WIND Hellas Telecommunications comments to

ERG (07) 83

Draft Common position on symmetry

A. Symmetry between different Member States

It is worthwhile noticing that already back in 1994, the IRG had recognized the fact that "national or market specific circumstances can justify different remedies in order to achieve a competitive level"[1].
Also, in the 2006 call for further harmonization, the ERG itself cautioned against the confusion between consistency and uniformity[2]: " a *one size fits all* approach to regulatory remedies is sub-optimal where national market differences demand different solutions in order to ensure a good deal for consumers right across Europe (…) **examples of a misguided uniform approach to regulation would be a single European price** for unbundled loop or **for mobile termination**. Cost differences between different provider networks very frequently mean that one or more of the regulatory objectives of Art.8 Framework Directive, could not be satisfied by a uniform pricing policy".
The EU framework recognizes that mobile markets remain national markets. This is confirmed by the fact that they are examined on a nation by nation basis. In cases where intervention is required, NRAs are entitled to impose remedies [3] on a national case by case basis[4]. The use of EU-wide information regarding in particular prices is restricted insofar as comparison are to "take account of prices available in comparable competitive markets".[5]

In the present document, ERG notes that throughout Europe, in the context of market 16 analyses, a similar remedy of price control has been used by the NRAs, but following different practices, i.e. different costing methodologies. The consequence that ERG draw from this fact is that this diversity resulted in different mobile termination rates throughout Europe[6]. Only further down the same page, it acknowledges that "these differences in mobile termination

[1] IRG P.I.B. on the application of remedies in the mobile voice call termination market, April 1, 2004, point 7.

[2] ERG (06) 68, Effective Harmonisation within the European Electronic Communications Sector P.C., p.5.

[3] Art 13.1 Access Directive.

[4] "Because prices depend on both supply (costs) and demand conditions in a market, there is a limit to what can be learned from undertaking cross-country comparisons. Comparing the price of a service with the price charged in other countries for that service will not provide information on the relative efficiency or competitiveness of that countries mobile industry. (…) Even looking at prices of all services and trying to draw conclusions is limited by dynamic considerations-networks and competition may evolve differently in different countries", Europe Economics, Cost Structures in Mobile Networks and their relationship to prices, 2001, page v.

[5] Art 13.2 Access Directive.

[6] ERG (07) 83 p. 64.

tariffs can partly be explained by national specificities, but they also rely on differences between practices and principles followed by the NRAs".

The ERG paper is thus opening the debate on "what kind of consistency should be ensured between EU member states in TR regulation (TR target levels? TR symmetry ? Remedies definition and implementation (…) Is it necessary to combine a common position on TR symmetry with a common position on the levels of the TR"[7].

We argue here the fact that different MTR in different Member States **mainly** reflect 1) the importance of national specificities and 2) the limited scope for benchmarking such figure given also the fact that a benchmark approach would cover data of countries whose NRAs have already taken more or less stringent steps to regulate MTRs.

The fact that there are currently discrepancies between termination rates in different Member States does not come as a surprise, even so more as cost-oriented models are in force. **The differences reflect the difference in costs**. We believe that within Europe there are country-specific characteristics that objectively justify different MTRs per country.
These include amongst others, different topography and related geographical population distribution/dispersion, spectrum licensing costs, spectrum allocation mechanisms, network deployment conditions (antenna/masts installation, collocation) and network use/network congestion levels, all of which are factors that contribute to differentiation of costs. Ultimately, since we are talking about the European Union, the actual geographical location of each Member State compared to the other is a key factor for the differentiation of cost allocation in relation to infrastructures that serve international traffic (peripherically/centrally located within the EU- example Greece compared to Belgium).

Thus, even with the implementation of a "fully-harmonized" cost model, there is no objective reason supporting a resulting "average" EU-wide MTR. Today, despite the fact there is limited available comparable data, Member States applying so to say similar costing models implement different MTRs, whereas similar MTRs amongst countries can appear while their respective NRAs apply different costing methodologies.

B. Symmetry within a single Member State

1. Regulating MTRs in Asymmetric Networks with Heterogeneneous Exogenous Costs

In all cases, until today, where regulators imposed the remedy of cost-oriented termination rates, it was made under the assumption of symmetric cost structures between operators. Although it is beyond doubt that this is not

[7] ERG (07) 83, p.8 questions F and G.

the case, the implementation of a bottom up LRIC model, concluded inevitably, in every Member State where applied, to an ideal termination rate equal to the costs of a virtual efficient operator illustrated in the bottom up model. The only asymmetry allowed within the same Member State was based either pro bono on the fact of a late entry, either based to smaller economies of scale driving LRAIC to higher levels. However, the heterogeneity of exogenous costs suffered between operators and which is caused in most cases by cost differences and market anomalies, **was never illustrated or addressed**.

