Reforming the accounting rate system

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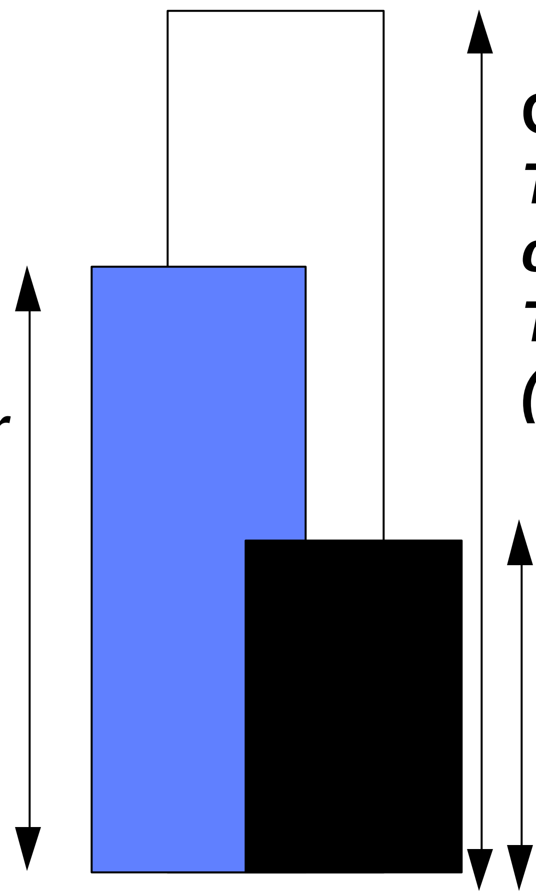
Note: The views expressed in this presentation are those of the author and do not necessarily reflect the opinions of the ITU or its membership. Dr Tim Kelly can be contacted by e-mail at Tim.Kelly@itu.int.

Agenda

- The accounting rate system
  - ⇨ How does it work?
  - ⇨ What's the problem?
- ITU Focus Group Recommendations
  - ⇨ Indicative target rates and transition path
- Comparisons: Focus Group indicative target rates and FCC benchmarks
- Wider context:
  - ⇨ Rising share of market open to competition
  - ⇨ The implications of the Internet
- Conclusions and next steps

What are accounting and settlement rates?

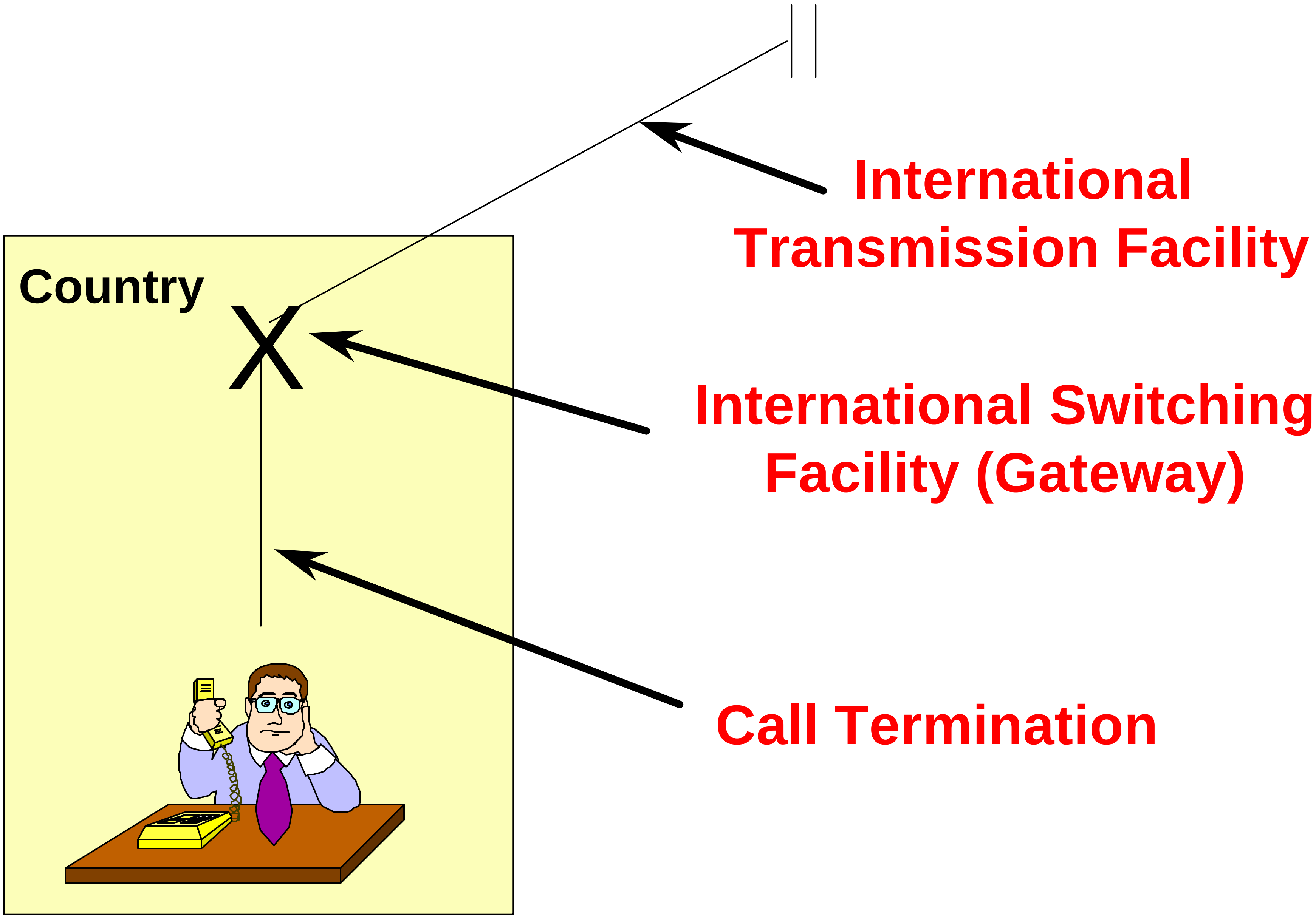
Accounting rate
Internal price between PTOs for a jointly-provided service



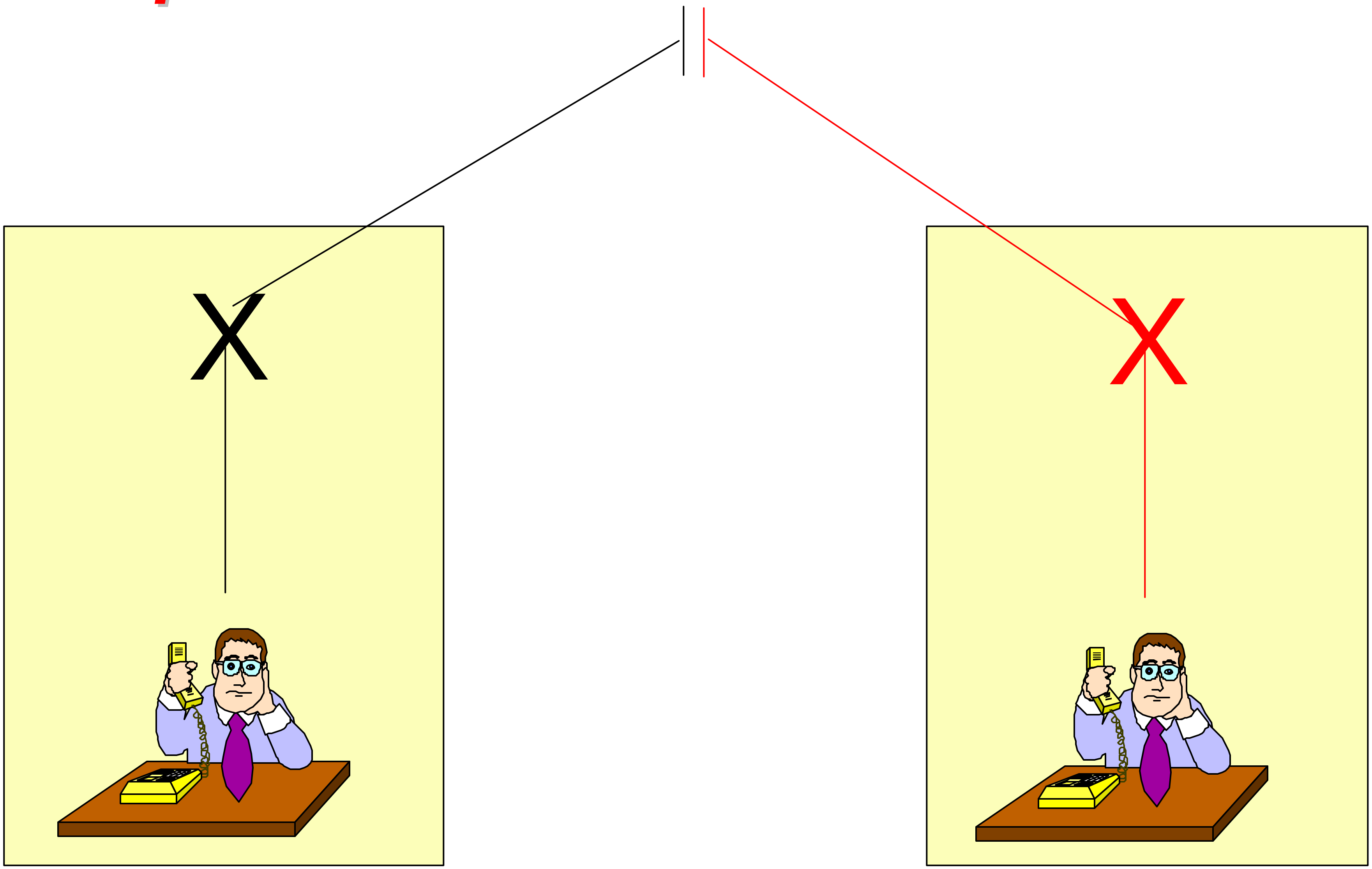
Collection charge
The amount charged to the customer by the Public Telecommunication Operator (PTO)

