American Deregulation in Telecommunications and its Implications for Western Europe

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The Setting

The multiple changes in the American telecommunications landscape that are encompassed in the short-hand terms "deregulation" and "divestiture," have been bewildering to most Americans: As could be expected, must criticism was expressed in public forums at the break-up of the warm and familiar "Ma Bell," and at the prospects of major rate increases for the residential subscribers. Unfortunately it often seems as if only these negative views of the US developments are presented to the European public, to the exclusion of a more balanced picture. This one-sidedness is not helped by a frequent messianic tendency on the part of present US policy makers to their institutions, history, and political traditions.

Europeans understand clearer than Americans that "deregulation" is a emphemism for "laissez-faire," a term descredited in America both by 19th century robber barons and by its French linguistic roots. "Deregulation," on the other hand, has a more benign sound, since an aversion to the heavy hand of government regulation has been a theme on which wide part of the American political spectrum can agree as a general proposition, though rarely in a concrete case. In America, the accelerated penetration of electronic technology in the telecommunications sector coincided and interacted with an intellectual and political move towards laissez-faire in general. In Europe, the new technology is similarly available, but the ideological receptivity new institutional arrangements is very different. To most Europeans, the clear trend of economic history has been towards increased forms of public control. The political left took the scientific inevitability of this progressive trend as dogma; the conservative right, though parts of it were fighting bitterly against public control, was long in doubt of its own long term prospects in stemming the trend. Joseph Schumpter, who expressed this pessimism, saw capitalism in a no-win situation: even where it was economically successful, it undermined in the process of its own foundations and was doomed. The American history experience, for a long time, followed the expected path from relatively

unbridled laissez-fair capitalism, to the regulation of monopolies in the Progressive Era, to the New Deal regulatory system which steadily if unspectacularly expanded in the three decades following World War II. The unusual aspect of recent developments in regulatory policy is their reversal of this historical trend. They must be viewed as more than a course correction to offset some bureaucratic excesses; nor can they be properly understood as merely a pro-business restoration; nor as a mere political fashion, induced by post Vietnam and Watergate disillusionment with government. The American turn towards laissez-faire is a more fundamental movement, based on the intellectual acceptance of ideas critical of the ability and desirability of governmental interference in the private and economic spheres, ideas that have been embraced -- openly or unacknowledged -- by large parts of the intelligentsia, the Middle Class, the post-war baby-boom generation that is rising in all institutions, and of course by those economic interets who stood to gain -- which did not include the traditional mainstay firms of the telecommunications industry.

These American developments have generally not been matched in continental Europe, and the implicit challenge of the American negation of the historic trend has often caused a harsh response. This is nowhere more evident than in telecommunications. Here, the typical European system is a classic semi-socialized intermixture of private and public interests that has worked reasonably well in the past. In America, the twin developments of market ideology and technology accelerated each other so that the existing institutional forms -- the regulated domestic AT&T monopoly, the segmented international service, the

three television network system -- have been swept away, while an impressive renaissance in electronic and information technology and entrepreneurialism is underway. Technology has been an argument for a lowering of barriers. In Europe, home-grown technology has progressed more cautiously, as have institutional changes. Technological progress has been used as an argument in favor of a centrally planned, technically compatible, and economically efficient monopoly system, as for example in the case of the ISDN, the central element of future European telecommunications infrastructure. At the same time that the United States has dismembered its primary telephone carrier AT&T, France has nationalized much of its electric and telecommunications equipment industry, and in effect created an analogue of the old Bell System: a vertically integrated complex of equipment manufacturing coupled with a telecommunications transmission monopoly and an R&D laboratory, decentralized but government controlled. Thus, at the same time that the AT&T telecommunications monopoly in the United States has been divested into several component parts, the French have done the opposite and have assembled, for the first time, the major elements of telecommunications under one ownership.

