How would we recognise a competitive telecommunications market if we saw one?

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Honoured Guests,

Ladies and Gentlemen,

It is a pleasure for me to join you here at the AEI, and I would like to thank you for inviting me to give a paper in this august institution. I have chosen the topic: “How would we recognise a competitive telecommunications market if we saw one?”. A deceptively simple question, you may think. And certainly, during my stay as Secretary-General of the International Telecommunication Union, there has been ample time to witness the evolution of competitive markets, especially in international telecommunications.

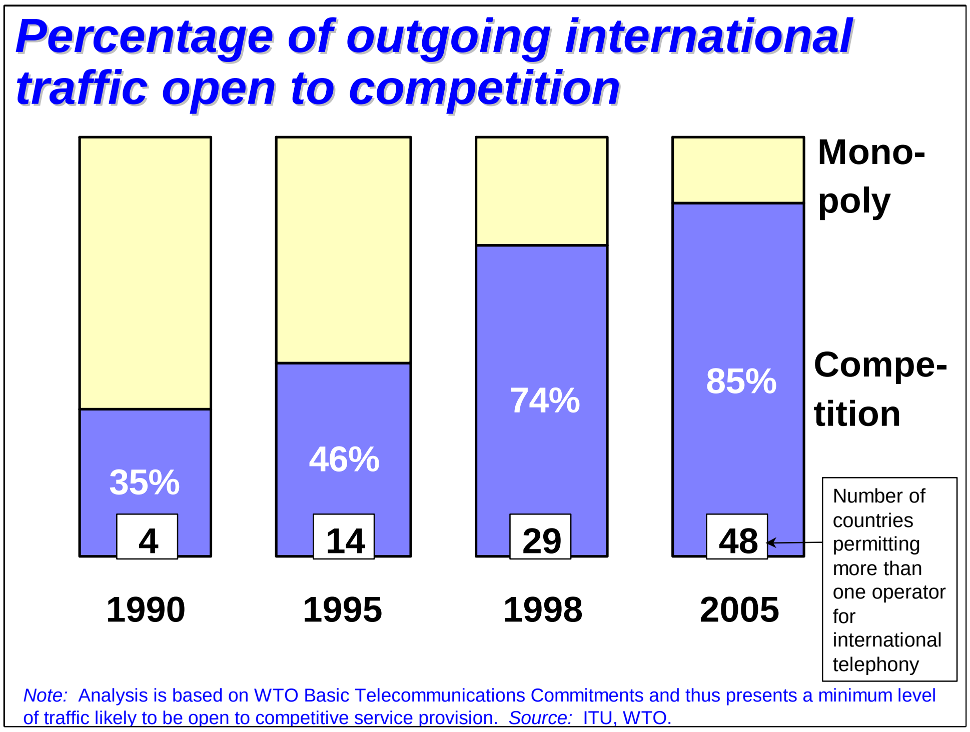
Countries permitting competition in basic telecoms:

1990	1995	1998	
Japan	**Australia**	**Australia**	**Japan**
United Kingdom	**Canada**	**Austria**	**Korea (Rep.)**
United States	**Chile**	**Belgium**	**Mexico**
	Finland	**Canada**	**New Zealand**
	Japan	**Chile**	**Netherlands**
	Korea (Rep.)	**China**	**Norway**
	New Zealand	**Denmark**	**Philippines**
	Philippines	**El Salvador**	**Russia**
	Sweden	**Finland**	**Spain (Dec 98)**
	United Kingdom	**France**	**Sweden**
	United States	**Germany**	**Switzerland**
		Ghana	**Uganda**
		Hongkong SAR	**UK**
		Israel	**USA**
		Italy	
		Ireland (Dec 98)	**plus others ....**

When I took over, in 1989, as Secretary-General of this venerable inter-governmental organisation, there were just three countries that allowed competition in international telecommunications. When my time comes to leave, at the end of this year, there will be more than thirty countries that have two or more players offering international voice telephony, and many more markets where the domestic telephony market, the mobile communications or the Internet Service Provision market have multiple players. Arguably, the changes in market structure that have occurred since the start of this decade have been the most far-reaching, speedy and decisive of any period in the ITU's 133 year history.

I would certainly not claim any personal credit for this industry-wide transformation, but the ITU *has* played its role in promoting the development of fair competition, tempered by effective regulation and private enterprise. After all, the ITU reflects the views of its membership, and it is the Members themselves which have changed.

As this slide shows, the reach of competition now stretches from the developed world to the developing one, from the Western Hemisphere to the Eastern one, and from large countries to smaller ones.



