Trade in telecommunications & accounting rate reform

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* The views expressed in this presentation are those of the author, and do not necessarily reflect the opinions of the ITU or its membership. Tim Kelly can be contacted at tim.kelly@itu.int.
Agenda

- Trends in telecoms worldwide
- Trade in telecommunications
  - The GATS and the WTO Basic Telecoms Agreement
- The stakes:
  - Market liberalisation
  - Shift from a bilateral to a multilateral trade regime
- Reform of the accounting rate system
  - What is the accounting rate system?
  - What are the problems?
  - What are the possible solutions?
- ITU/WTO co-operation
- What does it all add up to?
Projection of growth trends, fixed and cellular subscribers and int’l traffic, 1995-2005

Source: ITU.
Projection of revenue growth (US$bn)

- Domestic Telephone/fax
- Mobile
- Other: Data, Internet, Leased lines, telex, etc
- Int'l

Source: ITU.
Increasing involvement of private sector in supply of services

Source: ITU Telecommunication Regulatory Database.
Role of government shifting from participation to regulation

Countries with Separate Regulatory Body

Source: ITU Telecom Regulatory Database.
Trade in telecommunications

Trade in telecoms

- Dual role of telecommunications
  - As a facilitator of trade in other sectors (GATS)
  - As a directly traded product and service (BTA)

- How can telecom services be traded?
  Modes of delivery
  - Cross-border (e.g., call re-origination)
  - Commercial presence (e.g., Foreign Direct Investment)
  - Consumption abroad (e.g., calling cards)
  - Movement of staff (e.g., consultancy services)
Global Telecom Trade, US$ billion

Note: “Other” includes privatisation receipts, cross-border roaming of mobiles, consultancy, FDI, foreign aid etc.
### Countries permitting competition in basic telecoms:

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<tbody>
<tr>
<td>Japan</td>
<td>Australia</td>
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<td>United Kingdom</td>
<td>Canada</td>
<td>Austria</td>
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<td>United States</td>
<td>Chile</td>
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<td>Finland</td>
<td>Canada</td>
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<td>Japan</td>
<td>China</td>
<td>Netherlands</td>
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<td>Korea (Rep.)</td>
<td>Denmark</td>
<td>Norway</td>
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<td>New Zealand</td>
<td>Philippines</td>
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<td>Philippines</td>
<td>El Salvador</td>
<td>Russia</td>
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<td>Sweden</td>
<td>Finland</td>
<td>Spain (Dec 98)</td>
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<td>United Kingdom</td>
<td>France</td>
<td>Sweden</td>
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<td>United States</td>
<td>Germany</td>
<td>Switzerland</td>
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<td>Ghana</td>
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<tr>
<td>Hongkong SAR</td>
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<tr>
<td>Israel</td>
<td></td>
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<tr>
<td>Italy</td>
<td></td>
<td></td>
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<tr>
<td>Ireland (Dec 98) plus others ....</td>
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</table>
Percentage of outgoing international traffic open to competition

1990: 35% (4 countries)
1995: 46% (14 countries)
1998: 74% (29 countries)
2005: 85% (48 countries)

Note: Analysis is based on WTO Basic Telecommunications Commitments and thus presents a minimum level of traffic likely to be open to competitive service provision. Source: ITU, WTO.
What’s covered, what’s not?

**Covered in WTO telecoms agreements**
- Government measures
- Individual country commitments (schedules) providing market access to stated markets in telecom services
- Related agreements (GATS, Information Technology)
- Regulatory principles
- Commercial presence (foreign direct investment)

**Not covered in WTO basic telecoms agreement**
- Non-government measures (e.g., commercial contracts)
- Market areas not covered in individual commitments or stated as exemptions
- Rest of world (including China, Russia etc)
- Accounting rates and settlements
- Broadcasting and audiovisual industry
General Agreement on Trade in Services (GATS) principles

- Most-favoured nation (MFN), Article II
- Transparency, Article III
- Domestic regulation, Article VI:
  - qualification requirements and procedures
  - technical standards
  - licensing requirements
- Monopolies and exclusive service supply (Article VIII)
- Market access (Article XVI)
- National Treatment (Article XVII)
Trade in telecommunications

Basic Telecom Agreement

- Process initiated in 1994 to extend GATS commitments to basic telecoms (i.e., voice)
- Process reached “standstill” in April ‘96. Sticking points:
  - Reaching Critical Mass of countries
  - “One-way by-pass” of accounting rate system
  - Status of mobile satellite services
- Negotiations re-opened, 15 Jan-15 Feb 1997
- Successful conclusion on 15th February
  - 69 countries signed agreement
  - 61 countries committed to Regulatory Reference Paper, in whole or in part
Regulatory Reference Paper (1)

- **Competitive safeguards**
  - prevention of anti-competitive practices
  - engaging in anti-competitive cross-subsidisation
  - withholding information

