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1. Treatment of Common Costs

Whilst the outputs from a LRIC model provide essential information in informing the appropriate levels and structures of prices, it is also necessary to consider:

- (i) how fixed common costs should be recovered and
- (ii) the extent to which there exists a network externality, as discussed below, and the impact this has on the efficient structure of prices.

Because ANRC's current definition of fixed common costs (limited definition of coverage network and omission of other fixed common costs), the scale of fixed common costs is small. This gives the appearance that the efficiency losses resulting from Equal Proportionate Mark-Up for the recovery of fixed common costs are small. However, this is not the case – after correcting for non-recognition of fixed common costs and for cost omissions, the model would identify substantial common costs.

Standard economic theory demonstrate that, in order to maximise social welfare whilst ensuring budget balance, fixed common costs should be recovered in inverse proportion to the relative price elasticities of demand of services. To the extent that there exists a network externality, the elasticities will include cross-price elasticity between subscription prices and the quantity of terminating calls. Such an approach is termed 'Ramsey pricing.'

An EPMU-based approach, whilst straightforward to apply, will yield a sub-optimal outcome where (i) demand sensitivities differ across individual services and (ii) there exists a network externality.

An efficient outcome therefore requires a Ramsey pricing solution and recognition of all externalities. Excluding externalities would lead to sub-optimal mobile penetration levels, as explained later in this document.

MobiFon fundamentally disagrees with any proposal that fixed common costs should be recovered on the basis of so-called 'equi-proportional mark-ups' (EPMUs), i.e., in proportion to the incremental costs of the defined services or increments.

Adoption of an EPMU-based approach simply adopts an inappropriate assumption about equal elasticities across services.

The suggestion that fixed common costs are recovered on an EPMU basis *and without recognition of any network externality* will unequivocally yield an outcome which is to the detriment of consumers and Romanian telecommunication market as a whole.

MobiFon is extremely concerned that ANRC proposes, as a starting point, to opt for an approach which will undoubtedly be sub-optimal, and at odds with the conclusions drawn by regulators and competition authorities in other jurisdictions.

MobiFon believes that reliance upon an EPMU-based approach is inappropriate and that in the presence of different price elasticities for incoming and outgoing services and externalities, Ramsey-pricing should be the base for FCC recovered mechanism.

There are comments like "*Equal-proportionate mark-up (EPMU) is often chosen because it is easy to apply in practice*", while a disadvantage associated with Ramsey pricing is that it is "*harder to implement because it is a more complex calculation.*" Whilst MobiFon appreciates that undertaking demand studies is undeniably more complex than assuming away issues around optimal mark-ups, MobiFon does not consider this to be a valid reason for not undertaking work which is critical in determining the efficient levels and structures of prices, and, as a result of this, a maximization of welfare.

In our opinion, ANRC should focus on how to support MNOs in their efforts to develop a method for assessing demand characteristics of the market in conjunction with the operators, allowing for consistent and comprehensive collection of demand data and transparent discussion and review of methodology and resulting outputs.

In this context, MobiFon is keen to provide intellectual input, resources and data to assist ANRC in appropriately defining and inform such studies and analysing the outputs.

We do not believe that adequate arguments have been put forward to dismiss Ramsey pricing, other than data collection regarding price elasticities being expensive, time consuming and cumbersome.

- *MobiFon strongly disagrees with ANRC's proposal that fixed common costs should be recovered under an EPMU approach.*
- *Without recognition of the demand characteristics of the market, and the appropriate definition of fixed common costs, prices will be set to the detriment of consumers and the development of the industry.*

Proposed model amendment:

- *Replace the use of an equi-proportional mark-up (EPMU) in the model by Ramsey pricing*

2. Network Externalities

In the ANRC' proposed model, *'the mark-up shall not account for the network externalities'* (Ch. 2.1.4).

Optimal mobile prices ensure that the welfare of society is maximised, under a zero profit constraint for the mobile operators. We define society's welfare in terms of the quantity of goods and services that are consumed. If there are fixed and common costs, prices set equal to marginal cost would generate negative profits. Therefore prices will have to be adjusted in a way that would ensure zero profits, while minimising the welfare-loss when prices deviate from marginal cost. This is the standard Ramsey pricing result.

