

**JAPANESE
TELECOMMUNICATIONS
POLICY**

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EXECUTIVE SUMMARY

* Japan's new telecommunications policy aims at infusing more competition into the telecommunications industry.

* The more pro-competitive policy evolved more through political struggle between those with interests in change versus those with interests in the status quo, than through debate on the merits of competition versus monopoly or public versus private control.

* The Ministry of Posts and Telecommunications (MPT) and the Ministry of International Trade and Industry (MITI) struggled for control over telecommunications policy-making. MPT had a stake in the status quo with its control over Nippon Telegraph and Telephone (NTT).

* This struggle was carried into the Diet, where groups aligned themselves with MPT or MITI. Japan's Liberal Democratic Party (LDP) has had a close relationship with the MPT, but MITI resistance to MPT proposals was reinforced by pressure for liberalization from the U.S. and the Japanese business community.

* The business community sided with MITI in support of fewer restrictions on data communications and putting NTT under private control.

* NTT's major equipment suppliers, NEC, Hitachi, Fujitsu, and Oki ("the big four"), were largely passive in the debate until NTT adopted an open procurement policy. "The big four" then actively lobbied for a pro-competitive policy in order to avoid trade frictions which could affect their ability to penetrate foreign markets, especially that of the U.S.

* The U.S. government influenced the direction of policy through the example of its own pro-competitive telecommunications policies and through direct lobbying for the opening of the Japanese market.



I. Introduction

U.S. telecommunications policy today is undergoing a radical change under new technological and social conditions. As shown in the Federal Communications Commission (FCC) and Department of Justice decisions concerning, principally, the breakup of AT&T, it seems clear in which direction U.S. telecommunications policy is heading. It is getting away from the restrictions that are intrinsic to a monopoly and moving toward a policy that promotes competition.¹ The focus of telecommunications competition, which has centered upon AT&T and IBM, is at present gradually extending throughout the world.

There is no doubt that "a growing number of the PTTs (Post, Telephone, and Telegraph Administrations) around the world are starting to loosen regulations and permit competition."² However, there are also those who say that "the absence of cohesive U.S. national computer policy (NCP) places the U.S. computer industry at a disadvantage relative to foreign competitors (Japan and France)."³

"A deregulatory typhoon is about to blow away Nippon Telegraph and Telephone Public Corp.'s monopoly of the Japanese telecommunications market. In its wake, state-owned NTT will soon be competing with a host of private companies."⁴ The "deregulatory typhoon" is the Telecommunications Business Bill, which will do away with monopolies in every area of telecommunications so that the industry will be able to deal flexibly with technological innovations and shifts in demand. The bill is aimed at creating a system in which newcomers can participate.

Furthermore, the bill divides telecommunications businesses into two categories. Those who own telecommunications lines and equipment are Type 1 telecommunications businesses and the others (those who

lease lines from the primary businesses) are Type 2 telecommunications businesses.

The table below summarizes the characteristics of the two types of service providers.

Classification (Subcategories)	Type 1	Type 2	
		Special*	General
Status of telecommunications lines	Owens circuit facilities	Leases circuit facilities	
Entry requirements	Ministry of Posts and Telecommunications (MPT) approval	MPT registration	MPT notification
Tariffs	MPT approval on basic rates	MPT notification	None
Foreign ownership limitations	Less than one-third	None	

* Special secondary telecommunications business refers to companies whose service extends nationwide to an unspecified number of users. It also refers to companies which operate international telecommunications (also called "large-scale VAN" (Value-Added Network)).

Figure 1. Categories of Service Providers

Thus telecommunications businesses are categorized not by service type, but by whether they own the telecommunications circuit facilities or not. This is a situation very different from in the U.S. where, as ruled by the Second Computer Inquiry of 1980, the regulation standard is based on whether the service is basic or enhanced. According to its consent decree with the Justice Department, AT&T can only provide enhanced service as a fully separated subsidiary while NTT, in contrast, is able to provide enhanced service directly. On this point, Yoshio Utsumi, who is the head of the Data Communications Section of the MPT's Telecommunications Policy Bureau (now Communications Policy Bureau), says the following:

One imagines that as Integrated Services Digital Networks (ISDN) throughout the world become more efficient in the near future, various types of services, such as telephone, facsimile, and data communications, will be able to be provided collectively through one digital network. This means that a single company will be able to provide every type of communications service and I think that U.S.-type policies, which distinguish between basic services, such as telegraph and telephone, and sophisticated communications services, such as VAN, will sooner or later become unsuitable for the existing situation.⁵

It can be said, however, that Japan's new telecommunications bills, which establish a classification system based upon whether network lines are owned or not, are consistent with the contestable market theory.⁶ That is, when there is no technological gap between potential entrants and incumbent companies*, the contestable market theory says that the amount of sunk cost (fixed costs that cannot be recovered upon pullout) determines whether restrictions are necessary or not.