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

What the accounting rate covers



Traditional regime:
Joint provision of service

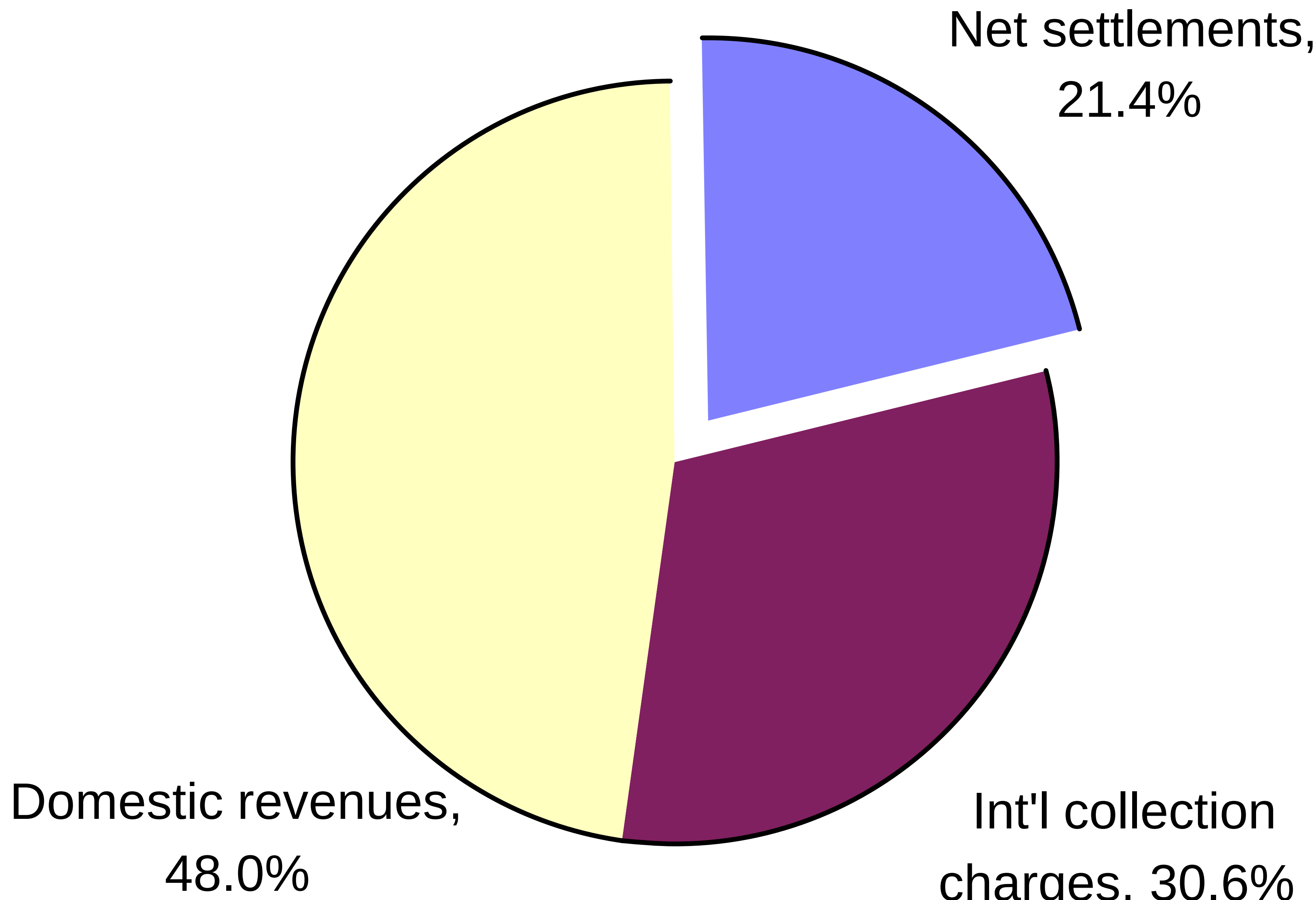


Accounting rate characteristics

- **Negotiated bilaterally**
  - ⇨ **major operators have 200+ correspondent relations**
  - ⇨ **smaller operators use other transit operators**
- **Revenues are shared 50:50**
  - ⇨ **By implication, costs are assumed to be same**
- **General framework established by International Telecommunication Regulations & ITU-T Recommendation D.140**
- **Accounting rates excluded from WTO basic telecommunications agreement**

Sources of telecom revenue, 1996

Based on sample of 13 Sub-Saharan African PTOs

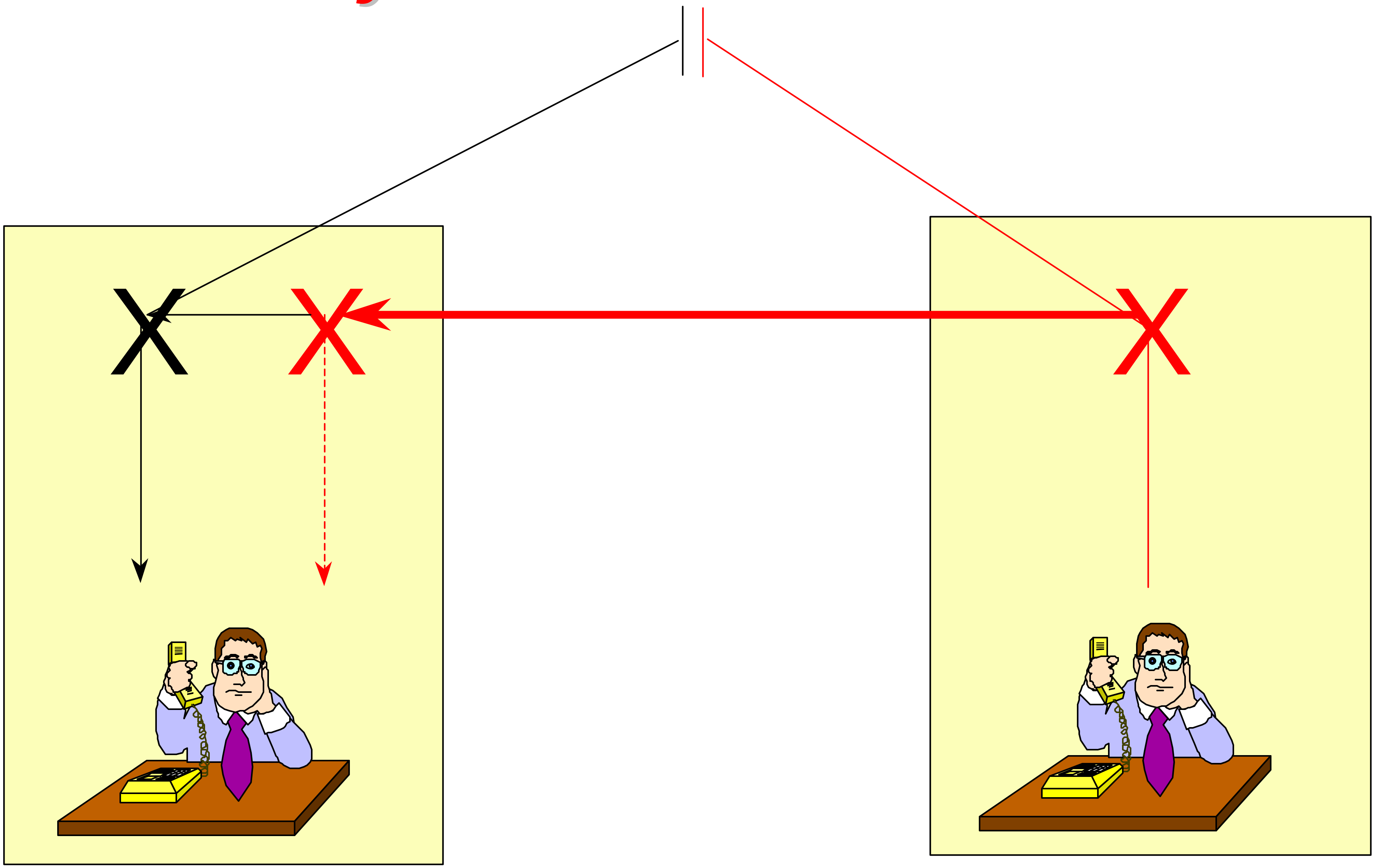


Source: African Regional Tariff Group (TAR).

Revenue-sharing and cost-orientation: What's the difference?