1.1. The economic approach

If we introduce to the, widely accepted[8], economic model of network competition (i) network asymmetry, meaning mobile networks of different size[9] and (ii) exogenous costs heterogeneity, which is present between operators in many Member States, firstly the model comes closer to reality[10] and secondly it can be demonstrated[11] that the optimal regulatory policy **is not** the one of imposing symmetric MTRs close to ideal marginal costs. This is due to tariff mediated externalities. In real life consumers choosing to subscribe to an inefficient operator do not take into account that by doing so the termination rates that such an operator tends to charge, in an unregulated environment, are higher than the ones of the competition. Such an effect is further escalated in the case of network asymmetry.

When networks are symmetric and networks costs are considered the same, the work for regulators is minimized to the obvious, meaning to impose a reciprocal termination rate equal to marginal costs. However, it is an **utopia** to believe that marginal costs of terminating calls are the same between competing networks and the difference in technologies used, as identified until today, just isn't the entire case. Moreover, there is an ongoing debate on introducing subsidies in favor of the efficient[12] and not the inefficient network[13].

[8] Between many see Laffont, Rey & Tirole "Network competition I & II" (1998) and Armstrong (1998).

[9] In terms of their subscribers base.

[10] Even in such a case there are parameters that are not illustrated, such as:

(i) the subscribers fee imposed to mobile subscribers in the case of Greece, which works as a state aid in favor of fixed networks and especially the fixed incumbent, who still holds an above of 70% market share in the fixed market,

(ii)the different calling partners between operators who target different ends/groups of the market, something that can be easily found analyzing the subscriber base of each operator.

[11]See Hansen "Network Competition when Costs are Heterogeneous" (2005).

[12] Although it is vital to identify were lies the efficiency of the operator. If the efficiency derives from endogenous reasons the modelling is verified, but if the efficiency lies to market anomalies (anticompetitive practices, privileged relations etc) the modelling, of any kind will, without a doubt, fail.

[13] See Hansen, as above, under chapter 4 "Optimal regulation" where is stated: "From the result above we see it is sufficient to impose a tax on the inefficient firm or to introduce a subsidy to the efficient firm. This result may seem to oppose the regulatory objectives of providing a level playing field. Instead efficient technologies should be favoured".

Referring exclusively to exogenous reasons leading costs to rise, the different network technologies on which the networks are built[14] is one factor. However, the debate until today failed to identify that the exogenous costs a network faces, are not only concentrated in the access part of the network but to the backhaul as well[15]. In many cases **MNOs lack cost savings that other competing MNOs**, subsidiaries of fixed incumbents, **benefit from**, **in the form of privileged access to collocation or extraordinary essential facilities**[16].

1.2. Asymmetries

Referring to asymmetries we can identify (i) vertical differentiation between competing networks[17] and (ii) asymmetric cost structures[18].

In the first case, the asymmetry is identified between the incumbent/market leader and the entrant or/and the second[19] or third in market share competing operator. It is expected that the incumbent prefers a termination fee at marginal costs, while such a case will drive the newcomer or the second/third operator to a below -off his own- costs situation. Respectively, the termination fee that the incumbent prefers equals to a welfare maximizing surplus. If the social goal of regulating the industry is not to implement -by prejudice- economic restrictions and the superior scope is to further escalate the level of competition in order to achieve total welfare increase, regulators should consider a tradeoff by granting a termination mark up either to new entrants or to second or/and third competing operators. Such a tradeoff, although it seems that reduces -on the short term- the total welfare gain, will -on the long run- lower entry barriers, help the market to retain its growth momentum and ultimately to keep market's "swings & roundabouts effect" in favor of the end users.

In the second case, it is theoretically shown[20] that a regulator by granting (small) margins to low cost firms[21] can actually increase the total welfare. At a

[14] MNOs' spectrum allocations, is one case.

[15] Refer to the debate for NGNs & MNGNs and the new allocation of costs, due to the increase of investments to backbone networks with high bandwidth.

[16] In the case of Greece, the incumbent's subsidiary who at the same time is the mobile market leader in terms of market share, has privileged access to collocation in all incumbent's infrastructure and other essential facilities, when at the same time the same privilege is denied to the competing operators. Such a difference in exogenous costs was never identified during market's 16 analysis and the anticompetitive situation is further escalated due to the absence of a collocation framework (a draft Collocation Regulation is just now under public consultation by the Greek NRA).

