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For richer or poorer ?

The impact of telecoms accounting rate reform on developing countries

James DEANE*

Résumé *: Introduction de l'article*
Le système international du taux de répartition (accounting rate system) détermine combien une compagnie de téléphone paie à une compagnie étrangère pour interconnecter un appel. Quand vous appelez de Londres au Sri Lanka, le système est utilisé pour déterminer comment l'opérateur de Londres et celui du Sri Lanka s'arrangent pour diviser les revenus de la mise en connexion de l'appel.
Dans un monde idéal, chaque pays devrait envoyer autant d'appels qu'il n'en reçoit ; toutefois, nous vivons dans un monde inégal : parce que la plupart de leurs citoyens sont pauvres et ont des systèmes téléphoniques moins développés, presque tous les pays en voie de développement reçoivent plus d'appels qu'ils n'en envoient. Ainsi, peut-être uniquement sous cet aspect, la pauvreté paie - la plupart des pays en développement génèrent un substantiel "surplus" provenant du trafic international et par conséquent perçoivent davantage d'argent qu'ils n'en déboursent.
En mars 1998, l'Union internationale des télécommunications a abrité le forum sur la politique mondiale des télécommunications. Le thème en était le commerce et les services de télécommunication. En tête de l'agenda se trouvait la réforme de la taxe internationale de répartition.

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Les conflits à venir à propos de la réforme de ce système risquent d'affecter profondément les performances économiques des pays en voie de développement. La rencontre de Genève pourrait bien s'avérer comme le dernier espoir d'arracher un accord.
Recevoir des appels internationaux est pour certains pays en voie de développement, leur plus importante industrie "d'exportation" : en 1996, ces pays recueillaient quelques 10 milliards en devises extérieures.
Les pays en développement ont souvent fait payer cher l'acheminement des appels effectués depuis les autres pays de façon à pouvoir utiliser ces profits pour améliorer leurs propres télécommunications. De nombreux économistes pensent que les télécommunications sont un point critique pour le bien être futur de ces pays.
La réforme de la taxe de répartition internationale, un arrangement complexe qui a traditionnellement partagé le revenu provenant du trafic international, va couper net ces paiements. La libéralisation des télécommunications rend la réforme inévitable, mais de violents débats se déroulent spécialement sur la manière dont le système pourrait être modifié.
Les critiques avancent qu'une réduction trop rapide des revenus de la taxe de répartition amènerait à augmenter les prix intérieurs pour les usagers des pays en développement et pourrait ralentir le déploiement de réseaux de télécommunications vitaux. Alors que les profits des géants des télécommunications du Nord sont orientés à la hausse, ils indiquent que les perspectives économiques des opérateurs (souvent publics) du Sud subiraient des dommages sévères. Les plus pauvres de ces pays et ceux qui vivent dans les zones rurales en souffriraient davantage.

La commission fédérale des communications des Etats-Unis (FCC) affirme que les opérateurs américains perdent presque 6 milliards par an en raison de ce qu'ils appellent le "sur paiement " aux autres pays. Elle a introduit son propre système de répartition - connu sous le nom de "benchmarks" "taux graduel"- qui limite ce que les opérateurs US doivent payer aux opérateurs des autres pays. Les Etats-Unis affirment qu'ils cherchent simplement à établir un terrain de jeu commun dans le domaine des télécommunications internationales ; ils veulent parvenir à un accord international préalable pour obtenir un taux de répartition qui serait, - établi en fonction des coûts, - non discriminatoire et transparent.
Les opposants soupçonnent les Etats-Unis d'essayer d'utiliser cette question pour imposer leur propre autorité dans le champ hautement lucratif du marché global des télécommunications et de donner ainsi, à ses propres géants du secteur, le maximum d'avantages compétitifs.
Prise entre les deux, l'Union internationale des télécommunications essaie de parvenir à un agrément qui satisfasse tout le monde.
Pendant ce temps, l'Union Européenne a abandonné le système du taux de répartition, pour le trafic téléphonique à l'intérieur de ses propres

frontières, ce qui conduira probablement à des réductions majeures des paiements dus aux pays extérieurs à l'Union.

D'autres options pour la réforme ont été proposées par l'OCDE et par d'autres organisations.
Ce bulletin spécial de Panos examine certains des arguments qui concernent cette question complexe.

Introduction

In March 1998, the International Telecommunication Union (ITU) hosts the World Telecommunication Policy Forum. The theme is "trade in telecommunication services". High on the agenda is reform of the international accounting rate system. The outcome of disputes over reform of the system could fundamentally affect the economic prosperity of scores of developing countries. The Geneva meeting could be the last best hope of hammering out a deal.

Completing international telephone calls is, for some developing countries, their biggest "export" industry. In 1996, developing countries netted up to $ 10 billion in valuable foreign exchange from such revenues. Developing countries have often charged a high price for completing calls from other countries so that they can use the profits to improve telecommunications in their own countries. Many economists argue that telecommunications are critical to future prosperity for these countries.

Reform of the "international accounting rate" system, a complex arrangement which has traditionally divided up revenue from international telephone traffic, will slash these payments. International liberalisation of telecommunications makes reform inevitable but fierce debate surrounds just how the system should be changed.

Critics argue that a too rapid reduction in accounting rate revenues will lead to increased domestic prices for consumers in developing countries and could slow down development of vital telecommunications networks. While telecoms profits of giant Northern-based telecoms operators can be expected to escalate, they argue, economic prospects of incumbent (and often state-owned) operators in developing countries could be severely damaged. The poorest and those living in rural areas will, critics argue, suffer most.

The United States Federal Communications Commission (FCC) argues that US operators lose almost $6 billion per year in what it calls "above-cost" payments to other countries. It has introduced its own system of accounting rate payments - known as "benchmarks" - which limits what US operators can pay to operators in other countries. The US argues that it is simply trying to establish a level playing field in international telecommunications and to implement a pre-existing international arrangement to achieve accounting rates which are cost-oriented, non-discriminatory and transparent.

