



Key issues in the mobile sector

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George Houpis

george.houpis@frontier-economics.com

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Context

- **Mobile termination rates**
- **On-net/off-net tariffs**
- **SMS roaming issues**
- **Spectrum**
- **Access to content on mobile**

Mobile termination has become EU issue...

Up to now national

- 40% reduction in 4 years - ERG

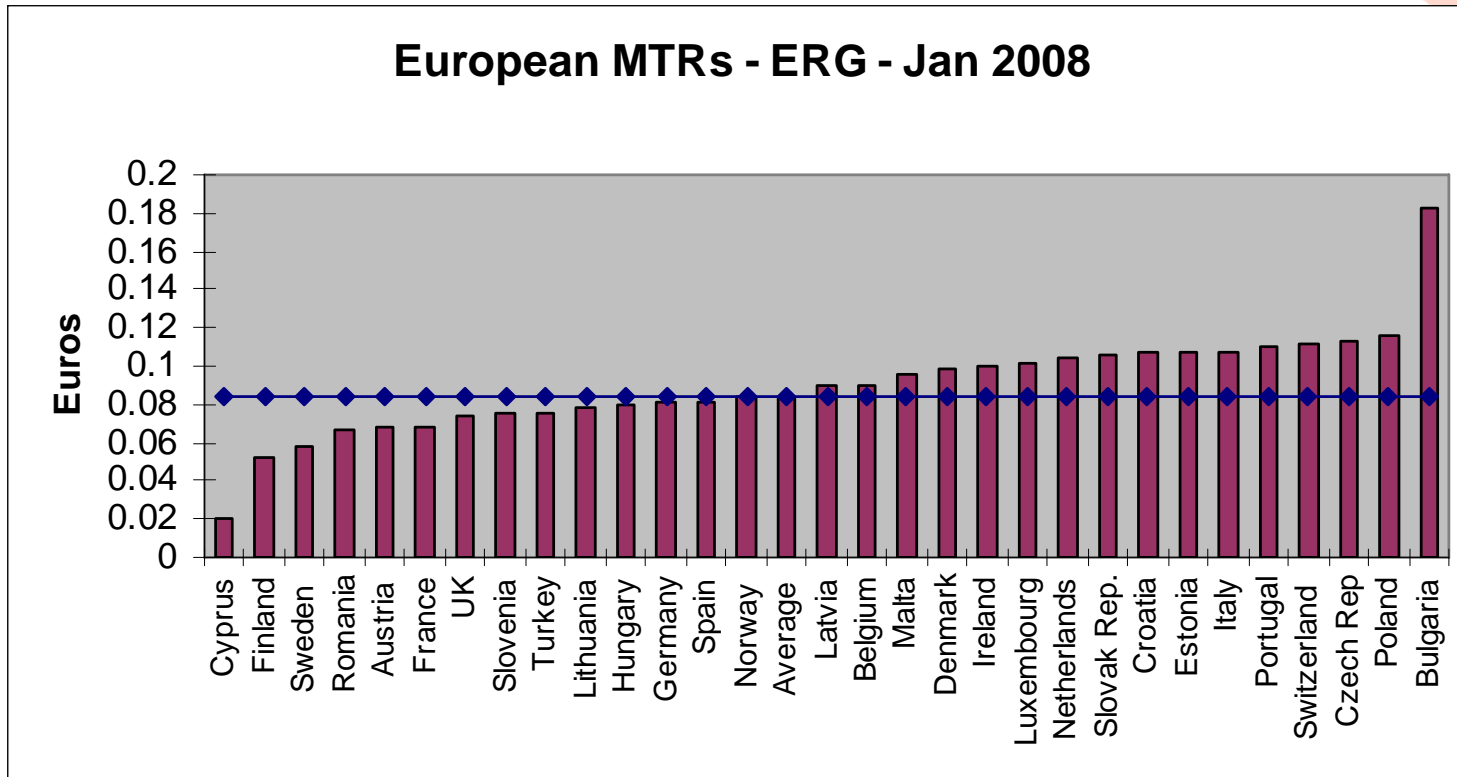
Commission has now intervened

- Significant discrepancy in mobile termination rates from 2 cents in Cyprus to 18 cents in Bulgaria
- Such variation not consistent with NRAs setting cost oriented charges

Commission's recommendation to seek to harmonise costing principles. For mobile, key elements of proposals:

- Coverage costs excluded from termination costs
- Termination costs should exclude any contribution to the recovery of fixed and common costs

MTRs vary across Europe...



- Variation less pronounced when outliers dropped
- Cost orientation consistent with some variation
- Rates still range from c. 6 to 11 Eurocents

So are the Commission's proposals justified?

