A Different Time, A Different Place: Breaking Up Telephone Companies in the United States and Japan

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Introduction

Two major events in the telecommunications industry took place in the 1980s: the divestiture of AT&T and the privatization of Nippon Telegraph and Telephone (NTT) of Japan. A decade later, the Japanese government is considering whether to follow the lead of the United States and break up NTT. This Article examines the American and Japanese telecommunications markets and regulatory structures, and concludes that the reasons for the AT&T breakup are different from the justifications that may be used for splitting NTT.(1) Part I considers the justifications for any structural changes. Part II looks at the differences between the regulatory structures in the United States and Japan. Part III provides a historical context by looking at the issues of interconnection, tariffs, and competition. Part IV discusses differences in the current markets and corporate structures of the two countries.

In pointing to some of the fundamental differences in the American and Japanese telecommunications markets, this Article attempts to provide guidance to the policymakers in Japan. The experience of the United States, while not a blueprint for NTT's reorganization, might provide useful information.

I.Reasons for Change

Over the past ten years, the telecommunications marketplace has changed from a stodgy industry that was predominantly controlled by government-owned monopolies into one of the most dynamic areas of the modern global economy. This evolution is the result of many factors. Two of particular importance are: (1) the shift in the United States from a manufacturing to a service economy,(2) and (2) the deregulation and privatization of telecommunications companies around the world.(3)

This year, the Japanese government is deciding whether to reorganize NTT. In making that decision, regulators at the Ministry of Posts and Telecommunications (MPT) are looking to the American experience and, in particular, to AT&T's divestiture. While regulators should look to other countries for insight and guidance, they should remember that the markets, technology, global economy, and relationships among telecommunications industry players have all changed over the past decade. Therefore, the MPT must focus on these changes to assure that the Japanese government evaluates NTT's reorganization in the context of current markets.

Over a decade ago, AT&T's divestiture and NTT's privatization happened for different reasons. AT&T broke up to prevent the restraint of competition in the telecommunications equipment and intercity telecommu nications services markets.(4) AT&T was a company with $150 billion in assets,(5) 70 million customers,(6) 3 million shareholders,(7) 1 million employ ees,(8) and a net income of more than $7 billion.(9) It manufactured equip ment through its own subsidiary, Western Electric, and wanted to get into the business of manufacturing computers. However, a former antitrust lawsuit that was settled in 1956(10) prohibited this action. AT&T essentially traded its local phone companies for permission to enter the computer manufacturing business.

In a sense, NTT has already been divested from the Japanese govern ment.(11) It was privatized in order to accomplish several policy goals, including reducing fiscal deficits, securing universal service,(12) increasing competition, increasing network sophistication, and improving managerial efficiency.(13) There is a question as to what justifies breaking up NTT at this point in time because NTT has no intention of entering the manufactur ing business. While it may be true that, in some ways, NTT is similar to AT&T prior to divestiture—it has $140 billion in assets and 58 million customers—there are also dissimilarities. NTT has about 250,000 employees and a net income of $810 million.(14)

The real issue here is interconnection, not size. Can the new common carriers (NCCs) interconnect to NTT's local facilities in a way that is equivalent to the manner in which NTT's own long-distance division interconnects to those

same local networks? If they cannot, then there are methods, other than divestiture, to make interconnection fair.

The American and Japanese markets are also different in size. The United States has almost 140 million access lines and a population of 250 million, whereas Japan has 56 million access lines and 125 million people.(15) Therefore, Japan is about half the size of the United States in terms of access lines and population. Yet, Japan has only 378,000 square kilometers of land mass (comparable to the size of California), and the United States has 9.37 million square kilometers of land mass.(16) This has an impact on the question of local and long-distance markets because the traffic patterns will be different.

A. AT&T Divestiture

In 1982, the U.S. District Court in Washington, D.C. entered a consent decree based on the settlement between AT&T and the U.S. Department of Justice (DOJ) concerning their pending antitrust case.(17) The decision came to be known as the Modified Final Judgement (MFJ), and it required AT&T to divest its twenty-two local phone companies, which constituted about three-fourths of the company's total assets.(18) AT&T was allowed to retain several major subsidiaries: long-distance provider AT&T Long Lines;(19) manfacturer Western Electric; its research and development arm Bell Labs; enhanced service provider American Bell; and its international products and services division AT&T International.(20) The divested companies, called the Baby Bells or Regional Bell Operating Companies (RBOCs), were restricted from three lines of business: (1) long- distance telephone service, (2) manufacturing, and (3) information services.(21) Other rules kept the RBOCs out of businesses such as cable television service.(22)

B. NTT Reorganization

At the time of NTT's privatization in 1985, the Diet ordered the MPT to review the organization of NTT five years later.(23) Accordingly, the MPT reviewed it in 1990, putting forth several measures for NTT to take: NTT must establish profit centers for the long-distance communications sector and local communications sectors in order to prevent cross- subsidization; NTT must facilitate network interconnection to NCCs; and NTT must spin off its mobile (cellular) communications business.(24) In addition, the MPT decided to review the structure of NTT and to reach a conclusion on the appropriate future structure by the end of fiscal year 1995.(25)

II.Regulatory Structure

The American and Japanese telecommunications industry regulatory structures are fundamentally different. These differences primarily result from the United States' employment of a federal/state government system and use of quasi-governmental administrative agencies, versus Japan's utilization of a parliamentary system and use of *gyosei shido*, or administra tive guidance.(26) Administrative guidance allows for a regulatory agency to enforce its demands, even though it may not have the statutory authority to do so, through voluntary compliance by the regulated company.(27) Furthermore, the judicial branch in the United States is used much more extensively to solve conflicts between parties than its counterpart in Japan.

The systems each have their own benefits and drawbacks. In the United States, the multiple layers of regulatory bodies can slow down the market players' ability to get things done. In Japan, the more centralized power structure allows for quicker implementation of decisions. However, in the United States, a party that does not like the outcome of a decision has more options in challenging it. Also, the states often act as testing grounds for innovative policy making. If a new policy works at the state level, then it can be implemented at the federal level. In Japan, such an experimental process is not possible because new policy is implemented by the Diet for the entire nation.

A. United States

The Communications Act of 1934 created the Federal Communica tions Commission (FCC or Commission) to regulate all interstate electronic communications.(28) Five commissioners are appointed by the president, with the advice and consent of the Senate.(29) One of the commissioners, designated by the president as the chair,(30) sets the agenda for the Commis sion, giving that commissioner more influence than the others. Intrastate communications services are regulated by the states.(31) Therefore, an RBOC or an IXC may have to deal with several state commissions, along with the FCC, in what can be described as a joint-regulatory oversight structure.(32) Communication between the federal and state organizations is somewhat coordinated through the National Association of Regulatory Utility Commissioners (NARUC), which acts as an organization represent ing the states in a unified way. However, NARUC itself does not have any power, only its members do.

In 1993, the FCC had 1753 full-time employees and requested an increase to 2267 employees through the administration's budget for fiscal year 1996.(33) Along with the telephone industry, the FCC's authority extends to television and radio broadcast, private radio, and cable television markets.(34) While there has been some fluctuation in FCC spending over the years, it recently has been increasing at fairly dramatic rates, with spending of more than $200 million in 1995.(35)

In addition to these agencies, the Department of Commerce (DOC) and the DOJ play roles in regulating the United States' telecommunications marketplace. The National Telecommunications and Information Adminis tration (NTIA), part of the DOC, acts as the president's primary advisor on issues involving telecommunications, and oversees the federal govern ment's allocation of frequency spectrum as well. The Antitrust Department of the DOJ brought the suit that led to the breakup of AT&T and continues to remain involved in changes to the MFJ. In terms of antitrust, the DOJ also reviews many of the mergers and acquisitions between the market's players.

Finally, the courts and Congress have influence over the regulation of telecommunications. Judge Harold Greene of the District of Columbia District Court continues to oversee the MFJ, and Congress continues to monitor the FCC through its budget-funding mechanism and its power to pass laws.

B. Japan

The regulatory situation in Japan is in stark contrast to that in the United States. In Japan, there is one regulatory body for the entire country, the MPT, whose minister is a member of the cabinet.(36) Japan's system is the opposite of the United States', which can be viewed as a "top-down" policy-making system with decentralized public administration.(37) Con versely, in Japan, the policy-making process occurs through consensus building, and the public administration is centralized.(38)

The most striking contrast with the FCC is that the MPT also controls the postal system, including the postal savings account in Japan. The total number of MPT employees is 307,191, which is more than 175 times the size of the FCC.(39) Furthermore, the postal savings account stood at ¥170 trillion as of March 31, 1993.(40) Of course, not all of the employees are working on regulating the communications market, and the postal savings fund is not directly connected to the communications market.(41) However, such figures help to illustrate the power wielded by the MPT. It would be somewhat similar to combining the FCC, all state public service commis sions (PSCs), the United States Postal Service, and the TIAA-CREF pension fund,(42) then taking that agency and making its head a member of the president's cabinet, having power to legislate.

The MPT set up the Telecommunications Advisory Council (TAC) to advise the minister on issues relating to the telecommunications market. The TAC mainly has dealt with NTT's organization. However, there is a wrinkle in the MPT's power. Because the Ministry of Finance (MOF) owns two-thirds of NTT's stock,(43) the potential exists for conflicts between the two ministries.(44) The MOF seeks policies that will strengthen NTT's stock price so that more can be sold in the market to raise public funds, and to decrease the MOF's ownership to the targeted level of one-third. The MPT seeks to maintain its strength as a regulatory agency and break NTT into more manageable pieces.(45) While these two goals may not be mutually exclusive,(46) they do lead to conflicting positions concerning whether and how to force a divestiture of NTT.

