



SUITE 10, 6 LAKESIDE, DERBY DOWNS, UNIVERSITY RD, WESTVILLE, 3629
P.O. BOX 1635, DURBAN, 4000

TEL: +27 31 2661384 | FAX : +27 31 2661447
EMAIL: SECRETARY@SAASOA.COM | WWW.SAASOA.COM

The Ports Regulator
The Marine, Suite 1101
22 Dorothy Nyembe Street
Durban
4001

11 October 2021

Att: Ms Jowie Mulaudzi
Cc: Mr Chris Lotter

Dear Sir/ Madam

Comments on Transnet National Ports Authority's tariff application for the 2022/23 financial year

INTRODUCTION

The National Ports Authority ("the NPA") has applied for an increase in its weighted average tariff of 9.40% for the 2022/23 financial year. Based on forecast inflation of 4.35%, this works out at CPI+5.05%, a substantial increase in real terms.

PRICE-CAPPING AND THE RR APPROACH

SAASOA has in the past called for the Regulator to explicitly adopt a genuine price-capping approach, with the rate-of-return methodology used purely as an analytical tool. We have set out the relative advantages of this method, and the shortcomings of the rate-of-return method at length in previous submissions and comments.

As SAASOA has previously pointed out, the Regulator committed to a price-cap approach in GN.824 of 6 August 2009 (GG 32480), with a rate-of-return approach being incorporated, among other approaches, in the tariff rebasing method.

However, in the most recent tariff methodology, the Port Regulator has apparently retained the rate of return regulation methodology as its core methodology.

We say apparently, because of the following statement made by the Regulator in its record of decision for the 2021/22 tariff application:

“7.3 In line with the Multi-Year Tariff Methodology of March 2020 the Ports Regulator projects that the indicative overall average tariff adjustment for the 2022/23 and 2023/24 tariff years will be within the 6% inflation target band.

7.4 Due to the subdued outlook of economic activities over the tariff period, the Ports Regulator will, if required, use the ETIMC to maintain overall average tariffs close to the inflation target band, as defined by the SARB Mandate.”

This is in fact a commitment to tariff adjustments in the form CPI-X, and thus a price-capping approach. This is reflected in the recent history of decisions by the Regulator, where there has been a clear emphasis on a below inflation-increase so that the real average tariff level is reduced.

There is no doubt that it is desirable for price-capping to be employed:

[a] Firstly, this is in fact the prescribed technique.

[b] Secondly, price-capping – if properly executed – encourages the regulated entity to focus on costs efficiencies, whereas a RR approach does not.

- [c] Thirdly, if there is a consistent decrease in the real tariff, while volume of activity remains unchanged or increases, all stakeholders can be assured that consumer surplus is increasing and the regulated entity is moving closer to a first-best outcome. This is so even if the regulated entity, through increasing cost efficiencies, is able to earn a supernormal profit from time to time.
- [d] Fourthly, it is apparent from the Regulator's own studies that it is critical for the international competitiveness of the ports system for there to be ongoing, significant decreases in the real tariff.

The problem with the present approach that is followed by the Regulator, however, is that it entails using the RR approach to arrive at an estimate of the tariff increase, based on projected costs, which then is adjusted downwards by drawing down on the ETIMC reserve (or presumably, once the ETIMC reserve is depleted, notionally borrowing against such reserve and creating a "debt" in favour of the NPA).

This method removes the incentive for the NPA to focus on cost reductions in order to earn the required rate of return (or indeed, a temporary supernormal profit).

Moreover, it is unsustainable. If the goal of regulation is try and achieve an outcome which approximates as closely as possible the price = marginal cost outcome of perfect competition (the first-best outcome), one cannot force down price, but allow the marginal cost to remain unchanged, let alone increase.

Accordingly, and with the utmost respect, it is our view that the process is back to front. The Regulator should identify a range of possible tariff decreases, and then use the RR approach to

assess what the likely impact of each of these potential tariff decreases would be on the NPA's operations, using the elements of the RR model as an analytical tool.

