



The Ports Regulator

Presentation to the 2015/16 Tariff Application Road shows

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September 2014



Who is the Ports Regulator?

- It consists of 9 Members (currently 6) that constitute the economic regulatory authority for the ports system in South Africa
- They are independent in the performance of their mandate from Government Departments
- They are one of the key institutions envisaged by the Ports Policy
- The Secretariat assists the Regulator in carrying out its mandate

Functions of the Ports Regulator In terms of the Ports Act

- Exercise economic regulation of the port system in line with government's strategic objectives
- Promote equity of access to ports, facilities and services provided in ports
- Monitor the activities of the National Ports Authority to ensure compliance with the Act
- Adjudicate complaints and appeals against the Authority
- Approve or reject the Authority tariffs
- Promote regulated competition
- Regulate the provision of adequate, affordable and efficient port services and facilities

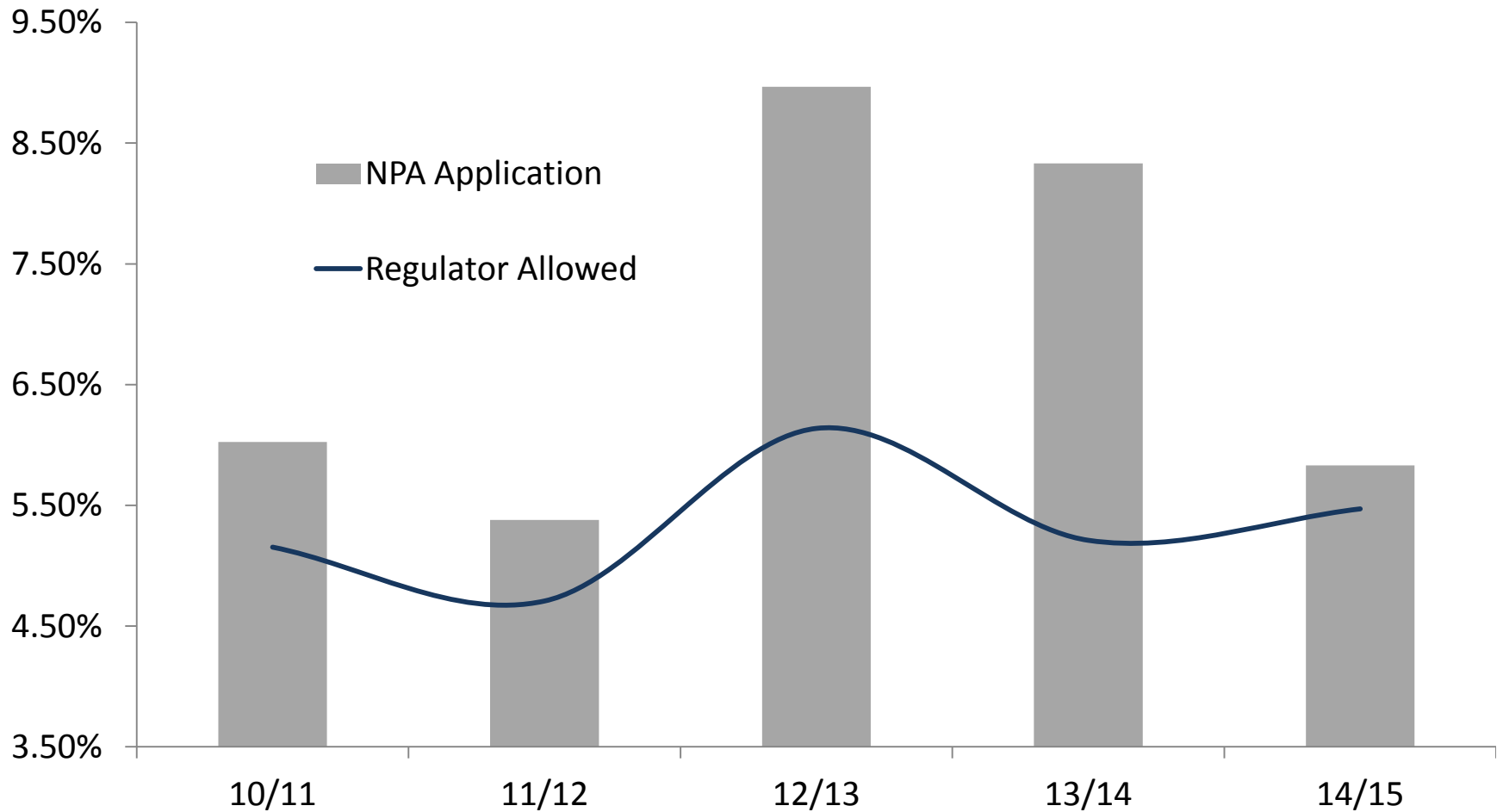
What is the Regulator's role in NPA tariffs?

- To ensure that NPA tariffs are utilised in ensuring that the port system is efficient
- To ensure that the tariffs are affordable to port users
- To ensure that the tariffs are predictable and non-discriminatory
- To prevent the utilisation of tariffs for cross-subsidisation unless in the public interest

