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# South Africa's Port Governance and Pricing: Dilemmas and Reforms

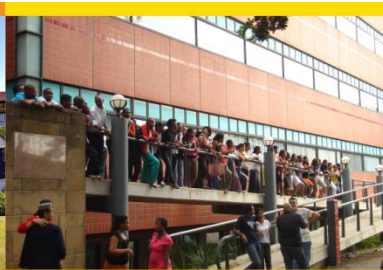
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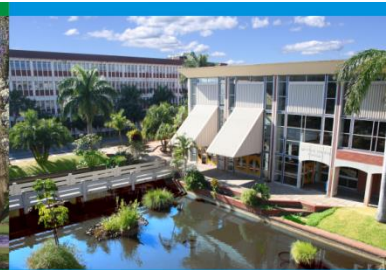
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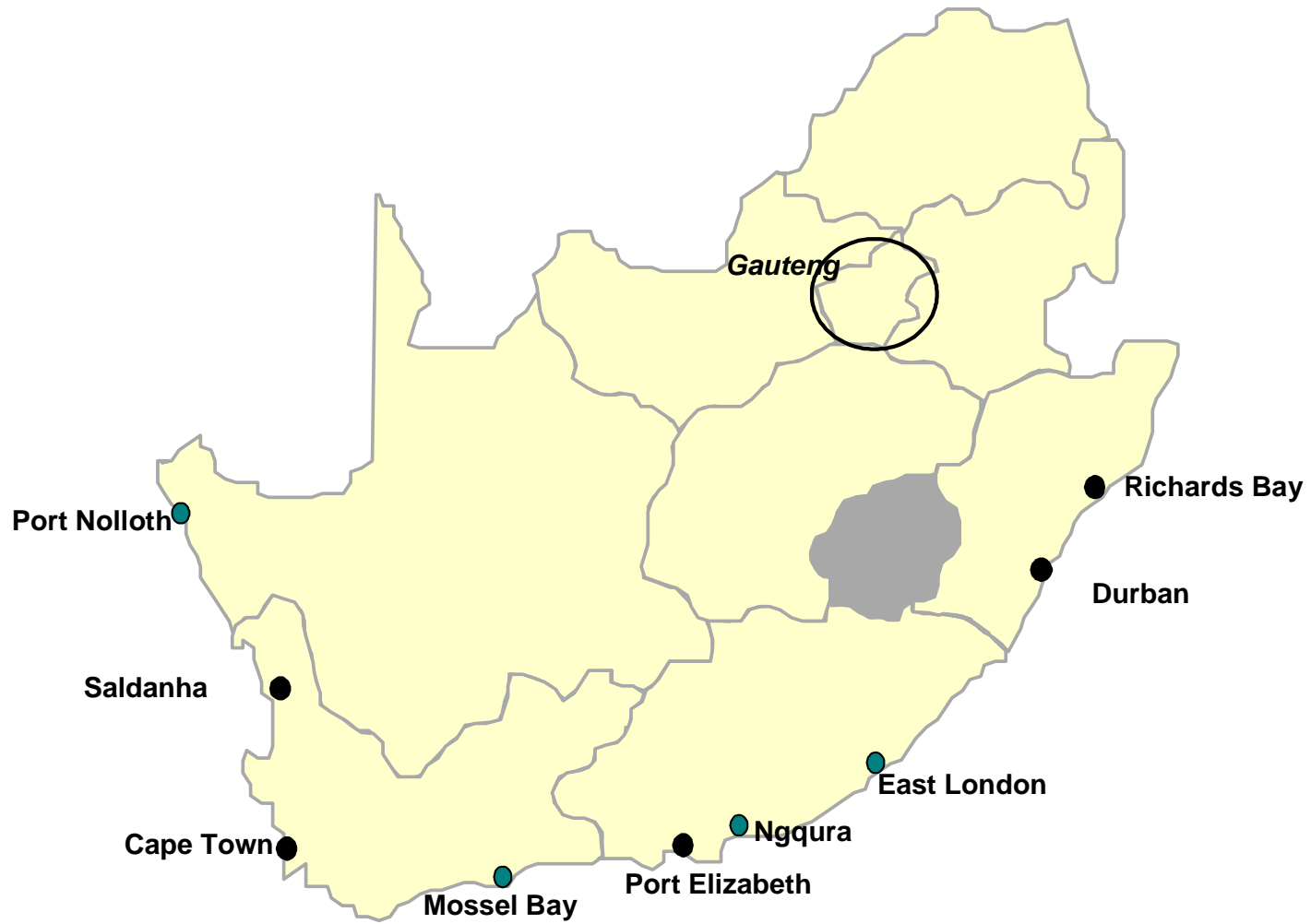