While it is true that an aggrieved party can seek recourse in the Japanese courts, judicial action is used far less frequently in Japan than in the United States. Whatever the reasons for this may be,(47) the fact remains that the judicial branch in Japan has little influence over telecom munications policy and will certainly not oversee any future agreement that NTT and the MPT may reach.

III.History

The United States has an atypical telecommunications history. This may have to do with the fact that most countries, including Japan, built their communications infrastructures through government agencies, whereas private industry built, owned, and operated the infrastructure in the United States from the very beginning.

A. United States

1. Interconnection

In 1876, Alexander Graham Bell received patents for the telephone. The patents had expired by 1894, allowing independent phone companies to enter the market. For some time, there were competing phone companies in local markets that did not interconnect their networks to each other. This created a situation in which customers might have been forced to use multiple telephones depending on whom they wanted to call.(48)

Theodore Vail took the reins of AT&T and announced his goal of "One Policy, One System, Universal Service.(49) Vail aggressively pursued this goal, basing his strategy on the control of technology.(50) Control over long-distance telephone technology gave AT&T technological and economic advantages.

The universal service policy gave Bell System Operating Companies (BOCs) a special relationship with regulators. A regulatory compact benefitted BOCs and regulators, leading both toward the common goal of interconnection. Through the compact, BOCs received protection from competition, control over the introduction of technological innovation, and, therefore, protection of the value of assets. They also gained an attractive return on capital and a guaranteed growth rate. The regulators gained low costs, steady technological innovation, and high-quality, reliable service.

In 1913, through the Kingsbury Commitment, AT&T agreed to stop its takeovers of independent phone companies and to allow the remaining independents to interconnect with its long-distance service.(51) At this point in time, AT&T owned 45 percent of U.S. telephone exchanges.(52)

In the 1930s, long-distance rates had begun to drop and local rates had begun to rise. Economically, reaction to such a situation seems straightforward, but a large rise in local rates was not politically feasible. Furthermore, state and federal jurisdictions struggled over which govern mental body had the right to revenues generated by interstate communica tions traffic. A solution, if it can be called that, came through *Smith v. Illinois Bell Telephone Co.* in 1930.(53) The Supreme Court reasoned that because a long-distance phone call uses the local equipment at each end, the long-distance carrier owes a portion of its revenues to the local companies for the use of their access lines.(54) This process eventually became known as "separations and settlements"—separations because a portion of the local operating costs were separated and assigned to the interstate long-distance service; settlements because AT&T would settle with the local companies by giving them amounts equal to the separated costs.(55)

The process made AT&T long-distance costs higher than they would have been if payment was not made to the local companies. Since long- distance rates for AT&T were high relative to costs, potential competitors had extra incentive to enter the market. To keep pace with the goal of universal service, regulatory barriers were needed to retain the system of subsidies available through a regulated monopoly.(56)

In the 1950s, Hush-A-Phone Corp. battled the FCC in court because the FCC prohibited a plastic mouth piece from being attached to AT&T's telephone handsets.(57) The Hush-A-Phone device was intended to prevent others in a room from overhearing any part of a phone conversation. AT&T used a heavy-handed approach to show that nothing it did not lease or sell could be connected to the system in any way. The FCC's decision was overturned in the District of

Columbia Circuit Court.(58)

Toward the end of the 1950s, costs for microwave systems had dropped to the level at which decentralized firms were considering purchasing their own microwave systems for internal communications.(59) Such a development threatened Vail's goal of "One Policy, One System, Universal Service," which AT&T still proclaimed. AT&T opposed the establishment of private microwave systems, but the FCC did not see the harm and issued what would later turn out to be the first of a series of procompetitive decisions—*Above 890*.(60)

The 1959 *Above 890* decision allowed private communications systems not connected to AT&T's network to operate.(61) Knowing how detrimental losing large-volume users would be to its goals and finances, AT&T developed the Telpak tariff, which offered discounts to large-volume, multilocation firms and was intended to woo these customers away from the new opportunities *Above 890* made available.(62)

The Telpak response was met by demands from AT&T's competitors for an investigation into whether AT&T's rates were predatory. This series of events set the tone for telephone regulation for the next two decades: prevent cross-subsidization by a firm operating in competitive and monopoly markets.

In 1969, the FCC decided *Carterfone*, its second procompetitive decision, which allowed terminal equipment to be connected to the AT&T system.(63) AT&T responded by filing tariffs with the FCC to allow non- AT&T terminal equipment to be connected to the network through "connecting arrangements" supplied by AT&T.(64) By doing this, AT&T ensured that any new equipment manufacturers could succeed only if AT&T received a portion of the profits.(65)

Microwave Communications Inc. (MCI) sought a modification to *Above 890* which allowed private lines, but did not allow sharing between firms. The FCC's *Specialized Common Carrier* decision in 1971 opened the private-line market for services which previously had not been offered.(66) It also required AT&T to provide access to local facilities through interconnection. The markets opened by *Specialized Common Carrier* were larger and much more significant than those opened by *Above 890*.

2. Tariffs

MCI attempted to take *Specialized Common Carrier* a step further when it filed a tariff for Execunet.(67) Under Execunet, a private line could be leased for only the duration of the call. This move made MCI a switched common-user network, nearly identical to regular AT&T long- distance service. The FCC ordered MCI to stop Execunet service, claiming it overstepped the boundary imposed by *Specialized Common Carrier*.(68) However, the courts overturned the FCC's decision.(69) Soon thereafter, *Execunet II(70)* and *III(71)* opened the market further and permitted compa nies other than MCI to interconnect and resell.

The *Execunet* decisions placed MCI and others in a privileged position because AT&T long distance subsidized the local operating companies and the beneficiaries under the *Execunet* decisions did not. AT&T filed a tariff for Exchange Network Facilities for Interstate Access (ENFIA) by which Execunet-type services would be required to pay higher rates for local access lines.(72) This way, the non-AT&T services would subsidize their fair share.

The threat of the *Execunet* decisions was also answered by AT&T's Wide Area Telephone Service (WATS), which had been in place since the mid-1960s. There was confusion over whether or not WATS used discriminatory pricing and, after an investigation, AT&T was ordered by the FCC to remove all resale restrictions in its tariffs for Message Telephone Service (MTS).(73)

After the WATS resale went into effect, many resellers began to take advantage of the new opportunities. Through leasing WATS lines, both MCI and Sprint were then able to connect their customers' calls to anywhere in the AT&T network—an advantage they did not enjoy under *Execunet II*.

3. Competition

In 1938, the FCC's Telephone Division issued the Walker Report(74) which criticized AT&T's regulated operations

relationship with its unregulated operations.(75) The Walker Report claimed that Western Electric, AT&T's unregulated manufacturing arm, could charge artificially high costs for products sold to the operating companies, which could then artificially inflate their rate bases and justify rate increases.(76) After the press responded negatively to the report, the FCC decided not to pursue its allegations any further.

The Walker Report findings resurfaced in 1949, when the DOJ filed an antitrust suit against AT&T.(77) The suit called for AT&T to divest Western Electric under much the same contentions expressed in the Walker Report. AT&T sought a way to prevent divestiture from taking place and, in 1956, signed a consent decree.(78) Under this agreement, AT&T kept Western Electric but was required to freely license Bell Labs' technology and restrict business to regulated utility operations.(79)

By 1971, *Computer Inquiry I* had ended.(80) The inquiry had been launched to set appropriate boundaries between the regulated communica tions industry and the competitive computer industry. *Computer Inquiry I* found regulated telephone companies should separate communications systems from data processing systems.(81) Since AT&T had previously agreed not to enter unregulated markets in the 1956 Consent Decree,(82) *Computer Inquiry I* primarily was a definition of the computer industry.

Computer Inquiry II was completed in 1980.(83) *Computer Inquiry II* allowed AT&T to enter any unregulated market as long as it did so through a fully separated subsidiary (FSS).(84) It also required that anything made available by AT&T to an FSS must also be made available to everyone else on an equal basis.(85) This would cause AT&T's own market incentives to make cross-subsidization unappealing.

While the *Execunet* and the *Computer Inquiry* decisions were consuming much of AT&T's energies, there was a larger, more pervasive concern lurking in its regulatory divisions—the DOJ's antitrust suit, filed on November 20, 1974.(86) This suit was based on several economic concerns: cross-subsidization, overcharging by Western Electric to the regulated RBOCs, and AT&T's denial to competitors of access to its local facilities, or "bottlenecks.(87)

By the early 1980s, AT&T saw several options: continue litigation, settle by accepting provisions proposed by Congress, or accept the DOJ's divestiture plan. Continuing litigation would have been very costly and left open the possibility of many additional cases against AT&T brought by private firms using the DOJ case as a precedent. The congressional provisions would have avoided divestiture but left AT&T's Bell System highly restricted because integration would have had few benefits. To AT&T, the DOJ's solution seemed to be its least harmful choice.(88)

B. Japan

Compared to the United States, there is less to say about the legal and regulatory histories of the Japanese telecommunications market. This is largely because government monopolies do not have to suffer the pains of protracted court battles that spring up in a more competitive market place.(89) However, it is worthwhile to look into several key events in the history of NTT. Each of these events is defined by the policy initiatives that gave the Japanese government a slight change of attitude toward the role of NTT in the Japanese economy.