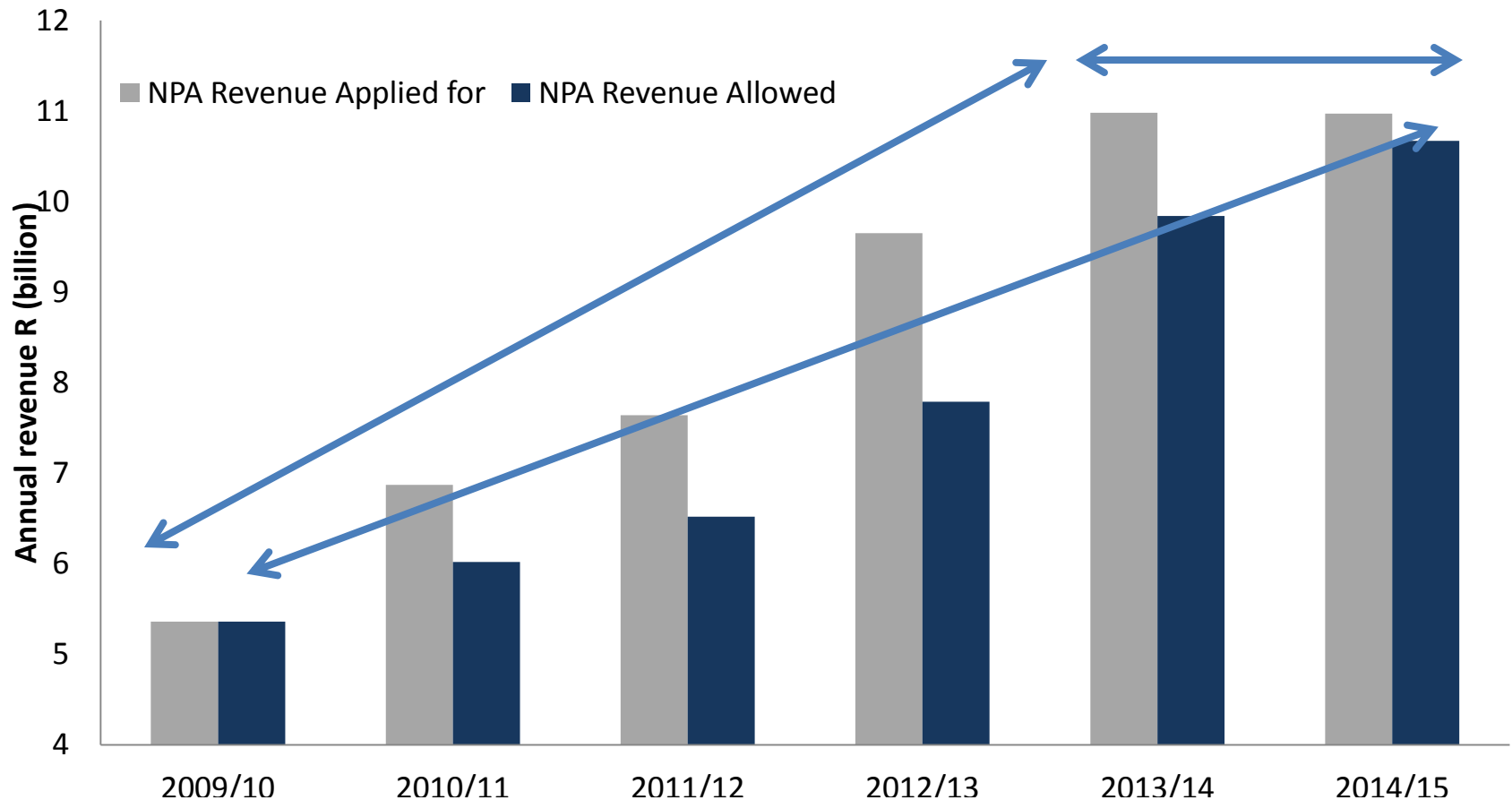
Economic Impact of the Regulator

- Since inception of the Regulator in 2009 to date:
 - There has been a smoothing of the NPAs tariffs
 - Tariff decision has translated into a saving to users of about R5.2 b over the period
- Rationalised Tariffs
 - R1 bn rebate
 - Significantly lower *approved* tariffs
 - Continued sustainability of NPA
- Proactive and risk mitigating
 - Excessive Tariff Increase Margin Credit
 - R2.5 bn available to offset future increases
- Looking forward
 - Fair tariff incidence
 - More accurate investment signals through a multi-year tariff methodology

Weighted Return on Asset Base



Revenue Determinations and Stabilisation of Tariffs



Purpose of NPA tariffs

- To enable the NPA to-
 - Recover its investment in owning, controlling and administering ports and its investment in port services and facilities
 - Recover its costs in maintaining, operating, controlling and administering ports and its costs in providing port services and facilities
 - Make a profit commensurate with the risk involved in ports services and facilities

Objectives of Economic Regulation

- Regulation is a balancing act between users of ports and service providers of infrastructure.
- Provides protection in cases of monopoly pricing
 - Geographic location makes Ports in many cases natural monopolies
- Must ensure openness, transparency and due process
- Minimum service standards
- Usually protects public interest but also that of infrastructure owner
- Reduces risk (both port owner as well as users)– rules/guidelines

The Regulatory Manual

- Outlines the mandate of the Ports Regulator of South Africa (the Regulator), the regulatory framework governing the National Ports Authority's (the Authority/NPA) tariff setting process and matters relating to compliance of the NPA with the Regulatory Framework.
- 2nd version of the manual
 - 2014/15 Interim Tariff manual (one year)
 - 2015/16-2017/18 Tariff manual (multi-year)

Multi-Year Methodology

- Previously an interim 1 year methodology
- Now fixed for 3 years with annual review and an annual adjustment of tariffs
- No fixing of tariffs for the 3 year period to protect users from possible large step changes in the tariff.
- Large variations in the users and usage of port infrastructure and services over time
- Annual review allows adjustments in prices to be more efficiently and appropriately allocated to users
- Lower regulatory uncertainty
 - Will narrow the difference between what is requested by the NPA and subsequently granted by the Regulator.
 - Assists stakeholders in formulating responses to the NPA tariff application in a manner that will assist the Regulator in its decision making.

Assessment of Authority's Tariffs

- In terms of the Act, NPA to submit proposed tariffs to Ports Regulator
- Tariffs cover all NPA activities as a Port Authority
- Published for comments
- Regulator to hold hearings and invite submissions on proposed tariff increases
- After consideration of submissions, Regulator shall approve or reject some or all of the tariff increases
- Elements of proposed tariff-
 - Manner of calculation and model
 - All financial information and valuations
 - Reinvestment of profits and revenues
 - Impact on port activity cost structures
 - Impact on NPA financial position

Process

- Similar to past – guided by the Act
- The Regulators assessment:
 - Assessment of the NPA application
 - Assessment and taking into account of all public comments,
 - Own assessment
- Record of Decision (ROD)
 - Fixed tariff for the 2015/16 tariff year and
 - Indicative tariffs for the 2016/17 and 2017/18 tariff years.
 - Specific tariff changes may be requested by NPA (comments thereon welcomed)
 - Tariff strategy (based on public engagement process) will start to influence tariffs from 2016/17

Issues in determining tariffs

- Tariffs linked to costs
 - Tendency to overcapitalize (Averch-Johnson effect)
- Information asymmetry : principal (regulator)
 - agent (operator)
 - costs, revenue streams etc
- Regulatory lag : inability to change tariffs instantaneously – Claw Back mechanism
- Provides secure return as volume based revenue is recouped if under-recovery

Methodology

- Revenue Requirement (RR) methodology
- Constant and familiar approach
- Continues refinement and development of the methodology
- Some Regulatory discretion retained:

“The Regulator, while attempting to increase regulatory certainty, must retain a degree of regulatory discretion to respond to unforeseen economic or other events, as well as anomalies and unintended consequences of a strict and autonomic application of the methodology that may impact on the sustainability of the South African Ports system. This is especially relevant to a multi-year tariff determination process ...”

Information requirements

- Substantive/significant information requirements on NPA
 - Revenue models
 - Volume forecasts
 - Cash management
 - Transfers
 - Asset registers
 - Capex plans , etc
- Equal info requirement on users/stakeholders
 - Volume forecasts
 - Capex plans (PCC process)
 - Assessment of operational and other costs based on industry expertise and experience

Components of the Revenue Required Tariff Methodology

- Regulatory Asset Base (RAB)
 - Depreciation
 - Working Capital
 - Asset Valuation
- Weighted Average Cost of Capital (WACC) (CAPM model)
- Taxation
- Depreciation
- Operating Expense
- Claw Back
- Excessive Tariff Increase Margin Credit (ETIMC)
- Volume forecast

Overview of Tariff Methodology

Revenue Requirement =

Regulatory Asset Base (RAB) x Weighted Average Cost of Capital (WACC)
+ Depreciation
+ Taxation Expense
+ Operating Expense
± Claw Back
± Excessive tariff Increase Margin Credit (ETIMC)

- It requires that the NPA estimate its operating costs, depreciation, tax expense and return on capital (a product of the weighted average cost of capital and the value of assets in the Regulatory Asset Base for the period under review).
- In addition, there is a claw-back mechanism that corrects for over or under recoveries in previous tariff periods, as well as the excessive tariff increase margin credit (ETIMC).

