Michigan Journal of International Law

Volume 5 | Issue 1

1984

Private Leased Telecommunication Lines: Threats to Continued International Availabliltiy

Jill L. Martin
University of Michigan Law School

Private Leased Telecommunication Lines: Threats to Continued International Availability

Jill L. Martin*

INTRODUCTION

Restrictions on the availability of private leased telecommunication lines[1] are one of many economic and legal barriers to transborder data flows[2] which foreign countries are imposing. United States leased line users,[3] such as large multinational corporations and government agencies, accustomed to the easy access and sophistication of telecommunications systems in the United States, are encountering troubles abroad.[4] Many nations are beginning to treat information and transborder data flows as national resources to be controlled and exploited, recognizing the potential benefits as well as the dangers of an information age. Japan and European countries are actively developing their own telecommunications technologies, in competition with United States service providers who have long enjoyed international supremacy. Denial of private leased line access to American users thus can be seen from the users' perspective as a barrier to the free flow of information, or from the prohibiting nation's perspective as a necessary tool facilitating national telecommunications strategies.

This article examines both actual and proposed actions by Japanese and European telecommunications authorities, known as Ministries of Post, Telephone, and Telegraph (PTTs),[5] to restrict private leased line availability, and then explores the possibility that these actions presage the total elimination of private leased lines. It concludes that unless the United States government adopts a unified and reasonable policy opposing the escalation of regulations and restrictions, their deleterious effects will become more severe.[6]

* Jill L. Martin is a member of the class of 1984, University of Michigan Law School.

PTT ACTIONS

PTTs have increasingly taken actions to regulate or restrict the use of private leased lines, motivated in part by a desire to increase revenues and to divert telecommunications traffic from private leased lines to government-run public networks. The desires to compete in the international telecommunications market and to develop sophisticated national and regional networks also play significant motivating roles in PTT efforts to retain control over the use of private leased lines. Even if no nation actually abolishes private leased lines, the mere threat of such action negatively affects American users since it creates an uncertain environment in which users are reluctant to expand operations.[7]

Tariffs

One way in which PTTs restrict the availability of private leased lines is by manipulating tariff rates,[8] either by increasing the amount of the tariff or by changing from a flat rate to a usage-sensitive rate system. Although international guidelines (Recommendations) set by the International Telegraph and Telephone Consultative Committee (CCITT) of the International Telecommunications Union (ITU)[9] ostensibly limit the amount nations can charge for continental, international and hook-up services,[10] these Recommendations have not served to limit unilateral tariff increases.[11]

One reason why the Recommendations have not limited tariff increases is that they allow each nation to apply a discretionary multiplication coefficient, "K," to the initial charge to arrive at a user price; the country need not justify the coefficient either by service supplied or cost of the link.[12] When the Recommendations do set limits, they are sometimes disregarded. For example, although nations are permitted to charge a premium on a domestic line when it is connected to an international line,[13] the Recommendations set a limit to this extra charge, and West Germany reportedly disregards this limit.[14]

When a nation implements a public network, CCITT Recommendations provide great flexibility in tariffing, sanctioning an increase in private line tariffs "to avoid harmful competition among the different types of service provided by the organization concerned";[15] they also permit the public network rates to be set very low in order to divert users from private lines.[16] In addition, the CCITT encourages PTTs to apply an "increase factor to the rates of other telecommunication services in the same telecommunication organization which will compensate for the deficit incurred by services run at a loss,"[17] permitting high fees from international connections to be used to subsidize public services such as rural telephony.

Many nations are considering and some have adopted tariff rates based

on amount of use as opposed to a flat monthly rate. While volume-based rates result in higher costs to United States users,[18] they offer significant advantages to PTTs over flat tariff rates. Volume-sensitive rates increase revenues since large-volume users pay more than with flat monthly rates. Volume-sensitive pricing also provides for equal distribution of revenue among the several nations through which a private network passes.

For example, when SWIFT,[19] the interbank clearance network, decided in 1976 to implement a private line packet network rather than continuing to rely on the more expensive telex,[20] the PTTs were unwilling to accept this loss of revenue, and denied service to SWIFT at the established monthly rates.[21] The European Conference of Postal and Telecommunications Administrations (CEPT),[22] the organization comprised of all the European PTTs, imposed a volume-sensitive tariff surcharge, which ensured a more equal distribution of the revenues among the PTTs. Under the flat rate system, the nations where the major switching centers were located (Belgium and the Netherlands) would have received most of the income.[23] Many private line users protested the SWIFT decision, seeing it as a harmful precedent justifying restriction or exclusion of private packet networks.[24]

Volume-sensitive tariffs are also better suited for preventing the unauthorized use of lines which takes place through resale and sharing by users. With volume-sensitive tariff rates, PTTs can monitor the exact flow of data and retain control over use of their lines. In addition, volume-sensitive rates eliminate user incentives to develop faster ways of pushing data through telecommunications lines, thus reducing burdens for which the circuit and network were not designed.[25] In 1972 prices were changed so that the flat rate charge for a private international line used by a single customer became 83 percent of the shared line rate.[26] European PTTs also imposed volume-based pricing as a surcharge on multi-user networks to discourage sharing.[27]

Volume-sensitive rates provide a greater return on investment than flat rates. For example, many new public networks utilize a volume rate, claiming that flat rates do not provide a return on investment sufficient to finance new technological investments which would benefit the public. With flat monthly rates, some large specialized users are, in effect, subsidized by smaller users.[28] Volume-sensitive rates not only boost those domestic users who operate at a competitive disadvantage under the flat rates,[29] but also attract new users who formerly could not afford international data communications with small traffic volumes.

Although few PTTs have implemented volume rates for all telecommunication services, a few countries have taken concrete steps in this direction. Japan's Nippon Telephone and Telegraph (NTT) instituted rates based on transmission speed, and later established a volume-sensitive

service, "Venus."[30] In Europe, both France and West Germany have public networks utilizing volume-sensitive rates. West Germany's Bundespost had announced that it would eliminate private line access upon the inception of its new volume sensitive public service. Although Germany did not eliminate private leased lines, it did restrict private line access by increasing private line rates and imposing other restrictions.[31]

Public Network Takeovers

A second type of restriction on private leased lines results when a nation develops its own public telecommunications network and then encourages or forces private leased line traffic to use this network. Currently Japan, France, Germany, Great Britain,[32] Spain, Austria, and the Nordic nations[33] have instituted public data networks. In addition, the European Communities (EC) have sponsored a continent-wide network, Euronet.

