Workshop on the ERG Draft Common Position "Next Generation Networks Future Charging mechanisms/ Long term termination issues"

assessment of Bill and Keep as alternative

Huib de Kleijn – OPTA, co-chair ERG project team for this draft CP

Brussels November 4th, 2009

Contents

- Structure of draft CP
- Introduction, Definition of BaK
- Effects of BaK
- Practical implementation
- Summary and overall assessment
- Next steps

Structure of draft CP

- (1) Introduction
- (2) Elements and application of an interconnect regime
- (3) Definition of BaK and boundary
- (4) Empirical data
- (5) Issues and effects

  moving cost recovery to retail, regulatory costs and uncertainty, externalities, effects on retail prices, investment incentives, hot potato routing, QoS, CPS
- (6) Issues of practical implementation

  traffic from outside the BaK domain, arbitrage, migration
- (7) Summary and overall assessment

Introduction

- **Why do we do this now?**

  Convergence in NGN environment (avoid arbitrage), follow-up of earlier NGN/IP-IC common statement

  Falling cost price of termination (may change relative merits of IC regimes)

  Based upon extensive analytical and empirical assessment, improvements are explored

- **Assessing Bill and Keep (BaK) as most promising alternative to CPNP**

- **Definition of BaK**

  Wholesale billing regime under which each network bears the cost of terminating traffic coming from other operators (when traffic is delivered at a defined boundary).

  So: termination traffic is exchanged without wholesale payment between operators.

  Boundary: locations where BaK is applicable. CP describes possible rules for defining this boundary.

  Rules *could* describe lower and possibly also upper limits for the boundary.

  Main issue: boundary should not be set at a too low network level (cost of connection may then be too high, leaving a remaining termination bottleneck).

Moving cost recovery to retail

- **Moving cost recovery from an SMP wholesale to a competitive retail market as such is likely to create better incentives for cost minimization**

  A regulated price has problems due to inherent information problems (operators do not have proper incentives to provide correct information and the competitive process of continuous setting and adjusting prices is missing)

- **Moving cost recovery to retail ≠ raising retail prices**
- **BaK reduces regulatory cost and uncertainty**

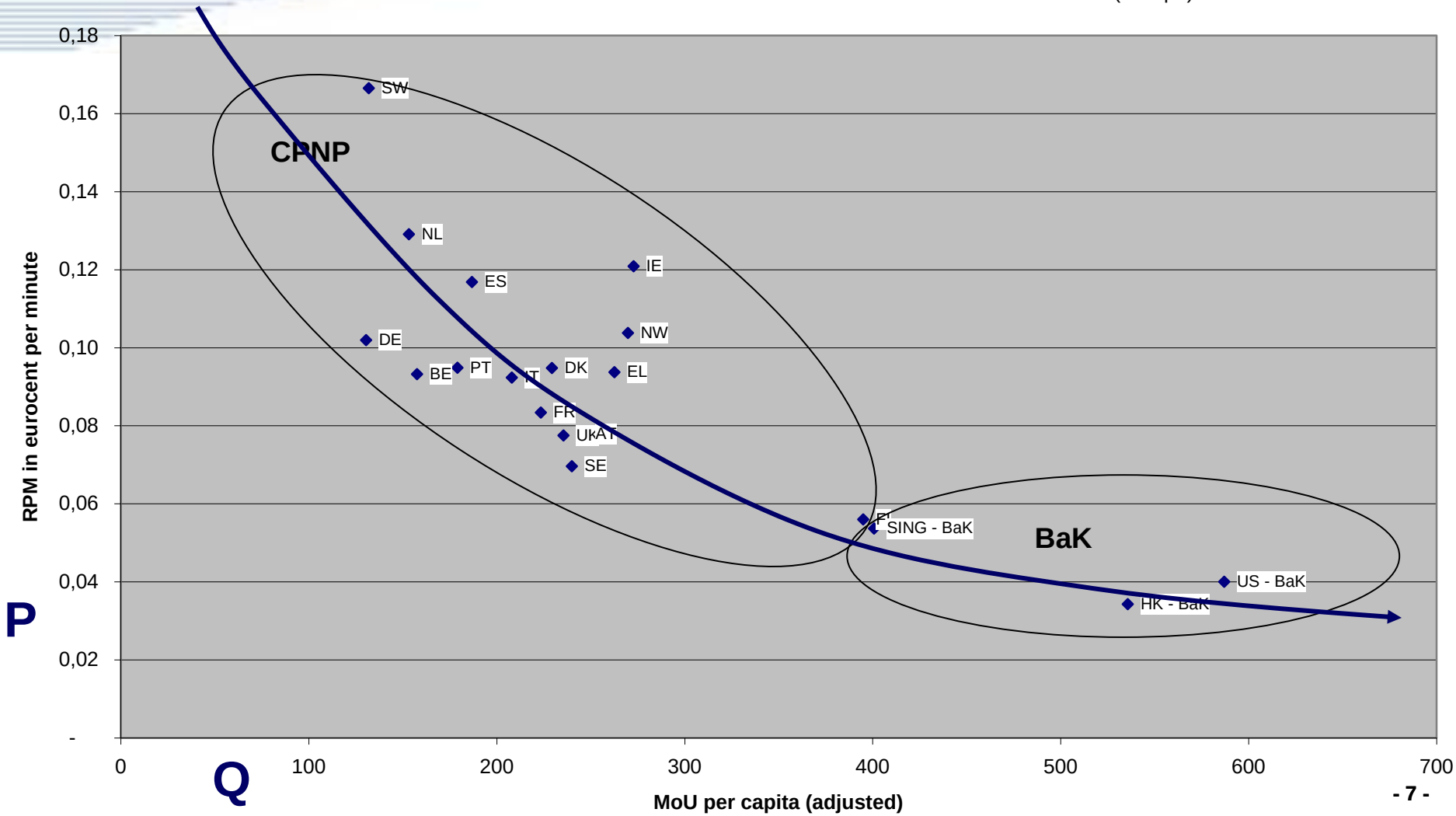
Effects 1
(high versus low usage offers)