The two most important landmarks along the road to competition were arguably the European Union's single market for telecommunication services, which was implemented on January 1st of this year, and the World Trade Organisation's basic telecommunications agreement, implemented on February 5th, also this year. Some three-quarters of all outgoing international telecommunications traffic now originates in markets that permit at least two international carriers.

Taking just the commitments made at the time that the WTO agreement was implemented, the percentage of the market exposed to competition should rise to 85 per cent early in the next decade. This projected percentage will almost certainly be higher as countries make improved commitments, or join the agreement for the first time.

Competition, which was once the exception in international telecommunications, is now the norm. Competition is in full bloom, or so it would seem.

Competition, a frail bloom

- The evolution of competitive telecommunication markets
- The identifying marks of contestable markets
- Experience of competition in three markets
  - ⇨ International outgoing telephone traffic
  - ⇨ International transit traffic
  - ⇨ International Internet traffic
- How to cultivate the bloom of competition

In this presentation, I want to put forward the proposition that competition is a more delicate and frail bloom than one might imagine. If competition were indeed a flower, like the Chrysanthemums that grace this season in Switzerland and France, it could easily be killed off by an early frost, damaged in a hail storm, or choked by weeds.

To develop this argument, I want to look first at what a contestable market should look like, from a theoretical perspective. What are, or should be, the identifying marks of a free and open market? I will concentrate on the case of the United States as I am here to give the paper and as it is the market with the longest history of competitive service provision.

In the main part of the paper, I propose to look, in more detail, at three supposedly competitive markets:

First I will look at the market for international telephone traffic. The topic of *terminating* international calls is currently the subject of great debate, notably at the FCC, in the US law courts, and in the ITU's Focus Group which is currently working to see if it will be possible to reach a multilateral approach to the transition towards rates which are cost-oriented, non-discriminatory and transparent. However, in this presentation I will avoid the temptation to get involved in this debate and focus instead on the market for *origination* of international calls; that is, outgoing international traffic.

Second, I would like to look at the market for transit of international traffic, much of which passes through the United States. This ought, one would think, to be a truly competitive market in this era of global alliances.

Finally, I will look at the emerging market for International Internet traffic.

To conclude, I will pose the question of how this delicate bloom of competition might best be cultivated.

Characteristics of contestable markets

- **Relatively easy market entry and exit**
  - **Low barriers to entry**
  - **Notable examples of insolvency**
- **For investors, easily understood rules, and ease of disinvestment**
- **Consumer choice, service options and easy ability to switch between service providers**
- **Transparent, easily understood, market information**
  - **Relating to price**
  - **Relating to quality of service**

What should a contestable market look like -- in other words, a market which is competitive in reality, not just in name?

Economists could, no doubt, spend the rest of the day discussing that topic, and this institution is not short of a few economists. To cut a long story short, I would suggest that there are at least four characteristics that one would expect to observe:

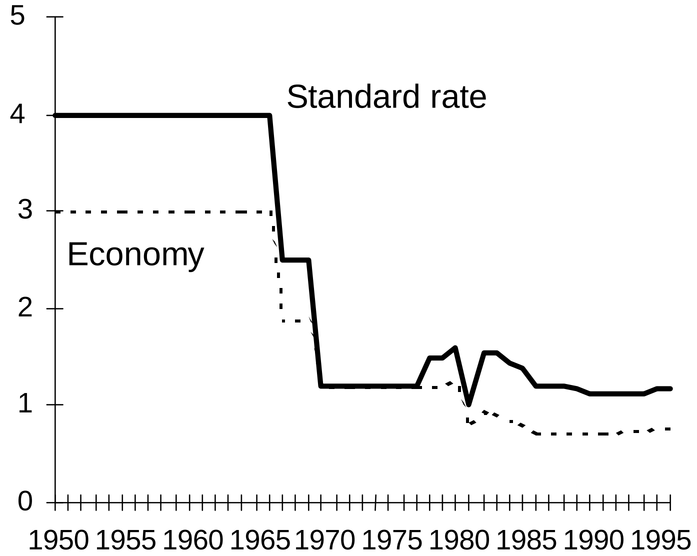
On the service provider side of the equation, one would expect to see relatively easy conditions for market entry and, perhaps almost as important, relatively easy conditions for market exit, both in terms of voluntary exit -- through a withdrawal of funds or a sale of assets -- as well as involuntary exit -- through insolvency or the declaration of bankruptcy. In the airline industry, there have been notable examples of insolvency, including national flag-carriers such as Pan Am and, more recently, Philippine Airlines. To date there are few, if any, equivalent examples in the telecommunications business.