[17] See Carter & Wright "Asymmetric Network Interconnection" (2003) and Peitz "Asymmetric access price regulation in telecommunications markets" (2005).

[18] Armstrong "Network interconnection with asymmetric networks and heterogeneous calling patterns" (2004). However, Armstrong's paper is based on assumptions such as inelastic demand and dominant-rivals modeling, which are far from most cases in Europe, where markets are saturated and, in most cases, the first two operators are close in market shares.

[19] Under the assumption that the first and second operators differ significantly in market share.

[20] See Hansen, as above.

first level, it is expected that such a case will result to higher costs for the high cost operator (retail effect) and profit for the low cost operator (wholesale effect), deriving by the awarded termination margin. However, due to the fact that terminating traffic for the favored operator is maximized for a market share equal to 0.5, wholesale revenues, decrease as market share, of the said operator, increase.

1.3. Modeling & market anomalies

In all cases where regulatory intervention is warranted, it is important to identify on ad hoc basis **the nature and the source of the cost savings** that an operator succeeds, contrary to the competition and ultimately becomes more efficient. If such cost savings are endogenous the aforementioned economic modeling is truly supported. But in the case of cost savings deriving from privileged relations, in favor of some and not all[22], competing operators (as above mentioned), the implementation of a predetermined modeling and regulatory approach, as a best regulatory practice, will undoubtedly fail to restore the level of competition The reason for this is that in all such cases **the reasons that are causing the market failure are not healed**.

This is the case of the Greek mobile market[23] and we believe that is not the only one at European level. In such an anticompetitive environment it is notable that although the present market leader was the late entrant and used DCS technology, it succeeded to overcome in a flash the established operators, in market share and turned its operations so profitable that managed to finance (i) on national level, its growth vertically, making the market significantly inelastic and (ii) on international level, its expansion to many neighboring countries.

1.4. Duration of asymmetry

The aforementioned rationale provides also the answer to the question of the ideal duration of the asymmetry introduced by the regulator, in favor of the second or/and third operator, which in a market with anomalies that distort them, is connected with the time needed by the regulator to introduce in the market the institutional framework needed for the market to become competitive enough and consequently elastic and help competing networks to overcome present anticompetitive anomalies. Consequently, the asymmetry

[21] It is theoretically proved that the optimal policy is not characterised by termination rates regulated at marginal costs, because the low cost firm becomes too small in equilibrium.

[22] In such cases this privileged relation, is offered to public owned or public controlled former monopolies, constitutes an indirect state aid.

[23] The mobile market leader, fixed incumbent's subsidiary, enjoys privileged collocation in all fixed incumbent's infrastructures and has access to unique essential facilities that the competition lacks. In such an anticompetitive environment it is notable that although the today's market leader was the late entrant and used DCS technology, succeeded to overcome the established operators in a flash and turned its operations so profitable that managed to finance (i) on national level, its growth vertically, making the market significantly inelastic and (ii) on international level, its expansion to many neighboring countries.

within a Member State is justified until a true playing level field is established and effectively supported by the regulator.

Contrary in a market with **level playing field** the asymmetry is linked with the networks (significant) asymmetry and the presence or the absence that truly introduce to an operator exogenous costs, so the introduction of asymmetry is vital for the timeframe this phenomenon is present. It is accepted that in a market with almost symmetric networks and with no significant exogenous costs, symmetric TR equal to marginal costs, validate the basic economic approach of regulating MTRs.

C. The fruitless run for static efficiency in access markets

In access markets the accomplishment of true and indubitable access leads to a welfare gain compared to monopoly, due to the fact that it facilitates undistorted downstream competition and induces upstream investment. Literally, the more competitive the downstream market the larger the upstream investment becomes[24]. In this perspective the most valuable remedy provided to the regulators isn't the price caps, but the open, indiscriminately to all competitors, access. Such a finding contradicts the notion that dynamic efficiency must be sacrificed for gains in static efficiency. Measures which enhance allocative efficiency in an otherwise -by nature- monopolistic market, like the termination one, do not necessarily require the sacrifice of dynamic efficiency.

Even though under TR regulation, regulators can achieve static and dynamic efficiency at the same time[25]. Setting access pricing at marginal costs, regardless if an economic proportional mark-up (EPMU) is awarded; we end up only with static efficiency. Having in mind that static efficiency drives access prices equal to marginal costs, meaning termination costs (profit neutrality result), static efficiency is in constant conflict with dynamic efficiency since operators tend to underinvest in quality when access price is equal to termination cost[26]. In all scenarios of linear access pricing rules[27], using unavoidably Ramsey rules[28], average retail prices mark-up influence the access price mark-up, maximizing or minimizing profits by the degree of the retail-wholesale prices interaction. As a result, in all such cases both **static and dynamic efficiency can be achieved at the same time**.