- **Revenue-sharing**
  - ⇨ Traditional means for dividing revenue from a call among origin, destination and transit operators
  - ⇨ Based on bilaterally-negotiated accounting rates and settlements (as described in International Telecommunication Regulations)
- **Cost-orientation**
  - ⇨ Emerging regime, based on actual costs incurred in carrying and terminating calls
  - ⇨ Should, in theory, be transparent and non-discriminatory

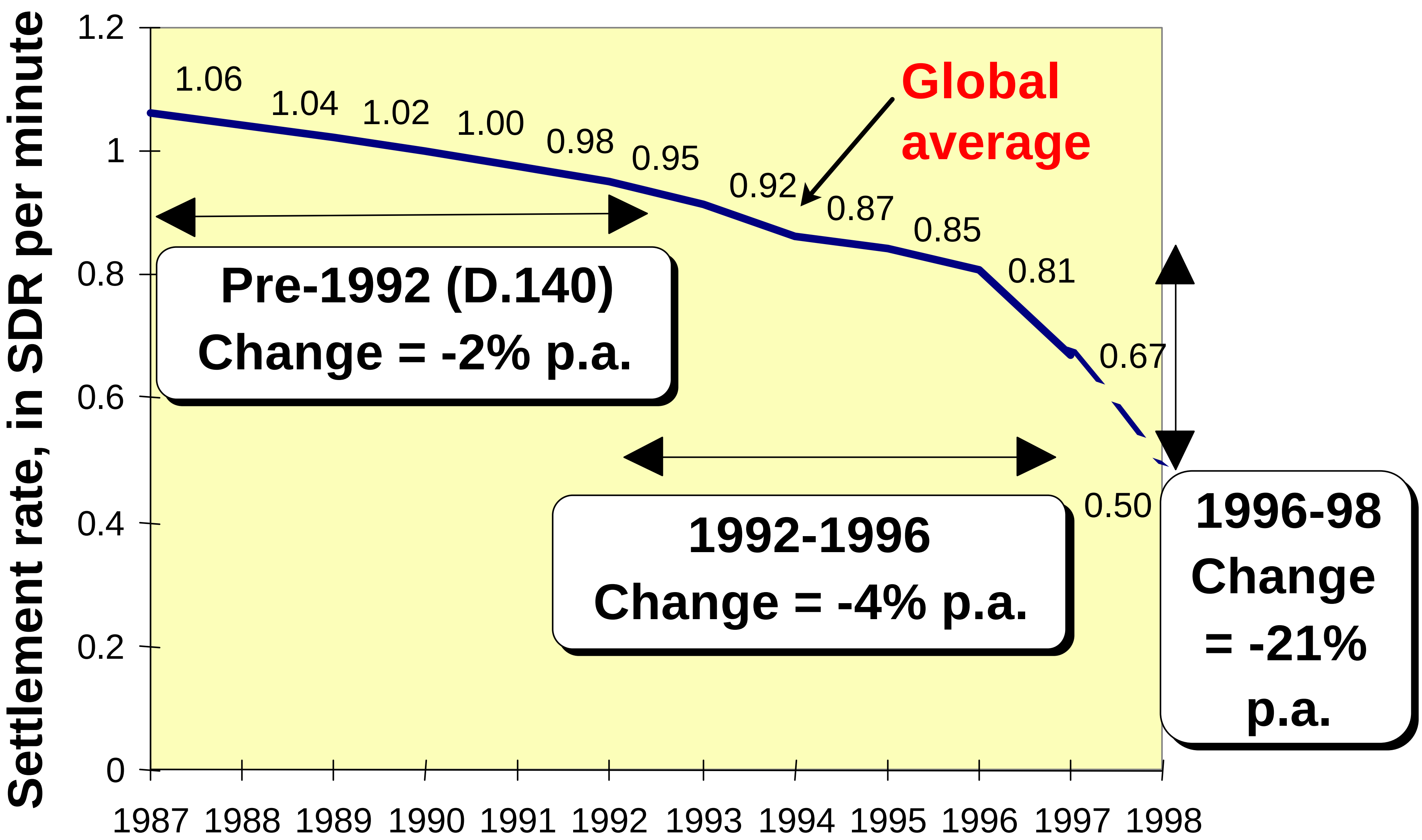
Emerging regime:
Market entry and interconnection



So, what's the problem?

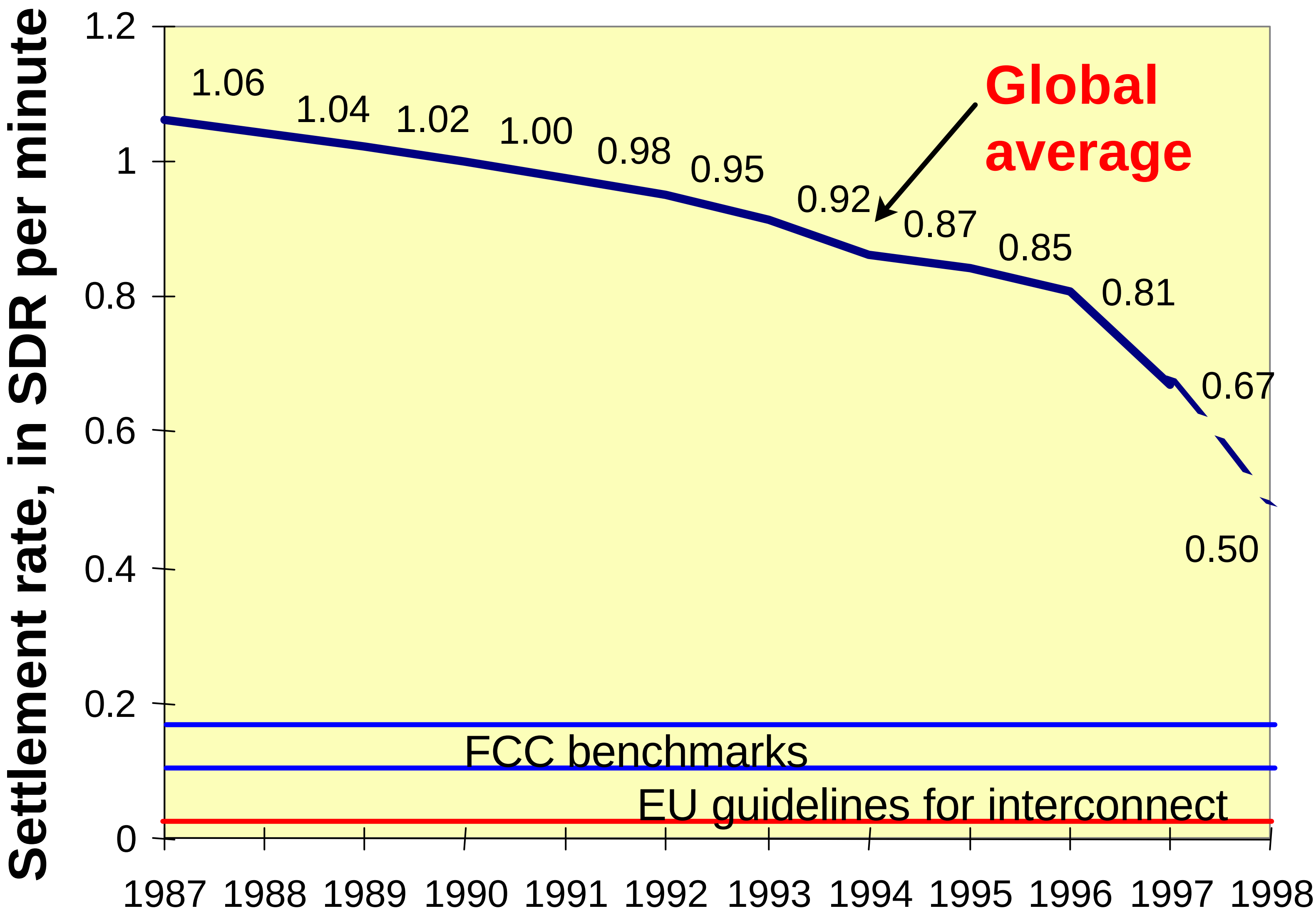
- **Accounting rates are traditional way of sharing revenues from int'l services**
  - ⇨ **BUT, creates incentives among recipient countries to sustain rates at high level**
  - ⇨ **Accounting rate system not well-adapted to competitive market environment**
- **Strong pressure to move towards a cost-oriented system**
  - ⇨ **BUT, a cost-oriented system would be asymmetric**
  - ⇨ **US wants cost-oriented but rejects asymmetric charges for call termination**

Good news: Settlement rates are declining rapidly ...



