NTRA submission in response to the ACCC Position and Consultation Paper regarding MTAS

(February 2020)

PUBLIC VERSION

The NTRA submission

In light of the ACCC current plans to revise the MTAS in Australia and its future plans to revise also the FTAS, the NTRA (telecom regulator of Egypt), by presenting this submission, is sharing its thoughts with the fellow telecom regulator of Australia, the ACCC. This submission is certainly not to be considered as coming from a stakeholder or a player in the Australian telecom market but it is a contribution coming from a telecom regulator to another fellow telecom regulator as part of the regular global cooperation between the TRAs worldwide.

The NTRA understands that the ACCC already decided on the method to be used and did commission a reputable consulting firm for that purpose. [c-i-c begins] ---- [c-i-c ends]

The following sections will be discussing a method that helps achieving the prime objective from regulating termination rates, stating its definition, the rationale behind it and its different usages.

The NTRA proposed method

The NTRA is presenting "The method of setting termination rates as a percentage of on-net retail rates" or it can be more precisely defined as “the termination rate into an operator is a percentage of this operator’s on-net retail rate”.

The question that may immediately come to the mind at this point would be a question about the belonging of this method to the “cost based methods” that telecom regulators are supposed to follow as a legal obligation or as a global best practice. The answer is “definitely yes, this method is currently a cost based method”. The rationale behind this assertive affirmative answer is explained below.

The rationale behind the proposed method

The literature is very clear about what is considered a cost based method to set termination rates and what is not. This literature is predominantly finding its roots in the 1990’s. At that time in history, the telecom regulators were just being formed worldwide, the telecom markets contained ex-monopolies or duopolies with very little new entrants struggling to find a place for themselves, the penetration rates were still relatively low, the retail rates were still high driven by the monopolistic practices, the offers to the consumers were still very basic and the operators did not yet introduce on-net retail rates to the market. It was very logic back-then to consider that any method deriving termination rates, or wholesale rates in general, from the retail rates is a non-cost-based method.

The literature back then suggested methods that it claimed to be cost based to determine the cost of termination and consequently to set a price based on these costs, but in reality they were only estimating such costs based on a humongous amount of expectations, estimations, assumptions, hypothesizing, adjustments, derivations, forecasting, adaptations, extrapolations, approximations, etc… . We can't deny that these methods helped a lot at that time in history but knowing the "real cost" remained the "one million dollars question".

Currently we are in a totally different environment. Each market is very competitive and containing many well established service providers with a freedom of entry or exit, the penetration rates are very high, the consumers are receiving very sophisticated retail offers and driven by the fierce competition in the market the retail rates are extremely low and in constant decline. All this is inviting us to reconsider what was written in the 1990's literature and to look at it with a fresh vision.

The basics of the economic theory that is the foundation of the telecom regulatory interventions confirm that when the competition is fierce in a market, the prices tend to be as close as possible to their real underlying costs. Since the aim of the telecom regulators worldwide over the past couple of decades was, and continues to be, to promote competition for the best interest of the end-users, it may be time to claim that this aim is reached and to start collecting the fruits of such efforts.

In a competitive market like the Australian voice telecom market and according to the economic theory we can easily confirm that the voice retail rates in this market are a proxy for the real underlying costs. By "real costs" it is meant the costs that only each operator knows to be his costs. Such real costs are kept by the operators as their most guarded industrial secret but are revealed by the retail rates that the operators are forced to offer in order to stay in business in the competitive market as the economic theory confirms.

Since the on-net voice call is only using one-single-operator network elements then the on-net retail rate is the most accurate proxy for this operator's cost for offering voice services. And since the call termination on this operator's network in an on-net call scenario is very much comparable to the call termination in an incoming cross-net call scenario. Then it becomes logic, taking into consideration the competition effect on the retail prices as per the established economic theory noted in the previous paragraphs, to derive the termination rates from the on-net retail rates in the form of a ratio linking the two rates. In other words, "the termination rate into an operator is a percentage of this operator's on-net retail rate".

The following sections step more into the details.

Reverse cost imputation

As it is well known from the 1990's literature, a vertically integrated operator can practice an anti-competitive behavior called "vertical price squeezing" and the telecom regulator can

remedy or prevent this vertical price squeezing practice by imposing a “cost imputation” requirement on this vertically integrated operator.

According to the definition of the vertically integrated operator in the literature, and based on the fact that each operator is enjoying a monopoly on offering “call termination” (MTAS or FTAS) into its network, it is obvious that the operator who is offering the other operators “call termination” (MTAS or FTAS) into its network is a vertically integrated operator who can easily practice the anti-competitive “vertical price squeezing” behavior.