Opponents harbour suspicions that the US is trying to use the issue to impose its own authority on the hugely lucrative global telecommunications market in an attempt to give its own giant telecoms operators maximum competitive advantage. Caught in the middle is the International Telecommunication Union which is trying to reach an agreement which satisfies everyone.

Meanwhile the European Union has abandoned the accounting rate system for telephone traffic within its own borders, a move which is likely to lead to major reductions in accounting rate payments to other countries. Other options for reform have come from the OECD and other organisations.

This special Panos briefing examines some of the arguments surrounding this complex issue.

The International Accounting Rate System - what it is, why it matters

When poverty pays

The International Accounting Rate System determines how much one telephone company pays a foreign telephone company for connecting a call. Make a call from London to Sri Lanka, and the system is used to govern how the London operator - say British Telecom - and the Sri Lankan operator - say Sri Lanka Telecom - agree to divide revenues for connecting the call.

In an ideal world, every country would originate as many telephone calls as it receives. However, we live in an unequal world and because most of their citizens are poorer and have less developed telephone systems, nearly all developing countries receive more calls than they originate. Perhaps uniquely, in this instance poverty pays - most developing countries run a substantial "surplus" on international telecoms traffic and consequently receive much more money than they pay out. Nearly all countries keep details of their accounting rates secret, so accurate estimates of how much developing countries receive are very difficult to make. The International Telecommunication Union (ITU) says between $ 5 and $ 10 billion per year in net settlement payments goes to developing countries[1].

Money from these international revenues has traditionally been used by developing country operators to subsidise cheaper local calls and expansion of the network to poorer customers or to rural areas. Such revenues are, argue many developing countries, essential if the benefits of telecommunications are not to be confined to a few urban elites.

Winners and losers

For some countries, revenues from accounting rates are their largest single source of foreign exchange. In 1996, Jamaica earned almost $ 100 million from accounting rate revenues from US telephone traffic alone[2]. Ethiopia, one of the poorest countries on the planet, had a total telecommunications revenue of $ 75 million in 1996, more than 60 per cent of which was derived from international calls, most of it from net settlement payments[3]. Other recipients with an annual accounting rate income in excess of $100 million include telecoms companies in Brazil, Pakistan, the Philippines and Sri Lanka[4].

Arguably, the biggest loser under the current system is the United States. According the US Federal Communications Commission (FCC), United States telecoms companies paid out $5.7 billion more than they received

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1. Based on report of the Secretary General to World Telecommunications Policy Conference, 1998 and discussion with ITU officials.

2. Cezley Sampson, Mona Institute of Business, University of the West Indies, personal correspondence.

3. Personal correspondence with Lishan Adam, September 18 1997.

4. ING Barings, (February 1997), International Facilities Liberalisation: Winners and Losers, ING Barings Communications Research

from international telephone traffic in 1996, a figure which has doubled since 1990. Although other countries, such as Australia, Sweden and Germany, also pay out more than they receive, their deficits are dwarfed by the sheer scale of that of the United States telecoms companies. This goes a long way towards explaining why the US is so keen to reform the current system.

Table 1. Largest US net settlement payments in 1994 (Source: ITU)

Country	**Net Settlement Payment (millions US dollars)**
Mexico	878.2
India	298.8
China	267.1
Hong Kong	208.0
Japan	171.4
Philippines	157.8
Colombia	139.5
Brazil	133.7
Argentina	132.7
Pakistan	127.1

The International Accounting Rate System

The accounting rate system is complex and increasingly unwieldy but it has survived in one form or another since 1865. The ITU describes the way the system works in the following way:

"It is based on a dual price system whereby, for each call, one price (the collection charge) is charged to users by the originating public telecommunication operator (PTO) (the collection charge) and a second price is agreed by the terminating PTO and the originating PTO (the accounting rate). If there is an imbalance in the volume of incoming and outgoing traffic, then the originating PTO which generates more traffic pays for the difference to compensate the terminating PTO (the net settlement payment)"[5].

5. ITU (1997), "Pressures to reform the bilateral agreements regime", World Telecommunications Development Report 1996, ITU.

The international accounting rate system thus consists of three components :
- The collection rate, which is the rate charged by an operator to its customers. In theory, the collection charge for the same call should be more or less equal in the two correspondent countries.
- The accounting rate, which is the rate agreed between the originating country and the destination country.
- The settlement rate, which is the proportion of the accounting rate that determines the actual payment between countries. This is invariably half of the accounting rate. In other words, it is assumed that the cost of terminating the call is the same for each partner, even though this is rarely the case.

Although the collection rate was originally meant to reflect the accounting rate - which is the rate most in line with what a call actually costs to complete - over the years, and especially over the past two decades, the accounting rate and the collection rate have become decreasingly linked.

Poor countries benefit but the poorest benefit least - and may suffer most

The international accounting rate system was never designed to distribute essential capital to countries which need it most. While many poor countries benefit greatly under the system, it is neither equitable nor consistent in how revenues are divided.

The whole of sub-Saharan Africa - the region with poorest telecommunications development in the world - received in 1995 just $ 125 million or 2 per cent of the total, according to the 1996/1997 World Telecommunications Development Report published by the ITU. The report points out that Mexico, a member of the OECD, received $ 876 million from US carriers making it the largest recipient. European operators, Canada, Japan, China, India and the Republic of Korea were other major beneficiaries.

Clearly, there is little direct link between a country's level of net settlement earnings and its relative wealth. Nevertheless, although comparatively small volumes of money go to the least developed countries, these sums are proportionately more important to them and it is these countries which are likely to be worst affected. Specifically, according to the ITU, "the least developed countries and other low income small economies with, say, less than 1 million inhabitants, are likely to be hardest hit"[6].

Despite their small share of accounting rate revenues, African countries are especially vulnerable, according to Lishan Adam of the United Nations Economic Commission for Africa (UNECA). "The revenues of telecoms (operators) in many African countries heavily depend on the settlement inflows that they receive from carriers in the United States and others in Europe and Asia", he argues.