Moreover, it must be noted that in mobile telecommunications markets and especially when imposing rate regulation in mobile termination, "waterbed effect" most probably tends to cause an increase in subscription prices and

[24] See Klumpp & Su "Open Access and Dynamic Efficiency" (2007).

[25] See Jeon & Hurkens "A retail benchmarking approach to efficient two-way access pricing" (2007).

[26] See Valletti & Cambini "Investments and Network Competition" (2005).

[27] Cost based pricing rule (CBP), Efficient component pricing rule (ECPR), Generalized efficient component pricing rule (GECPR), Bill and keep (B&K).

[28] Speaking of regulatory harmonization the major issue needed to be addressed is the uniform approach by all regulatory bodies on the implementation of Ramsey rules.

mobile origination. It is widely debated[29] if the waterbed effect can take such a scale that would put the regulatory intervention under dispute/question. However, two facts are almost unanimously accepted:

- firstly, rate regulation does cause welfare losses for operators[30], losses that a private owned company has an incentive to make up. These losses, when the regulated rate was standing far above marginal costs (a status of "supernormal profits") are equalled by the welfare benefit[31] that the rate regulation generates for the end users[32]. It is the regulator's task to maintain[33] the momentum of the "swings and roundabouts effect" (overall public benefit) when they are driving, ex ante and on an ad hoc basis, the market to "zero-profit" by their regulatory intervention[34] and
- secondly, the level of competition -including the number of market players- and the market maturity affects significantly the magnitude of the waterbed effect, minimising the market opportunism for increasing not regulated rates.

Under this perspective, historically operators responded to their welfare losses following the regulatory intervention by maximizing economies of scale[35], but today there is a present and **clear danger**, chasing solely total social welfare benefit **to drive mobile markets to regression**. This is because macroeconomic parameters are changed since the first implementation of TR Europe wide. All European mobile markets are now saturated, with a penetration level far above 100% and a very high level of competition. Due to the fact that the aforementioned opportunity to further escalate significantly economies of scale, is today lost, this makes the need to address the dynamic efficiency of the market much more pressing and an issue of great substance, in order to avoid the danger of regression in investing in new infrastructures.

D. Regulatory performance & accountability

[29] see the New Zealand case. COVEC, "Modeling Regulation of Mobile Termination Rates" for Vodafone (2004) and Cave & Valletti, "Response to the Telecom and Vodafone Submissions on the waterbed effect and the network externalities" (2004).

[30] Between many see OfCom's "Wholesale Mobile Voice Call Termination - Explanatory statement and notification - Annex L: Oftel's Cost benefit analysis of regulation" (2003).

[31] At the contrary in a market were marginal costs are minimum ("zero profit unregulated") the welfare losses for the industry inevitably will always remain higher than the welfare benefit (lack of public benefit).

[32] see Cave & Valletti, "Response to the Telecom and Vodafone Submissions on the waterbed effect and the network externalities" (2004), in such cases as stated "…the presence of the waterbed effect does not affect the overall effect of regulation if one adopts a public benefits test. Alternatively, if one adopts a consumer surplus test, the case for regulation of mobile termination rates is also always strong, and it is stronger the smaller the magnitude of the waterbed effect".

[33] see also the practice, followed almost by all NRAs Europe wide, of providing network externalities margins to MNOs.

[34] This also why it is common for NRAs to perform a welfare/cost benefit analysis in order to verify the overall public benefit, before introducing rate regulation. see also Frontier Economics, "The waterbed effect" (2005).

[35] This drove arpu to significantly lower levels.

The success of the regulatory performance is undoubtedly a determinant of economic performance of the entire telecommunication sector, which will be judged by increasing jointly (i) total welfare and (ii) investment incentives. This equals to an unavoidable need for the highest regulatory performance, due to the high political accountability[36]. Following the considerations laid above (under A. Symmetry between different Member States) national regulators are expected to tailor their institutional intervention in the market in order to fit national economic, political and social endowments. For this reason we must not focus only on "regulatory governance", but on "regulatory substance" as well. It is thus of high importance to devise and favor policy mitigation instruments that incorporate on national level not only the institutional framework (regulatory governance & harmonization), but also the scope of the regulation itself (regulatory substance & social scope).

Contact at WIND Hellas Telecommunications:

Chiara Scimemi, c.scimemi@wind.com.gr
Theodossis Tompras, t.tompras@wind.com.gr

[36] Between many, see Gasmi, Noumba, Recuero Virto "Political accountability and regulatory performance in infrastructure industries: An empirical analysis" (2007).