Some Effects of American Deregulation

One of the immediate concerns of American commentators had been the effect of the AT&T divestiture on residential subscribers. Figures of 300% increases were frequently cited. In fairness, however, it

should be pointed out that these claimed increases, as intolerable as they are, sound more modest in absolute dollar figures (about $20) and, that they are partly offset by reductions in long distance rates and equipment charges. Furthermore, the predictions of steep rate increases did not take into account the fairly swift working of the political-regulatory system, whose strong opposition will permit at most only a very gradual phase-in of increases in local-service rates. Furthermore, social safety-nets in the form of "life-line" service for the needy are being introduced across the country. Overall, it is highly unlikely that residential customers will bear the full cost of their service; it is more likely that there will be some alternative form of subsidy, either internal--to the extent that this will not lead many business users to "by-pass" the system--or through some form of a communications surtax for a universal service fund. Finally, the rate pressure is forcing the local exchange telephone firms and their holding companies to discover ways of cutting costs and to find new business opportunities. The total result is that residential users are not likely to be as badly off as it seemed at first; but they will clearly pay more than they did before divestiture (unless they have many long-distance calls). Most reassuringly, a strong sentiment for supporting the poor and elderly in their telephone usage is evident. The argument of positive social and economic externalities for broad-based participation in the public network has been accepted, and the commitment to universal service is strong.

At the same time, residential and business users are beginning to benefit from the head-to-head competion of long distance companies and equipment suppliers. As equal access for all

long-distance carriers is successively instituted, the rivalry for the subscribers becomes feverish. The mighty AT&T has even started giving out to its users Green Stamps discount coupons for various items of merchandise! The rates of AT&T's competitors are already unregulated. AT&T recently lowered them by 6.1%, and it is offering customers block-buying schemes. The FCC approach seems to be to let AT&T lower its prices only slowly, so as to permit the growth of its competitors. Most likely, when AT&T's market share has fallen to about two-thirds of the total, its long-distance rates will be deregulated. At present, the firm claims that it is losing 5,000 customers a day, many of whom are among the heaviest callers. At the same time MCI in particular has embarked on a major investment program in transmission facilities in anticipation of further inroads into AT&T's business. These developments are reducing customer rates steadily. The primary problem that customers have encountered is in the installation of private lines. Coordination problems between AT&T and the local companies have created a major back log of orders. But there is no reason to expect that the problem is more than transitional. The argument of economies of scale, perhaps the key economic underpinning for a maintenance of monopolistic supply, has shown itself to be largely irrelevant in this situation. Much more significant is that the existing rivalry is forcing the competitors to move their cost curves downwards. The move of the cost curves themselves, much more than the move along them, is a chief characteristic of the new regime. The reliance on this shift through the dynamics of market competitions, as opposed to the goal of moving down a static curve, is, in a nutshell, the difference of the new and the old American approaches.

Another fundamental economic problem of competition in telecommunications, at present only in its incipiency, has not been well anticipated. It is the problem of unstable competition when marginal costs are quite low. With the expansion of the various long distance networks, one may soon reach overcapacity; with low marginal cost, price wars should then be expected that would not permit a recovery of total costs. In such circumstances, one can see the re-emergence of stabilizing rate regulation in the future, this time presiding over an oligopoly rather than a monopoly. The oligopoly would consist, in all likelihood, of the general carriers, AT&T, MCI, GTE, and ITT, with SBS (IBM), primarily as a business data carrier. Smaller and specialized carriers may find additional niches; most of the many present resellers will consolidate into large entities linked to major telecommunications firms. In the long run, one would also expect the Bell-divested regional holding companies (RHCs) to enter long distance transmission. At present, they are prohibited from doing so under the Bell divestiture decree as an intermingling of monopolistic and competitive functions. However, the model of GTE which combines those two functions under a rigid separation would lend itself to the RHCs in the future. The competitive/non-competitive dichotomy is inherently doomed to failure in any event; in that sense the AT&T divestiture will not succeed, since the boundary between naturally monopolistic and competitive communications services is forever shifting. Nor will arbitrarily timed divestiture be able to institutionally freeze this tendency.

AT&T is also challenged on the equipment front. Having lost its ownership hold over the local exchange