- The variation in rates may suggest some inconsistent application of costing approaches across Europe
- Extent to which key elements of Commission proposals address such inconsistencies not clear:
 - **Coverage costs: no distinction between coverage and non-coverage costs in retail mobile pricing – no clear justification for excluding such costs from termination**
 - **Contribution to fixed and common costs – efficiency requires all services to contribute, unless if demand 'very' elastic**
 - **If there are 'call externalities', then efficiency may require termination rates to be below cost – no obvious link between significance of call externalities and magnitude of f/c costs**
- Proposals also identified with significant medium term reduction

'Across the European Union, termination rates are on average set at 8 cents per minute, and Ms Reding would like to see them drop to between 1 and 2 cents a minute by 2012.' FT, 31/8/08

What would then be the impact of a drastic reduction in mobile termination rates?

- **What do we mean by drastic reduction?**
 - Going from 9 to 1-2 eurocents in 3 years
- **Two key elements of analysis:**
 - What economic principles suggest about the relationship between MTRs and mobile retail prices
 - Development of a model to quantify the impact on consumers of drastically reducing MTRs
- **Prior experience?**

Will a reduction in mobile termination rates lead to lower retail prices?

○ Economic theory supports the existence of a “waterbed effect”:

- Reductions in MTRs will lower call prices ... but other prices are expected to increase (e.g. subscription charges)

In competitive markets, reducing prices for one of many services offered by a company, would be expected to lead to other prices increasing – there is no ‘free lunch’

○ This effect has been confirmed empirically by Genakos and Valletti (2008):

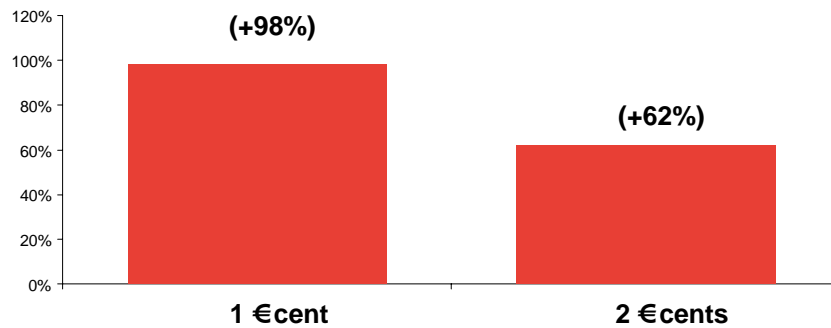
- 10% reduction in MTRs leads to 10% increase in mobile retail prices

So what would be the effect of below cost MTRs?

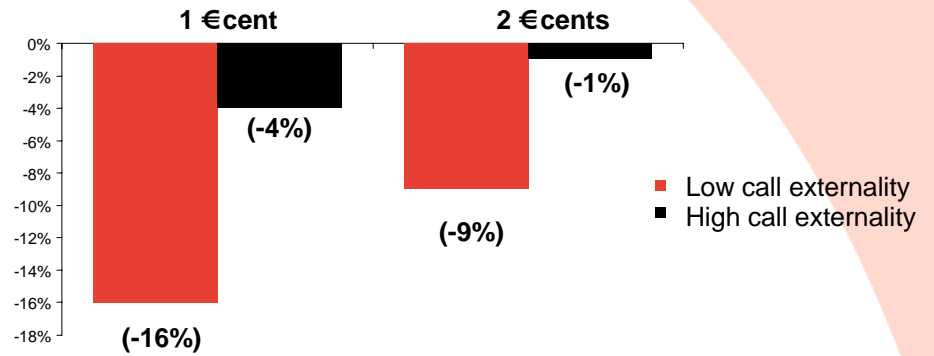
- **Quantification of the impact on consumers of reducing MTRs to 2 and 1€ cent**
- **Based on a standard model used in the economic literature**
 - Assume that operators compete for customers
 - They offer prices intended to maximize the value that consumers get from using mobile telephony
 - The results do not depend on competition between operators being weak
- **Impact on Western and Central and Eastern European countries**

Modelling results: Western European

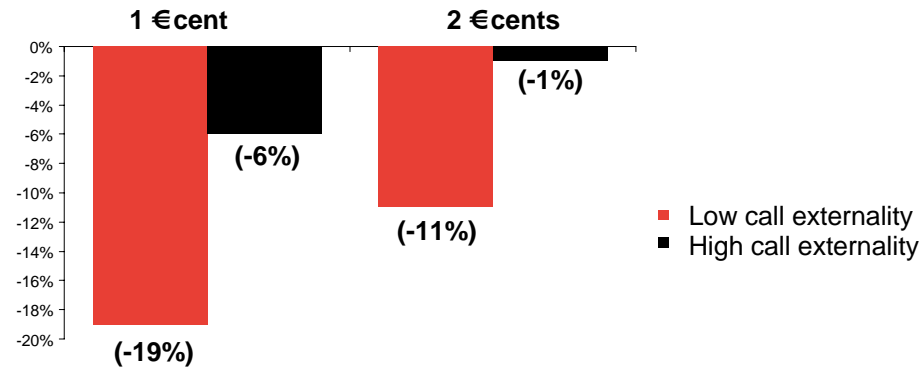
Change in the average Minutes of Use



Change in penetration



Change in consumer surplus



And what about **Bill and Keep**?