The other countries which will suffer most from accounting rate reform are those with most traffic with the United States, especially those in Central America and the Caribbean regions. Table 2 shows some of the countries most affected in the Central America and Caribbean region with the final column being the percentage of telecoms revenues being generated just by international traffic from the United States. The figures are startling, demonstrating that for countries such as Nicaragua and Haiti, settlement payments from the US account for more than half of total telecommunication revenues.

Any reduction in these figures would, according to Cezley Sampson of the Mona Institute of Business Studies at the University of the West Indies, trigger substantial economic difficulties in countries such as Jamaica. "Jamaica earned US$100 million from US traffic in 1996", argues Sampson. "Reduction in settlement rates will reduce this inflow, affecting the country's foreign exchange earnings and balance of trade", he says.

Table 2. Accounting rate revenues from United States operators

Economy	Inpayment (US $ m) payment	Outpayment (US $ m)	Net payment (US $ m)	As % of inpayment	Telecom revenue (US $ m)	Net 1995 as %
El Salvador	82.9	5.4	77.4	93.4 %	168.8	45.9 %
Guatemala	67.9	8.5	59.3	87.4 %	197.2	30.1 %
Haiti	44.2	6.3	37.9	85.8 %	73.0	51.9 %
Honduras	59.0	5.0	54.0	91.6 %	129.7	41.7 %
Jamaica	126.9	27.1	99.7	78.6 %	313.6	31.8 %

6. Recommendations of the Informal Expert Group on International Telecommunication Settlements, ITU, April 9 1997.

Mexico	1,124.3	248.7	875.7	77.9 %	6,509.1	13.5 %
Nicaragua	28.5	4.3	24.2	85.1 %	35.5	68.3 %
Trinidad & Tobago	52.7	18.2	34.6	65.5 %	162.6	21.3 %

Source: ITU World Telecommunications Development Report 1996/97.

Why a small slice of a big pie matters

The poorest countries do not necessarily do best out of the accounting rate system. But the revenues it does provide are disproportionately important. Here's why:

Many developing countries have limited access to credit and tend to pay higher interest rates than developed countries. Foreign exchange earnings from international settlements help solve the problem.

Equipment is often more expensive when ordered by developing countries and the countries often have to pay in advance for equipment and to lease access to undersea cable and satellite systems.

Most least developed countries cannot afford direct telephone links with many countries which means they have to pay more in "transit" costs when they route international calls through another country. African operators pay between $ 400 million and $ 1 billion a year for transit payments adding between $ 0.55 and $ 1.75 to the cost of a call[7]. International settlements are a crucial way of recouping some of these additional costs.

Providing access to most people in least developed countries is uneconomic - people are either too poor or live in too remote regions to enable companies to recoup costs. International revenues can subsidise services to these people and can keep domestic prices down.

"There are", says the ITU, "often important economic, political and social considerations challenging the notion that international telephone calls should be cost-based[8]".

A system in crisis - the economics

The international accounting rate system is in a crisis which has been brewing for more than a decade. At least four factors are at work :
- the increasingly important role of telecommunications in the modern global economy ;

7. ITU, World Telecommunications Development Report (Chapter 2, Section 2.4), 1996.
8. ITU, World Telecommunications Development Report (Chapter 2, Section 2.4), 1996.

- increasing, but uneven, liberalisation of telecommunications, particularly the 1997 World Trade Organisation (WTO) agreement on liberalisation of basic telecommunications ;
- improving technology which provides higher capacities at cheaper prices ;
- the growth of "call-back" services and other alternative calling procedures.

The role of telecommunications in the global economy

Telecommunications are at the heart of the modern global economy. They have advanced from providing simple voice telephony to being able to handle fax, data transmission, video and, increasingly important, providing the infrastructure for the internet - all of which means that the pressure to decrease international prices has become ever more intense.

Given the crucial role of telecommunications, the pressures to achieve efficient and cheap services are becoming increasingly intense. The critics of the international accounting rate system argue that it mitigates against both efficiency and cost-effectiveness. Given the economic stakes, it is no surprise that an accounting rate system that has come to be perceived as leading to telecommunications tariffs being higher than they need to be has come under intense commercial scrutiny and pressure.

Liberalisation of telecommunications

In February 1997, 69 countries (three further countries have since joined) concluded the World Trade Organisation's Agreement on Basic Telecommunications. The agreement, which came into force in February 1998, commits governments to provide foreign companies with access to their markets. Some countries have made commitments to open their markets with immediate effect, others to do so in stages and some participants in the agreement made no specific commitments. All are obliged to treat foreign companies in the same way as they treat domestic telecoms operators. While not actually covering the accounting rate system, the agreement nonetheless has a number of important ramifications for it :

- It will intensify competition and promote private ownership. Greater competition is likely to lead to an ever stronger downward pressure on international accounting rates. At the same time, telecoms ownership is becoming increasingly private and multinational. Designed as a system to serve a finite network of little more than 200 largely governmental monopoly operators, the system as it currently exists is arguably less well-suited to an environment in which dozens of new international telecommunications operators are emerging, each of which are expected to negotiate bilateral agreements with companies in more than 200 countries and territories.

- The WTO agreement recommends a new trade regime. While accounting rate reform was specifically excluded from the WTO agreement, it does note that any international settlements system needs to be transparent (everyone should know how it is working in practice) and non-discriminatory (foreign and private firms should be treated the same as domestic and state owned ones). The current system is arguably none of these things.

- Companies will control both "ends" of telecommunications traffic. The WTO agreement fundamentally changes the global telecommunications environment. Foreign carriers will be allowed to establish a commercial presence in participating countries (there are exceptions of countries whose offers do not permit this) and therefore own the "full circuit" - or both ends of the telephone line - that is used to deliver international traffic. Consequently, carriers in one country will be able to provide international services over networks which are entirely owned or controlled by those carriers - so called "end-to-end" services. In this situation, accounting rates become increasingly meaningless and such carriers are in an unassailable position in being able to undercut other operators who retain charges based on the accounting rate system, if they wish to do so. (It should be noted though that in Europe, where the system has been in force since the start of 1998, carriers have reduced prices to consumers only marginally, preferring instead to pass on the savings to shareholders.)

