

Response to consultation on draft Commission Recommendation on the Regulatory Treatment of Fixed and Mobile Termination Rates in the EU

Telefónica S.A. welcomes this opportunity to comment on the European Commission's proposal for a Recommendation regarding the harmonisation of termination rates.

Executive Summary

Telefónica agrees with the Commission's primary objective of harmonising the application of the Framework Directive across the Community. However, the Commission appears to conflate the need for a harmonised application of Article 8 of the Framework Directive, with a requirement to specify a methodology for calculating an SMP remedy. The requirement for such a Recommendation is not supported by the evidence. Whilst National Regulatory Authorities may have used a number of different methodologies to arrive at their decisions, with the exception of three outlying decisions, there is broad alignment of mobile termination rates across the Community.

The outcome of this methodology would be a sudden decrease in termination rates that could potentially lead to a range of adverse consequences for social welfare. Telefónica notes that the Commission has not undertaken an impact assessment with regard to its proposals, we trust that the Commission will take the issues we identify into account when reconsidering its position.

Telefónica's assessment of the impact of the proposed Recommendation is that:

- over **200 million pre-pay subscribers**¹ : may pay significantly more for their services going forward. These are just the sort of customers that the Commission and NRAs should be looking to protect;
- consumers more generally will also be negatively affected, as the structure of retail prices will change; unless the Commission intends that shareholders alone are to carry the burden of **around €5.5bn-€7bn in unrecovered costs**²;
- mobile users in rural areas will be disproportionately affected, as the Commission's proposal removes the link between investment in network coverage and proportionate cost recovery in regulated prices; and
- future incentives for innovation and investment will be damaged by the changes envisaged in the draft Recommendation.

¹ Extrapolated from the proportion of Telefónica's European pre-pay customers who pay less than US\$30 per month for their mobile service. US\$30 is the minimum pre-pay offer prevalent in the US, where termination rates are set below cost.

² Total EU voice revenue (AT Kearney / GSMA) x 15-20% (approx. contribution of MTRs) x 30% (advertised reduction [70%] minus ERG embedded reduction [40%])

Telefónica is concerned about the Commission's novel approach to "cost orientation", which will lead to termination rates below the cost of production, because:

- The EC's proposal does not allow for the recovery of common and joint costs, despite such costs being the predominant factor in the cost base of this investment intensive sector.
- It contradicts the principle of cost causation. Under the Commission's proposals, the costs of the access network related to coverage are not considered, this would imply that call termination services effectively free ride on large parts of the access network.

This is not in line with the economic theory applied by NRAs to date, and is in conflict with the principles behind previous Commission Recommendations.

The proposal to assume that the core network is solely NGN-based is not technology neutral and has no basis in the reality of network deployment – effectively the Commission tries to determine a super-efficient operator's cost structure. Current networks exhibit a mix of current and IP architectures, reflecting the efficient behaviour of operators to migrate their network architecture gradually, based on the most efficient costs at the margin.

The Commission expresses a desire for greater regulatory certainty – this proposal will have the directly opposite effect. Recommendations require NRAs to take "*utmost account*" of the Commission's view. However, NRAs are bound by national and Community law and the previous decisions of the courts. As such, requirements to act in a consistent manner and abide by historical judgments of appeals bodies may lead to considerable legal uncertainty for NRAs.

Current termination rates are set at cost-oriented levels and Telefónica does not understand the basis for the Commission's assertion that MTRs in particular act as a barrier to the development of a completely different product market – mobile internet. We believe that by damaging investment incentives, the Commission's proposal will undermine the achievement of the Commission's broader goals for the Information Society.

None of the adverse social welfare outcomes that Telefónica has identified are explored by the Commission. Telefónica believes that the Commission should conduct a full impact assessment. It would be helpful to all stakeholders if the Commission could publish its impact assessment and subject that to consultation. We believe that the resources of operators, NRAs and the Commission would be better directed at increasing the efficiency of the EU mobile industry rather than undermining the formula that has led to its world leadership.

Finally, Telefónica notes that where Member States have reached decisions on MTRs out to 2011, these result in a reduction of MTRs equating 40% cf. the headline figures used by the Commission. This means that the bulk of the reductions sought by the Commission will be delivered by existing MTR calculation methodologies, without incurring the significant risks to consumer welfare that we identify.

Telefónica S.A.

Table of Contents

| | |
|---|-----------|
| Executive Summary | 1 |
| The Commission’s case | 5 |
| No justification for a Recommendation | 6 |
| Does the divergence in the level of termination rates between Member States warrant a harmonising measure? | 7 |
| <i>Variations between countries</i> | 7 |
| <i>Forward look</i> | 7 |
| <i>Different approaches in different Member States</i> | 8 |
| Do the differences between Member States and between FTRs/MTRs distort competition? | 9 |
| <i>Differences between Member States</i> | 9 |
| <i>Differences between fixed and mobile termination rates</i> | 9 |
| <i>Purported disadvantages for smaller operators and new entrants</i> | 10 |
| The Commission’s novel approach to “cost orientation” is inappropriate | 12 |
| <i>The Commission’s approach is not supported by economic theory</i> | 12 |
| <i>The ERG does not believe the Commission’s approach is credible</i> | 13 |
| <i>The mobile sector is characterised by large upfront, fixed and common network investment</i> | 13 |
| <i>The Commission’s definition of the “increment” is not consistent with previous Recommendations</i> | 14 |
| <i>Technology neutrality – migration to IP based NGNs</i> | 15 |
| <i>Problems with bottom-up only analyses</i> | 16 |
| <i>Benchmarking is not an appropriate alternative</i> | 16 |
| The need for a more balanced set of objectives | 18 |
| Impact of an abrupt reduction in MTRs | 20 |
| <i>Mobile operators are not generating super-normal profits overall</i> | 21 |
| <i>Below cost MTRs will affect the structure of prices and will be inefficient</i> | 21 |
| <i>National Regulators do not believe that the waterbed is complete</i> | 22 |
| <i>Reduced investment incentives</i> | 23 |
| <i>Reduced appetite for innovation</i> | 23 |
| <i>MTR reductions would not contribute to Mobile Internet development</i> | 24 |

| | |
|---|-----------|
| <i>Windfall gains and losses</i> | 24 |
| The adverse social welfare impact of pricing MTRs below cost | 26 |
| <i>The impact on the poorest in society</i> | 26 |
| <i>Reduction in retail competition</i> | 27 |
| <i>Impact on rural coverage</i> | 30 |
| The Commission's proposals do not have a sound legal basis | 31 |
| | |
| ANNEX A Low end pre-paid price plans of US operators | |
| ANNEX B Theoretical model of the waterbed effect | |
| ANNEX C Impact on consumer prices of a 100% pass through of unrecovered fixed and common costs | |

The Commission's case

- 1) The Commission's press release makes three points regarding the need for a Recommendation. The Commission suggests that:
 - a) inconsistency in termination rates derived from the decisions of national regulators in each Member State is *a priori*, a bad thing; and
 - b) that similarly, the differential between fixed and mobile termination rates is again, *a priori*, not appropriate; to the extent that
 - c) these differences distort competition between operators in different countries and between fixed and mobile operators.
- 2) The Commission further sets out its objective in its press release, specifically:
 - a) Consistency in analysis of termination rates (fixed and mobile) across Member States.
- 3) The Commission expects the outcome of such an intervention to be:
 - a) A consequential reduction of mobile termination rates (although not fixed termination rates) approaching 70% by 2011.
 - b) Lower retail prices;
 - c) Elimination of distortions of competition between fixed and mobile operators;
 - d) Reduction in the payments made by small operators when they use the assets of their competitors.
- 4) The Commission also claims that a lack of harmonisation of mobile termination rates (MTRs) has the following negative effects:
 - a) Legal uncertainty and increased regulatory burden for operators providing cross-border services;
 - b) Differential investment impacts on Member States with lower MTRs versus neighbouring jurisdictions; and
 - c) Investment in new networks and services is hampered if operators face different regulation in every country.

No justification for a Recommendation

- 5) It is a matter of fact that fixed termination rates differ from mobile termination rates, and that the decisions of national regulators have determined differential rates between Member States. The Commission presents a view of the prevailing rates in its press release.
- 6) However, the existence of differences of itself does not justify the need for a Recommendation. The purpose of a Recommendation is set out very clearly in Article 19 of the Framework Directive, being to “*further the achievement of the objectives set out in Article 8*”. The objectives set out in Article 8 are enshrined in national legislation across the EU and the Commission, through the Article 7 procedure, is responsible for promoting a harmonised approach to the achievement of these objectives.
- 7) The Commission appears to conflate the need for a harmonised approach to the interpretation of the objectives in Article 8, with a requirement to change the way costs are allocated in the calculation of regulated charges. The change of approach to cost allocation would result in a substantial and radical change in prevailing regulatory practice, notwithstanding the fact that the Commission itself has not put forward such an approach when commenting on previous decisions of NRAs, through the Article 7 process.
- 8) So the second statement of fact is that national regulators have, to date, arrived at decisions regarding termination rates that:
 - a) Comply with Article 8 of the Framework Directive; and
 - b) Have been reviewed by the Commission under the Article 7 procedure and as such the Commission has agreed that these decisions adhere to the objectives of Article 8; and in some cases these decisions
 - c) Have been subject to an appeals procedure in Member States, such that it is now settled case law that these remedies achieve the objectives in Article 8 using the methodology chosen by the NRA (subject to the directions of the appeals body).
- 9) It is therefore unsurprising that the European Regulators Group (ERG), in its letter to the Commissioners of 30th May 2008³ states “*we believe that there is a strong case for adhering in the short term to established principles of cost calculation. Sudden changes in these principles may also present significant legal risks to those NRAs currently involved in litigation on these matters.*”
- 10) Telefónica would go further than the ERG; divergence from the established methodologies, especially where national appeals bodies have reviewed the decision, can only increase uncertainty and the level of litigation. An NRA is only required to “*take the utmost account*” of any Recommendation or Article 7 letter, whereas NRAs are bound by the decisions of their appeals body⁴ and NRAs have statutory duties to act in a consistent manner.