Japan's telegraph service began in 1869,(90) and its telephone service began in 1890, with 237 subscribers in Tokyo and forty-eight in Yokoha ma.(91) From 1869 to 1952, the government provided telecommunications services in Japan through the Ministry of Communications. The telecom munications department was spun off through post-World War II reforms and became the Telecommunications Ministry in 1949.(92) In 1952, the Diet created a separate public utility monopoly to offer domestic services through the establishment of Nippon Telegraph and Telephone Public Corporation (NTTPC).(93) The Diet established NTTPC as a quasi-govern mental organization given the authority to operate a domestic telecommuni cations services monopoly.(94) The Diet established KDD(95) a year later, in 1953, to act as the monopoly provider of international communications service.(96)

The first policy shift for Japan came in the aftermath of World War II's destruction of much of the telephone infrastructure.(97) Universal service, low rates, and a need to strengthen the domestic industry became the policy goals in the 1950s.(98) Universal service in Japan had inexpensive service to everyone as its objective. Interconnection was

not an issue because of the monopoly market structure.(99) Local rates were kept low, in part, through cross-subsidization by more expensive long distance services. In fact, local per call rates were artificially low, at seven yen, from 1952 to 1972.(100)

The Public Telecommunications Law of 1953 expanded NTT's control over the equipment market by requiring customers to purchase their first telephone for each line from NTT.(101) NTT was prohibited from manufac turing equipment and adopted a policy of refraining from purchasing equipment from foreign companies.(102)

The policies of 1953 achieved some of the goals set by the Diet: elimination of the backlog of telephone service orders, provision of nationwide direct dialing, and preservation of uniformly low rates for local calls.(103) However, technology began to develop rapidly throughout the 1960s and 1970s. This made some of the underlying economic assumptions for the policies invalid.

1. Interconnection

New technologies, such as microwave, satellite, and digital switching, lowered entry barriers for competitors in the telecommunications services field, thus invalidating the economies-of-scale justification for having a monopoly provider. It became necessary to shift the policy and adopt competition as a goal. In 1971, the Diet opened the data communications market to competition.(104) Customers could connect their computers to NTT's circuits and provide in-house data communications service without NTT's assistance.(105) In 1982, the Diet allowed private companies to provide value-added network services over public phone lines.(106)

Like the United States, the main issue confronting Japan is how to create an environment where competition will thrive. But unlike the United States, Japan has only recently begun to deal with this issue because of its long history of a monopoly service provider. Japanese law now requires carriers to negotiate in good faith with other service providers to reach an agreement concerning interconnection between their networks.(107) If the parties fail to reach an agreement, either party can request that the MPT arbitrate the dispute.(108)

The main issues to be resolved in such a dispute between service providers are the technical specifications and price of the interconnection. For example, a long-distance provider that offers frame relay service(109) may want to interconnect to NTT's local network on each end in order to provide end-to-end frame relay service. The other carrier would not be satisfied with an interconnection that allowed it to provide frame relay. Analog voice circuits would not help because the technical specifications would not allow it to connect to the frame relay service.

However, even if NTT provided a frame relay circuit on each end, it would be difficult to determine the charge for use. Given Japan's unabashed commitment to universal service, local network service prices have long been far below costs. Therefore, NTT would have to charge above-tariff prices in order not to subsidize its competitors' service offerings. This situation is beginning to change because NTT has received approval to readjust its tariff in order to bring it more in line with costs.(110)

According to some observers, NTT did not originally know how to deal with the issue of interconnection.(111) Number identification was the initial problem for the NCCs on NTT's network, and the second problem dealt with charges for interconnection. There was also the issue of where the NCCs would be allowed to interconnect to NTT's network. It is important to make a distinction between technical and political issues when considering what NTT knew how to do. At first, NTT viewed interconnec tion as simply a technical issue, and the responsibility of implementation was delegated to engineers. However, the political ramifications were overlooked and quickly came to light when others began to complain about the interconnection procedures. Making interconnection a political issue greatly increased confusion over the economic rationalizations and forced NTT into a situation where interconnection agreements were not necessarily based on costs.(112)

2. Tariffs

NTT sets its own prices, but the MPT must approve them in order to implement them. The MPT exercises control over the setting of prices through administrative guidance.(113) Unlike in the United States, the guidance, and the plans built upon it, need not be made public. Whatever the system, the tariffs in Japan remain out of balance,(114) and it is

not politically feasible to radically alter the tariff structure over a short period of time. Such an alteration would alienate the public and cause politicians great concern.

However, it is clear that the long-distance rates in Japan remain too high and that the local rates remain too low. In 1987, NTT's average long- distance rates were one hundred yen above those of the NCC.(115) By 1994, this differential had dropped to ten yen, but each NTT rate reduction was soon followed by an NCC rate reduction.(116) Furthermore, the long- distance sector remains NTT's only profitable division, yet NTT maintains a net profit overall.(117) This means that profit from long-distance services carries all the other divisions combined. Because the NCCs have no such burden, they are able to consistently undercut NTT prices, not to mention the fact that NTT must go through much more rigorous negotiations with the MPT to gain approval for a price reduction.

Locally, there is virtually no competition in Japan. NTT's local rates have been held below cost for years.(118) Until recently, NCCs also paid no access charges for using NTT's local network facilities, other than the normal usage tariff rate of ten yen per minute on each end.(119) Thus, it is very difficult for a new competitor to enter the market because it would be competing with rates that would most likely be lower than the new competitor could offer. It will be necessary to rebalance the tariffs before any realistic reorganization of NTT is possible. It appears that Japan is on the right track, given the recent basic monthly charge increases and access fees plan, but more needs to be done.(120)

3. Competition

From legal and market perspectives, the major event in NTT's history was its privatization in 1985. Along with privatization came the introduc tion of competition into the Japanese telecommunications marketplace.(121) To allow this competition, the Japanese Diet passed two laws: the NTT Corporation Law(122) and the Telecommunications Business Law.(123) The latter allowed other companies to enter the market either as facilities-based (Type I) or nonfacilities-based (Type II) common carriers.

Type I carriers own their own facilities and must register with, and gain approval from, the MPT in order to operate their businesses.(124) Type II carriers lease facilities from Type I carriers and are divided into special and general categories. Special Type II carriers provide service to many unspecified users and must receive a registration statement from the MPT in order to operate.(125) General Type II carriers are Type II telecom munications businesses other than special Type II carriers.(126) A general Type II telecommunications business must only notify the MPT of its intention to operate. In other words, it need not receive a registration statement from the MPT.(127) Many companies have entered the market since it was opened. As of July 1993, there were eighty-four Type I carriers and 1291 Type II carriers.(128)

As mentioned above, the MPT reviewed NTT's corporate structure in 1990 to determine whether it was necessary to reorganize so that the market would become more competitive, thereby bringing lower prices and better service to the end-user. In the 1990 review, the MPT recommended the breakup of NTT into a long-distance and a local company. However, the cabinet did not support the breakup, and the MOF had several concerns: the share price would be harmed, further delaying sales to the public; the R&D functions of an integrated NTT would be damaged; and the economies of scope that were in the interests of the nation might be lost.(129) The issue of the breakup of NTT was postponed until fiscal year 1995.

Now that the issue of divestiture has returned to the forefront of debate, the MPT and NTT are drawing their battle lines. The MPT is seeking facts in support of its view that NTT should be reorganized through some form of divestiture. NTT, however, is taking the position that a divestiture would harm its ability to compete in the global information infrastructure of the twenty-first century.

IV.Current Markets

A major difference between the U.S. and Japanese telecommunica tions markets is the point at which the regulators have drawn the lines-of- business restrictions for common carriers. A categorization of the telecommunications network into three levels of switches—local, tandem, and gateway—shows that the United States drew a line between the local and tandem switches,(130) whereas Japan drew the line between the tandem and the gateway switches.(131) The division of the market in Japan is unique because no other country has drawn the line between domestic and

international business.

A. Long-distance Markets

In the American market, AT&T's market share in long distance has dropped from 90.1 percent in 1984 to 58.1 percent in 1993.(132) Similarly, NTT's market position changed from being a monopoly long-distance service provider before privatization to having only a 45.6 percent share in fiscal 1992.(133) However, NTT controls 89.1 percent of the overall telephone market in Japan.(134) Even though the AT&T figure is for revenues and the NTT figure is for number of calls, other carriers are in the market and taking market share.

It is difficult to compare the American and Japanese long-distance markets because each country has its own definition of local and long distance. Generally, prefecture boundaries in Japan can be roughly compared to Local Access and Transport (LATA) boundaries in the United States.(135) Using this as a broad distinction, Japan has a higher percentage of local to long-distance calls than the United States. However, the overall number of local calls in the United States is much higher, as the chart below illustrates.

Number of Calls: (Billions)

LocalLong-distanceTotalPercent LocalPercent Long- distance

Japan50 22.6 72.6 68.931.1

U.S. 402 63.4 465.4 86.413.6

Revenue: (Billions)

LocalLong-distanceTotalPercent LocalPercent Long- distance

Japan(136) 16.7 9.8 26.5 63.037.0

U.S.(137) 89 33.7 122.7 72.527.5

The above figures show that the United States has a larger market than Japan in terms of numbers of calls(138) and revenues. However, in Japan, the long-distance market makes up 31.1 percent of the total, while that figure is only 13.6 percent in the United States. Similarly, the long- distance market in Japan comprises 37 percent of the total, while that figure is only 27.5 percent in the United States. Therefore, a larger portion of the market is competitive in Japan than in the United States.

The competitiveness of Japan's long-distance markets becomes a critical issue when made an element in the debate over NTT's reorganiza tion. This relatively large portion of the market is NTT's only profitable sector, indicating the need for tariff rebalancing. If the local rates were in line with costs, then competitors would have the incentive to enter the local markets. It is not surprising that NTT would be hesitant to open its below- cost local facilities to competition, because NTT would be subsidizing the competitors. The MPT seems to recognize this,(139) but should move more quickly in allowing a more rational tariff structure.