"Call-back" and the US deficit in international accounting rates

Call-back systems enable a subscriber to its services who wants to make a call, say from Manila to London, to dial up a number (normally in the US) which automatically routes the call to London and charges it to the subscriber at a lower rate. As the typical international call from the US costs around $ 0.25 per minute[9], and international calls from developing countries tend to be much higher, there is a substantial incentive for consumers in developing countries to take advantage of this system.

Call-back does not only undercut prices charged by operators in developing and other "high-cost" countries, but is also a major component of the United States deficit in international accounting rates. Because all call-back traffic is counted as traffic leaving the US (when in reality the call may have originated in any country), it contributes towards the US deficit.

Several countries have made call-back services illegal, or at least have tried to do so. In South Africa, for example, Telkom South Africa, the incumbent telecoms operator which is 70 per cent owned by the government, has been waging an intensive campaign to have call-back services declared illegal by the government despite the fact that the government is one of the main users of call-back services in the country. Ironically, South Africa's anti-call-back stance has intensified since its incumbent operator was privatised in 1997. The new investors are SBC of the US and Telecom Malaysia.

The South African situation typifies the murky legal status of call-back services in many countries. A 1996 ITU survey showed that of 57 countries who had claimed that they had made call-back services illegal, only 14 actually had laws banning it. Of these, only two - the Philippines and Saudi Arabia - have so far provided evidence to the ITU that US call-back services have openly contravened these laws[10].

Higher capacity, cheaper technology

The technical costs of international telecommunications are plummeting and the capacity of new fibre optic cables and improved satellite links has increased massively. When the Trans-Atlantic One (TAT-1) undersea cable was completed in 1956, it cost $50 million and had a capacity for 89 simultaneous telephone calls, or voice paths. Each voice path cost

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9. Cezley I. Sampson, "Liberalisation of trade in telecommunications services and the implications of GATS/WTO for developing countries", Intermedia, October/November 1996/Volume 24/n° 5.

10. Quoted in Glen Manoff, "FCC closes U.S. call-back firm's overseas operation", Communications Week International, August 11 1997.

around $ 600,000. When in 1995, the TAT-12/13 cable was launched, it enabled 600,000 voice paths at under $ 1,000 each[11].
Technological costs have fallen so much, according the ITU, that "the cost of an international link is effectively close to zero, (and) it could almost be dismissed as having no bearing on the cost of an international call"[12].

Accounting rates have not fallen so fast. While the cost of calls placed through satellites or undersea cables has been falling by as much as 30 per cent per year[13], according to the ITU, international accounting rates have been falling by only 9 per cent per year since the start of the 1990s and collection charges have been falling even more slowly[14].

Many new technologies are also effectively by-passing national telecommunications systems, thus making a mockery of complex accounting rate agreements. Internet telephony, for example, promises to introduce a new era of technologies where costs will reflect less and less on distance or even duration of calls. In a conventional telephone call, it is a simple matter to work out who the call is between and how long it lasts - thus making it easy to reach an agreement on how much to charge. With a telephone call made through the Internet, it is only possible to charge the local cost between the person making the call and that person's Internet host.

Internet telephone technology is still relatively primitive and has been hampered by the need to have a computer at each end of the line. Already, however, systems are coming on-line which enable callers to use Internet telephony directly from one telephone to another (with neither the recipient nor the caller needing a computer). Such services will inevitably become more sophisticated and convenient. If and when they do, it may become impossible to maintain an international model of price allocation such as the current accounting rate system, since all monies under such a system are retained by the sender's telecommunications operator.

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11. World Telecommunications Development Report, Section 2.1.1. ITU, 1996.
12. World Telecommunications Development Report, Section 2.1.1. ITU, 1996.
13. Tarjanne, Pekka, The 1998 Telecommunications Revolution, Speech at Study Group 3 Meeting, 27 May 1997, ITU.
14. ITU/TeleGeography Inc., Direction of Traffic, 1996.

A system in crisis - the politics

The United States - predatory bully boys or fair deal realists?

Efforts to reform the accounting rate system have been going on since at least 1992 under the auspices of the ITU. Almost everyone agrees that the system cannot survive in its traditional form but no agreement has yet been reached on a replacement system which can satisfy the vested interests of all sides. All sides tend to blame each other for not reaching an agreement.

In 1996, the US government's patience snapped. In November of that year, the FCC published a formal notice - the Notice of Proposed Rulemaking (NPRM) - that it intended to take unilateral action to set its own "benchmark" rates for the completion of international calls. These prices would establish unilateral limits on prices paid by US carriers for all US originated calls.

The US action provoked anger and dismay in many countries, both industrialised and developing. More than 90 foreign governments and foreign carriers filed comments to the FCC on its plans, many of them critical. In August 1997, the FCC published a Report and Order on the matter of International Settlement Rates. This order confirmed, with a small number of changes, the original notice and the Commission's determination to impose its own benchmark rates on all calls from the United States.

What the US is proposing

The FCC order came into effect on January 1 1998, with the first target period for US carriers to negotiate rates at or below the settlement rate benchmarks imposed by the FCC starting on January 1 1999. All companies based in the US are legally bound to pay no more than the rates set by the FCC.

Prices would, in many cases, be set at 50 per cent or more below the existing per minute rate. So, while a US operator currently pays on average a foreign carrier $0.35 cents per minute to complete a call, from 1999 it will only pay high income countries $0.15 and other countries either $0.19 or $0.23 per minute, depending on the country (seeTable 3)[15].

Table 3. Rates and transition periods for introduction of Federal Communications Commission (FCC) benchmarks

	Upper Income	Upper Middle Income	Lower Middle Income	Lower Income	Countries with < 1% teledensity
Benchmark Rate	$ 0.15	$ 0.19	$ 0.19	$ 0.23	$ 0.23
Transition Period	One year	Two years	Three years	Four years	Five years

(Source: FCC)

The FCC decided that, in order to give developing countries longer to adjust to the new rates, it would phase benchmarks in according to different countries' level of economic development and teledensity. For this purpose they divided countries up into five categories - upper income, upper middle income, lower middle income, lower income and countries with a teledensity lower than one per cent. The poorer the country, the longer they would be given to adhere to the new rates and the less stringent the rates would be (see Table 3).