From the viewpoint of the consumer, a competitive market should provide a choice of options, and the exercise of that choice should be relatively hassle-free. It should be possible to switch easily between different service providers and to make rational decisions, based on the known price and service quality of the options under consideration.

If these definitions were strictly applied, it is probable that few markets would be judged as fully competitive. However, some markets do illustrate almost perfect competition. The classic example is probably the street market that you can find in most developing countries as well as in many developed ones. In these markets, traders display their wares for consumers to inspect, often with a proposed price prominently displayed. Consumers can either accept what is on offer or attempt to negotiate a better deal. They are free to make rational choices, trading off price against quality on the basis of the information available. There are many different players in markets of this kind, most of them of a similar size, meaning that the tendency towards cartelisation is limited. The cost of market entry amounts to the cost of a market stall or barrow, and market exits are frequent.

The slow death of distance

Price per minute, peak rate call from US (AT&T) to UK, in US$



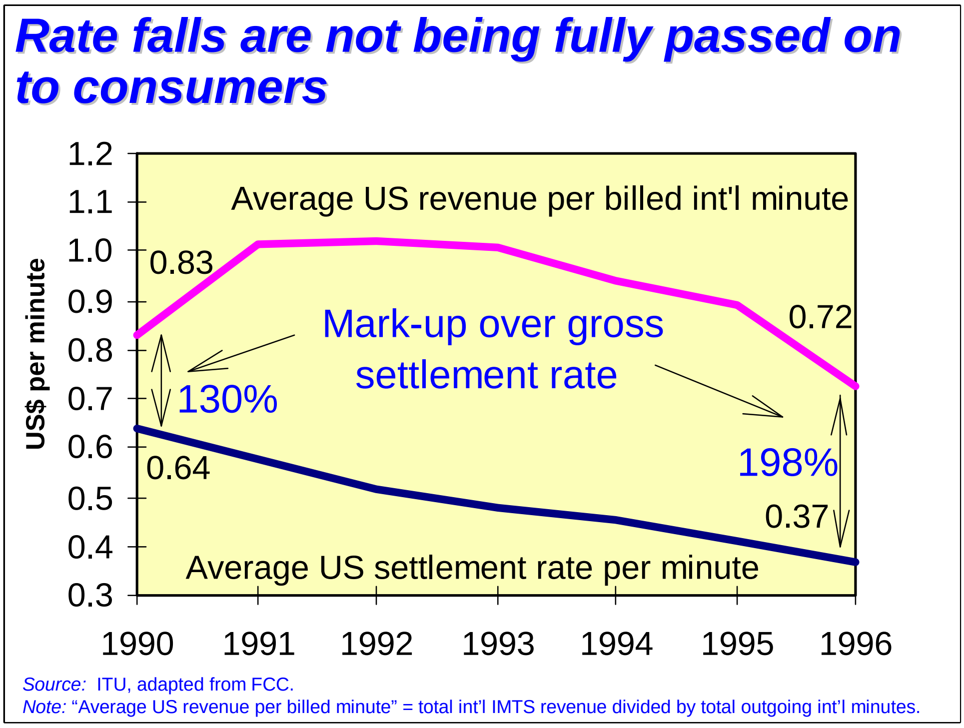
Source: FCC, quoted in ITU/TeleGeography Inc., "Direction of Traffic, 1996". Based on 3 minute call.

How closely does the market for outgoing international traffic resemble this ideal of a contestable market? Not as closely as one would hope. As this slide illustrates, if we take the standard published price of a five minute, peak rate telephone call between the United States and another liberalised market, such as the United Kingdom, we can easily see the effect of technological change, in the late 1960s and early 1970s, in the form of a dramatic reduction in calling rates. However, it is difficult to detect any similar effect resulting from the introduction of competition in international telecommunications in the 1980s and the 1990s. It is true that there was a sudden fall in prices in the early 1980s. However, it was quickly followed by an upward readjustment. After gradually declining in the late 1980s and early 1990s, published prices, on this route at least, were actually *rising* by mid decade, not falling.

Of course, US service providers would argue that published prices are irrelevant since everyone is eligible for some kind of discount and no one pays the full price for an international telephone call.

While there may be something to this argument, it does not appear to be completely consistent with well-known facts about consumer behaviour. If consumers really are so sensitive to the prices charged for international calls, why do so many of them use home country direct and calling card services which are often priced well above other rates? The answer, of course, is that price is not everything -- convenience and other factors have to be taken into account.