*In the case of the telecommunications industry, the pace of technological innovation is remarkably swift and new entrants, especially, have the means to own technologically sophisticated capital equipment.

Let's take the airline industry as an example. The law of increasing returns is certainly in effect on the main routes. Compared to the small and mid-sized aircraft, jumbo jets clearly cut down on transport costs. The amount of money that is spent on the jumbo jet airplanes themselves constitutes the fixed cost, but the jets can always be diverted for use on other routes. If they are not needed, the amount of depreciation can be deducted and the planes resold; the sunk cost can be ignored.

Even if industries such as this were monopolistic, in all likelihood it would not be necessary to have a system that would regulate them and check their profits. This is because if monopolistic profits were being generated, newcomers could get into the business without running much risk; but, if the newcomers knew that the business was not profitable, they would resell the capital equipment they had invested in and turn to another industry. The contestable market theory says that if potential entrants are able to get in and get out of a business quickly in this manner (if the sunk cost is so small that it can be ignored), one can expect free competition-like efficiency even if there are only a few incumbent companies (or, in extreme cases, just one). It is thought that the relaxation of restrictions in the trucking industry also parallels this way of thinking.⁷

For the sake of argument, let's suppose for a moment that the telecommunications industry -- which is comprised of companies that own their communications networks and those who do not but provide service on a lease basis -- is like an airline industry in which some airline companies own their own airports and others do not, or like a trucking industry in which some companies have exclusive roads and others do not.

Usually, telecommunications facilities (or airports and roads) take up a certain geographical area. Although a huge amount of money may have been invested in equipment and facilities, the company cannot immediately charge the users in order to recover the costs, because alternate services are available. The company will only be able to recover its investment over the long term by providing services.

In light of these facts, if another company enters an area in which a certain telecommunications business already has a communications network in place (or an airline or trucking company moves into an area near an existing airport or near roads under exclusive use), both companies will take a very long time to recover their investments and, in many cases, neither would profit.

There are two ways in which this situation can be avoided: (1) restrict the entry of companies into areas where the lines and facilities are owned, and (2) have companies lease lines and facilities to the telecommunications companies that provide various value-added services.

The problem is that if newcomers are restricted without the relaxation of controls, the companies which own the lines will be in a very advantageous position.

Some points of contention remain as far as the particulars are concerned, but it is thought that most economists can support the basic philosophy of the new telecommunications measure.⁸

Below I will examine the direction in which Japanese telecommunications policy is heading due to this new bill.

II. The Path of Telecommunications Policy

In this section of the paper I would like to trace the path of telecommunications policy and system reform which led to the new telecommunications bill and talk about who was involved, what problems arose, and the principal points of contention in the transformation of the telecommunications system.

To do this, let's divide the system reform process into two phases. The first phase covers the proposals of the MPT-created Telecommunications Policy Conference and the movement surrounding the urgent motion for the liberalization of data communications. The second phase covers the period beginning with the Ad Hoc Commission's report and ending with its subsequent enactment into law.

(1) Liberalization of Data Communications

In October 1980, the MPT created the Telecommunications Policy Conference which released a report in August 1981 entitled "The Ideal Telecommunications Policy for The 1980's." It urged a reexamination of telecommunications administration and laws and the establishment of an integrated plan for the industry.

This report was the starting point for a series of inquiries which culminated in the establishment of policy. The reports of groups including the Research Board on such matters as the creation of the Telecommunications Inquiry Commission and on the management structure of NTT attest to that fact.

The Telecommunications Policy Conference was a response to startling innovations and integration in computer and telecommunications technologies. The revolution in information communications had shaken the foundation of the present system.

However, MPT's telecommunications policy and the information processing policy of the Ministry of International Trade and Industry (MITI) overlap each other. The information communications industry is only now revealing its enormity and the two ministries disagree over how to manage the related profits.

