

ASSESSING STAKEHOLDERS' PERSPECTIVES ON MARITIME PORT PRICING IN SOUTH AFRICA

Sanele Gumede

BCom, PGDip (Maritime Studies)

*Graduate School of Business and Leadership, University of KwaZulu-Natal;
gumedes@ukzn.ac.za or sanele2209@gmail.com*

and

Mihalis Chasomeris

CEA, BSocSc (Hons), MCom, PhD (Economics)

*Graduate School of Business and Leadership, University of KwaZulu-Natal;
chasomerism1@ukzn.ac.za or chasomeris@gmail.com*

ABSTRACT

The South African government has recognised the importance to promote efficient and effective transport as well as the strategic role of maritime ports in the logistics chain. This study critically assesses stakeholders' perspectives on maritime port pricing in South Africa. More specifically, the study analyses the annual Transnet National Ports Authority (TNPA) tariff application, the stakeholders' submissions, as well as the Ports Regulator's record of decision for 2010/11, 2011/12 and 2012/13 tariff years. The study uses content analysis to analyse the three TNPA tariff applications, 48 stakeholders' comments/submissions and three Ports Regulator's record of decision. The study gathers data on port pricing from 1999 to 2012 and uses descriptive statistics to analyse the trends in port pricing. The stakeholders' perspectives are contrasted and compared with the three port doctrines identified in the literature, namely, the Anglo-Saxon, the European and the Asian doctrine. The findings show that the ports are financed and managed using a mix of elements from the European and Asian doctrines, whereas the pricing methodology appears to be following the Anglo-Saxon doctrine. Furthermore, South Africa's complementary system of ports and uniform pricing policy is distinct. The content analysis found the following issues: ports stakeholders criticise TNPA for abusing its monopoly power; hindering global competitiveness; not taking into cognisance the state of the country's economy; charging prices which are higher than inflation; creating an environment which does not support job creation; being inconsistent and non-compliant with the national policies; not applying cost-based pricing principles; not having a justifiable pricing methodology; low productivity and

inefficiency; inconsistent and unreasonable pricing of products; poor service delivery and port security. South Africa needs to develop a port doctrine that would be consistent with the country's vision and policies.

Keywords: Port Pricing, South Africa, Port Doctrine

JEL: R48, R42, L91, O18

1. INTRODUCTION

The South African government has recognised the importance to promote efficient and effective transport as well as the strategic role of maritime ports in the logistics chain (NFLS, 2005; Havenga, 2010; Chasomeris, 2011). Several studies (Jones 1988; Department of Transport, 2002; NFLS, 2005; Chasomeris, 2011) show that South Africa's maritime stakeholders have articulated a defensible dissatisfaction with port governance, policy and pricing that promoted: import substitution; intra- and inter-port cross subsidisation; inter-modal cross subsidisation; insufficient investment in port infrastructure and superstructures; bureaucracy and skewed prices. Additionally, the South African ports structures have displayed monopoly power which prevent competition and promotes a complementary system of ports with a unitary pricing system, that is, a single tariff book that applied to all eight commercial ports (Gumede and Chasomeris, 2012).

This study critically assesses contemporary stakeholders' perspectives on maritime port pricing in South Africa. More specifically, the study analyses the annual Transnet National Port Authority (TNPA) tariff application, the stakeholders' submissions, as well as the Ports Regulator's record of decision for 2010/11, 2011/12 and 2012/13 tariff years. The study uses content analysis to analyse the three TNPA tariff applications, 48 stakeholders' comments/submissions and three Port Regulators Records of Decision. The article gathers data on port pricing from 1999 to 2012 and uses descriptive statistics to analyses the trends in port pricing. The stakeholders' perspectives are contrasted and compared with the three port pricing paradigms identified in the literature, namely, the Anglo-Saxon, the European and the Asian port doctrines.

This paper proceeds as follows. Section 2 presents the research methodology. Section 3 discusses the literature reviewed on the port models, doctrines and pricing paradigms and shows that South Africa's ports model and pricing are distinct. Section 4 discusses the context on South Africa's ports charges and shows the findings of the content analysis on the stakeholders' perspectives on port pricing in South Africa. Section 5 discusses South Africa's ports doctrines in comparison and contrast with three ports doctrines identified in the literature. Section 6 provides conclusions and recommendations.

2. RESEARCH METHODOLOGY

This study uses content analysis to critically assess contemporary stakeholders' perspectives on maritime port pricing in South Africa. Content Analysis is "a systematic, research method for analysing textual information in a standardized way that allows evaluators to make inferences about that information" (Crowley and Delfico, 1996: 6). This article analyses the annual Transnet National Port Authority (TNPA) tariff application, the stakeholders' submissions, as well as the Ports Regulator's record of decision for 2010/11, 2011/12 and 2012/13 tariff years. The study uses content analysis to analyse the three TNPA tariff applications, 48 stakeholders' comments/submissions and three Port Regulators Records of Decision. For 2012/13 financial year 15 stakeholders submitted non-confidential comments, 30 for 2011/12 and 3 for 2010/11.