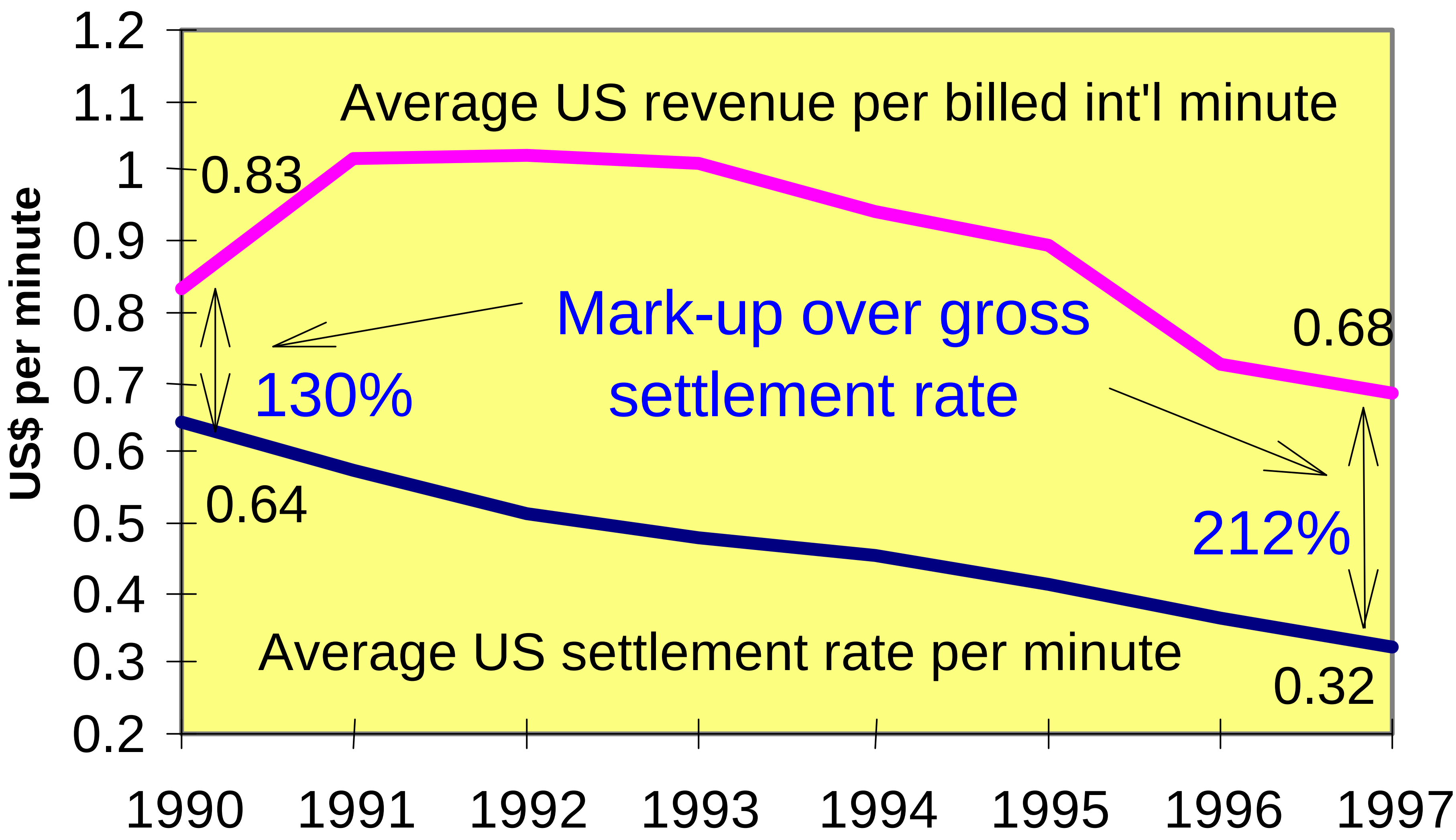
Source: ITU-T Study Group 3 (COM 3-53). 1998 estimate is a minimum projection based on D.140 Annex D.

Bad news: Settlement rates are still way above costs on most routes ...



Source: ITU-T Study Group 3 (COM 3-53). 1998 estimate is a minimum projection based on D.140 Annex D.

Even worse news: Prices are not falling as fast as settlement rates: USA, 1990-97



Source: ITU, adapted from FCC.

Note: “Average US revenue per billed minute” = total int’l IMTS revenue divided by total outgoing int’l minutes.

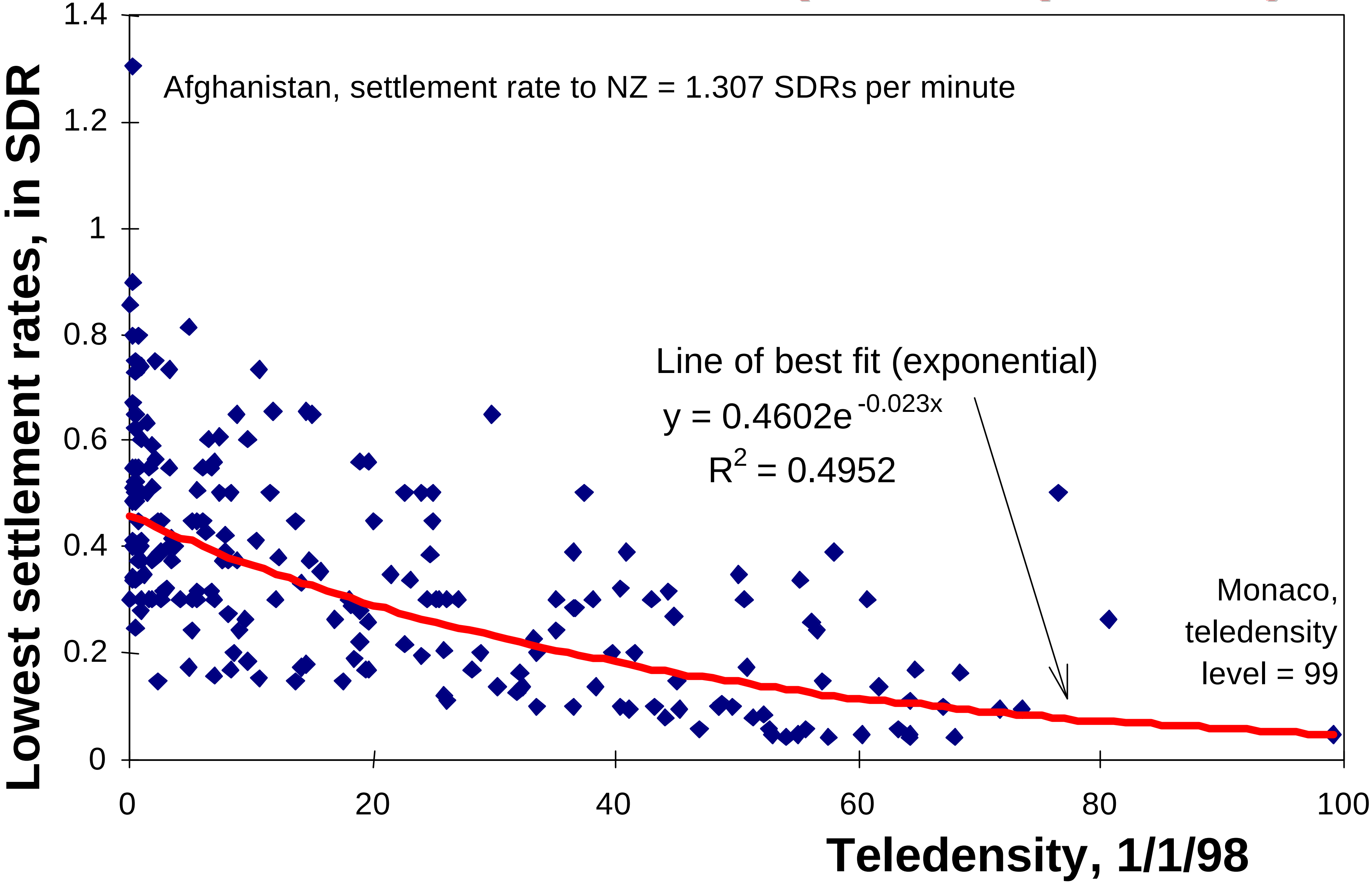
Focus Group Terms of Reference

- **Open membership**
  - ⇨ **Chaired by Amb. Anthony Hill (Jamaica)**
- **Working methods**
  - ⇨ **E-mail reflector & website (http://www.itu.int/intset/focus/index.html)**
  - ⇨ **Plenary meetings in June & September 1998**
  - ⇨ **Report by 6th Nov 1998; discuss in Dec 1998**
- **Objectives**
  - ⇨ **“*development of proposals for solutions for transitional arrangements towards cost orientation beyond 1998, including ranges of indicative target rates*”**

Defining "indicative target rates" for direct relations

- **Interim transitional mechanisms (4 options considered)**
  1. **Price caps**
  2. **Designated target ranges**
  3. **Case study cost components**
  4. **"Best practice" rates existing in the market**
- **Agreement to use 4th option**
  - ⇨ **Primarily based on teledensity groups (income groups also considered)**
- **Choice of indicative target rates**
  - ⇨ **Based on average of lowest 20 per cent of settlement rates in each teledensity group**

Relationship between teledensity and lowest settlement rates (in SDR per min)