A number of the countries with public networks have moved to incorporate private leased line users into the public network. These public network "takeovers" are motivated by a desire to ensure an efficient and profitable network and to gain direct control over all facets of telecommunications policy. In order to increase traffic on public networks, PTTs either have denied private leased line access or have increased tariffs and restrictions to the point that users switch to the public network. The French "telematique" plan is a good example of this latter technique.[34]

The French plan, which includes selective telecommunications tariffs and regulations such as a tariff on business information,[35] has produced a public value-added network for business customers, TRANSPAC, utilizing packet switching technology and volume-based rates. Due to the high initial investment required by TRANSPAC, the French PTT predictably raised tariffs on private leased lines to match those of the public network,[36] and traffic has shifted to TRANSPAC.[37]

Japan provides a clear example of the control which a telecommunications authority can gain over national and international telecommunications through government planning. Japan has domestic public switched data networks and is linking an international packet switching network with a domestic one.[38] United States users and service providers have faced many problems, delays and refusals regarding leased line access. Thus American service providers and equipment manufacturers vigorously opposed the grant of Federal Communications Commission (FCC) operating authority to the international record carriers (IRCs) for the Japanese "Venus" service because of fears that private leased line service would be eliminated in Japan.[39]

Public network takeovers enjoy popular support in European countries. Not only do local telecommunications service and equipment industries

benefit, but small users who cannot afford to lease private lines gain access to sophisticated telecommunications services. In addition, a greater variety of services are available to users at potentially lower costs.[40]

Popular support for public networks suggests that public network takeovers may increase. If so, the cost of telecommunications services could significantly increase. United States corporations predict that if they are forced into public networks, large cost increases will result from duplication of equipment and loss of efficiency. They also predict a stifling of technological development and a decrease in the quality of computer services.[41]

Other Restrictions

Other restrictions on private leased lines making their use difficult or expensive include imposing local equipment requirements or communications standards which are not compatible with American-made products. Service requirements similarly discourage United States users of private leased lines. For example, Japan has conditioned service on connection with only one computer center in the United States.[42] West Germany now conditions private line availability on utilization of local West German data processing facilities, thus boosting the local data processing industry and forcing companies which cannot afford to relocate processing operations to transfer traffic to the more expensive usage-sensitive services, or to leave the country altogether.[43] Some nations, including the Nordic group, are attempting to restrict business to a single foreign correspondent in the United States.[44]

THE CLIMATE FOR ABOLITION OF PRIVATE LEASED LINES

Although PTTs have taken actions which threaten the availability of private leased lines, there are other factors which work in the opposite direction. The future status of private leased lines will be determined not only by the differing motivations of the various nations, but by larger forces such as the impact and direction of European coordination. The changing balance of telecommunications power and the role played by the United States will also affect what PTTs will do.

European Cooperation

One factor which affects the climate for the abolition of private leased lines is European coordination of telecommunication policy, which can either help or hinder the American users and suppliers. Some developments in

Europe suggest that European coordination may lead to more restrictions on international telecommunications and the possible elimination of private leased lines. For example, the CEPT provides the possibility of united PTT action to eliminate private data networks, as seen in the SWIFT example. In addition, Italy, with the support of some other countries,[45] has urged the CCITT to discourage the introduction of new private leased lines.[46]

Perhaps the most alarming development which seemingly anticipates the elimination of private leased lines has been the establishment of Euronet, a continent-wide network to which American companies have only limited access.[47] Euronet has reportedly excluded computer service companies which are not from EEC countries, and two American vendors of data bases were excluded from Euronet because they used computers located outside of Europe.[48] By using Euronet, nations can avoid reliance on United States telecommunications service providers and revenues, and will be freer to deny private leased line access.

There are signs, however, that some European organizations wish to encourage a "free market system" in telecommunications, and thus continue to offer leased line access. For example, a CCITT Working Party[49] announced that administrations should continue to provide international private leased telecommunications circuits and network service.[50] In addition, the Commission of the European Communities ruled in December 1982 that British Telecom could not continue to prohibit private operators from retransmitting international data.[51] The action of the EC Commissioners to bar this restraint of trade suggests that they might also take action on other restrictive telecommunication policies under the EC antimonopoly laws.[52]

Some observers doubt, however, that the EC antimonopoly laws can serve to eliminate restrictive telecommunication policies since their application to other industries has been successfully resisted by some member nations.[53] Moreover, it is the European Communities which are sponsoring Euronet, a network which is itself a monopoly.[54] Already there are signs that PTTs do not wish to participate fully in the development of Euronet. For example, the CEPT members are now concentrating on bilateral interconnection of public switched data networks.[55] It seems that the PTTs hope to capture international data traffic from private networks *and* Euronet.[56]

Given the conflicting trends for and against restrictive telecommunications policies in the context of European organizations, it is unclear whether or not private leased lines will be abolished. Regional and international cooperation on the part of PTTs is potentially disastrous for American users who desire private leased line access. On the other hand, regional and international action can moderate the more restrictive telecommunications

practices of individual European countries, such as France. Since the major threat to users comes from individual nations acting in their own self-interests, American users would benefit from European solidarity and cooperation which limits unilateral anticompetitive actions. The United States government should thus encourage European free market policies.[57]

Protectionism and National Sovereignty Concerns

A major motivating factor behind PTT restrictions of private leased lines is the desire to prevent the resale and sharing of telecommunications lines, since these practices cause the PTTs to lose revenues and control of line use. The CCITT Recommendations prohibit the sharing or resale of international telecommunications services by users other than government administrations and recognized private operating agencies (RPOAs).[58]

To minimize the loss of revenue and control over lines caused by sharing and resale, and in reaction to violations of CCITT prohibitions by American users, the PTTs want to reduce the appeal of resale and sharing by increasing the applicable rental rates or by taking other steps which might lead to the elimination of private leased lines.[59]

The response of total abolition of private leased lines is arguably authorized under the CCITT Recommendations: "Administrations shall refuse to provide an international private leased circuit when the customer's proposed activity would be regarded as an infringement of the functions of the Administration in providing telecommunications services to others,"[60] and "[i]n the event of a violation of these provisions, Administrations reserve the right to cancel the lease."[61]

According to the Association of Data Processing Service Organizations (ADAPSO), foreign PTTs have consistently held that any user of international private line service who provides any type of telecommunications service—including enhanced services—to others is in violation of national and international regulations, and is subject to penalties such as the discontinuation of service.[62] Hong Kong's Cable and Wireless Ltd.[63] recommended to the CCITT[64] that private line service should continue to be available only to customers "using leased circuits for their own traffic," emphasizing their concern with erosion of public traffic which increases costs to remaining public customers.[65]

Economic protectionism is another motivating factor which lies behind many of the private leased line restrictions. In part, this stems from strong national sovereignty feelings and a desire to avoid reliance on foreign telecommunications or data processing.[66] In addition, some nations fear the effect of new information technologies on domestic employment,[67] while in countries where new telecommunications industries have developed, restrictions are employed to promote the domestic telecommunica-

tions industry. For example, when Japanese users showed a preference for United States-made modems[68] in 1978, Nippon Telephone and Telegraph (NTT) cut incentives to buy the American equipment by raising the rate for bare leased data circuits to that of NTT-operated circuits, which came equipped with NTT-supplied modems.[69]

Reliance on United States Investment

Although desires to gain more control over telecommunications, increase revenues, and encourage domestic telecommunications and data service industries could lead European countries to deny access to private leased lines, other factors suggest that private leased lines will not be abolished. Perhaps the most important factor is that these nations rely on American investment in general, and American investment in telecommunications in particular.

Since PTTs are aware of the possibility that increased tariff rates and other restrictions may force users to abandon private networks, they are less likely to take steps leading to such abandonment to the extent they rely on American investment. Also, because multinational corporations prefer to locate their database and central information processing system in countries with lower leased line charges and reliable service, the United States may attract European business as the divergence in American-European line rates increases. This would, in turn, favor American computer systems and equipment manufacturers at the expense of the Europeans.[70] Although the desire for United States investment may prevent PTTs from totally eliminating private leased line access, it does not seem to be a check on rental rate increases.