companies with their huge equipment needs, AT&T must now compete for their business. As in long-distance transmission, AT&T's market share has no way to go but down, and its total sales will also decline, unless it can offset domestic losses by international gains. Market share for PBX equipment dropped from 51% to 22% over the decade. AT&T's its production of new equipment has been hampered by shortages in chip-making capacity. The company is now embarked on vigorous cost cutting; but it is bound by labor contracts which disadvantage it in comparison with its frequently non-unionized competitors. According to some analysts, AT&T's cost for product installation and maintenance is $61 per hour, as compared to $33 for IBM and $28 for MCI. The company is said to be able to cut more than 10% of its 373,000 employees without noticeably affecting its operations [1]. The trend is unavoidably in a direction of labor confrontations, which will reduce or eliminate the traditional familial work attitudes at AT&T. It is also hampered by its relative lack of production orientation and marketing expertise, which is essential in the highly competitive markets into which it is thrust, or to which it enters. The market for small computers and PBX equipment is sophisticated as to performance characteristics, and has no great respect for big names, as even IBM has learned. It demands innovation, rapid production cycles, strong support systems, and competitive pricing. Even for a technological leader such as AT&T, which has entered with a line of 3B minicomputers and system 75 PBX and personal computers, this will prove to be a major challenge.

AT&T's main trump in the computer business is its Unix operating system which may well be the wave of the

future. Unix has "portability" and programming flexibility, and can run on almost any computer; applications software for Unix can be used for all machines. Unix has a wide and devoted following in universities. Unfortunately, AT&T may not profit from it very much, since before the divestiture it had been slow to license to other computer manufacturers and thus to make it the industry standard. For a while, even IBM had to be a licensee; but by now, the newest IBM Personal Computer AT, announced in August, 1984, uses a Unix-like system named Xenix, written by the software house Microsoft. AT&T may thus be left out in the cold in terms of royalties, probably reducing its computer revenues in 1988 from an estimated $4 billion if Unix were the industry standard, to half that much. The company tries to prevent this by incorporating Unix into microprocessor chips themselves, to be the lower cost producer of Unix-computers. Ironically, the AT&T induced revolution in operating software that is sweeping the computer field is not only benefitting its many rival adaptations, but in the long run the Japanese computer manufacturers, whose weakness in software design is greatly alleviated by Unix's flexibility.[2]

In less sophisticated markets, consumers are able to buy cheap telephone sets sometimes for less than $10 at the corner hardware store, plug them in, and throw them away if they break, just as they do with a toaster. The prophesized major problem in determining the course of faulty service has not noticeably materialized for residential users.

AT&T has reorganized itself around the two product lines of equipment (AT&T Technologies, 40% of revenues) and long distance service (AT&T Communications, 60% of revenues and

most of the profits). AT&T Information System encompasses the short-lived fully separated subsidiary American Bell. AT&T Technologies is barely profitable, reportedly due to the remaining complexity of its structure. Further major cuts are expected. The unit is said to generate only $39,000 in revenue per employee, as contrasted with $93,000 for IBM [3]. AT&T has lost $1 billion in its first year of operation.

What does all this add up to? When the AT&T divestiture was announced, US critics, and with them many European observers, interpreted this event as a victory for AT&T, which had shed, it was believed, the sluggish and regulated parts of its business and gained the rights to the world of the future, the new information technology. This interpretation disregarded the long fight that AT&T had waged to preserve its end-to-end vertical integration, which was the cornerstone of its corporate philosophy; it was ignorant, as foreign observers still are, of the FCC's computer II decision, which, preceding the divestiture by about a year, had opened competitive markets to AT&T under a structurally separated subsidiary. And it was simply wrong-headed in believing that a giant monopolist would do well in the new world of competition. So far, the experience has been sobering for AT&T, its share-holders, managers, and employees, who had to lower their expectations and run much harder than before.

It is important not to confuse the health of AT&T with that of American telecommunications. The infrastructure is alive and well, and a glance at the trade press with its torrent of announcements of services, products, ventures and market entrants shows the extraordinary and feverish vitality that characterizes all parts of

communications. Indeed, it is precisely the vitality of this process that will undermine the economic rationale for the divestiture, namely to separate the competitive and monopolistic sectors of telecommunications from each other. As this artificial institutional separation crumbles under technological reality and from the regulators' desire to give local exchange companies new sources of revenue for rate relief in residential and rural telephony, the AT&T divestiture may increasingly become a mere size-reduction of a giant firm, into a set of mini-AT&Ts, coupled with liberalization, and less of a functionally targeted and elegant economic separation that its Justice Department originators, together with Judge Greene, had envisioned. Indeed, the latter is at present busily trying to stem this tide by putting restrictions on the regional holding companies. These efforts demonstrate that the lessons of the past -- the futility of structural solutions in a dynamic environment -- have not been learned.