Regulatory Asset Base

- **Regulatory Asset Base**

$$RAB_{(o,y)} = (\frac{1}{2}(RAB_{(c,y)} + RAB_{(o,y)}) + w_y$$

$$RAB_{(c,y)} = RAB_{(o,y)}(1 + CPI_y) + CWIP_y(1 + CPI_y) - D_y$$

- **Depreciation**

$$D = (RAB_{(o,y)} + (RAB_{(o,y)} \cdot CPI_y) + (Capex_y / 2 \cdot CPI_y)) / 40$$

- **Inflation trending**

- Consumer Price Index (CPI) forecast for each FY during the tariff period as at the latest forecast published by the National Treasury (if not available-BER)

- **Capital Works in Progress (CWIP)**

- Detailed projections for the tariff period per asset class, service and project

- **Working Capital**

- actual *net* working capital as per the latest available NPA annual financial statements

Weighted Average Cost of Capital

- The risk adjusted opportunity costs of capital
- The minimum return for an investment in order to continue to attract capital, given the risks.
- Real WACC (the cost of equity and the cost of debt) will be applied
- Expressed in Vanilla terms (i.e. post-tax cost of equity and pre-tax cost of debt).
- Separate allowance for tax is required.

$$WACC_{(vanilla)} = k_d \cdot g + k_e(1 - g)$$

- **Cost of Equity (k_e)**

$$K_e = r_f + \beta \cdot MRP$$

- **Cost of Debt (k_d)**

- Average embedded Transnet group cost of debt (pre-tax nominal) of Transnet Ltd
- No other alternative

Weighted Average Cost of Capital

- **Cost of Equity (k_e)**

$$K_e = r_f + \beta.MRP$$

- **Risk Free Rate**

- R186 government bond over 5 year average

- **Market Risk Premium (MRP)**

- Dimson, Marsh and Staunton (DMS) estimate of the geometric mean MRP

- **Beta (β)**

- no beta (β) published (not a listed company on JSE)
 - Lower risk profile than listed companies
 - Beta of 0.5

- **Gearing**

- 50% Gearing

Taxation

- **Corporate tax rate 28%**
- pass-through tax approach
- vanilla WACC applied to the average RAB, less the interest cost of debt and wear and tear, and other tax allowances

$$\text{Tax allowance} = (\text{Net revenue before tax allowance}) / (1-t) * t$$

- **“Net revenue before tax allowance”** is the revenue after all costs including interest and tax allowances have been accounted for; i.e. it is the net return to equity before being grossed to make allowances for taxation
- Also reflect the flow of funds related to any claw-back and ETIMC allowances to ensure adequate tax cover for the NPA

Operating Costs

- Detailed analysis required
- Sample list:
- The number of posts in the approved establishment (organogram)
 - Current employees(number and cost)
 - Vacant posts (number and cost) as well as the reasons for vacancy rates above 5%
 - The percentage of posts of the total for each of the years that have been vacant over the last 5 years(number and cost)
 - The split in labour costs between overtime, salaries and bonuses
 - The actual remuneration increases granted over the last five years (percentage and value)
 - The spread between budgeted and actual labour costs for every year of the last five years
 - The value of services/labour that is “purchased” from Transnet group or any of its divisions
 - The value of services/labour that is provided by the NPA to Transnet or any of its divisions without recovery of the costs of providing such labour/service
 - The split between expenditure on electricity and other kinds of energy (liquid fuels etc)
- All and any information that would allow the regulator and stakeholders to assess the necessity and appropriateness of budgeted expenditure
- Group costs analysed and subjected to audit

Group Cost process

- Conditions on allowance of inclusion of the Transnet group costs:
 - NPA submits detailed explanations and motivations for the amount to be transferred to the Transnet group.
 - Adjustments may be required on an annual basis if and when the Regulator determines any group cost component to be inappropriate based on audited reports.
 - Externally audited financial report required (2014/15 ROD) by 1st December every year (half year report).
 - Externally and independently audited financial report each year in the year after the close of the financial year (full year report).
- The Regulator reserves the right to claw-back all or any portion of the amount in future tariff decisions, should the Regulator not be satisfied that the expenditure is within the scope and mandate of the NPA, and that the amounts are reasonable, or reasonably allocated to the NPA.

Claw-Back

- *“To ensure that the NPA or any port user is fairly treated and is not subjected to unfair gains or losses that are the result of incorrect forecasting, inaccurate information and system shocks”*
- The variables corrected annually for claw-back purposes are the:
 - RAB (including CAPEX)
 - Depreciation
 - Tax allowance
 - Volumes
 - Inflation (CPI)
- 50% rule to apply

Illustrative application and claw-back process – next two years

Tariff year	14/15 (Tariff based on previous one-year methodology)	15/16 (Tariff based on multi-year methodology)	16/17 (Tariff based on multi-year methodology)	17/18 (Tariff based on multi-year methodology)	18/19 (If multi-year approach is continued)
Process in 14/15 pertaining to future tariff years	Provisional claw-back for 14/15 calculated Total claw-back for 13/14 calculated	Fixed tariff for 15/16 calculated and published Tariff to include finalisation of Claw-back for 13/14 and 50% of provisional claw-back for 14/15	Indicative tariff for 16/17 calculated and published including 50% of provisional claw-back for 14/15	Indicative tariff for 17/18 calculated and published	
Process in 15/16 pertaining to future tariff years	Total Claw-back for 14/15 calculated	Provisional Claw-back for 15/16 calculated	Fixed tariff for 16/17 calculated and published. Tariff to include finalisation of total claw-back for 14/15 as well as 50% provisional claw-back for 15/16	Indicative tariff for 17/18 calculated and published Tariff to include 50% provisional claw-back for 15/16	Indicative tariff for 18/19 calculated and published

ETIMC

- The Regulator regulates in the long term interest of the industry.
- Need to consider possible future shocks to the system
 - capital expenditure may spike at some point in the foreseeable future,
 - external market related factors eg fluctuations in volumes, inflation, the RFR etc.
- ETIMC will earn a return which is equal to the WACC allowed by the Regulator.
- Total available under the ETIMC facility will be published annually.
- The Regulator further deems it necessary to define the use of the ETIMC facility in the following way:
- *“The Regulator may authorise the release of part or the whole of the value of the ETIMC facility to influence tariff levels whenever it deems necessary **including, but not limited to spikes in tariffs** (defined as an average tariff increase in excess of the inflation forecast) due to a sharp **increase in capital expenditure, volume volatility, or any market related factor**. The Regulator may also consider national objectives in any decision to add to, or to utilise the ETIMC facility to adjust tariffs”*

Volume forecast

- NPA required to submit detailed projections and motivations.
- Regulator requires similar inputs from industry
- More accurate volume projections will result in smaller claw backs and less volatile tariffs
- Volume projections treated with utmost confidentiality
 - A number of prominent industry players have submitted confidential detailed volume projections to the PRSA in previous application
 - Contributed to a significantly lower average tariff

In Summary

Regulatory Asset Base – Allows NPA to earn return on assets based on value of total assets and indexed to inflation each year

Regulatory Asset Base	<p>Trended Original Cost</p> <p>Estimated capital expenditure and depreciation is added to closing balance for the previous year to determine closing RAB balance</p> <p>Expected working capital balance is added to arrive at total RAB estimate which is then averaged to account for spending on capital works in progress (CWIP)</p> <p>Less depreciation</p>
Inflation trending	<p>Consumer Price Index (CPI) forecast from National Treasury or reputable independent institution e.g. BER</p>
Capital Works in Progress	<p>CWIP motivated through submission of detailed projections per asset class, service and project as well as monthly expenditure schedules.</p> <p>All capital expenditure approved but not fully implemented will be included in the claw back process and RAB will be adjusted accordingly</p>
Working capital	<p>Estimate of working capital consist of accounts receivable plus inventory less accounts payable</p>

Weighted Average Cost of Capital – real vanilla WACC (post tax cost of equity and pre-tax cost of debt with a separate allowance for tax expenses)

Cost of Equity	<p>Capital Asset Pricing Model used for post tax cost of equity calculation</p> <ul style="list-style-type: none">•Risk free rate (20 year R186 government bond over a 5 yr period.•Market risk premium: forecast using DMS estimate of geometric mean over 113yr period•Beta: 0.50 Asset Beta, re-levered using Hamada = Equity Beta of 0.86•Gearing: 50%
Cost of Debt	<p>NPAs actual embedded debt costs based on Transnet embedded cost of debt.</p>

Taxation

Taxation	<ul style="list-style-type: none">•Current corporate tax rate (28%) treated as an expense•Pass through tax approach (vanilla WACC applied to average RAB – interest, cost of debt, depreciation and other allowances)•Any future changes to corporate tax rate will be addressed through claw-back
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Operating Costs

