Pricing domestic telecommunication services to reflect costs

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Pricing domestic telecom services to reflect costs

Agenda

- Supply and demand
  - Approaches to pricing
  - Approaches to costing
  - TRAI tariff study

- Tariff rebalancing

- Tariff comparisons

- Price regulation

- Structure of presentations and background reading
The functions of pricing

- To forge a link between supply and demand
- To generate revenues and cover costs of providing service
- To convey information to customers concerning the service
- To provide a platform for competition
Demand is a function of price
Teledensity and monthly residential telephone rental (US$)

Pricing strategies, selected countries
Teledensity and monthly residential telephone rental (US$)

Pricing domestic telecom services to reflects costs

Approaches to pricing

- **Demand-based pricing**
  - Pricing according to what the customer is able to pay
  - May be required by politicians (monopoly environment)

- **Cost-based pricing**
  - Pricing according to what the service costs to supply
  - May be required by regulators (regulated environment)

- **Market-based pricing**
  - Pricing in order to compete with other suppliers in the marketplace
  - May be required by shareholders (competitive market)
Reasons for cost-based pricing

- To cover the full costs of providing the service
- To recognise cross-subsidies between services and between users
  - to eliminate them
  - to make them explicit, e.g., for Universal Service
- To prepare for competition
- To prevent abuses of competitive position
Approaches to costing

- Fully-allocated pricing models (e.g., TAS cost model)
  \[ \text{total costs for providing service (including historical, depreciated investment costs) divided by the volume of service provided (e.g., minutes of use, number of subscribers)} \]

- Incremental pricing models (e.g., LRIC)
  \[ \text{marginal cost of providing an additional unit of service (e.g., next minute of traffic, next subscriber)} \]

- 1001 different flavours of the above
TRAI tariff study: Objectives

- Encourage access to and use of the network
- Cater to social objectives (e.g., targeted subsidies)
- Cost-based prices
  - as preparation for competition
  - so that benefits are shared by all users
- Maintain profitability for all operators
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Traditional pricing structures

- Cross-subsidies to network access
  - Connection charges cover only a fraction of costs
  - Low-cost monthly rental

- Cross-subsidies to local loop
  - High-cost international and long-distance charges
  - Free, unmetered or low cost local calls

- Geographical and social averaging of costs
  - Uniform charges for connection & rental
  - “One price fits all”
Market-oriented pricing structures

- **Cost-oriented**
  - Connection charges reflect real underlying costs
  - Monthly rental includes only a small element of usage

- **Reflecting technology trends**
  - moving towards distance-independent tariffs
  - biggest price cuts in international call charges

- **Market-driven**
  - Tariff options for different user groups
  - Discounts, special offers, promotional prices ....
Tariff rebalancing trends, in US$
Average of 39 major economies

Source: ITU World Telecommunication Indicators Database.
Tariff rebalancing trends, in US$

For India

Source: ITU World Telecommunication Indicators Database.
Pricing domestic telecom services to reflect costs.

**Typical evolution in monthly subscription charge**

- Monthly fee kept well below cost.
- Monthly fee includes free local calls plus rental of handset plus services.
- Unbundling of monthly subscription:
  - handset rental;
  - local calls;
  - extra services, e.g., Directory inquiry.
- Split between residential and business subscriptions.
- Progressive rise towards costs.

Social

Cost-based
### Monthly residential subscription, in US$:
Selected countries plus World average

<table>
<thead>
<tr>
<th>Country</th>
<th>Subscription Cost</th>
</tr>
</thead>
<tbody>
<tr>
<td>Argentina</td>
<td>$12.83</td>
</tr>
<tr>
<td>S. Africa</td>
<td>$12.05</td>
</tr>
<tr>
<td>Mexico</td>
<td>$9.75</td>
</tr>
<tr>
<td>Brazil</td>
<td>$8.94</td>
</tr>
<tr>
<td>Hongkong</td>
<td>$8.91</td>
</tr>
<tr>
<td>Philippines</td>
<td>$8.53</td>
</tr>
<tr>
<td>Thailand</td>
<td>$3.19</td>
</tr>
<tr>
<td>S. Africa</td>
<td>$12.05</td>
</tr>
<tr>
<td>India</td>
<td>$5.15</td>
</tr>
<tr>
<td>Russia</td>
<td>$3.43</td>
</tr>
<tr>
<td>Turkey</td>
<td>$4.12</td>
</tr>
<tr>
<td>Venezuela</td>
<td>$4.16</td>
</tr>
<tr>
<td>Indonesia</td>
<td>$7.22</td>
</tr>
<tr>
<td>Malaysia</td>
<td>$7.11</td>
</tr>
<tr>
<td>Philippines</td>
<td>$8.53</td>
</tr>
<tr>
<td>Average</td>
<td>$9.39</td>
</tr>
<tr>
<td>Source: ITU World Telecommunication Indicators Database.</td>
<td></td>
</tr>
</tbody>
</table>
Pricing domestic telecom services to reflect costs