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# Table 1: Port Function Matrix

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

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

# TABLE 1: Public-Private Interface in Terminal Operations

Service	TNPA	Port Operations	
		SOE-TPT	Private Sector
Marine Services	100%		
Bulk Cargo Handling		37%	63%
Break-bulk Cargo Handling		78%	22%
Container Handling		97%	3%
Car (on wheels) handling – RoRo		100%	

Source: Ports Regulator 2010:31

# Revenue Requirement =

- + Regulatory Asset Base (RAB) X Weighted Average Cost of Capital (WACC)
- + Operating Costs
- + Depreciation
- + Taxation Expense
- (+) Claw back
- + (-) Excessive Tariff Increase Margin Credit (ETIMC)

	Themes on Port Governance				
	Submissions on the following Review Periods				
Requested Tariff Increase	Frequencies	18.06%	13.2%	14.39%	Σ
Allowed Tariff Increase		2.76%	0%	8.15% <sup>1</sup>	
				5.9% <sup>2</sup>	
Theme	2009/10- 2011/12	2012/13	2013/14	2014/15	
<b>Current structure inhibits global competitiveness of ports, and high port tariffs hinder stakeholders' profitability</b>	<b>38</b>	<b>7</b>	<b>31</b>	<b>10</b>	<b>58</b>
<b>Revenue Requirement Model is unjustifiable and arbitrary</b>	<b>36</b>	<b>4</b>	<b>5</b>	<b>8</b>	<b>53</b>
<b>Misalignments with international tariff standards and inconsistent pricing of some port commodities – User-pays principle is preached but not practiced</b>	<b>13</b>	<b>8</b>	<b>6</b>	<b>8</b>	<b>35</b>
<b>Inefficiency and low productivity of ports</b>	<b>13</b>	<b>13</b>	<b>4</b>	<b>1</b>	<b>31</b>
<b>No accounting for prevailing economic conditions</b>	<b>24</b>	<b>3</b>	<b>2</b>	<b>1</b>	<b>30</b>

Above-inflation increases requested annually	15	7	1	3	26
WACC, MRP and betas used to assess risk are all inaccurate		4	10	11	24
Non-compliance with national policies and inconsistency	13	3	1	3	20
Lack of transparency in reporting or justifying tariffs	10	1	2	5	18
TNPA practices do not support job creation	9	5	1	2	17
Regulatory Asset Base is not cleaned up and it is overvalued	-		3	6	9
Abuse of monopoly power	8	-	-	1	9
Poor service delivery	4	-	-	1	5
Ports as national asset are used for profiting, not national economic objectives	-	-	2	2	4

Projects from previous financial year are seldom complete	-	3	1	-	4
Lack of consultation with industry prior to altering tariffs	-	2	1	-	3
Transition from TNPA to NPA (Pty) Ltd is still pending	-	-	2	1	3

Source: Meyiwa & Chasomeris, 2016



**Table 2. Historic differences between the figures proposed by TNPA and those allowed by the Ports Regulator, 2010/11 to 2016/17**

	2010/2011		2011/2012		2012/2013	
Tariff Components	TNPA Prop.	PR Decision	TNPA Prop.	PR Decision	TNPA Prop.	PR Decision
RAB (R Million)	45 677	43 165	51 480	48 529	58 490	60 001
WACC	6.02%	5.15%	5.38%	4.71%	8.97%	6.13%
Marine RR (R Million)	6 868	6 020	7 641	6 523	9 645	6 150
Tariff Increase	10.62%	4.42%	11.91%	4.49%	18.06%	2.76%
CPI Increase	4.3%		5.0%		5.6%	

**Table 2. Historic differences between the figures proposed by TNPA and those allowed by the Ports Regulator, 2010/11 to 2016/17**