European Reactions

It is unfortunate for the mutual learning process across the Atlantic that much of the analysis interprets US telecommunications events selectively. An example of one-sided interpretation of U.S. events is the official reply by the German Bundespost to a German Monopoly Commission report: "[The admission of private terminal equipment in the US] leads to an unbearable situation for the simple subscriber since repair and maintenance for equipment and network could now be in different hands...[P]rivate equipment is found primarily as second telephones, and is in terms of quantity negligible...[T]he abolition of the operating monopoly of the operating

companies has definitely brought about predominating disadvantages for the customer, since the service has become qualitatively worse and considerably more expensive..." [4] Statements of this kind originate in a defensiveness towards implicit challenges to a monopoly status quo which are a threat to the broad coalition that supports and benefits from it. This coalition, which can be termed the "postal-industrial complex," includes first of all the government itself through the PTTs. PTTs are frequently staffed by extremely able and experienced public servants and technologists who are effective advocates of their institutions. They are joined by the equipment manufacturing industry, trade unions, intellectuals, the poor, the elderly, and the political left, "good government" advocates, and rural inhabitants. Increasingly, it can also count on the computer and high technology industry.

European experts were bewildered by the dismantling of AT&T. With an engineer's point of view, saw the elimination of end-to-end service as detrimental to a system which is orderly, continuous and centrally planned, all while satisfying the needs of the economy and fulfilling social policy functions. The fact that the US voluntarily chose to dismember such a system has been hard to understand, and it is seen as arbitrary, inefficient, and resulting from politics and ideology rather than engineering and technolog- ical considerations. One point that is frequently heard is that American telecommunications have always been inherently different from those in Europe, and thus developments in the US are not relevant to Europe. The assertion that the U.S. system is"different" usually means that the American system is run for a profit, while in Europe telecommunications serves the greater

welfare of the society. There are serious flaws in this simple contrast. Telecommunications policy in the United States has embraced social goals for much of this century, including the principle of universal service that assures an affordable access for rural areas and for the poor. The percentage penetration of telephones in the United States has been higher than in any other country, despite the fact that vast areas of America are sparsely populated, and that a much larger percentage of the population is poor, or migrant, or outside the main language of communication.

Nor do the West European rate structures reflect a greater social concern than those in the United States, where basic subscriber rates are approximately equal or lower, long distance rates are markedly lower, and where "life line" service is often available at very low rates. In many Eruopean countries, no rate distinction is made between residential and business customers, while in the United States business customers usually pay double the residential rate. Rural telephony in the United States is subsidized in a variety of ways, primarily through the rate structure and by low-interest loans from the from the federal government.

While the size of internal subsidies is likely to decline as the U.S. system moves towards cost-based pricing, it does not imply that subsidies will disappear, though they may be financed differently in the future. The protection of affordable universal service is a high political priority, and Congressional and state regulatory reactions--as in the dispute over the timing of telephone access charges--indicate that their remains great sensitivity for the maintenance and protection of universal service, even within a liberalized setting.

It is nevertheless clear that the deregulation and divestiture of AT&T are having a negative effect. European observers frequently see this as part of the economically conservative policies of the Reagan administration, which is regarded as a pro-business restoration. The American political view is that deregulation is not a zero-sum redistributory game, and that it is likely to generate overall gains due to increased efficiency and dynamism. The truth is probably somewhere in between. Reports of the effects of the AT&T divestiture stress the negative impact on local rates; however, one must also take account of the cost reductions in the U.S. due to competitive pressures, or of the low cost of service in general. For example, AT&T claims to have cut production cost on a telephone receiver from $2.30 to $.99 within one month. [5] In June, 1984, AT&T announced the goal of cutting its cost in all manufacturing divisions by 20-25% within a year[6]. The company has closed four of its older plants and consolidated others, imposed a pay freeze on its 114,000 management level employees (for a $185 million saving), encouraged the early retirement of thousands of its workers (the goal is 13,000), and layed off thousands of others. It even sold the headquarters of its manufacturing arm Western Electric. Even with such evident slack, an O.E.C.D. report found that public switching equipment in the U.S. had cost only about one third to one half of the European average [7]. In long distance transmission, operating costs for AT&T have been estimated by a respected financial analyst to be 34.2 cents per revenue minute, while for its rival MCI they were only 17.9 cents [8]. This seems to indicate a substantial potential for cost savings in the old AT&T system, which the PTTs had admired as a paragon of efficiency,