One can speculate as to whether AT&T would have been broken up had the long-distance market in the United States been as competitive as it is today. Such an exercise would be purely academic. However, in many ways, this is the situation confronted by NTT in Japan right now. Should the long-distance part of the company be spun off, and if so, what other changes would be necessary? To answer these questions, the decision makers in Japan might look to the American experience in telecommunica tions market reform. However, in doing so, they should be careful to make the comparison to the U.S. market in 1984, not 1995. They should also consider what role NTT should be allowed to play in the growing global economy. If the trend is to converge, why split NTT into several pieces that, individually, will be less able to compete with firms such as AT&T and British Telecomm (BT)/MCI?

B. Local Markets

In 1982, it was assumed that local exchange service was a monopoly and long-distance was not. AT&T was divested largely because of this assumption. Today, it appears that the opposite might be true.(140)

Compared to what has happened in the long-distance market, less has happened on the local network side, in terms of competitive entry. This is true in both countries. However, in the United States, competitive access providers (CAPs) are growing, though they remain less than a $1 billion industry.(141) CAPs compete with local exchange companies (LECs) by providing long-distance service providers with access to their customers and providing businesses with local fiber optic networks. The cable television (CATV) industry has grown considerably and is now about a $25 billion market.(142) Even combined, these local market service providers remain dwarfed by local telephone revenues of approximately $90 billion.(143)

CAPs are not a result of divestiture. They are a result of new technology, savvy marketing, and market-need fulfillment. The new technology is fiber optics and digital routers that provide for highly reliable data communications facilities. The savvy marketing was easy because the light-footed CAPs were up against lethargic monopolies employing thousands of bureaucrats. The market need was for high-speed backup circuits and redundant lines for critical applications.

Based on the reasoning behind divestiture of AT&T, the local market competitors could not have survived. However, they are thriving and expanding beyond the major metropolitan areas, where they can be guaranteed large customers with numerous telecommunications needs and budgets, and into medium-size markets.(144) This push by the CAPs is causing the RBOCs to make an even stronger push, on the legislative side, to get into the long-distance market.(145)

In Japan, local competition remains unrealized.(146) CATV service only penetrates about 5 percent of households,(147) and local phone competition is virtually nonexistent. However, the lack of competition in

Japan is most likely the result of NTT's low local tariffs, as mentioned above.

Policy goals of divesting local monopolies and increasing local competition are mutually exclusive. If the policy is to encourage competi tion, breaking up NTT will not achieve the goal because the real solution is to rationalize rates.(148) In the United States, the average residential local rate rose 25.8 percent between 1983 and 1993,(149) while over the same period, the cost of a long-distance call from New York to Los Angeles fell 52.2 percent.(150) Allowing NTT to raise its local rates would increase the likelihood of viable competitors entering the local market. Right now, the rates are too low to allow new technology to find a margin in which to compete.

At this stage in the development of competition in the local telecom munications marketplace, it is not possible to tell which, if any, segment of the local market is a natural monopoly.(151) Regulators should allow the marketplace to make such a finding on its own. The marketplace can best do this by opening the local market to competition and imposing regulations only in the areas where they are necessary to prevent anticompetitive practices.(152) Therefore, it is best for the MPT to focus on NTT's inter connection procedures to make certain that competition in the local markets of Japan has a chance to flourish.

C. Line-of-Business Restrictions

1. United States

Line-of-business restrictions in the United States come mainly from antitrust concerns. The main restrictions prohibit RBOCs from doing several things: providing CATV services inside their telephone operating territories; providing long-distance service; manufacturing equipment; and entering the information services business directly, that is, not through a subsidiary.

The first restriction, concerning CATV, comes from the Cable Act of 1984(153) and is being eroded through court decisions. The Cable Act of 1984 deregulated the cable industry and provided guidelines from which the industry has grown. In 1984, cable revenues were just under $8 billion, and today they are nearly $25 billion.(154) The Act covers many areas, including the following: access to cable systems; ownership restrictions; franchise fees; regulation of rates; regulation of services, facilities and equipment; modification of franchise obligations; and franchise renew als.(155)

It must be understood that divestiture did not spur the growth of the cable industry; deregulation did. The barriers to telco entry into cable are now falling, both through court decisions, and potentially through pending legislation. Section 533(b) of the Cable Act of 1984 prohibits common carriers from owning cable systems within their telephone service area, unless they can prove that the community would not be able to acquire service in any other manner.(156) However, several federal courts have held this to be unconstitutional.(157) In *Chesapeake & Potomac Telephone*,(158) the court held that Section 533(b) was not narrowly tailored to serve a significant government interest and failed the intermediate scrutiny test.(159) The next two restrictions, prohibiting long-distance service and manufactur ing equipment, remain in place. However, there is pending legislation that might remove or alter these prohibitions in some way.(160)

The information-services restriction has a somewhat involved history and was lifted through a series of FCC and court decisions. It is instructive to examine the process of how the information-services restriction was lifted from the RBOCs, because it is clear that this type of process would never happen in Japan. *California III(161)* found the cost-benefit analysis portion of the FCC's *Computer III Order on Remand* to be arbitrary and capricious.(162) The decision is fairly straightforward when put in context with the *Computer Inquiry* and *California* decisions:

1970 *Computer Inquiry I(163)*—The FCC found that regulated telephone companies should not be allowed to process signals and defined the computer business as signal processing.

1980 *Computer Inquiry II(164)*—The decision allowed Bell to enter unregulated markets as long as it did so through an FSS. Also, anything made available by AT&T to an FSS must be made equally available to everyone else.

1985 *Computer Inquiry III*—The FCC reversed its stance on structural separations of RBOCs and enhanced services citing market changes and Open Network Architecture (ONA)(165) plans.

1990 *California I(166)—Computer III* was remanded to the FCC on the grounds that the FCC's findings were arbitrary and capricious.(167)

1993 *California II(168)*—The court found that the FCC's *Computer III Remand Proceedings Order* amounted to a change in policy from the stated goals of ONA being a precondition to the lifting of structural separation requirements.(169) Howev er, the change in policy was adequately explained by the technological inability to complete full ONA.

1994 *California III*—The U.S. Court of Appeals for the Ninth Circuit found that the cost-benefit analysis portion of the FCC's *Computer III Order on Remand* was arbitrary and capricious.(170)

The problem arose when the FCC backed away from its ONA require ments. When this happened, the justification for lifting the separate subsidiary requirement lost relevance. Therefore, several parties challenged *Computer III* and were successful. The FCC is now in the process of determining how to proceed on this issue.

2. Japan

NTT was established to provide domestic telecommunications services, and KDD was established to provide international telecommunica tions services.(171) Both companies are allowed to provide other business activities that are necessary to achieve their purposes. The MPT has the authority to issue ordinances to further define the areas of business that the companies may enter.

In many ways, NTT can be thought of as an RBOC whose territory is Japan. Like an RBOC, NTT cannot manufacture and is prohibited from carrying traffic into and out of its territory. However, NTT has never had an information-

services restriction, and has provided information services since the establishment of NTT Data in the late 1960s. NTT is not allowed to offer CATV service directly, which, until recently, was a restriction also applied to the RBOCs.(172)

Article 1 of the NTT Law provides that NTT's purpose is to operate domestic telecommunications business.(173) Read literally, this does not prohibit NTT from offering domestic services in other countries. In fact, NTT has entered into the business of building networks in other countries, such as Thailand,(174) and has offices in about twelve countries.(175) Fur thermore, NTT has approximately 140 subsidiary companies in a wide variety of businesses, but all are presumably necessary to achieve the purpose of providing domestic communications.

D. Corporate Organization

The United States and Japan have different corporate governance and business structures.(176) Both countries have the corporate entity form with shareholders that elect a board of directors who hire management. The main difference between the two countries' business structures is the manner in which stock is owned. The stock of large American corporations is held by the public to a larger extent than in Japan, where it is more common to find companies holding each other's shares.(177)

Much has been said about the *keiretsu* system of interlocking "family" companies in Japan. NTT and KDD are not formal members of any *keiretsu* because, for most of their existence, they have operated as governmental entities. However, there is a somewhat informal grouping known as the "Denden Family," which consists of NTT and its major equipment suppliers.(178) Even so, it is useful to compare what has hap pened in both countries' corporate markets in which the respective telecommunications service providers operate. It is odd that Japan is considering breaking up NTT at a time of horizontal and vertical global integration in the telecommunications sector.

1. Conglomeration

The global economy is just beginning to become a reality in the latter 1990s. Most likely, a true global economy will not exist until well into the twenty-first century. Looking at the first steps of this trend, it seems that the market players are focusing on industry-specific corporate models. In other words, the 1960s ushered in the monolithic conglomerates,(179) such as Gulf+Western and ITT. The leaders of these corporations believed in a diversification strategy to protect against the downswings in any one industry. However, it became clear in the 1980s, that such plans had a fundamental flaw: management talent could not cope with the vastly different problems encountered in all the different industries. Therefore, the trend in the 1980s was to deconglomerate and focus on vertical integration, where management could be familiar with the issues arising from each subsidiary.

This was the trend in the United States, but not in Japan where the *keiretsu* is, in many ways, a form of a conglomerate. It is true that both the Japanese and American markets are concentrated. In 1986, the top ten shareholders of the 200 largest industrial and the fifty largest financial firms in Japan owned about 38 percent of the total equity issued; while in 1990, institutional investors in the United States held 53.3 percent of American companies' equity.(180) However, one important distinction is that in Japan, the ownership structure is not in the same form as that of a classic American conglomerate. The Japanese structure is one of cross- ownership with a main bank owning shares in many corporations, to which it also makes loans, which in turn own shares in the bank.(181) Even so, companies do go outside their *keiretsu* to do business(182) in order to keep their "family" members competitive. A sibling company will be more likely to offer good prices and service if it knows that it must compete for business. However, when times are tough, the family members will always take priority.