³ ERG (08) 30

⁴ If that decision is not in conflict with community law

Does the divergence in the level of termination rates between Member States warrant a harmonising measure?

Variations between countries

- 11) On page 29 of the Explanatory Memorandum the Commission presents its evidence in relation to consistency and absolute levels of FTRs and MTRs. The Commission's case is that the outliers in the MTR chart (Cyprus, Estonia and Bulgaria) are of such significance that the Commission is required to consult on a Recommendation. The Explanatory Memorandum to the Recommendation states an average MTR in Europe of €cent 9.67.
- 12) A more detailed review of the facts reveals:
 - a) Excluding three outliers (Cyprus, Bulgaria and Estonia) the highest average MTR is €cent 12.8 and the lowest is €cent 5.98. These MTRs apply in countries representing 98% of the EU population. This level of asymmetry (€cent 6.82) is less significant than the level of MTR asymmetry within some national markets. Further, the ERG Common Position on symmetry⁵ shows that NRAs have set (and the Commission has supported under Article 7) asymmetries of between about €cent 1.5 and €cent 8 in seven Member States.
 - b) The second chart on page 29 of the Explanatory Memorandum shows much greater variance between the European average FTRs in some countries than currently exists between MTRs. It is unclear why the Commission has chosen specifically to target MTRs, in light of its obligation to act in a technology and service neutral way.
- 13) The proportionate approach would be to examine the market review procedures in the outlier Member States in order to understand why they deviate so significantly from the other countries⁶.

Forward look

- 14) Finally with regard to existing decisions, Telefónica has looked at the future MTRs determined by NRAs in their most recent decisions. All NRAs have MTRs determined to 2009. By then there will be (subject to exchange rate fluctuations and inflation) a reduction to an average MTR of 7.07 € from the headline 9.67€ used by the Commission. Looking out to 2011, for the countries that have fixed their rates to that point, there is a further reduction to 5.63€ - 40% over the period. To a certain degree, the reductions in MTRs desired by the Commission and the ERG (albeit to different degrees) are already baked into the existing decisions of national regulators.

⁵ ERG (07) 83 – p.79

⁶ See for example case CY/2006/0034, opinion of national regulator OCECPR that “CYTA's MTRs reflect the specific geographic features of the region and the particular market conditions in Cyprus”.

Different approaches in different Member States

- 15) The procedures set out in Article 7(3) Framework Directive provide for the Commission to comment on the market analyses and remedies set in the mobile termination markets of operators in each Member State. As highlighted in Recital (2) to the draft Recommendation, different NRAs have adopted different approaches to determining remedies. This is set out in the recent ERG common position on symmetry of fixed call termination rates and mobile call termination rates.⁷
- 16) Telefónica has reviewed the Commission's Article 7 letters in relation to each Member States' last review of call termination markets. In summary, in no case has the Commission opposed a national regulators' decision to allocate joint or common costs to an MTR. On the contrary in cases DE/2006/0421 and LT/2005/0189 a LRIC model with mark-up for common costs is cited explicitly, without any comment from the EC. In 14 Member states (including Norway) some kind of LRIC or LRAIC model is used. In the 12 MS where this is not the case the EC only insists on the use of a LRIC model in 3 cases (LV/2006/0464, LU/2005/0321, PL/2006/0379) and in an other 3 cases the EC insists on the use of a more "appropriate" costs methodology (DK/2005/0204, FI/2006/0403, SK/2005/0136). In 2 cases (BE/2006/0433 and UK/2006/0498) the EC insists on using current costs rather than historical costs.
- 17) Notwithstanding the different approaches, it is important to note that countries that have undertaken detailed modelling exercises have MTRs at similar levels to countries which have not. It is therefore unclear from the evidence presented whether differences in MTRs charged in different countries result from the application of different analytical approaches or differences in national circumstances (e.g. market maturity, geography, number of operators etc.).
- 18) In conclusion, the facts regarding differences between MTRs in Member States, when analysed dispassionately, do not support the Commission's assertion that there is a large degree of variance that must warrant a harmonisation measure. Furthermore, the achievement of many of the objectives in Article 8 of the Framework Directive relate to the market circumstances of a given Member State, for example Article 8 2(b), 2(c) and 2(d). Therefore, no "one size fits all" harmonisation measure is appropriate, the existence of the Article 7 procedure itself is an appropriate mechanism to discuss and ensure a harmonised interpretation of the duties on national regulators, rather than dictate in detail how those duties shall be applied (as put forward in the draft Recommendation).

⁷ ERG (07) 83 – p.69

Do the differences between Member States and between FTRs/MTRs distort competition?

Differences between Member States

- 19) The first paragraph of the Commission's press release refers to a distortion of competition created between operators from different countries, caused by different termination rates in those countries. However, Telefonica can find no reference to this point in the Recitals to the draft Recommendation, nor in the Explanatory Memorandum.
- 20) So, not only is there very little differentiation for the vast majority of (at least mobile) termination rates between most Member States, the Commission fails to evidence the impact on investment / the economics of service provision of such differentials between country averages. This is a major omission.
- 21) Notwithstanding the omission, such a concern can only arise to the extent that the prevailing termination rates in each country diverge from cost orientation (however defined). If prices are cost oriented then purchasers of termination services are making an appropriate contribution to the costs of the service, there is no transfer of funds between "high" termination rate countries and "low" termination rate countries.

Differences between fixed and mobile termination rates

- 22) The Commission repeatedly suggests that "*the [mobile] access network costs are largely recovered via the termination rate*". This is misleading and disingenuous; the joint and common costs that predominate for the mobile access network are typically recovered by an equi-proportional mark-up (EPMU). Therefore these joint and common costs are only recovered in **proportion to their share** of the overall traffic using a particular asset. This is not "*largely recovered*" by any means.
- 23) The Commission's press release suggests that the differential between fixed and mobile termination rates is unfounded being "*nine times higher*". However, as one delves into the Explanatory Memorandum on page 6 the Commission admits that "*the regulatory model underlying the FTR regulation assumes that operators will recover the cost of the local loop via retail subscription charges, and that these costs are not included in the FTR paid by other operators.*" Furthermore, national regulators invariably regulate fixed access charges (for example LLU) and can consequently ensure that this assumption holds.
- 24) This difference of approach between fixed and mobile is consistent with the principle of cost causation. Fixed network access is not a shared medium it is dedicated to the user accessing the fixed network. In contrast, mobile networks provide a shared radio access medium that individual subscribers access on demand (for originating calls), or in order to receive calls offered by calling parties. A customer's purchase of network access (whether on his own network or a terminating network) is dynamic and event driven. It is a "*traffic related cost*" rather than a "*subscriber related cost*" as put forward by the Commission. Therefore in today's mobile market it is wholly appropriate for the costs of the

- mobile network access layer to be allocated between the various traffic types – rather than being charged as a fixed subscription for each customer.
- 25) In mobile retail markets access subscriptions do not generally exist, rather the structure of retail prices would need to be adjusted to account for the loss of revenues from reduced termination charges. Telefonica notes the Commission's assertion that "*Consumers should expect to pay lower retail prices as a result [of the Recommendation]*" This is inconsistent with the Commission's own discussion of fixed cost recovery⁸. Reduction of cost recovery in termination markets will lead to either (or a mixture of) lower returns for shareholders and/or a change to the structure of retail prices. The former will reduce investment incentives, the latter effectively means that mobile consumers – especially pre-pay consumers – will pay more.
- 26) Again, as long as termination rates are cost oriented there can be no transfer of value between fixed and mobile operators. The difference in cost allocation methodologies between fixed and mobile termination regulation derives from cost causation principles.

Purported disadvantages for smaller operators and new entrants

- 27) The Commission believes that the Recommendation would "*reduce the large sums for call termination which smaller operators have to pay to large operators when they try to compete with the latter with the very popular flat rate offers.*"
- 28) Again, this should only be of concern to the extent that termination charges are not reflective of costs. If small operators purchase a termination services at cost oriented prices they are making a fair contribution towards the usage of the assets of their competitors.
- 29) The Explanatory Memorandum repeats the arguments of later entrants (rather than supporting or endorsing those arguments) that such entrants naturally create large traffic imbalances and therefore lower termination charges will encourage market entry.
- 30) It is simple to show, mathematically, that if there is the same traffic per subscriber on two networks and subscribers call each other with equal probability then there is no net flow of traffic.
- 31) The key issue in terms of net interconnect traffic is the different customer types and their differing calling patterns. Smaller operators do not *a priori* need to suffer traffic imbalances. Many MVNOs have entered the market focussing on the pre-pay segment and do not see such imbalances. It is only operators which focus on high value post-pay customers which can see a traffic imbalance. For the Commission to proceed on the basis of using below-cost termination rates to support a particular type of market entry strategy would discriminate against

⁸ The Commission states that joint and common costs in the fixed market are recovered in the retail market. A share of mobile network joint and common costs are currently recovered through MTRs, if this avenue of cost recovery is removed then such costs will be recovered in the retail market, by dint of the same logic. Contrary to the Commission's press release, this intervention would lead to a significant detrimental change in the structure of retail prices.

operators with other, more balanced and socially inclusive commercial strategies.

- 32) All the purported “competitive distortions” put forward by the Commission as justifying a Recommendation boil down to the question of whether termination rates are set above cost oriented levels. The Article 7 procedure is the more appropriate means of ensuring this objective, given that it is sufficiently flexible to moderate the application of the Article 8 objectives by national regulators, in light of prevailing national market circumstances.