and AT&T is working very hard to reduce this gap. The French daily Le Monde, in a series of articles in January 1984, views the AT&T divestiture as part of a general American economic offensive against Japan and Europe, joining the already ubiquitous presence of IBM. [9] This theme had also been presented in the widely noted French Nora-Minc Report of 1978 [10]. These observations contain some truth, although the simplistic thesis is misleading. Quite clearly, the U.S. liberalization policy is a response to the widespread desire to induce economic growth and innovation through market forces. The Japanese challenge may be used as a domestic argument within the United States, but there is no lack of other arguments.

The global-strategic view of U.S. deregulation, moreover, does not coherently explain why the American technological offensive would be advanced by reducing the power and the economies of scale of its major telecommunications company. Assuming a global offensive strategy, it would seem more sensible to unleash AT&T with all of its resources rather than reducing them and tying up the giant for years with reorganization. Unless, of course, one accepts the U.S. premise that a competitive environment creates the underlying strength for world export markets. It is not clear why a Reaganite big business policy would be promoted by the dismemberment of the biggest business of them all. Furthermore, the Reagan administration's ideological priorities are arguably not the driving force in U.S. policy, but only a facilitator in the implementation of the fall-out from satellite communications, microwave transmission, and the computerization of telecommunications.

A bewildering multitude of decision making bodies has been

involved in the setting of American telecommunication policy--the FCC, the fifty-one state regulatory commissions, the Department of Justice, the National Telecommunications and Information Administration, Judge Greene, Congress, and the Department of State. Each of these is active in some aspect of telecommunications, and most are not well coordinated with the others' actions. Hence it is surprising to find any general policy direction at all. It would have been reasonable to expect that these various decision-making bodies would have in effect neutralized each other, following the course of U.S. national energy policy, which has been disgracefully paralyzed. But this has not occurred in telecommunications. The overall direction of U.S. telecommunications policy has been one of fairly steady liberalization. Though conflicts persist between federal and state regulatory and legislative bodies over the preservation of the cross-subsidy to residential rates, a compromise is likely. American telecommunications policy making resembles a war with a hundred battle fronts. But for all its untidiness, the American policy process has accommodated changes fairly rapidly. This fact may have something to do with the greater pressures for changes in the United States, but it also results from the general nature of decentralized decision-making, which can move incrementally, and rapidly and pragmatically.

The Equipment Field

To some European observers the American developments bode for a future that is characterized, in the words of an OECD report, by "the emergence under the leadership of the US information industry, of powerful integrated service firms, consortia or closely-knit groups of companies, combining computing power of their own without

ability to develop new high technology products for export. Given the GATT restrictions on the use of tariffs, non-tariff barriers become important. Such protectionism in telecommunications has been traditional in most industrialized countries, with the result that few domestic markets are open, thus greatly limiting intra-European trade opportunities and fragmenting the market. In order to overcome this, there have been proposals to open the European domestic markets to other European manufacturers, while restricting the North Americans and Japanese.

But trade is a two-way street. Ironically, the very US liberalization which is raising European anxiety and protectionism in its wake is providing European manufacturers with opportunities in the US equipment market. The Bell companies, which prior to divestiture had relied largely on Western Electric equipment, are now free to obtain equipment from other suppliers, and are indeed actively doing do.

In the forefront of European companies active in the US market is Plessey, a British company which has acquired the public switching business of the American manufacturer Stromberg-Carlson; likewise, the Swedish firm, Ericsson, a major player in the international telecommunications export market, has been actively approaching the new Bell regional operating companies, after already establishing itself among American independent telecommunications companies.

The opening of the American market is among the best news that European firms have had for a long time. As mentioned, other European markets are largely closed to them, even within the Common Market, and demand in the Third World, including

precedent, unrestricted access to countless data bases, assured usage of worldwide networks, an expertise unparalleled in variety and depth, together with unique marketing and managerial abilities. This new organizational configuration has - so far - no equivalent in either Europe or Japan. It may well turn out to be superior, in power terms, to the old-fashioned monopolies and oligopolies." [11] But with all this challenge it is also important for Europeans to realize that US deregulation is offering them extraordinary business new opportunities.