Each year TNPA is required to apply to the Ports Regulator of South Africa for the approval of ports' tariffs. The Ports Regulator therefore invites ports' stakeholders to submit their perspectives on port pricing and their take on TNPA's application. For three tariff years stakeholders of the South African maritime ports have been expressing their views on port pricing in South Africa. This study uses the whole population of perspectives recorded over the three years that includes TNPA tariff applications, the publically available Stakeholders' submissions/comments to the TNPA Application, the Ports Regulators' and TNPA's Response to the Record of Decision. These views require further assessment to find the best way forward for South Africa in terms of port governance and pricing. The submissions ranged from one page to one hundred and sixty-three pages. The study extracts the main stakeholders' concerns, codes them into different themes and analyses the frequency distribution of stakeholders' concerns. In addition, the article gathers data on South Africa's port pricing and inflation from 1999 to 2012 and uses descriptive statistics to analyse these trends. The stakeholders' perspectives are contrasted and compared with the three port pricing paradigms identified in the literature, namely, the Anglo-Saxon, the European and the Asian port doctrines.

3. SOUTH AFRICA'S PORTS MODEL

South Africa's ports model is distinctive. South Africa's eight commercial ports are publicly owned. The Ports Regulator of South Africa is state owned. The state-owned enterprise (SOE), Transnet, is the port landlord as Transnet National Port Authority (TNPA) as well as the public port operator as Transnet Port Terminal (TPT). Even though both the Ports Regulator of South Africa and Transnet are state owned, they are independent of each other. Table 1 shows a Port Function Matrix. The matrix offers a conceptual framework to better understand four port models of regulation, ownership and operation. In a study of the world's top 100 ports, Moukness (2001) categorises 7 ports in model 1, 88 ports in Model 2, 2 ports in model 3 and the remaining 3 ports in model 4.

Table 1 – Port Function Matrix

Port Models	Port Functions			The world's Top 100 ports
	Regulator	Land Owner	Operator	
1. Public	Public	Public	Public	7
2. Semi-Public	Public	Public	Private	88
3. Semi-Private	Public	Private	Private	2
4. Private	Private	Private	Private	3
South African	Public	Public	Public & Private	-

Source: Adapted from Baird (1995, 1997) in Song and Lee (2007); Mouknass (2001) and Chasomeris (2011b).

Mouknass (2001) included South African ports in the first model, public port model. In contrast, this study and Gumede and Chasomeris (2012) examine the distinctiveness of the South African port model and note that there are both private and public operators (see table 2). Furthermore, table 2 shows the distribution between public and private market share for port operations. The cargo handling of high value cargoes, like containers and motor vehicles, are largely provided by the public sector, whereas the private sector have a larger market share of handling lower valued bulk cargoes. This institutional structure has provided some level of discontent especially for the private sector as private terminals compete with public terminals for market share, even though under the scrutiny of the Port Regulator. Unlike the 4 typical port models shown in table 1, South Africa has both public and private sector operators. Table 2 shows the market share and distribution between the public and private sector operators.

Table 2 – Public and Private Sector Market Share for Major Service Categories

Service	TNPA	Port Operation	
		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%	

Note:

- a. These figures are approximations based on testing actuals on a limited number of cargo terminal owners.
- b. This figure is derived by excluding the containers that move through the multipurpose terminals, as the majority are TPT run, thus analysis of private terminal operators indicate that private terminals handle only 3% of national container traffic.

Source: Ports Regulator, 2010a: 31.

High port performance and public ownership are not mutually exclusive; and there is no simple relationship between port performance and adherence to standard landlord or

operating port structures (Mouknass, 2001; Port Regulator, 2010a; Chasomeris, 2011). The Ports Regulator (2010: 32) states that: "The explanation for high port performance is mostly to be found in forms of market structure and competition within those markets for port services and operations". Transnet (2010) believe that the current institutional structure has not resulted in a hugely inefficient freight system. Transnet (2010) argues that the South African freight system has several challenges such as skills shortages, increasing congestion, poor regional integration, weak maritime connectivity and the carbon intensity of the current system. Hence, as custodian of ports, rail and pipelines, the focus of Transnet is on overcoming these challenges. Furthermore, "Transnet's strategy is focused on expanding the utility, connectivity and capacity of its integrated infrastructure network which is its core competitive advantage and source of asset value" (Transnet 2010:5). In addition, Transnet (2010) argue that the current institutional structure makes it possible for Transnet to tackle these challenges.

The Port Regulator review (2010) suggests that the efficiency and effectiveness of the ports should be pursued by increasing inter- and intra-port competition. Botes (2006: 30; 34) argues that "competition between ports is the only way to bring prices down in the long term through exploitation of their competitive advantage...Policies and legislation should encourage more effective competition between ports to eliminate pricing anomalies and to offer a better choice of service". Likewise, Thompson (2009: 17) states: "without competition, the ports offer an irresistible opportunity to generate monopoly rents that are then transferred to employees or the owning agency, or others, usually with highly opaque accounting. Consolidated accounting erases the ability to measure the results of any individual port."

Thompson (2009) argues that the powers of Transnet prevent competition; however, Notteboom (2011: 52) states that "it creates an excellent environment for coordination among ports and between the ports and the rail system". Indeed, South Africa is working towards implementing a democratic developmental state where "strategic control of the core infrastructure network remains within the State, which allows for coordinated long-term network planning and makes the State more resilient to economic shocks" (Transnet 2010b: 5). Transnet believe that the current institutional structure is consistent with the concept of a democratic developmental state and that they will remain the dominant owner and operator of certain parts of the freight system for many years ahead (Transnet 2010b: 5, 24). Gumede and Chasomeris (2012: 92) note that "since the country's focus on a democratic developmental state, the port reform rhetoric in South Africa has clearly shifted from discussions on the potential concession of port terminals to discussions on public-private partnerships".