Data communications has been the principal battlefield between the MPT and MITI in determining Japanese communications and information policy.

Data communications is a service which combines information processing and telecommunications. From the MPT's point of view, data communications is information processing-integrated communications. From MITI's perspective, data communications is online information processing.

The MPT violently opposed the Temporary Law to Promote The Specified Machinery and Information Industry that was submitted by MITI in 1978. Because of a memo drawn up by the vice ministers of both agencies which stated that "data communications will be regarded as telecommunications and the MPT will not interfere with the implementation of necessary policies," the MPT ultimately agreed to the MITI proposal. However, the Data Communications Promotion Bill, which the MPT sponsored, was a failure. The bill was to provide for the creation of an inquiry commission, the establishment of a basic plan, and an MPT minister-designated policy that would promote data communications.

Japan's online information processing service began in early 1964 with the Japanese National Railways (JNR) seat reservation system. However, NTT had to wait for the revision of the Public Telecommuni-

cations Law of 1971 in order for their direct control of data communications services to be recognized as public communications. The connections between computers and communications circuits were recognized and the restrictions on leased circuits by private companies for data communications were relaxed (the first liberalization of data communications). As data communications services spread, however, it became widely understood that line use was only being sanctioned on a case-by-case basis within the framework of the existing legal structure. There was a demand for a relaxation of the restrictions. In particular, industry urged a relaxation, to make operations efficient and to consolidate the system.

On the advice of its Telecommunications Policy Conference, the MPT submitted an amendment to the Public Telecommunications Law which would, in principle, free the use of leased circuits. The ministry also proposed a bill concerning value-added data transmission operations (the so-called VAN Law) that would allow private companies to break into the NTT communications monopoly. However, the MPT and MITI disagreed. The MPT contended that an official authorization checking system would be needed. MITI argued that restrictions would interfere with information processing.

Owing to the Second Ad Hoc Commission's report on official sanctions and administrative readjustment (discussed in the following section), the VAN Law proposal was ultimately shelved. However, the amendment to the Public Telecommunications Law was enacted (June 1982). As a result, restrictions on the resale and joint use of leased circuits for data communication have been eased substantially.

Meanwhile, while the MPT and MITI were reconciling their differences, a small enterprise VAN was approved as a temporary measure to restore the balance between small businesses and the large companies that were able to benefit by the liberalization of joint use. The decision was made after two leading figures on this issue in the Liberal Democratic Party (LDP), Rokusuke Tanaka, (head of the LDP's Policy Research Council), and Ryutaro Hashimoto, (head of the LDP's Committee on Administration Reform Research), finally reached an agreement. The amendment and small-enterprise VAN constituted the second liberalization of data communications. The full-scale VAN required for network integration would have to wait until the existing laws, which left domestic telecommunications in the hands of the NTT monopoly, were changed.

(2) The Ad Hoc Commission's Report and Subsequent Enactment

The first oil crisis in late 1973 and subsequent jump in the price of raw materials had a profound effect upon Japan which is a heavy importer of resources. Japan's fast-growing economy became sluggish for almost five years. During this time, efforts were made to stimulate business activity through public investment.¹ Financially, the effects of the large volume of national bonds that were issued since 1975 are now being felt.²

The Second Ad Hoc Commission was inaugurated in September 1981 in order to put public finances back on a sound basis. Its immediate duty was to reorganize the nearly bankrupt Japan National Railroad (JNR), the national health insurance system, and the agricultural programs management system, which were seen as the cause of the budget deficit.

As the Ad Hoc Commission examined ways to carry out administrative and financial reforms without raising taxes, it also focused upon the need for a radical change in the telecommunications system.

The Ad Hoc Commission on Administrative Reforms lists the following three points as basic criteria in the reform of NTT:

- a. The future organization should be sufficiently autonomous and efficient. The organization should therefore be a private, not public, corporation.
- b. Policy should not only meet the needs of today but also those of the future, and should discourage monopolies. Policy should encourage technological innovations in telecommunications.
- c. The NTT should not be excessively large, because that would make it difficult to manage.

In short, the Ad Hoc Commission recommends that NTT should be divested and reorganized into a private corporation, and made competitive and efficient.

It was reported³ that behind this recommendation was the Ministry of Finance's desire to go public with the NTT stock, which was estimated to be worth approximately 3 trillion yen. The resulting premium would be used to repay government bonds.

