Global Pricing Comparator Study

GPCS

2016/17

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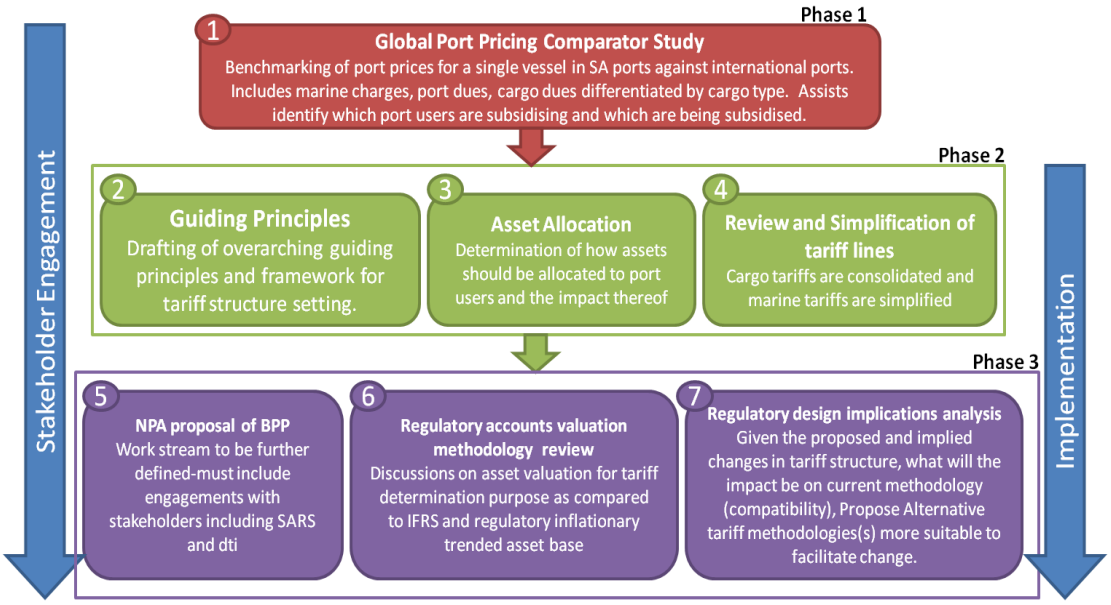
1. Abstract

The Ports Regulator of South Africa (the Regulator), established by Section 29 of the National Ports Act, 12 of 2005 (the Act), is mandated to, amongst others, "exercise economic regulation of the ports system in line with government's strategic objectives." As an integral part of the development of the regulatory environment, and in turn the ports sector of South Africa, the Regulator has developed and published a Tariff Strategy for the ports system which aims to correct the historic anomalies and imbalances present in the port tariff structure. The Tariff Strategy, published in July 2015, seeks to establish cost-reflective tariffs in the SA port system over the next ten years and progressively eliminate unfair cross-subsidies. It is important to note that the Global Pricing Comparator Study (GPCS), which the Regulator has been undertaking since 2013 and is deemed phase one of the regulatory process, has played a vital role in guiding the direction of regulation in South Africa. As set out in the Tariff Strategy, the GPCS and the results thereof, have formed a foundation for phase two of the regulatory process; the Asset Allocation and the Review and Simplification of Tariff Lines (as depicted in the Image below).



The Global Pricing Comparator Study is in essence a benchmarking of port prices for a single vessel in South African ports and includes marine charges, port dues, cargo dues (differentiated by cargo type).

This is the fifth update of the GPCS reviews tariffs for 2016 (the first reports were published in 2013 reflecting 2012 tariffs), and it continues to confirm the overall results of previous iterations of this study. Furthermore, the impact of regulatory intervention in the port sector is becoming increasingly clear as the overall structure of the South African port pricing system has, on a relative level, changed since the inception of regulation. However, despite large decreases in container cargo dues and export automotive prices (as announced in the Ports Regulator's 2013/14 Record of Decision) as well as relative

changes in marine services and dry bulk commodities prices in the following years, imbalances in the system still remain (the largest change is arguably reflected in the lower total port costs facing automotive importers and exporters with only a 7.06% premium over the global sample down from 246% in 2012-mostly as a result of the equalisation of roro volume discounts). The results indicate that price imbalances between SA ro-ro prices and the global sample average are gradually changing and making SA more competitive. The GPCS is a useful barometer of SA port pricing competitiveness and serves to note improvements or setbacks annually, as well as provides a measure of the impact of regulatory pricing decisions.

Although improvements to the tariff structure in the years preceding the implementation of the Tariff Strategy have been noted (since the first version of this report was completed), cargo owners still face a 182% premium in 2016/17, although down from a premium of 267% to the global sample average in 2015/16. Whilst vessel owners face costs notably below the global average (-26% in 2012/13, -32% in 2013/14, -42% in 2014/15, -44% in 2015/16 and -38% in this year), users in container ports are still faced with a premium of 117% above the global sample average unchanged from 117% in the previous year. The report further confirms that bulk commodities are being charged total port costs that are much lower than the global sample averages.

The Global Port Pricing Report, for the first time, reflects the tariff trajectory envisaged by the tariff Strategy by including a “tariff strategy tariff” (in essence the current value of a fully implemented Tariff Strategy which is a ten-year process) in the comparisons, not only providing an indication of where tariffs are projected to change to in relation to the rest of the ports used in the sampling, but to enable a clearer view of future costs facing cargo owners as well.

2. Terminology and Methodology

No single port charge can be accurately compared across the world purely by its tariff, its name, or its category. Port pricing structures differ in the various jurisdictions and may even differ within the same port or port system. Within each port jurisdiction, a particular tariff structure is used, largely based on the history of that port system, the country's development, its transport policy, and its economic policy. Therefore, the only meaningful comparisons in such an environment is one which looks at the total costs that are faced by a particular activity which is unitary enough, comprehensive enough, and consistent enough, across all the port jurisdictions.

The most appropriate comparator base for port pricing comparisons in our opinion is a standardised vessel call. This vessel call has a standard vessel, a standard port stay duration, and a standard cargo profile. This method in itself is fraught with inconsistencies such as the differences in efficiency between ports that would ordinarily either lengthen or shorten a port stay depending on the port, which in turn has ramifications for the time related port charges. To prevent too convoluted an approach that requires too many assumptions and adjustments that are in themselves tainted by uncertainty, the vessel calls have been standardised for the purposes of this study. This would render some foreign ports slightly more expensive than they would otherwise be. It is however important to note that some aspects of what contributes to the total makeup of the port cost structure was not included. These include the charges between cargo owners and their service providers (document fees etc.) and taxes on activity other than the specific port related activity, amongst others. This methodology was again followed in the 2016/17 iteration of the study to retain consistency in the results.

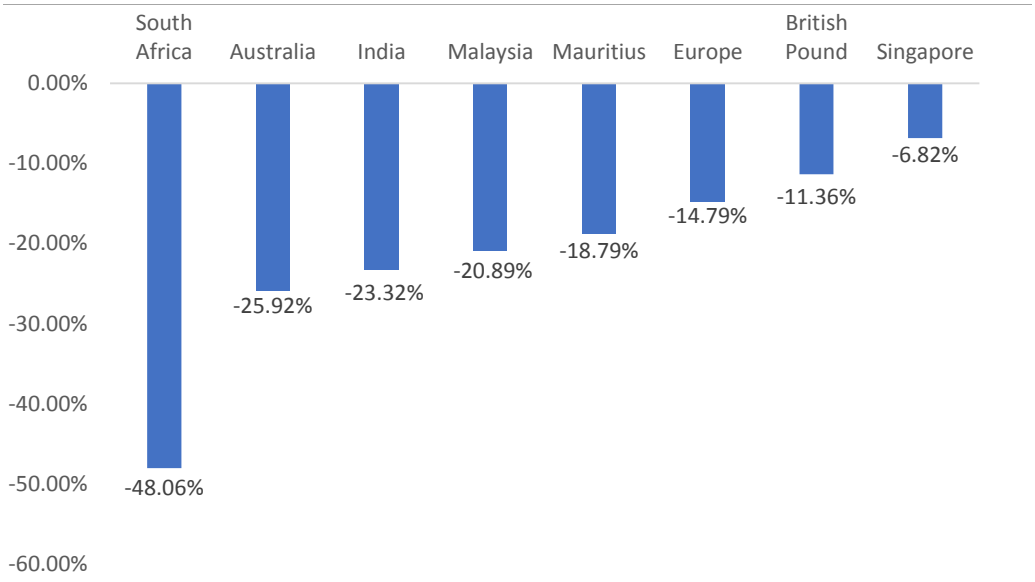
It is important to note that while corrections to the data and improvements to the methodology are applied retrospectively as information becomes available, they did not however have a meaningful impact on the results of the previous study and the broad outcomes remain. Further, it is important that the magnitude of the deviation from a global sample average must be considered together with the relevant change experienced from year to year. In addition, currency fluctuations impact on the results and as such, using a standard US dollar price in the methodology will capture any exchange rate benefit or loss on the side of the user. The Ports Regulator Global Price Comparator for 1 April 2016 represents an assessment of the global pricing context for ports with respect to a defined list of commodities, and contextualises South African port pricing in this global context and compares it to the results of the previous three years.

The study is based on publicly available information and only focuses on the level of charges that are faced by third party service users without "special" pricing arrangements. Annexure A outlines underlying assumptions in the study related to the unitary vessels used for the different cargo types.

3. Exchange Rate Impact

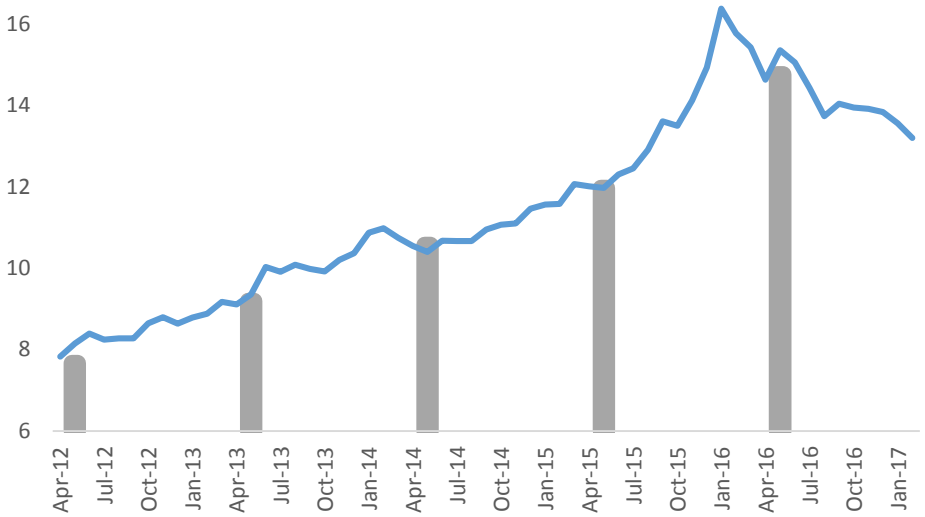
As in the previous report, the continued depreciation in the value of the South African Rand (ZAR) against the US Dollar (USD) has had a significant impact on port pricing in South Africa. In simple terms, the study reflects a comparison of port prices in USD, i.e. all prices are converted to USD before being compared to each other. A depreciation of the ZAR against the USD, as was experienced with a 23.39% depreciation from April 2015 to April 2016 and a 48.06% depreciation from the sample date in 2012 to April 2016, implies a lower USD price as the South African tariff book is published in ZAR. Whilst other ports in the comparator have also realised changes in value against the USD, the changes in most cases were less pronounced, for example the Euro only depreciated 14% over the period April 2015 - April 2016.

Figure 1: Growth rates against USD over period for selected countries



The overall impact of the weakening ZAR effectively renders the South African ports as “cheaper” in USD. Whilst this provides a clear benefit to shipping lines and export buyers, the South African cargo owner is still required to pay in ZAR and the results may thus underestimate the impact on domestic cargo importers.

Figure 2: South African Rand vs. US Dollar



With the depreciation of the ZAR continuing in the latter part of 2015, the impact of the lower currency will continue to hide the real costs to foreign entities in South African ports. The buffer provided by the depreciated ZAR further provides some shielding to these ship owners as the published Tariff Strategy seeks to rebalance the tariff book that will necessarily see their tariff book line item be adjusted upwards as 'cost and use' reflected tariffs are implemented.