Lack of Unified American Voice

The lack of a single policy voice prevents the United States from exerting its political power in the international telecommunications arena, allowing PTT actions to go unchecked. In the CCITT the United States does not present consistent positions on issues, unlike the PTTs, which often unite to pass Recommendations and Resolutions favorable to their interests. For example, American users strongly wish to preserve their flat monthly rates, whereas the IRCs, now involved in providing intercontinental services with volume-based pricing, sometimes share the views of the PTTs.[71]

In the past, a complaint to the FCC was the only means by which American users could protest any aspect of international telecommunications services, including PTT practices.[72] Mandated to serve "the public interest" and bombarded by special interest groups, especially the IRCs, the FCC rarely would take action to eliminate the restrictive effects of

foreign regulations.[73] Although the FCC claims it is committed to ensuring the continued availability of private leased lines, users complain that its infrequent responses frustrate this purported goal.

For example, despite strong opposition to its authorization of volume-sensitive services by computer manufacturers and users, in 1977 the FCC authorized a volume-sensitive public data communications service between the United States and the United Kingdom,[74] and the next year authorized three IRCs to initiate volume-sensitive data services between the United States and Hong Kong.[75] ADAPSO and the Computer and Business Equipment Manufacturers Association (CBEMA) had urged the FCC to condition any new services upon the continuing availability of private leased lines,[76] but the FCC dismissed these concerns, stating in the United States-United Kingdom service dispute that "[t]he Commission recognizes the technical and economical advantages to large volume users inherent in the use of overseas private line services. Such services cannot be curtailed without appropriate authorization pursuant to Section 214."[77] In the Hong Kong case, however, the FCC states that it could control only United States carriers and "could not force foreign correspondents to provide matching halves of particular circuits, or services which we would require the American carriers to provide now, or in the future."[78] Perhaps because of inconsistent FCC actions, the Office of the United States Trade Representative is now more actively initiating negotiations and transmitting users' complaints.[79]

The American government, however, has not maintained a consistent public position on many private leased line issues. For example, a United States position paper to the CCITT in 1978 responding to the Italian delegation's proposal stated: "[i]t is the USA's firm position that leased circuits charged on a flat monthly rental basis remain available to all users who require them."[80] In its Notice of Proposed Rulemaking to deregulate resale and shared use by IRC's, however, the FCC extolls the benefits of usage-sensitive pricing:

> since the elimination of current tariff restrictions on the use of service will lead to greater emphasis on the underlying costs as a basis for setting rates, impetus may be given to the adoption of pricing techniques, e.g., *usage-sensitive pricing,* whereby all users would pay for the actual telecommunications capacity utilized, regardless of the particular application, with the result that the opportunity for arbitrage will ultimately be eliminated. This will give consumers the opportunity to select more accurately the lowest priced service that adequately meets their communications needs.[81]

Not only has United States policy been inconsistent, but at times it is also insensitive to the effects it has on both American telecommunications

users and foreign PTTs. For example, both American and foreign parties have strongly objected to the FCC's decision of August 1982 permitting "enhanced" services to be provided internationally without regulation.[82] The decision applies the *Second Computer Inquiry (Computer II)*[83] principles of deregulation to international services. American multinational corporations, data processing companies and some IRCs oppose the decision. They argue that permitting such "enhanced services" will lead foreign PTTs to stop offering flat-rate leased channel service.[84]

The FCC announced that this international application of *Computer II* does *not* approve *de facto* resale and shared use and that, pending a decision in the international resale proceeding,[85] current IRC tariff restrictions against third-party use are still in force.[86] The PTTs, however, were not reassured by such statements.[87] West Germany threatened strong action if resale and shared use results from the decision;[88] the Director of the CCITT also warned of adverse PTT reactions.[89] The resale controversy is an example of how private leased line restrictions may be used as an economic and political response to American deregulatory policy. The reactions of the Europeans may cause the FCC to reconsider its position on this specific issue, and should cause it more generally to consider, prior to making such decisions, their impact on foreign as well as domestic parties.

CONCLUSION

At present, actions taken by the PTTs and, to a lesser extent, the American government, can strongly affect the availability of private leased lines. Three scenarios are possible: first, the PTTs may refrain from further curtailment of leased line availability as the deregulatory movement spreads and foreign markets open to competition; second, PTTs may increasingly discourage leased line use by employing and expanding current restrictive practices; and third, PTTs which need not rely on private leased line revenues, and with established public networks, may abolish private lines altogether. The second, middle option is most likely since rate increases generate revenues and also help shift traffic to public networks. Even this option could, however, lead to *de facto* elimination of private leased lines, since the effects of these continuing restrictions on American users can be severe.

Indirect effects of private leased line restrictions include restraints on free flow of information and world trade.[90] The direct effects of restrictions are felt in the United States not only by users of private leased lines, but by American equipment manufacturers and service providers as

well.[91] United States telecommunications investments abroad are reportedly declining due to operational uncertainty.[92]

In order to ameliorate this situation, the United States government needs to reconsider its international telecommunications policies, which it seems to be beginning to do.[93] A strong American stance against foreign protectionist measures which restrict private leased line access would greatly benefit users. The United States also needs to clarify its policies regarding competition and IRCs, mindful of the dangers of attempting to impose deregulatory principles on other nations, and with a concern for American users who require international private leased line access. By working with other nations in international organizations and appreciating their concerns, the United States can do much to enhance the growth of international telecommunications, encouraging the participation of all nations while ensuring fair treatment for American users.

NOTES

[1] A private leased line is a communication circuit which is "dedicated," or reserved permanently for a single user, unlike switched circuits which service many users. "Public network" refers to a government-operated system. Computer data is now transmitted by satellite, as well as by terrestrial line and submarine cable; the term "private line" encompasses all methods. The three primary means of international data communication are leased lines, the switched telephone network, and special purpose data transmission lines, of which leased lines are the most important. Chamoux, *Economic Considerations on International Communications*, in *Policy Implications of Data Networks in the OECD Area* 140, 141 (OECD series on Information Computer Communication Policy 1980) [hereinafter cited as POLICY IMPLICATIONS]. *See generally* Eger, *Emerging Restrictions on Transborder Data Flows: Privacy Protection or Non-Tariff Barriers?*, 10 LAW & POL'Y INT'L BUS. 1055 (1978).

Government telecommunications monopolies (PTTs) (*see infra* note 5) began leasing their telecommunications lines at flat monthly rates as computer technology advanced and users desired access to lines, with PTTs unable or unwilling to develop adequate public services. When it became clear that the bulk of data transmission was via private leased lines (rather than public telephone systems) the PTTs became alarmed, fearing a loss of control and revenue through transborder data flows, and began efforts to curtail or discourage the use of private lines. Technology and equipment have now advanced so that administrations can operate sophisticated public networks, creating competition for and threatening the existence of private leased lines.

[2] This article is limited to computer-generated data flows, as distinct from TELEX, voice telephony, or video. The definition offered by Eric Novotny is easily understood: "Transborder data flows are units of information coded electronically for processing by one or more digital computers which transfer or process the information in more than one nation-state." Novotny, *Transborder Data Flows and International Law: A Framework for Policy-Oriented Inquiry*, 16 STAN. J. INT'L L. 141, 143-4 (1980) [hereinafter cited as Novotny, *Framework*]. *See generally* Novotny, *Transborder Data Flow Regulation: Technical Issues of Legal Concern*, 3 COMPUTER/LAW J. 105, 110-12 (1981).