The Commission's novel approach to "cost orientation" is inappropriate

The Commission's approach is not supported by economic theory

- 33) The underlying intention of the EC proposal seems to be to artificially lower the input costs to retail mobile and fixed voice calls regardless of the recovery of cost and the consequent sustainability of the business plans of the parties subject to such regulation.
- 34) The EC proposal allows the recovery of just variable costs but not the recovery of common and joint costs, despite such costs being the predominant factor in the cost base of this investment intensive sector. Moreover, the EC proposal only recognizes the variable costs related to the last increment produced in a range of wholesale services; so that the interconnection charges are set taking into account just these marginal costs. Nonetheless, economic theory says that when there are high fixed and sunk costs the marginal cost function is not fully derivable due to the capacity constraints related to the technology used. Therefore, the consideration of marginal costs related just to call termination traffic is a poor proxy of the real cost function since it does not allow the recovery of all the production costs.
- 35) The Commission itself accepts this in the Explanatory Memorandum:
"Standard economic theory determines that prices be set equal to marginal costs. However, should this be applied in the telecommunications sector, operators would not be in a position to fully recover their joint costs and common costs."
- 36) The Commission notes that NRAs have historically addressed this issue through the addition of a mark-up for Common costs.
"a LRIC model requires the allocation of joint costs and a decision on an appropriate cost-allocation mechanism. LRIC does not include common costs but regulators often apply a mark-up to account for common costs."
- 37) The Commission also accepts that such an approach is entirely consistent with the Framework.
"LRIC provides scope for discretion as to how certain regulatory objectives are most effectively met".
- 38) The Commission admits that *"the recommended approach for setting termination rates constitutes a significant departure from the currently applied cost-accounting principles"*. Yet as we have shown above, no evidence or convincing (sustainable) arguments are put forward to suggest the need for a change in the use of this discretion. Neither has the Commission put forward this proposed methodology under the Article 7 procedure, despite ample opportunities to do so.
- 39) For the remainder of this document we discuss the Commission's proposal as LRIMC (Long Run Incremental Marginal Costs); whereas bottom-up modelling approaches used by national regulators and previously approved under the Article 7 process are referred to (for simplicity) as LRIC+.

The ERG does not believe the Commission's approach is credible

40) Telefónica notes the comments of the European Regulators Group that “*we have not ever heard of incremental costs being computed in this manner*”⁹

41) In its letter to the Commission the ERG says:

In principle, ERG agrees that it should be the objective of NRAs to have, or be able to refer to, a system of cost based modelling that is reflective of an efficient operator. Also, we would like to stress that ERG is not opposed to the use of a bottom-up/top-down LRIC calculation provided that there is sufficient flexibility in the model to allow appropriate fixed costs, typical in network industries, to be recovered in a reasonable amount of time.

42) We agree with the combined knowledge of the national regulators, incremental costs are not calculated in the manner proposed by the Commission, because to do so would breach the requirement in Article 13(2) Access Directive that price controls set by NRAs must “*take into account the investment made by the operator and allow him a reasonable rate of return on adequate capital employed, taking into account the risks involved*”. Rather it would lead to price caps which are lower than the cost of provision of the incremental service.

The mobile sector is characterised by large upfront, fixed and common network investment

43) The prevailing bottom-up modelling approach adopted by Member States and endorsed by previous Article 7 proceedings (as well as appeals body decisions) is LRIC+. That is, LRIC including allowances for externalities and common costs.

44) NRAs and specialist appeals bodies have not sought to guarantee cost recovery for operators, rather they have sought to send efficient price signals to the market. There are three main elements to the efficient prices considered by NRAs:

- a) LRIC: Absent externalities, efficient pricing for mobile services, including MTRs, would require that all calls are set at long run incremental costs. However, this would not allow firms to recover common and joint costs.
- b) Common and joint costs: For firms to be able to recover all their costs there needs to be an allocation of common and joint costs to the LRIC. Ideally the common costs would be allocated taking into account demand factors, for example using a Ramsey¹⁰ framework. However, we note that arriving at estimates for the elasticities necessary to implement such a methodology is regarded as complex by some and in practice an equi-proportional mark-up approach is usually adopted¹¹.

⁹ ERG technical comments on Commission draft Recommendation ERG (08) 31, 29 May 2008 footnote 2.

¹⁰ Ramsey, F (1927). “A contribution to the Theory of Taxation”. *Economic Journal*, 47

¹¹ Economic theory says that the more competitive is the market, the more elastic the demand and thus the smaller the common cost mark-up has to be smaller. However, in order to regulate call termination prices NRAs must find that operators have SMP on Market 16, invariably regulators determine that operators are monopoly providers and have incentives to price excessively (as repeated in the Explanatory Memorandum). Under Ramsey based principles, monopoly products experience low

- c) Externalities: Where there are externalities then this will lead to a further adjustment to LRIC+ pricing.
- 45) LRIC+ is therefore defined from the variable costs plus appropriately allocated common and joint costs plus externalities.

The Commission's definition of the "increment" is not consistent with previous Recommendations

- 46) The proposed Recommendation contradicts former Recommendations and establishes a "methodology" made up of cost allocation criteria which goes against the accounting principle of causality.
- 47) For instance, the Commission's proposal assumes that network coverage is linked to the number of subscribers rather than traffic. Therefore, it results in coverage levels which are insensitive to traffic. The installation costs of BTS and other network access equipment cannot be allocated to subscribers – they are traffic driven.
- 48) Furthermore, the Commission's proposal only accounts for costs where call termination services require access network to be built for capacity purposes only. No account of the utilisation of access network built for coverage purposes is considered. Under the Commission's proposals, call termination services would effectively free ride on large parts of the access network.
- 49) In the dimensioning of the access network all the expected traffic (not subscribers) is the key variable both in terms of:
 - a) The capacity required in a given area to satisfy the traffic (both originating and terminating) demand; and
 - b) The level of coverage that it is economic to provide, such that the revenue generated by the traffic in marginal areas covers the costs of provision.
- 50) There is already a Recommendation from the EC regarding appropriate cost accounting and accounting separation methodologies. At Recital (6) of the draft Recommendation the Commission cites its Recommendation 2005/698/EC of 19 September 2005 as having "*provided a framework for the consistent application of the specific provisions concerning cost accounting and accounting separation*".
- 51) Telefónica notes that at Article 2 of that Recommendation the Commission states "*It is recommended that the allocation of costs, capital employed and revenue be undertaken in accordance with the principle of cost causation.*" Call termination services generate traffic that uses all the coverage access network assets of the mobile network. Therefore by the principle of cost causation they should be included in the cost orientation methodology.

demand elasticity and should consequently receive a higher than average common cost mark-up. The Commission's approach is to do the exact opposite. By implication the Commission's approach suggests that call termination services are price elastic and potentially operators do not have SMP.

- 52) Furthermore, the Commission’s Explanatory memorandum to the 1995 cost accounting Recommendation includes a reference to the ERG Opinion: *The Recommendation is based upon the Opinion of the European Regulators Group(ERG)s (ERG (04) 15rev1)*¹², which says:

*“Whereas, where NRAs impose an obligation for cost orientation in accordance with Article 13 of the Access Directive an appropriate approach is one based on forward-looking long run average incremental cost, since it most accurately reflects that of a competitive market; **whereas this approach does not preclude the use of justified “mark-ups” as a means of recovering such forward looking joint and common costs of an efficient operator as would arise under competitive conditions***¹³,”

- 53) The Commission’s choice of increment and its approach to the (non) allocation of joint and common costs are the key contributors to LRIMC setting termination rates at below the efficient level, LRIC+.

Technology neutrality – migration to IP based NGNs

- 54) The current draft of the Recommendation states that;

“The bottom up model for mobile networks should be based on a combination of 2G and 3G employed in the access part of the network, reflecting the anticipated situation, while the core is assumed to be NGN based”.

- 55) Telefónica welcomes the recognition of a meshed 2G and 3G Access network which reflects the current reality for the vast majority of European MNOs. This approach reflects both:

- a) The reality of network deployment; and
- b) The basic economic fact that wholesale replacement of deployed assets (and consequent writedown of assets) with new assets is an inefficient approach to technical innovation (e.g. 2G to 3G migration).

- 56) It is inconsistent, therefore, for the Commission to not similarly address the migration from circuit switched architectures in the core network to NGN architectures. The Commission presents no evidence as to the pervasive deployment of NGN networks, nor could it. In reality current networks exhibit both architectures, reflecting the efficient behaviour of operators to migrate their network architecture gradually such that incremental traffic uses network capacity that is more cost effective at the margin.

- 57) The Commission’s approach is not technology neutral nor economically efficient and has no basis in the reality of network deployment.

- 58) Finally, national regulators will face considerable difficulty in conducting cost allocation exercises using fully IP-based NGNs. There is insufficient evidence

¹² Point 3.1 Explanatory memorandum

¹³ ERG opinion ERG (04) 15rev1,

http://www.erg.eu.int/doc/publications/erg_0415rev1_caas_opinion.pdf

of the relative traffic loading (by service type) of the NGN when delivering all of an operators traffic. If the cost model were to reflect the reality of the co-existence of NGNs and circuit switching then national regulators would be able to build the required routing factor tables over time as real world experience emerged.

Problems with bottom-up only analyses

- 59) The Commission's proposal is a bottom-up only model. There is no element of the draft Recommendation that seeks to calibrate the approach against the reality of operators' costs.
- 60) A purely bottom-up approach, even if corrected for all the shortcomings identified above, would present an overly optimistic view of operator efficiency. Such an approach would not reflect the actual level of deployed equipment. It may be perfectly rational and efficient have a level of equipment deployment slightly higher than that predicted by theory and a consultants' spreadsheet. Such deployment would provide for redundancy and latent capacity to deal with spikes in usage that go beyond what might be predictable for the busy hour. Furthermore, it is also beneficial for customers for operators to build slightly ahead of forecast demand, to ensure that service quality is not degraded when a network is run beyond its planned capacity. The provision of new capacity is not an instantaneous process and operators need to build-in their lead-time to account for future traffic demand.
- 61) Operators are subject to competitive retail markets and have plenty of incentives to remain efficient. Therefore, operator's management accounts will be reflective of efficient cost management and so top-down reconciliation of bottom-up models is vitally important.