In the presence of a network externality, the welfare loss associated with a deviation in the price of subscription from the marginal cost of subscription may be compensated for by an increase in the welfare associated with an increase in the volume of incoming calls. In this situation, it may be welfare-maximising to set the price of subscription below the marginal cost and raise the prices of other services above their respective marginal costs.

The optimal set of prices is determined by the point at which the marginal loss of welfare caused by prices diverging further from marginal cost equals the marginal gain in welfare associated with the greater volumes of incoming calls caused by the additional mobile subscribers.

This maximising welfare argument is of particular importance in our country where penetration of fixed line services is relatively low. Increases in mobile penetration will not only serve to increase social welfare in a general sense, but may also serve to meet key Government objectives in terms of universal service provision. With a current fixed

line penetration of 20% and a mobile population coverage of more than 90 %, the mobile operators are probably better positioned than the fixed operator to provide Universal Service. Mobifon's current coverage is ~91%. Romtelecom's coverage is only expected to increase slowly 8% for 2002 and the existence of waiting lists for obtaining fixed line access indicates Romtelecom's difficulty in providing coverage and access. As per the Cullen International report the average waiting time for fixed telecommunications services is 3.5 years which is far longer than in any other EUCC countries. This difficulty is also reflected in the difference between fixed and mobile penetration growth which for the last year was 33.3%, four times higher than the fixed one.

The existence of an externality, the fact that other fixed and mobile customers benefit from a person joining a mobile network, justifies a subsidy for the mobile subscription in order to get as many customers as possible on the network.

In our meeting of October 15th you asked us why this line of reasoning should not be applied to the fixed operator as well. Mobifon thinks it is clear that there is no point in subsidising a service in the case of supply constraints. Subsidising would not result in an increase of fixed subscribers and is therefore pointless.

International experience also shows that network externalities exist and can be measured, being an important component of MTRs. This point has been accepted by regulators as well. (OfTel, PTS, etc)

CC conclusion on the externality surcharge: paragraphs¹ 2.371 "On the grounds that a targeted subsidy could have the effect of bringing marginal customers on to the network and helping to retain marginal customers, we take the view that there should be an externality mark-up...".

¹ Competition Commission: "Reports on references under section 13 of the Telecommunications Act 1984 on the charges made by Vodafone, O2, Orange and T-Mobile for terminating calls from fixed and mobile networks.

Network externalities, being mark ups above cost to reflect the welfare gains which accrue to callers as a result of additional subscription to the network, are not strictly derived from LRIC cost modeling. However they are fundamental to the appropriate derivation of prices and have proven a complex and controversial topic in recent debates on mobile price setting.

Another point you brought forward during our meeting on October 15th was that higher mobile termination rates would be detrimental to smaller operators. This would only be the case if a small operator would have a heavy traffic/subscriber imbalance, and terminate more traffic/subscriber on the network of the other mobile operators than receive. There is currently no proof that this is the case, both Orange and Mobifon have balanced traffic/subscriber streams and there is no reason to assume the situation is different for Zapp or other new small entrant on the market

A last argument you mentioned was regarding the competitiveness of the Romanian mobile market in general. International evidence shows that higher termination rates have no impact on the competitiveness of the market. In the UK for example, the mobile market started off with two operators and no regulation of mobile termination fees. This has in no way hindered the new entrants in gaining market share, the situation in the UK being such that all four operators have a similar market share.

Another argument that strongly recommends the use of network externalities is the very low outgoing profile of our recently added mobile customers. Mobile operators already face huge difficulties in the acquisition of the new customers due to the low outgoing usage they generate and because they are mainly pre-paid subscribers. Recovering the investments made for having these new customers in the network should be allowed through the use of externalities for the incoming traffic while the benefit for the others who generates the calls is more visible in this way.