It may also not be correct to assume that consumers have the information they need to make rational decisions. For example, those who think they can make price comparisons by looking at the websites or the advertising literature of the big service providers may find out how big this week's discount is, or how much they are saving compared to a competitor's prices. However, they will rarely be able to make straight comparisons between service providers.

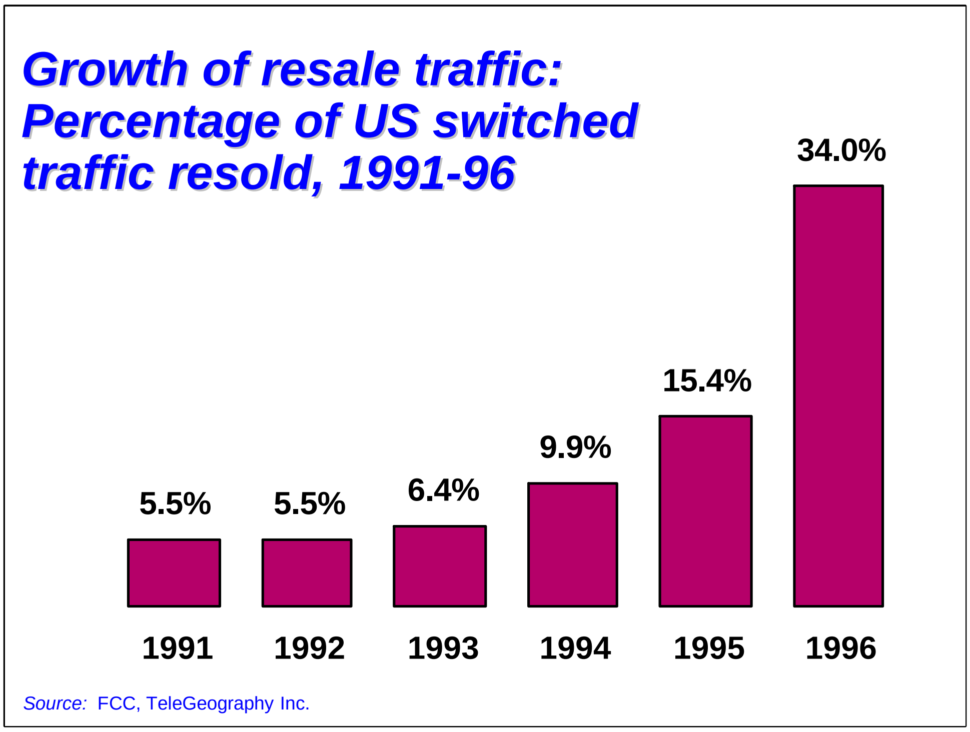


Indeed, one reason for this less-than-transparent approach to advertizing is precisely to prevent consumers from making meaningful comparisons between competing service providers. For a while, as this slide illustrates, this strategy apparently worked. Between 1990 and 1993, at precisely the time when significant price reductions were first being made in US international settlement rates, the average revenue earned by US operators per minute of outgoing international traffic actually *grew*.

This finding is particularly significant since the average revenue per billed minute -- based on FCC data -- is a measure which is takes price discounts into account, since it shows the revenue actually recorded rather than the price charged.

The good news shown in this slide is that the strategy of "Purposeful Price Confusion" no longer seems to be working as well as it did at the start of the decade. As you can see, beginning in 1993, average revenue per billed minute began to decline at an increasing rate. Although no data are shown for 1997, the indications are that the rate of fall was faster than in 1996.

The bad news is that, in spite of this positive trend, the mark-up of average revenue billed per minute over the average settlement rate has actually increased, from 130% in 1990 to 198% in 1996. this is because because the rate of decline in the average settlement rate has also speeded up, reaching 12 per cent per year or more since 1995.