Looking forward, the recent appreciation in the currency against the USD will see a stronger Rand-Dollar exchange rate reflected in the next iteration of the report, resulting in a slightly weaker tariff position in the global sample for shipping lines (all else being equal).

4. Decreasing Port Costs on Containers

The results of this study, similar to the results of previous versions of this study, indicates that containers are still significantly more expensive than the global sample average. However, this isn't applicable to foreign cargo owners transhipping through South African ports with cargo dues at a discount of 60% to the sample average, mainly due to changes in relative prices as well as the exchange rate impact. In total, container costs including terminal handling charges are still 88% above the sample global average significantly down from the 190% recorded in last year's report.

Figure 3: Total Port Costs including Terminal Handling Charges for Containers per Ship

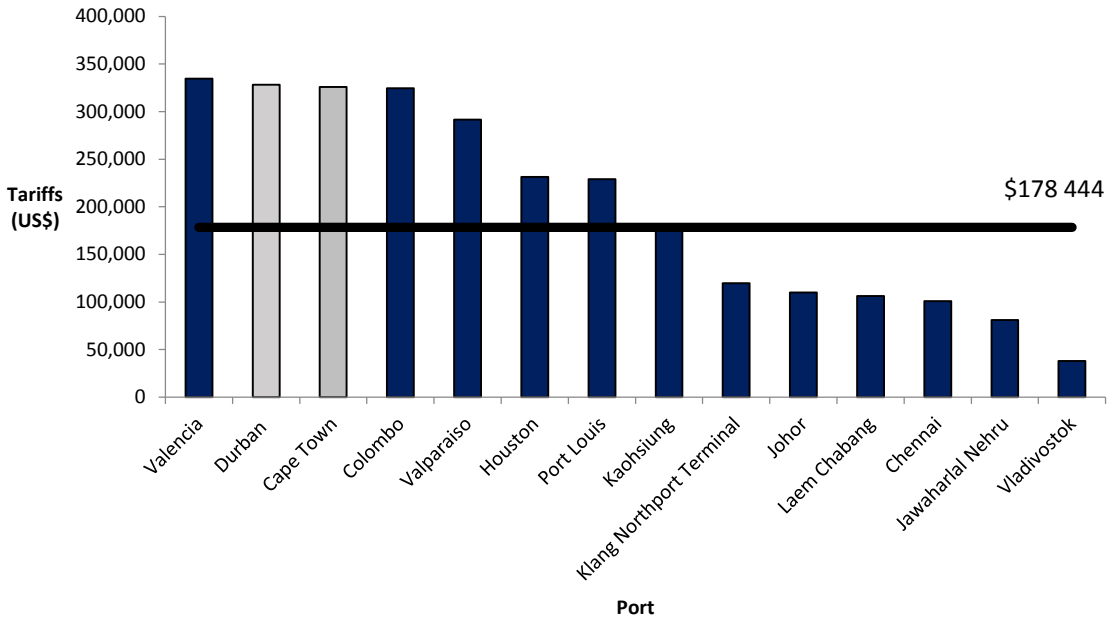
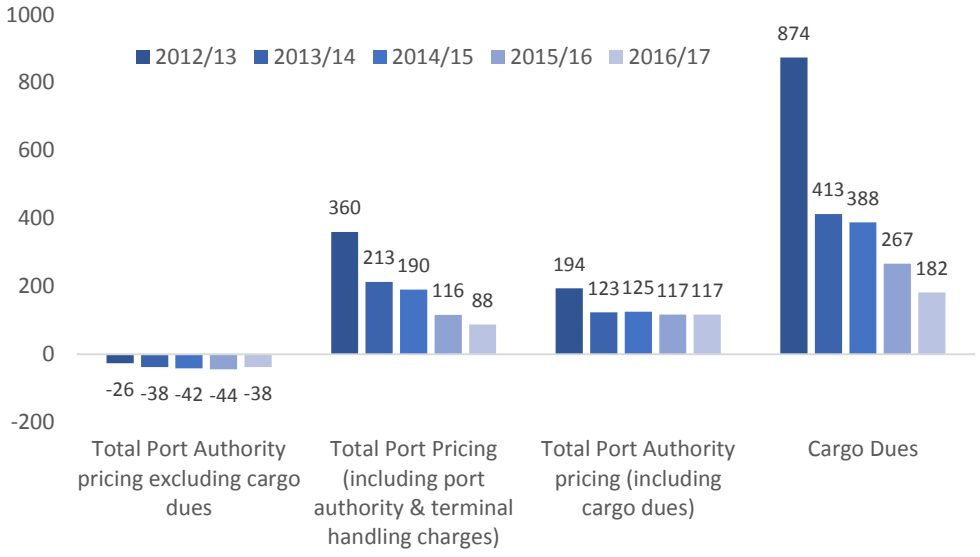


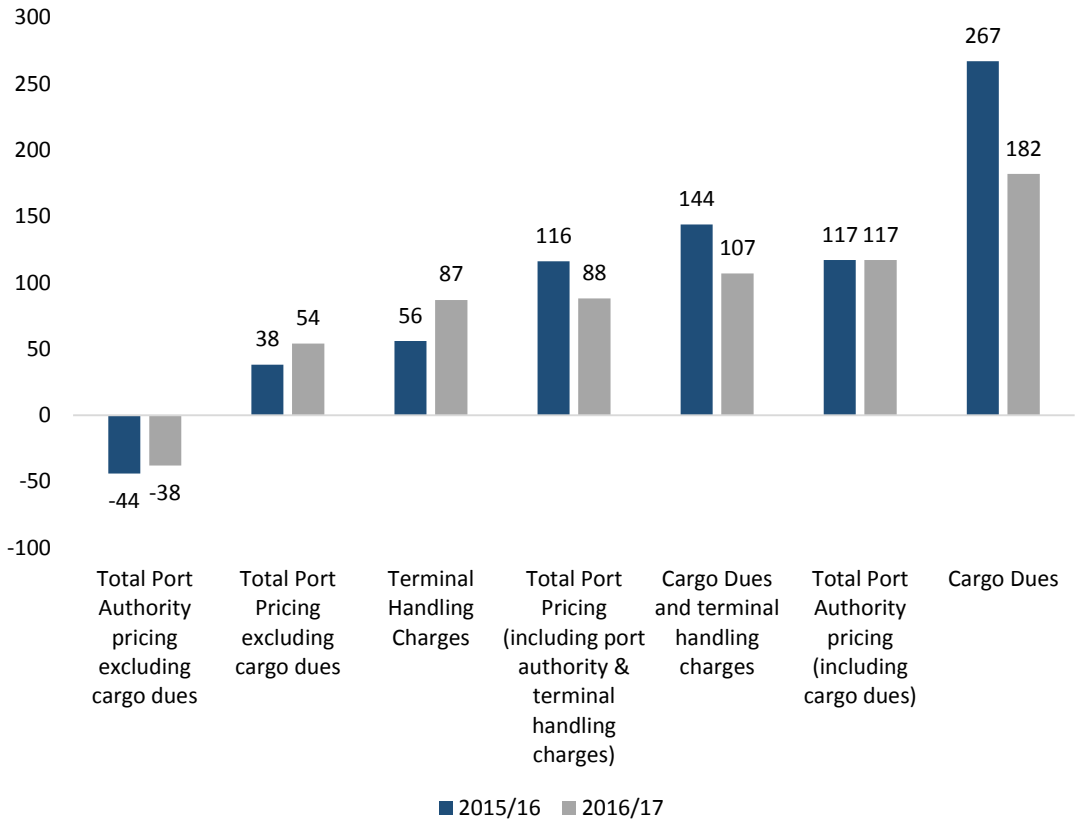
Figure 4 below reflects that cargo owners, through cargo dues payable, faced a premium of 182% in 2016/17 compared to a premium of 874% to the global sample average in 2012/13. The recalculated number for 2013/14 (all historical data is checked and updated on an annual basis, as information becomes available) resulted in a recorded premium to the global sample average of 413% and 388% in 2014/15. While vessel owners face costs below the global sample average (-26% in 2012/13, -37.75% in 2013/14, -42% in 2014/15, -44% in 2015/16 and -38% in this year), the total NPA costs in container terminals is still considered high at 117% above the global sample average.

Figure 4: South African Container Port Costs (as deviation from the sample global average)



If terminal handling charges are to be taken into account (see Figures 3 and 4), total port costs (including terminal handling charges for container owners) go down from 360% above the global sample average in 2012/13 to 213% in 2013/14, 190% in 2014/15, 116% in 2015/16, and finally 88% in 2016/17. Although dramatically lower, these costs still remain significant. Furthermore, the potential cross-subsidisation between "manufactured goods (containers and automotives) and bulk commodity exports remains evident as confirmed by Tariff Strategy and the deviations that exists as per the base rates published in the Regulator's last two ROD's. The impact of the reduction of 43.3% and 14% in export and import container cargo dues in 2013/14 has moved the South African tariff closer to that of the global norm with no real (inflation adjusted) increase (0%) in cargo dues (nominal of 5.9% in 2014/15). Similar changes in this tariff year further contribute to the slight relative shift towards the global sample average. However, these costs still remain excessive as shown in Figure 3 which indicates that the South African ports (Durban and Cape Town) remain amongst the most expensive in the sample despite the sizable reduction in container cargo dues in recent years.

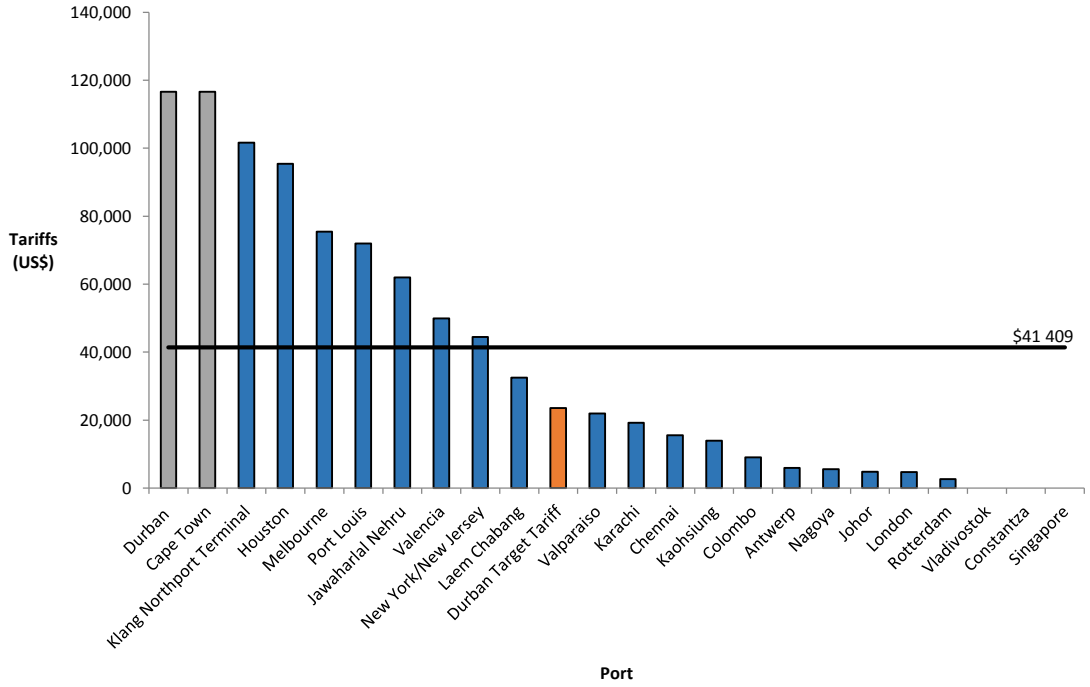
Figure 5: Components of Container Port Costs (as deviation from the sample global average)



The continued imbalances between container vessel costs (see Figure 6 for South Africa's position relative to global ports in the sample related to vessel costs), terminal handling charges, and cargo dues remains a concern, although regulatory intervention over recent tariff determinations has significantly

reduced the imbalances in the tariff structure. Whilst vessel owners, in addition to the already low costs, received an additional discount from the depreciated ZAR, cargo owners had little to benefit in that sense. The inability of the current tariff structure to reflect underlying assets and cost structures of the port system requires a significant shift. Whilst the Regulator has some ability to impact on cargo dues and marine charges and will over the implementation period of the Tariff Strategy address all unfair cross-subsidies (see Figure 6 below) terminal handling charges remains outside of the Regulator's mandate as these are not specific National Ports Authority charges.