The reasons behind the US move

The almost $ 6 billion deficit in accounting rates run up annually by US operators is not the only reason behind US moves to introduce benchmarks. The FCC argues that if all US carriers do not settle at the same accounting rate, a carrier in another country has the power and incentive to set different and higher rates for one or more US carriers to gain an added financial advantage. In effect, the FCC's overall strategy is to create a united front among US suppliers so that a monopoly PTO in a foreign country cannot provide favourable conditions for one US carrier over another by providing it with more profitable terminating traffic in return for other negotiating concessions[16].

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15. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 17.

16. See Chapter F in Telecom Reform: Principles, Policies and Regulatory Practices, edited by William H. Melody, 1997 for an excellent exposition of the FCC's position.

The US does not, therefore, want to scrap the accounting rate system (unlike the European Union) but rather to ensure that it operates within certain limits which are more favourable to US consumers.

The rights and wrongs of the US move

Despite trying to cushion the impact of its new regime with transition periods for poorer countries, the FCC's unilateral move has provoked some irritation from countries and companies all over the world. Below we take a look at the arguments both for and against the FCC's decision. The segmentation of the arguments used here is Panos' analysis and not necessarily that of the FCC.

• FCC CASE N° 1: Accounting rates are an "above-cost" subsidy

The (accounting rate system) is an "ancient, outmoded, pro-monopoly system of settlement payments between countries that has propped up overly high charges to consumers for international calls and led to a huge outflow of money from the US to foreign countries". So said Reed E. Hundt, former chairman of the FCC, when initiating US moves to introduce its benchmark system in 1996.

In effect the current system constitutes an "above-cost" subsidy from US operators, claims the FCC. In particular, it believes that because US operators are providing services at low prices, they are suffering by being forced to pay fixed prices to foreign operators and are thus building up its more than $ 5.7 billion deficit.

THE CRITICS CASE : The US deficit is the result of its own predatory pricing practices

A number of commentators have questioned the basis of the FCC's claim, arguing that a substantial reason for this deficit is the rapid growth of call-back and other alternative calling procedures which all provide substantial profits to US operators. Critics argue that call-back and other alternative calling procedures have been instrumental in enabling the United States to capture an increasing segment of global international traffic over the past decade. According to the ITU, the US share of total international traffic has grown from 21 per cent in 1985 to 28 per cent in

1996. Although the US paid out a net total of $5.7 billion in 1996, the total receipts earned by US carriers amounted to almost $14 billion[17].

Those who raise questions round the US government's position include Dr. Pekka Tarjanne, secretary general of the ITU, who argued in 1996 that :

> *"(The) US settlement payment deficit ... is not all bad for US carriers because the collection charges they collect at home are now much higher than before. Over the past decade, they have increased their share of global traffic ... indeed, it could be said that US companies are largely responsible for engineering this deficit because of their pioneering use of calling cards, country direct services and call-back charges."*

Some critics go further than this, arguing that the US accounting rate deficit, far from being a result of the US providing more competitive services, is a direct result of the predatory and aggressive pricing policies of US companies. According to Maev Sullivan, an independent telecommunications consultant, some companies are deliberately selling below costs in order to attract market share, a practice which she argues constitutes price "dumping" on more vulnerable markets. "(The practise by international carriers of selling below outpayment in order to get market share) was widely practised in the late 1980s and early 1990s", Sullivan argues. "This is a practise (which), if employed in another industry and practised by foreigners, would be described as dumping (selling an 'export' below the price offered in the domestic market in order to buy market share overseas)"[18].

If such claims are true, then the FCC is not introducing more "cost-base" pricing systems but is rather endorsing practices that discourage fair competition. Such dumping practices have indeed been happening, according to the ITU.

"There are ... allegations that facilities based operators in the United States - the location of most call-back providers - are offering wholesale prices to call-back providers at below cost. Many operators have been reducing accounting rates and lowering prices recently to offset call-back usage"[19].

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17. ITU, World Telecommunications Development Report (Chapter 6.2.3), 1996.

18. Maev Sullivan, "Why is the United States whining about its own creation?", Communications Week International, January 20 1997

19. ITU, World Telecommunications Development Report (Chapter 2, Section 2.2.2), 1996.

Critics argue that this practice is specifically encouraged by the FCC's insistence on gaining for US carriers a "proportionate" share of return traffic. This provides US carriers with an incentive to sell outgoing traffic at or below cost in order to gain a higher share of return traffic.

There is little doubt that call-back services are presenting many countries, especially developing countries, with major problems, though they bring enormous gains for consumers. In effect, they are cutting out the profits of operators in developing countries which means that these operators are more dependent on incoming settlement payments to invest in telecommunications infrastructures. Call-back services provide only an indirect contribution to the telecommunications infrastructures of the countries they are making calls from, though it is nonetheless highly valuable because net settlements are paid in hard currency whereas locally-generated revenues may be more difficult to collect.

IN DEFENCE : Call-back is a red herring

The FCC argues that the call-back issue is a red herring and that the US deficit would still be huge without these services. Moreover, the FCC insists that its motives for introducing benchmarks are not driven simply by the size of the settlements deficit itself, but more by the underlying factors of which the deficit is the symptom. They argue that:

"the rapidly escalating net settlements deficit is a serious problem but it is a harmful by-product of a more basic issue - the fact that the current accounting rate system creates economic inefficiencies in the global market for telecommunications services. We are not, as many commenters contend, concerned with the absolute level of US net settlements payments per se or the contribution of settlement payments to the US trade deficit. Rather, we are concerned with the extent to which those payments reflect rates that substantially exceed the underlying costs of providing international termination services"[20].

