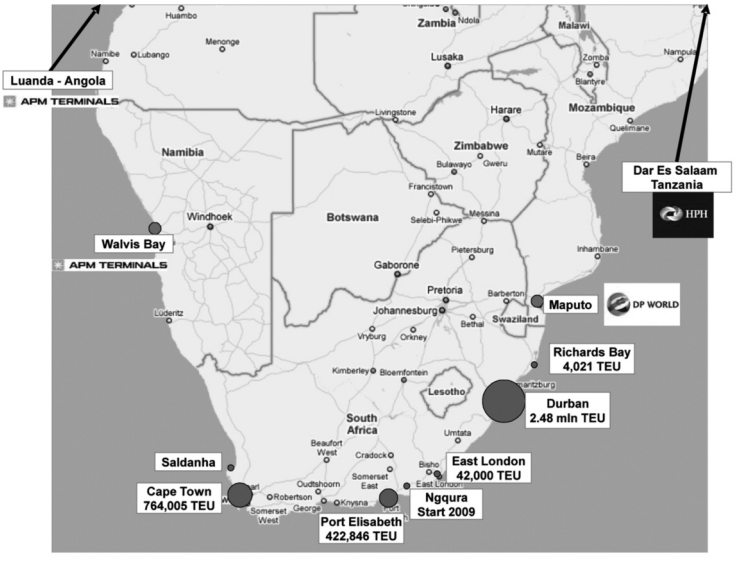

Fig. 1. — Container ports in South Africa and the wider sub-Saharan African region.

While Durban is the largest container port, none of the ports in the South-African container port system to date serves as a transhipment terminal in an extensive hub-and-spoke network or as interlining/relay terminal (see the low transhipment incidence in table 1). The South-African container port system is remote from the main East-West trade lanes, but still a more regional hub-and-spoke structure for the entire southern part of Africa has not developed.

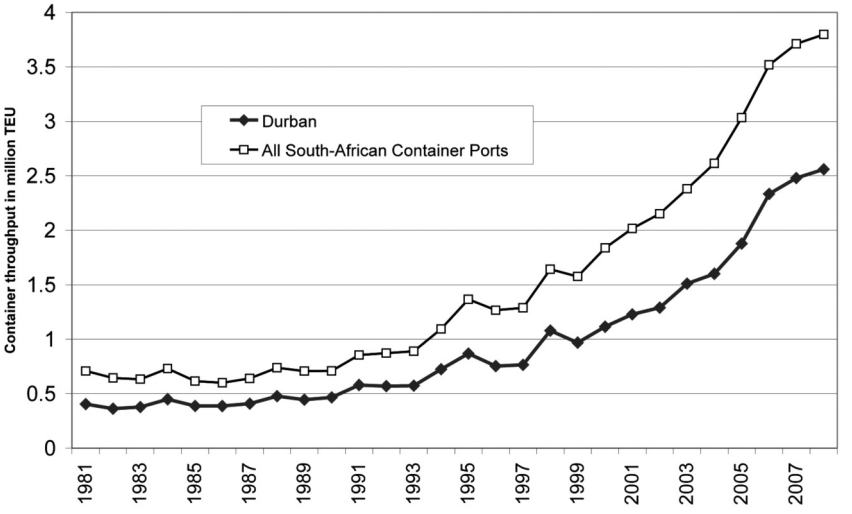

Fig. 2. — Container throughput development in the South-African container port system (*Source*: based on data Transnet).

Table 1
Transhipment incidence in South African ports in 2007 – container volumes in TEU

	Total volume	**Transhipped**	**Transhipment incidence**
Durban	2,479,232	500,119	20.2 %
Port Elizabeth	422,846	56,855	13.4 %
East London	41,986	65	0.2 %
Cape Town	764,005	118,317	15.5 %
Richards Bay	4,021	0	0.0 %
TOTAL	3,712,090	675,356	18.2 %

Source: based on figures Transnet Port Terminals (TPT).