- **Interconnection**
  - provided under non-discriminatory terms
  - cost-oriented, transparent and timely
  - additional network termination points on request at cost-oriented rates
  - Published terms and rates
  - Disputes procedure
Regulatory Reference Paper (2)

- Universal Service Obligations
  - at discretion of Member State
  - no more burdensome than necessary

- Licensing criteria
  - publicly available
  - transparent process

- Independent regulatory authority

- Allocation and use of scarce resources
  - objective, timely, transparent and non-discriminatory procedures for allocation
The International Telecom Traffic Roller-coaster

Global international telephone calls
Billions of minutes

Annual change

Source: ITU “Trends in Telecom Reform, 2000/01”
Trade in telecommunications

What are accounting and settlement rates?

Accounting rate
Internal price between PTOs for a jointly-provided service

Collection charge
The amount charged to the customer by the Public Telecommunication Operator (PTO)

Settlement rate
Payment from one PTO to another. Normally, half the accounting rate
What the accounting rate covers

International Transmission Facility

International Switching Facility (Gateway)

Call Termination

Country
Traditional regime: Joint provision of service
Emerging regime: Market entry and interconnection
Accounting rate reform

- Accounting rates are traditional way of sharing revenues from int’l services
  - BUT, creates incentives among recipient countries to sustain rates at high level
  - Accounting rate system not well-adapted to competitive market environment
  - Large imbalances in traffic and settlement payments

- Strong pressure to move towards a cost-oriented system
  - BUT, many developing countries are heavily dependent on net settlement payments
  - Transition may be quicker for some than others
  - Cost-oriented system may well be asymmetric
Trade in telecommunications

The international call price squeeze

Swiss call prices.
US cents per minute.

Call to USA

Local call

Source: ITU “Trends in Telecom Reform, 2000/01”
Increasingly competitive markets

International traffic by carrier type, in billions of minutes

- New carrier in competitive market
- Incumbent carrier in competitive market
- Monopoly

The accounting rate regime unravels

- The bilateral accounting rate regime
  - More than 100 years old
  - Rates negotiated and accounts settled bilaterally
  - Worked well in time of monopolies, state control and balanced traffic flows

- As market liberalisation increases ...
  - Price imbalances and traffic imbalances grow
  - Net settlements increase, creating incentives for operators receiving more traffic than they send to keep prices high

- ... pressure for a multilateral agreement grows
  - WTO basic telecommunications agreement creates possibility for direct interconnection, but agreement avoids discussing accounting rates
Accounting rates are falling; but not fast enough to avoid by-pass?

Settlement rate trends, in SDRs

Source: ITU “Trends in Telecom Reform, 2000/01”
### Accounting rates and termination charges: What differences?

<table>
<thead>
<tr>
<th></th>
<th>Accounting rates</th>
<th>Termination charges</th>
</tr>
</thead>
<tbody>
<tr>
<td>Normally symmetric</td>
<td>(accounting rate split 50/50)</td>
<td>Not necessarily symmetric (if costs differ)</td>
</tr>
<tr>
<td>Bilaterally negotiated</td>
<td></td>
<td>In theory, set unilaterally (though D.150 requires bilateral negotiation)</td>
</tr>
<tr>
<td>Discriminatory</td>
<td>(different rates with different correspondents)</td>
<td>Non-discriminatory (same interconnect schedule offered to all carriers)</td>
</tr>
<tr>
<td>Half-circuit regime</td>
<td>(not normally unbundled)</td>
<td>Full-circuit regime (can be unbundled)</td>
</tr>
</tbody>
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Two-track approach

- At conclusion of WTO negotiations on basic telecoms,
  - Agreement for a moratorium on disputes related to accounting rates until 2000
  - That moratorium now being discussed by Trade in Services Council

- At conclusion of ITU World Telecom Policy Forum,
  - Agreement to establish a Focus Group to establish “indicative target rates” for settlement rates in the transition to cost-orientation
  - A range of rates, of between 6 – 44 US cents per minute established, for countries with differing teledensity, despite strong opposition from the United States
Two alternative scenarios: ITU Focus Group targets, by teledensity (T), to be achieved by 2001 (2004)

<table>
<thead>
<tr>
<th>T &lt; 1</th>
<th>1&lt;T&lt;5</th>
<th>5&lt;T&lt;10</th>
<th>10&lt;T&lt;20</th>
<th>20&lt;T&lt;35</th>
<th>35&lt;T&lt;50</th>
<th>T&gt;50</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.45</td>
<td>$0.35</td>
<td>$0.29</td>
<td>$0.23</td>
<td>$0.16</td>
<td>$0.12</td>
<td>$0.06</td>
</tr>
</tbody>
</table>