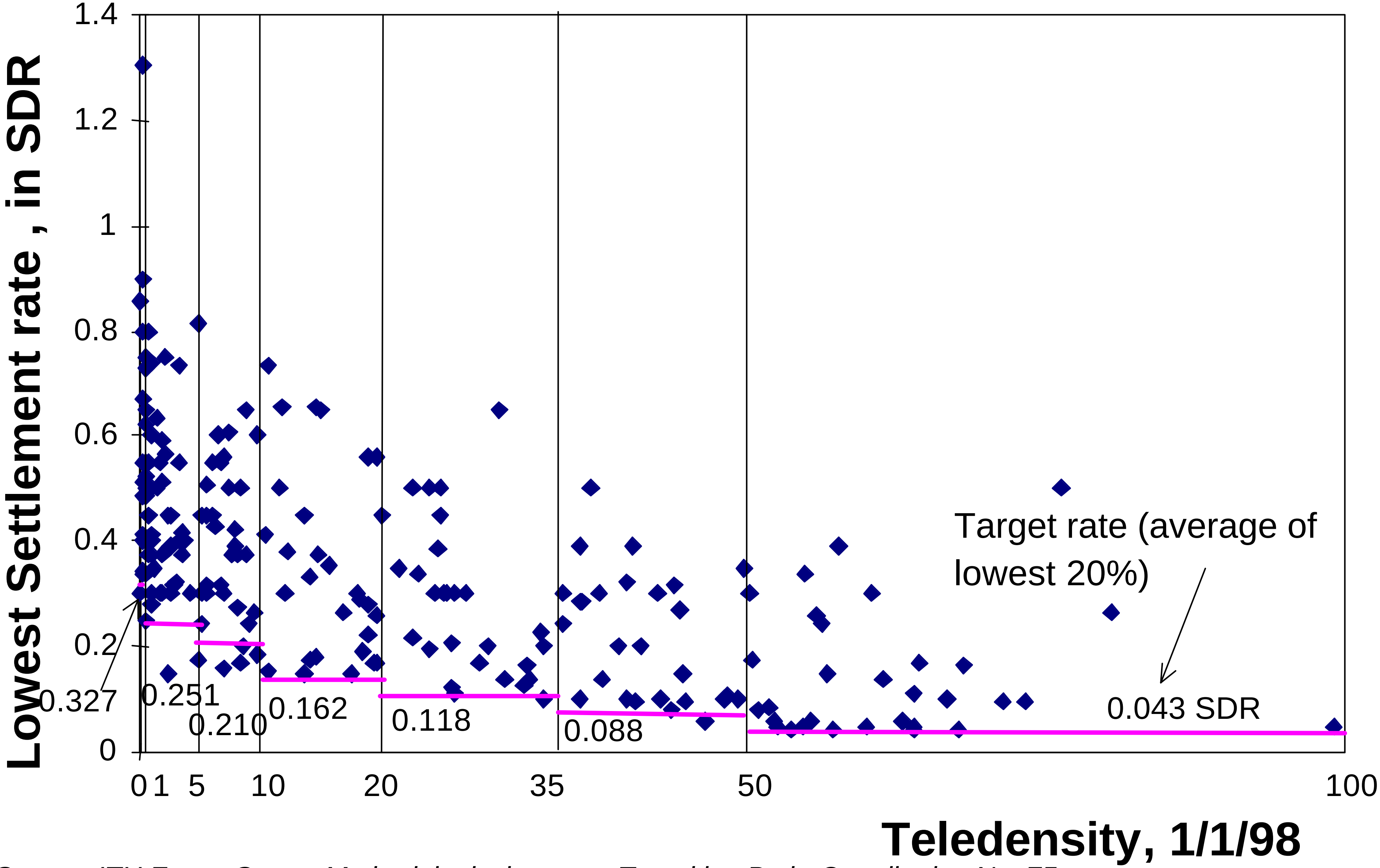
Source: ITU Focus Group, Methodological note on Transition Path, Contribution No. 75.

Focus Group Recommendations on “indicative target rates” by Teledensity (T) Band, in SDR (and US cents) per minute.

<table>
<tr><td>T<1</td><td>1<T>5</td><td>5<T<10</td><td>10<T<20</td><td>20<T<35</td><td>35<T<50</td><td>T>50</td></tr>
<tr><td>0.327 SDR</td><td>0.251 SDR</td><td>0.210 SDR</td><td>0.162 SDR</td><td>0.118 SDR</td><td>0.088 SDR</td><td>0.043 SDR</td></tr>
<tr><td>43.7¢</td><td>33.5¢</td><td>28.0¢</td><td>21.6¢</td><td>15.8¢</td><td>11.8¢</td><td>5.7¢</td></tr>
<tr><td colspan="2">Low income</td><td colspan="2">Lower middle</td><td>Upper middle</td><td colspan="2">High income</td></tr>
</table>

Note: The correspondence between teledensity band and income group shown in the bottom row is intended to be approximate, not precise. Source: ITU Focus Group Report. 1 SDR = US$1.39.

"Indicative target rates", based on average of lowest 20 per cent



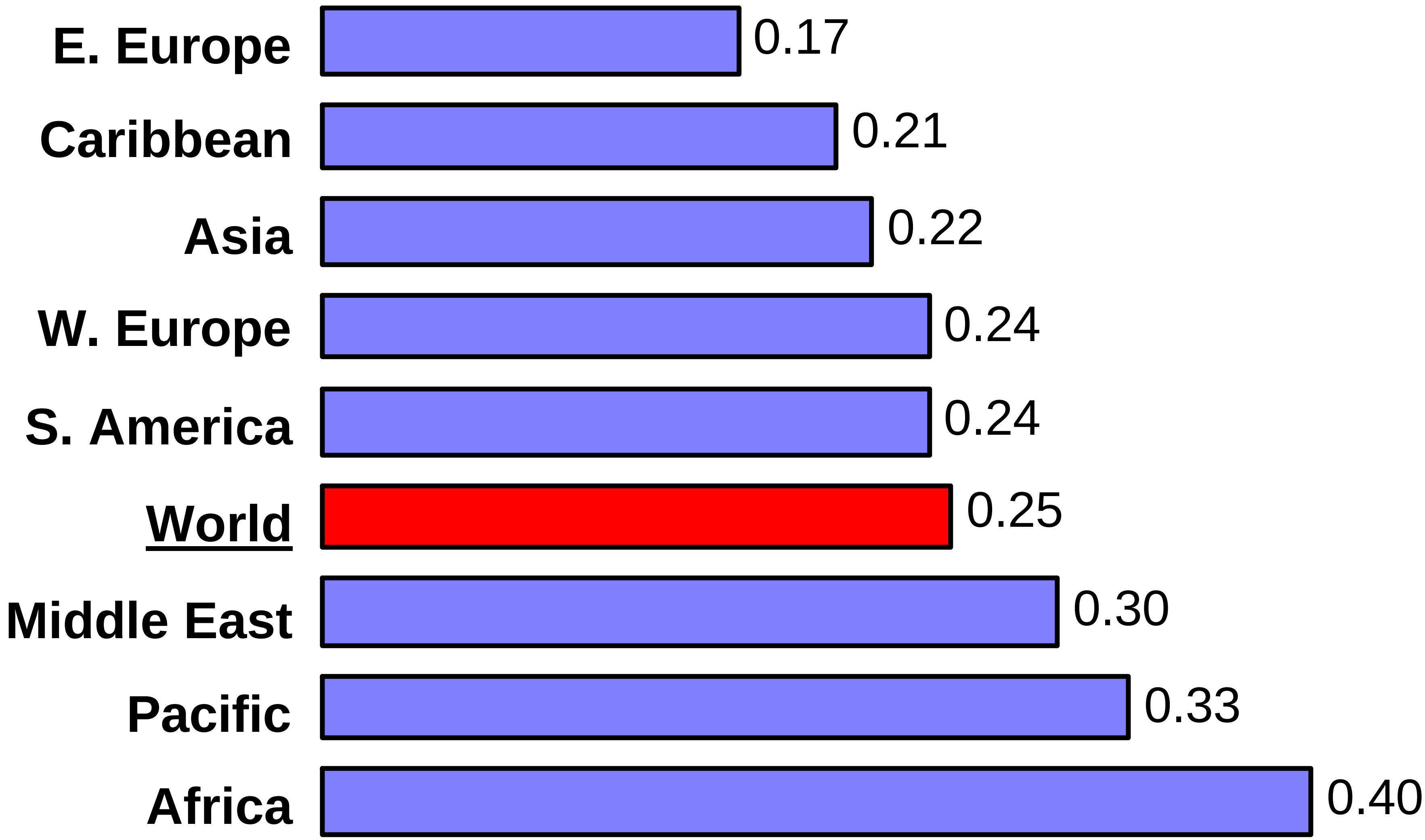
Source: ITU Focus Group, Methodological note on Transition Path, Contribution No. 75.

"Optional" indicative target rates for small island states and LDCs

Category	Small island states (pop<200'000)	LDCs and "as if" LDCs
Indicative target rate in SDRs per minute	0.292 SDR	0.312 SDR
In US cents per minute	39.0¢	41.7¢

Source: ITU Focus Group Report. 1 SDR = US$1.39.

Estimated average transit shares from US to other regions, in US$ per minute



Note: These rates are based on the average revenue per minute derived from transit operations, 1996.
Source: Methodological note on transit (contribution 28). Data adapted from FCC.