“Operator-A” is a vertically integrated operator because he is using his own “call termination on network-A” wholesale service with his own “other elements of Operator-A” to offer the “voice calling retail service into network-A” to his customers; while the other operators “Operator-B” whose customers want also to make calls into “network-A” have no choice but to obtain the “call termination on network-A” wholesale service from the vertically integrated “Operator-A” in combination with his own “other elements of Operator-B” in order to be able to offer the “voice calling retail service into network-A” to his customers. In other words, “Operator-A” is a monopoly provider of a wholesale service who competes in a market of a retail service that requires this wholesale service as input.

It is obvious that the “voice calling retail service into network-A” is a very distinct service and can’t be substituted by “voice calling retail service into network-C” (or voice calling retail service into any other network apart from network-A) and that “Operator-A” has a monopoly on allowing this distinct retail service to be offered which is derived from the fact that each operator is enjoying a monopoly on offering “call termination” (MTAS or FTAS) into its network. Relying on this obvious monopoly position, the anti-competitive “vertical price squeezing” behavior can be practiced by the vertically integrated “Operator-A”.

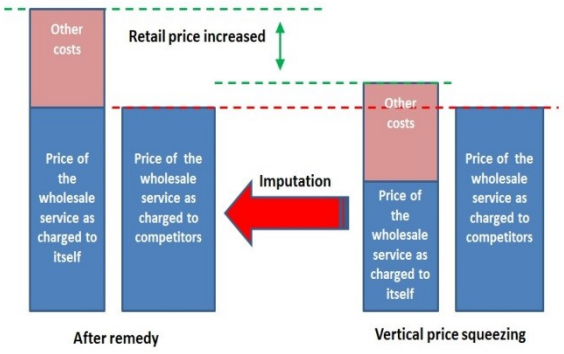
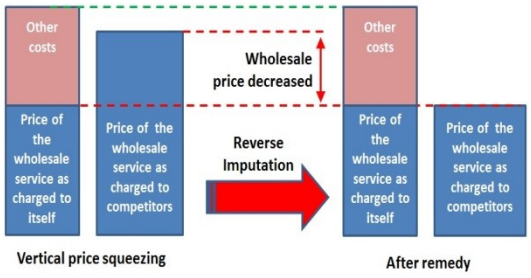
The anti-competitive “vertical price squeezing” behavior is manifested, as per the literature, if “Operator-A” retail price for the “voice calling retail service into network-A” is less than the sum of the price it is charging its competitors (the other operators) for the “call termination on network-A” wholesale service plus the “other elements of Operator-A”. In other words, the anti-competitive “vertical price squeezing” behavior is manifested if “Operator-A” is charging his competitors more than what he is charging himself for the “call termination on network-A” wholesale service required as an input to the same competitive retail service which is the “voice calling retail service into network-A”.

If we apply the remedy of “cost imputation” requirement as the 1990’s literature suggests, this will mean that the regulator will force the “vertical price squeezer” to raise it retail price to be no lower than the sum of what it charges its competitors for the wholesale service that is an input to this retail service plus the squeezer’s other elements needed to offer the retail service. Although this remedy, as described in the literature, protects the competitors from the harmful behavior of the vertically integrated operator but on the other hands it hurts the end-users by building on the harmful action committed on the wholesale level and forcing the operator to

raise the retail price paid by the end-users to remedy for the harmful act. i.e. it is a remedy that protects the operators (the new entrants back then) on the expense of the end-users.

Since the economic theory confirms that when the competition is fierce in a market the prices tend to be as close as possible to their real underlying costs, it may be good to build on this solid theory and to be confident that, in the competitive market of a service, the retail price that the vertically integrated operator is charging its own customers is the most accurate proxy for the cost of providing this service. If we suspect that this vertically integrated operator is charging its competitors excessive prices for a wholesale element required as an input to the retail service in question, then we should not apply a "cost imputation remedy" but rather a "reverse-(cost imputation) remedy". i.e. instead of forcing the vertically integrated operator to raise its retail price to fix it, we should force the operator to lower the wholesale price. In other words, the price of the wholesale service must be determined based on the retail price.

The graph below helps clarifying this point.

<table>
<tr>
<td> 
</td>
<td> 
</td>
</tr>
<tr>
<td>The classical imputation leads to a retail price increase that negatively affects the end-users as a collateral damage to redressing the anti-competitive behavior</td>
<td>The reverse imputation redresses the anti-competitive behavior without the negative affect on end-users' retail price</td>
</tr>
</table>

<u>Accurate benchmarking</u>

The proposed method can be seen as a sort of benchmark. Instead of looking into other countries to see what are their prices and then adapt these foreign prices to the national conditions through a series of adjustments, the NTRA proposed method is making a benchmark by looking into a cost based national retail price.