The governance of the container port system in South Africa is quite unique. The public company Transnet not only operates all container terminals in the country (via Transnet Port Terminals or TPT), but also acts as port authority (via NPA) and controls all rail freight business in the country. Transnet's unique position up to now has prevented global terminal operators from entering the South-African container stevedoring market. However, leading terminal operator groups such as APM Terminals, Hutchison Port Holding and DP World have set up business in other sub-Saharan countries. While many argue that the powers of Transnet prevent competition (Thompson 2009), it creates an excellent environment for coordination among ports and between the ports and the rail system. Despite terminal control by one public company, competition between container terminals in South Africa is not entirely absent as market players like shipping

lines, forwarders, logistics service providers and shippers still choose those ports which best meet their requirements. Moreover, the South-African container port system does not include all gateways that in principle give access to the South African hinterland. The port of Maputo, the capital and largest city of Mozambique, is geographically well situated to serve a large part of the dense northern and northeastern parts of the South-African hinterland, particularly the main hinterland market Gauteng around Johannesburg. Walvis Bay in Namibia in principle could also develop some competition with South African ports for cargo destined for Botswana and cargo-generating hinterlands in southern Africa.

Transnet has developed and will continue to develop a range of actions at the operational, tactical and strategic planning (medium-term) level, which include terminal capacity extensions in existing ports. These public works include the upgrading of the port of Durban with the development of Pier One as a container-handling facility, the widening and deepening of the Durban harbour mouth, the upgrading of the Island View berths five and six, the upgrading of the Maydon Wharf terminal and the installation of new equipment and terminal IT systems. There is also an ongoing expansion programme for container facilities at Cape Town (since early 2008) including the dredging of the harbour to allow for bigger vessels and terminal capacity refurbishment to bring the capacity from 740,000 TEU to 1.4 million TEU.

While the medium-term investments in container facilities are known, long-term master planning for the South-African container port system opens opportunities for revising the existing investment strategies. Figure 3 identifies three alternative port system configurations for the current multiple gateway system (quadrant 4). The classification is based on two dimensions: the extent to which the port system relies on sea-sea transhipment activities (hub-and-spoke system versus gateway system) and the extent to which the dominant port in the system serves as the major gateway to serve the entire hinterland. A move of the South-African container port system from quadrant 4 to quadrant 3 would require a very strong orientation of investments and corridor strategies on only one port in the system (an existing or new port) and would imply that the other ports in the system no longer play a role in the container scene. Such a scenario would require a refocus of existing container terminals in the other ports on other cargo commodities such as roll-on/roll-off, bulk or conventional general cargo. It would also leave room for large-scale waterfront redevelopment projects in the more urban ports. A development towards quadrant 3 would also imply large investments in inland rail and road corridors to secure the land access to the remaining gateway to all parts of the South African hinterland. A move from quadrant 4 to quadrant 2 would require the development of a large transhipment facility and of a comprehensive feeder network to other ports in the system. Such a feeder network is at present virtually absent in sub-Saharan Africa. The inland corridors would need to be upgraded to keep up with growing volumes, but there

will be far less need for new corridor development as in the previous case. A move from quadrant 4 to quadrant 1 would require both the development of a large transhipment facility and inland corridor development, though not as extreme as in the previous cases.

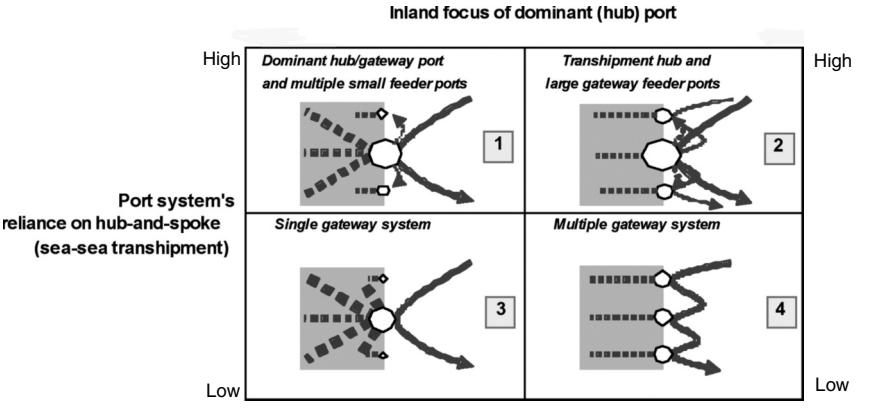

Fig. 3. — Possible long-term development options for the South-African container port system (quadrant 4 is present situation).