	2013/2014		2014/2015		2015/2016		2016/2017	
Tariff Components	TNPA Prop.	PR Decision	TNPA Prop.	PR Decision	TNPA Prop.	PR Decision	TNPA Prop.	PR Decision
RAB (R Million)	66 315	62 803	64 694	64 485	67 000	66 789	73 483	73 846
WACC	8.33%	5.21%	5.83%	5.47%	5.59%	6.38%	5.31%	4.64%
Marine RR (R Million)	8 419	7 982	8 834	8 032	8 759	8 266	9295	8457
Tariff Increase	5.40%	0.00% <sup>a</sup>	14.39%	5.90% <sup>b</sup>	9.47%	4.8% <sup>c</sup>	5.91%	0.00% <sup>d</sup>
CPI Increase	5.7%		6.1%		4.6%		6.6% <sup>e</sup>	

<b>2014/2015 Tariff Application</b>	<b>Scenario 1</b>	<b>Scenario 2</b>	<b>Scenario 3</b>	<b>Scenario 4</b>	<b>Scenario 5</b>	<b>Scenario 6</b>
	Recalculation of Tariff Application	Change: MRP to 6.3	If $\beta_d$ is considered	If MRP = 6.3 and $\beta_d$ is considered	If $\beta_a = 0.4$ , MRP = 6.3 and $\beta_d$ is considered	If $\beta_a = 0.35$ , MRP = 6.3 and $\beta_d$ is considered
<b>WACC</b>	5.82%	5.48%	5.45%	5.11%	4.57%	4.30%
<b>RAB</b>	64 694	64 694	64 694	64 694	64 694	64 694
<b>Plus: Claw Back</b>	118	118	118	118	118	118
<b>Revenue Requirement</b>	10 940	10 717	10 702	10 480	10 129	9 954
<b>Less: Real Estate</b>	2113	2113	2113	2113	2113	2113
<b>FY 2014/15 RR</b>	8 827	8 604	8 589	8 367	8 016	7 841
<b>Tariff Increase</b>	14.29%	11.41%	11.22%	8.34%	3.80%	1.53%
<b>Tariff Increase: Less ETIMC</b>	8.41%	5.53%	5.34%	2.46%	-2.08%	-4.35%



## Table 4. Recalculating the TNPA Tariff Application for 2016/17: Changing Market Exposure Risk Assumptions

	TNPA original Application	If $\beta_d$ is considered	Reduce $\beta_a$ to 0.4	Reduce $\beta_a$ to 0.4 & Consider $\beta_d$
Asset Beta ( $\beta_a$ )	0.5	0.5	0.4	0.4
Debt Beta ( $\beta_d$ )	0	0.30	0.00	0.30
Equity Beta ( $\beta_e$ ) (using Hamada)	0.86	0.65	0.69	0.47
Cost of Equity (real) ( $K_e$ )	6.87	5.71	5.94	4.78
WACC	5.31	4.73	4.85	4.27
<b>RAB (R Million)</b>				
RAB (R Million)	73483	73483	73483	73483
<b>ROC (R Million)</b>				
ROC (R Million)	3902.44	3476.53	3561.18	3135.28
<b><math>\varphi</math> (R Million)</b>				
$\varphi$ (R Million)	5393	5393	5393	5393
<b>Marine Revenue (MRR) 2016/17 (R Million)</b>				
Marine Revenue (MRR) 2016/17 (R Million)	9295.44	8869.53	8954.18	8528.28
<b>ERR2015/16 (R Million)</b>				
ERR2015/16 (R Million)	8571	8571	8571	8571
<b>EVG2016/17 (%)</b>				
EVG2016/17 (%)	2.4	2.4	2.4	2.4
<b>Tariff Increase (%)</b>				
Tariff Increase (%)	5.91	1.06	2.02	-2.83



## Conclusion

- RR model may incentivise port capital expenditure (investments), operating expenditure and port prices at levels that are not in the best interests of the country
- RR method does not provide appropriate incentives to reduce costs and to improve productivity in the ports.



## Conclusion

- For 2016/17, TNPA applied for a 5.91% tariff increase, the Ports Regulator decided on an average of 0% increase in tariffs.
- This article recalculated the TNPA 2016/17 tariff application and shows that if an asset beta of 0.4 is applied, and a debt beta is included, then there should be a tariff reduction of 2.83%.
- If the RR method continues to be used, then the value of the components in the RR model need to be reviewed, including the adoption of an asset beta lower than the present 0.5, and the inclusion of a debt beta.

# Any Questions?



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