Benchmarking is not an appropriate alternative

- 62) The draft recommendation states that where NRAs do not have the resources to carry out the costing exercise as proposed in the recommendation can instead choose an alternative means to set MTRs. However, the results of any alternatives used "*should not exceed the average of termination rates set by NRA's implementing the recommended cost methodology*".
- 63) Firstly we believe that the usefulness of benchmarking in this context is limited. Benchmarking should at most be used to sense check the outputs of cost models built at a national level. To suggest that simple benchmarking on its own is an appropriate means of setting cost based MTRs is potentially very damaging to operators from smaller EU countries in particular because as discussed previously there are many factors which are operator and market specific than can effect actual costs.
- 64) Under the proposed use of benchmarking in the draft recommendation we could potentially have a situation where smaller EU countries (Ireland, Belgium, Malta etc.) which are the most likely to have limited NRA resources end up benchmarking their national MTRs to the average of the larger EU countries such as Germany, UK and France.

- 65) Given the massive scale and geographic differences that would exist in such a scenario there is a clear and very likely risk that the operators in the smaller countries would have below cost MTRs imposed on them. This would have a detrimental impact on future investment in these countries and ultimately on the long term viability of some operators in these countries. Therefore whilst benchmarking may have a place alongside cost modelling to avoid distortions it would be necessary to develop sophisticated benchmarking tables that might in the end approach the complexity of cost modelling.

The need for a more balanced set of objectives

66) The Commission's proposed approach is flawed because it does not derive from a balanced set of objectives. As the Commission's own advisors put it:

“Regulators seek.....generally, to ensure that all users derive maximum benefit in terms of choice, price and quality of electronic communications services; to minimize any distortion or restriction of competition in the electronic communications sector; and to avoid barriers to innovation and to efficient investment in infrastructure”¹⁴

67) The balanced approach above can be contrasted with the Commission's two stated objectives:

- a) Lower MTRs
- b) Harmonised approach to calculating MTRs.

68) The Recitals to the draft Recommendation shed light on the more detailed objectives, beyond those stated in the Commission's press release:

- a) Symmetry of rates between operators (rather than between fixed and mobile); at Recital (2);
- b) Harmonisation of approach; at Recitals (3) to (6);
- c) Need for cost orientation within such an approach; at Recital (7);
- d) The requirement to ensure effective competition and act in a technology neutral manner, in line with Article 8(1) of the Framework Directive; at Recital (8);
- e) The requirement under Article 8(2) of the Framework Directive to ensure that all users derive maximum benefit in terms of choice, price and quality of service and that there is no distortion or restriction of competition.

69) At that point in the Recitals the Commission departs from the Framework Directive. Telefónica can find no meaningful reference to the other pertinent objectives highlighted in Article 8(2) of the Framework Directive namely:

- a) Encouraging efficient investment in infrastructure; and
- b) promoting innovation.

70) In contrast, the ERG, in light of its experience in implementing the Framework Directive draws the Commission's attention to this need for a set of more holistic set of objectives that are aligned with prevailing EC law:

¹⁴ Wik Consult – “The Future of IP Interconnection”, executive summary p. 2 – quoting Article 8 Framework Directive.

In light of the above the ERG asks the Commission to consider opening to alternatives and to assess such alternatives against a set of criteria - incorporating both economic and 'good practice' regulatory principles³ - which could be recommended to NRAs. These criteria could include those set out in Table 1 below, and these criteria could also be applied to other approaches such as Bill and Keep.

Table 1: Criteria for assessing different approaches to TR regulation

| | |
|--|---|
| Allocative efficiency | <ul style="list-style-type: none"> o Does the proposed approach sets rates close to marginal costs? o Does the proposed approach reflect principles of economically efficient pricing i.e. does the proposed approach take account of receiving party benefits? |
| Cost recovery | <ul style="list-style-type: none"> o Does the proposed approach enable the operator to recover its (efficient) costs? |
| Symmetry | <ul style="list-style-type: none"> o Does the proposed approach lead to symmetric termination rates in a reasonable time period? |
| Competition | <ul style="list-style-type: none"> o Does the proposed approach hinder competition both between mobile operators, and between fixed and mobile operators as well as between fixed operators? |
| Consumer benefits | <ul style="list-style-type: none"> o Does the proposed approach benefit consumers? |
| Promotion of efficient investment (i.e. productive and dynamic efficiency) | <ul style="list-style-type: none"> o Does the proposed approach promote or hinder efficient investment, and is it well suited towards an NGN environment? |
| Consistency across Member States | <ul style="list-style-type: none"> o Does the proposed approach result in similar termination rates across Member States given the inherent national market differences? |
| Ease of implementation/ regulatory burden | <ul style="list-style-type: none"> o Can an NRA implement the proposed approach with relative ease? How do the direct and indirect costs of this form of regulation compare with alternative approaches? o How much certainty does the proposed regime provide to all market participants,? |

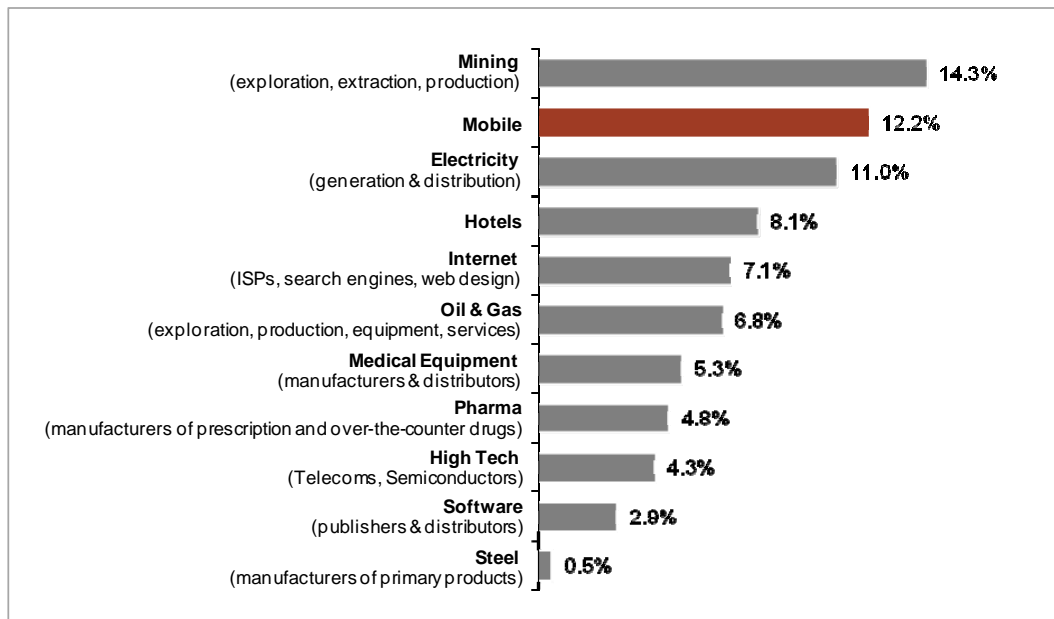
³ 'Good practice' regulation does not mandate or encourage any particular substantive outcome, but refers to regulation that is transparent and accountable, which reduces the regulatory burden on market participants and which reduces unnecessary bureaucracy.

- 71) Telefónica agrees with the ERG sentiment in footnote 3. Regulation should not be created to derive any particular substantive outcome. It is interesting to contrast this with the set of objectives set by the Commission in its press release, in particular with regard to “*reduce the large sums for call termination which smaller operators have to pay larger operators.*”

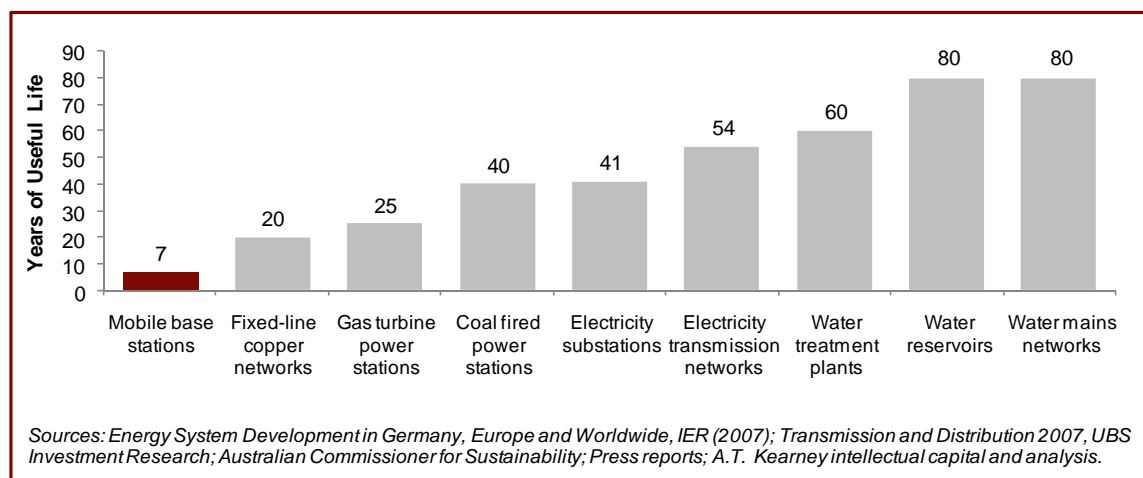
Impact of an abrupt reduction in MTRs

Mobile operators are not generating super-normal profits overall

- 72) At a superficial level it is easy to view the mobile sector as highly profitable. However, over emphasis on current levels of EBITDA masks the fact that the industry’s overall long-term profitability is in line with some other sectors but is neither exceptional nor excessive.
- 73) The mobile sector is highly capital intensive. This chart from AT Kearney / GSMA highlights the level of capital intensity in the mobile sector in comparison to other capital intensive industries.