4. SOUTH AFRICA'S PORTS: CHALLENGES AND CHARGES

South Africa's ports system has a number of challenges that include: issues related to infrastructure, ports under-investments, old technologies, old machinery, availability of port space, inconsistent and high pricing of facilities, poor scheduling of facilities, increasing congestion, skills shortages, availability of dedicated personnel to liaise with and make timeous decisions in relation to the industry, availability and functionality of equipment, country's huge level of unemployment, poor regional integration, the carbon intensity of the

current system, and weak maritime connectivity, and identification and resolution of problems as they arise (Department of Trade and Industry, 2010; Transnet, 2010b; Port Regulator, 2009; 2010; 2011).

The legacy of South Africa's freight system and port pricing strategy reflected a system designed to support an import substitution economy. Before 2002 the South African ports set prices well below full cost recovery for a number of port functions, including marine infrastructure and services. Port dues 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 (Jones 1988b; Chasomeris, 2011).

To achieve a more fair, efficient and competitive system, it was essential that *ad valorem* wharfage be eliminated. In May 2002, wharfage charges were replaced with a set of cargo dues that are cost related and remove the previous discrimination against high value cargo, bringing South Africa more in line with international practices (Jones, 2002). Cargo dues are levied on a unit basis (set box rate) for containers and a tonnage (volume) basis for other forms of cargo. The transformation of wharfage into cargo dues attempted to close the extent of cross subsidisation and cost-price irregularities across marine and cargo functions (Jones, 2002). The increase in marine charges helps to lessen the effects of intra-port cross subsidisation. Additionally, the TNPA expressed intent to keep adjustments in port costs aligned with the country's inflation targets (Chasomeris, 2011). Indeed, from 2005 until 2009 TNPA maintained below inflation price increases. Table 3 shows the percentage changes in the country's consumer price index (CPI), marine services, port and berth dues as well as cargo dues from 1999 to 2012.

Table 3 – Percentage change in South Africa's port charges, 1999-2012

	1999	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009	2010 *	2010 **	2011 *	2011 **	2012 *	2012 **
Marine Services	9	7	10	25	11	11	3.6	4.5	5.6	7.5	8.14	10.62	4.42	11.91	4.49	18.06	2.76
Lights, Port & Berth dues	7	7	9	30	6.5	6.5	3.6	4.5	5.6	7.5	8.14	10.62	4.42	11.91	4.49	18.06	2.76
Wharfage to Cargo dues	W ³	W ³	-5 ⁴	-8 ⁴	2	2	1	3.5	4.5	6.75	8.14	10.62	4.42	11.91	4.49	18.06	2.76
CPIX to CPI ¹	6.9	7.7	6.6	9.3	6.8	4.3	3.9	4.6	6.5	11.3	7.1 ¹		4.3 ¹		5.0 ¹		5.5 ¹⁺²

Note:

1. South Africa changed from using CPIX to using CPI in 2009.
2. Estimated CPI in 2012 is 5.5 as at 24 October 2012.
3. In 1999 and 2000, *ad valorem* wharfage was 1.78% for imports and 0.89% for exports. In 2001, it was reduced to 1.7% and 0.85%.
4. Overall weighted average reduction from wharfage to cargo dues.

* Proposed Tariff increase

** Actually Tariff Increase Allowed

Source: Author compiled using data from Chasomeris, 2011; Port Regulator, 2012 and Stats SA, 2012.

Since 2009, TNPA is required to apply for tariff adjustment to the Ports Regulator annually. The Ports Regulator then calls for stakeholders' submissions and comments on TNPA's proposed port tariff application. The Ports Regulator then assesses TNPA's proposal and stakeholders' submissions in line with the National Ports Act 12 of 2005, National Commercial Port Policy of 2002 and the draft directives of 2008 to make a decision on the port tariff application. TNPA uses the required revenue method to motivate for their tariff increases. This method ultimately means that port users would pay for (1) all ports investments; (2) all ports costs; and (3) for TNPA to make a profit. The required revenue method does not give incentives for TNPA to be able to reduce costs; it guarantees TNPA profits regardless of costs, including those costs which might have been caused because of inefficiencies.

In 2010 the Ports Regulator approved tariff increases was 4.42%, slightly above the country's inflation rate (CPI). For 2011, TNPA applied for an 11.91% tariff increase. The Ports Regulator approved a tariff increase of 4.49% that was slightly below the country's inflation rate of 5%. For 2012, TNPA applied for a tariff increase of 18.06% - more than three times the country's inflation rate. The Port Regulator allowed a tariff increase of 2.76%.

Although the difference between the applied tariff increases and the allowed tariff increases are large, the annual revenues accruing to TNPA appear to be consistently larger than their initial revenue required. Figure 2 shows tariff results for 2010/11, 2011/12, and 2012/13 tariff years.

TNPA required revenue of 6.377 billion rands for 2010/11, 7.641 billion rands for 2011/12, and 9.645 billion rands for 2012/13 and hence applied for tariff increases of 10.62%, 11.91% and 18.06 respectively. However the Regulator decided that revenue of 6.02 billion rands was necessary for 2010/11, 6.523 billion rands for 2011/12 and 6,15 billion rands for 2012/13 and consequently allowed tariff increases of 4.42%, 4.49%, and 2.76% respectively. Nonetheless, with the allowed tariff increases, TNPA submitted that they expected to recover revenue of 6.584 billion rands for 2010/11 and 7.807 billion rands for 2011/12. These expected revenues are a clear indication of over-recovery as they are above both the Regulator's allowed revenue that TNPA should have tried to recover and TNPA initial revenue required.