The MPT, opposition parties, the labor unions and a portion of the ruling LDP all opposed this idea. The opposition parties and labor unions charged that the idea would mean the arbitrary selling off of the nation's common property. They feared that the rate differential between geographic regions and especially the charges within the cities would increase. And they feared that profits of consumers and small businesses would suffer. These groups submitted a counterproposal that

would make NTT a special corporation through the joint financing of the government and telephone subscribers.

The MPT, led by Vice Minister Hiroshi Asao, adamantly opposed the proposal because it (1) wanted to keep NTT as a public entity for the public good; (2) feared that the foundation for research and development would be weakened, and (3) felt that communications technology should be consistent. Upon hearing this, a section of the LDP, through its Committee on Basic Telegraph and Telephone problems, also protested the proposal.

Hiroshi Kato, head of the Ad Hoc Commission's fourth section, maneuvered behind the scenes against the LDP until the basic report was released in July 1982. The Ad Hoc Commission countered the MPT protests by declaring that the ministry must keep in step with the times. For example, the two major goals that NTT had set for itself -- construction of a nationwide automatic direct dialing system and dissolution of the large waiting list for telephone installation -- had already been reached. Furthermore, people had begun to demand new services without presupposing a uniform rate nationwide. As with electricity, everything seems permissible as long as NTT fulfills its obligation of providing basic service. With respect to the objection about research and development, the Ad Hoc Commission said research and development would continue to be carried out at the company's headquarters without being divided. And, finally, the Commission insisted that technological uniformity would not be a substantial problem insofar as interoperability is secured, and neither would the allocation of charges.

The LDP Diet members were divided in their views. Although a number became sympathetic to the Ad Hoc Commission's line, MPT resistance was also strong. Some of NTT's technicians opposed dismemberment on the grounds that this would disrupt research and development. Some economists as well were worried about the "cream skimming" and the increased social transaction cost that would accompany a breakup. Other opponents were concerned about diseconomies of scale.⁴

It was left up to Shin Kanemaru, head of the LDP's Enterprise Conference, to coordinate LDP opinion. The resulting nine principles of reform which were established in September 1982 had a strong regulatory coloring. For example, budgets and financing plans would need Diet approval; rates would be fixed by law; and individual rates and charges would be authorized by the Minister of the MPT. Kanemaru's private plan, which was revealed before this, called for the NTT to become a Bank of Japan-type special corporation through subscription certificates. The head of the Japan Telecommunications Workers' Union at that time regarded this plan as "something close to our own claims" and it was thought, therefore, that it would attract the opposition faction within the Ad Hoc Commission. In any event, when the post of vice minister passed from Asao to Arinobu Morisumi, the MPT stopped opposing the privatization of NTT.

The Nakasone administration, which initiated administrative reforms in November 1982, settled upon the fourth section of the Ad Hoc Commission as the place where reform could be set forth clearly. The Subcommittee on Telegraph and Telephone Enterprise, (headed by Takao Kameyama), whose mandate from the LDP was telegraph and telephone reform, moved ahead with adjustment. During this time, NTT submitted

its own plan to the LDP which favored the creation of a special corporation based upon the principles of the Commercial Law. Furthermore, the Federation of Economic Organizations jolted the LDP with a proposal that stressed the liberalization of line use, the relaxation of restrictions on new telegraph and telephone services, and the separation of data communications services from telegraph and telephone services.

