



Telecom Regulation: Why and How?

M H Au

*Director-General of
Telecommunications*

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Regulation has Several Dimensions

- Sector-specific (applicable to a particular sector) and general (applicable to all sectors)
- *Ex ante* (before the event) and *ex post* (after the event)
- Economic, technical, social, safety, environmental, consumer protection, etc.

Office of the Telecommunications Authority (OFTA)

- Administers sector-specific regulation (i.e. regulation applied to the telecommunications industry only) under Telecommunications Ordinance
- Sector-specific regulation comprises:
 - *Economic regulation: market behaviour and market structure*
 - *Technical regulation: technical standards, spectrum management, numbering, etc.*

Why Regulate?

- To address market imperfections
 - *best outcome by market forces*
 - *regulation as a surrogate to market forces*
 - *regulation to foster development of competition*
 - *as market develops, sector-specific ex ante regulation to be reduced*

Why Regulate? (2)

- To protect competition
 - *safeguard against anti-competitive conduct*
 - *safeguard against emergence of market structure not conducive to effective competition*
- To achieve some social objectives
 - *some social objectives (e.g. universal service) not achievable through market forces alone*

Why Regulate? (3)

- To manage scarce resources
 - *radio spectrum*
 - *telecommunications numbers*
 - *space underneath public roads for ducts*
- To ensure compatibility and interoperability between telecommunications systems and to avoid interference and safety hazards
 - *technical standards to be established*

Interconnection

- Two types of interconnection
 - *Type I interconnection: To enable users connected to one network to communicate with users, or to access services, connected to another network*
 - *Type II interconnection: To enable one network operator to deliver service to its customers through the customer access network of another network operator*

Interconnection (2)

- Why regulate?
 - *Before market fully develops, incumbent operator (with large customer base) may not have commercial incentive to implement Type I interconnection with new entrants (with small customer base)*
 - *Incumbent operator with extensive local loop network has no commercial incentive to provide Type II interconnection to new entrants*

Interconnection (3)

- Regulation to foster development of market
 - *In case of Type I interconnection:*
 - to achieve any-to-any connectivity'
 - *In case of Type II interconnection:*
 - to lower entry barriers to encourage downstream investment
 - to promote efficient investment
 - to enable competition while new entrants are rolling out their own customer access networks

Interconnection (4)

- How to regulate?
 - *Commercial negotiations and settlement preferred*
 - *In case commercial agreement cannot be reached*
 - mediation by OFTA
 - determination of terms and conditions by Telecommunications Authority (TA)
 - cost-based interconnection charges represent outcome of market, if established

Tariffs

- Why regulate?
 - *During monopoly: protection of user interest*
 - *During transition to fully competitive market*
 - to foster the development of competition (dominant operator has ability to hinder development of competition through anti-competitive pricing and market practices)
 - *Fully competitive market*
 - no regulation required (e.g. IDD services)

Tariffs (2)

- How to regulate?
 - *Dominant operator*
 - approval by TA
 - approval criterion is whether proposed tariff is anti-competitive
 - publication of tariffs required
 - “spot pricing” obligation
 - *Non-dominant operators*
 - publication of tariffs only

Fair Competition

- *Ex post* regulation
 - *Operators to observe fair competition rules*
 - *Breach may lead to sanctions*
 - *Third parties suffering damages may seek damages from operator in breach*
- Why regulate?
 - *To protect competition*

Fair Competition (2)

- How to regulate?
 - *Prohibition of anti-competitive conduct (that has purpose or effect of preventing or substantially restricting competition in the market)(e.g. agreement to fix prices or to share market)*
 - *Prohibition of abuse of dominance (e.g. predatory pricing)*
 - dominance: ability to act without significant competitive restraint from its competitors and customers

Fair Competition (3)

- Prohibition of misleading or deceptive conduct (e.g. providing false information to entice customers to switch suppliers)*
- Prohibition of discrimination that has purpose or effect of preventing or substantially restricting competition in the market (e.g. price differentials not reflecting cost differentials)*

Mergers and Acquisitions (M & A)

- *Ex post*, rather than *ex ante*, regime in Hong Kong (i.e. prior approval not mandatory for M & A), but mechanism available for parties to M & A transaction to seek prior consent from the TA
- Why regulate?
 - *To prevent market structure that would create or enhance dominance or be more prone to coordinated behaviour*

Mergers and Acquisitions (M & A)(2)

- Applicable to “carriers” (network operators) only
- How regulate?
 - *TA may intervene in merger or acquisition that will*
 - substantially lessen competition
 - cause detriment not offset by public benefits
 - *TA may direct modifications if above criteria are satisfied*

Licensing of Mobile Services

- Why regulate?
 - *Spectrum being a scarce and valuable resource needs to be efficiently utilized*
 - *Orderly use of spectrum to avoid mutual interference*
 - *Fair competition*
 - *Consumer protection*

Licensing of Mobile Services (2)

- How to regulate?
 - *Licensing and licence conditions*
 - *How to select licensee:*
 - Based on merits of applications
 - *Some merits may be secured by licence conditions and performance bonds*
 - *Potentially subjective*
 - Spectrum auctioning
 - *Objective and transparent*
 - *Spectrum assigned to operator who will potentially generate highest value from the resource*

Examples of Other Regulation

- Economic
 - *Sharing of “bottleneck” facilities*
 - *Access to land for network rollout*
 - *Universal service obligation*
- Technical
 - *Management of number resources, etc.*
 - *Spectrum planning and assignment*
 - *Equipment type approval*
 - *Radio operating personnel licensing, etc.*

Conclusions (1)

- Regulation is “second best” approach
- Market and competition is the “best” approach to lower prices, widen choices, promote quality and enhance innovation
- Task of regulator is therefore to foster development of market
 - *To remove or lower market entry barriers*
 - *To encourage market entry and efficient investment (upstream and downstream)*
 - *To promote competition*
 - *To protect competition*

Conclusions (2)

- Regulation necessary to address market imperfections, e.g.
 - *Where effective market has not yet developed*
 - *Where market cannot satisfactorily achieve the policy objectives (e.g. universal service)*
 - *Where information asymmetry exists (e.g. between operators and customers on quality of services)*
- Regulation to be reviewed as market and technology develop (to balance benefits against regulatory costs)

Office of the Telecommunications Authority

<http://www.ofta.gov.hk>



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