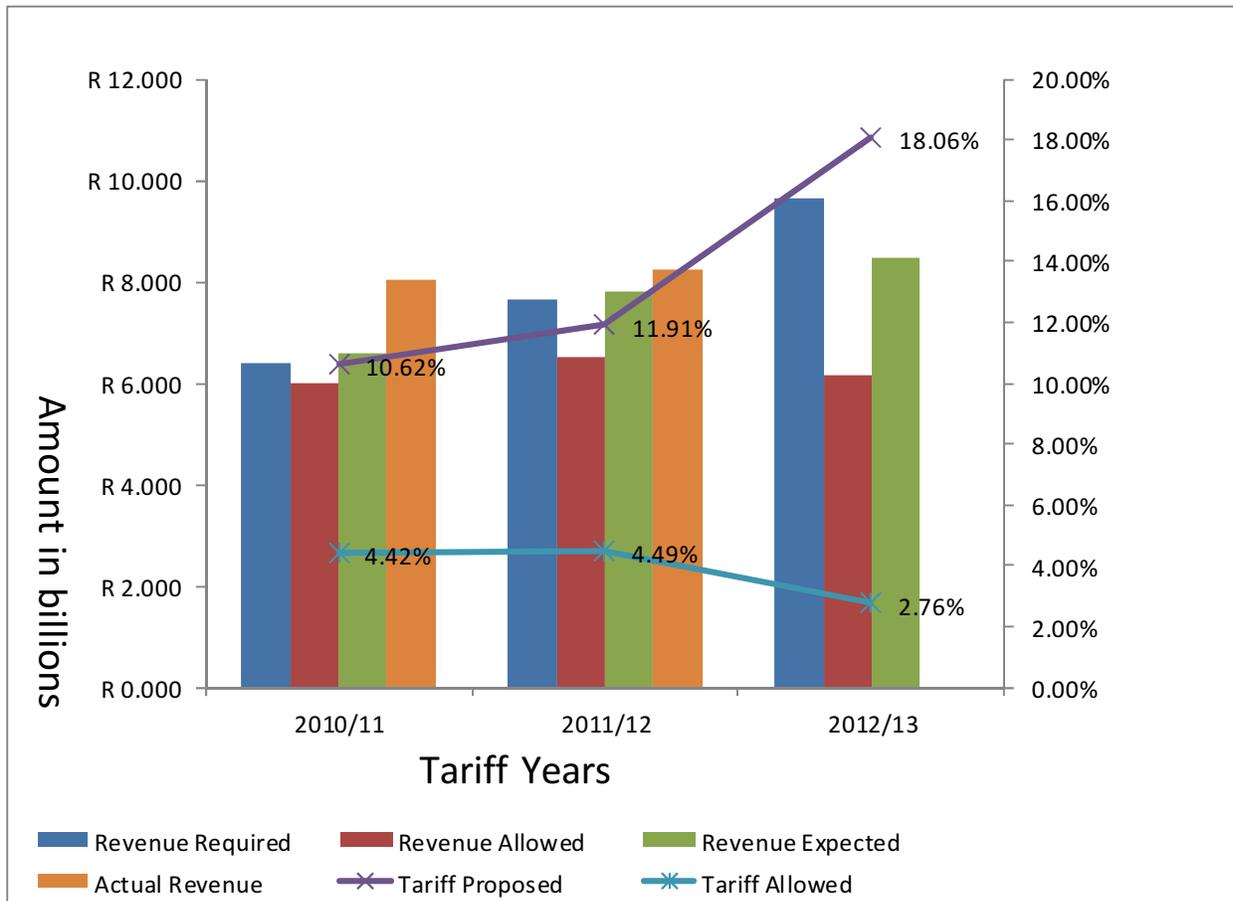


Figure 2 – Tariff results for 2010/11, 2011/12, and 2012/13 Tariff years

Source: Authors compiled using data from TNPA (2009; 2011; 2011 and 2012); Transnet (2011 and 2012) and Ports Regulator (2010; 2011; and 2012)

Table 4 shows a summary of the themes that emerged from the content analysis of the stakeholder submissions to the Port Regulator for the years 2009, 2010 and 2011. The port stakeholders criticise TNPA for: abusing its monopoly power; hindering global competitiveness; not taking into cognisance the state of the country's economy; charging prices which are higher than inflation; creating an environment which does not support job creation; being inconsistent and non-compliant with the national policies; for not applying cost-based pricing principles; not having a justifiable pricing methodology; low productivity and inefficiency; inconsistent and unreasonable pricing of products; poor service delivery and port security.