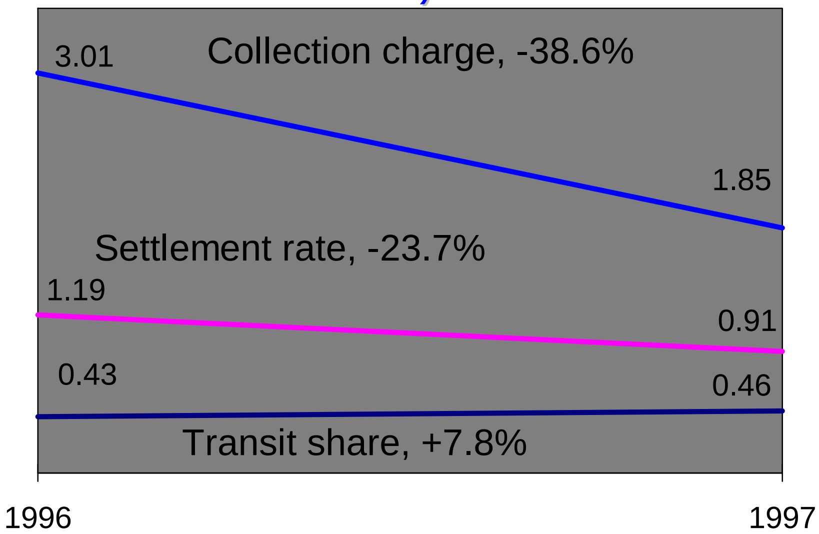
One reason why the major US international operators apparently lost their ability to control price fluctuations in the market in the mid-1990s was the rise of resale.

As this graph shows, the percentage of US outgoing traffic which was resold rose from just over 6 per cent in 1993 to some 34 per cent in 1996. As well as diminishing the market share of the major operators, the success of the resellers has forced the majors to introduce their own discounted calling schemes. In light of these developments, it is therefore hardly surprising that the major operators have sought to block the further growth of the resale market by petitioning the FCC to erect barriers to market entry by foreign investors in the resale market on the basis of benchmark tests

The correlation between the statistics presented in this slide illustrating the rise of resale and those presented in the previous slide illustrating the decline of average revenue billed per minute appear to indicate hat US consumers have gained far more from the market entry of resellers than from any attempt by the FCC to "protect" them, through its International Settlements Policy. Indeed the main -- if not the only -- "consumers" protected by policies such as Proportionate Return, Uniform Accounting Rates, or more recently by the Benchmarks, have been the shareholders of AT&T, MCI and Sprint!

For those regulators in newly competitive markets, seeking to emulate the United States' success in growing its outgoing international traffic, the advice should be to focus first on creating a viable and dynamic market for resale, and not to try to limit artificially the number of licensees. The resale market is, after all, much closer in nature to the street market traders I referred to earlier in that it allows easier entry and exit by minimizing the amount of capital that new entrants must invest in infrastructure.

Price and cost trends, for two Latin American countries, 1996/97 in SDRs



Note: The rates represent an average for two Latin American countries which make extensive use of transit. The rates shown are an average of their rates to countries outside the region. Source: TAL Group.

Resale represents one possible way towards achieving a more contestable market for call origination. What are the options for bringing competition into the market for international transit?

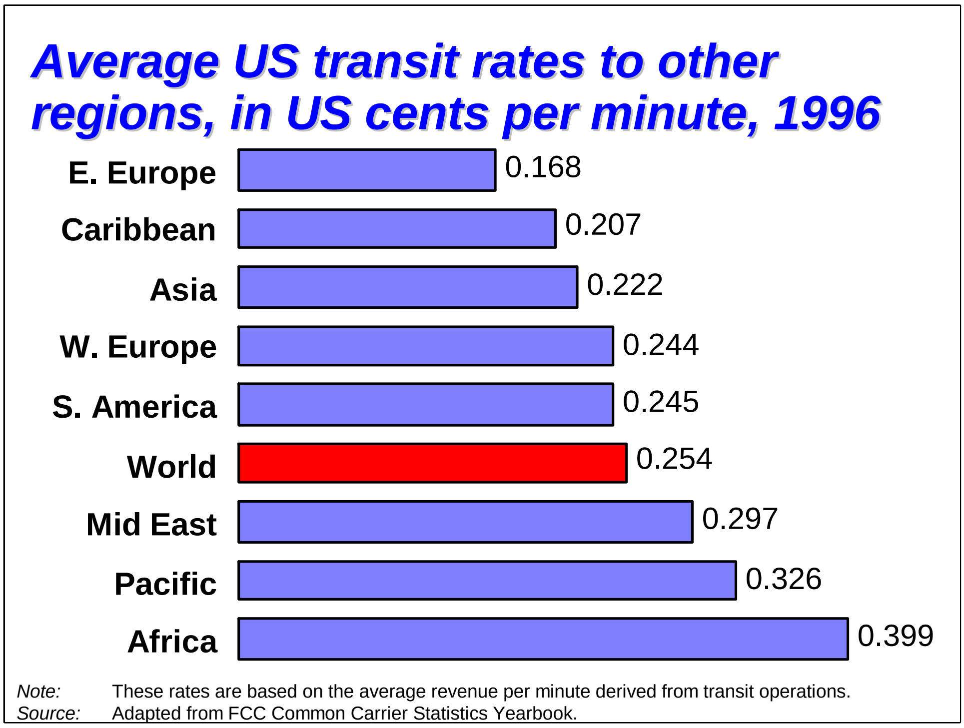
Transit is the business of picking up outgoing international traffic from an operator in one country and carrying it, as a middleman or third party, to an operator in another country where it is terminated.