- Effects -> effects on retail markets (price, volume), end users, welfare
- Centred around effects on high usage and low usage offers
- High usage offers have input deficit (less incoming than outgoing traffic)
- Low usage offers have input surplus
- Termination rate causes net cash flow from high usage to low usage
- Predicted result for 'higher' termination rates (theory): higher per minute price and lower usage but possibly higher handset ownership (penetration)
- Empiric data: -> next sheet

revenue per minute
transfered for $ to euro
at 1,51 exchange rate

MoU versus RPM (Merill Lynch 2008 Q3 data)

Figure 1: The adjusted revenue per minute (proxy of retail price) and minutes of use per capita (proxy for usage) plotted for CPNP (Europe) and BaK countries.



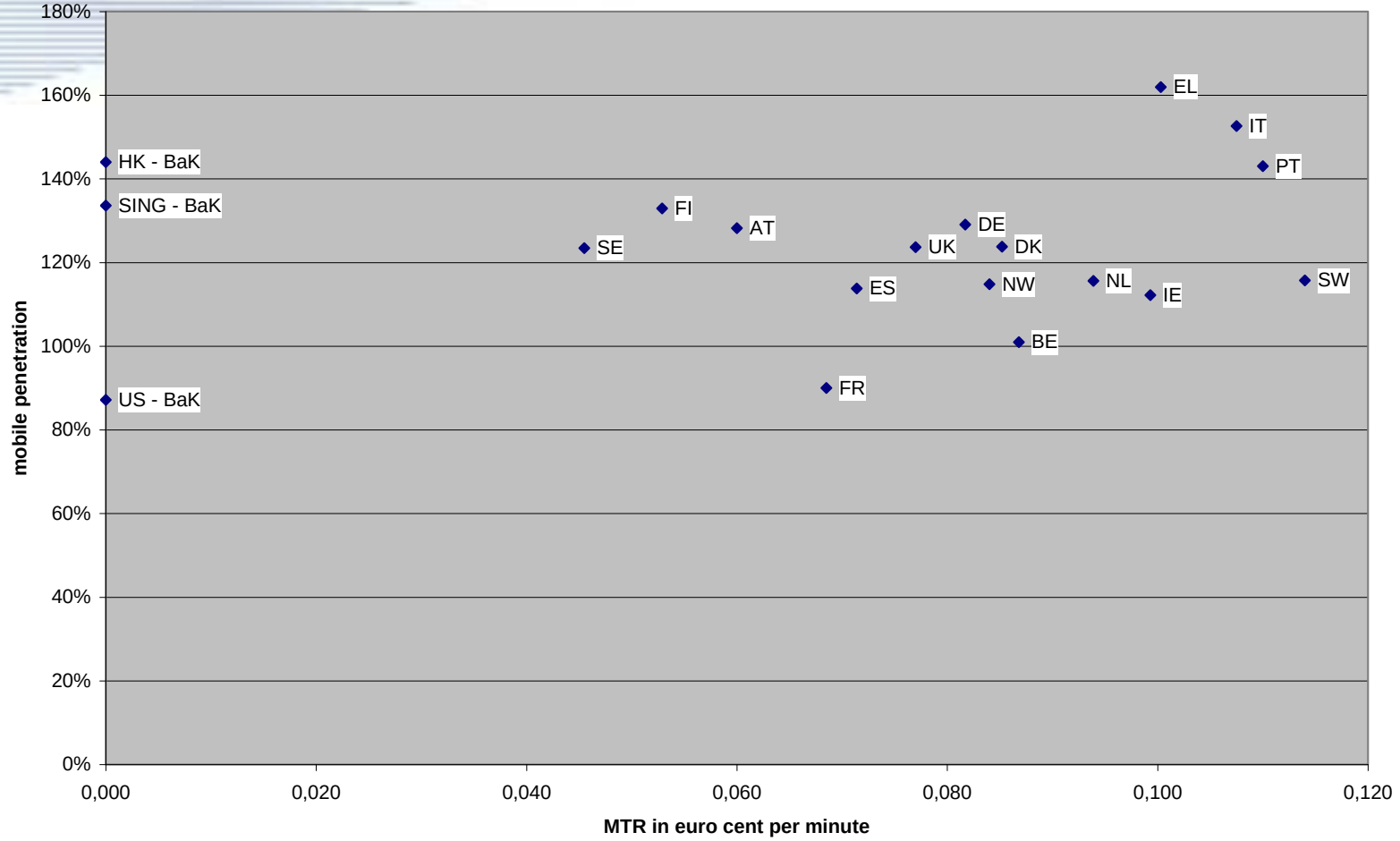


Figure 2: Mobile penetration plotted against the level of MTRs. Source: ML and ERG (2008Q3).

Effects 2

At market level

- **BaK results in higher usage per capita and lower revenue per minute (price)**
- **Little impact on handset ownership (people with subscription / population)**
- **This means higher consumer surplus and higher total welfare**

For different operators

- **Mixed, different impact for different operators**
- **Not assessed to be very substantial in long-run in general**

Several issues

- **Investment incentives: no negative effects are likely nor observed in practice**
- **Hot potato routing: not a problem when BaK applies at a proper boundary**

  BaK as defined here does not allow to drop just any traffic anywhere for free

- **CPS: BaK could have impact on competitive balance between CPS and network operators, but this can be addressed by a mark-up on the regulated rate of voice originating**

Practical implementation

- **Traffic from outside the BaK domain**