Table 4 – A Summary of the stakeholders' perspectives on port pricing in South Africa, 2010 to 2012

Stakeholders Concerns	Number of submissions			
	2009 3	2010 30	2011 15	Total 48
<u>Global competitiveness</u> Port tariffs in South Africa are among the highest in the world. High port tariffs hinder the country's and exporters' global competitiveness	2 66.67%	15 50.00%	13 86.67%	30 62.50%
<u>Economy</u> High ports tariff hinder SA's economic growth. They increase costs of doing business in the country	3 100.00%	13 43.33%	8 53.33%	24 50.00%
<u>Above inflation</u> The applied for tariff increase is above the country's inflation rate (Consumer Price Index)	3 100.00%	12 40.00%	7 46.67%	22 45.83%
<u>Tariff methodology</u> Tariff methodology does not provide incentive for TNPA to reduce cost. The required revenue guarantees TNPA cost and investment recovery and profit even though some of the cost items may be due to inefficiencies	- -	9 30.00%	9 60.00%	18 37.50%
<u>Price increases above tariff applied for</u> Even though TNPA mention that they are charging a uniform price increase, on certain commodities the increases range from 80% to 864.6%	- -	13 43.33%	2 13.33%	15 31.25%
<u>Inconsistency and non-compliance</u> TNPA is not complying fully with the national port policies and legislation. Tariff rationale is inconsistent with the country's economic visions	1 33.33%	7 23.33%	5 33.33%	13 27.08%
<u>Low productivity and inefficiency</u> South African ports lack efficiency; with huge delays, port congestions, higher turnaround times, few moves per hour, underutilisation.	1 33.33%	6 20.00%	6 40.00%	13 27.08%
<u>Transparency on information</u> TNPA lacks transparency in their reporting and they provide insufficient information and justification in their tariff application	2 66.67%	6 20.00%	2 13.33%	10 20.83%
<u>Not cost-based</u> Ports have adopted a policy to charge their tariffs based on costs; however several products are not cost-based.	- -	7 23.33%	2 13.33%	9 18.75%
<u>Abuse of monopoly power</u>	1	3	4	8

TNPA abuses their monopoly power over all South African commercial ports	33.33%	10.00%	26.67%	16.67%
<u>Profitability</u> High ports tariffs hinder ports users' profitability. TNPA remain the cash cow for Transnet having huge profit margins	1 33.33%	5 16.67%	2 13.33%	8 16.67%
<u>Differentiation in tariffs</u> Tariff adjustment for handling each commodity should be assessed individually	- -	5 16.67%	3 20.00%	8 16.67%
<u>Job losses</u> High port tariffs lead to huge job losses, as the stakeholders will have to retrench in order to decrease costs	- -	5 16.67%	3 20.00%	8 16.67%
<u>Unresolved matters</u> Before further adjusting tariffs there are unresolved matters that TNPA has to address with the stakeholders concerned	- -	4 13.33%	1 6.67%	5 10.42%
<u>Customer service</u> TNPA should improve customer service in their ports	1 33.33%	3 20.00%	- -	4 8.33%
<u>Misalignment</u> Tariffs of some commodities are misaligned with international tariff levels	- -	3 10.00%	- -	3 6.25%
<u>Security efficiency</u> Some cargo went missing at the port in 2010 – TNPA should improve their security	- -	1 3.33%	- -	1 2.08%

Source: Authors analysed and compiled from 48 stakeholders' submissions to Port Regulator (2009, 2010, 2011).

Table 4 shows that thirty respondents' submissions, over the three years, argue that South African port tariffs are already among the highest in the world. A benchmark study by Maersk (2011) for one vessel, Safmarine Nokwanda, that called at 3 South African ports and 12 foreign ports revealed an average port cost of US\$18,990.73 per port call, while South African port charges ranged from US\$35,474 to US\$40,556 per port call. Moreover one should note that it is only in South Africa where cargo dues were charged for containers. However, in terms of productivity, all South African ports are featured in the bottom 6 as they could only achieve a range from 22 to 35 berth moves per hour while the average for the 15 ports was 54.8.

Twenty-four respondents mention that higher port tariffs hinder the country's economic growth. In the current economic climate, such high tariff proposals are totally unrealistic. According to Jones (et al., 2010), other things being equal, higher port activity growth can only be achieved if the tariff increase is low.

Eight respondents contended that TNPA makes enormous profit yet they still apply for huge price increases. For the three years, TNPA reached a profit margin of an average of about 73.9% contributing an average of about 36.4% to Transnet's earnings before interests, taxation, depreciation, and amortisation (EBTIDA).

Fifteen respondents submitted that, even though TNPA (2009; 2010; and 2011) tariff applications explicitly propose for uniform (standardised) tariff increases for all commodities of 10.61%, 11.91% and 18.06% for 2010/11, 2011/12 and 2012/13 tariff years respectively, however in the actual tariff book proposal, one can clearly identify tariff increases for certain commodities that are significantly higher.

Exporters should appreciate the decline in actual tariffs for some of the other break-bulk commodities as a result of the tariff realignments. Tariffs for ores and minerals: olivine were to decrease by 76.02%, scrap steel to decrease by 64.55%, asbestos and products thereof to decrease by 46.47%, aluminum and fluoride and ferric sulphate to decrease by 44.07%, chemicals and product thereof to decrease by 44.05%, and Magnesium to decrease by 16.07%. Chasomeris (2011: 11) argues that, "the proposed tariff increases arguably show the intentions of TNPA." With proper regulation some of the extraordinary increases shown in table 5 were corrected. The proposed 2011/12 extraordinary high tariff increases for molasses & products thereof, chrome ore, vermiculite and woodchips were ultimately corrected by the actual tariffs approved by the Regulator (see table 5). The 2012/13, however, shows an attempt by TNPA to rectify the damage that had been caused with huge tariff increases that were experienced in 2010/11 tariff year. The Ports Regulator increased the extent to which the reversal was made. For example, magnetite experienced a 300% price increase in 2010/11, TNPA applied for a 69.22% decrease in tariffs of magnetite in 2012/13. The Ports Regulator, however, approved a tariff decrease of 73.15%. Table 5 shows the liquid bulk exports and dry bulk export products that had experienced extraordinary high increases in tariffs.