Operating costs	<ul style="list-style-type: none"> •Details to be submitted to allow analysis of operating cost estimates on a line by line basis. •Required details for 11 line items specified •Parameters for treatment of Transnet's group costs defined and conditions set in the 2014/15 ROD retained
Claw Back	<ul style="list-style-type: none"> •Mechanism to reduce risks and address the difference between allowed revenue and actual audited figures, volatility in trade volumes, and difficulties in forecasting imports/exports accurately •Subject to changes in RAB, Depreciation, Tax Allowance, Operating Costs, Volumes and Inflation •50 % Rule applied (provisional vs. actual data) – page 19 in manual
ETIMC	<ul style="list-style-type: none"> •Revenue collected before it is needed in order to smooth the effects of future tariff increases •Manual highlights potential triggers as average tariff increases in excess of the inflation forecast; sharp increase in capital expenditure, volume volatility, market related factors and national objectives
Volume forecast	<ul style="list-style-type: none"> •Provide motivation/justification for volume forecasts and revenue calculations based on such forecast, current tariff levels and proposed tariffs

Way forward

- Documents that will be published on [www.portsregulator .org](http://www.portsregulator.org):
 - Report on road shows will be published
 - Comments (if not confidential) also published after 16 October 2014
 - Tariff determination statement
 - Record of decision
 - NPA Tariff Book

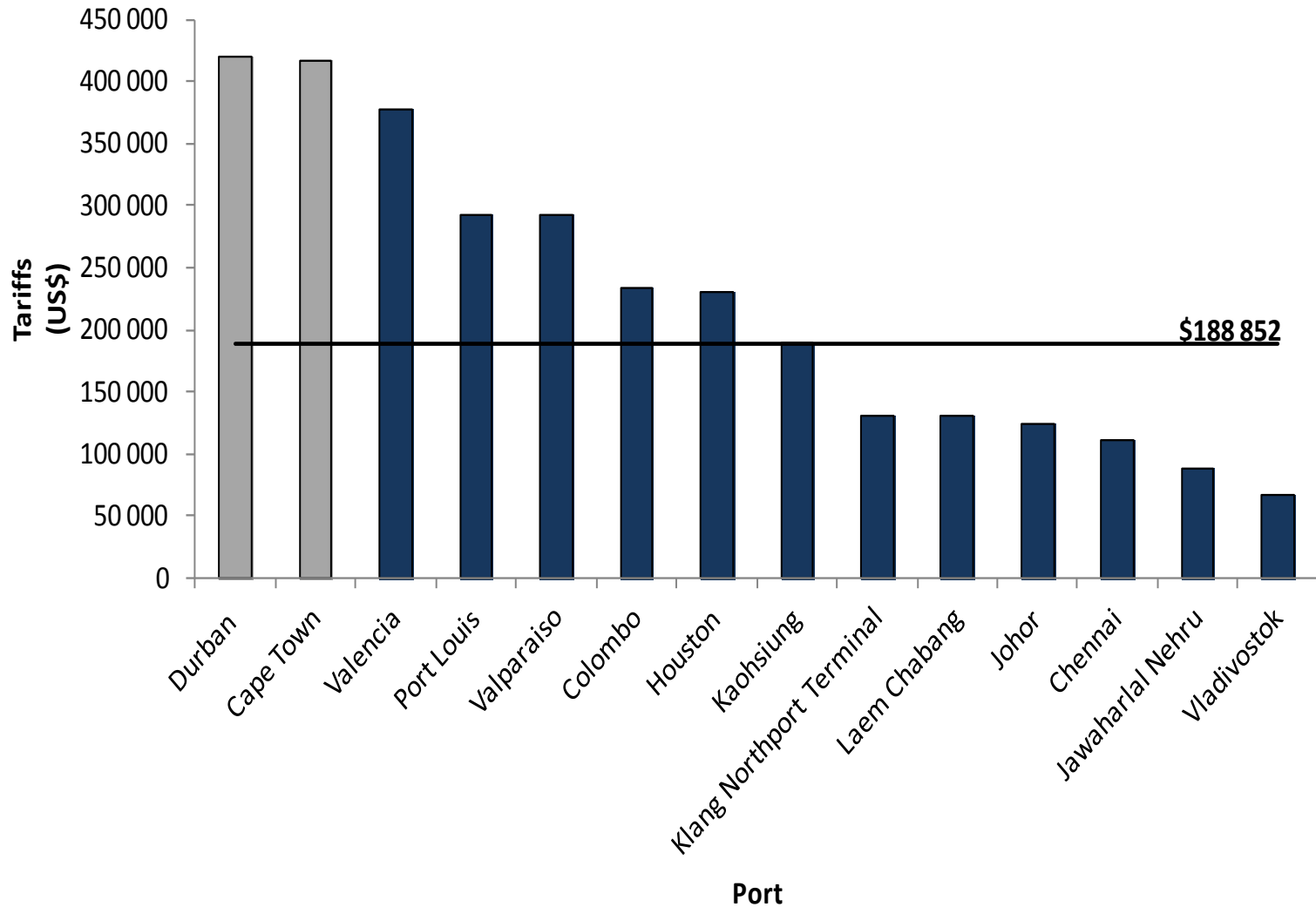
Comparative Trends

- PRSA Port Pricing Benchmark Study

Port pricing Benchmarking 13/14 - Trends

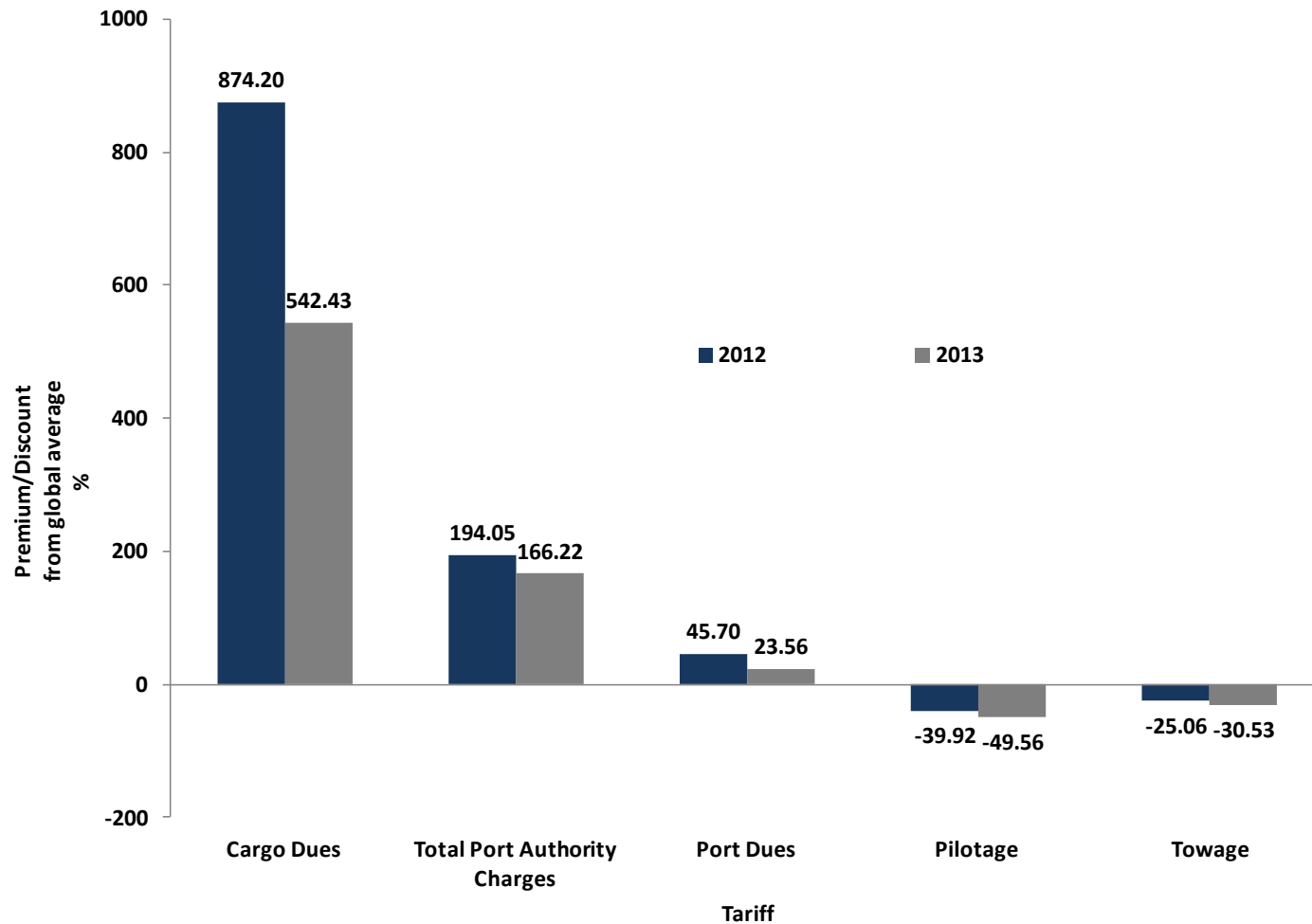
- Compares South African pricing and pricing structures to those around the world
- The second iteration of this study serves to confirm some of the results from the 2012/13 version of the GPPCS.
- No real relative system level structure change despite large decreases in container cargo dues as well as export automotives - 13/14 ROD.
- Significant cross-subsidisation from cargo owners towards primary exporters and vessel owners persist.