As stated earlier, the economic theory confirms that when the competition is fierce in a market, the prices tend to be as close as possible to their real underlying costs. This means that, in such a market, the on-net voice calling retail service prices are cost based. These prices are freely set by the competing operators based on their real underlying costs taking into consideration all the national specificities like the population density, the land area, the size of the mobile network, the mix of mobile technology, the spectrum costs, the network usage, the cost of capital, the

geographical factors, the market demand, the market shares, the cell coverage radii, the spectrum holdings, and the national currency.

Using these cost based nationally specific on-net retail prices as a base to extract the termination prices makes these termination prices automatically cost based and nationally specific by default without any need to do any adjustments.

Price proportionality

If we imagine a market in a country were all the prices, retail and wholesale, are based on their underlying costs. Which means that the service that has a higher cost will consequently have a higher price and the service that has a lower cost will consequently have a lower price. The cost will depend on the amount of elements used to provide the service, the more elements are used the higher the cost. The cost will also depend on the type of the elements, the more expensive elements are used the higher the cost. The services are commonly sharing the use of some of the elements. Based on this, there must be a proportionality relationship linking the costs of all the services. This proportionality relationship will also be linking the prices of all the services since all the prices are based on their underlying costs. This proportionality relationship can be expressed as a set of ratios or a set of percentage factors linking each price with each of the other prices in a mesh format. If a factor affecting globally the system, like the cost of capital, is changed to become higher (lower), it will affect all the costs to become higher (lower) and the prices will consequently become also higher (lower) but it will not affect the proportionality relationship between all the prices and the set of ratios or percentage factors linking these prices together will remain the same despite the change in this cost affecting factor. Some proportionality relationships may not be obvious to see but some are extremely obvious. The proportionality relationship between “voice calling retail service into network-A” and “call termination on network-A” wholesale service is extremely obvious.

Based on the economic theory that confirms that when the competition is fierce in a market, the prices tend to be as close as possible to their real underlying costs, we can confidently say that, in such a market, all the retail rates are as close as possible to their underlying costs. The regulator who is aiming to make the price of any non-competitive service, like the termination of voice calls, also a cost based price can simply link the price of the non-competitive service to the cost based price of the competitive service by a ratio or a percentage factor. This linking will guarantee that the price of the non-competitive service remains cost based.

Evaluation of the method

It can be seen by some that this method is not robust enough and uses overstretched approximations. In reality, compared to the other methods for estimating termination cost, this method has the least amount of approximations.

As a practical example, the ACCC text describing the benchmarking exercise set to start soon in Australia included 57 counts of the words (expect, estimate, assume, hypothetical, adjust, derivate, forecast, approximate and their derivatives) not including 49 counts of these words in the section about WACC alone. The Analysys Mason document contained 115 counts of these words. Knowing that the benchmarking exercise is considered to be among the lightest methods in the literature to estimate termination prices, we can imagine the amount of using these words in the heavy methods like cost modelling.

This practical example is not meant to be a criticism or offence to any party it is just meant to practically evaluate the amount of approximations imbedded in the methods widely stated in the literature.

By making a comparison between the NTRA proposed method and the methods in the literature, the robustness of the NTRA proposed method will become clear.

The NTRA proposed method "X% of on-net"	The classical methods in the literature
In competitive markets, it deliver accurate results.	Accuracy varies per method.
A very simple method to apply.	Mostly complex. Complexity varies per method.
Very inexpensive method, uses little manhour.	Mostly expensive, lot of manhour needed.
Uses almost no data from the operators.	Depends extensively on data from operators (the current benchmarking exercise requires at least 40 types of data from the operators).
Uses mostly publicly available data.	Accuracy of outcome deteriorates in case of inaccurate data or missing data .
Can be repeated many times per year so the outcome is always up-to-date.	Lengthy, it takes years to be repeated, outcome may become obsolete (The current WACC exercise depends on 5 years old historic data and is designed to last 5 years in the future, i.e. it has a 10 years span!).
National specificities are imbedded in the outcome by default.	May need long adjustments to reflect the national specificities.

The various usages of the method

The proposed method can be used by the regulators in many different ways.

A tool to set the termination rates

The proposed method can be used, instead of the classical methods, to set termination rates. The previous sections explained the rationale behind it and demonstrated its advantages compared with the other classical methods stated in the regulatory literature.

A tool to evaluate the results obtained from the other classical methods

The proposed method can be used to evaluate and to test the accuracy of the results obtained by using the other classical methods.

All the classical methods, if properly used and if fed with accurate complete set of data, must lead to termination rates that fall within the logical range of the proportionality relationship linking them to the on-net retail rates in a competitive retail market. In other words, the termination rates resulting from these classical methods must be around the 2/3 (two thirds) of the on-net rates of the operators to be considered accurate and contributing towards the LTIE.