Table 5. Selected Products with Different Percentage Increase: Proposed and Actual Tariff Increases

Products	2009/10 Tariff	2010/11 Tariff	Actual % increase 2010/11	Prop. tariff 2011/12	Prop. % increase 2011/12	Actual tariff 2011/12	Actual % increase 2011/12	Prop. Tariff 2012/13	Prop. % Increase 2012/13	Actual tariff 2012/13	Actual % increase 2012/13
Crude & petroleum products	13.12	23.62	80.03%	26.43	11.90%	24.68	4.49%	16.91	-31.48%	14.72	-40.36%
Molasses & products thereof	2.62	2.74	4.58%	26.43	864.60 %	2.86	4.38%	3.38	18.18%	2.94	2.80%
Chrome Ore	4.73	4.94	4.44%	10.73	117.21 %	5.16	4.45%	6.09	18.02%	5.30	2.71%
Coal	2.62	6.54	149.62%	7.32	11.93%	6.83	4.43%	3.37	-50.66%	2.94	-56.95%
Ores & minerals: Magnetite	2.62	10.48	300.00%	11.73	11.93%	10.95	4.48%	3.37	-69.22%	2.94	-73.15%
Vermiculite	12.86	13.43	4.43%	40.89	204.47 %	14.03	4.47%	16.56	18.03%	14.42	2.78%
Woodchips	5.50	5.74	4.36%	40.89	612.37 %	6.00	4.53%	7.08	18.00%	6.17	2.83%

Note:

Prop. = Proposed

Source: Adapted from Chasomeris, 2011; Ports Regulator, 2010; 2011; TNPA, 2011; 2011b and Authors' calculations.

TNPA has a mandate which includes lowering the cost of doing business in South Africa, however, they were applying for higher tariffs that would substantially raise the costs of doing business in and from South Africa.

Stakeholders' perspectives are aligned with the realities that the current South African port pricing system is facing. TNPA (2012: 7) confirms that the current tariff structure is characterised by a lack of the following:

- “A clear set of principles and rules to be applied in determining the individual tariffs for the various services and facilities;
- Clarity and transparency regarding all operating costs, expenses and revenues incurred or generated from a specific service or facility, as well as the value of the capital stock related to such services or facilities;
- Explanation for differential tariffs for different commodities using the same handling classification;
- Information detail with respect to services or facilities pricing and cost relationships, making it impossible to determine where and in which direction subsidisation takes place or if it does not;
- Information on how the tariff structure promotes access to ports and efficient and effective management and operation of ports.”

Additionally, TNPA (2012) further confirms that South African ports tariffs have a number of imbalances which include very high tariff levels for cargo dues, very high differentials in the levels of cargo dues for different cargo types and commodities for which there is no clear motivation provided for such differences, while there are relatively low levels of tariffs for cost-based maritime services which result in subsidisation of some services, and very low revenue levels compared to international landlord ports authorities that recoup from the real estate business over the decades and such matters are recorded in several of these stakeholders' submissions. TNPA appears finally to be acknowledging these issues that the stakeholders have consistently raised. TNPA (2012) has proposed a new pricing strategy which will be aligned to the six strategic pillars, as shown and explained in table 5 below.

Table 5 - Key Pillars of the Pricing Strategy

	Key Pillars	Description
1.	Comprehensive	<ul style="list-style-type: none"> • Covers all revenue and costs • Addresses all charges • Clarifies all pricing modifiers • Provides sufficient detail for regulation
2.	Defendable/Compliant	<ul style="list-style-type: none"> • Based on clear principles • Aligned with regulatory directives and regulator expectations • Supported by a robust methodology
3.	Simple	<ul style="list-style-type: none"> • Easy to understand and administer • Rationalises charges • Simplifies charges for port users
4.	Competitive	<ul style="list-style-type: none"> • Comparable to ports worldwide • Protects regional market share • Supports SA economic development • Fair on all port users • Allows for competition within ports
5.	Implementable	<ul style="list-style-type: none"> • Full legal and regulatory compliance • Addresses impact on port users
6.	Sustainable	<ul style="list-style-type: none"> • Allows maintenance of existing infrastructure • Allows future expansion of infrastructure

Source: TNPA, 2012: 10.

5. SOUTH AFRICA'S PORT DOCTRINE: A CLASH OF PARADIGMS

The pricing strategy of a port is dependent on the way the port is financed and on the ownership status of the port. Gumede and Chasomeris (2012) argue that, it is paramount to take into consideration the vision, economic and political context that the maritime port is operating under before applying a particular port strategy.