The United States uses a more hierarchical structure, consisting of a holding company with many wholly-owned or majority-controlled subsidiaries.(183) The *keiretsu* system picks up where the pre-World War II *zaibatsu* system left off. The American occupation prohibited the *zaibatsu* system after World War II. It had consisted of industrial firms that controlled banks as part of their corporate families. Holding companies had been prohibited,(184) so when the *zaibatsu* system was broken up, Japanese managers sought a place where their stock would be safe from American companies, and from the threat of takeovers. The stock of companies was distributed widely throughout the market and ended up being held in a cross-ownership fashion by companies within the same *keiretsu*, and by banks.(185)

In the United States, throughout the 1980s, many companies were spun off from the large conglomerates in leveraged buyouts. Management insiders often bought a subsidiary from the parent and used the assets of the subsidiary itself as collateral for the loan from the investment banks backing the deal. As the conglomerates traded their subsidiaries for cash, they began to focus on the markets they knew best and spent the money acquiring smaller companies in the same market, or in closely related fields. For example, Gulf+Western changed its name to Paramount after selling off its nonentertainment related properties. It then began buying more companies in its narrowed field, eventually merging with Viacom. Today, it appears that mergers and acquisitions activities are focused on horizontal and vertical integration(186) rather than conglomeration.

2. Horizontal and Vertical Integration and Alliances

Applying historical trends to the telecommunications market, the current strategy of forming alliances makes sense. Telecommunications is inherently local; the network is not moveable. Although goods cannot be manufactured and exported, the expertise of upgrading and managing the network, and providing solutions to customers, is moveable. Furthermore, access to the end customer and economies of scale are essential elements of a large, successful, telecommunications company. Infrastructures are developed in the United States, Japan, and Europe. The privatized companies in Japan and Europe have access to the customer and control the network. This will be the case for some time, even though advances in technology have made bypass of these networks feasible and eroded the natural-monopoly argument.(187) Therefore, alliances are necessary to meet the demands of customers whose needs are increasingly global.

The number of alliances taking place in the communications area is astounding.(188) The same holds true for the telecommunications segment. "There are likely to be agglomerations, mergers, consolidations . . . . It's quite likely that in the future there might be worldwide six, seven, eight telephone companies that dominate world communications in many countries.(189) This statement appears to be quite accurate, looking at the recent developments in global alliances.(190) With respect to horizontal alliances today, three major ones are taking shape: BT/MCI, AT&T WorldPartners, and Sprint/France Telecom/Deutsche Telekom.

In 1994, BT acquired approximately 20 percent of MCI for $4.3 billion. However, the U.S. government imposed several restrictions on the parties.(191) Even so, the investment creates a telecommunications company with a truly global reach, putting together two companies with joint revenues over $32 billion.(192)

AT&T formed WorldPartners in 1993 as a joint venture. Under this scenario, the partners acquire equity stakes in the joint venture but not directly in each other. The following are current equity participants in WorldPartners: AT&T (40 percent), KDD (24 percent), Singapore Telecom (16 percent), and Unisource (20 percent).(193) Other companies can join the alliance, either through equity stakes, or as distributors. NTT is currently conducting a six-month trial of the WorldSourceTM Virtual Network Service in Japan.(194)

France Telecom and Deutsche Telekom have announced plans to jointly acquire a 20 percent stake in Sprint for approximately $4.2 billion. Governments in the United States and Europe are still reviewing this investment. The FCC is in the process of making a finding as to whether the French and German markets allow for equivalent opportunities for American companies to invest in their markets. The positive outcome from evaluating the British market allowed the BT investment to go ahead, but there is less certainty with regards to the proposed Sprint transaction.

With respect to vertical alliances, a distinction must be drawn between the classic form of a vertical alliance and the network form. With the classic form, a company that manufactured cars would integrate vertically if it were to buy a company that manufactured tires. But in telecommunica tions, the lines between companies have been drawn by regulators, not by different products. Therefore, if a long-distance company acquires a local company, is this to be considered a horizontal or vertical integration? It is horizontal from the point of view that it is acquiring an operation that, like itself, provides network services. However, it is vertical if the local company supplies a product from downstream to the long-distance network.

Whichever way the local and long-distance integration is categorized, the fact is that the trend is toward such a development.(195) The regulatory barriers dividing the various market segments of long-distance, local exchange,

CATV, and wireless services are being eroded by market developments that are difficult to stop.(196) The legal barriers are likely to eventually fall, either through court decisions, or through legislation.(197)

V.Conclusion

The law of Japan does not mandate that NTT be broken up. It only states that the MPT shall review the nature of NTT.(198) Of course, NTT can be left as it is, without any changes being made. The focus of the debate over NTT should not be the size of NTT, but rather the manner in which NTT interconnects to its competitors' networks. Size alone is becoming increasingly less relevant as technology advances. The future power will not reside in huge centralized monopolies, but will be spread out over the entire market.(199) Therefore, a large, old monopoly should not necessarily be broken apart simply because it is a large, old monopoly. Instead, it should be required to open its network to other carriers at reasonable rates, which will incite the former monopoly to become more efficient by deploying new technology and by lowering prices to compete with the new carriers.

When AT&T was broken apart, the assumption was that there would be long-distance competition and local monopolies.(200) If the goal is local competition, the road to that goal is through rational local rates and interconnection. Divestiture is always an option but it is a drastic one and should only be used if truly justifiable. In the case of Japan, forcing NTT to divest its local divisions would be a misdirected effort.

Furthermore, the trend in the United States in the early 1980s was toward divestiture and a more fragmented market. The trend as the twenty- first century approaches is toward convergence, as the telecommunications market goes through a period of consolidation.(201) While it is true that NTT is the largest company in terms of market capitalization,(202) this may not be the case for long. If NTT is broken up along the lines of an AT&T divestiture, ten years from now Japan may not have a flagship telecommu nications carrier that can compete effectively with its counterparts from the United States and Europe.

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1989, New York University; J.D. 1996, New York Law School. The opinions expressed herein are solely those of the Author. Translations without attribution are the Author's.

(1). NTT is the largest company in the world, with a market capitalization of $128.9

billion. *The Global 1000*, Bus. Wk., July 11, 1994, at 54, 55. However, size alone does not justify dismantling a company.

(2). *See* Deirdre Carmody, *Fortune Adds Service Sector to Its `500' List of Corpora*

tions, N.Y. Times, Apr. 24, 1995, at D1; *Fortune 500*, Fortune, May 15, 1995, at 226, 226.

(3). *See generally* Implementing Reforms in the Telecommunications Sector:

Lessons from Experience (Bjorn Wellenius & Peter A. Stern eds., 1994).

(4). United States v. AT&T Co., 552 F. Supp. 131, 139 (D.C. Cir. 1982), *aff'd sub*

nom., Maryland v. United States, 460 U.S. 1001 (1983).

(5). AT&T Co., 1982 Annual Report 27 (1983) [hereinafter AT&T Annual

Report].

(6). *Id.*

(7). *Id*. at 2.

(8). *Id.*

(9). *Id*. at 1.

(10). United States v. Western Elec. Co., 1956 Trade Cas. (CCH) ¶ 68, 246 (D.N.J. Jan.

24, 1956).

(11). As early as 1952, Kokusai Denshen Denwa Co. Ltd. (KDD) was divested from the

MPT. This made Japan a unique country where the domestic and international common carriage businesses were separated.

(12). Although the term "universal service" was coined in 1907, by Theodore Vail,

President of AT&T, and used in the preamble to the Communications Act of 1934, it has not been defined in any "official way" by the Congress of the United States. However, the U.S. Senate is now attempting to do so by defining universal service in S. 652, which states:

Universal Service is an evolving level of intrastate and interstate tele communications services that the Commission, based on recommendations from the public, Congress, and the Federal-State Joint Board . . . and taking into account advances in telecommunications and information technologies and services, determines should be provided at just, reasonable, and affordable rates to all Americans, including those in rural and high-cost areas and those with disabilities, to enable them to participate effectively in the

economic, academic, medical, and democratic processes of the Nation. At a minimum, universal service shall include any telecommunications services that the Commission determines have, through the market choices by customers, been subscribed to by a substantial majority of residential customers.

S. 652, 104th Cong., 1st Sess. (1995).

Generally, the term has come to refer to a social policy where the more profitable divisions of a telephone company subsidize the unprofitable ones so that all people will have access to telephone service. For an enlightening history of how the term has been misinter preted, see Milton Mueller, Universal Service: Competition, Interconnection and Monopoly in the Making of the American Telephone System (American Enterprise Institute Working Paper 1995). Mueller argues that universal service originally dealt with the issue of interconnection and that the goal was not to serve all people with phone service, but rather to have all the networks competing with the Bell System interconnect to AT&T. *See also* Koichiro Hayashi & Yoshihiro Tagawa, Universal Service (1994).

(13). Yoshiro Takano, The International Bank for Reconstruction and

Development, Nippon Telegraph and Telephone Privatization Study: Experience of Japan and Lessons for Developing Countries 3 (The World Bank Discussion Paper No. 179, 1992).

(14). *See* NTT Corp., 1994 Annual Report 1 (1995) [hereinafter NTT Annual

Report].

(15). International Marketing, AT&T, The World's Telephones: A Statistical

Compilation as of 1991-92 20, 106 [hereinafter The World's Telephones].

(16). Keizai Koho Center, Japan an International Comparison 1994 6 (1995).

(17). United States v. AT&T Co., 552 F. Supp. 131, 139 (D.C. Cir. 1982), *aff'd sub*

nom., Maryland v. United States, 460 U.S. 1001 (1983).

(18). *See* AT&T Annual Report, *supra* note 5, at 3; *AT&T Co*., 552 F. Supp. at 200-

201.

(19). Long Lines was the Interexchange Carrier (IXC) portion of AT&T which now

competes with other carriers, such as Sprint, MCI, and WorldCom.

(20). AT&T Annual Report, *supra* note 5, at 3.