At first, transit was a business of convenience, a means of carrying traffic between countries which had no direct telecommunication relations. Today, however, transit has become a competitive business in two different senses. On the one hand, in cases where direct relations do not exist between two countries, a transit operator may compete for traffic against other operators offering a similar service. On the other hand, even in cases where direct relations exist between two countries, a transit operator may compete to carry traffic between these two countries by offering a lower price than the settlement rate prevailing on the direct route, through a practice known as refile.

In either case, from a cost point of view, the transit operator is merely adding additional traffic, often during non-peak hours, to the traffic which it already carries. Furthermore, the transit provider would normally use international infrastructures (e.g. fibre-optic undersea cable, and satellite) which, in many cases, it directly owns. Thus the incremental costs of transit services ought to be of the order of a few US cents per minute, at most.

However, the prices charged for transit services rarely reflect these low costs.

As the slide above shows, the published rates for transit between two significant Latin American markets, were some 46 cents per minute in 1997. These published rates are charged by US carriers who, if the Benchmark Order is implemented, would be obliged to pay no more than 23 cents maximum to the foreign country for terminating outgoing traffic. Furthermore, although the average of the two countries' settlement rate fell by 24 per cent in 1996/97 and the collection charge fell by 38 per cent during this same period, the transit share actually rose by 8 per cent!



Of course, in the world of transit negotiations, nothing is quite as simple as it appears. The "official rates", as shown in the example from Latin America, exist on paper only in the contract between the origin country, the destination country and the transit operator. In practice, these published rates are fictional, because the transit operator pays back to the origin country -- or fails to collect from it -- a certain amount of the transit share, by implementing what is known in the transit business as the "confidential rate". The confidential rate carries a significant discount from the official rate, and is a sworn secret between the transit operator and the country of origin.

To estimate the level of these confidential rates, the ITU has analysed the revenues received by US transit carriers from each region, subtracted the money they have paid out, and then divided the remainder by the number of minutes carried. This admittedly rough and ready methodology gives an approximate cost per minute, which at least shows the orders of magnitude involved. On this approximation, the global average for transit service was around 25 US cents per minute in 1996 -- a rather high price for a service that should probably cost less than a tenth of that amount.!

The conspiracy of silence that surrounds transit works very much against the interests of developing countries. A system which is based on differences between "official" and "confidential" rates as well as on paybacks between transit operators and countries of origin can only encourage bribery and corruption of PTO officials and ministers. The fact that a receiving country does not know what an origin operator is actually paying means that they may be deprived of at least part of their fair share of the accounting rate. And the fact that there are no published rates means that developing country officials cannot compare the rates they are really being charged with any internationally comparative level. The FCC, which has a lot to say about settlement rates, is curiously silent on the issue of transit.

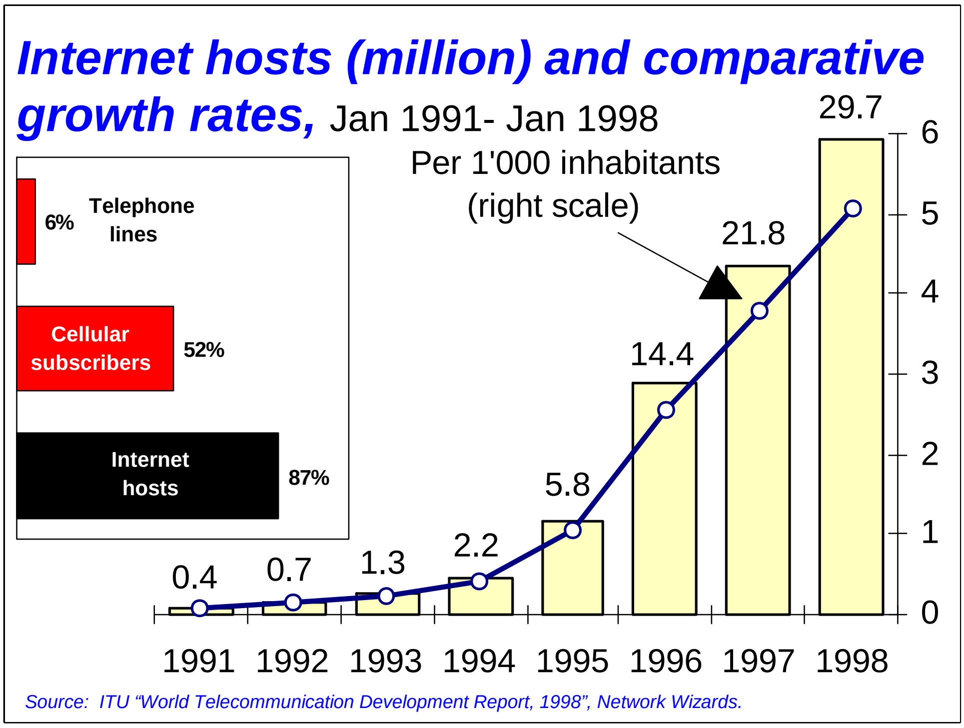
Focus Group Chairman's provisional recommendations on transit shares