• FCC CASE n° 2 : Benchmarks will bring benefits to all

The FCC argues that benchmarks will bring long term benefit not only to consumers but to all those companies which currently benefit most from

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[20]. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 16.

the system since it will force them to adapt and become more competitive. According to the FCC:

> *"Contrary to the views of some commenters, it is not the case that accounting rate reform will benefit consumers in the United States at the expense of carriers in overseas markets. Accounting rate reform will allow consumers in all countries to receive higher quality service, more service options and lower rates as accounting rates are reduced to a more cost-based level ... The current accounting rate system suppresses global demand"*[21].

It goes further in arguing that, far from presenting a threat, the FCC proposals represent a necessary step to ensure the survival of carriers which rely on accounting rate revenues.

"It is clear to us that accounting rate reform is essential if carriers that currently benefit from and rely on artificially high settlement rates are to remain viable ... (in the new) market environment, carriers that wish to rely on high settlement rates will likely find that market forces will create incentives for bypass of their high-cost routes"[22].

The FCC also points out the benefits to foreign carriers in that the move is a precondition for enabling them to compete in the United States. According to the FCC :

> "*these commitments will make it much easier for foreign carriers to enter and invest in all US markets for basic telecommunications services"*[23].
>
> *It is clear from these comments that the principal aim of the FCC is to foster a more competitive global environment in telecommunications, an environment which will benefit US consumers and consumers throughout the rest of the world alike".*

THE CRITICS CASE : Introducing competition takes time, transitional arrangements are inadequate and benchmarks could hinder, not help, competition

21. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 5.

22. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 5.

23. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 8.

Several of the companies, governments and other organisations which have commented on the FCC's proposals have pointed out that the introduction of competition even into developed markets had taken several years to achieve. Cable and Wireless, for example, cites the example of the USA, where the introduction of competition took 15 years, the United Kingdom, where it also took around 15 years, and the European Union, which has had timeframes of 12 to 17 years[24]. It is not unreasonable to ask whether, if the timeframe for introducing competition in these wealthy markets (including those in Europe which have had the benefit of substantial accounting rate revenues) has been so lengthy, the much shorter timeframe now being implemented by the FCC is realistic.

This does not address the problem that many developing countries have already committed themselves to introducing competition - some of them by the WTO implementation date of February 5 1998. This is a much more rapid schedule than that experienced by most developed countries (the European Union has the same timetable but has been preparing the groundwork for this since the late 1980s). Given the huge changes which many of these countries are experiencing and the inevitable problems associated with converting to a liberalised system, the FCC benchmark schedules could constitute a harsh additional burden on these countries making the adjustment to competition which the FCC has said that it wants to see.

Arguably, far from encouraging competition, the introduction of the benchmark system may disproportionately affect those developing countries which are introducing competition by making the transitional period that much more difficult. Countries moving towards liberalisation are having to attract substantial foreign investment into their telecommunications companies, often by privatising or semi-privatising former state-owned monopolies. Foreign investors are also often being asked to undertake to fulfil certain universal service obligations as a condition of being granted a licence or as a condition of their bid for former monopolies. The challenge of attracting foreign investment on terms which benefit developing countries to the maximum extent possible is made more difficult if accounting rate revenues which may have formed a substantial contribution to past revenues are to be drastically reduced.

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24. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 77.

IN DEFENCE : It's not about competition, it's about a fair system

The FCC argues that :

> *"the transition periods we adopt here are not intended to be schedules for implementation of competition in other countries. Rather, they are intended to provide some time for carriers in all countries, even those which have not introduced competition, to make the adjustments necessary to transition to a more cost-based system of accounting rates"*[25].

Other commentators, including several from developing countries, agree that the US moves need to be placed in a wider context. Gilbert Adanusa, adviser to the Ghanaian Ministry of Communications, argues that the effect of the reduction in accounting rates will depend very much on how effectively the country succeeds in its privatisation strategy for telecommunications. "The implications will depend on the implementation strategy as on-going privatisation of the telecom sector in Ghana is expected to lead to a reduction in international telecom tariffs in the long-term"[26], he says.

Ghana earned $ 38.7 million from international settlements in 1996, according to Adanusa, and all such earnings were considered revenues for the telecommunications operator and were thus available for investment in upgrading the network[27]. Although this is a substantial source of foreign exchange for Ghana as a whole, Adanusa remains relatively relaxed about the impact of accounting rate reductions.

> *"In Ghana, a reduction in the international accounting rate, unless very dramatic, is unlikely to result in overall reduction in revenues due to a rapid telecom network expansion programme in progress facilitated by privatisation and competition and likely to result in a threefold increase in telephone lines within the next four years"*[28].

Lishan Adam of the UN Commission for Africa concurs, emphasising that the real of the FCC's actions effect on African countries matter less

25. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 77.

26. Personal correspondence with Gilbert Adanusa, September 30 1997.

27. Ibid.

28. Ibid.

than how they respond more broadly to the WTO agreements on liberalisation.

> *"Although the FCC decision is very crucial, economic realities pertaining to costs and call charges are the key driving forces in accounting rates. Entry of many countries into WTO agreements could also make accounting rates somewhat unimportant. African operators that restructure themselves and enter into WTO agreements could have opportunities equal to their counterparts in generating revenue and entry to growing telecoms markets. In Africa, the problem lies in the institutional setting of telecom operators that have already been marginalised. FCC benchmarks could spur some operators to restructure, privatise and allow competition in basic services"*[29].

The FCC can also argue that it has already given efforts to reform the system ample time. As long ago as 1992, the ITU, in its recommendation ITU-T Recommendation D-140, set a five year timetable to achieve accounting rates which should be cost-oriented, non-discriminatory and transparent. No such agreement has been reached (although critics would argue that this could be attributed to US obstinacy).

• FCC CASE n° 3 : Why should foreign carriers subsidise domestic services ?

> *"Most countries, including the United States, have established a subsidy system in which the cost of the domestic network is not borne wholly by the domestic subscribers in all cases", acknowledges the FCC. "We recognise ... that such universal service subsidies are legitimate telecommunications policies. However, we disagree that foreign termination services from certain countries should be required to finance a disproportionate share of networks costs or that foreign carriers should have the ability to impose hidden, discriminator universal service obligations on termination services for foreign originated calls"*[30].