Each of the system configurations has advantages and disadvantages. We argue that the South African port system could benefit greatly from a shift from the present quadrant 4 to quadrant 2. Compared to the present situation, such a shift would allow the South African port system to reap full benefits of market dynamics through *(a)* a minimization of port time for mainline vessels by reducing the number of port calls in South Africa, *(b)* benefiting from scale economies in terminal operations, *(c)* benefiting from cargo consolidation effects such as liner connectivity in the hub port, *(d)* allowing scale increases in vessel size in serving the sub-Saharan African region and *(e)* allowing the development of an interlining/feeder network in the sub-Saharan African region. A shift from quadrant 4 to quadrant 2 does, however, also pose some major challenges. First of all, the requirements on terminal capacity tend to be much higher in the case of a quadrant 2 development, since the insertion of transhipment activities at a hub port can double or even triple the number of handlings per container. Secondly, a port system concept for South Africa based on a quadrant 2 set-up would require much more efforts with respect to the synchronization of services among the different ports in the sub-Saharan port system. At present (quadrant 4), the synchronization problem is less of an issue, as all ports act as gateways to (parts of) the South African hinterland. Transnet has recently taken concrete steps towards the transition from quadrant 4 to quadrant 2.

3. The Alternatives for Hub Location

The terminal facility location decision process encompasses the identification, analysis, evaluation and selection among alternatives. The government identified three possible locations for major hub development: the new port of Ngqura, the existing but non-containerized port of Richards Bay and the most important existing gateway port of Durban. The selection problem has to take into account the phased development of the South African port system, with a distinction between the short/medium term and the longer term. In the short and medium term new container terminal capacity will be set up following earlier approved investment plans by Transnet:

— The first two phases of the Ngqura container terminal facilities (1,310 m, 60 ha, four berths, estimated capacity of 1.8 to 2 million TEU in optimal configuration). The first phase opened in October 2009.
— Durban's Pier 1 reconversion – phase 1 (adding an estimated 750,000 TEU), Durban's Pier 1 reconversion (Salisbury Island, 800,000 TEU) and Durban's DCT re-engineering (an additional capacity of 600,000 TEU by 2010). Based on these investments, the capacity of Durban will increase in the medium term by about 2.15 million TEU.
— The short-term and medium-term development of Richards Bay, South Africa's largest dry bulk port, involves the provision of additional berths and back-of-quay hard surface areas for the stacking and temporary storage of bulk and non-containerized cargo.

The long-term development options for adding new terminal capacity in the South-African container port system implies the choice of location for large-scale terminal capacity increases go beyond the existing approved expansion plans. Two planning alternatives are being considered to add significant terminal capacity to the port of Durban in the longer term:

— The Bayhead expansion project would add a large amount of water area to the bay (dig-out), while creating two large container terminals on either side of the basin (fig. 4);
— The current site of the Durban airport is also being put forward as a possible site for large-scale future port expansion (fig. 5).

The long-term plans for Ngqura could encompass a further land reclamation in the sea in combination with an extension of the breakwater, west of the existing terminal construction area (fig. 6). The long-term plans for the creation of a large terminal capacity in Richards Bay would require the development of terminals in the northwest, west and or south of the inner bay area (fig. 7).

The existing terminals and the already approved investment plans will bring the total capacity of Durban to an estimated 5 million TEU in the medium term. The alternatives for future container terminal expansions in the South African

port system basically come down to either adding more capacity to major gateway Durban, or alternatively divert any future investments away from Durban to Ngqura or Richards Bay. In the latter case, Durban would not see any future large-scale capacity expansions: any long-term capacity increases in Durban would be the result of operational improvements on existing and already approved terminal facilities.