  This seems to result in a subsidy from (the users in) the BaK domain to the CPNP domain that can probably not be prevented. The effect is more significant if the amount of traffic to the CPNP domain is relatively large (compared to intra BaK traffic) and the CPNP rate is relatively high.

- **Arbitrage and call back schemes**

  Not much arbitrage problems encountered in practice. Call back schemes seem the only opportunity for arbitrage. This can be prevented by applying BaK to real termination only (gives some compliance cost).

- **Migration**

  Should be gradual to allow for business adjustment.

Summary and overall assessment

- Efficient costs and CPNP regulated rates go down
- BaK: incentives for efficient cost recovery *as such* better and decreases regulatory costs and uncertainty
- Primary effect (predicted and observed): BaK results in higher usage, lower revenue per minute (price) and seems to have little impact on handset ownership, leading to higher welfare
- Effects on operators are mixed (different impact on competitive strength of different types of operators), but not assessed to be very substantial in general
- No significant negative side effects, but points for attention are:
  - subsidy from BaK domain to CPNP domain (as such negative)
  - impact on CPS operators

Conclusion

- **BaK is more promising than CPNP as a regulatory regime for termination for the long term and based on national circumstances NRAs could set a glide path to BaK within the regulatory period related to the next market analysis they carry out for termination.**

- **However, for the short and medium term CPNP can also be an appropriate choice based on national circumstances (including legal issues), at least for the next regulatory period.**

Next steps

- **Market consultation until 10 December 2009**
- **Consultation report, final CP: Q2 2010**