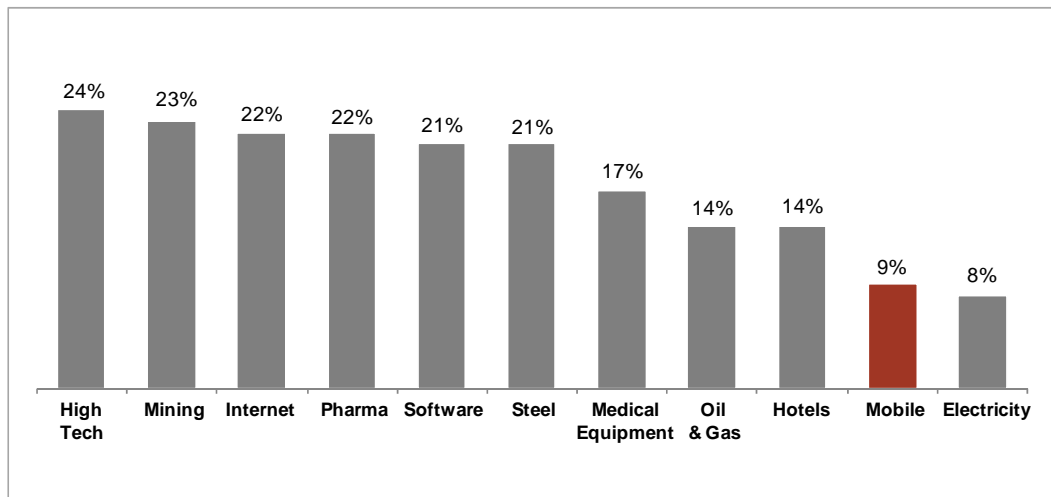


- 74) Yet the lifetime of these assets are exceptionally short, driven by the high level of innovation in the sector.



- 75) With lots of capital investment required and short payback periods for any particular wave of technology the correct focus when measuring operator returns

is their Return on Capital Employed (ROCE). AT Kearney / GSMA shows that the European mobile sector is a relatively poor performer on this measure of longer term profitability.



- 76) Therefore it is against this backdrop of relative under performance, rather than “excessive profits” that means that regulators should be particularly attentive to the need to maintain incentives to invest and innovate, rather than undertake *ex post* opportunistic exercises in profit reduction – as envisaged by the Commission.

Below cost MTRs will affect the structure of prices and will be inefficient

- 77) As has been previously shown, the effects of the methodology proposed by EC will lead to the fixing of MTRs below actual production costs. This, of course, will have an impact on the structure of prices and other issues, because the lost revenues will need to be recovered through other means, unless shareholders are to bear a profit reduction, notwithstanding the sub-optimal returns from the sector (see above) and the impact on investment incentives moving forwards. Given that NRAs have statutory duties to take account of the need to preserve investment incentives, we shall focus in this section on an explanation of how sub- production cost MTRs could lead to an inefficient structure of prices. In order to illustrate this point, we first consider the characteristics of an efficient pricing structure for mobile services. We then consider how below cost MTRs would lead to divergences from such efficient pricing.
- 78) If prices for all mobile services are set using LRIC+ with an allowance for externalities then this should lead to an overall welfare maximising outcome.
- 79) If MTRs are set below costs, on the other hand, this will lead to allocative inefficiencies and so may not be welfare maximising. Such a reduction in MTRs would be passed through into retail prices in some form, with the result that the retail price of mobile-to-mobile calls might be lower than if charges were set to the efficient levels. That is, mobile-to-mobile calls would be priced at a level which would not reflect the costs of termination on other networks (plus allowances for the relevant externalities). Whilst this is superficially

attractive, as highlighted by the Commission's stated objectives, the net result would be an over consumption of mobile-to-mobile calls (with respect to the welfare maximising level) and therefore allocative inefficiencies.

- 80) Below cost MTRs would also lead to increases in other prices. Under the Commission's proposals operators would only receive a fraction of the cost of delivering calls to their customers but they would obviously continue to incur costs related to such calls. Furthermore, as call volumes would be likely to increase (compared to the welfare maximising outcome) there would be a significant increase in costs incurred (that would not be recovered from incoming calls). It follows that MNOs would either be obliged to make a sub-economic profit or to raise the prices of other services to recover the costs of mobile-to-mobile call termination. They might do this by increasing subscription charges, charging for receiving calls, or increasing charges for other services, such as outgoing calls. In all cases, this would lead to further allocative inefficiencies. Specifically, MNOs customers' consumption of these services would fall relative to the welfare maximising level.
- 81) At Annex C Telefónica estimates the impact on mobile voice call prices of a 100% pass-through of the unrecovered fixed and common costs that are currently within the call termination charge to its EC country businesses.
- 82) Across the EU Telefónica's operating business would see a shortfall of €[Confidential] bn per annum in their revenues. This will mean that these costs will have to be recovered from elsewhere. If Telefónica passed these through solely to retail prices, it would increase the cost of ownership to mobile customers by about [Confidential] %.

National Regulators do not believe that the waterbed is complete

- 83) Telefónica demonstrates above that setting MTRs below cost will lead to sub-optimal welfare outcomes. It will also have an adverse effect on investment incentives. Article 13(1) Access Directive provides that in setting price controls NRAs must "*take into account the investment made by the operator and allow him a reasonable rate of return on adequate capital employed, taking into account the risks involved*". NRAs may not therefore impose a price control without considering the impact on investment incentives.
- 84) Historically, NRAs have not found the waterbed¹⁵ to be complete.¹⁶ At Annex B we present a theoretical simulation of how certain inputs like Subscriber Acquisition Costs (SAC), Subscribers Retention Costs (SRC) and the behaviour of subscribers might affect on the so-called waterbed effect.
- 85) If the waterbed is not complete, retail prices will not re-balance sufficiently to account for under-recovery of costs for termination services. So shareholders will also bear some of the burden of the Commission's proposals. To the extent

¹⁵ The "waterbed" refers to the ability of operators to balance their returns by passing their profits in one product market to account for reductions of profit in another.

¹⁶ See for example Case NL/2007/0634. OPTA bases its welfare analysis on the assumption that a decrease of MTRs by 1 €cent could lead to an increase in retail prices of between 0,25 and 0,75 €cent.

that shareholders to bear the cost of the Commission's proposals this will lead to reductions in investment incentives.

- 86) Furthermore, the presence of opportunistic ex post regulation on the part of the Commission is likely to significantly damage the prospects for product innovation going forwards.

Reduced investment incentives

- 87) According to economic literature¹⁷ the implementation of regulatory models such as the one defined by the EC not only will have effects on the profits and loss accounts of these operators, but also on their current investments and above all on the future investment decisions regarding the network deployment and the launch of new innovative products and services.
- 88) The EC proposal not only compromises the expected return of the investments already undertaken, but also induces uncertainty on the planned investments, so that the operators market valuation is also affected along with the possibility of securing funding from financial markets. Across the EU the average ROCE in the mobile sector is 9%¹⁸, which the AT Kearney charts above demonstrate is significantly below other industry sectors, reducing the attractiveness of the sector for future investment.
- 89) In particular, the EC proposal dis-incentivises network based competition, as it requires operators to invest in assets on which, as a result of this Recommendation, they may make little or no economic return and, ironically, have to provide to their competitors at below economic cost.
- 90) Telefónica is strongly of the view that a proper welfare analysis is required taking into account all relevant factors.

Reduced appetite for innovation

- 91) To date the mobile sector has been characterised by rapid and costly innovation. GSM networks are still heavily utilised, but operators have invested €bn in the 3G networks and spectrum in order to facilitate service innovation and improve efficiency. The migration to 3G has barely begun but the industry, or more specifically the EC, are pushing ahead with the release of spectrum for 4G – UMTS' Long Term Evolution.
- 92) Artificially depressed returns will reduce the available capital pool to fund the next wave of innovation to LTE. Consumers and the sector in general will be worse off as a result.
- 93) The mobile industry contributes about 1.3% of European GDP¹⁹, further in 2007 the telecoms sector contributed about 25% of EU GDP growth. The mobile sector is of vital importance to the EU economy and changes to the regulatory

¹⁷ See V. Spulber, Daniel F. y Yoo, Christopher, S. Mandating acces to telecom and Internet: the hidden side of Trinko, 107 Columbia Law review 1822, 1845 (2007).

¹⁸ AT Kearney / GSMA – Mobile Industry Observatory 2008

¹⁹ AT Kearney / GSMA

framework that distort investment and innovation incentives will damage EU competitiveness.

- 94) If the Commission reduces investment incentives in the EU, operators will refocus their investments on geographic markets outside of the EU where appropriate investment incentives are maintained.

MTR reductions would not contribute to Mobile Internet development

- 95) It has been suggested that a significant reduction in MTRs would facilitate the migration to NGN networks based on IP protocols and could also contribute positively to the development of Mobile Internet. Telefónica believes, as explained above, that it would have the completely opposite effect, given the reduction in the pool of funds for investment. Furthermore, the interconnection of mobile networks with the Internet network (data services) is carried out using similar agreements (transit and peering) to those of the fixed networks ISPs. It is hard to see how the Commission's changes to voice call interconnection will change the situation for data interconnection.
- 96) Furthermore, MTRs relate to the recovery of costs for voice call termination services and so, given that the Mobile Internet is a completely separate product market, it is hard to see how the Commission can come to that conclusion. We note that the Commission puts forward no evidence or impact assessment to this effect.