FCC Benchmarks, by income group

<table>
<thead>
<tr>
<th>Low income, T&lt;1</th>
<th>Low income</th>
<th>Low-mid income</th>
<th>Upper-mid income</th>
<th>High income</th>
</tr>
</thead>
<tbody>
<tr>
<td>$0.23</td>
<td>$0.23</td>
<td>$0.19</td>
<td>$0.19</td>
<td>$0.15</td>
</tr>
</tbody>
</table>

Source: ITU Focus Group Report, FCC.
## Focus Group Final Report and FCC Benchmarks compared

<table>
<thead>
<tr>
<th></th>
<th><strong>FCC Benchmarks</strong></th>
<th><strong>ITU Focus Group</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Coverage of analysis</td>
<td>72 countries</td>
<td>224 countries / territories</td>
</tr>
<tr>
<td>Range of rates (direct relations)</td>
<td>0.11-0.16 SDR</td>
<td>0.043-0.327 SDR</td>
</tr>
<tr>
<td>Transit shares</td>
<td>Not covered</td>
<td>0.03-0.06 SDR</td>
</tr>
<tr>
<td>Groups</td>
<td>4 by income + 1 by teledensity</td>
<td>7 by teledensity + 2 others</td>
</tr>
<tr>
<td>Dependency on net settlements</td>
<td>Not covered</td>
<td>Extended transition</td>
</tr>
</tbody>
</table>
# Potential impact of Focus Group Targets & FCC Benchmarks on Case Study Countries

<table>
<thead>
<tr>
<th>Country</th>
<th>Lowest settlement rate</th>
<th>Target rate/year</th>
<th>ITU FG change %</th>
<th>FCC % change</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bahamas</td>
<td>0.225</td>
<td>0.118 (2001)</td>
<td>-18.1%</td>
<td>-93.9%</td>
</tr>
<tr>
<td>Colombia</td>
<td>0.375</td>
<td>0.162 (2001)</td>
<td>-22.7%</td>
<td>-35.1%</td>
</tr>
<tr>
<td>India</td>
<td>0.592</td>
<td>0.251 (2002)</td>
<td>-18.3%</td>
<td>-31.5%</td>
</tr>
<tr>
<td>Lesotho</td>
<td>0.300</td>
<td>0.327 (2001)</td>
<td>-5.0%</td>
<td>-12.2%</td>
</tr>
<tr>
<td>Mauritania</td>
<td>0.622</td>
<td>0.327 (2001)</td>
<td>-17.9%</td>
<td>-26.0%</td>
</tr>
<tr>
<td>Samoa</td>
<td>0.300</td>
<td>0.312 (2001)</td>
<td>-5.0%</td>
<td>-28.3%</td>
</tr>
<tr>
<td>Senegal</td>
<td>0.633</td>
<td>0.312 (2003)</td>
<td>-12.6%</td>
<td>-48.5%</td>
</tr>
<tr>
<td>Sri Lanka</td>
<td>0.550</td>
<td>0.251 (2004)</td>
<td>-11.8%</td>
<td>-29.9%</td>
</tr>
<tr>
<td>Uganda</td>
<td>0.337</td>
<td>0.327 (2001)</td>
<td>-5.0%</td>
<td>-14.5%</td>
</tr>
</tbody>
</table>

- Capacity (voice paths), growing by 64% p.a.
- Cost per voice path (US$), declining by 41% p.a.

Source: ITU, TeleGeography Inc., FCC.
Note: Voice-path numbers assume a compression ratio of 5:1 to number of circuits.
The future (2): Will IP render PSTN circuits obsolete? International circuit usage

![Graph showing the usage of Public Switched Telephone Network circuits and Int'l Private Line circuits (Internet) from 1996 to 1998.](image)

*Note: Based on usage of circuits between the US and the rest of the world. Source: FCC.*
ITU/WTO Co-operation

  - Competitive safeguards
  - Interconnection
  - Universal service
  - Licensing
  - Independent regulators
  - Allocation and use of scarce resources

- Co-operation agreement between ITU and WTO considered by ITU Plenipotentiary and WTO Trade in Services Council and signed on 22 Nov. 2000
International interconnection: Issues for regulators

- **Transparency**: Should regulators require the publication or disclosure of settlement rates and/or interconnection rates?

- **Intervention**: What circumstances might justify intervention in negotiation of accounting rates or establishment of interconnect rates?

- **Unilateral action**: How should regulators respond to possible unilateral action by foreign regulators in setting benchmark rates?

- **Mobile international connection**: Does the development of 3G services require special attention from regulators?
Trade in telecommunications

**What does it all add up to?**

- **Philosophical**
  - Facilitating the transition to a competitive market environment
  - Birth of a global information society
  - Telecommunications as a traded service

- **Practical**
  - Shift from a revenue-sharing to a cost-oriented regime for international telecommunications
  - Market liberalisation now the dominant paradigm
  - Efforts to provide a “soft landing” for those countries likely to be hardest hit by changes