In the telecommunications equipment market, the AT&T divestiture led to the emergence of AT&T as a competitor in European markets, a sharp break with the past. For more than fifty years AT&T stayed out of international equipment activities, despite its being the largest equipment manufacturer in the world.

With constraints removed, and with the need to diversify its scope of operations, AT&T has embraced an international orientation, and has begun to see Western Europe as a potentially lucrative market. To gain local acceptance, the company has restricted itself to alliances with European domestic companies, in effect establishing beachheads. Given the nationally protected nature of the European market and AT&T's lack of international experience, this strategy seems to be the most realistic way for AT&T to establish its presence in Europe. Two major instances are AT&T's purchase of 25% of Olivetti in early 1984, and its cooperative agreement with Philips.

Variants of protectionism are considered as the one way to ensure Europe control of its own telecommunications destiny and its

the oil producing countries, has declined. In addition, many countries use the development of their telecommunications to spur their own domestic electronics firms, and are willing to rely on a less than state-of-the-art technology suitable to local servicing skills. Often these countries have set up domestic equipment manufacturers with government protection similar to those in Europe. Thus there is a very limited number of markets for telecommunications equipment which are really open. The OECD estimated that in 1982 open markets accounted for less than 10% of the world market [12]. In fact, by far the largest such market is now the US. The irony is that some advocates of protectionist policy in telecommunications equipment now are beginning to seek their fortunes in the newly-liberalized US market! It is realistic to expect that such an asymetric situation cannot continue for long. It is highly unlikely that the US will stand by passively if Europeans can freely sell equipment in the US, while American manufacturers are shut out of European markets. Given the presently ballooning US trade deficit in general, undoubtedly the US would pressure the Europeans for reciprocity. Thus for Europeans the opportunity to enter the US market is in fact a double-edged sword, because it threatens by its dynamics to bring about a reduction of European firms' own protected position.

Transatlantic Telecommunications Services

American deregulation has particularly affected international telecommunications services. In this area, US policy has restructured the rules of the game radically within a short period of time, thus forcing their European correspondents on the other side of the Atlantic to adjust

unwillingly to the new situation.

Historically, US regulation of telecommunications firms had carved up the global market into distinct segments, each assigned to different carriers. These included domestic telephone carriers, domestic telegraph carriers, domestic satellite carriers, international voice carriers, international record carriers (IRCs); the international satellite carrier, the international marine cable consortium, and carriers for domestic non-voice satellite communications. Though AT&T participated in several of these market segments, as a rule the different sectors and firms were segregated from each other.

On the European side, things were much less complex. The typical arrangement was for the domestic PTT to control all communications, domestic or international, voice or record.

In the past, FCC regulation had not been particularly restrictive with respect to international communications rates. At the same time, the market segmentation had led to a lack of competition, as well as to substantial profit margins. This situation was largely unstable, perhaps because of the high profitability, and cracks began to appear. The artificial nature of the market segmentation became evident and led to policy responses within a relatively short time. In a series of decisions in 1979-80 [FCC 79-842; 80-523; 80-585], the FCC largely eliminated the rules which prohibited AT&T and the IRCs from entering each others' markets. The International Record Carrier Competition Act [Public Law 97-130, Dec. 29, 1981] eliminated the separation between domestic and international telegraphy that had kept Western Union and the IRCs apart.

In the satellite field, the FCC

continued this trend in 1982 [FCC 82-357] by permitting Comsat to go beyond its carriers' carrier limitation and service customers directly. This action was contingent on a major restructuring of Comsat [FCC 82-372] to separate its unregulated competitive activities from those that were left regulated. At the same time, the FCC was considering direct access of carriers other than Comsat to Intelsat, bypassing Comsat. The FCC also decided to limit, as far as possible, its role in the allocation of communications circuits between cable and satellites, and to rely on competition.

In the Second Computer Inquiry [77 FCC 2nd 384 (1980)], the FCC deregulated enhanced telecommunications services that go beyond "basic" and regulated transmission. In the Telenet-Tymnet decision [FCC 82-377], the Commission reaffirmed that the Second Computer Inquiry decision extended also to international telecommunications services [13]. The implication was that enhanced communications services from the US to other countries would not be subject to facilities or rate of return regulation.

