The regulatory context for fixed mobile interconnection
A presentation to the ITU workshop

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Agenda

- The need to regulate mobile operators
- The specific problem of mobile termination
- The form of regulation
- The wider context of regulating mobile termination
The two forms of regulation

- Competition Law
  - for occasional use in normally competitive markets
  - focuses on actual abuse of dominant market position
- Sector-specific regulation
  - for markets which are not effectively competitive
  - includes potential abuses of market power where such an outcome is considered likely and the time taken to achieve redress through Competition Law would unduly distort market development.

Two temptations for mobile regulation

- Mirror fixed network regulation
  - intensive sector-specific rules for operators with significant market power (e.g. cost based interconnection, carrier selection, number portability)
  - premise: the mobile market operates as an oligopoly.
- Leave well alone
  - let Competition Law be the only constraint on market development
  - premise: the mobile market is (and always has been) competitive.
The middle ground

- Mobile communications is not a single market
- At least four separate sub-markets exist:
  - retail subscriptions; retail calls; wholesale origination and wholesale termination.
- The extent of competition in these sub-markets varies dramatically.
- Regulation should be restricted to those markets where competition is not yet effective, and should be the minimum required to achieve effective competition.

Proposed regulatory process

1. Define distinct mobile markets
2. Test for market failure
   - Yes: Regulate dominant market players
   - No: Go to step 3
3. Test if market failure results from dominance
   - Yes: Regulate dominant market players
   - No: Regulate all market players
4. Do not regulate the market
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Average termination rates in Europe
The ratio of mobile to fixed termination charges

<table>
<thead>
<tr>
<th>Country</th>
<th>Ratio (as of 1.1.2003)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Austria</td>
<td>0.5</td>
</tr>
<tr>
<td>Denmark</td>
<td>5</td>
</tr>
<tr>
<td>Finland</td>
<td>10</td>
</tr>
<tr>
<td>France</td>
<td>15</td>
</tr>
<tr>
<td>Germany</td>
<td>20</td>
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<tr>
<td>Ireland</td>
<td>25</td>
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<tr>
<td>Italy</td>
<td>30</td>
</tr>
<tr>
<td>The Netherlands</td>
<td>35</td>
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<tr>
<td>Norway</td>
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<tr>
<td>Spain</td>
<td>10</td>
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<tr>
<td>Sweden</td>
<td>15</td>
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<tr>
<td>Switzerland</td>
<td>20</td>
</tr>
<tr>
<td>UK</td>
<td>25</td>
</tr>
</tbody>
</table>

Mobile termination is excessively priced

16:1

- Higher costs of financing
- Less economy of scale
- Higher cost technology

Ratio of mobile to fixed costs

Actual charges

Ratio of mobile to fixed charges
Mobile termination is a bottleneck service

- The caller (who pays for the call) has no control over the choice of terminating network.
- The called party (which chooses the terminating network through its subscription service) does not normally account for the price of inbound calls.
- The terminating mobile operator is able (and may even have incentives) to charge excessive prices for call termination.
- This market failure is irrespective of market power.

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- The need to regulate mobile operators
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  - How to regulate mobile termination
- The wider context of regulating mobile termination
The traditional approach: LRIC cost assessment

- Identify and cost all network elements involved in mobile call termination.
- Three possible approaches:
  - *top-down, using the operators accounts*
  - *bottom-up, using generic network cost models*
  - *benchmarking against other operators.*
- Widely used in the fixed network, but faces several problems in the mobile market.

Problems with mobile LRIC cost assessment -1

Top-down approach

- Suitable cost accounts are seldom available, and the expense of producing them may be out of proportion to the size of the market failure being addressed.
- Possible solution is to restrict top-down models (based on separated LRIC accounts) to operators with market power.
Problems with mobile LRIC cost assessment -2

Bottom-up approach

- Danger of under-estimating real costs is substantial in an industry that needs high investment in 3G systems.
- How to handle economies of scale fairly when different operators have different market shares.

An alternative approach: link with origination rates

- Competition is reducing prices for retail mobile call origination.
- Pegging termination rates to origination tariffs will harness these competitive pressures to address the termination bottleneck.
- Consistent with light-handed regulation.
- The success of this strategy depends on strong competition in the retail calls market.
Regulatory approach

- Establish a representative price for mobile-to-fixed calls (the lowest price in any retail tariff plan?)
- Deduct 15-20% for retail and marketing costs
- Deduct an average fixed network interconnect fee
- Add a margin of 10-15% to cover additional network costs of the termination service

Market impact - 1

- Phase 1: before regulation
  - origination rates fall faster than termination rates as retail competition takes effect
- Phase 2: the regulatory link between origination and termination rates is established
  - rates become aligned
- Phase 3: after regulation
  - origination and termination rates fall in parallel as retail competition gathers pace.
Market impact - 2

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Approach to regulating mobile termination

- Direct cost assessment is cumbersome and may be challenged by mobile operators as being out of proportion to the extent of market failure.
- Indirect regulation is more light-handed but relies on significant and growing competition in the market for mobile originated calls.
- Regulators must strengthen the market for retail mobile competition as well as regulating mobile termination.

Components of the mobile market

- Retail:
  - Subscriptions
  - Calls
- Wholesale:
  - Call origination
  - Call termination
Competition in the mobile market

<table>
<thead>
<tr>
<th>Mobile market</th>
<th>Competitive characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Subscriptions</td>
<td>Significant competition; increasing rapidly</td>
</tr>
<tr>
<td>Retail calls</td>
<td>Weak competition; increasing slowly</td>
</tr>
<tr>
<td>Call origination</td>
<td>Market currently does not exist..</td>
</tr>
<tr>
<td>Call termination</td>
<td>Virtually no competition; no immediate prospect of competition.</td>
</tr>
</tbody>
</table>

The competitive cascade

- National roaming
- Mobile number portability
- Indirect access
- Wholesale prices linked to retail tariffs for mobile-originated calls

The flow of competition
Conclusions

- Direct regulatory intervention on mobile termination rates is justified, but difficult in practice and open to legal challenge.
- Indirect regulation, linking termination and origination prices whilst promoting competition in retail markets, is proportionate and will create the right incentives for market development.
- Indirect regulation will maximise economic benefit with the minimum of regulatory effort.

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