(21). *AT&T Co*., 552 F. Supp at 186.

(22). Cable Communications Policy Act of 1984 § 533, Pub. L. 98-549, 98 Stat. 2779

(codified as amended at 47 U.S.C. § 613(b)(1) (1994)).

(23). Nippon Denshin Denwa Kabushiki Kaisha Law, Law No. 85 of Dec. 25, 1984,

supp. prov. art. 2 [hereinafter NTT Law].

(24). Ministry of Posts and Telecommunications, Measures to be Taken in

Accordance with Article 2 of the Supplementary Provisions of the NTT Law 4 (International Institute of Communications ed., 1990).

(25). *Id.* at 6.

(26). *See* Steven M. Spaeth, *Telephone Systems in the United States and Japan: Differing*

Regulatory Regimes, Differing Societies, 27 Cal. W. L. Rev. 121, 129 (1990). *See also* Chalmers Johnson, MITI and the Japanese Miracle: The Growth of Industrial Policy 1925-1975, 242-74 (1982).

(27). Spaeth, *supra* note 26, at 129.

(28). Communications Act of 1934, ch. 652, § 602(a), 48 Stat. 1064 (codified as

amended in scattered sections of 47 U.S.C. (1988 & Supp. IV 1992)).

(29). *Id.* § 154.

(30). *Id.*

(31). State regulatory agencies are normally set up along the same lines as the FCC. In

some states, the governor is given the authority to appoint commissioners (*e.g.* New York Public Service Commission), and in others, the commissioners are elected by statewide vote (*e.g.* Georgia Public Service Commission). These state commissions are given various names, for example, Iowa Utilities Board, Kansas State Corporation Commission, Massachusetts Department of Public Utilities, Illinois Commerce Commission, and Maine Public Utilities Commission. They normally oversee not only telephone services, but electric, gas, and water utilities as well.

(32). For instance, if the issue concerns the depreciation schedule of a central office

switch, the state would have the primary responsibility. However, due to the inevitable impact on interstate commerce, the FCC would share oversight.

(33). Adam Thierer, Heritage Talking Points, A Policy Maker's Guide to

Deregulating Telecommunications Part 5: Is the FCC Worth Its Cost? 3 (1995).

(34). Some have called for the abolishment of the FCC, arguing that it is a relic and that

the communications industry should be regulated by a competitive market, not a central regulatory agency. *See, e.g.*, Peter Huber, *Abolish the FCC*, Forbes, Feb. 13, 1995, at 184.

(35). *See* Thierer, *supra* note 33, at 3 (charting "skyrocketing" FCC spending).

(36). The minister is a political appointee, serving at the will of the prime minister. There

is also a vice-minister who is a career bureaucrat and oversees the daily regulatory operations of the MPT.

(37). Koichiro Hayashi & Toshiyuki Sueyoshi, *Information Infrastructure Development:*

International Comparison Between the United States and Japan, 11 Telematics and Informatics 153-66 (1994).

(38). *Id.*

(39). MPT, Internal Organization Chart (1995). *See also* Ministry of Posts and Tele

comm., 1993 Annual Report Table 1 (1994).

(40). Ministry of Posts and Telecomm., 1993 Annual Report, at 1.

(41). The number of MPT employees that work on communications-related matters is

only 1808. MPT, Internal Organization Chart (1995). Comparing this to the FCC and state regulatory bodies' staffing levels, the United States has a larger number.

(42). TIAA-CREF is the largest private pension fund in the United States.

(43). The MPT must consult with the MOF before NTT will be allowed to issue new

shares or change its articles of incorporation. NTT Law, *supra* note 23, at art. 17.

(44). The Ministry of International Trade and Industry (MITI) is responsible for

coordinating the majority of Japan's manufacturing industry's governmental policy. In this respect, MITI has influence over the telecommunications equipment providers. Although NTT and KDD do not manufacture, MITI indirectly influences the service providers. This situation has led to numerous disputes between the MPT and MITI over telecommunications policies.

(45). Not only have commentators suggested abolishing the FCC, but they have also

called for the breakup of the MPT. *See* Huber, *supra* note 34. Under one scenario, the communications regulatory function would be separated from the postal and pension fund sections. *See* Junichiro Koizumi, Yuseisho-Kaitai-Ron [Divestiture of MPT] (1994). Mr. Koizumi is a former minister of the MPT.

(46). According to some analysts' reports, NTT would have better stock performance if

it were broken up. *See* Goldman, Sachs & Co. Japan Research, Breaking Up is Hard to Do? (1995).

(47). *Cf.* Murata, Japanese Claim Consciousness: Japanese are Still Reluctant

to Litigate? (Law & Society Ass'n 1983).

(48). *See* Mueller, *supra* note 12, at 93-95.

(49)" . *Id.* at 122 (citing AT&T Co., 1909 Annual Report (1910)).

(50). Dean Burch, *Common Carrier Communications by Wire and Radio: A Retrospective*,

37 Fed. Comm. L.J. 85, 87 (1985); Richard Gabel, *The Early Competitive Era in Telephone Communication, 1893-1920*, 34 Law & Contemp. Probs., 340, 347 (1969). *See also* Michael K. Kellogg et al., Federal Telecommunications Law §§ 1.3, 10.3.1 (1992).

(51). *See* John Lee, The Economics of Telegraphs and Telephones 51 (1913);

accord Kellogg, *supra* note 50, §§ 1.3.3, 4.2. *See also* Burch, *supra* note 50, at 87.

(52). Mueller, *supra* note 12, at 173.

(53). *Smith*, 282 U.S. 133 (1930), *rev'd sub nom.* Lindheimer v. Illinois Bell Tel. Co.,

292 U.S. 151 (1934).

(54). *Id.* at 158-59. There is no indication that the regulators or the Supreme Court

considered universal service goals of low rates and widespread service availability to be valid criteria in ratemaking. Mueller, *supra* note 12, at 181.

(55). *Smith*, 282 U.S. at 147-48; Carol L. Weinhaus & Anthony G. Oettinger,

Behind the Telephone Debates 53-54, 61-63, 66-67 (1988).

(56). *See* Robert W. Crandall, After the Breakup 24-27 (1991).

(57). *In re* Hush-A-Phone Corp., *Decision*, 20 F.C.C. 391 (1955).

(58). Hush-A-Phone Corp. v. United States, 238 F.2d 266 (D.C. Cir. 1956).

(59). Crandall, *supra* note 56, at 11; Kellogg, *supra* note 50, § 1.4.1.

(60). *In re* Allocation of Frequencies in the Bands Above 890 MC., *Report and Order*,

27 F.C.C. 359 (1959), *reconsideration denied*, *Memorandum Opinion and Order*, 29 F.C.C. 825 (1960).

(61). *Id.* at 411-14.

(62). Crandall, *supra* note 56, at 19-20; Kellogg, *supra* note 50, § 9.5.

(63). *In re* Use of Carterfone Device in Message Toll Telephone Service, *Decision*, 13

F.C.C.2d 420 (1968).

(64). Kellogg, *supra* note 50, §§ 10.4.2-10.4.3.

(65). Crandall, *supra* note 56, at 33-34.

(66). *In re* Establishment of Policies and Procedures for Cons. of App. to Provide

Specialized Common Carrier Servs. in the Domestic Pub. Point-to-Point Microwave Radio Serv., *First Report and Order*, 29 F.C.C.2d 870 (1971).

(67). *See In re* MCI Telecomm. Corp., Investigation into the Lawfulness of Tariff FCC

No. 1 insofar as it Purports to Offer Execunet Serv., *Decision*, 60 F.C.C.2d 25, 25-26 (1976).

(68). *Id.* at 25.

(69). MCI v. FCC, 561 F.2d 365 (D.C. Cir. 1977) *cert. denied*, 434 U.S. 1040 (1978)

[hereinafter *Execunet I*].

(70). MCI v. FCC, 580 F.2d 590 (D.C. Cir. 1978), *cert. denied*, 439 U.S. 980 (1978)

[hereinafter *Execunet II*].

(71). Lincoln Tel. & Tel. Co. v. FCC, 659 F.2d 1092 (D.C. Cir. 1981) [hereinafter

Execunet III].

(72). *In re* American Tel. & Tel. Co. and the Bell System Operating Cos. Tariff F.C.C.

No. 8, *Order on Reconsideration*, 93 F.C.C.2d 739 (1983).

(73). Kellogg, *supra* note 50, § 12.6.

(74). FCC, Investigations of the Telephone Industry in the United States

(1939) [hereinafter Walker Report].

(75). However, the *Walker Report* was never officially adopted by the Commission.

United States v. AT&T, 498 F. Supp. 353, 367 (D.C. Cir. 1980).

(76). Walker Report, *supra* note 74, at 585-89.

(77). United States v. Western Elec. Co., 1956 Trade Cas. (CCH) ¶ 68, 246 (D.N.J. Jan.

24, 1956).

(78). *See id.*

(79). *Id.* ¶¶ 71, 138-71.

(80). *In re* Regulatory and Policy Problems Presented by the Interdependence of

Computer and Comm. Servs. and Facils., *Final Decision and Order*, 28 F.C.C.2d 267 (1971) [hereinafter *Computer Inquiry I*].

(81). *Id.* at 274-79.

(82). United States v. Western Elec. Co., 1956 Trade Cas. (CCH) ¶ 68, 246 (D.N.J. Jan.

24, 1956).

(83). *In re* Amendment of § 64.702 of the Comm'n's Rules and Regs., *Second Computer*

Inquiry Final Decision, 77 F.C.C.2d 384 (1980) [hereinafter *Computer Inquiry II*].

(84). *Id.* at 457-87, 490-95.

(85). *Id.* at 481-83.

(86). United States v. AT&T Co., 552 F. Supp. 131, 139 (D.C. Cir. 1982), *aff'd sub*

nom., Maryland v. United States, 460 U.S. 1001 (1983).