Thus rather than adjust the ETIMC reserve downwards, the Regulator should consider whether the NPA needs to renegotiate its financing terms more favourably (cost of capital), what the impact will be on its replacement of existing fixed capital (i.e. its depreciation allowance), and what economies will need to be achieved with its operating costs, in order to achieve a particular targeted CPI-X tariff adjustment.

THE SEPARATE INCORPORATION OF THE NPA

The NPA will in the near future be incorporated as a subsidiary of Transnet. This means that the NPA, a regulated monopoly, which faces limited operating risk, no longer need be exposed directly to the credit risk of Transnet and its other struggling operating units. Debt covenants can be used to protect lenders from the possibility of Transnet transferring excessive resources from the NPA to itself. This implies that the NPA should be able to negotiate considerably lower interest rates on its debt than are available to Transnet.

The Regulator has indicated in the most recent tariff methodology that it will consider applying the TOC methodology to valuation of pre-1990 assets in the RAB until credit metrics have proven to be within sustainable limits. However, the implication of this is that the Regulator wishes to ensure that the NPA has low credit risk. This in turn, by necessary implication, anticipates that the NPA must be subject to low interest rates on its borrowing.

An economic justification for adopting a higher valuation of the RAB is that for some given cash flow generated through utilisation of the RAB, the discount rate applied (determined in part by the cost of debt) is reduced, thereby justifying a higher valuation for the assets used to generate that cash flow.¹ If, however, the NPA is allowed a return of capital calculated with reference to its historical (Transnet)

¹ E.g. Using the simple formula $V=CF/d$, where V is the value of the assets, CF is a perpetual cash flow generated by the assets and d the discount rate applied, it follows that $CF/0.08 > CF/0.10 > CF/0.12$.

cost of debt, then it is submitted that its cash flow will be too high relative to the true discount rate that should be applied, and thus its allowed rate of return will be too high relative to its true cost of capital; that is, a supernormal profit will have been artificially created.

THE COST OF CAPITAL

One of the more startling aspects of successive RODs is how the return on capital component has significantly increased over time, despite the RAB not increasing substantially.

This is because the cost of capital calculated has increased, largely because of a substantial increase in recent times in the real average yield on long term government bonds (10 years and over) which is used as the proxy of the risk free rate. The real risk free rate used in the NPA's tariff application is measured at 4.77%.

Ordinarily, there is much to be said for using the yield on long-term government debt to proxy for the risk free rate. However, at the same time, such an approach should not be uncritical and attention always needs to be paid to the yield curve, and in particular to the spread between the yield on long-term bonds and the alternative and commonly used proxy for the risk free rate, the yield on treasury bills.

As at 30 September 2021, the Reserve Bank reports a tender rate of 3.79% on 364-day treasury bills, implying a nominal yield of 3.82%, and a negative real risk-free rate, if this is used as the proxy. A copy of the Reserve Bank's report of money market and capital market rates for 30 September 2021 is annexed hereto, marked "A".

However, the average nominal yield for 10-year government debt is 9.91%. This is a difference of 6.09%. This difference could be attributed to the expectation of considerably higher future inflation,

and / or to the considerably increased probability of sovereign default on longer-term government debt. Both of these factors suggest that at present, the yield on long-term government debt is not a suitable input for estimating the real risk-free rate. Firstly, it is not a risk-free asset in the sense that treasury bills may still be seen as relatively risk free, and second if the higher yield takes into account higher projected inflation in the future, it is inappropriate to use it in conjunction with the present, relatively low inflation rate, to calculate a real rate.

As an alternative, we propose using the 364-day treasury bill rate, which has an annualised yield of 5.04% (on a tender rate of 4.80%). This works out at a real risk free rate of 0.66%. Use of a treasury bill rate as the risk-free rate proxy would entail use of a re-calibrated market risk premium (MRP). According to Dimson, Marsh and Staunton (2017),² the long-term MRP relative to treasury bills is 0.9% higher on average (for the period 1900-2016). This points to a revised MRP of 6.0%.