Windfall gains and losses

- 97) The Commission also believes that a valid objective of its proposals is to reduce the costs of small operators from using the asset bases of their competitors (ie their net interconnection charges).
- 98) It should be noted at the outset that, if MTRs are set at LRIC+, then call termination will only be a net cost for an operator if that operator's traffic is unbalanced (ie if their customers make more minutes of calls than they receive). This applies regardless of whether an operator is large and established or a smaller later entrant.
- 99) In reality, certain operators do appear to have traffic imbalances, but this is because their commercial strategies focus narrowly on one type of customer with a particular calling pattern. In our experience, pre-pay customers tend to be neutral or net inbound for call termination, whereas post-pay customers (especially high value ones) are more likely to be net outbound. It follows that operators who disproportionately target high value post-pay customers are likely to experience a net outflow of traffic.
- 100) Essentially, the Commission's proposals will reward one business strategy and penalise other equally valid business strategies. Specifically,
- a) Operators which target post-pay customers with high levels of outbound usage relative to their inbound traffic will benefit from using the networks of their competitors well below their economic costs; whereas

- b) Operators that provide services to customers (typically pre-paid customers) which generate a lower ratio of outbound to inbound calls (when compared to (a) above) will experience a significant level of under recovery of costs on their own network and not “benefit” from an equivalent level of free riding on the networks of their competitors.

The adverse social welfare impact of pricing MTRs below cost*The impact on the poorest in society*

- 101) Given the importance that NRAs have attached to efficient price signals it is worth considering the impact of the Commission's proposals on the structure of mobile retail prices.
- 102) If operators were to recover the cost of terminating calls by increasing charges for mobile subscription then this is likely to have significant consequences for the number of mobile subscribers²⁰. All other things being equal this would lead to a reduction in the number of mobile subscribers. In particular, many customers on limited budgets who make few outgoing calls but receive significant numbers of incoming calls would choose not to subscribe. This raises issues of public policy and social equity as well as economic efficiency.
- 103) There would be similar allocative inefficiencies if the costs of mobile-to-mobile termination were met by introducing charges for receiving calls, or by increasing charges for making outgoing calls. For example, if mobile subscribers have to pay for receiving calls then they may become more likely to refuse to answer calls or even turn off their mobile phone.
- 104) In practice the introduction of a bill and keep/RPP system may lead to both increases in subscription costs and charges for receiving calls. In this regard it is instructive to consider low-end pre-pay tariffs from the United States (that operates an RPP system where mobile operators receive the same payment for termination as fixed operators). Low end pre-pay tariffs in the US not only include charges for receiving calls, but also appear to have significantly higher subscription charges than equivalent European tariffs.
- 105) Annex A shows low-end pre-pay tariffs for large American MNOs. It is clear from the tariffs presented there that the minimum monthly cost of making pre-pay calls is generally around \$15. In addition, several of the tariffs charge \$1 a day for using the phone at all (ie either making or receiving a call). Therefore with these tariffs the minimum monthly commitment to be able to make and receive calls daily is \$30. All but one operator have top-up vouchers with a limited life. This compares with many European mobile tariffs which simply charge by the call and for which there is no minimum monthly commitment, no charges by the day and top-up cards have unlimited validity. Furthermore, all the tariffs presented in Annex A include charges for both receiving and making calls.
- 106) It is notable that the penetration of SIM cards in the United States is much lower than that of the EU – the EU has 117²¹ mobile subscriptions per 100 inhabitants in 2007 compared to 84 in the USA. Whilst, there may be a number of reasons for this difference, it is likely that the relatively high prices of low-end pre-pay plans in the US are a contributing factor.
- 107) The table below shows the number of active pre-pay customers of Telefónica's European businesses which spend less than US\$30 per month.

²⁰ See for example Case NL/2007/0634 regarding likely rises in retail prices via the waterbed effect.

²¹ AT Kearney / GSMA

TABLE : Telefónica pre-pay customers at risk from impact of below cost MTRs

| Country | Active pre-pay customers spending less than US\$30 per month | Proportion of total active pre-pay customers |
|----------------|--|--|
| United Kingdom | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Spain | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Germany | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Czech Republic | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Irish Republic | [CONFIDENTIAL] | [CONFIDENTIAL] |
| TOTAL | [CONFIDENTIAL] | [CONFIDENTIAL] |

108) Extrapolating the figures from the Telefónica footprint to all European operators, **we estimate that 200 million pre-pay customers in the EU are at risk from the Commission’s proposals.** It is precisely these customers which National Regulators, the Commission and legislators should be seeking to protect. However, it is these most disadvantaged customers who will bear the cost of the Commission’s proposals to move to a sub-optimal welfare outcome, by setting MTRs below long run costs²².

Reduction in retail competition

- 109) Telefónica believes that the Commission’s proposals could have unforeseen adverse consequences for the overall level of competition in the mobile sector. In particular we believe that existing MVNOs throughout Europe could find their current business unviable if the proposals are implemented.
- 110) Cost recovery in the pre-paid segment is critically dependent on revenues from mobile call termination services, because of the ratio of inbound to outbound calls.
- 111) The vast majority of European MVNOs have concentrated on the prepaid market segment. Many have targeted this segment very successfully in recent years. All have one characteristic in common; they have very efficient organisations and their business models operate on tight margins. Any disruption or margin reduction in their business models would likely have a disproportionate adverse impact on their viability.
- 112) Whilst MVNO contractual models will vary, generally the basis for MVNO competition is that the MVNO is able to either:

²² See for example Case BE/2006/0433 IBPT identifies that a quicker reduction of MTRs could have an overall negative impact on the development of competition on the mobile market, which would be detrimental to Belgian consumers.

- a) Have particular affinity with a particular segment of customers; and/or
- b) Provide a lower cost solution to part of the host mobile operator's value chain, generally a lower cost of distribution.
- 113) In order to illustrate the impact on the MVNO model we will use a stylised example. If a pre-pay customer has a customer lifetime value of 100, it is likely that about 50 is contained in originating calls and 50 in terminating calls. MVNO margins are small, we shall assume that the MVNO achieves a margin of 10 on each customer
- 114) NRAs have historically set regulated prices on a cost oriented basis and this will cover the host operator's variable, fixed and common costs of terminating calls. Consequently we derive a value model for the MVNO as shown below.

| | CLV | MVNO share | Host share |
|--------------------|------------|------------|------------|
| Originating value | 50 | 10 | 40 |
| Termination value | 50 | 0 | 50 |
| Total Value | 100 | 10 | 90 |

- 115) If the Commission's proposals reduce the value of the pre-paid customer's termination service by 70% as advertised by the Commission's press release, this will be removed from the host's share of the business model thus:

| | CLV | MVNO share | Host share |
|--------------------|-----------|------------|------------|
| Originating value | 50 | 10 | 40 |
| Termination value | 15 | 0 | 15 |
| Total Value | 65 | 10 | 55 |

- 116) In this scenario the host network has experience a loss of 35, all of which was contributing to cost recovery (it being already on a cost-oriented basis). Therefore, if the host is to continue to recover its fixed and common costs and maintain profitability²³ in this segment it is going to need to recover all or part of this shortfall in its access charges to the MVNO. For simplicity we assume that 100% of the cost under-recovery is passed through to the MVNO.

²³ ...rather than reduce profits, shareholder value and hence investment incentives....

| | CLV | MVNO share | Host share |
|--------------------|-----------|-------------|------------|
| Originating value | 50 | (25) | 75 |
| Termination value | 15 | 0 | 15 |
| Total Value | 65 | (25) | 90 |

- 117) In order to remain profitable the MVNO will need to increase its retail prices, as identified by OPTA in NL/2007/0634. However if, as estimated by OPTA the waterbed is 25-75% complete, only part of the value is recoverable by the MVNO.

| | CLV | MVNO share | Host share |
|--------------------|----------------|-----------------|------------|
| Originating value | 59 - 76 | (16) - 1 | 75 |
| Termination value | 15 | 0 | 15 |
| Total Value | 74 - 91 | (16) - 1 | 90 |

- 118) The Commission believes that lower retail prices will result from its decision. In contrast, Telefónica believes that the Commission's proposals could have a negative effect on MVNO competition in Europe.
- 119) Whilst voice call retail prices may fall in short term, given that there will still be a need to recover the common and fixed costs currently embedded in call termination prices either:
- The structure of prices will change in to compensate (e.g. higher mobile broadband prices, retail charges for receiving calls); or
 - Lower device subsidies will reduce consumers' incentives to update their handset which in turn will slow down the introduction of 3G devices, to the detriment of the information economy; or
 - If such corrections take time to emerge²⁴, operators on the thinnest operating margins, such as MVNOs or smaller new entrant networks will fail in the market.

²⁴ This may be the case in the presence of operators with business models which are solely focussed on high usage post-pay customers, which are the net beneficiaries of being able to use their competitors networks at below the cost of provision. Further, amendments to billing platforms in order to implement RPP is a non-trivial and time consuming exercise.

Impact on rural coverage

- 120) The impact of MTRs not contributing to rural coverage will be to discriminate against operators which are required to provide rural coverage, by increasing the proportion of their coverage footprint that does not secure a return on investment. National Regulators are increasingly awarding new licences which do not include rollout conditions, and liberalisation processes and reviews have seen such obligations removed. National regulators recognise the inefficient economic outcomes that result from forcing rollout beyond a point that is economically sustainable.
- 121) The Commission is keen to ensure that mobile users in rural areas have access to 3G. To that end it is seeking to amend / abrogate the so-called GSM Directive to provide legal certainty over the provision of UMTS900 and UMTS1800. Furthermore, the Commission is at the forefront of efforts to ensure a harmonised mobile broadband allocation from the digital dividend. Telefónica is strongly of the view that the Commission's approach to MTR regulation is completely inconsistent with the Commissioner's desires to secure investment in rural 3G networks.
- 122) Rational investors will have much less incentive to refresh their GSM network to UMTS if a major contributor to the return on that investment (MTRs) is reduced by the Commission's proposals.
- 123) We have shown that the Commission's proposals will impact investment incentives going forward, and that this will be felt disproportionately by those in rural areas. If the net result is a reduction of incentives for rural deployment of mobile broadband networks then the Commission's objectives for the Information Society will not be met.