(87)" . *Id*. at 139, 160-63.

(88). W. Brooke Tunstall, Disconnecting Parties 15-18 (1985).

(89). "Before liberalization, NTT and KDD were part of the government, and no formal

mechanisms were needed to make policy. Pricing issues were studied in [the] MPT, but price changes and investment plans for both carriers had to be approved by a vote of the Diet." Roger G. Noll & Frances M. Rosenbluth, Center for Economic Policy Research, Pub. No. 349, Telecommunications Policy in Japan and the U.S.: Structure, Process, Outcomes 13 (1993). This statement is generally accurate, but the situation is a little more complex. The NTT price scheme was part of the overall government budget that went before the Diet for approval as a whole. Because KDD had long been a private company, its prices were subject to the approval of the MPT, not the entire Diet. Also, there were special exceptions for certain pricing changes, such as discounts for New Year's Day calling. These special exceptions did not require intervention by the Diet.

(90). Douglas W. Colber, Comment, *Reform of Japanese Telecommunications Law:*

Panacea or Placebo?, 8 Nw. J. Int'l L. & Bus. 145, 145 (1987).

(91). Koichiro Hayashi & Richard Nohe, *Private Networks in Japan and the Need to*

Secure Global Interconnectivity, in Private Networks and Public Objectives, (Eli Noam ed., forthcoming 1996).

(92). Takano, *supra* note 13, at 3.

(93). NTTPC should not be confused with the current NTT-PC (Personal Computer)

subsidiary of NTT Corporation.

(94). Nippon Telegraph and Telephone Public Corporation Law, Law No. 250 of 1952

(Japan) [hereinafter NTTPC Law of 1952].

(95). Kokusai Denshen Denwa Company Ltd. Law, Law No. 301 (Japan) [hereinafter

KDD Law]. Article 1 of the supplementary provisions makes the date of enforcement no later than March 31, 1953. Kokusai Denshen Denwa literally means International Telegraph and Telephone.

(96). The distinct separation of domestic and international service provisioning is unique

to Japan. Most countries created government monopolies that handle all communications services, both domestic and international. In the United States, it is interesting to note that divestiture created a break at a different level, between the local switch and the interexchange switch. These nontechnical, regulatory-imposed divisions make less and less sense as we move toward a seamless network of networks with communications-line capacity becoming a commodity.

(97). *See* Colber, *supra* note 90, at 149 n.24 (citing *Japan's Transportation and*

Communications, 14 Far E. Econ. Rev. 238, 239 (1953)). "In March 1951, the number of telephones installed in Osaka only added up to 59% of the number of installed telephones in Osaka in 1940. Among Japan's major cities that suffered war damage, only Fukuoka had rebuilt to its pre-war standing by March 1951, operating at 104% of its 1940 capacity." *Id.* (citation omitted).

(98). *See* NTTPC Law of 1952, *supra* note 96; Koshu Denki Tsushinho Law, Law No.

97 of 1953 (Japan) [hereinafter Public Telecommunications Law of 1953]. *See also* Colber, *supra* note 90, at 149.

(99). This contrasts to the universal service objective in the United States as interpreted

by Mueller, *supra* note 12.

(100). Colber, *supra* note 90, at 149 n.27 (citing J. Hills, Deregulating Telecoms:

Competition and Control in the United States, Japan and Britain 105 (1986)).

(101). *Id.* at 150.

(102). *See id.* at 150-52. This policy was not unusual considering that many countries with

monopoly telecommunications providers declined pursuing foreign procurement in order to foster the growth of domestic industry.

(103). *Id.* at 152-53.

(104). This was accomplished through revisions to the Public Telecommunications Law

of 1953. *Id.* at 151.

(105). *Id.*

(106). *Id.*

(107). Law No. 86 of Dec. 25, 1984, art. 39(1)-(8), *reprinted in* Comm. Study Group,

Japanese Legislation of Telecommunications, Telecommunications Business Law (n.d.) [hereinafter Telecommunications Business Law No. 86].

(108). *Id.*

(109). Frame relay is a kind of digital transmission service that does not support voice,

but does allow for relatively high-speed data transfer.

(110). Breaking Up Is Hard to Do?, *supra* note 46, at 5.

(111). Shigehiko Naoe, *Japan's Telecommunications Industry: Competition and Regulatory*

Reform, 18 Telecomm. Pol'y 651, 651-57 (1994).

(112). Interview with Koichiro Hayashi, President & C.E.O. of NTT America, Inc., in

New York, N.Y. (May 2, 1995).

(113). Spaeth, *supra* note 26, at 129.

(114). In February 1995, NTT implemented a 16% rate hike for basic monthly service.

This was the first such hike since 1976. Even though basic charges account for 17% of total sales, the local divisions are NTT's largest loss-making sectors. *See* Breaking Up Is Hard to Do?, *supra* note 46, at 7. In Japan, the domestic telephone service charge is made up of a basic monthly flat fee, local usage, and long-distance usage.

(115). NTT, Company Documents Charting Rate Reduction and Major Topics after

Privatization, Sept. 1994 (on file with author).

(116). *Id.*

(117). *Id.*

(118). Colber, *supra* note 90, at 149.

(119). Conversely, in the United States, IXCs pay between 50 and 60% of their gross

revenues to the local exchange carriers (LECs) in the form of access charges. For an interesting assessment of how the money flows around the American telecommunications market, see generally Carol L. Weinhaus & Anthony G. Gettinger, Behind the Telephone Debates (1988). *See also* Carol Weinhaus, Sandra Makeff, et al., Who Pays Whom? Cash Flow for Some Support Mechanisms and Potential Modeling of Alternative Telecommunications Policies, Presentation at the NARUC Meeting, Los Angeles, CA (Nov. 15, 1992).

(120). *See generally* Breaking Up Is Hard to Do?, *supra* note 46.

(121). Law Relating to Prohibition of Private Monopoly and Methods of Preserving Fair

Trade of Japan, Law No. 54, Apr. 14, 1947 (as amended) (Japan) [hereinafter Antimonop oly Law]. The Antimonopoly Law is enforced by the Fair Trade Commission (FTC) in Japan. The FTC in Japan is similar to the Federal Trade Commission in the United States, and the MPT is similar to the U.S. Department of Justice when it comes to enforcing antitrust laws in the telecommunications sector. For all practical purposes though, the policies of the MPT preside over virtually all aspects of competition, and the lack of it, in the Japanese telecommunications marketplace.

(122). NTT Law, *supra* note 23.

(123). Telecommunications Business Law, Law No. 86, *supra* note 107.

(124). *Id*. at art. 9, para. 1.

(125). *Id.* at art. 24, para. 1.

(126). *Id*. at art. 21, para. 2.

(127). *Id.* at art. 22, para. 1.

(128). InfoCom Research, Inc., Information and Communications in Japan 1993-

1994 14 (1994).

(129). Naoe, *supra* note 111, at 652-53.

(130). United States v. AT&T Co., 552 F. Supp. 131, 223-25 (D.C. Cir. 1982), *aff'd sub*

nom., Maryland v. United States, 460 U.S. 1001 (1983).

(131). *See* NTT Law, *supra* note 23. *See also* KDD Law, *supra* note 95.

(132). FCC, Statistics of Communications Common Carriers 7 (1993-94 ed. 1994).

(133). *Id.* This share is for the number of calls along the most heavily trafficked corridor

in Japan, among Tokyo, Osaka, and Nagoya. *See* InfoCom Research, Inc., *supra* note 128, at 23.

(134). Norri Kageki, *`Fight Fair,' Rings Rival Challenge to NTT*, The Nikkei Wkly.,

May 1, 1995, at 1, 1.

(135). LATA is a system used to determine when a local phone company must transfer a

call to an IXC.

(136). NTT, Presentation Materials from the Road Show for New York Stock Exchange

Listing, Sept. 1994 (on file with author). Figures are as of March 31, 1994. Exchange rate at $1 = ¥100.

(137). *See* Statistics of Communications Common Carriers, *supra* note 132. Figures

are as of December 31, 1993. These figures do not include international circuit revenue and access charges of $27.3 billion, paid by the long-distance carriers to the local carriers.

(138). *See generally* The World's Telephones, *supra* note 15. There is a caveat here;

the more accurate measure would be to compare minutes of use on long-distance and local networks. However, according to the FCC, this data is not kept because most local companies offer flat-rate billing. Therefore, there is no need to require them to measure the usage. While this may be true, it is likely that the local companies themselves do keep these records and use them to justify new plant investments to the states' commissions. But so far, I have not found a document that consolidates all the numbers for the country. Also, the population in Japan is more concentrated into metropolitan areas than is the population of the United States. *The World's Telephones* does not indicate why the figure for the local number of calls in the United States is so high.

(139). MPT, Submission to the Fair Trade Commission, 1-10, Mar. 1995.

(140). Peter Huber et al., The Geodesic Company, The Geodesic Network II:

1993 Report on Competition in the Telephone Industry 1 (1992).

(141). The Yankee Group, A CAP Market Update: No Future for the Indepen

dents? at ii (1993).

(142). Paul Kagan Assos., Inc., The Cable TV Financial Databook 8 (1994).

(143). Statistics of Communications Common Carriers, *supra* note 132, at 305.

(144). As of 1991, CAPs were in 24 of the 25 top metropolitan service areas. Huber et

al., *supra* note 140, at 2.25.

(145). Legislation has been passed that would allow the RBOCs to offer long-distance

service if they pass a number of local market competition tests. *See* Telecommunications Act of 1996, Pub. L. No. 104-104 (1996). There have also been proposals that would allow entry on a date certain, regardless of the status of competition.