[3] More than 3,500 international private line circuits are being leased by the U.S. government and multinational private businesses. ADAPSO statement in 48 TELECOM. REP., Sept. 27,

1982, at 5. The public sector is a large user of international lines, *e.g.*, police networks (Interpol), security systems (NATO), technical cooperation systems (weather, medical research, etc.). Shickich, *Transborder Data Flow*, 11 LAW & COMPUTER TECH. (1978), *reprinted in*, CS 50-815 SYSTEMS MANAGEMENT 101, 102 (1979).

The major United States users from the private sector are banks, multinational corporations, and computer service companies. Many multinational corporations rely on computer data transmissions in controlling production, distribution, finances, and personnel. Their information systems are in some cases organized around distributed processing networks, but more commonly involve a concentrated computing center in the home country which serves satellite branches. *Id.*

G.E. (Mark III), Control Data Corporation (Cybernet), Computer Science Corporation (Infonet), Tymshare, Inc., and Tymnet are large networks offering services such as data processing and message switching. Data processing involves a transformation or manipulation of the data into a superior form, unlike mere data communications. Private data networks combined with data processing "service bureaus" create "value-added networks" such as SBS and XTN in the United States. *Id.* at n.45.

[4] Information-intensive industries are suffering most from high tariffs on private lines. These include direct mail companies, travel and entertainment industries, insurance and employment services, and banking firms. Novotny, *Framework*, *supra* note 2, at 155. In several of these areas, members of an industry have combined to form multi-user leased-line networks: SITA (Societe Internationale de Telecommunications Aeronautiques) for airline reservations and SWIFT (Society for World Interbank Financial Telecommunications), the interbank clearance network, are examples.

Computer service companies, such as data processing systems and remote computing companies, are rapidly growing but face substantial barriers to international growth in nations restricting transborder data flows.

[5] Most nations have government-owned monopolies which control telecommunications. The Japanese counterpart of the European PTT for domestic service is Nippon Telephone and Telegraph (NTT), a central communications authority which is the domestic carrier and largest supplier of computer services in Japan. International service in Japan is provided by a separate private corporation, Kokusai Kenshir Demva Co., Ltd. (KDD). The Ministry of Posts and Telecommunications oversees both.

[6] Underlying the arguments of both sides of the debate over the desirability of restricting access to private leased lines are fundamental differences in economic and political theory. Principles of equality clash with efficiency, the welfare state with free enterprise and *laissez-faire* principles, regulation with open market competition, and national sovereignty with international cooperation. These differences will be discussed only briefly as they relate to the specific issues raised in the text, but their fundamental importance should not be forgotten.

[7] *See infra* notes 88-91 and accompanying text. *See generally*, Feketekuty, *Restrictions on Trade in Communication and Information Services*, this volume.

[8] European private leased lines are unduly expensive. Hughes and Sasson, *The Usage of International Data Networks in Europe*, in POLICY IMPLICATIONS, *supra* note 1, at 30. The annual line rentals for the networks studied by these authors in 1977 varied from 100,000 to 500,000 dollars, and the total cost of operating a private network was between twice and five times the line rental amount. *Id.* John Eger, former director of the Office of Telecommunications Policy, stated in 1978 that the PTTs "price their facilities at rates and schedules that are prohibitive for the development of private or user-controlled data networks." Eger, *supra* note 1, at 1080. The most widely-discussed problem among international data transmission specialists is now the problem of costs. Chamoux, *supra* note 1, at 151. *See also* HOUSE COMM. ON GOVERNMENT OPERATIONS, INTERNATIONAL INFORMATION FLOW: FORGING A NEW FRAMEWORK, H.R.

Doc. No. 1535, 96th Cong., 2d Sess. 13-14 (1980) (citing examples of "excess and discriminatory tariff and pricing practices") [hereinafter cited as INT'L INFO. FLOW].

U.S.-based corporations accustomed to uniform domestic rates express surprise at the disparities in private line tariff rates among European countries, and at the private circuit rates themselves, which are much higher than prices for comparable services in the U.S. Reasons for the higher European rates include the monopoly position of the foreign carrier and the dependence of some governments on their telecommunications revenues. *Telecommunications and Information Industries—International Trade Role: Hearings Before the Subcomm. on Telecommunications, Consumer Protection and Finance of the House Comm. on Energy and Commerce*, 97th Cong., 1st Sess. 157 (1981) (statement of B.C. Burgess, Director, Telecommunications Regulatory Policy, Bank of America) (hereinafter cited as *Telecommunications Hearings*). It was noted that the 1972 Eurodata revealed that there are ten times as many remote data terminals in the United States as in Europe, and that "[o]ne can wonder if it is a complete coincidence that the price charged for data communications facilities in the U.S.A. is approximately one tenth of that charged in Europe." L. Smulian, Commission of the European Communities, 1975 OECD Computer/ Telecommunications Policy Conference, *quoted in* Gassman, *New International Policy Implications of the Growth of Transborder Data Flows*, in TRANSBORDER DATA FLOWS AND THE PROTECTION OF PRIVACY 51, 59 (OECD series on Information Computer Communication Policy 1979).

9 The ITU is a permanent organ of the UN, with 153 current member nations. The CCITT, one of its consultative committees, meets in plenary assembly to approve Recommendations and Regulations, the most recent of which appear in CCITT, *General Tariff Principles*, in ISDN STUDY (1981) [hereinafter cited as YELLOW BOOK], published following Plenary Assembly VII in 1981, Geneva. The *Orange Book*, 1977, contains the prior rules. Study Group III is responsible for tariff principles, which appear in Series D of the Recommendations, Volume II.1.

10 PTTs establish their own monthly rates and share of the rates charged for intercontinental circuits. CCITT Rec. D.3 §§ 1.2, 2.1, in YELLOW BOOK, *supra* note 9. CCITT Rec. D.3 § 1.3 states that intercontinental rates should reflect, among other factors, the cost of providing the service and the need to harmonize leased circuit charges with corresponding public service rates.

U.S. intercontinental communications operate through international record carriers (IRCs), which contract with individual PTTs. The IRCs are "Administrations" for CCITT purposes. "Administration" refers to both telecommunications administrations and recognized private operating agencies (RPOAs). CCITT Note, in YELLOW BOOK *supra* note 9, at VII. To date the authorized IRCs are RCA Global Communications, Inc., ITT World Communications, Inc., and Western Union International, Inc., which are the three largest, plus TRT Telecommunications Corp., FTC Communications, Inc., and U.S.-Liberia Radio Corporation.

International record carriers originally handled all "record" communications (data, telegraph, facsimile) as opposed to voice communications, from and to the few authorized U.S. gateways. *See* In re International Record Carriers Scope of Operations, 76 F.C.C.2d 115 (1980) (Federal Communications Commission authorized IRCs to use additional cities as gateways). AT&T was restricted to voice services, and Western Union provided domestic record services.

The oligopoly of the IRCs authorized by the FCC to provide overseas record service was initially protected from price competition, and the IRCs were required to charge identical tariffs. Chamoux, *supra* note 1, at 151. Now, however, the FCC is pursuing a deregulatory policy and encouraging a competitive market, predicting better and cheaper telecommunication services for the public. The FCC has authorized the IRCs to compete in the domestic market, and has allowed their customers to send voice communications and AT&T customers to send record communications. *See* Markoski, *Telecommunications Regulations Barriers to the Transborder Flow of Information*, 14 CORNELL INT'L L.J. 287, 289-93 (1981). Although the IRCs are regulated by the FCC, this agency exerts no meaningful influence over tariff rates, given its lack of power over foreign correspondents and its current deregulatory mood.