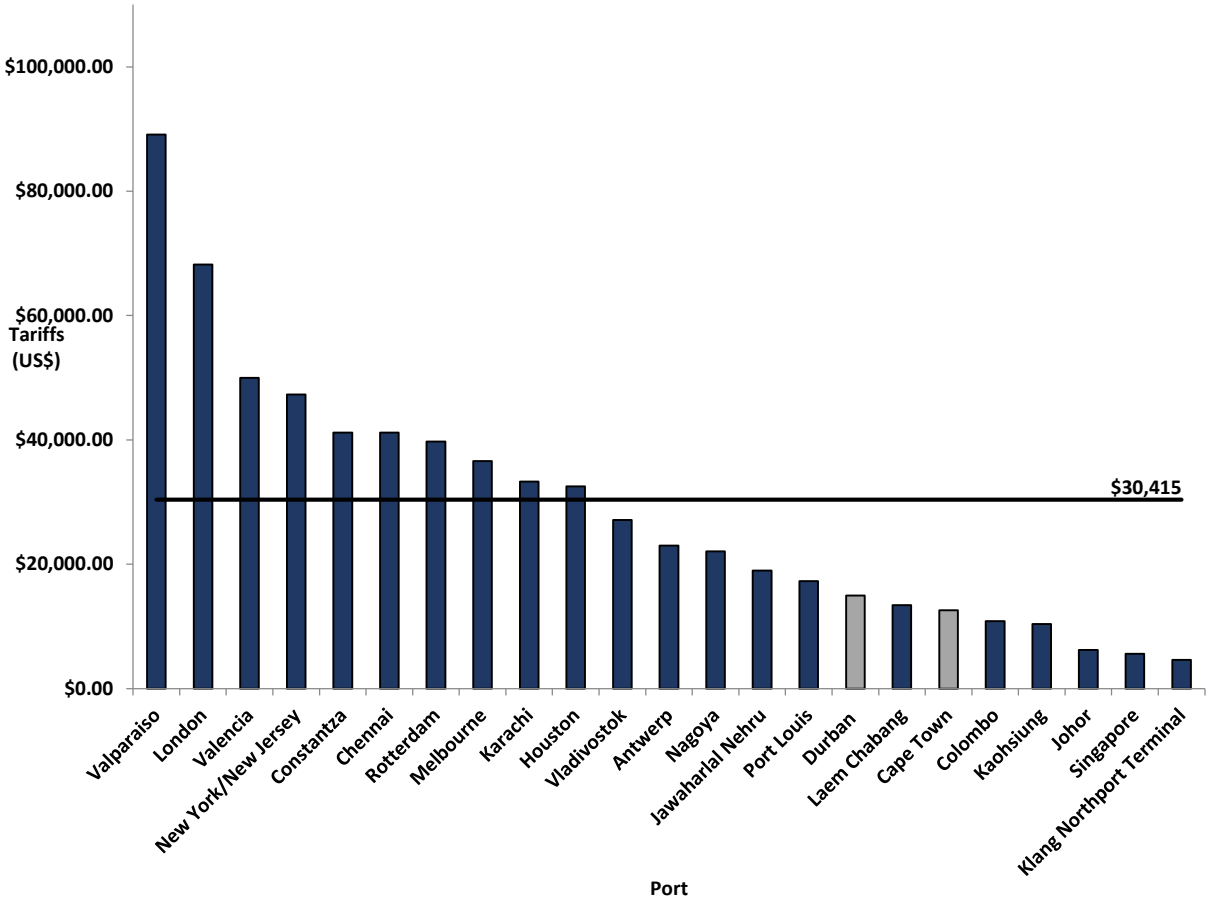
Figure 6: Container Cargo Dues



The above Figure introduces for the first time the impact of the Tariff Strategy on cargo dues. The full implementation of the Strategy over the next ten years will result in cargo dues for containers moving towards a cost reflective price relative to the South African market (See item marked 'Durban target tariff' in Figure 6). Whether this cost reflective price is above or below the global average is coincidental as all ports around the world have different costs for providing a particular service. Where the global average is useful as a benchmark, it is useful in monitoring the expected trajectory of tariffs for South African ports over time.

Container cargo dues for 2016 are currently 182% above the global average which has come down from 267% in 2015/16, indicating a downward trajectory in tariffs. At full implementation of the Tariff Strategy, container cargo dues will be 43% below the global average.

Figure 7: Container Vessel Costs



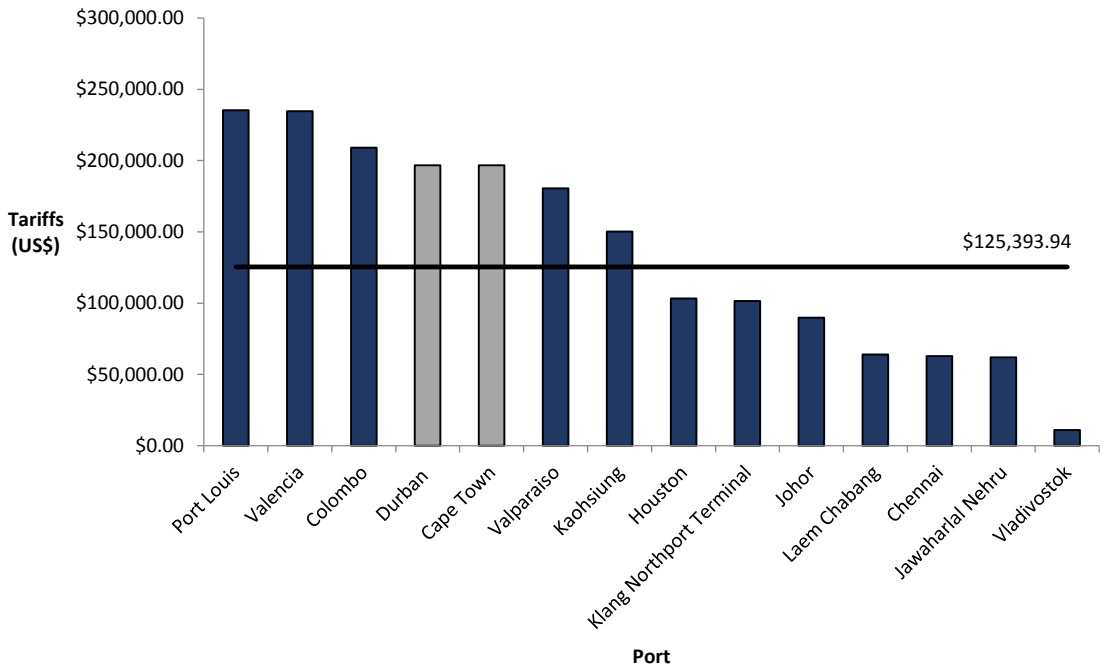
By contrast to persistently high container cargo dues to the SA importer vs. exporter container vessel costs to shipping lines remains well below the global sample as can be seen in Figure 7. The relative strength of the USD vs. the ZAR has played a part in the reduced SA vessel costs compared to the global sample, in particular with the developed countries.

5. Terminal Handling Charges (Container Terminals)

The depreciation of the ZAR, as well as currencies belonging to most developing country over the course of the past year, the USD cost in terms of port tariffs has been significantly lowered; this includes terminal handling charges, cargo dues, and container handling charges.

Cargo owners are usually required to pay their tariffs in ZAR, however, at an average in excess of $234 000, container handling charges (per unitary sample vessel) in South Africa remains more expensive than that of the global sample average. On a twenty-foot equivalent unit (TEU) basis, South African terminal handling charges for containers are 87% above that of the global sample average in the Port of Durban. Efficiency levels in container handling remain a concern, but are an area of focus for the current implementation of the NPA's Terminal Operator Performance Plan (TOPS). Furthermore, the Regulator has introduced an operational efficiency incentive into the Tariff Methodology for the period 2018/19 – 2020/21 called the Weighted Average Gains from Operations (WEGO), the intention of which is to increase overall efficiency within the port system.

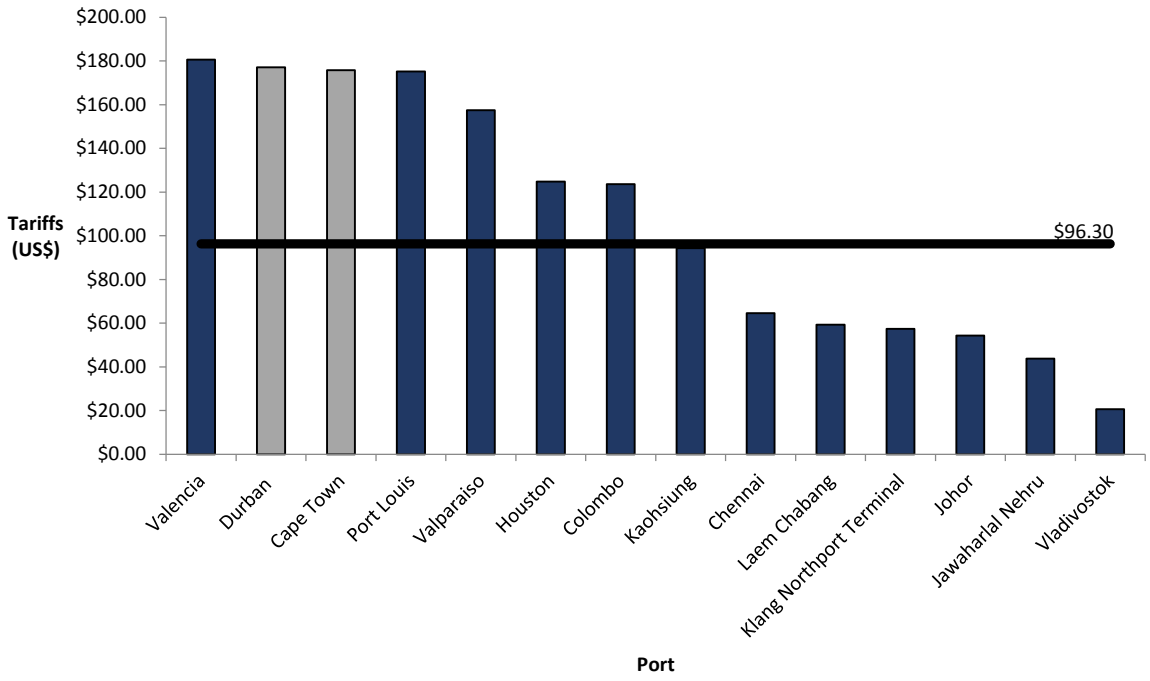
Figure 8: Terminal Handling Charges by Port



The data clearly indicates that South African cargo owners face significantly higher costs than that of the sample average, despite the shielding of the USD effect in this report. With the bulk of South Africa's manufactured goods arguably exported through containers, high costs are clearly contradictory to current industrial policy which aims to incentivise value addition, broadening of the manufacturing base, as well as increasing manufactured exports.

Whilst tariffs for marine service remain below the global sample average (as depicted in Figure 4 (Total Port Authority pricing excluding cargo dues)), with container vessels facing costs approximately 50% below the global sample average, terminal handling charges together with cargo dues significantly contribute to above average overall prices. Figure 9 below illustrates the below average costs faced by a container vessel in a South African port; this is with a comparison of the Port of Durban where terminal handling charges have been included and recorded a slight decrease in the average from $97 to $94 per TEU and a decrease from $220 to $205 per TEU for the Port of Durban between years 2012/13-2016/17.

