Roaming Free?

Roaming network selection and Inter-operator tariffs

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Background

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- In spite of the general fall in prices of mobile services, roaming charges have remained high
- Concerns about failure of competition and collusion in setting roaming charges (e.g. EU sector inquiry)
- However, an alternative explanation for high roaming charges exists:
  price competition in roaming is ineffective because of technological and institutional constraints

Limits to price competition

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- Effective competition requires that demand faced by individual firms responds strongly to changes in the prices they set
- Problems:
  - At the wholesale level, selection of visited network is largely random
  - At the retail level, lack of price transparency may dampen price competition
- Each operator’s demand is relatively insensitive to demand

Approach

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- Simple model
  - 2 countries,
  - 2 retail operators in one country
  - 2 wholesale operators in the other country
- Differentiated Bertrand competition at the retail level (depending on weighted average price of roaming with each retail operator)

Approach

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- 2 stage price setting
  - First stage: wholesale operators set inter-operator tariffs (IOTs)
  - Second stage: retail operators set mark-ups on IOTs
- Number of scenarios
  - Independent operators without traffic re-direction
  - Cross-border merger (vertical integration) without traffic re-direction
  - Cross-border merger with incentives for manual network selection through simplified calling plans
  - SIM-based traffic redirection

Independent operators

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- Key results
  - IOT(1) ↓ ⇨ IOT(2) ↑
  - Independently set IOTs are larger than jointly profit maximising IOT
  - Operator with higher default share of roaming traffic sets lower IOT
- Interpretation
  - High IOTs can be explained without resort to collusion (collusive IOTs might even be lower)
  - Lack of ability to attract traffic by lowering IOTs creates externality and perverse incentives

Cross-border merger

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- Merger eliminates any ‘double marginalisation’ that may have existed as a result of imperfect retail competition, but does not solve the problem of high IOTs
- The average IOT even increases
  - Merged entity lowers IOT
  - Independent wholesaler increases IOT disproportionately
- Merger unprofitable ...
- ... unless combined with re-direction of traffic to merged entity’s own network

User-based traffic redirection

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- Simplified calling plans can provide incentives for manual network selection by users.
- The merged entity can offer unified cheaper rates for roaming on its own network
- Incentives for manually selecting the cheapest network drive traffic to visited network belonging to the merged entity

Merger with simplified tariffs

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- ❑ Merged entity is largely unaffected by IOT set by independent wholesale operator
- ❑ Own IOT is only an internal transfer, but a true cost to independent retailer
- ⇨ Increase IOT to raise rival's cost
- ❑ Independent wholesaler lowers IOT (in order to keep independent retailer competitive)
- ❑ Average IOT (paid by independent retailer) falls
- ❑ Merger is profitable

SIM-based traffic redirection

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- With SIM-based traffic redirection retail operators can respond to IOT differences
- The externality is removed as visited networks enjoy the full benefit of increased traffic when lowering prices
- Wholesale operators may benefit from moderate competition, but will lose as IOTs are driven towards cost
- Retail charges for roaming fall in response to falling IOTs

Conclusions

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- Technological and institutional constraints and lack of price transparency lead to prices which can be higher than those achieved by collusion
- Cross-border mergers do not solve this problem unless accompanied by some sort of traffic re-direction (e.g. simplified calling plans)
- SIM-based traffic redirection removes the externality on IOTs and allowing price to become the focus of competition