Typical evolution in local call charges

- “Free” local call charges included in monthly subscription
- Limited number of free calls included in subscription, others charged
- Local calls timed and metered
- Size of pulse unit shortens
- Size of local call zone shrinks
## Existing and proposed local call charges, India

<table>
<thead>
<tr>
<th>No. of bi-monthly calls</th>
<th>Existing per call charge, rural areas</th>
<th>Existing per call charge, urban areas</th>
<th>Proposed per call charge, all areas</th>
</tr>
</thead>
<tbody>
<tr>
<td>Up to 120</td>
<td>Free</td>
<td>Free</td>
<td>Free</td>
</tr>
<tr>
<td>121-150</td>
<td>Free</td>
<td>Free</td>
<td>1.30</td>
</tr>
<tr>
<td>151-250</td>
<td>Free</td>
<td>0.80</td>
<td>1.30</td>
</tr>
<tr>
<td>251-450</td>
<td>0.60</td>
<td>0.80</td>
<td>1.30</td>
</tr>
<tr>
<td>451-500</td>
<td>0.80</td>
<td>0.80</td>
<td>1.30</td>
</tr>
<tr>
<td>501-1’000</td>
<td>1.00</td>
<td>1.00</td>
<td>1.30</td>
</tr>
<tr>
<td>1’000-2’000</td>
<td>1.25</td>
<td>1.25</td>
<td>1.30</td>
</tr>
<tr>
<td>2’001 plus</td>
<td>1.40</td>
<td>1.40</td>
<td>1.30</td>
</tr>
</tbody>
</table>

Typical evolution in long distance prices

- Highly distance sensitive charges. Long distance call >100 times cost of local call
- Introduction of off-peak rates
- Reduction in number of bands
- Reduction of distance and duration elements
- Long-distance call <3 times cost of local call
As competitors gain market share ...

Long distance prices come down ...

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Tariff comparisons: What for?

- To carry out benchmarking between operators in similar countries
- To track effects of tariff rebalancing over time
- To provide comparative information for managers, regulators, users
- To create “baskets” of different services to compare like with like
Different types of tariff comparison

- Individual rate comparisons (e.g., installation charge, local call rate)
- Composite basket with fixed components (e.g., Siemens basket)
- Composite basket with variable components (e.g., OECD Tariff Comparison basket)
- Variations over time in same indicator
OECD tariff baskets: Then and now ...

<table>
<thead>
<tr>
<th>Six baskets defined:</th>
<th>Additional telephony baskets to take account of usage discounts (e.g. small businesses, multinationals, elderly)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Business telephony</td>
<td>Combined national and international telephony basket</td>
</tr>
<tr>
<td>Residential telephony</td>
<td>Additional baskets needed for Internet, ISDN, digital mobile (roaming), PCS, ATM etc</td>
</tr>
<tr>
<td>International telephony</td>
<td></td>
</tr>
<tr>
<td>Mobile communications</td>
<td></td>
</tr>
<tr>
<td>X.25 data communications</td>
<td></td>
</tr>
<tr>
<td>Leased lines at 9.6 kbit/s, 56/64 kbit/s and 1.5/2.0 Mbit/s</td>
<td></td>
</tr>
</tbody>
</table>

Comparisons between countries

Comparisons between operators within countries
Price regulation: Why?

- To ensure that the benefits of competition and technological change are shared by all users
- To protect the interests of specific user groups (e.g., low volume users, rural areas)
- To ensure that incumbent operator does not abuse its dominant position
- To regulate specific services
  - e.g., Interconnect price for competitive operators
  - e.g., Leased line charges for Internet Services
Price regulation of BT, 1984-92

Retail Price Index (RPI)
RPI - "X"
BT price changes

1984 85 86 87 88 89 90 91 92
### TRAI’s proposed price regulation regime

<table>
<thead>
<tr>
<th>Service</th>
<th>Price cap principle</th>
<th>Comment</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rental</td>
<td>Below cost price</td>
<td>Cost-based rental would reduce access</td>
</tr>
<tr>
<td>Local calls</td>
<td>Cost without margin</td>
<td>Upper limit of estimated cost taken as price</td>
</tr>
<tr>
<td>Long-distance</td>
<td>Cost-plus</td>
<td>To provide cross-subsidy for rentals, local calls</td>
</tr>
<tr>
<td>International</td>
<td>Cost plus</td>
<td>To provide cross-subsidy for rentals, local calls</td>
</tr>
<tr>
<td>Other</td>
<td>Mainly cost-based or reporting requirement only</td>
<td>Depending on service and degree of competition</td>
</tr>
</tbody>
</table>
Structure of presentations and background reading

- Pricing domestic services to reflect costs
- Pricing strategies to achieve Universal Service / Universal Access
  ⇒ Chapter 2 from WTDR98: “Pricing Access”
- Pricing int’l services towards costs
  ⇒ Chapter 6 from DoT96: “Future pricing …”
- Impact of the Internet on pricing
  ⇒ Chapter 6 from Challenges99: “Internet for PTOs”
- India Country Case Study
  ⇒ ITU/Phillips Tarifica/IIM case study of India