○ **What is meant by **Bill and Keep**?**

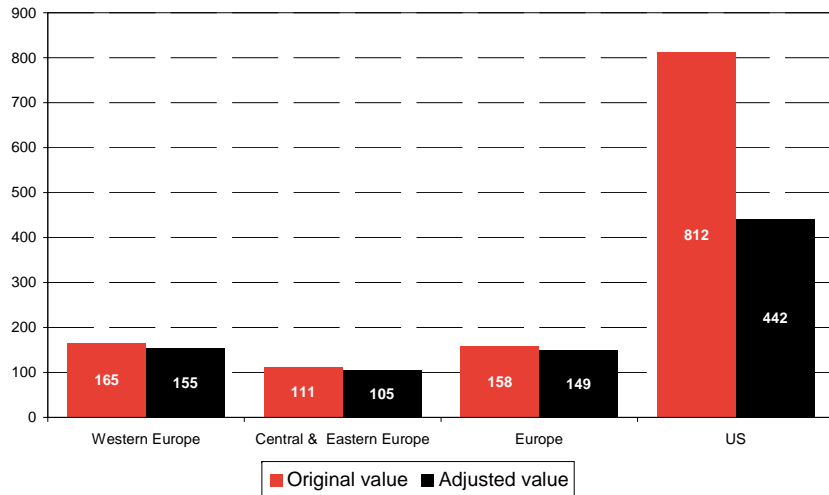
- Distinguish from net interconnection payments of zero

○ **Why is it advocated?**

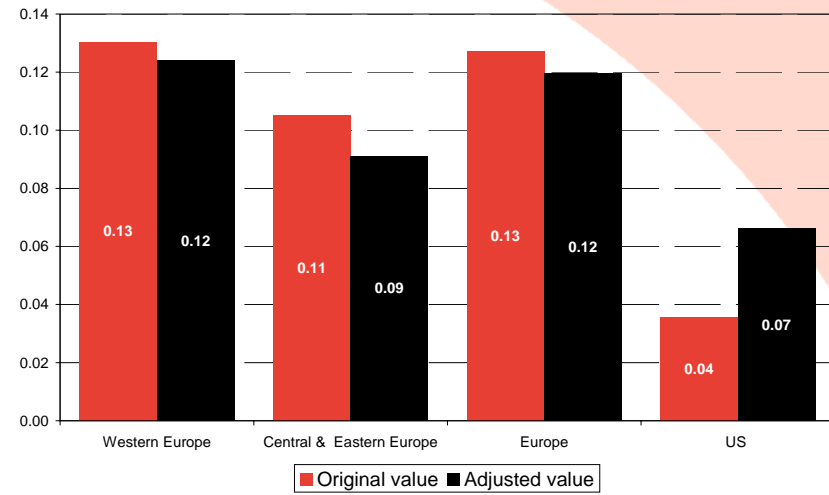
- Experience of US
- Administrative simplicity

What is the US experience?