THE CRITICS CASE : How else can developing countries bring telecommunications to the poor ?

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29. Personal correspondence with Lishan Adam, September 18 1997.

30. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 41.

Exactly where can revenue be raised to fund the provision of telecommunications to rural and poorer populations, ask the critics. International traffic recorded as leaving these countries[31] is much less than that coming into it (thus the US accounting rate deficit) and there simply is not a sufficient market in most countries to make sufficient profits out of universal service tariffs on international calls.

The alternative is to increase domestic prices to subsidise less well-off areas but these are already expected to be increased to offset losses caused by the accounting rate reductions. The FCC argues that the benchmark rates still remain well in excess of the cost of terminating traffic but, even if the FCC's data is accurate (which many question), effective reductions of between one third and one half are still huge losses to absorb for countries and companies already struggling to even begin to fulfil demand in their countries.

One argument put forward by some critics is that a fairer way of reforming accounting rates would be to abandon the traditional system of dividing revenues on a 50/50 basis, and to allocate a greater proportion to developing countries (some have suggested a 60/40 split) to reflect the higher costs incurred by many developing countries. Gregory Staple, chief executive of Merrill Lynch, argues that, "If it only costs $ 0.06 a minute or less to land telephone traffic in the US and $0 .20 to $ 0.30 or more in many foreign countries, then asymmetric settlement rates may become the norm. In that case, under the FCC's new cost-based settlement regime, the net settlements received by some foreign carriers may compare favourably with current levels, even as the ratio of inbound to outbound minutes declines"[32].

IN DEFENCE : Developing countries will still benefit in the long term

The main justification used by the FCC in this context is that they believe that accounting rate reductions will, in the long term, benefit developing countries.

> *"In the notice, we acknowledged the argument of some that substantially above-cost settlement rates may be justified because they are used to subsidise network development in lower income*

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[31]. Note that call-back traffic, calling card traffic and country-direct calls are recorded statistically as being outgoing traffic to the country making the call, even though the actual direction of traffic is the opposite.

[32]. Staple, Gregory, (20 March 1997) Global Telephony After the WTO Agreement, paper presented to Telecommunications CEO Conference, Merrill Lynch and Company, Inc.

> *countries. We noted, however, that settlement rate reductions would not necessarily result in a significant loss of revenues for foreign carriers, even those with very high settlement rates. This is because, we stated, bringing settlement rates closer to costs will, in the long run, lead to lower calling prices"*[33].

• FCC CASE n°4 : Benchmarks are the quickest way to reduce rates

The FCC argues that lower accounting rates are inevitable and argues that few defend the current levels.

"Most commenters (those who have commented on the FCC's Notice of Proposed Rulemaking) acknowledge the need for accounting rate reform, even if they disagree with our approach"[34].

Given that decline is inevitable, the FCC argues that it has given multilateral efforts, such as those being negotiated by the ITU, long enough to reach agreement. In the absence of such agreement, the FCC argues that unilateral action is necessary.

THE CRITICS CASE : Competition is the best way to reduce rates

If, as the FCC acknowledges, competition is becoming more intense and the current system is under so many other pressures, why impose over a five year period a unilateral system of reducing them ? Accounting rates have already declined over the past decade and while this decline has not kept pace with falling telecommunications costs, given market liberalisation under the WTO agreement, the rate of decrease can be expected to rise, probably quite sharply.

The evidence exists that market pressures to reduce accounting rates are already having an effect. Recent bilateral agreements between companies in different countries are increasingly being negotiated, for example. In February 1997, AT&T and the Japanese company, KDD, agreed a new accounting rate arrangement between the two companies for which AT&T requested FCC approval. This replaced the existing accounting rate of $ 0.90 cents a minute which was divided in the traditional 50/50

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33. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 63.

34. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 8.

split with a lower, asymmetric rate. KDD would receive $ 0.26 cents per minute for landing traffic in Japan and AT&T would receive $ 0.14 cents per minute for landing traffic in the US[35]. AT&T has made a similar agreement with the Philippines carrier, PLDT. However, because of opposition from other US carriers, very few of these asymmetric rates have yet been implemented.

IN DEFENCE : Competition is not sufficiently widespread to reduce rates quickly

The FCC disagrees with its critics, arguing that :

> *"effective competitive market conditions exist in only a few countries. Monopoly conditions prevail in most. Our experience suggests that in those countries introducing competition in the near future, it will often take time for vigorous competition to create efficient pricing. Under these circumstances, we do not believe we can rely entirely on the market to reduce settlement rates on a timely basis to a more cost based level. We thus believe benchmark rates are necessary to ensure that US carriers achieve settlement rate reductions on a timely basis that will benefit US consumers"*[36].

THE COUNTER-CASE : But you're not relying on the market at all

The problem this raises is that the FCC does not seem to be relying on the market to reduce rates at all, preferring to reduce them through a rigid and fairly arbitrary regulatory process based on US telecoms industry information which is not universally trusted. The FCC's arguments seem to be based on two apparently contradictory assumptions - that competition will always and automatically lead to lower prices; and that international liberalisation and the resultant growth in competition in international services will not reduce accounting rates. In practice, US collection charges have actually risen to some destinations in recent years, despite falls in accounting rates.

• FCC CASE n° 5 : The FCC is well within its legal rights

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35. Staple, Gregory, Global Telephony After the WTO Agreement, paper presented to Telecommunications CEO Conference, 20 March 1997, Merrill Lynch and Company, Inc.

36. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 19.

The FCC argues that it is legally entitled to take these actions under the US Communications Act, 1934 which empower it to :

> *"declare rates and practices to be unjust and unreasonable and to prescribe rates and practices that are just and reasonable"*[37].

Further, the FCC argues that :

> *"By placing a limit on the amount that US carriers can pay for this component, our benchmarks comport with our past rate-making practices under Sections 201 through 205 of the Communications Act of 1934*[38].