Similarly, we consider it problematic that the cost of debt which the NPA wishes to use is 10.75% in nominal terms, which works out at 6.13% in real terms (6.14% per the application). The NPA is a regulated monopoly with limited exposure to risk, where there is a clawback that protects it if it underperforms expectations, and where the Regulator has indicated (in its discussion of RAB valuation methodology) that it wishes to ensure that the return on capital will be sufficient to cover debt service. The NPA will also be, from 1 April 2022, a separate legal person and thus not liable for the debts of Transnet. Its creditors will be able to negotiate covenants with it that may further insulate them from the potential credit risk created by Transnet milking the NPA of its cash flows. There is a very strong argument that the NPA should be able to borrow at not much more than the risk-free rate. Certainly, one would expect the NPA to at least be able to borrow at around the prime lending rate, which is 7% in nominal terms, and 2.54% in real terms.

Therefore, leaving all other inputs in the model intact, a revised return on capital may be calculated, as follows:

² Dimson, Elroy, Paul Marsh, and Mike Staunton (2017) *Credit Suisse Global Investment Returns Yearbook: Summary Edition*, Zurich: Credit Suisse Research Institute.

The real cost of equity will be:

$$K_e = R_f + \beta \text{MRP}$$

$$= 0.66\% + 0.6 \times 6\%$$

$$= 4.26\%$$

The real vanilla WACC will then be:

$$\text{WACC} = 0.5 \times K_e + 0.5 \times K_d$$

$$= 0.5 \times 4.26\% + 0.5 \times 2.54\%$$

$$= 3.40\%$$

The equity return will be:

$$R_e = 0.5 \times \text{RAB} \times K_e$$

$$= 0.5 \times 79382 \times 0.0426$$

$$= \text{approx. R1 691m}$$

The tax thereon will be R658m (R1 691m / 0.72 x 0.28).

The return on capital will be:

$$\text{ROC} = \text{WACC} \times 79382$$

$$= 0.034 \times 79382$$

$$= \text{R2 699m}$$

These give a considerable reduction on the NPA's estimate of R5 549m, and its estimated tax expense of R1 211m.

An alternative (and less drastic) approach is to synthesise an estimate for a real long-term risk-free rate, and a real long-term cost of debt, based on the historical average spread between real yields on long-term bonds and on treasury bills. Dimson, Marsh and Staunton (2017) report this as being 2.9% for the period 2000-2016, 0.1% for the period 1967-2016 and 0.8% for the period 1900-2016.

We propose, out of caution, to use the estimate for 2000-2016. This leads to a revised real risk-free rate of 3.58% (1.029×1.0066). It will then be appropriate to use an MRP of 5.1% (because the risk-free rate is being proxied using a synthesised long-term bond derived from similar historical data). We also apply a credit risk premium of 1.86% to this rate to synthesise an appropriate real commercial lending rate (based on the difference between the 364-day treasury bill yield and the prime lending rate): 5.55% (i.e. $1.07 / 1.0504 \times 1.0358 - 1$).

This results in the following adjustments, leaving all other inputs in the model intact:

The real cost of equity will be:

$$\begin{aligned} K_e &= R_f + \beta \text{MRP} \\ &= 3.58\% + 0.6 \times 5.1\% \\ &= 6.64\% \end{aligned}$$

The real vanilla WACC will then be:

$$\begin{aligned} \text{WACC} &= 0.5 \times K_e + 0.5 \times K_d \\ &= 0.5 \times 6.64\% + 0.5 \times 5.55\% \\ &= 6.10\% \end{aligned}$$

The equity return will be:

$$Re = 0.5 \times RAB \times Ke$$

$$= 0.5 \times 79382 \times 0.0664$$

$$= \text{approx. R2 635m}$$

The tax thereon will be R1024m ($R2\ 635m / 0.72 \times 0.28$)

The return on capital will be:

$$ROC = WACC \times 79382$$

$$= 0,0610 \times 79382$$

$$= R4\ 842m$$

These numbers are somewhat lower than those estimated by the NPA.

DEPRECIATION

Depreciation is an accounting concept used to reflect the projected cost of replacing depleted capital, and subtracting this from revenue in order to obtain a more accurate estimate of accounting profit. Ordinarily, therefore, depreciation is not a cash flow concept.