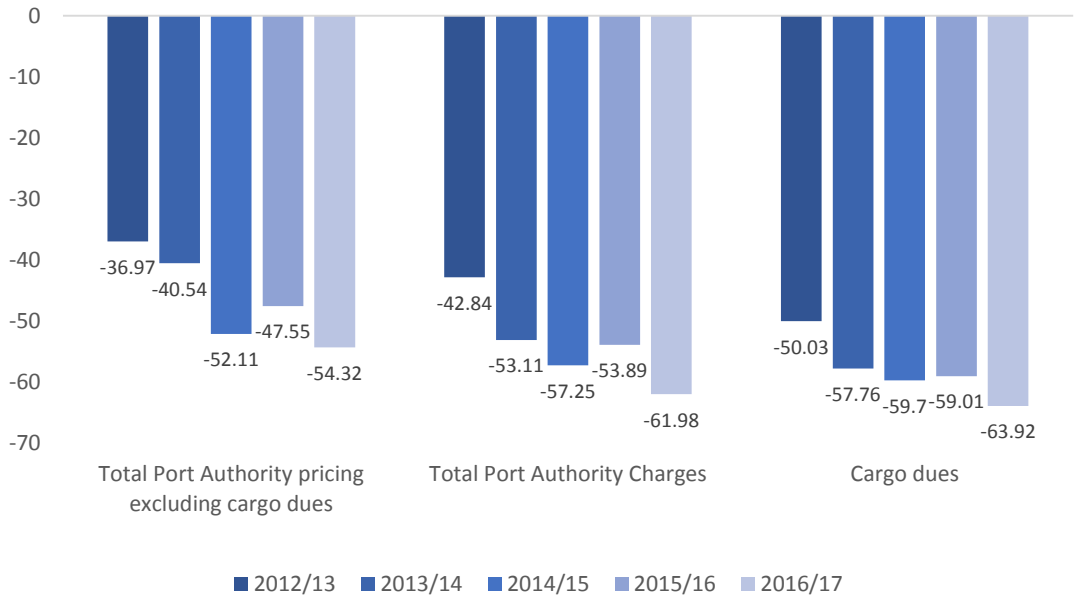
Figure 9: Total Port Costs including Terminal Handling Charges per TEU



6. Port Costs on Dry Bulk Commodities Remain Lower than the Global Sample Averages

Although bulk commodities are faced with lower than global average total port costs, they have moved slightly closer to the global average for two reasons. Firstly, the move is a result of lower port prices in some of the commodity exporting countries, and secondly due to the depreciation over the last year in commodity exporting economies due to the global pressure on commodity prices. For example, the Australian dollar has depreciated 25.92% over the last year, following the trend for commodity exporting currencies. Coal (Richards Bay) and iron ore (Saldanha Bay) were found to have faced total port costs 61% and 52% below the global sample average respectively. The cargo dues faced by cargo owners are 63% and 45% below the global norm for coal and iron ore respectively.

Figure 10: South African Coal Port Cost (as deviation from the sample global average)



The zero percent tariff change in 2013/14 for both cargo dues and marine services resulted in a real decline in dry bulk port prices. However, a slightly above-inflation increase for both iron ore and coal cargo dues, as well as for marine charges (8.5% increase), and a lower relative USD based tariff change in the global sample, were not fully offset by the weakened rand with the resultant deviation moving closer to the global sample average. This in turn indicates slightly higher relative price levels in the South African port system.

Cargo dues facing coal owners have moved marginally further relative to the global sample average from a discount of -50.03% in 2012/13, -59.01% in 2015/16 and -63.92 in 2016/17. A similar pattern has emerged in the iron ore sector (see Figure 14) with iron ore cargo dues moving to –45% below the sample global average and total port costs for iron ore from –31.85% in 2012/13.

Figure 11: Coal Cargo Dues by Port per Standard Ship

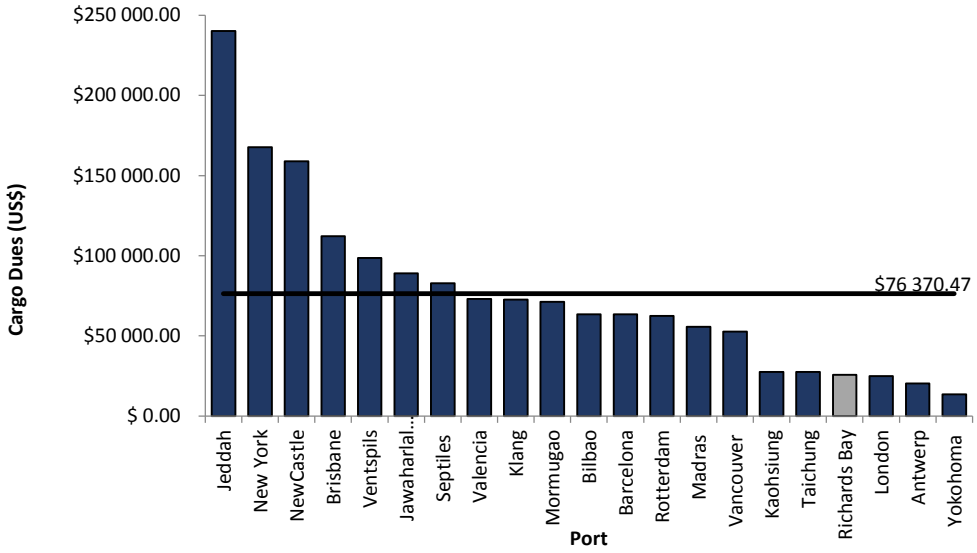
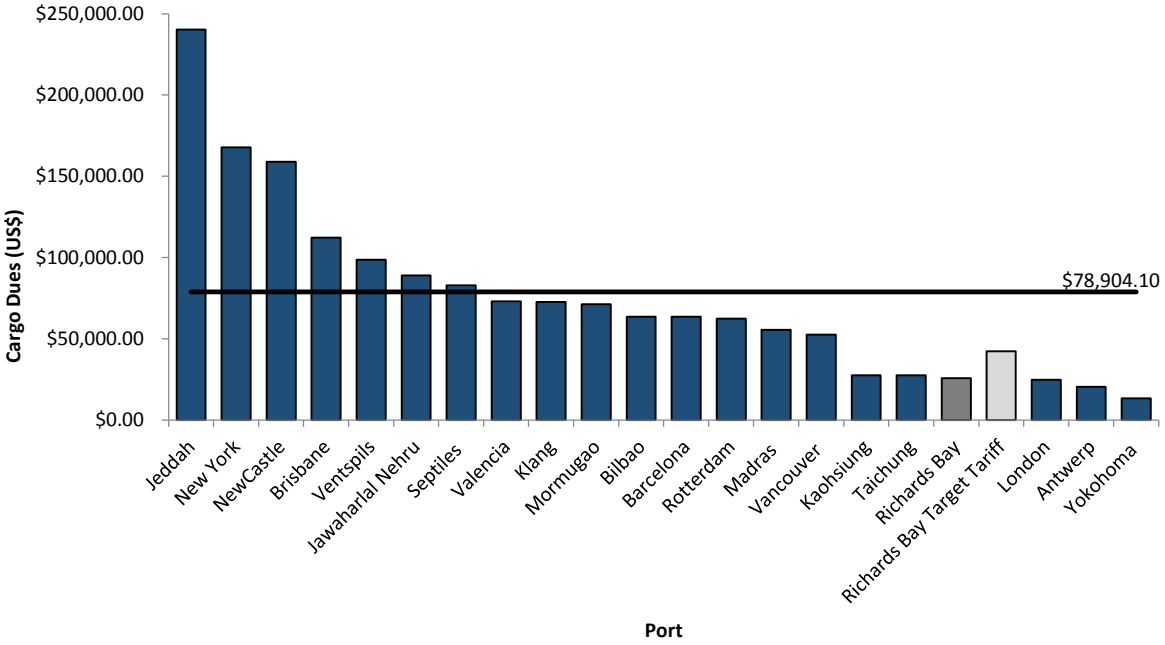


Figure 12: Coal Cargo Dues and the Expected Impact of the Implementation of the Tariff Strategy



The above Figure reflects the expected impact of the Tariff Strategy on coal cargo dues after full implementation of the Tariff Strategy over the next ten years will result in cargo dues for coal being charged at the cost reflective price.

Specifically, coal cargo dues for 2016 have been recorded as being 65% below the global average, this is lower than the 45% below average recorded in 2015/16, and in turn indicates a downward trajectory of tariffs. At full implementation of the Tariff Strategy, iron ore cargo dues are to be 46% below the global average.

Figure 13: Richards Bay Port Tariffs

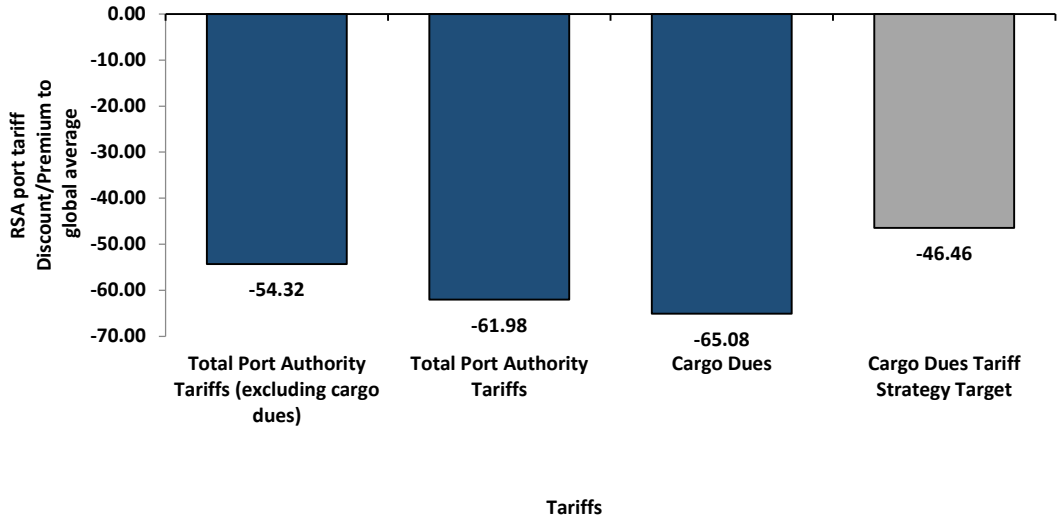
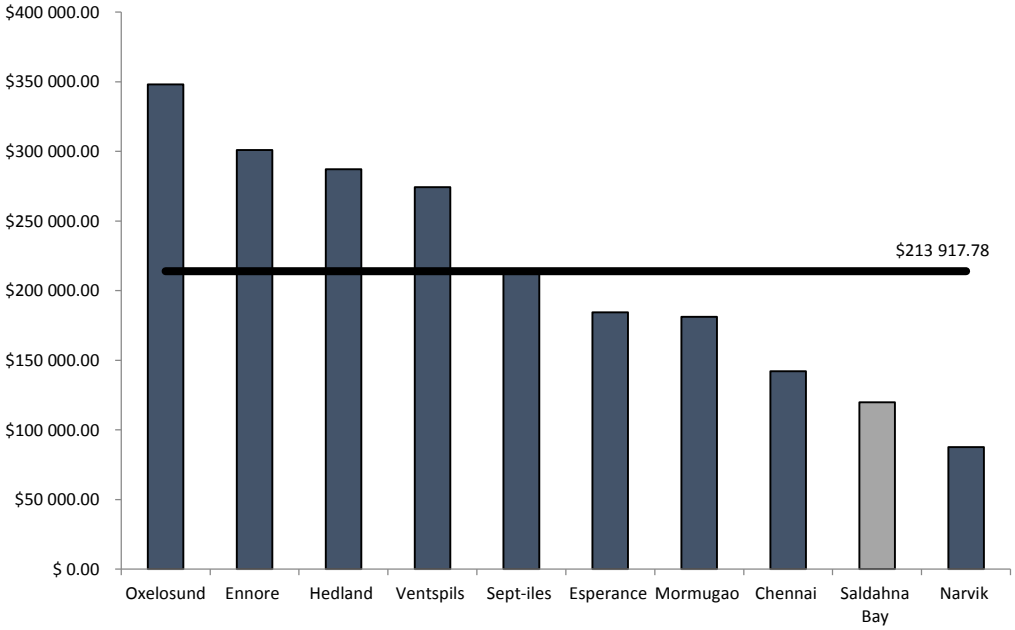
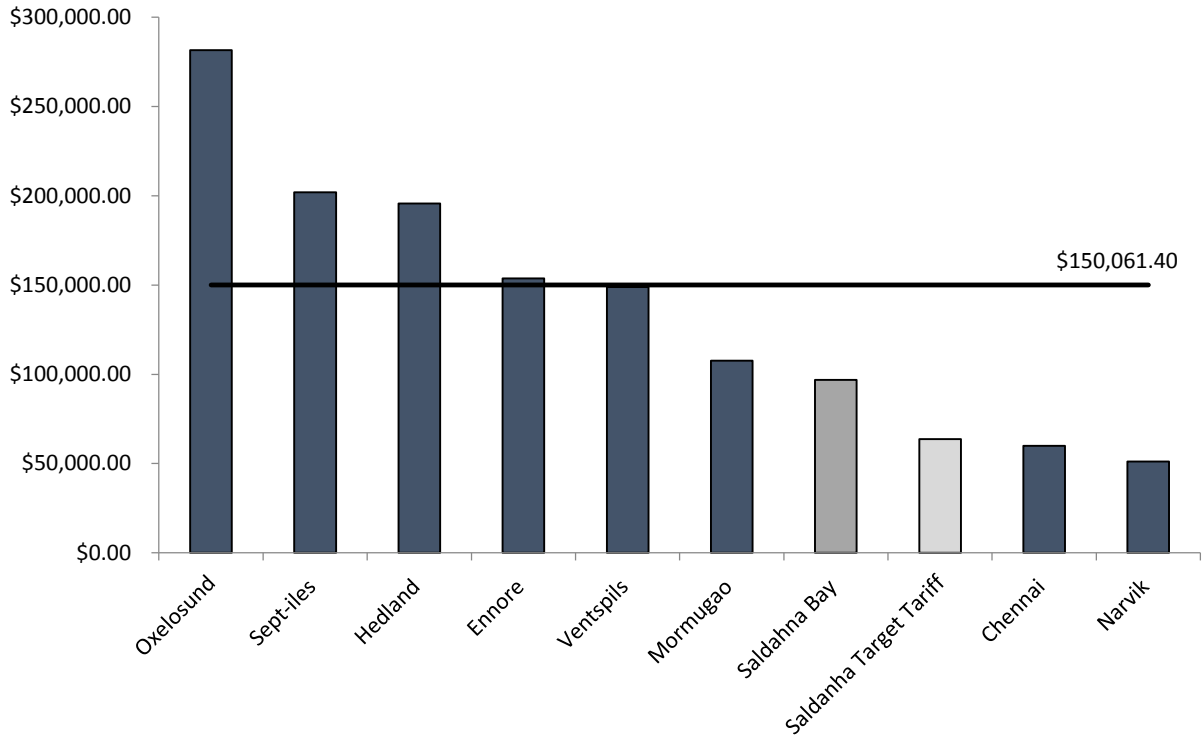