The Commission's proposal does not have a sound legal basis

- 124) NRAs are bound by national and EC law, but only need take "*utmost account*" of this Recommendation.
- 125) It is our view that the Recommendation conflicts with the regulatory framework and, in particular,
- a) Article 13(1) of the Access Directive which requires that, in setting price controls NRAs must "*take into account the investment made by the operator and allow him a reasonable rate of return on adequate capital employed, taking into account the risks involved*"; and
 - b) Article 13(2) of the Access Directive which provides that "*National regulatory authorities shall ensure that any cost recovery mechanism or pricing methodology that is mandated serves to promote efficiency and sustainable competition and maximise consumer benefits.*"
- 126) For the reasons set out above, we consider that the proposals contained in the draft Recommendation would not allow operators a reasonable rate of return, are economically inefficient and will have an adverse welfare impact on consumers.
- 127) It follows that (in light of Telefónica's analysis) NRAs will have to take decisions which are contrary to the Recommendation in order to comply with the Directives.
- 128) This conflict between the Directives and the Recommendation will inevitably lead to lengthy and costly litigation in national courts. NRA decisions which follow the Recommendation are bound to be appealed on the ground that they conflict with the Directives. On the other hand, NRA decisions which do not follow the Commission's approach will be appealed on the ground that the NRA has failed to take utmost account of the Recommendation. The right to an appeal on the merits enshrined in Art 4(1) Framework Directive means that these appeals will be detailed, lengthy and expensive.
- 129) This will lead to a significant increase in legal uncertainty. In particular, it is unclear to what extent decisions of NRAs and national courts which pre-date the Recommendation can be relied upon by the parties to any appeal (as the Directives themselves will not have changed). This will have to be decided by the national courts. It may also decrease consistency of approach across Europe, as different national courts may well reach different conclusions on the impact of the Directives and Recommendation. Indeed a definitive view on the requirements of the Directives may only be possible following references to the Court of Justice under Art 234 EC Treaty.

The ERG believes that MTRs will decline using existing LRIC+ methodologies

130) In its letter to the Commission the ERG highlights that to date the charge controls introduced by national regulators have reduced MTRs by almost 40%.

In the past four years, mobile termination rates have fallen by almost 40 per cent, under the influence of the glidepaths established by most regulators. These glidepaths will ensure that this downward trend continues. In addition, with an increasingly harmonized approach towards the implementation of cost-orientation by NRAs¹, differences in rates across Europe are also narrowing. Leaving aside outliers, European MTRs now sit in a range between 5.28 cent and 11.63 cent.

131) Furthermore, the ERG comments that it expects a similar reduction from the prevailing rates.

It is difficult to make precise predictions of the outcomes of cost models. However, our experience suggests that significant cost reduction will be achieved by the methods we are advocating. We are confident that if we follow this path, the reduction achieved in the last five years can be broadly replicated in the coming three years. ERG stands ready to work with the Commission so as to monitor this process, establish the right benchmarks and share best practice in developing cost models.

132) We have shown that a number of Member States' decisions will already deliver on this prediction.

133) Telefónica believes that the ERG can make this statement because of its' members experience with the mechanics of appropriate LRIC+ and other models. In particular, subsequent market reviews will pick up cost reducing effects driven by:

- a) traffic volumes growth and consequent economies of scale; and
- b) further reductions in the current prices of equipment; and
- c) reducing dual running of UMTS / 2G networks as migration to new technologies increase; and
- d) benefits of network sharing agreements which share some infrastructure costs between operators; and
- e) operating efficiencies driven by high levels of competition in the retail market.

134) In the combined view of the specialist national regulators in Europe, all of these benefits can be achieved whilst avoiding the potentially destabilising affects of removing fixed and common costs from the allowable costs recovered in MTRs.

ANNEX A Low end pre-paid price plans of US operators

| | | | | Call charges (for making and receiving calls) | | | |
|-----------------|-----------------------------------|-------------------------------------|------------------------------------|---|----------------------------------|-----------------------|-----------------------------------|
| <i>Operator</i> | <i>Plan</i> | <i>Minimum monthly commitment</i> | <i>Other fees</i> | <i>Anytime minutes</i> | <i>Night and weekend minutes</i> | <i>On-net minutes</i> | <i>Charges outside the bundle</i> |
| AT&T | Pay as you go - unlimited talk | \$15, expires after 30 days | \$1 per day (for days in use) | \$0.10 | Not specified | Unlimited | 0.10 |
| AT&T | Pay as you go - \$0.25 per minute | \$15, expires after 30 days | | \$0.25 | Not specified | Not included | 0.25 |
| T-Mobile | Pay By The Day | \$10 for 90 days | \$1 per day (only for days in use) | \$0.10 | Unlimited nights | Unlimited | 0.10 |
| T-Mobile | Pay As You Go | Minimum refill cards available \$10 | | \$10 for 30 minutes | Not included | Not included | Depends on top up amount |
| Verizon | Inpulse Pay As You Go - Core | \$15 for 30 days | \$0.99 per day (for days in use) | \$0.10 | \$0.10 | Unlimited | 0.10 |
| Verizon | Inpulse Pay As You Go - Plus | \$15 for 30 days. | \$1.99 per day (for days in use) | \$0.05 | \$0.05 | Unlimited | 0.05 |

ANNEX B – THEORETICAL MODEL OF THE WATERBED EFFECT

Simulating the Waterbed Effect

135) The benefits that a Mobile Operator gets from the provision of mobile communication services will be given by the sum of retail profits, which comes from the product of the bill (P) and the number of subscribers (N), minus the costs related to the provision of those mobile communication services, which will be denoted as c, these costs are the sum of the network and non-network costs needed to provide the services. Another source of profits are those related to termination calls; these incomes will be the product of MTR, which is denoted by T²⁵, and the termination traffic which is denoted as Q₁. Therefore, the benefit function will be given by the following expression:

$$\Pi = \underbrace{(P - c)N}_{\text{Retail Incomes}} + \underbrace{TQ_1}_{\text{Wholesale Incomes}}$$

136) Under a scenario of perfect competition²⁶, the prices of the different communication services would be set in such a way that equals the benefit function to zero (*price=marginal costs*):

$$P = c - \frac{TQ_1}{N}$$

137) Therefore we can conclude saying that in a static scenario of perfect competition any reduction in MTR is transferred to retail prices. However, this statement cannot be done under a dynamic scenario as the one in which Mobile Operators are involved.

138) The waterbed effect can be defined by $\frac{\partial P}{\partial T}$, that is to say, the variation in retail price due to variations in MTR.

139) Then, the waterbed effect under a dynamic approach can be expressed in terms of elasticities as it is shown in equation 1 below²⁷:

$$\varepsilon_w = \frac{1 + \varepsilon_1}{-\frac{c}{\tau} + 1 + \varepsilon_N}$$

Equation 1: Elasticity of the waterbed effect

being:

²⁵ Notice that the income T represents interconnection costs for another operator

²⁶ Notice that the assumptions of a perfect competition market have been considered by the EC Recommendation since no common or joint costs are considered and MTR are set according to pure LRIC without considering any mark-up

²⁷ See proof of the expression in annexe I.

ε_w : Elasticity of the waterbed effect. This elasticity is ranged between 0 and infinite, the more elastic is the elasticity of the waterbed effect to variations in MTR the greater will be the value of the parameter.

ε_1 : Elasticity of the termination traffic to variations in MTR. This elasticity²⁸ is ranged between 0 and -1, the more elastic is the termination traffic to variations in MTR the closer will be the value of the parameter to -1.

ε_N : Elasticity of the number of subscribers to variations in MTR. This elasticity²⁹ is ranged between 0 and -1, the more elastic is the number of subscribers³⁰ to variations in MTR the closer will be the value of the parameter to -1.

c : Costs related to the provision of retail services. These costs include besides the wholesale costs, the subscribers' acquisition costs (SAC)³¹ and the subscribers' retention costs (SRC)³².

τ : Per minute and user termination income (cost). It is given by the following expression:

$$\tau = \frac{T \cdot Q_1}{N}$$

Lets study the sign of the waterbed effect elasticity ε_w described in equation 1.

Sign of the numerator

- 140) Since ε_1 is ranged between 0 and -1, the numerator will always be positive, moreover, it will become higher the more inelastic (closer to 0) is the traffic of termination to variations in the MTR prices.
- 141) Therefore, if the traffic of termination does not change significantly when MTRs prices vary, then the waterbed effect is expected to be greater since Mobile Operators will be able to compensate the MTR reductions to the retail prices.
- 142) However according to internal studies and economic literature³³, the elasticity of this type of traffic is expected to remain quite low as it can be depicted from NRAs quarterly information data.

²⁸ $\varepsilon_1 = \frac{\partial Q_1}{\partial T} \cdot \frac{T}{Q_1}$ and shows the sensitivity of termination traffic when MTRs varies, we assume that

this parameter could varies between 0 and -1.

²⁹ $\varepsilon_N = \frac{\partial N}{\partial P} \cdot \frac{P}{N}$ and shows the sensitivity of the number of subscribers when there is a variation in

retail prices due to a variation in MTRs, again we assume that this parameter could varies between 0 and -1

³⁰ Notice that this elasticity will depend basically on how much the operators decide to transfer the MTR reduction to the retail prices

³¹ SAC: *Subscriber Acquisition Costs*, are costs related to the acquisition of customers. They are expected to be greater the more competitive is the market.