Under the RR methodology, depreciation becomes a cash flow concept, because the NPA is expressly permitted to recover its depreciation estimate as cash revenue, for the intended purpose of replenishing depreciated fixed capital.

The problem is that the NPA has consistently failed to spend the full amount allocated to depreciation on replacing fixed assets. This underspending is not presently recouped by means of the clawback mechanism (in contrast with underspending on operating cost).

It is submitted that underspending on CAPEX should be clawed back. In principle, if the NPA spends revenue on properly maintaining its fixed assets this is to the benefit of port users. It is extremely problematic, however, when the NPA is allowed revenue to replace assets (by means of the depreciation charge) but then does not do so.

For the 2020/21 financial year, which is the most recent year for which actual results are available per the tariff application, the NPA spent R1 555m on capital expenditure. Of this only R829m was spent on maintaining current business, in other words, on replacing “depreciated” assets. In the 2020/21 ROD, the NPA was allocated R2 321m for depreciation. It is submitted that the difference should be clawed back: it amounts to a source of supernormal profit, which if the NPA is not compelled to utilise for the purpose of replacing depleted assets, will remain supernormal profit.

Therefore, we would recommend that the NPA’s allowed revenue be reduced by the sum of R1 492m, as a type of clawback, being the observed difference between its allowed depreciation and its actual expenditure on replacing depreciated assets in 2020/21.

OPERATING EXPENDITURE

One of the key weaknesses of the RR approach is that it places no limits on the operating expenditure of the regulated entity. Usually, the regulated entity is required to justify its operating expenditure to some extent, but it is not required to actively seek operating efficiencies that reduce operating costs, as would be the case if it were competing in a competitive market.

In fact, the present methodology entails a clawback when actual operating expenditure is less than that allowed in the record of decision. This has the perverse result that not only is the regulated entity

incentivised, by the standard RR formula, to pad out its claims for budgeted operating expenditure, it is also deprived – by virtue of the clawback - of any incentive to reduce operating expenditure below the budgeted level.

At a minimum, in our view, operating expenditure should be constrained to be at the same level in real terms, with an effective real reduction in cost per unit of activity being achieved through expansion in the NPA's volume.

Thus, having actually spent R5 233m in 2020/21, the NPA's operating expenditure budget should be limited to R5 701m in 2022/23 ($R5\ 233m \times 1.044 \times 1.0435$), which is somewhat less than the R5 919m budgeted by the NPA.

At the same time, we would suggest that the NPA be permitted to retain some of its cost savings in the 2020/21 financial year. Having said that, and with the utmost respect, the budgeted operating expenditure allowed in the ROD for that tariff year, of R6 149m, was excessive. We would therefore recommend that the NPA be permitted to retain 50% of the difference ($(R6\ 149m - R5\ 233m) \times 50\%$), or R458m, as a reward for reducing operating costs below the budgeted (allowed) level.

TARIFF RECOMMENDATION

SAASOA's recommendation is that the tariff remain unchanged in nominal terms (i.e. CPI-4.35%), that is, that the NPA be allowed a revenue of R8 590m,³ which once marine revenue of R4 085m is added, gives a total allowed revenue of R12 675m.

In our view, and with reference to the preceding analysis, this could be made up as follows:

³ See Table 27 in the NPA's Tariff Application (page 52)

	Rm
ROC	4842
ACC DEPR	2560
OPEX	5701
TAX	1024
	<hr/>
	14117
LESS DEPR CLAWBACK	-1492
ADD OPEX SAVINGS CLAWBACK	458
	<hr/>
	13083
STANDARD CLAWBACK	-355
WEGO	-151
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	12675
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Prepared by Advocate Andrew Christison of the High Court of South Africa.

Kind regards



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Peter Besnard

(CEO of SAASOA)

E-Mail: peter@saasoa.com

Website: www.saasoa.org.za

TEL: +27 31 266 1384

FAX: + 27 31 266 1447

Suite 10, Lakeside Office Park, 6 Derby Downs, University Road, Westville, 3629

P O Box 1635, Durban, 4000