Final Report Recommendations on target rates for transit shares, in SDR (and US cents) per minute, by route

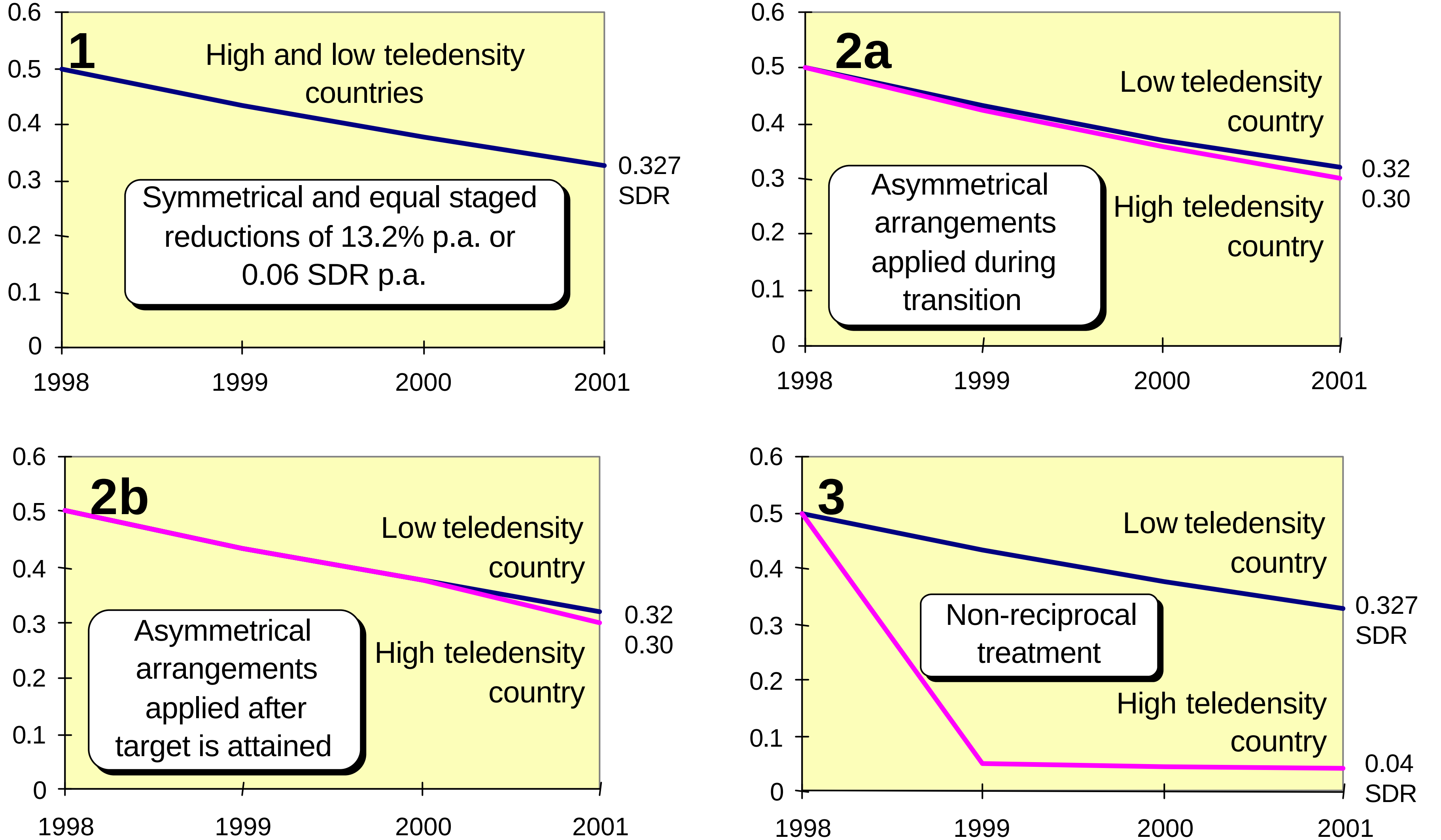
Routes with <350 K mins	*350K - 1.5m mins*	*Routes with >1.5m mins*
(64 kbit/s)	(256 kbit/s)	(1.5/2.0 Mbit/s)
0.06 SDR	**0.05 SDR**	**0.03 SDR**
8.3¢	6.9¢	4.2¢

Source: ITU Focus Group Report and methodological note No. 28. 1 SDR = US$1.39.

Focus Group Recommendations on transition path

- Apply indicative target rate for direct relations within three years (year-end 2001)
  - ⇨ Extended transition period (to year-end 2004) for LDCs and low teledensity countries, as a function of dependence on net settlements
- Apply indicative target rate for transit shares within two years (year-end 2000)
- Indicative target rates could be applied:
  - ⇨ Symmetrically, with both Administrations/ROAs applying the same rate which is at or below the target of the lower teledensity country
  - ⇨ Asymmetrically, applying different rates below the target of the lower teledensity country

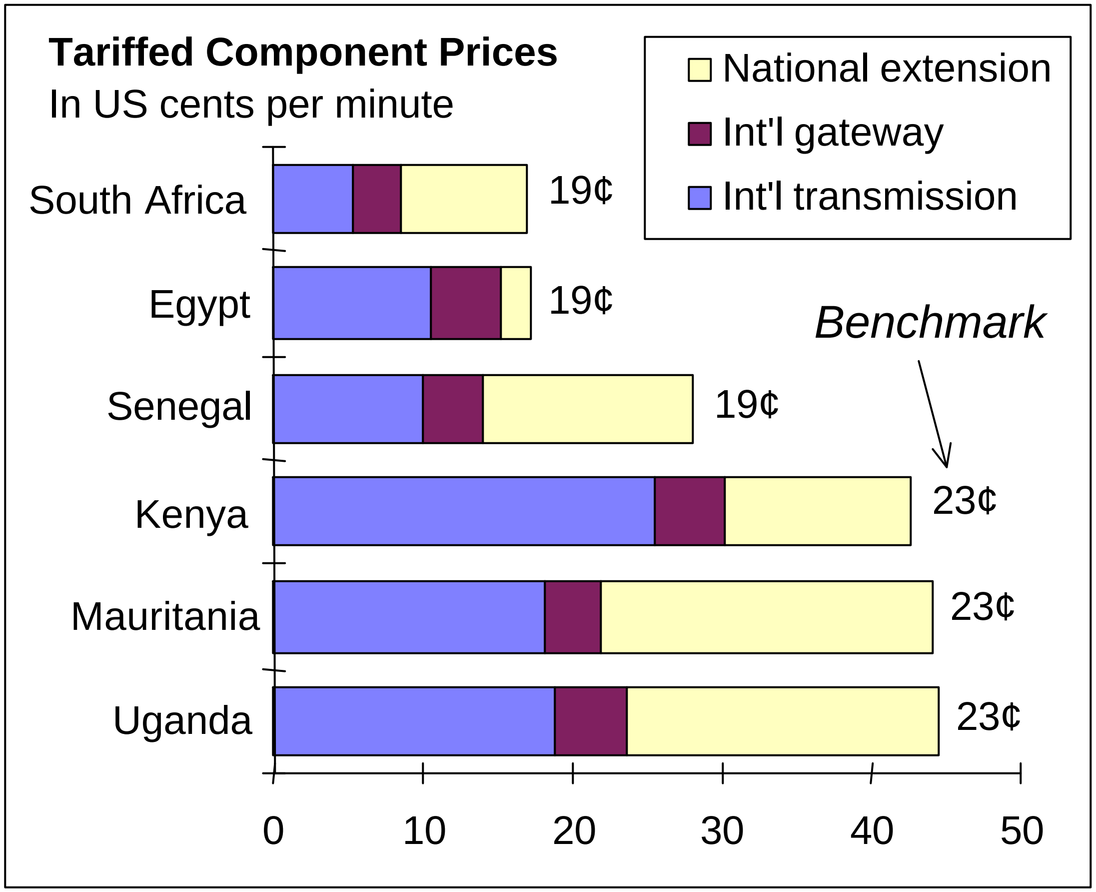
Worked examples of possible different transitional arrangements (1998-2001)



Note: These examples are based on a hypothetical bilateral arrangement between a high teledensity country and a low teledensity one. Both start with a settlement rate of 0.5 SDR in 1998. The figures cited are merely examples of the type of arrangements which might result from bilateral negotiations.

Alternative proposals: FCC Benchmarks

- **3 elements:**
  - ⇨ **international transmission;**
  - ⇨ **int'l gateway;**
  - ⇨ **national extension**
- **Based on operator's tariffs and FCC estimates**
- **For each income level, an average of the tariff rates for countries in that category were used to set the benchmark**



NB: Many smaller countries were excluded from the analysis but are nonetheless included in income group averages