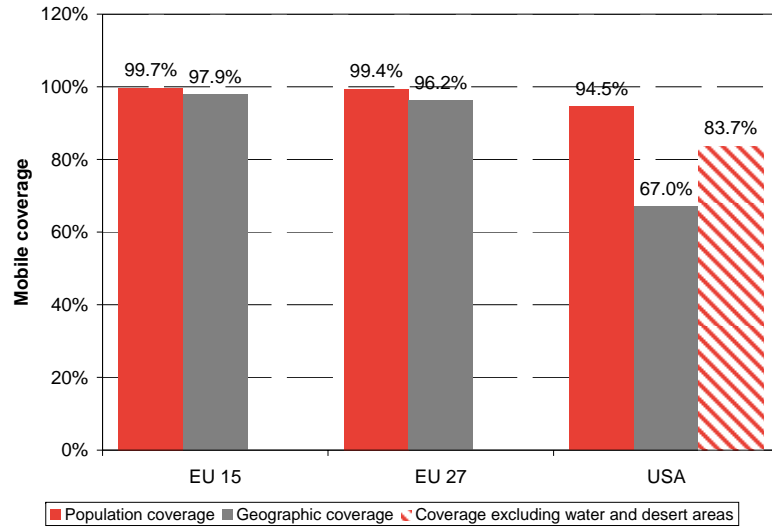
MOU



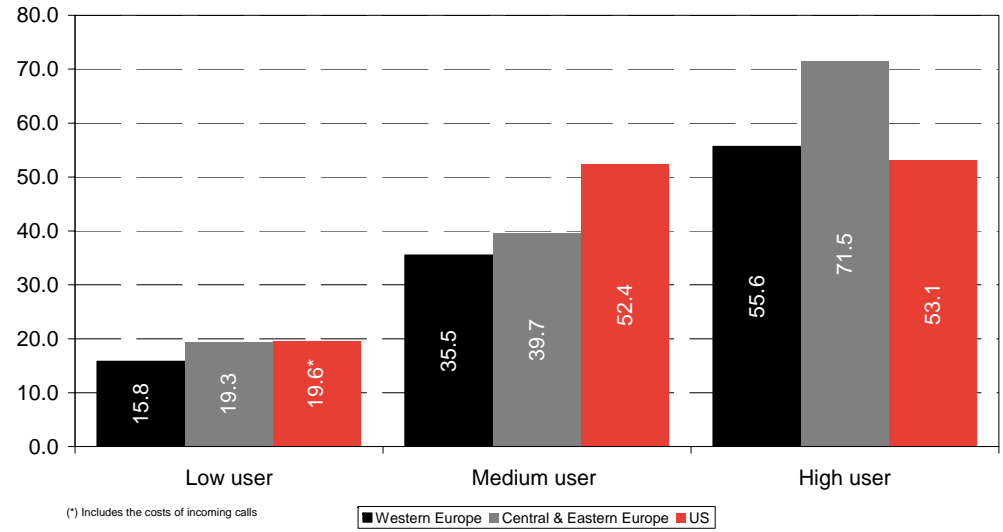
RPM (EU€)



Mobile coverage



Cost of OECD baskets (International US\$)



(*) Includes the costs of incoming calls

And what about Bill and Keep? (2)

○ Under what conditions might it be desirable?

- If mobile subscribers value a lot calls received
- If costs of interconnecting networks similar
- As (marginal) costs of calls fall
- Where mobile penetration has reached saturation

○ In practice:

- No experience of switching from a European type regime
- Little research into magnitude of call externalities

No definition of conditions under which B&K would improve welfare

On-net off-net price differentials and competition

- **On-net off-net differentials commonly observed in mobile markets**
- **Allegations that such differentials are anti-competitive:**
 - Margin squeeze
 - Foreclosure
- **Evidence in practice mixed**
 - Differential exist in markets with symmetric and asymmetric market structures
 - Differentials in some cases were introduced by new entrant

On-net off-net price differentials and competition (2)

- If termination rates are higher than marginal costs, off-net prices can be higher than on-net prices. Competition for groups of customers that tend to call each other (eg businesses, families) would be consistent with both newer entrants and incumbents offering such differentials
 - If consumers value receiving calls, then differential could be used strategically to weaken smaller competitor or new entrant
 - On-net off-net differentials reduce the value of joining rival network,
 - Larger firms may have stronger incentive, as ability of smaller/new entrant network to retaliate is less costly for larger firm
- but, they would also be consistent with competitive market
- Case by case examination

SMS and data roaming regulation

- **Following roaming regulation for calls, Commission has published proposals for SMS and data roaming**
 - Both wholesale and retail prices for data and SMS roaming services have remained stable and subject to high margins
- **The principles for evaluating the proposals are similar to roaming for calls**
 - Establishing excess pricing for one of a multitude of services
 - Establishing efficient prices
- **Operators sell bundles that include variety of services**
 - In competitive markets, prices will reflect costs and demand characteristics for different services
 - If no excess profits are made, how does one decide the 'cap' for any individual service?

Spectrum – refarming 900 MHz for 3G

- **Possibility of refarming 900 MHz spectrum to be used for 3G services raises issue of ‘level playing field’**
 - 900 MHz spectrum more attractive for coverage and in-building penetration
 - Operators with 900 MHz spectrum with competitive advantage
- **Consider source of advantage: frequency per se, or network infrastructure?**
- **Transfer of spectrum has transition costs for original holder and could reverse advantage**
- **Spectrum cap to apply to spectrum coming up for sale <900MHz**

Content – net neutrality

- **Key issue is ‘wireless net neutrality’ – requirement that distribution platforms distribute such content to all users with no ‘prioritisation’ – extends also to equipment and applications**
- **Effectively a market power leveraging argument**
- **Where there are**
 - no capacity constraints; and
 - no market power**there should be no constraint**
- **And what about mobile?**
 - Likely to have more capacity constraints than fixed
 - Evidence of market power?

Summary

○ Short term:

- Expect retail prices to react – but more consolidation likely
- On-net off-net differentials more likely to be an issue where there are asymmetric market shares

Downwards pressure on termination rates may ease significance

○ Medium-term

- Move to Bill and Keep likely to strengthen – should be for the right reasons!
- Although competitive, industry likely to continue to be focus of attention !