³² SRC: *Subscriber Retention Costs*, are costs related to customers' retention, and are expected to be greater the more mature is the market.

³³ See quarterly reports from the Spanish Regulator (CMT). Genazos and Valletti (2007): Testing the "Waterbed" Effect in Mobile Telephony estimate the value of (ε_1) in -0.22

Sign of the denominator

143) The denominator can be divided in two parts:

- $-\frac{c}{\tau} + 1$
- ε_N

144) Since retail costs c also includes the wholesale costs τ ³⁴, it will always happen that c divided by τ is a number greater than 1, therefore, $-\frac{c}{\tau} + 1$ will be negative. Lets think of ε_N and how does this parameter behaves.

145) If $\varepsilon_N \rightarrow -1$ (the number of subscribers is very sensitive to variations in MTR), the denominator becomes smaller and so the waterbed effect does.

146) Under this scenario, the more elastic is the demand to variations in the retail prices, the mobile operators will not be so keen on transferring the variation to the retail prices, since the subscribers would be more willing to change the mobile service provider, that is why the waterbed effect will be lower.

147) If $\varepsilon_N \rightarrow 0$ (the number of subscribers is not very sensitive to variations in MTR), then the denominator becomes larger and the waterbed effect increases.

148) Therefore, the more inelastic is the number of subscribers to variations in retail prices the keener the Mobile Operators to transfer the reductions to the retail prices, since subscribers are not very sensitive to changes in retail prices.

Conclusions

149) In sum, the denominator will be larger (and therefore the waterbed effect smaller) when $\varepsilon_N \rightarrow 0$, that is to say, when the number of subscribers are not very sensitive to price variations (either on net or off net prices)

150) On the other hand, the smaller the difference between the retail costs (c) and the unitary and per user termination charge (τ)³⁵, and the more inelastic is the number of subscribers to retail price variation, $\varepsilon_N \rightarrow 0$, then, the greater is expected to be the waterbed effect, since Mobile Operators are expected to be able to increase retail prices without losing market share. In other words, when

$$-\frac{c}{\tau} + 1 \rightarrow 0, \text{ then the waterbed effect is greater if } \varepsilon_N \rightarrow 0.$$

³⁴ As we have said in footnote 25, for the receiver operator τ is an income, but for the caller operator is a cost.

³⁵ It is important to stress that the difference between these two variables will become larger when the competition level is greater due to the importance of SAC and SRC. However, when the market share is inelastic, the difference between c and τ tends to diminish since the network cost are reducing thanks to MTR cut down. In particular, MNO will have incentives to become more efficient since any reduction in the costs above the reduction in the MTRs will be of advantage to him.

Empirical simulation: Analysis of the waterbed effect (ε_w) when MTRs are reduced

151) Figure 1 shows a simulation of the elasticity of waterbed effect as it has been presented in equation 1. In particular, we depart from a base scenario and modifications in specific variables of equation 1 are introduced to analyse the impact that changes in these variables have on the so-called waterbed effect.

Base Scenario:

152) It is considered a quarterly reduction in MTR of 12% during the following 5 years up to the extent in which MTR and FTR converge in 1,7 eurocents./minute.

153) The value of ε_1 in September 2009 is assumed to be according to Genakos and Valletti (2007) -0.22, and at the end of the regulatory period (after 5 years) the value reaches -0.197. Therefore, the termination traffic increase every semester in a 2,6%.

154) As we have seen in the previous section, the smaller the growth in the traffic of termination, the greater the waterbed effect since Mobile Network Operator must compensate the reduction in the wholesale profits with an increment in the retail profits.

155) In addition, the number of subscribers is expected to increase every semester in 1,4%. In particular it has been assumed that ε_N takes an initial value in September 2009 of 0.11 and goes to -0.1162 in 2011. Therefore, it is assumed that the elasticity of market share to variation in retail prices is quite inelastic³⁶. Thus, when $\varepsilon_N \rightarrow 0$ the waterbed effect is expected to be greater.

156) Eventually, the greater the SAC and the SRC the smaller the waterbed effect since subscribers are more willing to change the mobile service provider, that is SAC and SRC are becoming greater. When this happens, $\varepsilon_N \rightarrow 1$ therefore, if retail prices increase to compensate the cut down in MTR the market share does so too.

157) In this base scenario the waterbed effect represent a quarterly increment in retail prices of 26%.

Scenario I: The SAC and SRC raise up to 50% and ε_N becomes more elastic

158) As it is depicted in Figure 1, when ε_N becomes more elastic to variations in retail prices and the SAC as well as the SRC raises up to a 50%, the waterbed effect is smaller. Nonetheless, mobile operators would decide to transfer every semester a 13% increment to the retail prices.

³⁶ Notice that despite the entrance of MVNO with strategies of low cost, MNO has not decreased their market share

Scenario II: The SAC and SRC raise up to 50% and ϵ_N becomes more inelastic

159) In contrast to scenario I, under this situation, the waterbed effect becomes larger. In particular, although there is a reduction in the waterbed effect due to the more competition existing in the market, the fact of having subscribers who are quite inelastic to variation in retail prices makes the Mobile Operator transfer a 16% increment to the retail prices.

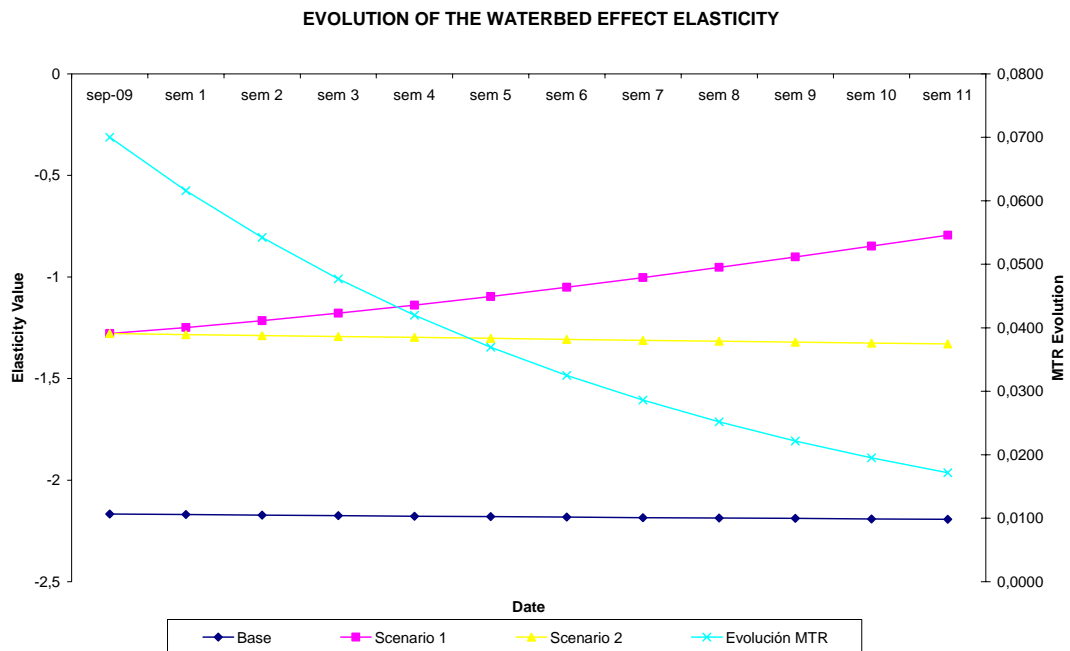


Figure 1: Simulated evolution of the waterbed effect

160) As can be concluded from Figure 1 above:

- a) The greater the SAC and SRC due to the more competition, the elasticity of the number of subscribers to variations in MTRs is expected to be higher so that, the waterbed effect decreases.
- b) The more inelastic is the number of subscribers to variations in the MTRs, the greater is expected to be the waterbed effect.

Proof of equation 1

$$\frac{\partial(P-c) \cdot N}{\partial T} = -\frac{\partial T \cdot Q_1}{\partial T}$$

$$\frac{\partial P}{\partial T} \cdot N + (P-c) \frac{\partial N}{\partial T} = -\left(Q_1 + T \cdot \frac{\partial Q_1}{\partial T}\right)$$

$$N \cdot \frac{\partial P}{\partial T} \left[1 + \frac{\partial T}{\partial P} \cdot (P-c) \cdot \frac{\partial N}{\partial T} \cdot \frac{1}{N}\right] = -Q_1 \cdot \left(1 + \frac{\partial Q_1}{\partial T} \cdot \frac{T}{Q_1}\right)$$

$$N \cdot \frac{\partial P}{\partial T} \left(1 + \varepsilon_N \cdot \left(\frac{P-c}{P}\right)\right) = -Q_1 \cdot (1 + \varepsilon_1)$$

being $\varepsilon_N = \frac{\partial N}{\partial P} \cdot \frac{P}{N}$

$$\varepsilon_w = \frac{1 + \varepsilon_1}{-\frac{c}{\tau} + 1 + \varepsilon_N}$$

being $\tau = \frac{T \cdot Q_1}{N}$

Annex C Impact on consumer prices of a 100% pass through of unrecovered fixed and common costs
TABLE : Calculation of Telefónica's unrecovered costs resulting from 70% reduction in MTRs and estimate of the consequent increases in retail prices³⁷

| Country | Total annual unrecovered costs (€m) | Percentage increase in retail prices³⁷ |
|----------------|--|--|
| United Kingdom | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Spain | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Germany | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Czech Republic | [CONFIDENTIAL] | [CONFIDENTIAL] |
| Irish Republic | [CONFIDENTIAL] | [CONFIDENTIAL] |
| TOTAL | [CONFIDENTIAL] | [CONFIDENTIAL] |

³⁷ Assuming that the waterbed is complete and retail prices rebalance to maintain operator revenues.