Figure 14: Iron Ore Cargo Dues per Port per Standard Ship



Iron ore cargo dues have recorded a discount -44% to the global average when being compared to vessel costs discounted at -72%. Whilst both coal and iron ore have again recorded relative differences in the total port pricing structure, it is clear that both vessel costs as well as cargo dues remain well below the global average.

Figure 15: Expected Impact of the Full Implementation of the Tariff Strategy on Iron Ore Cargo Dues



Iron ore cargo dues for 2016 are currently 35% below the global average. This has come down from 59% below the global average in 2015/16, in turn indicating a downward trajectory in tariffs. At full implementation of the Tariff Strategy, coal cargo dues are to be 46% below the global average.

Figure 16: Saldanha Bay Port Tariffs Premium / Discount to Global Sample

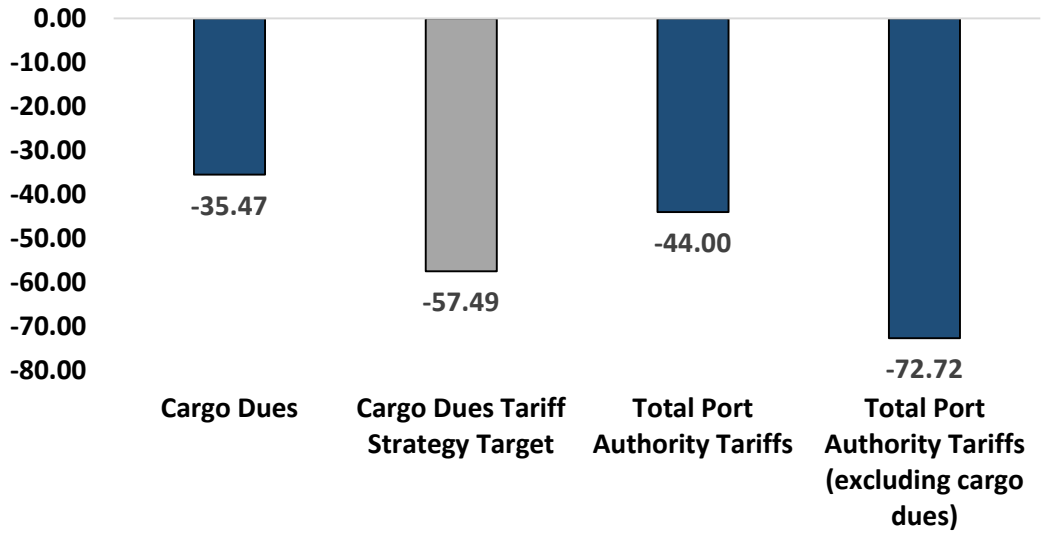
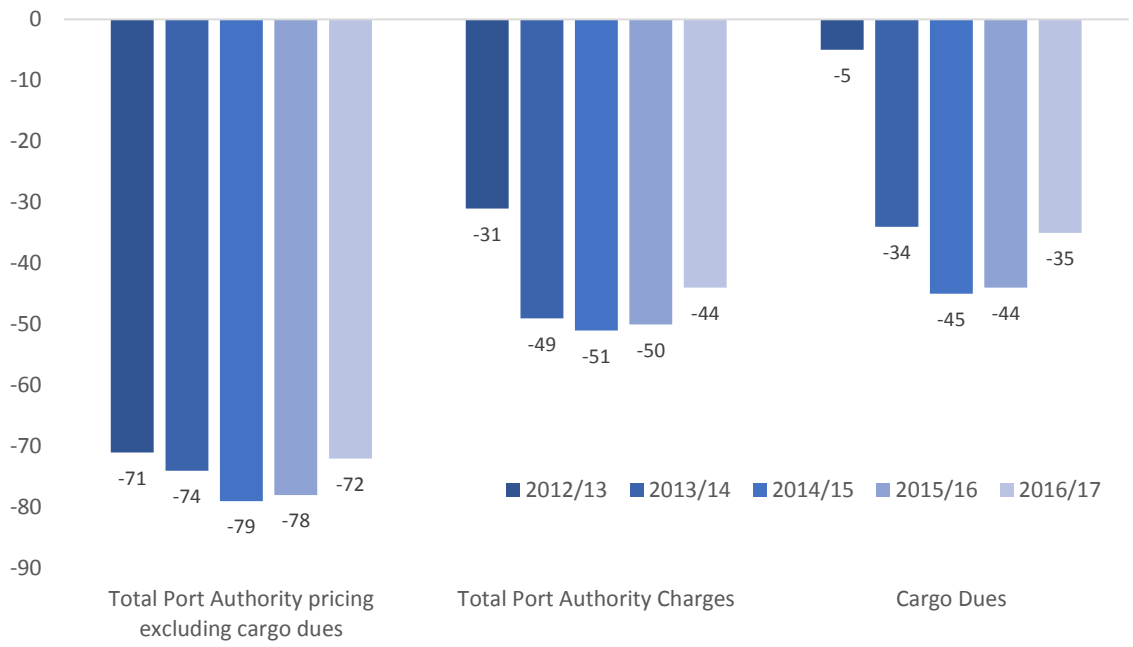


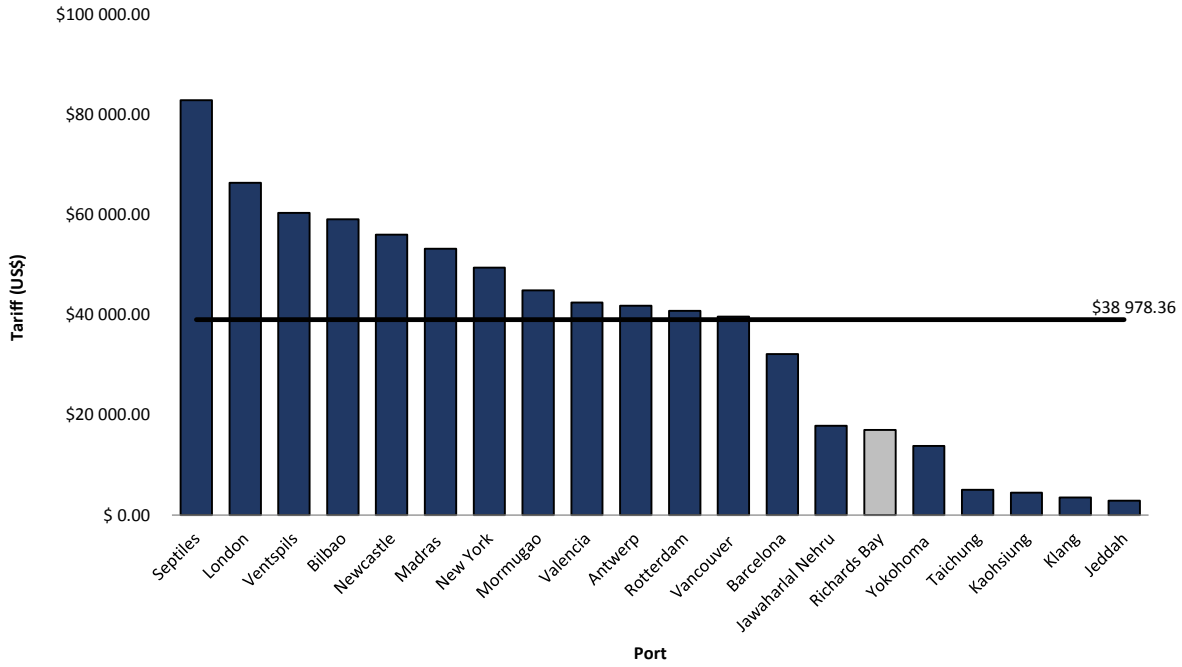
Figure 17: Iron Ore Port Pricing Components (as deviation from the sample global average)



The continued low marine charges faced by bulk cargo owners exacerbate the already low cargo dues on these products. With significant discounts to the global sample averages for pilotage, towage and other port charges, the marine component, supported by the weaker ZAR, remains low and does not reflect the underlying cost structure of the South African ports system, but does indicate significant support through port tariffs for the iron ore mining sector. A more balanced tariff structure will see a marginal decrease in cargo dues, but significant increases in marine services, and will see shipping costs reflect a more cost reflective level over the longer term. Currently however, the weak ZAR does provide a windfall to the shipping industry when visiting SA ports for this sector.

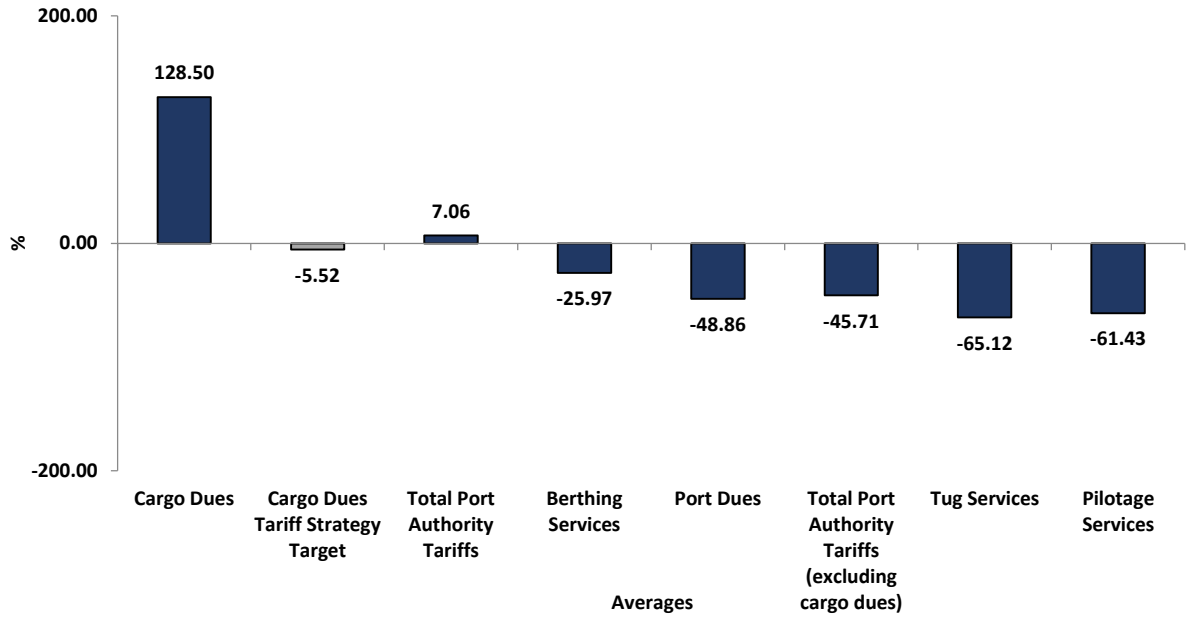
A similar pattern (see Figure 18) is evident in the Port of Richards Bay with below global sample average costs facing vessel owners. Furthermore, Richards Bay ranks seventh out of a total twenty-one ports in the sample when comparing vessel costs and records a discount of 47%. Whilst this places South Africa favourably in terms of global competitiveness, with coal mainly an exported product, some room to increase tariffs whilst not impacting on the competitiveness of the domestic manufacturing sector does exist and will be incrementally addressed with the implementation of the Tariff Strategy.