Focus Group Final Report and FCC Benchmarks compared

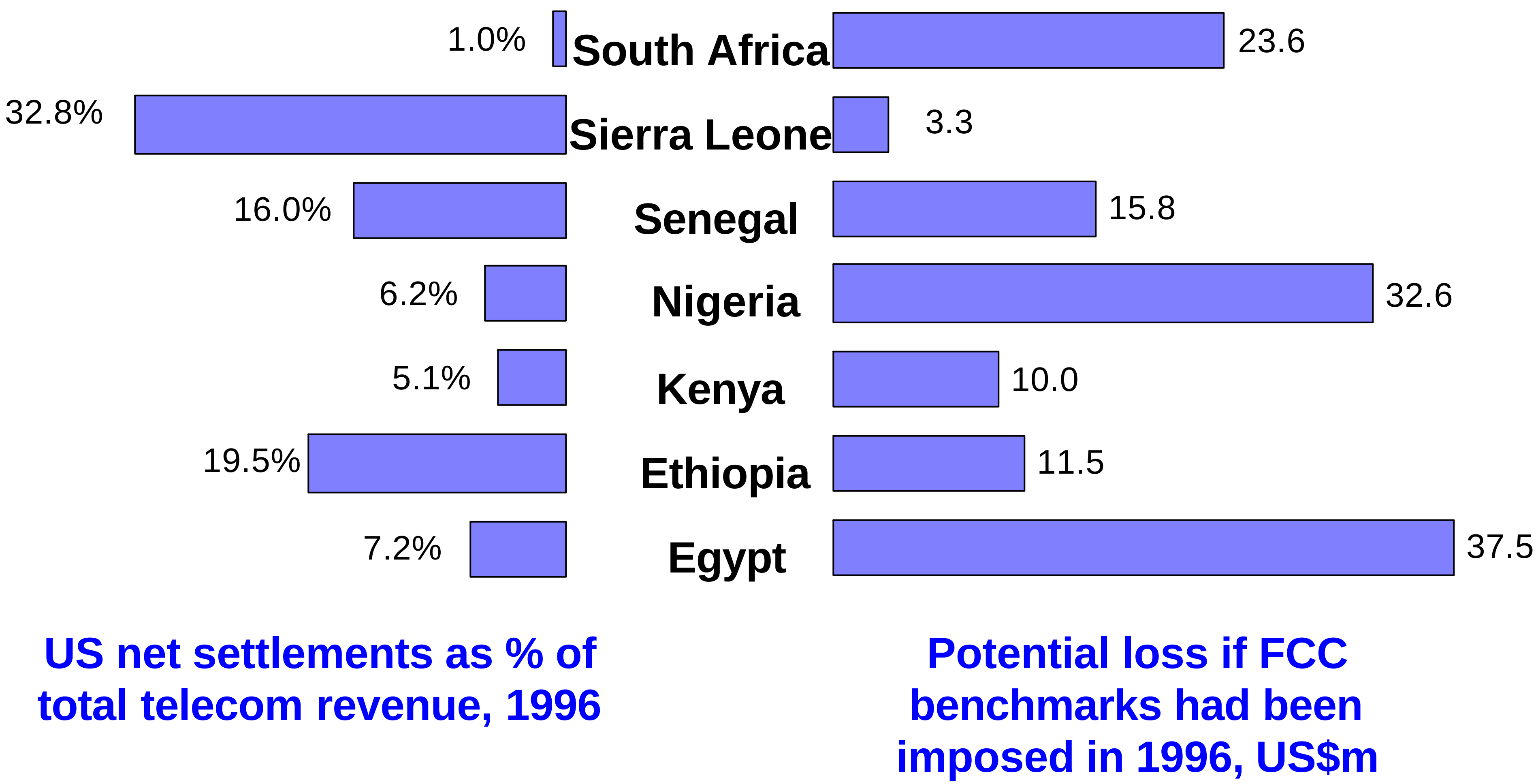
	FCC Benchmarks	*ITU Focus Group*
Coverage of analysis	**72 countries**	**224 countries / territories**
Range of rates (direct relations)	**0.11-0.16 SDR**	**0.043-0.327 SDR**
Transit shares	**Not covered**	**0.03-0.06 SDR**
Groups	**4 by income + 1 by teledensity**	**7 by teledensity + 2 others**
Target years	**Multi-year: 1998, -99, 2000, -01, -02**	**Year-end 2001 (2004)**
Dependency on net settlements	**Not covered**	**Extended transition**

Potential impact of Focus Group Targets & FCC Benchmarks on Case Study Countries

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

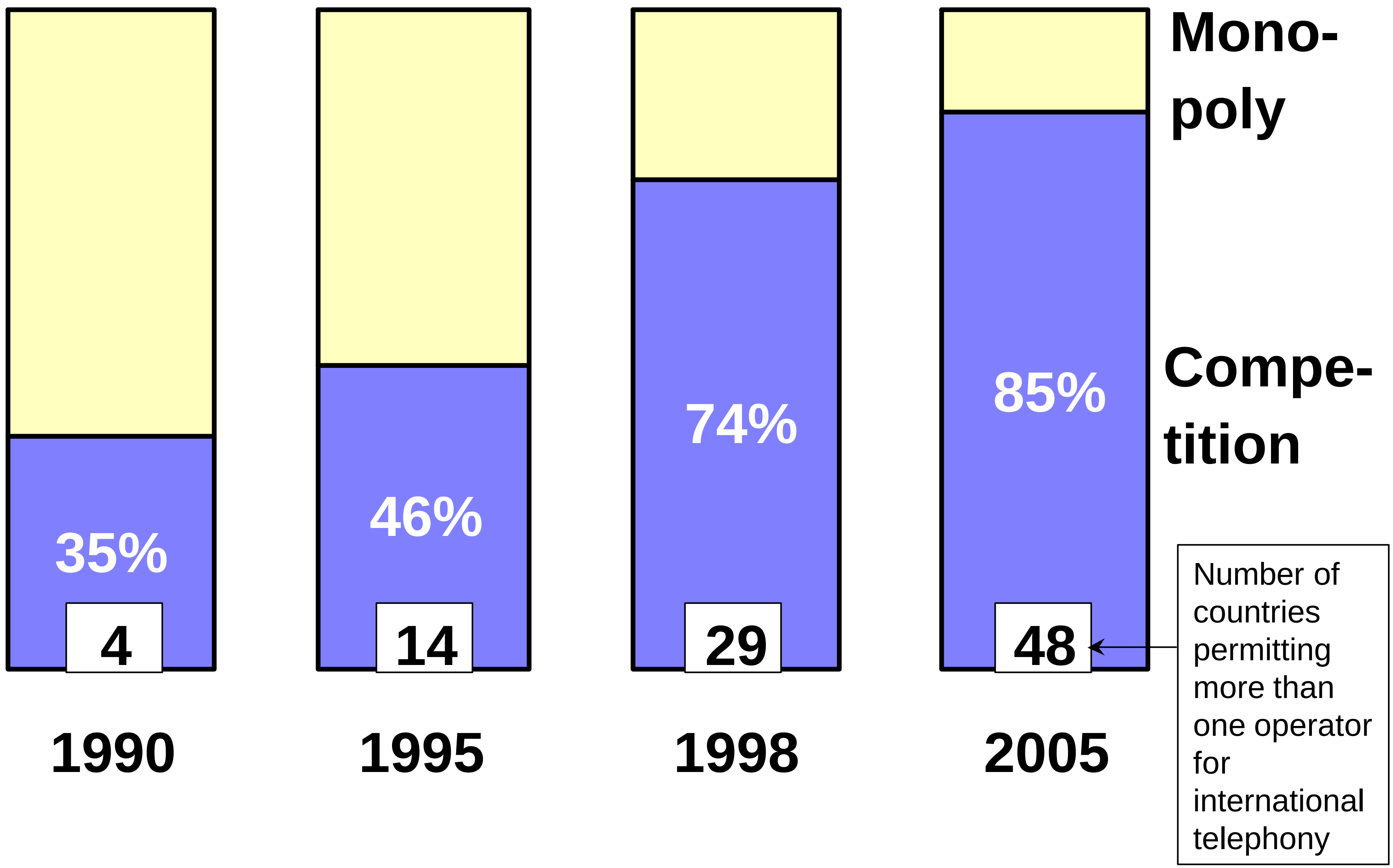
Source: ITU Focus Group Methodological Note on Transition Path towards Cost-Orientation, contribution 75.
Note: The cost components shown show the lower estimates where multiple cost estimates were provided. All of the case studies have been validated by the regions concerned except Lesotho.

Potential impact of FCC benchmarks policy (on selected African countries)



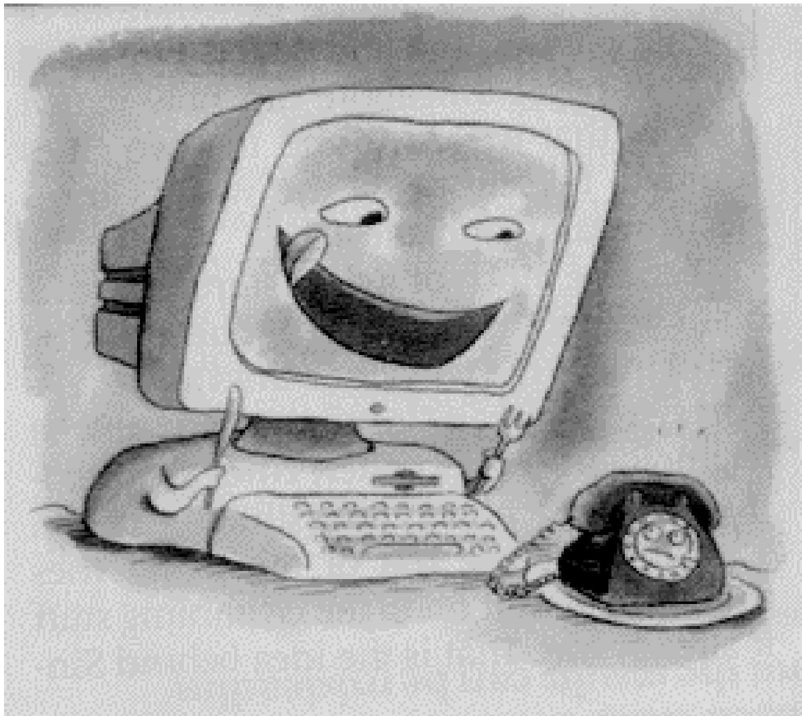
Source: ITU.

The wider context (1): Percentage of market open to competition



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.

The wider context (2): The rise and rise of the Internet



The Economist
May 2nd 1998

"We started out running the Net on top of the phone system, and we'll end up with telephony running over the Net."

Eric Schmidt, CEO, Novell,
Quoted in Wired, August 1997

The dilemma facing developing countries. How low dare we go?

If the rate of reduction is too low ...