Bennathan and Walters (1979) theorised that although ports may be operating under different conditions, they were either operating under the European (Continental) Doctrine or under the Anglo-Saxon Doctrine. The European doctrine “views the port as part of the social infrastructure and hence assesses its value in terms of contribution to the development of the region and not necessarily in terms of profitability” (Strandenes and Marlow, 2000: 4). Ports under the European (Continental) doctrine shall pursue the direction of the development of the national and or the regional economy and such ports are usually constructed under the auspices of public funds (Lee and Flynn, 2011). Lee and Flynn (2011) note the typical expected benefits for the continental doctrine which include cheaper transportation costs, job creation in the course of port construction and also multiplier impacts for social welfare. In contrast, the Anglo-Saxon Doctrine does not pursue objectives of the regional and or the national interests. Lee and Flynn (2011: 793) argue that the Anglo-Saxon Doctrine “requires port developers to evaluate port development on the basis of commercial cost accounting so

that port charges should be borne by port users to meet investment hurdle rates required by investors." Under the Anglo-Saxon doctrine, ports are operated under pure business principles, and thus, in practice, port prices will be expected to be higher than those under the European Doctrine. Lee and Flynn (2011: 793) argue that "such higher port charges of the Anglo-Saxon approach would in theory lead to lesser port competitiveness compared with ports under the European Doctrine." Investors in the Anglo-Saxon doctrine usually require higher rates of returns on their deployed capital, normally under a short period of time, and hence, consequently implementation of large port developments may be hindered (Lee and Flynn, 2011). Cross subsidisation is more likely to happen under the European Doctrine than under Anglo-Saxon, especially with the expansion of ports and development of new ports.

Lee and Flynn (2011), identify eleven elements of a proposed Asian Doctrine which are not featured in the Anglo-Saxon Doctrine or the European Doctrine. In most Asian ports, central government has been the sole role player from port investor, port designing, port developing, port operating, price-making, and port mediator (Lee and Flynn, 2011). Lee and Flynn (2011) note that the function of eminent Asian ports is closely interconnected to the national economic development plans. Furthermore, "the Asian Doctrine contends that port assets and related infrastructure should be in the public sector to avoid the risk of monopolization by private firms, and sea ports should be regarded as fundamental assets of and national security for the national economy" (Lee and Flynn, 2011: 796).

South Africa's ports cannot be categorised clearly into the European, Anglo-Saxon or the Asian Doctrine. South Africa practices elements of all contesting paradigms concurrently. South African ports are nationally owned and governed, having a vision to promote public interests and, at the same time, to exploit its comparative advantage in the pursuit of its objectives. On the one hand, port investments are to facilitate economic growth and trade, and creating capacity ahead of its demand. Section 2 (a) of the NPA Act (2005: 11) highlights the first objective of the act which is "to promote the development of an effective and productive South African ports industry that is capable of contributing to the economic growth and development of our country." On the other hand, South Africa's ports are meant to be self-sufficient. Pricing decisions are to ensure that ports are able to recover their ports costs and investments and be able to be profitable. TNPA (2009: 8) submitted that tariffs should ensure that they cover all "costs and make a return on the fair value of assets commensurate with the opportunity cost of capital and which provide for necessary investment in port infrastructure and related assets." Clearly this is a direct transfer of costs from TNPA to port users. This method ultimately means that port users would pay for (1) all ports investments; (2) all ports costs; and (3) for TNPA to make profit. This method guarantees TNPA profit regardless of whether TNPA is efficient or productive.

6. CONCLUSION AND RECOMMENDATIONS

This study critically assessed stakeholders' perspectives on port pricing in South Africa. The study used content analysis to analyse the three TNPA tariff applications, 48 stakeholders' comments/submissions and three Port Regulators Records of Decision. The article gathered data on port pricing from 1999 to 2012 and used descriptive statistics to analyse the trends in port pricing. The port stakeholders criticise TNPA for: abusing its monopoly power; hindering global competitiveness; not taking into cognisance the state of the country's economy; charging prices which are higher than inflation; creating an environment which does not support job creation; being inconsistent and non-compliant with the national policies; for not applying cost-based pricing principles; not having a justifiable pricing methodology; low productivity and inefficiency; inconsistent and unreasonable pricing of products; poor service delivery and port security.

South Africa's ports system is distinct with its mix of a complementary system of ports, largely uniform pricing policy and its public and private sector share of port operations.

There are three port pricing paradigms identified in the literature, namely, the Anglo-Saxon, the European and the Asian port doctrines. The findings show that South Africa has elements of all three contesting port doctrines. In essence, South African ports have a vision and partially operate according to the Asian and European doctrine, but appear to be attempting to charge tariffs according to the Anglo-Saxon doctrine. The clash in port doctrines is a source of misunderstanding and contention. The ports are financed and managed using a mix of elements from the European and Asian doctrines, whereas the pricing methodology appears to be following the Anglo-Saxon doctrine.

The country needs to develop a port doctrine that would be consistent with the country's visions and policies. There is a need to improve transparency on port pricing methodology. Improved access to data and pricing as well as costing methodology transparency will allow the Port Regulator to contribute towards improving the pricing and performance of South Africa's ports.

7. ACKNOWLEDGEMENTS

Thank you to our Lord and Saviour, Christ Jesus. Thanks to our respective parents and families, Debbie Chasomeris, and Professor Jones for encouragement and support.