Container tariffs

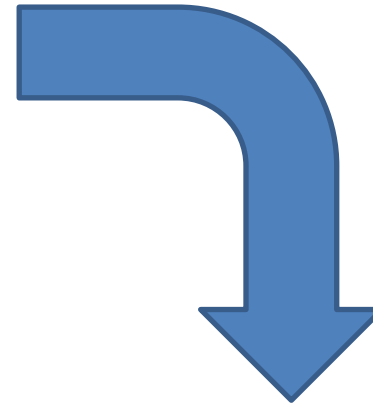
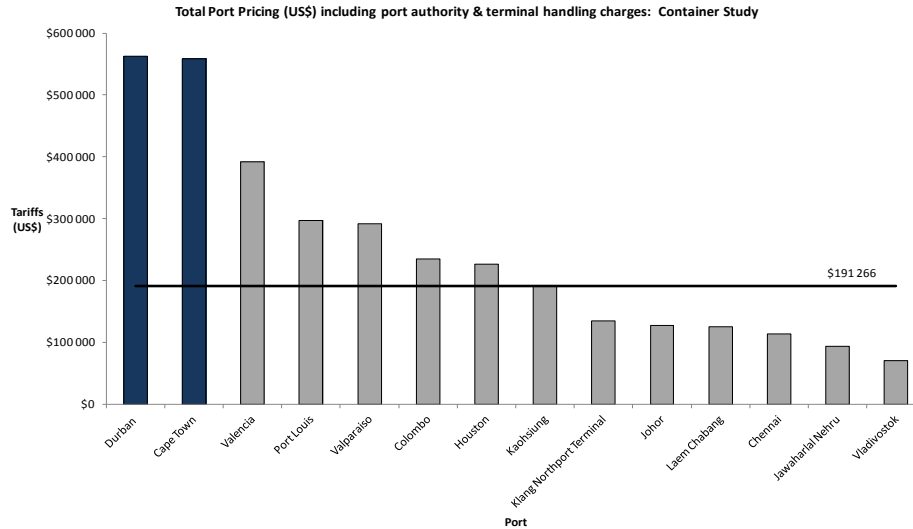