11 After an extensive study, Prof. Chamoux concludes that "the principles on which international leased line tariffs are determined are far too complex to be properly understood by the general public," and that "these tariffs produce anomolies which the businessman, accustomed to some basic minimum of economic reasoning, finds difficult to accept." Chamoux, *supra* note 1, at 146. CCITT Rec. D.2 sets a rental basis of 9,000 minutes per month for continental telecommunications circuits. Rec. D.2, § 1.2, in YELLOW BOOK, *supra* note 9. Point-to-point transmissions and single-user private networks are charged at the lower rate of 7500 minutes.

12 *See* Chamoux, *supra* note 1, at 148. This coefficient can be between 1 and 1.8 for transborder data flows within the same continent. CCITT Rec. D.2, § 1.2, in YELLOW BOOK, *supra* note 9. *See* Rec. D.300 R, Section 3.3, on "factor K" for telephone lines.

13 Chamoux, *supra* note 1 at 141-44; Eger, *supra* note 1 at 1080, citing 1978 statistics of Louis Pouzin that the cost per mile of a European leased telephone line was three-to-five times higher for international links than for domestic ones.

14 The maximum tariff recommended for the national extension is twenty gold centimes. CCITT Rec. D.300 R, in YELLOW BOOK, *supra* note 9. Germany's Bundepost (the telephone utility) has refused to comply with this limit. Chamoux, *supra* note 1, at 148. Although the Recommendations are not binding, they are followed faithfully when there is strong necessity for cooperation. Such is the case with technical standards, for which the CCITT sets interconnection specifications. The complex system of accounting between nations for transborder telecommunications is also largely followed.

15 CCITT Rec. D.5, para. 2, in YELLOW BOOK, *supra* note 9.

16 "[F]or political or social reasons the rates for certain services may be so arranged that they do not cover all the costs involved." *Id.* at Rec. D.5, para. 1.

17 CCITT Rec. D.5 states that the income from the totality of services provided should cover all costs, and that "for political or social reasons . . . the overall balance in the telecommunication services required should be achieved by applying an "increase factor" to leased line rates in order to subsidize public services. *Id.* at Rec. D.5, para. 2.

18 Volume-based rates are said to favor small and infrequent users, such as local European users, and harm the large-volume users such as U.S. multinational corporations and data service networks; this technological improvement is thus seen as serving the goals of the PTTs. *See* Hirsch, *Italian Connection: Tariffs Based on Volume Worry U.S. Companies,* 24 DATANATION 194 (1978); Gassman, *supra* note 8, at 58. Many users prefer increased flat monthly rates to the imposition of volume-based rates. Some large users, however, would welcome volume-based rates as a reasonable alternative to the total elimination of private lines. *See* Eger, *The Global Phenomenon of Teleinformatics: An Introduction,* 14 CORNELL INT'L L.J. 203, 220 (1981) [hereinafter cited as Eger, *Global Phenomenon*], especially as recently-increased flat monthly rates approach the costs of volume based tariffs. Allen & Tenkhoff, *An Overview of Transborder Data Flow Issues: Report of the AFIPS Panel on Transborder Data Flow,* 1 TRANSBORDER DATA FLOWS: CONCERNS IN PRIVACY PROTECTION AND FREE FLOW OF INFORMATION 27 (R. Turn ed. 1979) (hereinafter cited as AFIPS REPORT).

Several commentators claim that volume-based rates need not necessarily harm users. In fact, technological improvement in the computer field may enable large users of international leased lines to avoid much of the impact of volume-sensitive rates. Users could install "data compression equipment capable of decreasing the bits actually transmitted to a point where the charge for each message sent . . . was less than . . . under the present flat-rate pricing scheme." Hirsh at 195. Commentators Pool and Solomon claim: "volume-sensitive rates are likely to end up being good for the computer industry, less good for telecommunications equipment manufacturers, and no better for the carriers who will carry less traffic at higher returns per bit . . ." while costs for large users will probably "end up as no different once [the users] have gone through the trauma of a major change." Pool and Solomon, *Transborder*

Data Flows: Requirements for International Co-operation, in POLICY IMPLICATIONS, *supra* note 1, 79 at 107. In the short term, however, this "trauma" is not easy for the users to accept.

19 SWIFT services the international payments and financial data needs of 239 member banks of the United States, Canada, and Europe.

20 With a private network, a company's cost of transmission is much less than when using international telex. The Hughes and Sasson study, *supra* note 8 at 30, shows transmission costs of one to ten cents for 1,000 characters transmitted by private network, as compared with sixty cents for international telex in Europe. Also compared are proposed tariffs for several public networks, of approximately 1 cent per 1,000.

Packet switching breaks down a stream of data into packets which can be sent by different routes to a destination. CCITT Recommendation X.25, YELLOW BOOK, *supra* note 9, provides standards for packet switching networks. *See also* YELLOW BOOK, *id.* at Recs. X.3, X.28, X.29, X.75.

21 Pool and Solomon, *The Regulation of Transborder Data Flows,* 3 TELECOM. POL'Y 176, 190 (1979). The new SWIFT rates were predicted to increase the cost of intra-European bank communications by a factor of four and transatlantic message costs by a factor of ten. Hirsch, *supra* note 18, at 197; Bigelow, *European Users Demand Changes in Telecommunications,* 5 COMPUTER L. SERV. (Callaghan), § 9-6, at 3.

22 The CEPT is the twenty-six member body of European PTTs governed by a biennial plenary conference and two permanent commissions. It provides a bloc of European solidarity to the ITU, and was very active, in conjunction with the EEC, in planning Euronet. *See* Delchier, *The European Conference of Postal Telecommunications Administrations (CEPT) and the Development of Data Networks,* in POLICY IMPLICATIONS, *supra* note 1 at 160. Its interests may now be conflicting with those of Euronet; *see infra* note 47 and accompanying text.

23 Bigelow, *supra* note 21, at 1, 3. *See* Markoski, *supra* note 10, at 298-99.

24 Pool and Solomon, *supra* note 18, at 107. For example, the PTTs decided to apply the new volume-sensitive rates to other specialized multi-user networks also, such as the Societé Internationale de Telecommunications Aeronautiques (SITA). Lamond, *The U.K. Telecommunications Monopoly,* 3 TELECOM. POL'Y 209, 214-15 (1979). The Italian delegation at the 1977 CCITT meeting in Geneva proposed imposing volume-sensitive pricing not only on the specialized service networks but on all private leased circuits, including single-users. CCITT Study Group III, Rates for Private Leased Circuits, Doc. Com.-No. 6-E (Feb. 1977) (Italian Administration). *See* Markoski, *supra* note 10, at 302-04.

25 Larsson, Summary of Session 1, *Discussion of Areas of Concern and the Need for OECD-Wide Consultation,* in POLICY IMPLICATIONS, *supra* note 1, at 190.

26 Hirsch, *supra* note 18, at 197.

27 *E.g.,* the SWIFT decision, *see supra* note 19 and accompanying text.

28 Larsson, *Introduction, Data Network Plans and Developments,* in POLICY IMPLICATIONS, *supra* note 1, at 23.

29 In determining the "increase factor" which may be applied to leased line rates in order to subsidize public services, the CCITT states that "the value of the service rendered to the user should be taken into consideration." CCITT Rec. D.5, para. 2, in YELLOW BOOK, *supra* note 9.