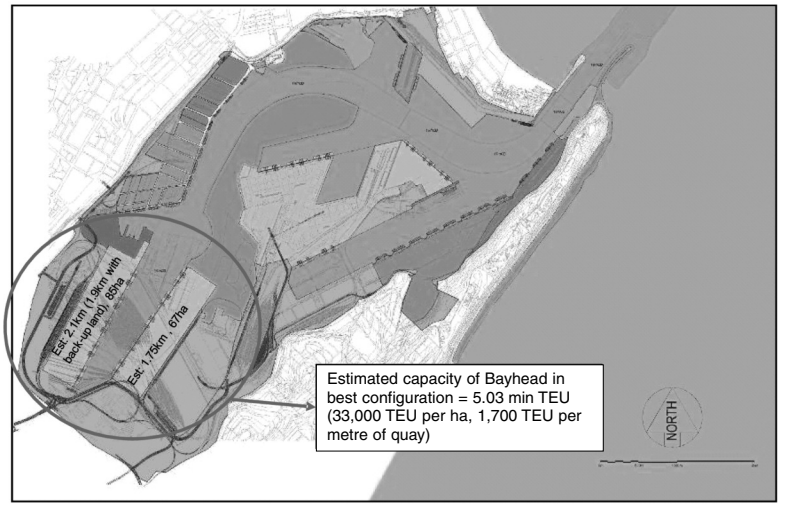

Fig. 4. — Proposal for the Bayhead terminal development in the port of Durban (*Source*: Transnet).

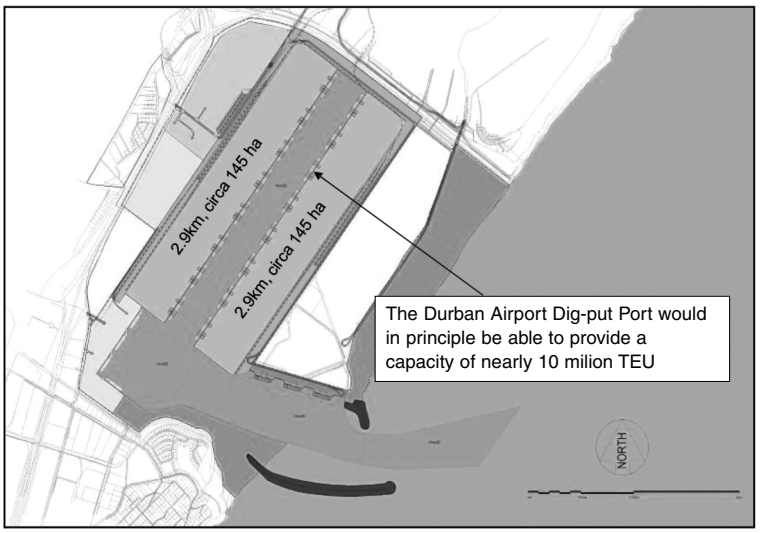

Fig. 5. — Proposal for the reconversion of the old airport of Durban (south of the city) to a container dock (*Source*: Transnet).