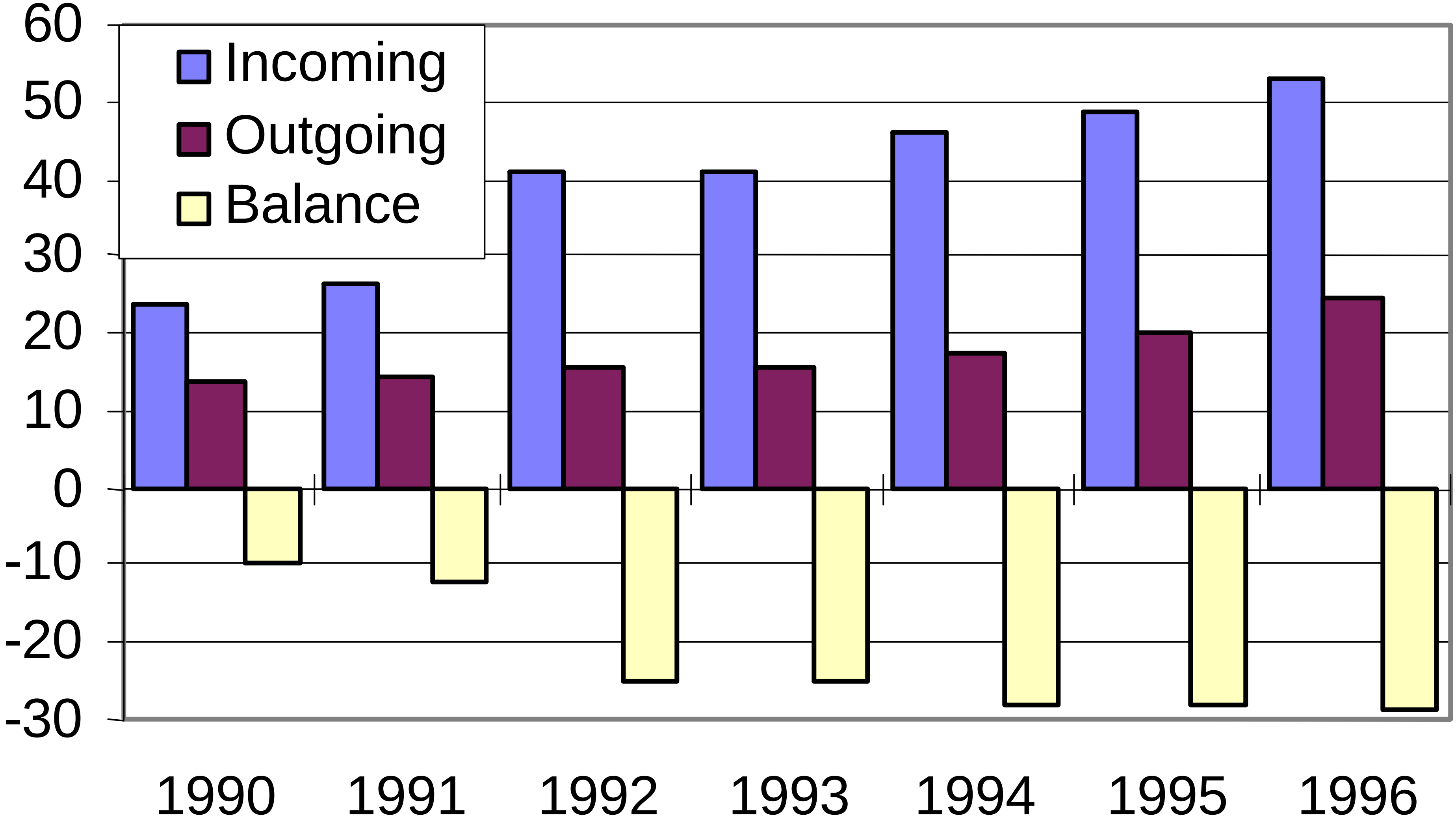
- **Traffic will migrate to "least cost routes"**
- **Increasing volumes of traffic will flow outside the accounting rate system (e.g., via Internet)**
- **Local consumers will not benefit from lower call charges**
- **Foreign correspondents may refuse to pay for traffic terminated**

If the rate of reduction is too fast ...

- **There may be a sudden reduction in the volume of net settlement payments**
- **This may reduce the ability of the incumbent operator to finance its network build-out**
- **It may reduce the value of the operator ahead of possible privatisation**
- **National tariffs may need to increase to compensate**

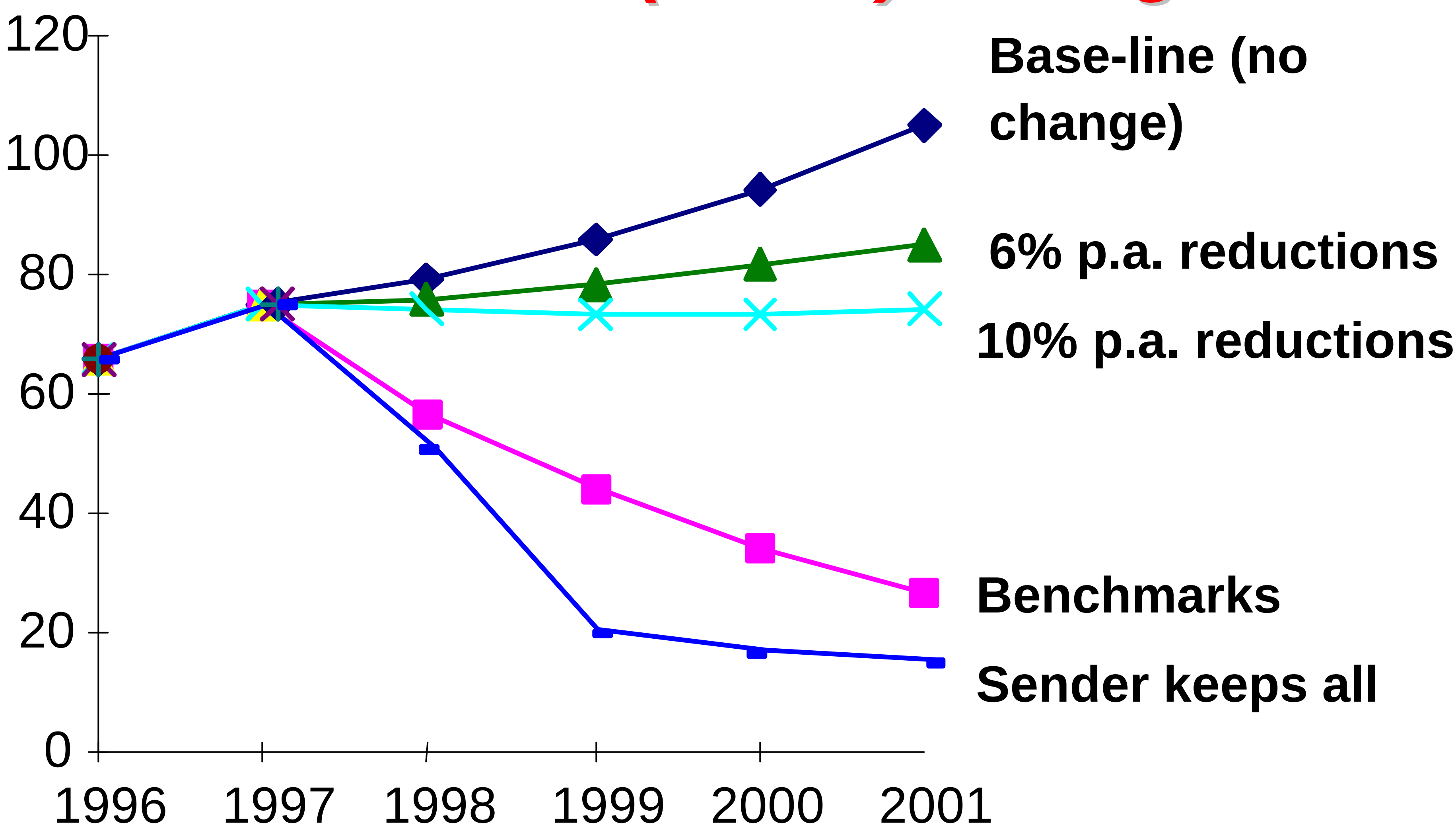
Accelerating imbalances

Incoming, outgoing and balance of traffic, Senegal, in millions of minutes, 1990-96



Source: ITU/CTO Case Studies.

Impact of different scenarios on int'l telecom revenues (US$m): Senegal



Note: Net international income = collection charges, plus net settlement payments, minus costs.

Source: ITU/CTO Country Case Studies.

Conclusions

- Focus Group proposals would create new Annex E to Recommendation D.140 for transitional arrangements beyond 1998
- This would mark a significant step towards rates which are cost-orientated, non-discriminatory and transparent (D.140)
- Provides “smooth transition” for countries most dependent on net settlements
- Recommendations proposed are based on extensive research and represent a possible consensus
- Presents multilateral alternative to imposition on US carriers of US/FCC Benchmarks Order

Current status and next steps

- **ITU-T Study Group 3 reviewed Focus Group report at its meeting in December 1998**
  - ⇨ **Willingness to reach a multilateral agreement**
  - ⇨ **But, the meeting ran out of time to conclude on the revised text [see square brackets]**
- **Study Group 3 will attempt to conclude work at next meeting, June 2-11 1999**
  - ⇨ **Recommendation could be approved by end of the year**
- **In the meantime, FCC benchmarks are being implemented …**
  - ⇨ **Beginning with high income countries**