30 For background on "Venus" and the dispute before the FCC over the U.S.-Japan service, see Feldman and Garcia, *National Regulation of Transborder Data Flows,* 7 N.C.J. INT'L L. & COM. REG. 1, 4-7 (1982).

31 Sanger, *Waging a Trade War over Data,* N.Y. Times, Mar. 13, 1980, at 1F, col. 2. The article reports that private leased line rates will increase 600 percent by 1988.

32 *See* Reid, *Prestel, the British Post Office Viewdata Service,* in POLICY IMPLICATIONS, *supra* note 1, at 40. *See also* Hughes and Sasson, *supra* note 8, at 30, for information concerning the new EPSS international public data network.

33 The Nordic Public Data Network is an international value-added network (like Euronet). Recently, interconnection between West European public networks and Eastern European socialist countries through the International Institute for Applied Systems Analysis has expanded the "transnational telecommunication infrastructure." UNESCO Commission on Transnational Corporations, 7th Session, Transnational Corporations and Transborder Data Flows: An Overview, Report of the Secretariat at 8, U.N. Doc. E/C.10/87 (1981).

34 The term "telematique," which describes the convergence of telecommunications and data-processing technologies, was first used by Simon Nora and Alain Minc in their influential report, *L'Informatization de la Societe* 17 (1978). This report provided the underpinnings for France's telecommunications development plan. Eger, GLOBAL PHENOMENON, *supra* note 18, at 206 n.12.

35 Eger, GLOBAL PHENOMENON, *supra* note 18. Eger states that this will allow the French to gain an important economic advantage over the U.S. in the information market, even though some of these schemes are "unlikely to crystallize in any real sense . . . in the near term." ISSUES IN INTERNATIONAL INFORMATION, WORKSHOP PROCEEDINGS II, 48 (Media Institute ed. 1982) (statement of John Eger, V.P., Strategic & International Development, CBS, Inc.), [hereinafter cited as WORKSHOP].

36 As predicted by Lamond, *supra* note 24, at 213-14. Tariffs must be set high to enable a packet switching network to break even at low volume.

37 *Telecommunications Hearings, supra* note 8, at 157.

38 Oka, *Data Network Developments and Policies in Japan* in POLICY IMPLICATIONS, *supra* note 1, at 61. The domestic networks include circuit switching and packet switching. *See also* Pool and Solomon, *supra* note 18, at 88; Feldman and Garcia, *supra* note 30 at 4.

39 Feldman and Garcia, *supra* note 30 at 3-7, relates the troubles of Tymshare and Control Data in gaining access to leased lines in Japan. The FCC ordered commencement of the volume-sensitive service (Venus) on a temporary basis and has continued to grant extensions. *Id.* at 6.

40 D.W. DAVIES, D. BECKER, W.T. PRICE, and SOLOMIDES, COMPUTER NETWORKS AND THEIR PROTOCOLS, 23-26 (1979) [hereinafter cited as DAVIES]. Public networks can also provide access to a variety of other new users, as communication becomes vital between increasingly interdependent nations. Given the engineering economies and more enforceable standards of public networks, public networks may be able to offer better performance. *Id.*

41 48 TELECOM. REP. No. 39, at 6 (1982); *Telecommunications Hearings, supra* note 8, at 61, 86 (prepared statement of Geza Feketekuty); Markoski, *supra* note 10, at 307 (ADAPSO petition). A stifling of the development of remote access computing services is also predicted. Markoski at 300 n.62.

Since a public network balances many competing needs, its users must sacrifice the highly valued individualized control and flexibility which private leased lines provide and which make possible technological innovations and sophisticated systems. *Id.*; Hirsch, *supra* note 18, at 198.

42 See Feldman and Garcia, *supra* note 30, at 4 and n.13, regarding restrictions imposed on Control Data and Tymshare. Control Data reports a $33,000 monthly charge for its U.S.-Tokyo private leased line, which operates at only 10 percent capacity due to Japanese restrictions. Block, *Transborder Data Flows: Barriers to the Free Flow of Information*, 28 INFOSYSTEMS No. 9, 108, 110 (1981).

43 Markoski, *supra* note 10, at 317-19. Regulations were announced in 1978, to become effective January 1, 1982, requiring in effect that remote access data processors could not do business in Germany unless they performed data processing there, and international leased lines are available only under guarantee that they are not used to transmit unprocessed data to foreign telecommunications networks. TELECOMMUNICATIONS HEARINGS, *supra* note 8, at 87, 89 (prepared statement of Geza Feketekuty, Assistant U.S. Trade Representative) and at 157

(statement of B.C. Burgess); Eger, GLOBAL PHENOMENON, *supra* note 18 at 221; Feldman and Garcia, *supra* note 30, at 7-8.

44 The five Nordic nations requested bids from seven U.S. IRCs for provision of enhanced data services under an exclusive agreement. The IRCs complied with the FCC request to defer bidding pending review and formulation of U.S. government response. 48 Telecom. Rep. 39, 3-5 (1982).

See Friedan, *The International Application of the Second Computer Inquiry*, this volume, for an explanation of how FCC application of *Computer II* internationally will lead PTTs to restrict the number of foreign correspondents. The U.S. Congress attempted to secure access to foreign locales for carriers without operating agreements with PTTs by enacting the Record Carrier Competition Act of 1981, Pub. L. No. 97-130, 95 Stat. 1687 (1981). See 47 U.S.C. § 222(c)(1)(A)(i) (Supp. V 1981), which requires record carriers to make interconnection available to other carriers on request, and § 222(c)(1)(A)(ii) which guarantees a right to a distribution of inbound traffic proportionate to the volume of outbound traffic generated.

45 CCITT Study Group III, Rates for Private Leased Circuits, Doc. COM III-No. 6-E (Feb. 1977) (Italian Administration) cited in Eger, *Global Phenomenon, supra* note 18, at 219 n.82.

46 The provision was ultimately rejected. *Id.* at 219, n.83. The idea of restricting private leased line access may appeal to nations solely because *US* entities are major users of these lines. Third-world countries have charged the US with "electronic colonialism." European nations cooperate and share technological developments with third-world countries in the ITU in an effort to challenge the position of the US in telecommunications. The Intergovernmental Bureau of Informatics (IBI), which was established in 1961 under UN auspices by an International Convention, has been increasingly active in efforts to change the distribution of power and resources in the telecommunications field in favor of developing nations.

47 The European Community (EC) sponsored Euronet which opened in 1979 under the implementation and planning of the nine EEC PTTs and Switzerland. Whyte, *Uncharted Waters for Telecommunications*, 49 TELECOM. J. 239, 242 (1982). The Commission of the EC was formally responsible for execution of the plan, while the Council of Ministers and the Parliament shared authority over the budget. Anderla, *The Impact of Euronet and its Related Developments*, in POLICY IMPLICATIONS, *supra* note 1, at 168. The Commission of the EC plans to extend Euronet throughout and beyond Europe, interconnecting with other networks. Remarks by S. Weinstein (American Express Corporation) at Transborder Data Flow Seminar (Feb. 11, 1982), *reprinted in* NEW TECHNOLOGY AND TRANSBORDER DATA FLOWS 2. According to one spokesman, Euronet serves "[European] host computers at $5.00 per hour, whereas our customers are charged $20.00-$30.00 per hour to access our service by local PTTs." INT'L INFO. FLOW, *supra* note 8, at 14 n.19 (quoting a letter from R. Summit, Director, Information Systems, Dialog Retrieval Service). *See generally* Ramsey, *Europe Responds to the Challenge of the New Information Technologies: A Teleinformatics Strategy for the 1980's*, 14 CORNELL INT'L L.J. 237 (1981).