Figure 18: Port Costs Facing Coal Vessels



7. Automotive Prices Improve

Figure 19: Automotive Port Costs



Similar to the charges in the container sector, vehicles face significant premiums to the global sample average. Total NPA cargo dues for the vehicle sector is still 128.5% higher than the global sample average, however, this is down from a high of 743% three years ago. There has been a 21.1% decrease in export cargo dues in 2013/14, and inflation or below inflation related increases in the previous two tariff determinations has resulted in total NPA charges decreasing to just 7% above the global sample average from 245% in the first year of the study (2012/13). This may be attributed to the exchange rate movements offsetting the slight increase in marine charges and relative movements in sample ports resulting in a higher global sample average, as well as the impact of the removal of the volume discount scheme from the tariff book, resulting in an equalisation of rates at the level previously enjoyed by only the very large manufacturers.

Figure 20: South African Automotive Port Costs (as deviation from the sample global average)

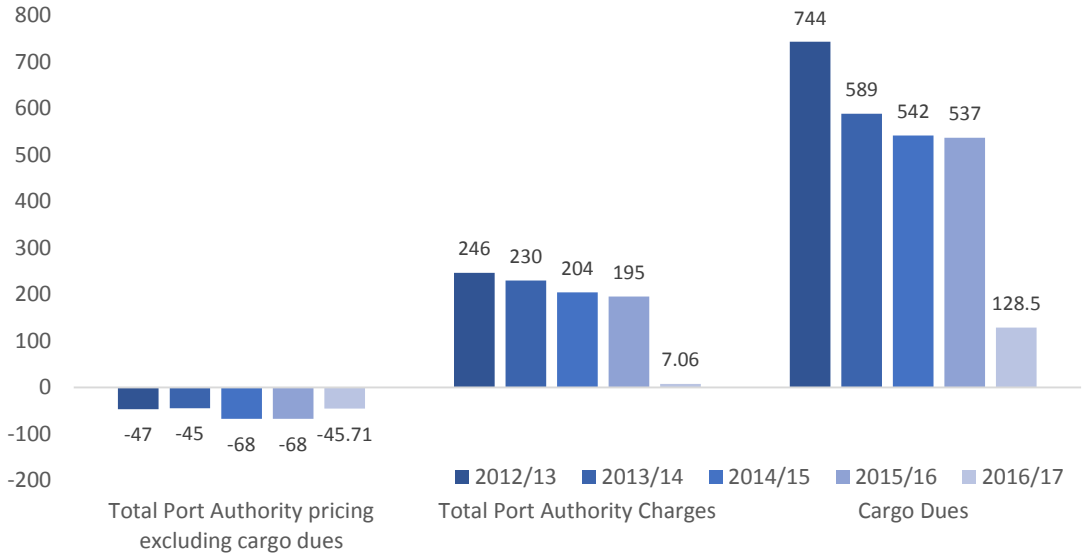
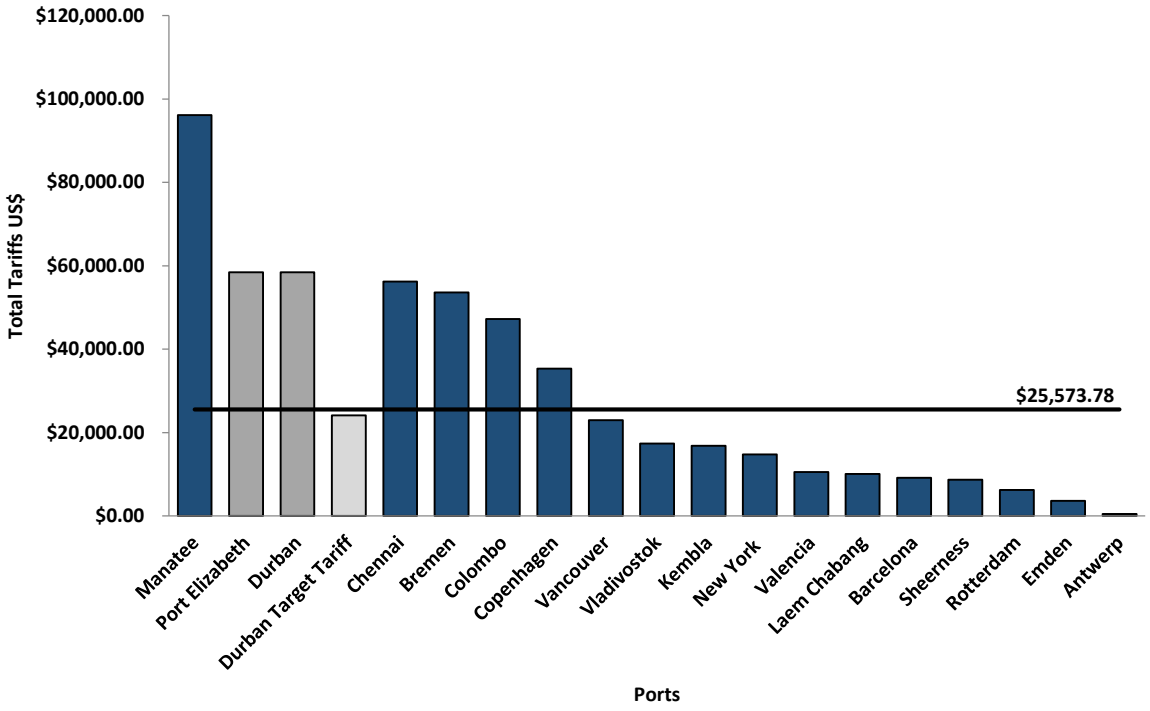
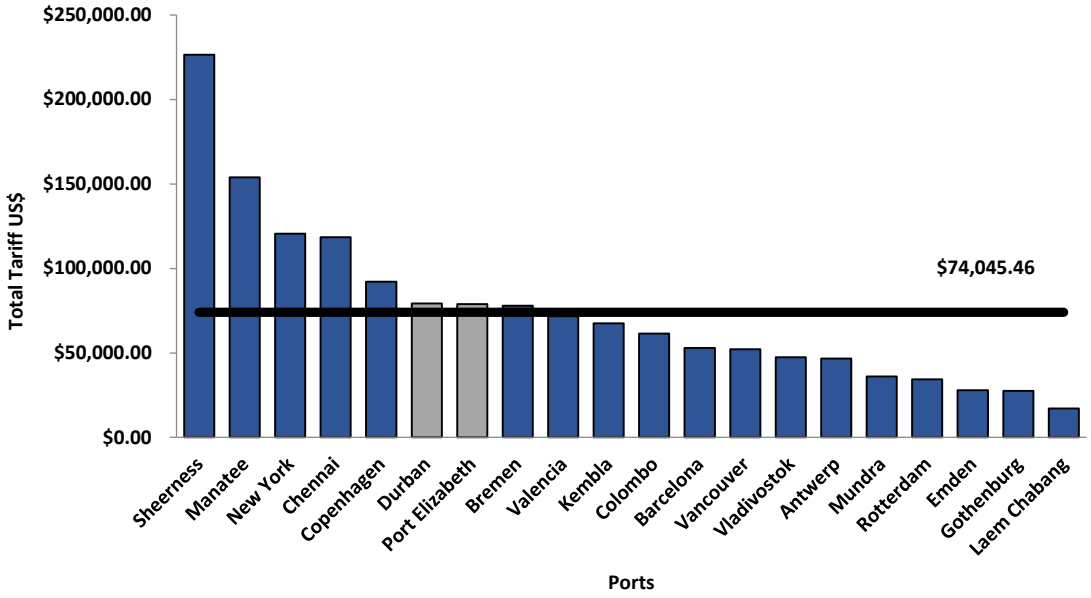


Figure 21: The Expected Impact of the Full Implementation on Cargo Dues in the Automotive Sector



Automotive cargo dues for 2016 are currently 128% above the global average which has come down from being 537% above the global average in 2015/16, indicating a downward trajectory in tariffs. At full implementation of the Tariff Strategy, automotive cargo dues will be approximately -5% below the global average at today's exchange rates, and if constant sample tariffs are assumed. In reality, under the assumption of rising global prices, if only in nominal terms, the end result will see much lower tariffs.

Figure 22: Total Port Pricing (Automotives) per Port per Standard Vessel



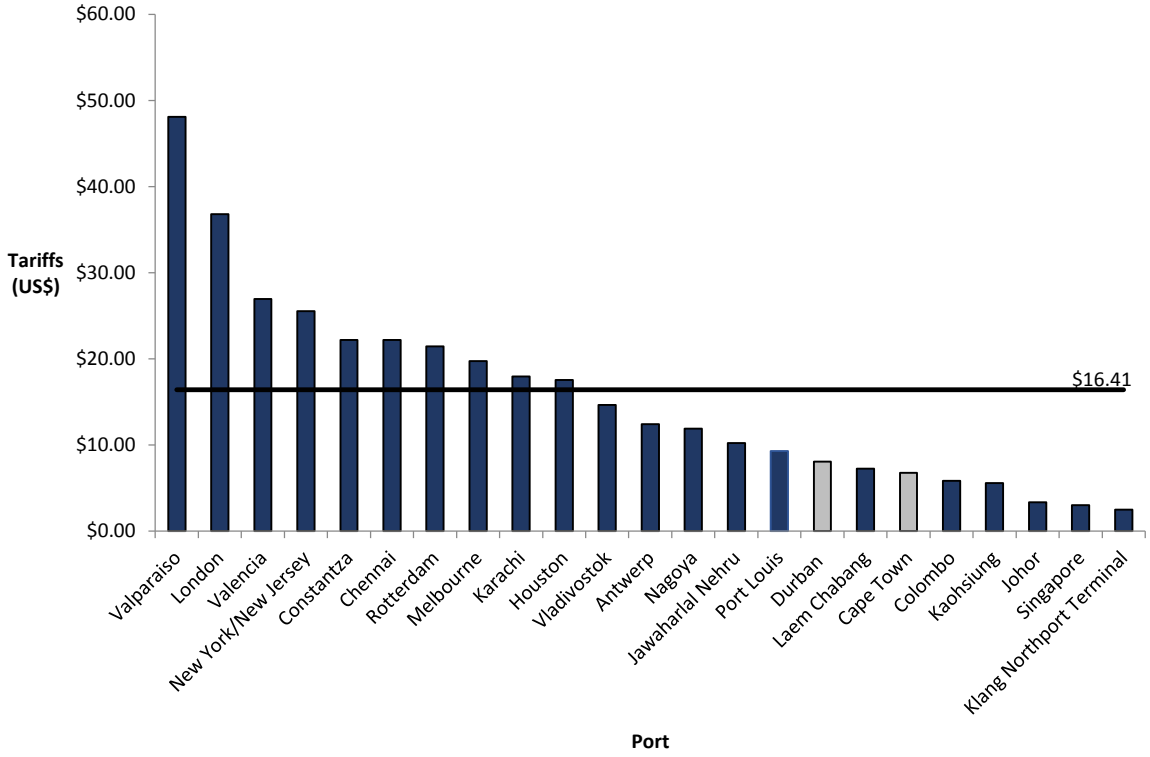
Again, similar to containers, cargo dues on automotives remain higher than the global sample average with total cargo dues on vehicles at a 128.5% (537% last year, 541% in 2014/15, 588% in 2013/14 and 743% 2012/13) premium to the global sample average. However, the extension of the NPA's Automotive Industry Volume Discount (AIVD) of 60% to all importers and exporters of vehicles has resulted in cargo dues reducing significantly. The extension (or equalisation) of the AIVD maximum discount to all importers and exporters means that the AIVD programme has come to an end.