Mobile operator's ability to introduce new technologies and new services in the Romanian market will be endangered by not considering the network externalities for mobile termination. It is well known that new services and technologies involve high up-front investments and lower penetration and usage. The initial period of operating below costs should be recovered through other existing services otherwise we will not be able to further invest in such services. All these services contribute to the welfare of our customers but, especially for Romania, the adoption of such new and advanced services and technologies is very slow which creates difficulties of recovering the investments (ex GPRS, MMS, HSCSD, WAP).

Proposed amendment:

Externalities should be included in MTRs – being calculated as mark-up over LRAIC.

3. Minimum coverage treatment

The ANRC model correctly identifies coverage as a common cost across services. However, definition of the coverage network is open to different interpretations and can have a significant impact on the scale of common coverage costs.

In its original document (issued on August 11th) ANRC proposes definition of coverage as the non-capacity cost of the coverage network (Ch. 3.2.2). In the public meeting regarding mobile termination regulation of October 15th 2003 however, the ANRC defined coverage as the minimum capacity required to offer service, service being more than one incoming and outgoing call (depending on the equipment granularity). This definition is quite similar to Mobifon's definition of minimum coverage: 'the least amount (and cost) of network infrastructure sufficient to provide the capability to make or receive a mobile call over the complete footprint provided by the existing network'. It should not include any additional infrastructure or costs which are required to provided for additional capacity within the coverage area. This would mean that in addition to the costs of sites and the network management system, transmission, switching and equipment at each base station would have to be included.

Our main criticism on ANRC's first definition of minimum coverage definition is that is a radical abstraction from reality that hypothesises that the infrastructure and costs that are necessarily required to provide coverage – and therefore can not be incremental to any one service since even in the absence of a need to serve outgoing calls, say, that coverage would be needed to support incoming calls - can be artificially separated into incremental traffic and common coverage costs. As such, it fails to recognize the notion of a true, functional, minimum network which is common to all defined increments.

Proposed amendment:

Change the definition of minimum coverage to ‘the least amount (and cost) of network infrastructure sufficient to provide the capability to make or receive a mobile call over the complete footprint provided by the existing network’

4. Inclusion of non-network costs

ANRC states in Paragraph 10.2 that ‘since non-network retail costs are not caused by incoming traffic and do not provide benefit to the calling parties from other networks, they should not be included in the cost of call termination.’ Mobifon disagrees with this. Non-network retail costs are incurred to provide a voice communication service, which includes outgoing and termination services. In Mobifon’s opinion, inbound callers do cause an increase in subscribers numbers. People decide to join a mobile network not only to be able to make calls, but also to receive calls. Therefore, the costs of acquiring subscribers should be allocated to terminating calls as well. It is impossible for a mobile operator to offer call termination services for calls to its customers without having acquired them, the same goes for outgoing services. Considering part of the non-network costs (such as customer acquisition and retention) as incremental to subscription services is wrong, since subscription is not a service in its own right and is never offered without offering outgoing and terminating services as well.

Proposed model amendment:

Include non-network costs in the model.

5. Audit of the costing model (Ch. 9)

There is a *contradiction regarding ANRC position*: on the one hand it is very concerned about MNO costs and efficiency, whilst, on the other hand, it *encourages huge and unjustified costs for the operators*.

The industry in Europe is gearing up for a very significant spend on LRIC modeling over the coming few years. The UK process involved each of the UK operators spending millions of pounds on the cost on internal resources and consultants and the regulators required similar consultancy services and were required to devote tens of staff to the process.

In our opinion the **audit of a costing model** represents an unjustified expense for the MNO and the industry as a whole due to:

- huge costs already involved by LRIC development, both for operators and ANRC;
- considerable costs incurred: audit fees for compliance with regulations are two-three times higher than audit fees for financial statements;
- interference of a fifth party between ANRC, MNO and external consultants (one for ANRC and one for MNO);
- the very tight and detailed allocation rules contained by the proposed model which should, according to ANRC enable an easy reconciliation/ control process.

MobiFon is aware that the developed LRIC should reflect a true and fair view on the MNO cost structure, consistent with ANRC decision and costing methodology, and is willing to provide all necessary support for any further reconciliation required in this respect.

As defined in the draft decision, the audit should be carried for both regulatory compliance and methodology of assets valuation and costing.