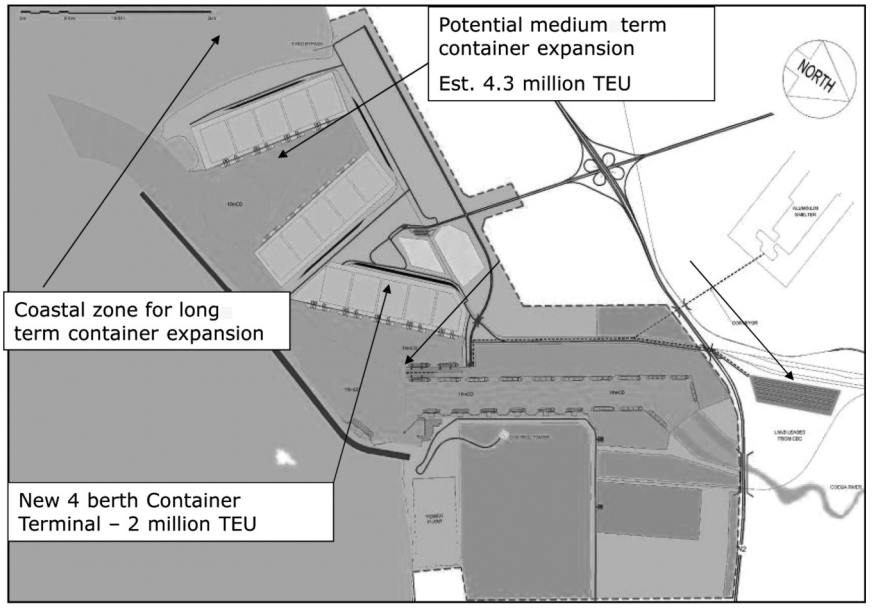

Fig. 6. — Potential future development of the port of Ngqura, 20 km north of Port Elisabeth (two of the first four berths are already operational) (*Source*: Transnet).

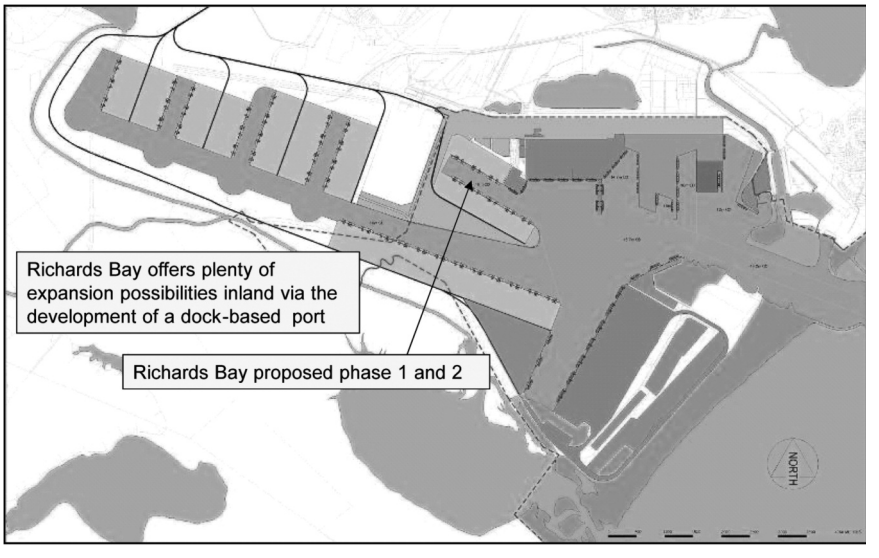

Fig. 7. — Extension possibilities for Richards Bay (*Source*: Transnet).

4. SWOT-Analysis for the Three Alternatives

The paragraphs below provide an overview of the strengths, weaknesses, opportunities and threats (SWOT) of the three alternatives considered. The information is the result of interviews with major stakeholders in South Africa (mainly shipping lines, shippers, inland transport operators and logistics service providers) and a literature scan of previous studies on the ports considered.

One of the main strengths of Durban is its inland distance to the main inland market Gauteng. With respect to the whole South African hinterland, Durban has a 45 % weighted road distance advantage compared to Ngqura and 10 % compared to Richards Bay (see centrality index in table 2). For the major inland region Gauteng the weighted distance advantage of Durban compared to Ngqura even amounts to 80 %. The methodology consists in the calculation of the total ton-kilometres generated if we brought 1 kg of containerized cargo to each inhabitant of South Africa by truck. The aggregation level of the analysis relates to district counties. The distance per district county relates to the distance from the port considered to the major central city in each of the district counties. The total results are indexed (most central port = 100).

Table 2
Weighted centrality index for the three alternatives
(per province and for South Africa as a whole) – most central port = 100

Weighted centrality index (100 = most central)

Province	**Richards Bay**	**Durban**	**Ngqura**
Eastern Cape	246	194	**100**
Free State	119	**100**	125
Gauteng	106	**100**	180
Kwazulu-Natal	118	**100**	488
Limpopo	**100**	110	177
Pmumalanga	**100**	120	258
Northern Cape	151	138	**100**
North West	109	**100**	131
Western Cape	259	230	**100**
TOTAL SOUTH AFRICA	**110**	**100**	**145**

Note: weights based on relative mass of district counties.
Source: own elaboration.