48 Feldman and Garcia, *supra* note 30, at 7 n.32; Markoski, *supra* note 10, at 319 n.158.

49 The CCITT has specialty committees called "Study Groups" which are further broken down into "Working Parties" which develop proposals.

50 The group concluded that the Telegraph and Telephone Regulations require the provision of leased channel service. CCITT Study Group III, Report on the Meeting Held in Geneva From 1 to 3 May, 1978, Doc. COM III-No. 51-E, at 4, ¶ 1.1.2 (July 1978) (Working Party III/1), cited in Markoski, *supra* note 10, at 309 nn.108-09.

51 25 O.J. Eur. Comm. (No. L360) 36 (1982) (Decision of the Commission of the European Communities). The Commission held that the British Telecommunications prohibition on retransmission was an abuse of a dominant position, in violation of Article 86 of the EEC Treaty.

52 Commentator Thomas Ramsey suggested that the European Community might take action against PTTs for anticompetitive practices violative of the Treaty of Rome. Ramsey

notes that while the European Community's efforts with Euronet have been successful, their regulation of anticompetitive practices has been less so. Ramsey, *supra* note 47, at 273-83.

53 Ramsey, *supra* note 47, at 263-4.

54 A proposal of the EC Commission in 1980 set down four objectives for the European information service market, the first of which entails transferring Euronet management from the EC to the individual PTTs, under continuing control and financing from the Commission. *Id.* at 258.

55 CCITT Rec. X.75 has proven useful in setting a standard for interconnection. *See* YELLOW BOOK, *supra* note 9.

56 *See* Weinstein, *supra* note 47, at 2; Euronet DIANE News No. 25, Dec. 1981, stating that "Euronet will become increasingly redundant as the interconnections take place."

57 Several individual nations are also leaning towards a free market telecommunications system. U.S. deregulatory efforts are slowly being imitated in several nations, and this may diminish the threat of private leased line abolition. For arguments supporting foreign deregulation see Lamond, *supra* note 24; Muller, *Potential for Competition and the Role of PTTs*, 5 TELECOM. POL'Y 18, 22-23 (1981).

Commentator William Fishman feels that the PTT monopoly position "will erode over time, largely under the pressure of the American example." *The New Information Age: Emerging Legal and Policy Issues* 29 (Media Institute, 1982) (statement of William Fishman, former Chief Counsel, NTIA, Dept. of Commerce). He says the United Kingdom is "moving slowly, painfully in the direction of opening the market." *Id.* at 29-30.

The British Parliament has already selectively deregulated the British telecommunications industry. The new British Telecommunications Act of 1981, Ch. 38, transferred telecommunications services from the British Post Office umbrella to the exclusive control of British Telecom (BT). The Act also gives the Secretary of State wide powers to erode the BT monopoly by licensing parallel competing networks. Whyte, *supra* note 47, at 240. The first independent carrier, Mercury Communications, Ltd., has now been licensed, and British Telecom International (BTI) has announced that Mercury is permitted to provide private leased international circuits to business customers. BTI will remain responsible for all overseas telecommunications arrangements, however. 48 TELECOM. REP. Dec. 27, 1982, at 39. *See The Future of Telecommunications in Britain*, Cmnd. 8610, Dept. Industry, July 1982 (statement in Parliament (HC) by Sec. of State for Industry, Patrick Jenkin, announcing the government's policy of liberalization of telecommunications and plans to end BT's monopoly); *Telecommunications Hearings*, *supra* note 8, at 158 (statement of B.C. Burgess).

Sweden recently liberalized its PTTs' rules, and similar deregulatory pressures have been noted in Japan, Germany, Australia and the Netherlands. *Id.* Burgess noted that these movements are "spurred by U.S. experience" and that the "progress of U.S. deregulation will be closely scrutinized abroad."

58 "Private leased circuits may be used only to exchange communications relating to the business of the customer," and if the circuit is used to route communications "from (to) one or more users other than the customer, these communications must be concerned exclusively with the activity for which the circuit was leased." CCITT Rec. D.3, § 1.7 in YELLOW BOOK, *supra* note 9. Channels leased from a telephone-type circuit must not be sub-leased, *id.*, § 1.8, and data processing customers "shall not be permitted to operate in the manner of an Administration by providing telecommunications services to others, *id.* at § 7.3(d).

59 See *supra* notes 8, 11, for example of increased tariffs.

60 CCITT Rec. D.1, § 1.10, YELLOW BOOK, *supra* note 9.

61 *Id.* at § 1.12. Thus a resale/shared use violation could justifiably trigger such a response. Recommendation D.1 also provides that Administrations may take "all steps . . . to ensure that the provisions governing the lease of international circuits are respected." *Id.* at § 1.11.

62 48 Telecom. Rep., Sept. 27, 1982, at 5.

63 Cable and Wireless Ltd. is Hong Kong's recognized private operating agency.

64 This recommendation was in the form of a "contribution" to a Study Group of the CCITT. CCITT Study Group III, Rates for Private Leased Circuits, Doc. III No. 30-E (Dec. 1977) (Cable and Wireless Ltd.) ¶6, as cited in Markoski, *supra* note 10, at 303 nn.76-7.

65 *Id.* at ¶4.

66 *See supra* text accompanying notes 13-15 for a discussion of PTT actions manipulating tariff rates of private lines to protect public networks.

67 *See* Ramsey, *supra* note 47, at 241-43.

68 A modem, or "modulator demodulator," converts digital forms into signals suitable for transmission and receives signals, converting them back into digital form. DAVIES, *supra* note 40, at 469.

69 *Telecommunications Hearings, supra* note 8, at 101 (statement of Donald Lehrman, General Datacom Industries).

70 Lamond, *supra* note 24, at 214-15.

71 In the current debate over whether rates should reflect carrier costs or the value of the service to the customer, the FCC has agreed with the users' argument that rates based on costs result in competition and technological innovation to the benefit of the public. Pool and Solomon, *supra* note 18, at 106. Proponents of volume based rates claim these benefits for *their* system.

72 Users can complain to the FCC only when an IRC is before the Commission for some reason, such as when petitioning for approval for new lines or services as required by 47 U.S.C. § 214 (1976).

73 Markoski, *supra* note 10, at 319. Markoski states that:

> One commentator has suggested that users are generally reluctant to lodge complaints against a PTT "for fear of the impact which any reprisals by a PTT, or group of PTTs, would have on their business operations and on their revenues. Of course, any director general of a PTT would be horrified at the suggestion that his or her organization might retaliate against a complainant—but if one knows the labyrinthine workings of a typical European PTT, one also knows that there are a multitude of subtle ways in which a major corporation's international telecommunications operations could be hindered, harassed or otherwise disrupted without any obvious or overt sign, of retaliation. TELEPHONY, Jan. 26, 1981, at 73.

Markoski, *supra,* note 10 at 319 n.157.

74 Markoski, *supra* note 10, at 299-302. In addition to a fixed monthly rate, usage-sensitive charges would be imposed based on the number of characters transmitted and the message duration. *Id.* at 299 n.53.

75 *Id.* at 305-11. The IRCs were RCA Global, ITT World Communications, and WUI.