Proceeding to the next step, the FCC reconsidered its attitude toward the Intelsat cartel arrangements and the liberalization of the international satellite transmission market. In an extension of its well-established domestic policy, the FCC accepted applications from several private entrepreneurs for licenses to operate private trans-Atlantic satellite systems.

American deregulation thus threatened the protected status quo in an especially profitable sector. Neither Intelsat nor its constituent organizations wanted to be whittled

down by competition, and therefore advanced the argument of cross-subsidization, since profits from the high density trans-Atlantic and North Pacific routes subsidize the low density routes. European PTTs were also concerned about the threat that competition on trans-Atlantic routes would pose to their own profitable international service.

To defend the present system, they pursue various defensive strategies against the potential entrants. The first of these can be described as an "up-link" strategy, the aim of which is to prevent the FCC from granting a license to any private applicants, on the basis of the Intelsat Agreement, distinguishing them from various regional satellite systems such as Arabsat and Nordsat.

The second strategy centers on the "down-link" by eliminating the new satellite carriers' ability to connect into European national networks. The PTTs attempt to maintain a unified front of all European countries would prevent a beachhead by American entrants or, if that is not possible, to prevent it from becoming a transfer point to other European countries. As with every cartel-like agreement, it is only as strong as its weakest link. Some country would probably find it to its advantage to serve as a telecommunications hub, and to permit downlinks from non-Intelsat carriers. To prevent such backdoor liberalization, other countries could try to block retransmission arrangements. But it is questionable whether such restrictions would be enforceable or whether they would be legal. In a factually similar case, European governments, invoking CEPT and CCITT rules, had attempted to impose restrictions on the use of Britain as a hub for private British telex bureaus. However, the European

Commission in an anti-trust proceeding resoundingly struck down these attempts as a violation of the intra-European competitive rules of the Rome Treaty establishing the EEC. (The case is on appeal at this writing.) [14]

In the area of telecommunications services, the emergence of MCI and other potential international carriers challenges the orderliness of the carefully protected international telecommunications regime. There are, however, potential benefits for Europeans from this situation. Being the only address within their countries for AT&T, MCI, and others, PTTs are in a position to choose which American carrier will be allowed access to their market, and can play off -- or "whip-saw" -- the rival American carriers against each other to obtain advantageous operating agreements for their users. For example, instead of splitting revenues 50-50 as is customary, they could demand a 60% cut. In recent years, the Benelux and Scandinavian countries have invited bids. To prevent whip-sawing, the FCC since 1977 has required that international settlement arrangements must be uniform for identical routes, thereby officially enforcing an American cartel on settlement agreements.

The new carriers are less than happy with these anti-whipsaw rules. In order to be admitted into otherwise hostile territory, the American would-be entrants need to offer attractive deals to the PTTs. Their ability to compete with AT&T for PTT business is severely reduced by this type of rule. AT&T's competitors thus argue that although the PTTs may benefit from whipsawing, at the same time they may be "infecting" themselves with this competition.

Of the new United States long-

distance carriers, MCI has in particular been active in pursuing an ability to provide an end-to-end international voice traffic in the same way that AT&T does today. The company has actively pursued negotiations with a good number of countries. By mid-1984 it had largely concluded an agreement with Australia. In Europe, negotiations with Belgium, Greece, and Spain had progressed substantially, and the company was at the stage of testing equipment.

A related but distinct issue created by American deregulation is the ability of PTTs to choose among the new American carriers for communications originating in Europe. An American customer can select between AT&T, MCI, GTE or Sprint, to name a few, as his carrier of choice. But when a European places a call to an American city it is his national PTT which can decide which US long-distance company carries the call within the US and thus realizes the revenue. Until now, all voice traffic was routed through AT&T. But how should the PTTs react to the competitive environment in the US?

One possibility, of course, would be to give European users the choice to indicate which American long-distance carrier they prefer, for example by assigning several country codes to the US, each corresponding to a carrier, rather than the present single code. Although this would add costs and technical problems, these could be made up by the American firms, who would be more than willing to gain such traffic. It is unlikely that PTTs will at present grant users the ability to choose among US carriers for the American leg of their transatlantic calls. Instead, negotiations center around the PTT allocating traffic among AT&T and its competitors.