8. REFERENCES

- Bennathan, E. & Walters, A. A., (1979). Port Pricing And Investment Policy For Developing Countries, Published For The World Bank [By] Oxford University Press.
- Botes F., (2006). Impact of Transport Pricing Practices in South Africa on Freight Transport Costs. HSRC. Pretoria

- Chasomeris M., (2011b). South Africa's Ports: Governance and Pricing Reform. Paper presented at the International Association of Maritime Economists conference, Santiago, Chile, 26-28 October.
- Chasomeris, M., (2011). Port Pricing in South Africa. Paper presented at the European Conference on Shipping Intermodalism & Ports, 22-24 June, Chios, Greece.
- Crowley, B.P., and Delfico, J.F., (1996). Content Analysis: A Methodology for Structuring and Analyzing Written Material. Program Evaluation and Methodology Division. United States General Accounting Office. September.
- Department of Trade and Industry (DTI), (2010). Industry Policy Action Plan (IPAP) 2012/13 – 2014/15. Available at <http://www.scribd.com/doc/87684201/Industry-launches-the-Industrial-Policy-Action-Plan-IPAP-2012-13-2014-15> [Accessed 15 September 2012]
- Department of Transport, (2002). National Commercial Ports Policy. Government Gazette no. 23715, 8 August 2002.
- Gumede, S. and Chasomeris, M. (2012). Port Governance in South Africa. *Interdisciplinary Journal of Economics and Business Law*, Vol. 1, Issue 4. pp82-98. © 2012 CJEAS Ltd.
- Havenga J., (2010) Logistics costs in South Africa – the case for macroeconomic measurement. *South African Journal of Economics*, Vol. 78, No.4, 460-478.
- Jones, T. (1988), "A General Overview of Harbour Tariff Principles". Presentation at S.A. Harbours Conference, Sun City, 14 April.
- Jones, T., (2002). "Invisible Hand Effective When Prices in Line With True Costs" in *The Mercury*, Highroad for KZN, June 5th.
- Jones, T., et al, (2010). Transnet National Ports Authority Tariff Application 2011/12. Ports Regulator of South Africa. November.
- Juhel, M. (1998). Globalization, Privatization and Restructuring of Ports. World Bank Group. Document presented at the 10th Annual Australasian Summit.
- Lee, T.-W. P. & Flynn, M., (2011). Charting A New Paradigm Of Container Hub Port Development Policy: The Asian Doctrine. *Transport Reviews: A Transnational Transdisciplinary Journal*, 31, 791-806.
- Mouknass, M. (2001), A Strategy for the Privatization of the Nouakchott Port. Available at: http://www.commercialdiplomacy.org/pdf/ma_projects/moham.pdf [Accessed: 20 March 2011].
- National Ports Act, (2005), National Ports Act No. 12 of 2005. Available at: <http://www.info.gov.za/view/DownloadFileAction?id=67864> [Accessed: 15 January 2011].
- NFLS, (2005). National Freight Logistics Strategy, Department of Transport, Pretoria, September 2005.
- Notteboom, T., (2011). An application of multi-criteria analysis to the location of a container hub port in South Africa. *Maritime Policy & Management*, 38, 51-79.
- Ports Regulator, (2010). Record of Decision: Tariff Application by the National Ports Authority for the Tariff Year 2010/2011.
- Ports Regulator, (2010a), Ports Regulator of South Africa. Economic Review of Participation in Ports Operation and Services in South Africa. August, 2010. Available at: <http://www.portsregulator.org/>. [Accessed 15 February 2011].
- Ports Regulator, (2010a). Ports Regulator of South Africa. Economic Review of Participation in Ports Operation and Services in South Africa. August, 2010.

- Ports Regulator, (2011). Record of Decision: Tariff Application by the National Ports Authority for the Tariff Year 2011/2012.
- Ports Regulator, (2012). Record of Decision: Tariff Application by the National Ports Authority for the Tariff Year 2012/2013..
- RSA, (2005). National Ports Act no 12 of 2005. Government Gazette. Vol 482 no. 27863. August 4, Cape Town , South Africa.
- Song and Lee, (2007), Port Governance in Korea, Devolution, Port Governance and Port Performance, Research in Transportation Economics, Vol. 17, pp. 357-375.
- Stats SA, (2012). Consumer Price Index: September 2012. *Statistical release P0141*. 24 October. Available at <http://www.statssa.gov.za/publications/P0141/P0141September2012.pdf> [Accessed 25 October 2012]
- Strandenæs, S.P. and Marlow, P.B., (2000). Port pricing and competitiveness in short sea shipping. - In : International journal of transport economics, vol.27, no.3, October. pp. 315-334
- Thompson, L., (2009), Railway and Ports Organization in the Republic of South Africa and Turkey: The Integrator's Paradise? Paper presented at the International Transport Forum 2009. OECD. Available at: <http://www.internationaltransportforum.org/jtrc/discussionpapers/DP200905.pdf> [Accessed 15 April 2011].
- TNPA, (2009). 2010/11 tariff application to the Ports Regulator in terms of the National Ports Act, 2005 (Act No. 12 of 2005). Transnet National Ports Authority. 01 August.
- TNPA, (2010). Tariff Application: 2011/12 Tariff application to the Ports Regulator in terms of the National Ports Act, 2005 (Act No. 12 of 2005). Transnet National Ports Authority. 31 July.
- TNPA, (2011). Tariff Application: 2012/13 Tariff application to the Ports Regulator in terms of the National Ports Act, 2005 (Act No. 12 of 2005). Transnet National Ports Authority. 29 July.
- TNPA, (2012). *Transnet National Ports Authority Proposal for a New Tariff Structure. Ports Regulator 1 September 2012*. Available at http://www.portsregulator.org/images/documents/TNPA_Pricing_Strategy_September_12_2012.pdf [Accessed: 12 December 2012]
- Transnet, (2010b), Transnet's Comments on the Ports Regulator's "Economic Review of Participation in Ports Operation and Services in South Africa", August 2010. Available at: http://www.portsregulator.org/Transnet_comments_on_Ports_Review.pdf [Accessed 27 April 2011].