Container tariffs

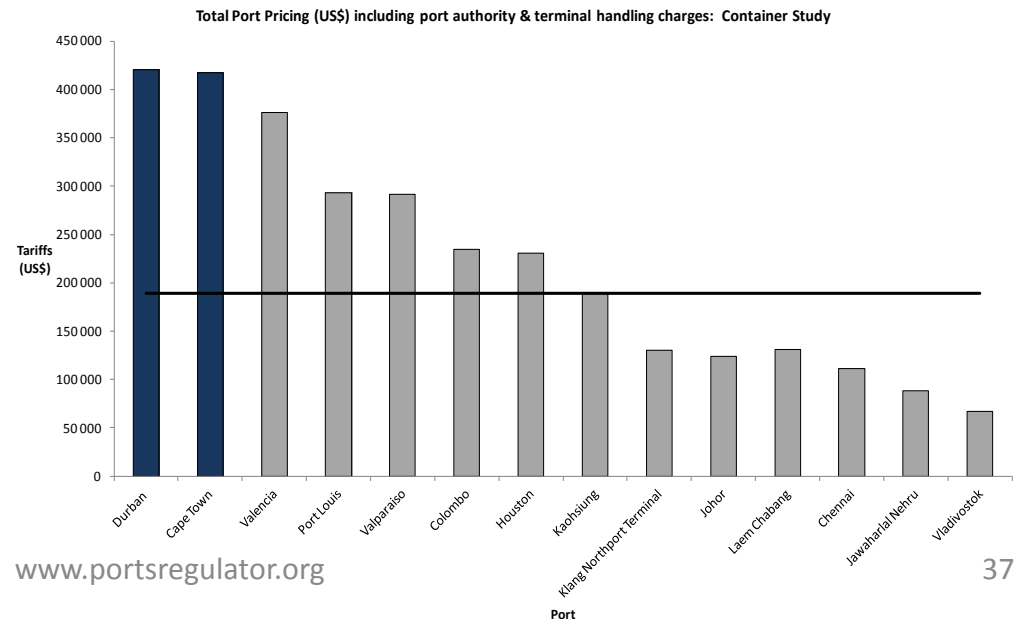
Figure 1: Container costs



Container tariffs



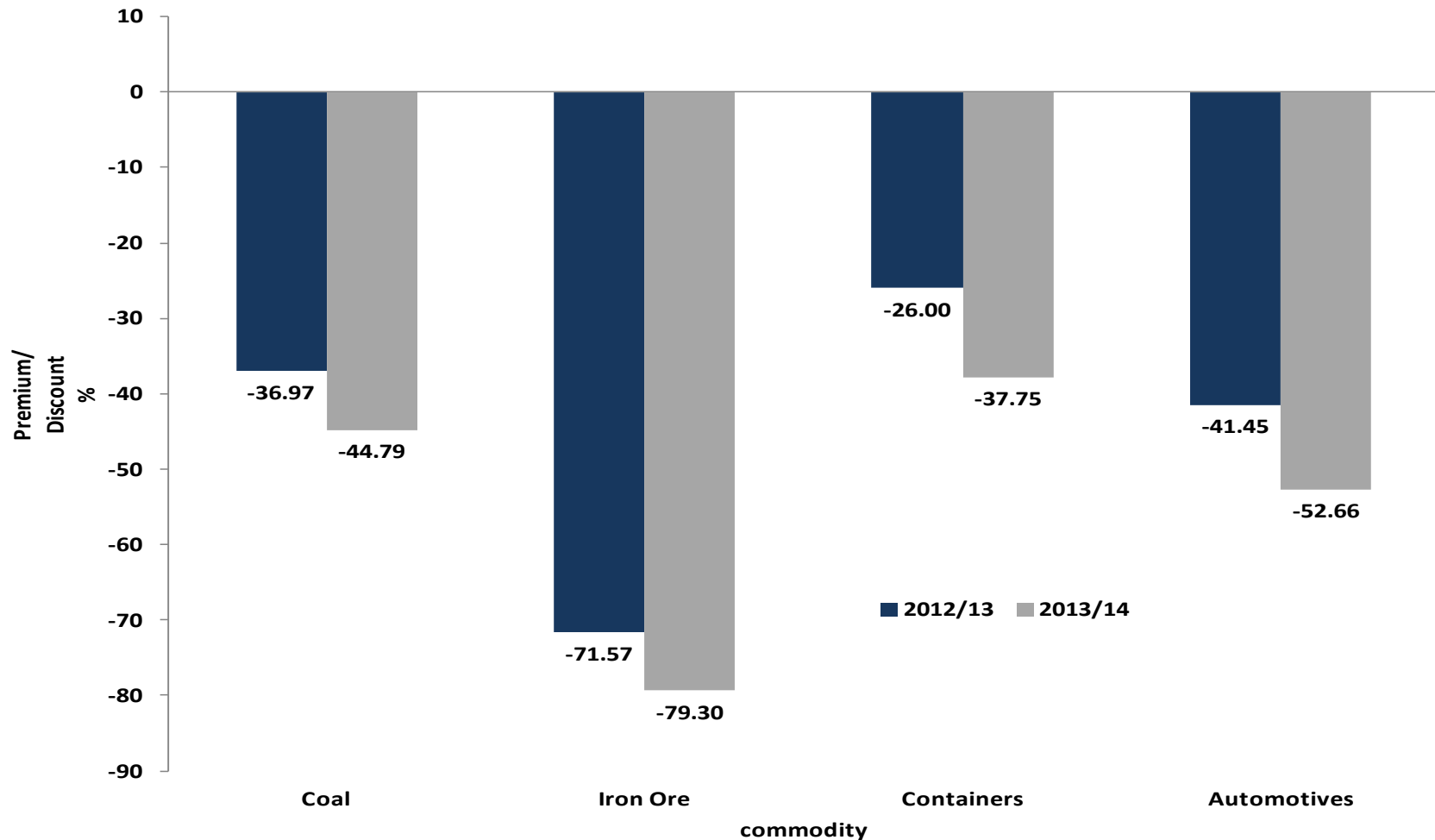
The impact of the reduction of 43.3% and 14% in export and import container cargo dues has moved the South African tariff closer to the global norm, however, it remain still excessive



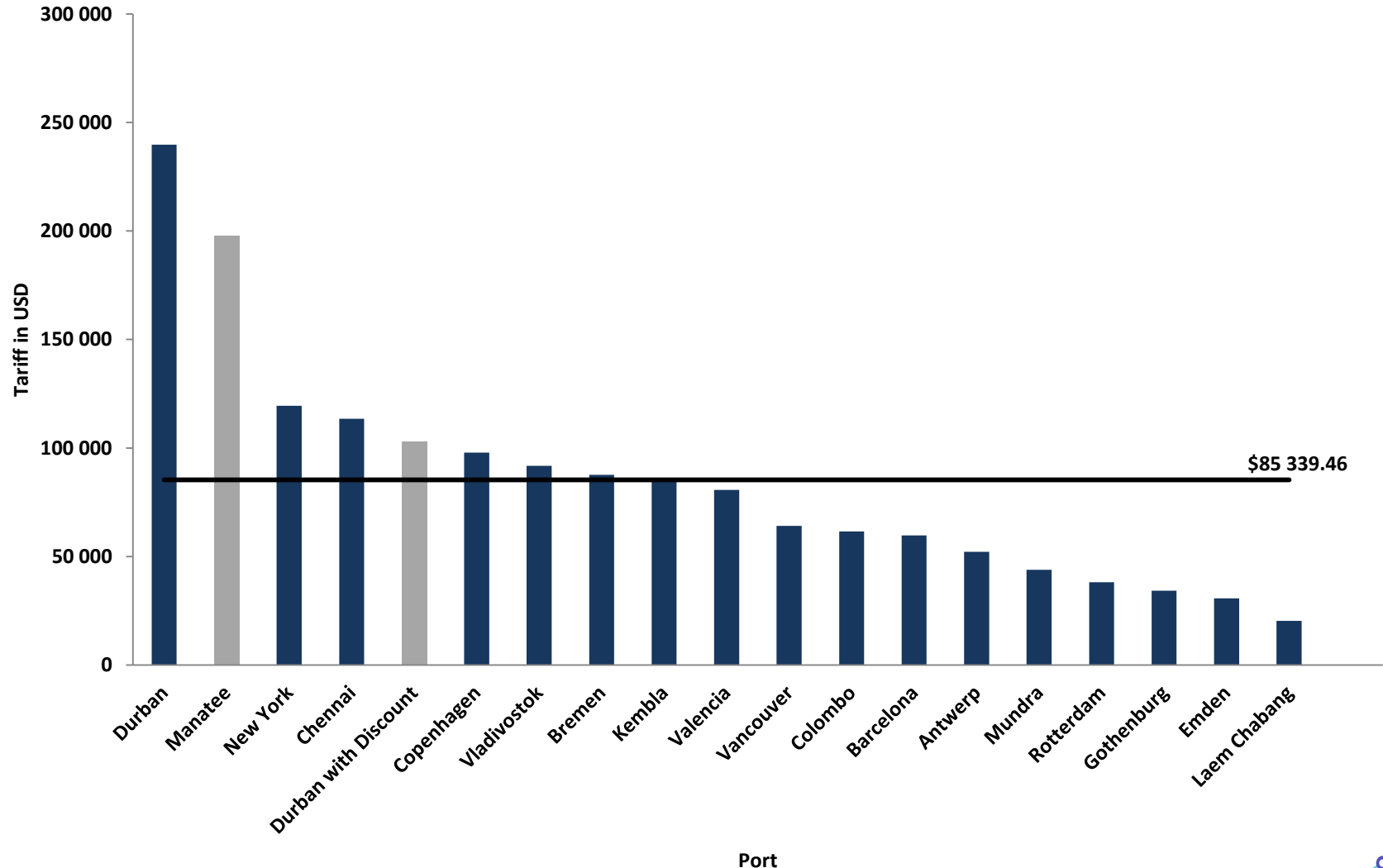
Vessel costs remain relatively cheaper

- All vessels face much lower overall costs in RSA ports than the averages in the study, ranging from 32% below the global norm in the case of containers and 75% for iron ore
- real price decrease in the 2013/14 tariff year resulted in a relative increase of the discount to the global average.
- The depreciation of the South African Rand by 16.7% for the period also contributed to the decrease in the dollar price.
- The incidence of the tariff clearly indicates that foreign users of the ports are not contributing to the overall infrastructure costs in a similar manner than they do in the global average.