Just as in the equipment market,

deregulation of US domestic telecommunications provides Europeans with new opportunities to enter the American market, since the liberalized environment makes it possible for European carriers to acquire or set up American long-distance companies. The British company Cables and Wireless PLC now owns TDX systems, an American discount long distance company. France Cables and Radio, the international subsidiary of the French PTT, in 1983 acquired shares of Argo Communications, an American inter-city carrier [15]. Such entry can be accomplished without the need for international agreements or negotiations. Under the Second Computer Inquiry decision, enhanced service providers are unregulated. Thus Pacnet Communications, which had been acquired by the British firm Cable and Wireless, requested a certain FCC status to provide overseas customers with American resale packet switched network services [16]. With such a status, Pacnet would not have had to file with the FCC, and could even have acquired satellite circuits from Comsat without requiring authorization. This arrangement creates the possibility that European PTTs could not only set up their own unregulated distribution networks in the US, but also at the same time restrict their competitors in the US from entering the domestic markets in Europe.

Although the Pacnet application was withdrawn, similar actions are a clear possiblity in the future. This situation again raises serious issues of reciprocity and imbalance.

American deregulation is plainly having its effects in international markets. The US policy shifts were triggered by technological developments that were exploited by entrepreneurs and underwritten by financial institutions, many of which were drawing heavily on European funds. Much

of the dynamism and resources are now consumed by the exploitation of new domestic opportunities, or, in the case of AT&T and the Bell companies, by adjustment to the new environment through massive internal reorganizations. However, it seems clear that the US domestic telecommunications liberalization will accelerate the already strong tendencies for change in the international market. Since marginal costs in telecommunications are relatively low, systems that are set up in the US can extend abroad with relative ease. Long distance satellite service providers can readily expand into international traffic; data-base suppliers also could easily service the European market, as could equipment manufacturers. In short, the energies that brought about the shift in US policy towards deregulation will not stop at the US border. This trend is seen by the "postal-industrial" coalition as a major threat to the stability of the time-tested and mutually beneficial coexistence. The technological opportunities are not likely to pass Europe without generating internal challenges to the traditional telecommunications system. This is not to say that the American model can be applied in Europe, given the differences in tradition, outlook, and political realities. But changes in the US, and their unavoidable interactions across the Atlantic, are likely to nudge along a liberalizing process in which PTTs are still the controlling force. US deregulation, though partly a threat to the European status quo, is also an opportunity for the export of hardware and services, and for the exercise of a monopsonistic bargaining position. Reciprocal trade in goods and services, more than economic theories or political pressure, may set off a partial liberalization to the entry of US telecommunications firms, and a

softening of the divergence in telecommunications on the two sides of the Atlantic. As this process unfolds, defensive and offensive reactions are unfortunately likely to be acrimonious; cooperation based on the understanding of the dynamics of the other side's development, however, cannot be avoided, and it provides the foundation for transition into the next phase of global communications.

References

1. New York Times, "AT&T: Hot Products, High Costs." Aug. 5, 1984 p. 4F.

2. Bylinsky, Gene, "The Holes in AT&T's Computer Strategy," Fortune, Sept. 17, 1984, p. 68.

3. New York Times, op.cit., p.4F.

4. Bundesministerium fuer das Post und Fernmeldwissen, "Stellungnahme der DBP zum Sondergutachten der Monopolkommission," Referat 603, May 1981 p. 97a.

5. The Economist, "And a Prosperous New Year," Dec. 24, 1983, p.76.

6. Electronic News, "Say AT&T to Cut Mfg. Costs," June 18, 1984, p. 67.

7. OECD, "Telecommunication: Pressures and Policies for Change," Paris, 1983.

8. Fortune, "Can AT&T Compete in Long Distance?" April 16, 1984, p. 112.

9. Le Monde, "La Guerre Mondiale de la Communication," January 11-14, 1984.

10. Simon Nora, The Computerization of Society, MIT Press, 1980.

11. OECD, "Transborder Data Flows: An Overview of Issues," Working Party on Transborder Data Flows, DSTI/ICCP/83,29, 5 Sept. 1983, p.10.

12. Ibid.

13. General Accounting Office, "FCC Needs to Monitor a Changing International Telecommunications Market," GAO/RECD, March 14, 1983, p. 11.

14. European Commission Official Journal L-360, 21 Dec. 1982, p.36

15. Business Week, October 24, 1983, p. 140.

16. GAO, p.27