Routes with <350'000 mins	350'000 - 1.5 million mins	Routes with >1.5 million mins
64 kbit/s	256 kbit/s	1.5/2.0 Mbit/s
8 US cents (0.06 SDR)	6.7 US cents (0.05 SDR)	4 US cents (0.03 SDR)

Note: These target rates, which are derived from a combination of cost proxy and best practice rates, are upper ceilings to be achieved by year-end 2000. *Source:* Focus Group Chairman's Working Document.

In an effort to bring some light into the murky world of transit, the ITU Focus Group on settlement rates has published a set of target rates for transit shares to be achieved by year end 2000. These rates, which range between 4 and 8 cents, are intended to be upper ceilings, and it is recognised that the real costs of providing a cost-based service are well below this. But it is important to establish an initial reference point.

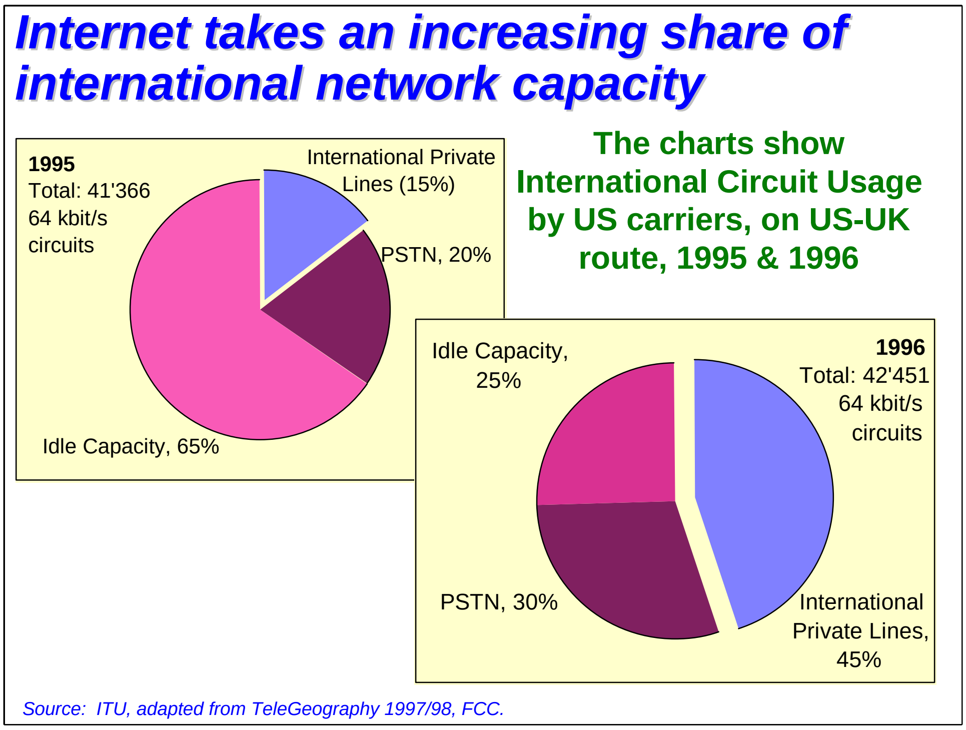
In the transit arena, I believe that the way forward is to encourage greater transparency and openness. I warmly applaud OFTEL's decision to start publishing transit rates and I would urge the FCC to follow suit. Once operators in developing countries can compare what the rates neighbouring countries are obtaining, it will strengthen their negotiating hand enormously.