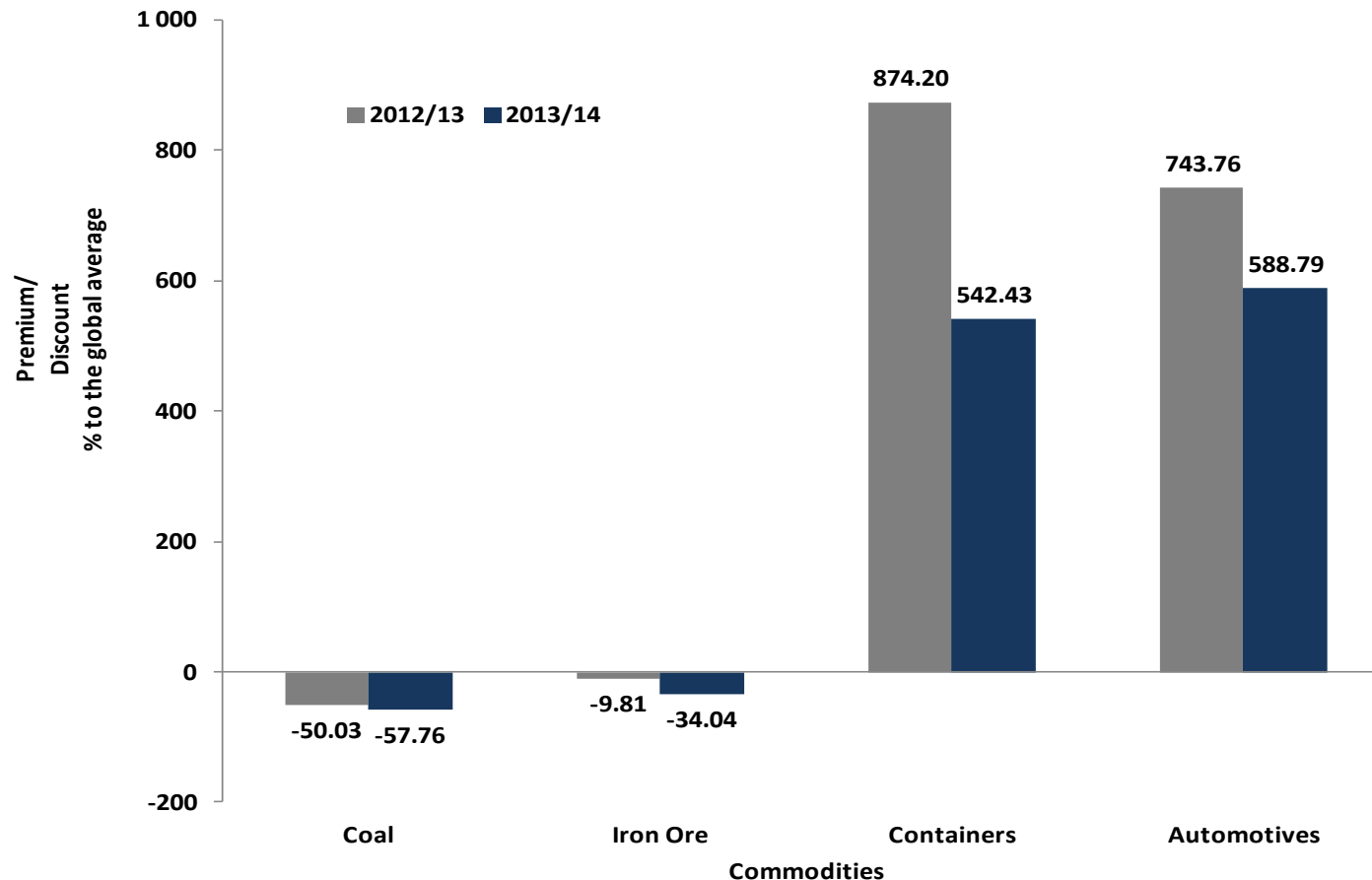
Vessel costs remain relatively cheaper



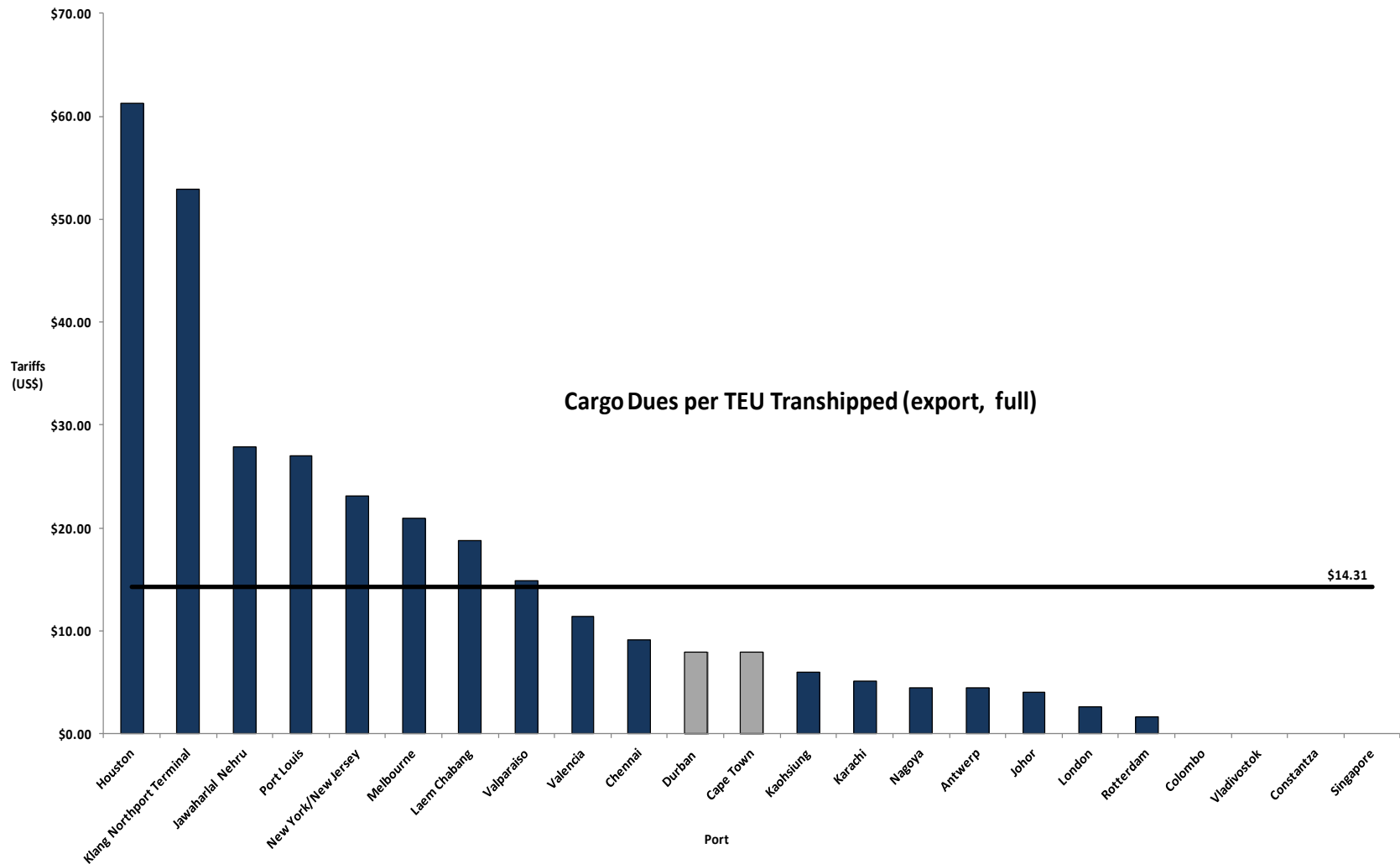
Ro-Ro tariffs remain high



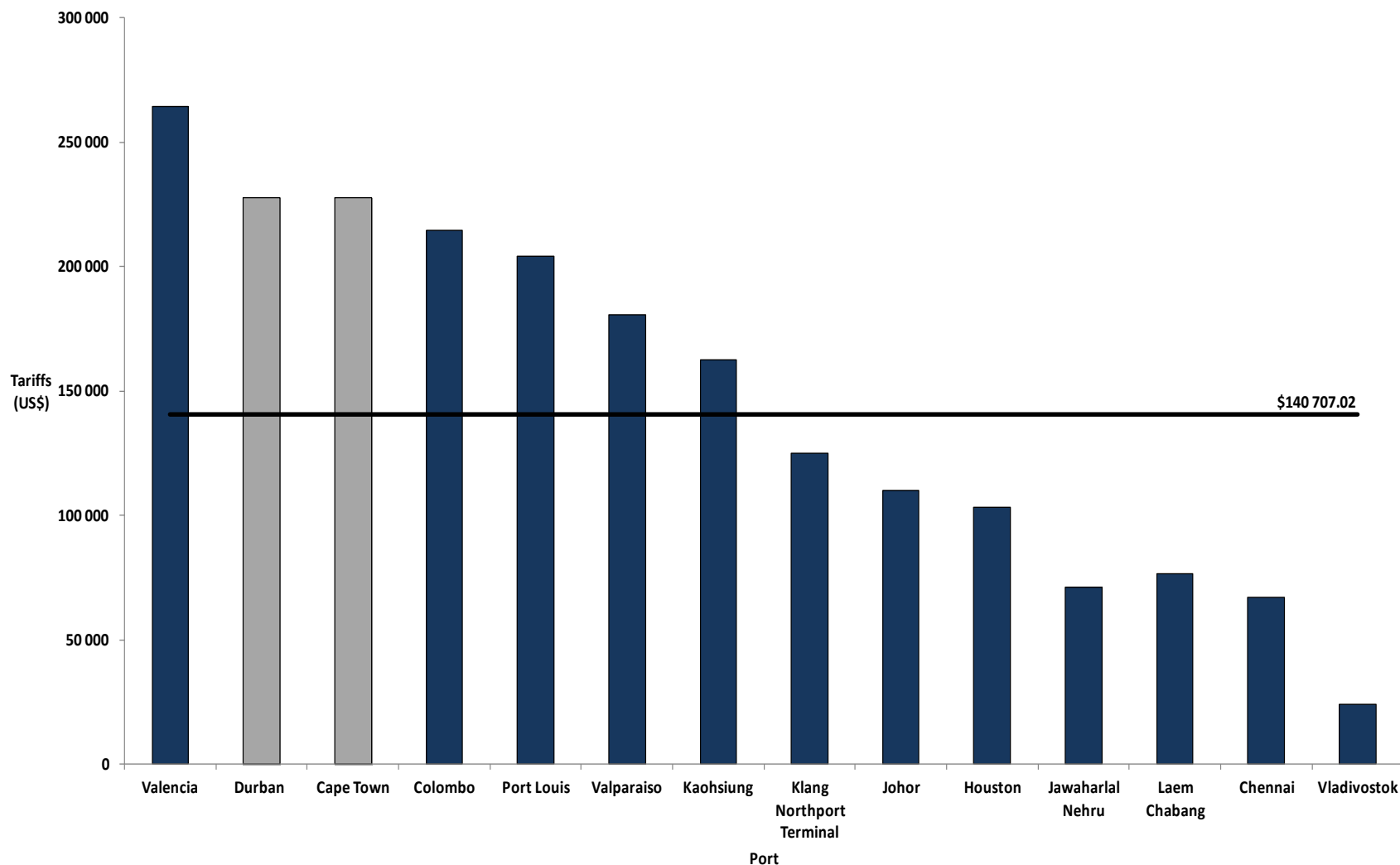
Containers and Ro-Ro subsidising bulk



Transshipment below global average



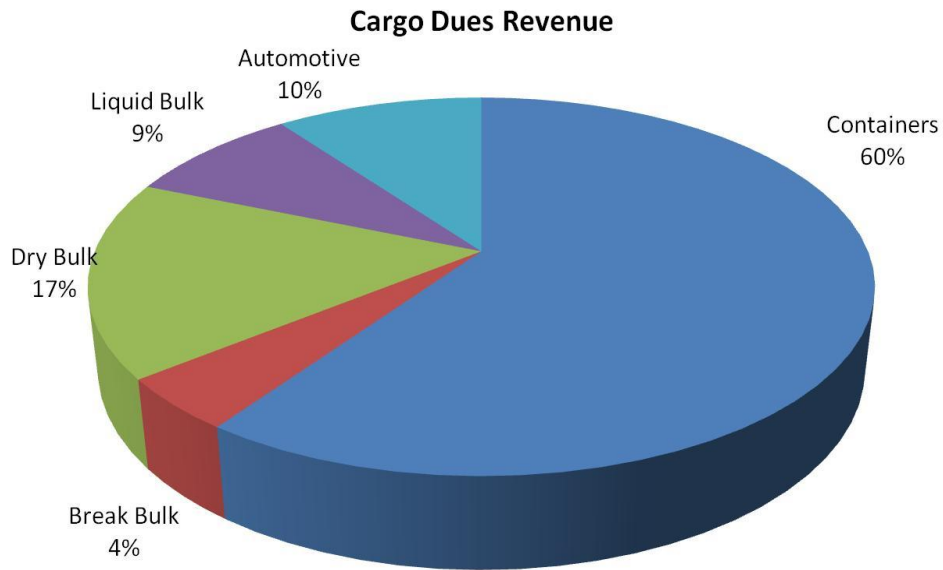
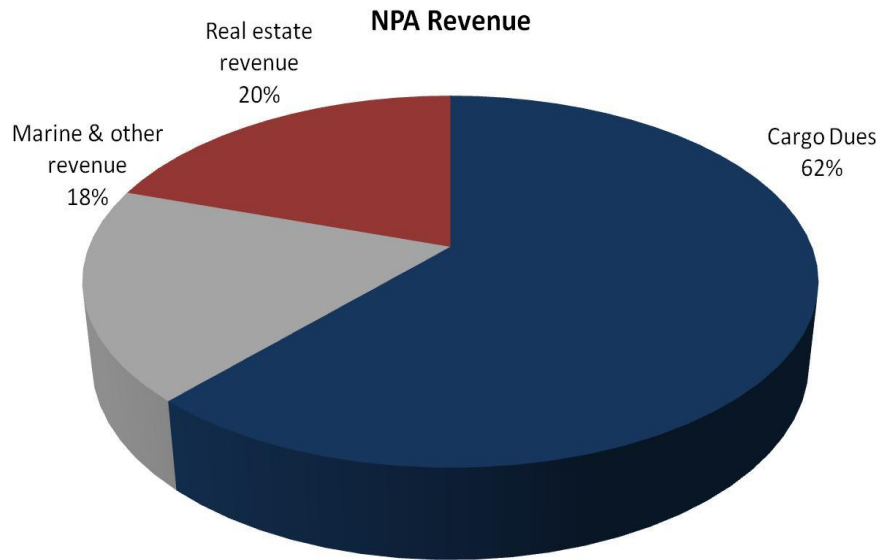
TPT tariffs remain high



What can we conclude from this?

- High levels of cross-subsidisation in the port system remain a concern.
- The Regulator has started to adjust the tariff book within the parameters of the Revenue Required methodology applied in the tariff setting process.
- This has started to bring about some normalisation- much more is required.
- South African “Free on Board” (FOB) export and “Cost, Insurance and Freight” (CIF) import predominance in concluding international trade contracts ensuring that the bulk of the port charges liability lies with the South African party, South African container cargo owners continue to carry the greatest burden of the transaction.

What can we conclude from this?



- Significant contribution to tariff book revenue (60% of all Cargo Dues revenue comes from container cargo dues)-carry the bulk of the infrastructure costs, while also paying greater premiums over global averages than foreign cargo owners transshipping through South African ports.
- Vessel owners costs below the global average
- Dollar terms discounts increased as a result of the depreciation of the South African currency and will arguably support the dollar price of South African port prices for the foreseeable future.

Ke ya leboga

Ke a leboha

Ke a leboga

Ngiyabonga

Ndiyabulela

Ngiyathokoza

Ngiyabonga

Inkomu

Ndi khou livhuha

Thank you

Dankie

Go to <http://www.portsregulator.org> for documents including Records of Decision, Regulatory Manual, consultation submission and reports and other useful documents