(146). Although there are several local carriers, such as TTNet, competing with NTT,

none is profitable. For that matter, neither are NTT's local networks. So, a question arises: How can the local competitors remain in business? The answer to this has to do with the fact that the local competitors have large corporate parents, mainly electric power compa nies. InfoCom Research, Inc., *supra* note 128, at 144. This "anchor-tenant" structure allows the parents to provide their subsidiaries with telecommunications traffic and data- facilities management business to keep them afloat.

(147). Jerry L. Salvaggio, TPG Research & Reports, Inside the Japanese

Telecommunications Industry 21 (1995).

(148). Local and long-distance calling volume increased before divestiture and continued

afterwards. Between 1980 and 1989, the calling volume in the United States grew 42%. Intrastate toll calling increased 104%, interstate toll calling increased 159%, and local calling grew by 25%. This growth primarily has been attributed to the 45 percent reduction in long-distance rates to residential customers over that period, the repricing of access charges, and the growth of competition. *See* Nat'l Telecomm. Infrastructure Admin., Dep't of Commerce, Telecommunications in the Age of Information 22-23 (1991).

(149). *See* Statistics of Communications Common Carriers, *supra* note 132, at 304.

(150). *Id*. at 285.

(151). *See generally* William J. Baumol & J. Gregory Sidak, Toward Competition

in Local Telephony 121 (1994).

(152). *Id*. at 27-28. This approach is being tried in New Zealand, but the question is unan

swered as to how much regulatory interference is necessary to assure that anticompetitive conduct does not emerge. *See* Kageo Nakano, To Realize a Competitive Environment in Japan, Presentation at the ITS Workshop, Wellington, New Zealand (Apr. 10-12, 1995).

(153). Cable Telecommunications Policy Act of 1984, Pub L. 98-549, 98 Stat. 2779

(codified as amended at 47 U.S.C. § 151 (1991)).

(154). Paul Kagan Assocs., *supra* note 142, at 8.

(155). 47 U.S.C. § 151 (1991). *See also* Richard Nohe, From Air to Wire: Cable

Television's Effect on the Broadcast Television and the Possible Entry of the Telcos (1989) (unpublished M. Prof. Studies thesis, New York University) (on file with author).

(156). 47 U.S.C. § 533(b) (1991).

(157). *See, e.g.*, Chesapeake & Potomac Tel. Co. of Virginia v. United States, 830 F.

Supp. 909 (E.D. Va. 1993); Ameritech v. United States, 867 F. Supp. 721 (N.D. Ill. 1994); U.S. West, Inc. v. United States, 855 F. Supp. 1184 (W.D. Wash. 1994).

(158). *Chesapeake*, 830 F. Supp. at 931-32.

(159). *Id*.

(160). *See* S. 652, *supra* note 145.

(161). California v. FCC, 39 F.3d 919 (9th Cir. 1994) [hereinafter *California III*].

(162). *In re* Computer III Remand Proceedings, *Report and Order*, 5 FCC Rcd. 7719

(1990).

(163). *Computer Inquiry I*, *Final Decision and Order*, 28 F.C.C.2d 267 (1971).

(164). *Computer Inquiry II*, *Second Computer Inquiry Final Decision*, 77 F.C.C.2d 384

(1980).

(165). Open Network Architecture or ONA is a combination of technical and regulatory

plans intended, among other things, to place all long-distance companies on equal competitive grounds, vis-à-vis local-to-long distance interconnection, with AT&T.

(166). California v. FCC, 905 F.2d 1217 (9th Cir. 1990) [hereinafter *California I*].

(167). *Id.* at 1238.

(168). California v. FCC, 4 F.3d 1505 (9th Cir. 1993) [hereinafter *California II*].

(169). *Id*. at 1512.

(170). *California III*, 39 F.3d at 930.

(171). *See* NTT Law, *supra* note 23, at 1. KDD Law, *supra* note 95, at 1.

(172). Baumol & Sidak, *supra* note 151, at 18. There is no formal statutory restriction

prohibiting NTT from offering CATV service. However, the MPT prohibits it through *gyosei shido* and refuses to give NTT a CATV license. *See supra* note 26 and accompanying text.

(173). NTT Law, *supra* note 23, at 1.

(174). On November 12, 1992, NTT took a 20% stake in TT&T. NTT will assist in the

building of a one million line telephone system in Thailand that will be transferred to the Thai government upon completion and then operated by TT&T, with NTT remaining as a shareholder. Future expansions could undergo the same process, with a six million line plan set for installation between 1997 and 2001. Keisuke Nakasaki, Thai Tel. & Tel. Public Co., Ltd., TT&T and the One Million Telephone Line Expansion Project—Experience from Thailand, Jan. 9, 1995.

(175). *See generally* NTT, 1994 Annual Report (1995).

(176). Mark J. Roe, *Some Differences in Corporate Structure in Germany, Japan, and the*

United States, 102 Yale L. J. 1927 (1993).

(177). *Id.* at 1936-41.

(178). The four main companies are Fujitsu, Hitachi, NEC, and Oki.

(179). *See* H.W. de Jong, *Symposium: The Merger Policy Debate Continues: Responses*

to the Bigness Mistique: The Problem of Mergers, 9 J. Int'l. L. Bus. 605 (1989).

A conglomerate deal is one where the parties neither compete with one another, nor are they potential competitors, nor are they involved in customer-supplier relationships. Conglomerate deals are not per se legal. Quite the contrary, if anyone can succeed in showing that such a deal would be likely to injure competition somewhere, then it is presumably illegal. The problem is that it is extraordinarily difficult to show that a deal between companies in unrelated markets is likely to injure competition.

Ronald W. Davis, *Antitrust Analysis of Mergers, Acquisitions, and Joint Ventures in the 1980s: A Pragmatic Guide to Evaluation of Legal Risks*, 11 Del. J. Corp. L. 25, 30 n.9 (1986).

(180). Gen'l Gov't Div., U.S. Gen'l Acct. Off., Competitiveness Issues: The

Business Environment in the United States, Japan, and Germany, 65, 88 (1993) [hereinafter Competitiveness Issues].

(181). Roe, *supra* note 176, at 1939. However, like the United States, Japan has a 5%

limit on the amount of corporate shares that a financial company can own. Financial companies include banks, mutual loan and savings banks, trusts, insurance, mutual loan, and securities. However, insurance companies have a 10% limit. These limits can be waived by the FTC and do not apply to cases where stock ownership is (a) due to the enforcement of bona fide liens, (b) made by a securities company in the course of business, or (c) made as a trust. *See* Competitive Issues, *supra* note 180, at 94. *See also* Antimonopoly Law, *supra* note 121, art. 11.

(182). In 1986, members of the six main, bank-centered *keiretsu* borrowed 23 to 43% of

their total capital debt requirements from members within their family. *See* Competitive ness Issues, *supra* note 180, at 94.

(183). Roe, *supra* note 176, at 1955-56. Banking law in the United States would not allow

the Japanese-style main-bank structure.

(184). *See* Antimonopoly Law, *supra* note 121, art. 9.

(185). Roe, *supra* note 176, at 1963. Historically, 20% of the stock of ten major Japanese

industrial companies has been held by five major financial institutions. *Id.* at 2001.

(186). Horizontal integration occurs when a firm acquires another firm in its own line of

business, for example, one local phone company acquiring another. Vertical integration occurs when a firm acquires another firm that is in an upstream or downstream business, for example, when a CATV network operator acquires a television production studio.

(187). *See* Baumol & Sidak, *supra* note 151, at 117-37.

(188). *See generally* Cliff Friedman, New Age Media II 37, 50-53 (1994).

(189)" . *Adam Smith's Money World* (PBS television broadcast, Mar. 2, 1995) (quoting Eli

Noam).

(190). *See* Keith E. Bernard, *New Global Network Arrangements: Regulatory and Trade*

Considerations, 18 Telecomm. Pol'y 378-96 (1994). *See generally* Michael Y. Yoshino & U. Srinivasa Rangan, Strategic Alliances: An Entrepreneurial Approach to Globalization (1995).

(191). United States v. MCI Comm. Co. and BT Forty-Eight Co., 1994-2 Trade Cas.

(CCH) ¶ 730 (D.D.C. June 15, 1994).

(192). *Justice Department Files Antitrust Suit and Consent Decree in British Telecom and*

MCI Joint Venture and Investment Agreement, U.S. Dep't of Just., Press Release, June 15, 1994.

(193). The Yankee Group, NTT Alliance Project Final Report (1995).

(194). *WorldSourceTM VNS Domestic Service Trial Operation*, NTT & KDD Press Release,

Mar. 1, 1995; David P. Hamilton, *Nippon Telgraph & Telephone to Align with AT&T for Long-Distance Service*, Wall St. J., Mar. 1, 1995, at B2.

(195). *See generally* The Yankee Group, Yankee Watch, Telecommunications

Convergence of Local and Long Distance: The New Integrated Carriers (1994).

(196). *See id.* at 2. *See also* Thomas Aust, Citicorp: The High Grade Investor, The

Emergence of Transmedia: The Convergence of Telecommunications, Media and Technology, The High-Grade Investor 3-4 (1994).

(197). *See* S. 652, *supra* note 12.

(198). NTT Law, *supra* note 23, supp. prov. art. 2.

(199). *See generally* Eric Nee, *Interview: Peter Huber*, Upside, May 1995, at 61. *See also*

Peter Huber, Orwell's Revenge: The 1984 Palimpest (1994). Huber argues that George Orwell's assumption, that Big Brother would rule through the use of a centralized communi cation monopoly, was incorrect because the communications network is not centralized and

does not stop at national boundaries.

(200). Huber et al., *supra* note 140, at 1.1.

(201). *Adam Smith's Money World*, *supra* note 189 (quoting Eli Noam).

(202). *The Global 1000*, *supra* note 1, at 54.