The data shows that even after the equalisation of the AIVD at the 60% level, the cargo dues faced by South African exporters ($58 435) are still above the global sample average cargo due tariffs ($ 25 573).

8. Vessel Costs Remain Relatively Cheaper

The 2016/17 study confirmed that all vessels face much lower overall vessel costs in South African ports than the averages in the study, ranging from 38% below the global norm in the case of containers and 72% for iron ore vessels.

Figure 23: Container (TEU) Vessel port Costs

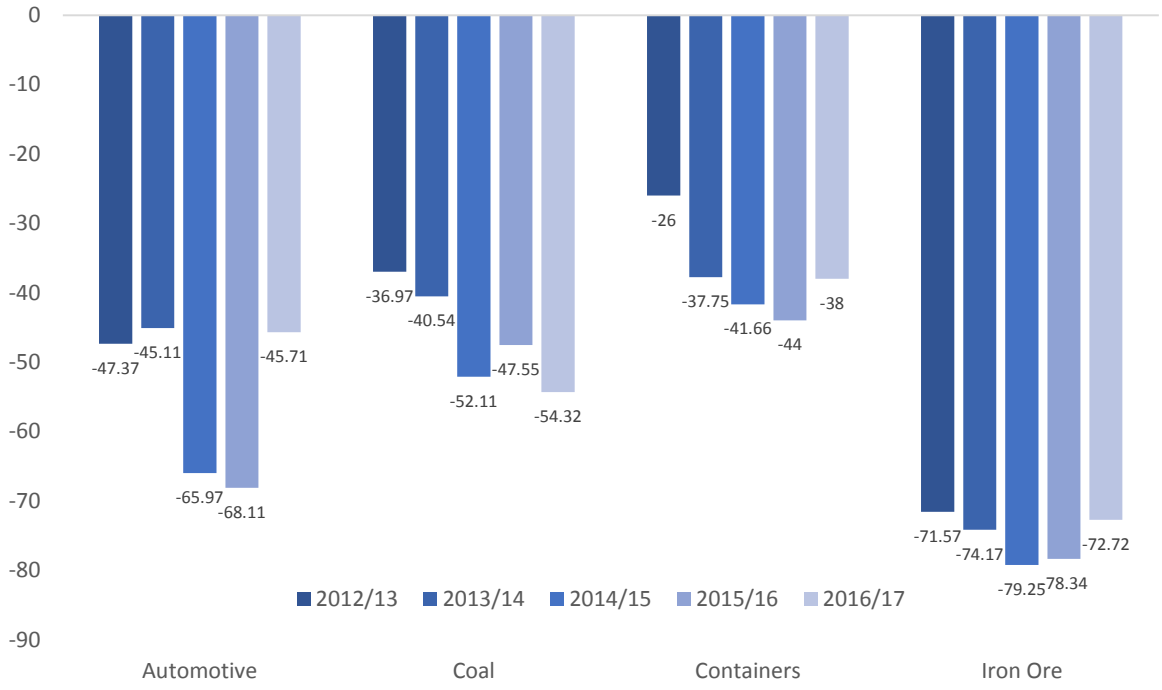


The 7.9% tariff increase allowed by the Regulator in 2016/17 has not significantly changed the continued below global average position recorded for vessel costs in South African ports. This has been more than fully offset by the depreciation of the ZAR as vessel costs are normally paid for in USD.

The incidence of the tariff clearly indicates that foreign vessels are not subjected to high tariffs level in SA rates as they do in the sample global sample average, whilst they continue to receive an exchange rate windfall as well as being unfairly cross-subsidized by cargo dues over the years up to the full implementation of the ten-year Tariff Strategy.

Overall, vessel costs faced by cargo owners recorded discounts of 38% in the case of containers, 45% for automotives, 54% for coal and 72% for iron ore.

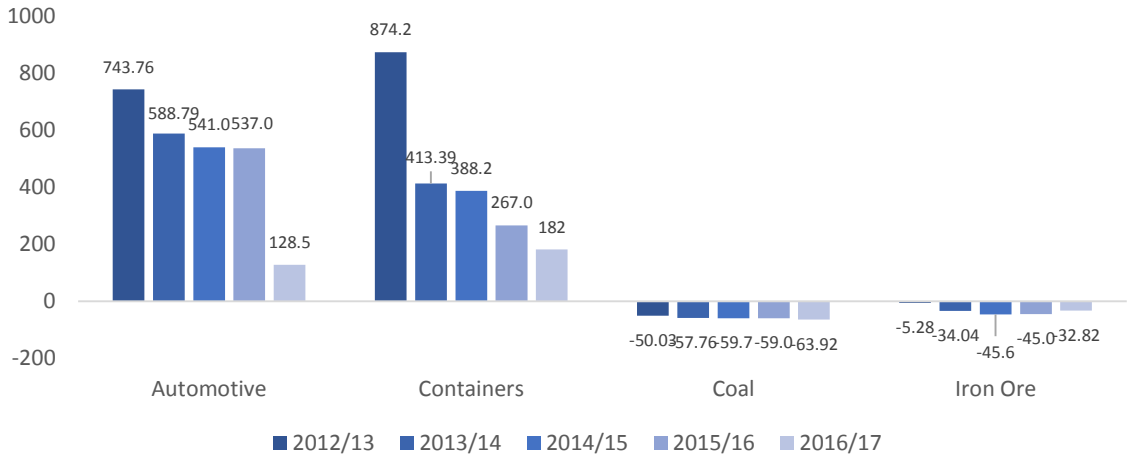
Figure 24: South African Vessel Costs (as deviation from the sample global average)



What was not considered in this research and is part of current research (including the NPA's Terminal Operators Performance Standards (TOPS) as well as Marine Operators Performance Standards (MOPS) processes) is the confluence of various costs. These include vessel delays (faced by vessel owners and operators), cost of ocean legs of transport (faced by cargo owners or logistics integrators), costs of delays into and out of ports (inventory, temporary local cargo storage and truck standing time costs etc.) faced by cargo owners and logistics providers, and other such costs that are occasioned by specific issues such as the market structure of marine transport providers and the port system, as well as operational and infrastructure issues in certain ports.

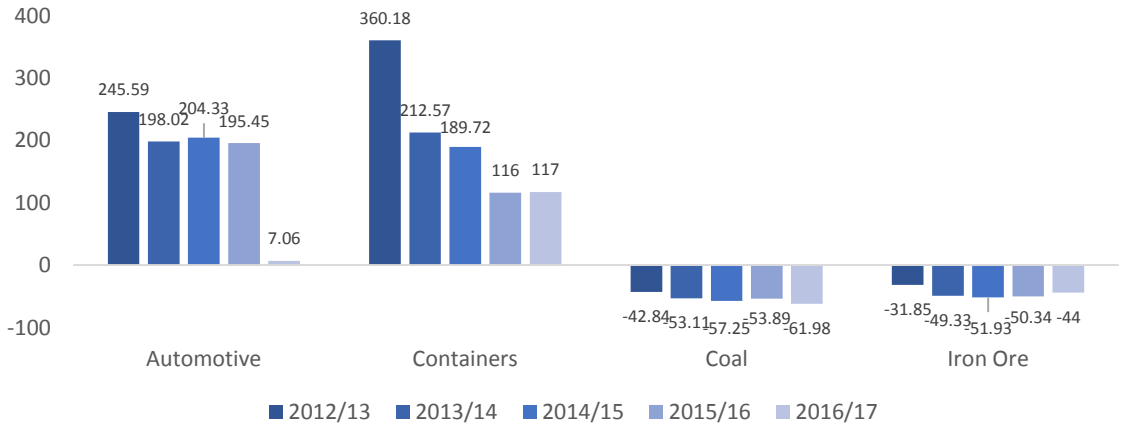
9. Evidence of Continued Imbalances in the Port System

Figure 25: South African Cargo Owner Costs across all four Commodities (as deviation from the sample global average)



Previous versions of this report have argued that as bulk commodities are charged much lower rates than the norm and containers and automotives are charged much higher than the norm, containers (export and import) and automotives are still potentially, unfairly cross-subsidising bulk exports tariffs, even more so if only cargo dues are taken into account with container and automotive cargo owners facing costs at premiums of between 182% and 128% of the global norm respectively and the bulk cargo types below the global sample average. Keeping in mind that much of the full impact is shielded by the depreciated currency as USD prices are compared, the base or target tariffs published by the Regulator in its ROD, does show that the magnitude of the cross subsidy is larger in terms of coal than iron ore. The rebalancing in the port tariff structure however will require significant changes in rental revenue and marine charges in order to retain the zero-sum effect on the revenue requirement as set by the Regulator.

Figure 26: South African Total Port Costs across all Commodities (as deviation from the sample global average)



The share of cargo dues in tariff book tariffs, (about 61% in 2016/17), further results in the excessively high cargo dues skewing total port costs. Whilst bulk commodities do reflect this, the impact on containers are significant with total port costs at around 117% of the global sample average, while the removal of the volume discount scheme has significantly reduced the port costs facing the vehicle sector.

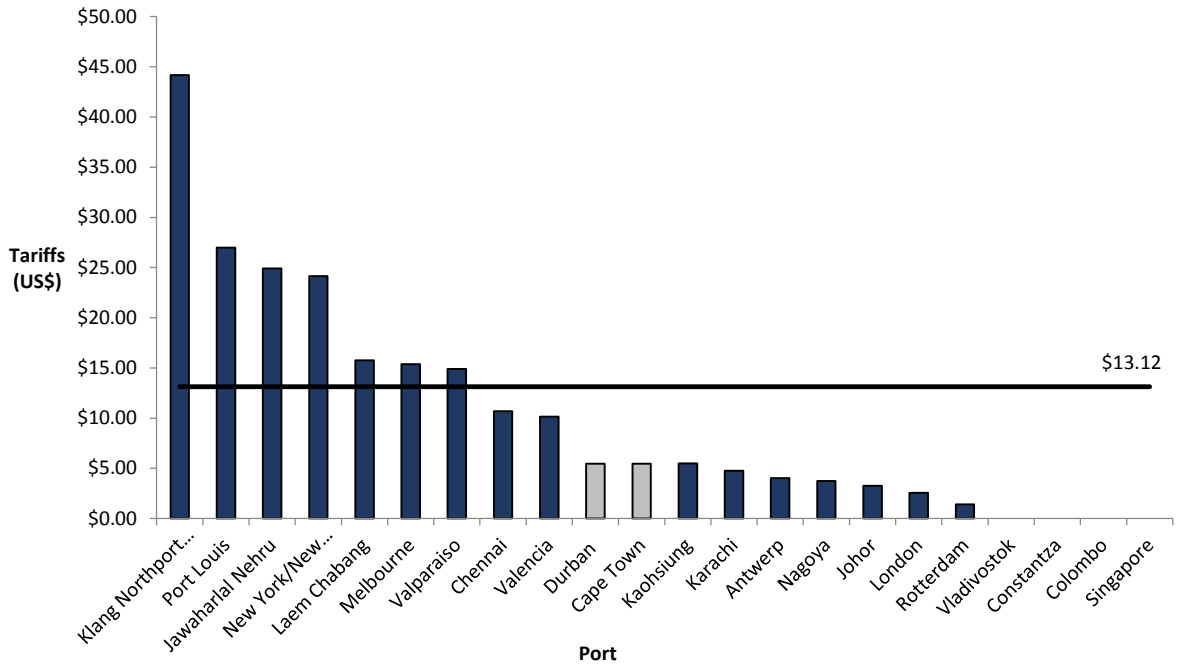
10. Transhipment

The South African port system continues to incentivise liners transhipping through our ports with marine services dues faced by a full transhipped container below the global sample average. The cargo dues recorded for transhipped containers were recorded as 58% below the global sample average in 2016.

The Ports Regulator, in 2013, stated that *"Little statistical evidence could be found of a relationship between the tariff level and the recent transhipment volumes in the South African ports system". The Regulator's analysis indicated that global growth and subsequent trade volumes and the cost of freight only explain a portion of the change in the transhipment volumes in the Port of Durban between 2005 and 2012 with the bulk of the decision depending on the inherent market and infrastructural advantages of one port over another."* (Record of Decision, 2013).

Whilst the economic rationale for a transhipment friendly port tariff structure is still required, it is evident that not only are cargo dues on transhipment cargo very much below global norms, vessel costs are also below the global sample average and only terminal handling charges can under the current regime, materially influence the transhipment pricing structure.