If the result of the classical methods does not follow this logical proportionality relationship then the result is not accurate and is not achieving the LTIE. The regulator must not use this inaccurate result to regulate the market and must investigate to discover the source of the inaccuracy.

The ACCC may wish, subject to its own discretion, to consider passing the result of the current MTAS exercise, or any future termination rate estimation exercises, through this "proportionality relationship test" to become more certain about this result's accuracy and about its contribution towards the LTIE.

A tool to investigate the need for a regulatory intervention

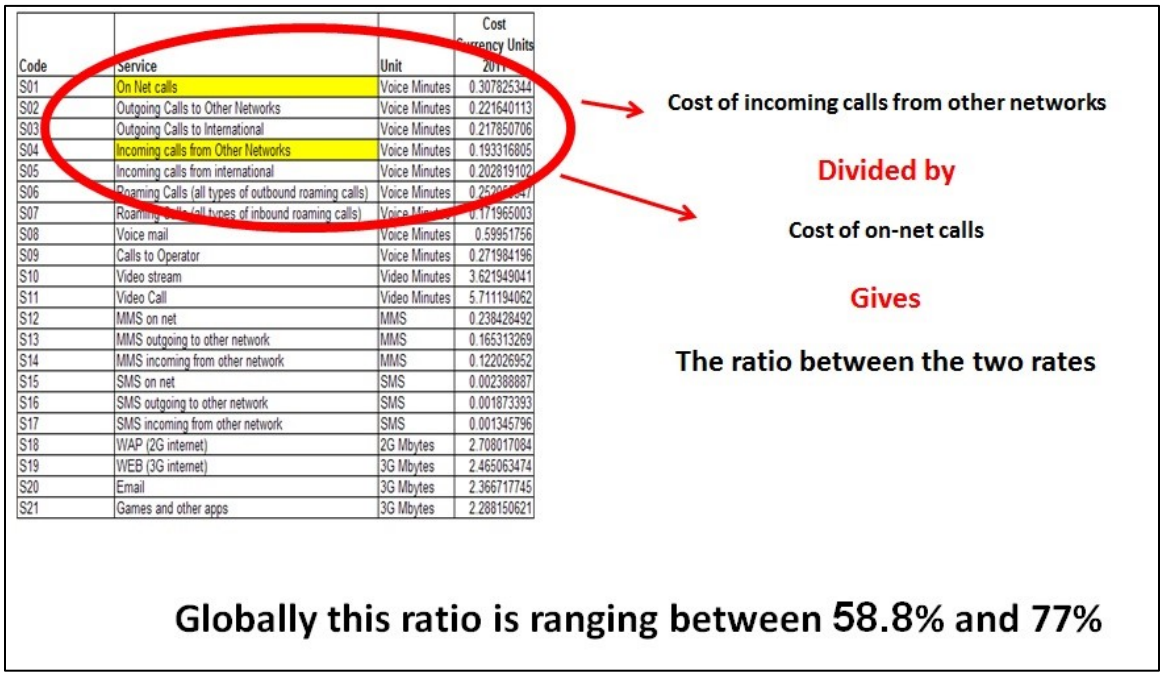
Since the classical methods use too much time and resources, the regulators tend to use them in time distanced iterations. A market can be regulated using the results of a classical method obtained years ago which makes such regulation clearly out of synchronization with the extremely fast paced telecom market on the technological and on the retail levels.

To prevent a termination rate regulation from becoming obsolete, the regulator may run the proposed method as frequently as it wishes (yearly, semiannually or even quarterly) to make sure that the imposed termination rates are still within the logical range of the proportionality relationship linking them to the on-net retail rates in a competitive retail market. Once these termination rates become disproportionate to the on-net retail rates, the regulator must investigate it and accordingly may decide that it is time to do another iteration of its preferred most-appropriate termination rate estimation method to set new up-to-date termination rates to keep the market healthy and respecting the LTIE.

Annex

How to calculate the ratio (or the percentage factor) linking the termination price to the on-net retail price?

There are many methods, but since there is a requirement to use the (TSLRIC+) then such ratio can be extracted from the (TSLRIC+) cost model as per the graph below



How to determine the on-net voice calling retail price?

Some can feel a challenge in determining the price of a single service when this service is offered among other services priced all together in a single bundle. This feeling is increased if this service is not offered in a defined quantity but rather in an “unlimited” or “all you can consume” format.

If we know that operators are companies incorporated only for the purpose of making a profit then it is very easy to overcome this feeling of challenge. Such exercise will be anyway much easier than undergoing the exercise of estimating the WACC or developing a cost model or doing the adjustments in a benchmarking exercise.

The method of deciphering a bundle to know the unit price of each of its elements depends on how the bundle is structured. [c-i-c begins] ---- [c-i-c ends]