Other strengths of Durban include well-developed road and rail corridors to the Gauteng area, its position as an established gateway port in sub-Saharan Africa and the existing linkages between Durban's manufacturing businesses and the port. Durban offers the fullest range of ship-chandling services. Bunker services in the port of Durban are available by pipeline at a number of berths or by

barge, serviced by two bunkering companies, FFS Bunkers and Smit Marine. Durban also offers extensive ship-repair facilities backed by experienced private ship-repair companies. In Ngqura, the services available are less developed. But as Ngqura is a very young port with an industrial base in its immediate hinterland, bunkering and ship-repair facilities are expected to develop in due time. Ship repair in Richards Bay is undertaken at the quayside (usually the small craft berth), as the port currently has no ship-repair facilities, although a large facility is being planned.

One of the weaknesses of Durban relates to a growing tension between port and city for land claims, which complicates further port development in the urban area. Moreover, there is growing concern about congestion and delays in the Durban area and on the corridors to Gauteng. In 2007, Durban truck operators serving the local hinterland averaged little more than two round trips a day whereas they needed to run at least four trips to stay profitable. Long-distance drivers had no choice but to wait in the road queue while unable to get rest. It was not uncommon for vehicles to have delays between three and five hours before gaining entry at the terminal gate. This happened often after a six-hour journey or more from Gauteng. Serious concern exists about an escalation of the problem in case Bayhead would be constructed and no modal shift to rail is carried out. The dispersion of terminals in the Durban port area would increase the need for inter-terminal transfers which would result in more truck movements in the urban area. Given the port's location close to urban areas, the port of Durban has a large impact on emissions. Table 3 presents the composite population index for each port. The composite population index takes into account the number of inhabitants affected by port-related pollution and the severity of the exposure. A person with a very light exposure (impact 10) is only counted as 0.1 person while a person with a strong exposure (impact 70) is counted as 0.7 person in the composite population index. Durban is the worst performer by far. Its environmental impact on the local population is about fifteen times larger than in the case of Richards Bay and ten times larger compared to Ngqura.

Table 3
Composite population index for environmental impacts of port-related activity

	Durban	**Ngqura**	**R. Bay**
Composite population index	1,514,159	153,884	97,003
Impact index	1,561	159	100

Source: own elaboration.

Richards Bay has plenty of room for expansion and is a deepwater port. In Richards Bay, the 300 m wide entrance channel has been dredged to a permissible draught of 17.5 m and the draught alongside berths varies between 8 m (small craft berth) and 19 m (coal berths). Ngqura is expected to offer a maximum draft of 16.5 m. Durban currently offers a draft of 11.9 m or 12.2 m sub-

ject to the Port Captain's permission. Currently, the harbour entrance is being widened from 110 m to 225 m and the outer channel is deepened to 19 m and the inner channel to 16 m. The project completion is set for March 2010. The region around Richards Bay today is of rather limited economic significance, so a hub development could generate substantial direct and indirect benefits for the local economy.

Richards Bay has a 3.1 % composite nautical distance advantage compared to Ngqura (tab. 4). Differences in distances, even small ones, matter to shipping lines given significant high bunker costs and transit time considerations. For relay/interlining flows on the routes between Asia and the Americas, the distance (dis)advantages of the respective ports on one section of the trade lane (*e.g.* Asia) are counterbalanced by the distance (dis)advantages on the section that follows after interlining operations in the South African port system (*e.g.* Americas). This means all three ports are equally good central locations for interlining.

Table 4
Weighted centrality index for the three alternatives (per trade route and total) – most central port = 100

	Nautical distance Comp. Index Richards Bay	**Nautical distance Comp. Index Durban**	**Nautical distance Comp. Index Ngqura**
Europe	103.6	102.9	**100.0**
Asia and China	**100.0**	101.1	107.2
North America	106.1	105.0	**100.0**
South America	109.0	107.4	**100.0**
East Africa	**100.0**	106.3	136.0
West Africa	115.8	113.0	**100.0**
Australia	**100.0**	100.4	103.5
Inland	100	100	100
TOTAL CENTRALITY	**100.0**	**100.5**	**103.1**