The FCC also argues that another section of the Act - Sections 1 and 2(a) - do provide it with jurisdiction over "all interstate and foreign communication by wire or radio ... which originates and/or is received within the United States".

THE CRITICS CASE : You can't just internationalise US law

A number of foreign (to the US) carriers are challenging the FCC's moves in the US courts, arguing that it is exceeding the boundaries of its jurisdiction. According to Robert Aamoth of the attorneys Kelley, Drye & Warren LLP, who are advising a number of foreign carrier associations on the proposals from the FCC :

> "*Many people just don't believe the FCC has the right to do this. (If these rules are enforced) that means carriers are subject to rule-making by hundreds of national regulators"*[39].

As well as KDD, SingTel and Hong Kong Telecom are likely to file suits against the FCC. KDD argues that even if it was prepared to, it is legally unable to comply with the FCC since it would need to secure the permission of the Japanese Ministry of Posts and Telecommunications to renegotiate settlement rates. Much of the concern from companies such as KDD rests less on the specific benchmark rates which the FCC has set and more on the principle that the FCC can unilaterally determine international rates. Although the lowest benchmark rate set by the FCC in its order is \$ 0.15, it argues that the costs incurred by US carriers for

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37. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 11.

38. Ibid.

39. Quoted in Moloney, David, "FCC accused of exceeding jurisdiction", Communications Week International, 8 September 1997.

terminating traffic in the United States is closer to $ 0.06 and in other countries the actual costs, it estimates, is closer to $ 0.09[40]. If the FCC can establish benchmarks of $ 0.15, why could they not establish new benchmarks at $ 0.06 or $ 0.09 ?

Arguably these legal moves distract attention from a more fundamental issue. The international accounting rate rests on a multilateral system. The US is replacing this international and multilateral system by effectively using its own domestic law to determine global accounting rates. According to Professor Jill Hills, director of the International Institute of Telecommunications Regulators at London's City University, this is something that the US has consistently done in the past.

"Historically, the US has refused to be regulated by the ITU and when not able to get its own way within the ITU has resorted to internationalising its own domestic law. The FCC's threat to withdraw from the ITU's system of accounting rates follows this tradition"[41].

The European Union - "an unsustainable system"

This briefing has concentrated heavily on the impacts and arguments surrounding US proposals on accounting rates because so much of the income derived by developing countries from the system originates in the US. Nevertheless, the European Union (EU) is also changing its system dramatically with important and less understood implications for developing countries.

The EU set a deadline of January 1 1998 for the introduction of full competition within the Union. The EU has, as part of this process, decided to abandon the accounting rate system all together for "intracommunity" traffic. The system is, it argues, unsustainable and will be replaced by cost-oriented interconnection charges.

The impact on developing countries with substantial telecommunications traffic with the EU is likely to be substantial, particularly if they have joined the WTO agreement on telecoms liberalisation. A study commissioned by the EU on the impact of these changes is

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40. IB Docket n° 96-261, Report and Order, Federal Communications Commission, FCC n° 97-280, August 7 1997, p. 58.

41. Quoted in Deane, James and Opoku-Mensah, Aida, (1997), Telecommunications, Development and the Market, PanosInstitute.

uncompromising in its conclusions. "For telecommunications traffic with countries that are signatory to the WTO reference paper, financial settlements will follow a similar development as those for intracommunity traffic", it says. "Cost-oriented interconnection charges will replace the accounting rate system. However, accounting rates for traffic with non-signatories will co-exist with interconnect rates"[42].

Some options for accounting rate reform

A number of proposals for potential reform of the accounting rate system are outlined in the ITU's 1996 World Telecommunications Development Report. Although none of them by themselves are likely to replace the current system, a mixture or selection of them may be used by different operators at different times, argues the ITU. They fall into three categories:

Call termination charges

An approach suggested by the OECD, this would be similar to the system used in the public telegram service. Calls would be completed according to a standard rate set by the operator completing the calls and would apply equally to a call originating in Hong Kong or the USA. The rates would be publicly known and developing countries (or operators within those countries) would be able to set their own rates rather than have to negotiate bilaterally. This system would end the principle of the recipient receiving half the revenue from any particular call.

The OECD describes its reasoning as follows : "The recommendations made are based on the principles of transparency, non-discrimination and national treatment. It has been recommended by the OECD that countries adopt a system based on concept of an international traffic terminating fee (an interconnection charge). This fee would reflect the cost of handling international traffic from an international gateway and terminating this traffic within the national network. The fee charged would be the same for all foreign international operators, irrespective of the origin of the traffic. This international access or interconnection charge would be transparent, that is, published; this charge would also be non-discriminatory, that is, the same charge would apply to any operator

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42. "The impact of interconnection on financial settlement arrangements for international telecommunications traffic", Study for the European Commission, Directorate General XIII-A, 1997.

terminating a call within a country, as long as the termination of that call did not incur additional charges than the termination of other calls"[43].

Facilities-based interconnection systems

A system through which the operator originating the call largely determines the cost it will pay to complete it through a system of bilateral negotiation. This works in favour of those which are strongest and there are two main types of such systems : a "sender keeps all" system, where no payment is made to the completing country; this is the system which effectively works through Internet telephony and a system of "international private leased lines" which means that companies lease lines and effectively complete their own calls, thus not having to work through a domestic operator; this would presumably not fall within the WTO's requirements for a transparent and non-discriminatory system.

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43. Committee for Information, Computer and Communications Policy, New Technologies and their impact on the accounting rate system, OECD, 1997.

Volume or value-based payments

A system where the amount paid is dependent on the volume or value of calls sent. The system is dependent on a complex series of bilateral agreements between operators.

WHERE YOU CAN GET FURTHER INFORMATION

For a comprehensive set of documents, analysis, data and commentary, including full texts of many of the documents quoted in this briefing report, see the ITU "international settlements" website at *http://www.itu.int/intset.*

The ITU has commissioned a series of nine case studies which will examine the impact of accounting rate reductions on developing countries. These will be published and presented at the World Telecommunication Policy Forum conference, and will be posted on the web site.