The third market I propose to take as an example of how competition is not always working as effectively as it should, is the Internet. On the face of it, the Internet would appear to meet several of the distinguishing criteria of competitive markets identified earlier, notably with its low barriers to entry and multiple players. As recently as a year or so ago, it would have been hard to envisage this position changing. The industry has a strong case in arguing that Internet is already a highly competitive market and that regulators should steer clear, and let the invisible hand of the market do its work.

But most markets, under normal circumstances, have a tendency towards oligopoly, if not monopoly, and the Internet is no exception. In September 1997, AOL, which had already established a strong position in Internet service and content provision, took over most of the assets and the subscriber base of its nearest rival, CompuServe. Suddenly, the market leader in the ISP business had a market share which is between five and ten times higher than its nearest rival.

Ironically, the remaining part CompuServe's assets that were not sold to AOL, mainly in the business of Internet Access Provision (backbone networks and routers), were sold to WorldCom which subsequently made a bid for MCI, another market leader in the field of Internet Infrastructure provision. The bid was subject to competition policy investigations in both Europe and North America. The outcome was that WorldCom/MCI agreed it would sell its backbone business to Cable & Wireless of the UK.



In the WorldCom/MCI case, competition policy-makers argued for hours over what combined market share of Internet backbone provision they would command if they were permitted to combine forces. It might have been anywhere between 20 and 60 per cent of the Internet traffic flow in the United States. Imagine trying to conduct an anti-trust case in a different industry with that level of uncertainty! What this uncertainty indicates is how little information about Internet traffic is actually made collected and disclosed. This makes policy-making extremely difficult. But policy-makers, particularly in the competition policy arena, must remain vigilant.

Statistics on international Internet traffic are particularly hard to obtain. The only proxy available is to examine usage of International Private Lines and to assume that an increasing share of this is being used for Internet service. As the graphic shows, on the US/UK route, the percentage of available circuits dedicated to International Private Lines (primarily for Internet use) increased from 15 per cent to 45 per cent between 1995 and 1996. Across the world, operators such as KDD and Telstra are now reporting that the capacity set aside for the Internet now exceeds their voice capacity on routes to the United States. The competition policy issues thrown up by the WorldCom/MCI merger will become increasingly international in scope. At present, there exists no international forum where such issues can be addressed.

Cultivating competition

- **Reduce barriers to entry and facilitate investment and divestment**
  - ⇨ **Foreign investors bring new business models. Shutting out foreign investors risks cartelisation.**
- **Encourage transparency of market information**
  - ⇨ **Select a small number of critical indicators, including price and service quality, and require reporting of those by major players.**
- **Work co-operatively with regulators and policy-makers in other countries**
  - ⇨ **Regulation should be in the interests of consumers, not operators. Protecting the interests of consumers in different national markets requires co-ordination.**

What are the lessons to be drawn from examination of these three different markets? I'm sure there are many, but I will make three main points:

First, any market, however competitive it may seem, is prone to cartelisation, price fixing and a tendency towards oligopoly. The best way of ensuring that this does not occur is by facilitating market entry, particularly by foreign investors who are likely to bring with them quite different business models from those currently prevailing. The US domestic telecommunications market has been protected from foreign investment by rules on foreign affiliation which were drafted in the early decades of the century to meet a quite different challenge -- enemy subversion -- in quite a different market segment -- radio broadcasting. These rules should be scrapped, as this institution has argued persuasively. Recent steps taken by the FCC to limit foreign investment in international simple resale, by subjecting foreign entrants to a benchmark test, is detrimental to consumer interests, not only in the United States but also in the rest of the world.

Second, markets thrive on the free flow of information, notably concerning price and service quality. The FCC has done excellent work in promoting transparency in the issue of international settlements. It must now go further and shine that searchlight of transparency also in the transit market where, I would argue, the interests of consumers in developing countries are being seriously undermined. OFTEL has taken a lead, and ITU is also doing its best to expose the questionable business practices that characterise transit markets, but the FCC should also play a part.

Third, as telecommunication markets converge and globalise, there will be a need for domestic regulators and competition policy-makers to co-ordinate their actions more closely with their counterparts overseas. As the recent case of the AOL/CompuServe and WorldCom/MCI cases show, competition policy is no longer the preserve of national markets but must be addressed from a global standpoint.

To conclude, competition is a frail bloom that must be cultivated. We cannot assume that a market which looks healthy today will always be that way. All markets have a tendency to oligopoly, and international telecommunications is no exception. Over the last 133 years, the governments of the world have worked co-operatively, under the auspices of the ITU, and more latterly the WTO, to ensure international co-operation in telecommunications. They must now work to ensure international competition in telecommunications as well.