Note: Base ports considered per route:
EUROPE: Rotterdam, Antwerp, Hamburg, Bremerhaven, Le Havre, Barcelona, Marseilles, Genova, Piraeus, Marsaxlokk, Constanza, Felixstowe.
ASIA and CHINA: Singapore, Bangkok, Hong Kong, Kaohsiung, Shanghai, Tianjin, Busan, Tokyo, Colombo, Dubai, Salalah.
NORTH AMERICA: New York, Montreal, Charleston, Norfolk, Houston.
SOUTH AMERICA – EC: Colon, Montevideo, Santos, Freeport Bahamas, Port of Spain, Buenos Aires, Sepetiba.
EAST COAST AFRICA (incl. Madagascar): Maputo, Dar es Salaam, Muqdisho, Mombasa, Beira, Taomasina.
WEST COAST AFRICA: Luanda, Matadi, Pointe Noire, Walvis Bay, Libreville, Douala, Lagos, Porto Novo, Lomé, Accra, Abidjan, Monrovia, Freetown, Conakry and Dakar.
AUSTRALIA: Sydney, Melbourne, Perth, Auckland.
Source: own elaboration.

However, Richards Bay has the poorest road connectivity of the three ports. Any large-scale container terminal development in Richards Bay is hoped to be supported by rail to guarantee a substantial share of the container volumes inland. The road connectivity to the Western Cape and Eastern Cape is far less competitive compared to Ngqura and less good compared to Durban.

Another major weakness for Richards Bay is the environmental footprint of further large-scale port development in the bay. In contrast to Ngqura, Richards Bay and Bayhead in Durban involve mangrove areas that need to be reestablished and a canal that has to be diverted to allow the construction of a container terminal. The Richards Bay project would require 29 million m^3 of fill material to be sourced from off-shore (figures HMG). A further development of Ngqura is also expected to have significant needs for off-shore fill volumes for land reclamation purposes. The Richards Bay project will affect local sand and mud flats and bird life. Therefore, developments in Richards Bay and Bayhead may need to overcome more significant environmental problems.

Ngqura shows potentially least opposition to greenfield development. The nearby Coega industrial zone offers a future captive cargo base, although the local cargo market is still much smaller than in Durban or Cape Town. Ngqura is located midway between Durban and Cape Town, and is therefore in a position to serve both important economic centres. The road sector near Ngqura is well developed due to the economic centres in the larger Port Elisabeth metropolitan region. Compared to Durban and Richards Bay, Ngqura could in principle be in a good position to offer competitive trucking rates to destinations in the Western Cape, the Northern Cape and the Eastern Cape (except for the northeast of the latter province). However, road is not a competitive option in relation to major cities in the remaining provinces.

The main weaknesses for Ngqura relate to the long inland distance to main market Gauteng and the improved rail connectivity needed, particularly in case of a gateway strategy. As this is a new port, the container port of Ngqura will have to develop short-sea, deep-sea and inland connectivity which could prove to be quite challenging, particularly in the start-up phase.

While the SWOT-analysis provides a lot of valuable insights on the positioning of the alternatives with respect to a large number of aspects and criteria, the qualitative information does not allow to draw a conclusion on which alternative would be best placed to accommodate the additional container volumes linked to a growth in the South African port system and the shift to a hub-port configuration. Notteboom (2011) therefore complemented the SWOT-analysis with a more quantitative analysis technique: a Multi-Criteria Analysis (MCA). Three groups of criteria were considered:

— Criteria relevant to the port users: shipping lines, transport operators, forwarders, consignors and consignees;
— Criteria relevant to the (potential) terminal operators or investors (in this case Transnet);

— Criteria relevant to the South African community as a whole or even wider to include sub-Saharan Africa.

The results of the MCA approach in NOTTEBOOM (2011) show that Ngqura achieves the highest score. Durban is the second-best performer. The higher score of Ngqura is only attributable to a good performance on the criteria relevant to the community and the terminal operator/investor. Durban has the highest overall score on the criteria relevant to shipping lines and shippers. Durban has a number of market-related strengths compared to Ngqura such as the higher centrality to serve the South African hinterland, a good supply of nautical services such as ship repair and bunkering facilities, a larger local cargo base and a more developed trucking industry.