76 *Id.* at 299-302, 306. These two organizations raised the same objections in opposing the Japanese "Venus" service. Feldman and Garcia, *supra* note 30, at 5.

77 Graphnet Systems, Inc., 63 F.C.C.2d 402, 410 n.9; *see* Markoski, *supra* note 10, at 301.

78 ITT World Communications, Inc. Western Union International Line, Inc., RCA Global Communications, Inc., FCC File Nos. I-T-C-2664-2, I-T-C-2658-2, I-T-C-2657-3 (released July 12, 1978) (Memorandum Opinion, Order, and Authorization) at 11, 12 n.7 [hereinafter cited as *Hong Kong Order*] as cited in Markoski, *id.* at 310 n.111; Feldman and Garcia, *supra* note 30 at 6 n.31. Markoski states that the issue was moot by this time; GE was granted its private line circuit prior to the FCC's decision, and the CCITT Study Group III Working Party's Report in 1978 stated that private leased line service must be made available by PTTs and RPOAs. Markoski, *supra* note 10, at 309-10. The decision did, however, state the FCC's policy at the time. *See id.* at 310-11, noting that the reluctance of the FCC to exert leverage over foreign correspondents was a departure from earlier decisions.

79 This role is most important when issues have important overlapping trade repercus-

sions, as is often the case with Japan, the leading challenger to the U.S. for its preeminent telecommunications position. Markoski suspects that users will be disinclined to utilize the O.T.R. because of its political role: "negotiations (initiated by the Trade Representative) might be abandoned in return for trade concessions in non-telecommunications areas." Markoski, *supra* note 10, at 319. Users may also be reluctant to complain against PTTs for fear of reprisals. *Id.* at n.157.

80 CCITT Study Group III, Comments on a Proposed Study of Leased Circuit Pricing, Doc. COM III-No. 35-E, para. 5 (Feb. 1978) (U.S.), as quoted in Markoski, *supra* note 10, at 304; Hirsch, *supra* note 18, at 195.

81 In the Matter of Regulatory Policies Concerning Resale and Shared Use of Common Carrier International Communications Services, 77 F.C.C.2d 831, 838 (1980) [hereinafter cited as Resale Proposed Rulemaking].

82 GTE Telenet Communications Corp., Application for authority to extend its packet-switched telecommunications services from the continental United States to the United Kingdom, Europe and points beyond, 91 F.C.C.2d 232 (1982); *see* 48 TELECOM. REP., Aug. 9, 1982, 5-7. The decision approved proposals of GTE-Telenet and Tymnet, Inc. to provide "enhanced" services free of FCC regulation, and extended the "basic/enhanced" dichotomy from domestic to international services. This application of the *Computer II* decision reflects the FCC view that deregulation and increased competition will lead to entry into the market by new firms, services and technologies from which users may choose. Resale Proposed Rulemaking, *supra* note 81, at 835-36; *see also* Eger, *Global Phenomenon, supra* note 18, at 220.

83 77 F.C.C.2d 384 (1980). This decision was released May 2, 1980. See Frieden, *The International Application of the Second Computer Inquiry*, this volume, for a detailed analysis of *Computer II*.

84 Eger, *Global Phenomenon, supra* note 18, at 220; 48 TELECOM. REP., Oct. 4, 1982, at 12. Objections have come from the International Communications Association, a non-profit trade group of major corporate, government and educational users, as well as from ADAPSO, WUI, and RCA Global. *Id.*

85 *Resale Proposed Rulemaking, supra* note 81, at 838-9. In this notice the FCC recognizes that all international services are governed by operating agreements between IRCs and PTTs, and states that "we see no reason why preservation of the status quo would be in the best interest of the foreign correspondents. Indeed, we believe these entities may also derive benefits from operating in a resale environment." *Id.* at 836. Reasons cited include increased user demand, lower per unit costs, and expansion of carrier operations.

ADAPSO warns that while deregulation is possible in the competitive U.S. market, it is futile to attempt to impose it on foreign PTTs due to their monopoly structure and "well-known and strongly held views." 48 TELECOM. REP., Sept. 27, 1982, at 6. The FCC cites domestic U.S. resale examples which have proven advantageous to the public and the carriers, *i.e.*, the domestic satellite service and the GTE-Telenet experience. Resale Proposed Rulemaking, *supra* note 81, at 836-37. Others have agreed with ADAPSO that the U.S. example is not necessarily a good one to apply to the very different European telecommunications structure. *See* Muller, *supra* note 57, at 21. Moreover, they add that "unilateral efforts by the U.S. government to implement domestic policies in the international arena are likely to create problems for users of international telecommunications services, particularly users of private line service." 48 TELECOM. REP., Aug. 9, 1982, at 6.

86 48 TELECOM. REP., Oct. 25, 1982, at 16 (statement of Mark Fowler, FCC Chairman). The IRCs had been subject to FCC restrictions on resale and sharing similar to those imposed by the PTTs; however, these recent FCC moves toward deregulation of international services may change this situation. *See* Feldman and Garcia, *supra* note 30, at 5-6 and n.31.

87 Dissenting member Joseph Fogarty warned that "The Commission's good intentions notwithstanding, our foreign counterparts may easily perceive that the Commission has, by

this action, established resale internationally," 91 F.C.C.2d 232 (1982) (Fogarty, dissenting), and warned that PTT reactions could include abolition of private leased lines. 48 TELECOM. REP., Aug. 9, 1982, at 5.

88 The West German authority sent a letter to the FCC, warning that

> [i]n the short run . . . we could, and presumably will, add an adequate surcharge to the charge of all those [leased] circuits which on [the] U.S. side violate the rules of CCITT Recommendation D.1. In the medium term, all charges for circuits which are not clearly and exclusively inhouse circuits will be converted to a usage-sensitive system, where the charges will be harmonized with those of public switched networks. [48 TELECOM. REP., Oct. 4, 1982, at 13.]

89 In a letter to the FCC, CCITT Director Leon Burtz stated that the FCC decision "appears to approve 'de facto' international resale and shared use of international services before the result of the [Commission's] inquiry in the international resale rulemaking is known," and warned of possible "strong reactions from telecommunications administrations and recognized private operating agencies which are operating telecommunications services with the U.S." Burtz stated that the decision may lead to possible violations of the international telecommunications convention, the international telegraph and telephone regulations, and the CCITT recommendations. 48 TELECOM. REP., Oct. 18, 1982, at 18.

90 *See* Feketekuty, *Restrictions on Trade in Communication and Information Services* this volume; *Int'l Info Flow, supra* note 8, at 12-15.

91 When traffic shifts from private leased lines using U.S.-made equipment to public networks utilizing locally-made government equipment, U.S. equipment manufacturers suffer loss of business. The Computer and Business Equipment Manufacturers Association (CBEMA) and ADAPSO, the trade association of the U.S. computer services industry, both lobby heavily to preserve private leased line availability.

92 *Telecommunications Hearings, supra* note 8, at 63 (prepared statement of Geza Feketekuty); *see also* Feketekuty, *Restrictions on Trade in Communication and Information Services,* this volume.

93 U.S. Trade Representative Brock attempted to include services under the GATT but his efforts were rejected at the 1982 Ministerial meeting. The NTIA published a report on international telecommunications policy in February 1983, which indicates the importance of centralized policy-making and the seriousness of telecommunications as a trade issue. *See* Sanger, N.Y. Times, *supra* note 31; Powers, *Restrictions on Trade in Communications Services,* this volume.