Figure 27: Transhipment Cargo Dues per Port



11. Conclusion

Although relative port costs have improved over the period that the study was been conducted, cargo owners still face a 182% premium in 2016/17, although down from a premium of 874% to the global sample average in 2012/13. While vessel owners face costs below the global sample average (-26% in 2012/13, -32% in 2013/14, -42% in 2014/15 and -44% in 2015/16 and -38% this year), the total NPA costs to users in container ports comes at a still high premium of 117% above the global sample average (similar results for the automotive sector applies) whilst the report shows that bulk commodities are charged much lower total port costs than the global sample averages.

The depreciation of the ZAR has had a significant impact on the average tariff levels being paid in the South African port sector. However, this impact does not equally benefit port users. USD paying users receive a direct discount in ZAR values, while domestic users do not receive the same benefit.

The high levels of potential cross-subsidisation due to the imbalances in the tariff structure in the port system remain a concern. The Regulator has commenced a tariff book adjustment process, within the parameters of the Revenue Required Methodology applied in the tariff setting process, and will continue the process as set out in the Tariff Strategy published in 2015. It is positive to see the impact of the incremental pricing changes the Regulator has implemented resulting in an ever more price competitive port system.

Due to the South African “Free on Board” (FOB) export and “Cost, Insurance and Freight” (CIF) import predominance in concluding international trade contracts, the bulk of the port charges liability lies with the South African party, South African container cargo owners continue carrying the greatest burden of transactions. In addition, through their significant contribution to tariff book revenue (46% of all tariff book revenue results from container cargo dues) they also carry the bulk of the infrastructure costs, while also paying greater premiums over global sample averages than foreign cargo owners transhipping through South African ports (see Figure 8). This remains a concern.

12. Interpreting the Results

The process and outcomes of benchmarking port pricing is not an exact science. The global sample averages that we have defined in our studies do not represent what we should be charging in South African ports, rather it provides a form of indication of the direction that our pricing should be moving in, rather than the exact absolute level of pricing. This has been determined through the development of a comprehensive Tariff Strategy that sets out the appropriate cost reflective rates for services in the port system. It does however provide us with a reasonable indication that would allow assessment of the alignment between port policy, port pricing, and economic policy and more importantly, the Strategy serves as a measuring tool to assess the impact of regulatory intervention in the regulatory framework through pricing changes.

It is thus important to keep in mind that the identification of pricing differentials that exist does not automatically suggest that certain industries should be charged at a globally comparable rate. It does not suggest that certain cargoes may not be charged lower or higher rates than the global sample averages. It arguably does identify the size of the divergence between what is the stated overarching economic and development policy of the country and what port pricing reflects. It provides a reason to assess and shift port pricing in a direction that better reflects the global reality and actually aligns with South African economic structure, economic policy, industrial policy and economic development policy. Furthermore, it requires that any differentials that we allow to exist in the future must result from an open engagement that includes all affected parties and is justifiable in the public interest. These and other pricing effects and structural imbalances are addressed comprehensively in the Tariff Strategy which was published by the Regulator in July 2015.

That a change in indices such as either the weighted dollar price over the year (rather than fixing it at the date of the study) or some other selection of ports as a population would no doubt influence the findings to a greater or lesser extent, the continuation of the use of a consistent methodology allows the intertemporal comparisons that renders an assessment like this invaluable.

Amending an index or changing a sample will not remove the internal difference between the significant premiums on cargo owners of manufactured goods and the significant discounts to un-beneficiated bulk commodities as these have been confirmed to exist and are quantified in the tariff setting process in line with the Tariff Strategy. The amendment of parameters of the research will not change the fact that South African cargo owners carry the majority of the burden of infrastructure costs while foreign cargo owners and vessels receive globally competitive rates or implicit discounts. In addition, carefully selecting ports that support a particular argument in response to these numbers does not remove the reality, as an equally careful selection, can make the numbers even worse. In some cases, our pricing is too low, and in other cases too high. What they also show is that different stakeholders in the logistics system inappropriately bear the incidence of tariffs, in comparison to global practice.

As example: The trend in port pricing in South Africa, from an internal coherence (using global sample averages) perspective, appears to subsidise the industries that have lower levels of job creation and value addition in South Africa. The higher job creation industries tend to be penalised. An example is the differential of cargo dues that existed between stainless steel and mild steel prior to the Regulator's decision (although this element was one of the issues considered in that matter, it was not the basis of the decision). An industry that stopped at one level in the value addition process and then exported its product to have further value added in another country, paid roughly one quarter of the price paid by the producer that took that product and added further value inside of the country, for the same use of infrastructure. This is clearly not in line with South Africa's economic development policies, and the need for stronger alignment between various policies and regulatory regimes is critical in advancing a coherent and sustainable industrial policy. As such the current tariff structure, in which bulk trades tended to be less than or close to the global sample averages, while the value added trades were significantly above the global sample averages, unless you were a foreign cargo owner merely transhipping your cargo through South African ports, is clearly not aligned with the country's industrial objectives.

This research is thus not intended to automatically define the levels of pricing that are appropriate and the targets that need to be set for pricing incidence, it is designed to add to the debate in reviewing and setting appropriate pricing and price incidence in the port system and contributed to the need for a comprehensive Tariff Strategy.

Sample selection

The researchers involved in this project compiled the port samples based on a number of criteria, with tariffs not considered until the very end, and played no role in the sample construction process. The criteria included throughput, capacity, commodity and cargo handling characteristics, availability of public tariff information (in English as far as possible), and the ability of the port to handle the unitary vessel size.

Comment

The research is therefore published and any correction, criticism, and comment is welcomed. We do however request that where parties wish to make submission. Kindly provide the following:

- An explanation as to why the information in the study is incorrect or inappropriately used;
- The correct information, if the information in the study is claimed to be incorrect, or a more appropriate use or exposition of information if the appropriateness or exposition of the information is questioned;
- The original public documents and or information that the "corrected" information is based on; and
- The reason why an alternate view, if it is opinion-based such as the selection of different populations or indices, is more appropriate.

Annex A: Methodology Assumptions

Container Study

Vessel Dimensions:		
Length	221	meters
Breadth	32	meters
Height	25.91	meters
Draft	12.2	meters
DWT	41 800	tons
GT	35 800	tons
NT	14 444	tons
Power Output	26 270	KW

Standardised Ship Call:				
	Landed		Shipped	
	Deepsea		***Deepsea***	
	Full	686	Full	427
	Empty	71	Empty	288
	Coastwise		***Coastwise***	
Total TEU Parcel Size = 1,853	Full	2	Full	9
	Empty	4	Empty	8
	Transhipped		***Transhipped***	
	Full	148	Full	148
	Empty	30	Empty	32

Additional Assumptions

- The vessel utilises the port services within normal working hours of the port, and abides by all rules and regulations of the port;
- Assume the vessel enters the berth on weekdays, except on public holidays, at 08h00 and exits the berth at 08h00. (i.e. number of hours in berth= 48hours);
- No additional surcharges, waiting fees, penalties or cancellation fees are applicable within the vessel call;
- There is no use of miscellaneous services, such as Fire & Emergency services, Fire Protection, etc.;
- Port charges such as security service fees, fresh water fees, electricity and removal of refuse, etc. where a minimum fee is not stipulated, will be excluded from the port charges;
- Assume the vessel is a liner trade which operates on a scheduled basis;
- Assume there are no reductions (based on the number of calls) in the port charges offered to vessels;
- Assume the following weights of TEUs: Full = 21 Tons Empty = 2.5 Tons;

- Unless otherwise specified, assume a vessel of this size will always require the assistance of two tugs for one hour;
- Unless otherwise specified, assume a vessel of this size will always require the assistance of a pilot for one hour. Shifting tariffs are excluded;
- Where no tariffs are allocated to Coastwise & Trans-shipped Cargoes, the “deep-sea” rates will be used;
- Assume one vessel call per port per month;
- Assume vessel call at non-concessionary terminals and berths;
- Where there is more than one service provider, an average of the tariffs was taken;
- Assume all information about the vessel & cargo is provided in advance in accordance with requirements of each port prior to the arrival/departure of the vessel & cargo to/from the port;
- Assume vessel needs to use the port's mooring or unmooring ropes;
- Vessel always makes use of the port's equipment;
- Assume all imported transhipment containers are trans-shipped within 14 days of arrival at the port;
- Assume all transhipment containers landed/shipped are foreign-going transhipment containers;
- Assume all transhipment containers are shipped from the same port terminal it landed in;
- Assume one container move to load or off load containers for terminal handling charges;
- Klang Northport and Jawaharlal Nehru cargo dues and terminal handling charges are consolidated into a single charge;
- Container loading and unloading operations begins within two hours after the vessel enters the berth and ends two hours before the vessel exits the berth. i.e. cargo operations are completed in the 44 hours the vessel is at berth;
- No amendments have been made to reduce total handling and port authority charges of non-South African ports for efficiency differentials; and
- Terminal handling charges includes vessel to stack, vessel to truck, vessel to rail wagon, rail wagon to vessel, truck to vessel, stack to vessel, as appropriate.

Automotive Study

Standardised Ship Call:	
Commodity Moved	Cars
Parcel Size (tons)	3715.64+8085.32
Import (tons)	8085.32
Export (tons)	3715.64
Parcel Size (Units)	890+409
Import (Units)	890
Export (Units)	409

Vessel Dimensions:	
LOA	198m
Breadth	32m
Draft	8.6m
DWT	19 893
GT	56 439
NT	17959

Additional Assumptions:

- Number of days in port: 1 Day & 8 hours (32hours);
- Assume that there are no penalties, additional surcharges, or waiting fees applicable within the vessel call;
- Assume the vessel utilises the port within the normal working hours of that port, and abides by all rules and regulations of the port;
- Assume the vessel will use two tugs;
- Assume the vessel will always need pilotage assistance in the port;
- This study is based on new automotive vehicles imported/exported at the selected ports;
- Assume all vehicles imported/exported are for one vehicle manufacturing company; and
- The vessel is a Car Carrier vessel.

Vessel Dimensions:	
Length	280m
Breadth	44m
Draft	12m
DWT	180,000t
GT	95,000t
NT	n/a
Cubic dimension	147.840cu.m

Additional Assumptions

- Iron Ore parcel size: 170,000 tons;
- Number of days in port: 1 day & 23 hours (47hrs);
- The vessel utilises the port within the normal working hours of the port, and abides by all rules and regulations of the port;
- No additional surcharges, waiting fees, penalties or cancellation fees are applicable within the vessel call;
- There is no use of miscellaneous services, such as Fire & Emergency services, Fire Protection, etc.;
- Port charges such as security service fees, fresh water fees, electricity, and removal of refuse, etc. where a minimum fee is not stipulated, will be excluded from the Port Charges;
- Assume there are no reductions (based on the number of calls) in the port charges offered to vessels;
- Assume a vessel of this size will always require the assistance of two tugs for one hour;
- Pilotage is always required. Shifting tariffs are excluded;
- Assume one vessel call per port per month;
- Assume vessel call at non-concessionary terminals and berths;
- Where there is more than one service provider, an average of the tariffs was taken;
- Assume all information about the vessel & cargo is provided in advance in accordance with requirements of each port prior to the arrival/departure of the vessel & cargo to/from the port;
- Assume vessel needs to use the port's mooring or unmooring ropes, two mooring ropes are used;
- Vessel always makes use of the port's equipment;
- Assume the vessel enters the berth at 10h00 and leaves at 09h00 (47hours later); and
- Assume cargo operations commence within one hour of entering the berth and stops one hour prior to vessel exit from berth.

Coal Study

Standardised Ship Call:	
Commodity Moved	Coal
Parcel Size (tons)	112 586

Vessel Dimensions:	
LOA	225m
Breadth	32m
Draft	13.54m
DWT	75 122
GT	39 763
NT	25 329

Additional Assumptions

- Number of days in Port: 1 Day & 8 hours (32hours);
- Assume that there are no penalties, additional surcharges, or waiting fees applicable within the vessel call;
- Assume the vessel utilises the port within the normal working hours of that port, and abides by all rules and regulations of the port;
- Assume the vessel will use two tugs; and
- Assume the vessel will always need pilotage assistance in the port.

Disclaimer:

To the best of our knowledge, the information contained herein is accurate and reliable as of the date of publication. The Regulator welcomes any input to assist in updating or correcting the information contained herein. Any comments and/or suggestions may be forwarded to tariffcomments@portsregulator.org.