In short, the MCA model results show that Durban is considered as the moderately preferred port to shipping lines and shippers. This observation underlines the current role of Durban as a well-established container port and at the same time reveals both Ngqura and Richards Bay still have to prove that they can serve the market as potential newcomers on the container scene. At the same time, Ngqura clearly is the best performer when it comes to meeting the objectives of the terminal operator and to contributing to the sustainable development of the South-African and even larger sub-Saharan African community. The overall scores generated by the MCA model as presented in NOTTEBOOM (2011) show an advantage for Ngqura with Durban taking second place.

5. Discussion and Conclusions

South Africa has a multiple gateway system, a port system with an outspokenly gateway function. The port of Durban acts as the dominant gateway. Given recent policy actions by Transnet, a major revision of the existing port hierarchy is unfolding in the direction of a hub-port configuration. Compared to the present situation, such a shift would allow the South African port system to better benefit from market dynamics such as the minimization of port time for mainline vessels and to allow for the development of an interlining/feeder network in the sub-Saharan African region. There is a latent market demand for the creation of a major hub to service the sub-Saharan African region. However, no port in the region at this moment offers the right value attributes for large-scale hub-feeder and relay operations to develop.

The long-term development options for adding new terminal capacity to the South-African container port system took centre-stage in this paper. We followed a SWOT-approach in view of evaluating potential locations for future large-scale container hub facilities complemented by the results of the Multi-Criteria Analysis (MCA) as presented in NOTTEBOOM (2011). Overall Ngqura shows the best results, but Durban is considered as the moderately preferred port to shipping lines and shippers. This observation underlines the current role of Durban

as a well-established container port. Ngqura is the best performer when it comes to meeting the objectives of terminal operator Transnet Port Terminals (TPT – a division of Transnet) and to contributing to the sustainable development of the South-African and even larger sub-Saharan African community.

The discussion on port development in South Africa also includes an important political dimension. Both Durban and Richards Bay are located in the province Kwazulu Natal, the stronghold of the Zulu population. Ngqura is situated near Port Elisabeth, a stronghold of former ANC leader Nelson Mandela.

In the summer of 2009, Transnet's terminal division Transnet Port Terminals (TPT) made several announcements that the new port Ngqura would be the sole hub port for South Africa. The first two container berths were opened in October 2009 as Phase 1. Work on the second two in Phase 2 is under way. Given the new hub strategy of Transnet, Ngqura would become up to five times its originally envisaged size, with the expansion likely on the south side, towards the city of Port Elisabeth. The number of berths at Ngqura would thus increase from the four berths already planned years ago to twenty berths or more in five-year stages (Kernohan 2009).

Industry experts endorsed Transnet's decision to select the port of Ngqura as the main shipping hub of the country. Market players, such as logistics service provider Grindrod and shipping line Safmarine (part of Maersk Line), see potential in Ngqura to become a hub as it is well located between America, the Far East and Asia and as Durban faces congestion and poor nautical accessibility to cope with a trend towards mega-container ships. Some experts question the decision. The lack of established industry near Ngqura (the Coega free trade zone being the notable exception) and limited railway accessibility to the main hinterland market Gauteng are seen as the main weaknesses of the proposed hub (Khanyile 2009).

Transnet as the sole operator of all container terminals in South Africa plays a key role in making the single hub model successful. In applying a generalized cost model to the South African port system, Notteboom (2010) shows that the position of Ngqura as a hub can be strongly supported if Transnet lowers the rates for transhipment cargo and rail rates out of Ngqura to Gauteng. Transnet is in a unique position since it can decide on both the terminal handling costs for transhipment containers and rail rates out of Ngqura. Moreover, the hub configuration's success depends on the chosen hub Ngqura becoming an efficient, cost-effective and well-serviced hub, so that vessels can rely on a low port turnaround time and that cargo moves in and out the hinterland at competitive rates in an efficient and congestion-free inland transport system. A South African hub obviously would not serve South Africa only, but would need to develop a broader function for the entire sub-Saharan African region.

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