Proposed

amendment:

MobiFon strongly disagrees with the audit obligations as in the form imposed by ANRC.

6. Assets in the course of construction (AICC)

At any point in time, a stock of assets – either to replace or modernise existing assets or to dimension for future growth – will be under construction. However, such costs will not typically be reflected in the recognised balance of assets, since they are yet to provide effective and revenue-generating capacity. The costs associated with such investments are not separately identified in the ANRC model; the implication of this is that the hypothetical network operator only pays for assets once they have been planned, dimensioned, installed and tested and are therefore capable of providing revenue-generating capacity. This, however, is not representative of most vendor-operator relationships. For certain equipment there is a significant amount of delay between the time it is bought and the time it goes ‘live’. An example of this is the radio network. Although the site or expansion may be complete, including all TRXs and other infrastructure, it will not be possible to bring it live until a retuning of all the frequencies in the adjacent area can be done. In our experience a new site or an expansion (even of a single transceiver) will have to wait for an average of a month before it can be brought live.

There are several potential methods for incorporating such costs; we propose an uplift on the unit investment costs of assets to reflect the elapsed time between, on the one hand, investment in a given asset and, on the other, the timing of its introduction as a revenue-earning asset.

Proposed model amendment:

Identify the level of investment in assets which are yet to establish revenue-generating capability and uplift the unit costs of relevant assets accordingly.

7. ANRC BU – LRIC model

➤ BU disclosures: approach & input assumptions

Considering the importance of reconciling MobiFon TD-LRIC with ANRC BU-LRIC, it is essential to be as soon as possible informed about ANRC's approach and input assumptions for developing its BU – LRIC model . We have the following questions regarding the BU LRIC model (without being limitative):

- What is the time horizon to be included in the model?
- What is / are the depreciation method(s) to be used?
- What is the accounting standard to be used, US GAAP or local GAAP?
- Which increments will be modelled?
- Which services will be modelled?
- What is the starting year of the model?
- Will there be one BU LRIC cost price or different ones, or cost prices per operator, or per type of operator?
- Which market share assumptions and development will be used?
- How will 3G be treated?
- What efficiency assumptions will be used?
- How will Quality of Service parameters be included in the model?
- How will operating costs be included in the model?

➤ **Implementation of un-reconciled BU results (Ch. 12.4)**

We strongly disagree with ANRC proposal to calculate tariffs “on the basis of the bottom-up model results, developed by ANRC” (Ch. 12.4), before finishing the process of reconciliation with TD – LRIC developed by the mobile operator. This seems to contradict ANRC’s statement in Paragraph 1.2.3 where it is stated that ‘the “bottom-up” costing model for calculating long run incremental costs to be realised by ANRC shall be calibrated using the “top-down” costing model for calculating long run incremental costs realised by *the Operator*, in compliance with the present regulation.’ We do not see how this calibration will be carried out when the tariffs have already been determined.

Sufficient time should be allowed and allocated for the reconciliation process. Experience in other countries has shown that in order that gaining understanding of the BU LRIC model and presenting alternative views, running the model with different data is a time consuming activity. A careful and detailed reconciliation process could in the end prove to be more efficient. A situation like the UK where all operators objected to the proposed regulation and as a result a lengthy Competition Commission investigation had to be held is probably not in the interest of the ANRC.

Proposed amendment:

Actual MTRs should be frozen until the finalisation of the TD LRIC process and reconciliation with BU final results, ANRC having no evidence for supporting the actual level imposed to mobile operators.

8. Roadmap for LRIC

The draft decision stipulates only two dates:

Ch. 12.1.: “Until 31 March 2004, the Operator shall submit to ANRC the costing model documentation” and

Ch. 12.2.: “Until 30 June 2004, the Operator shall develop and implement the Costing Model in a manner which will allow the calculation of the tariffs included in the Reference Interconnection Offer and the reconciliation with a bottom-up model”.

In order to plan our work in an effective and efficient way it is very important that ANRC to provide a road map for the LRIC development process, including the main steps and their estimated dates. We have included a proposed version of a roadmap and are looking forward to receiving ANRC’s version back.