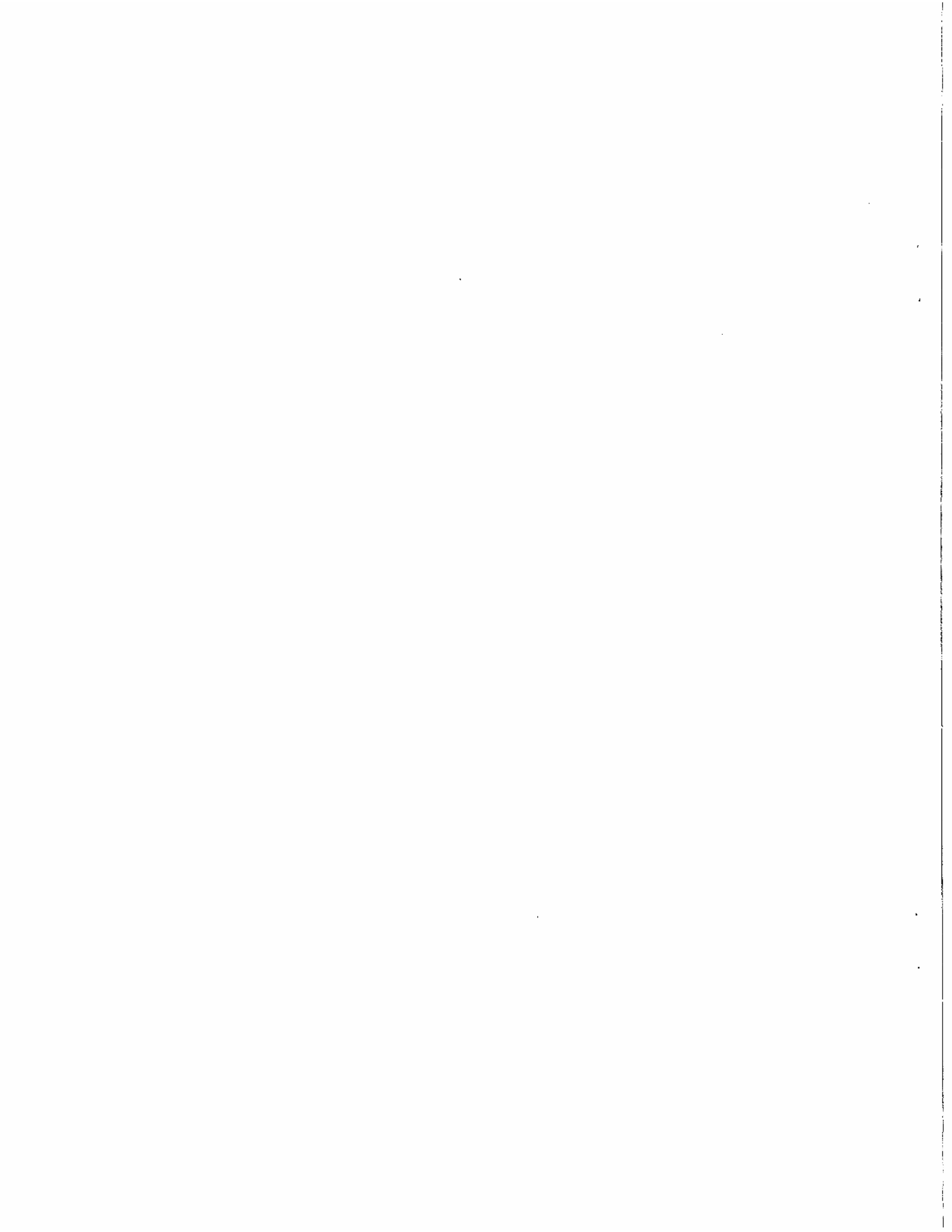
The 11-point proposal, which was drawn up by the LDP's Hashimoto Committee on Administrative Reforms in September 1983, finally reached the stage where a bill to reform the telecommunications system could be written. MITI strongly advocated the abolition of restrictions on Type 2 communications businesses (value-added service-suppliers) because they would diminish the vitality of private enterprise. The U.S. also wanted the secondary business-related restrictions removed because they hampered many companies with more than 50 percent in foreign capital from entering the Japanese market.

The Federation of Economic Organizations generally supported the bill that was drafted by the MPT. It wanted "as liberal a system as possible" for secondary businesses, to avoid being dragged into the confrontation between the ministries and to rapidly attract newcomers from the private sector.⁵

Finally, the LDP's Fujio Policy Affairs Research Council made its ruling in April 1984, and opened the door for innovation and competition. The course of events leading up to the ruling was extremely complex, and the problems of coordination cannot be fully explained in terms of monopoly versus competition or government versus private control. A major problem was the confrontation, among politicians,

bureaucrats and businessmen, between those with vested interests and those who stood to gain from change. And certainly the actions of the U.S. government only further complicated the issues.

Below I would like to sketch the principal players and communications stakeholders and how they acted during the process of reforming the system.



III. Principal Players

At the present time in Japan, NTT, the government-owned public corporation,¹ provides domestic telecommunications services while Kokusai Denshin Denwa Co., Ltd. (KDD), the single-franchised private corporation,² provides international services. These operating entities are under MPT control. As Figure 2 shows, however, they all trace their origins back to the Ministry of Communications which was founded in 1885.

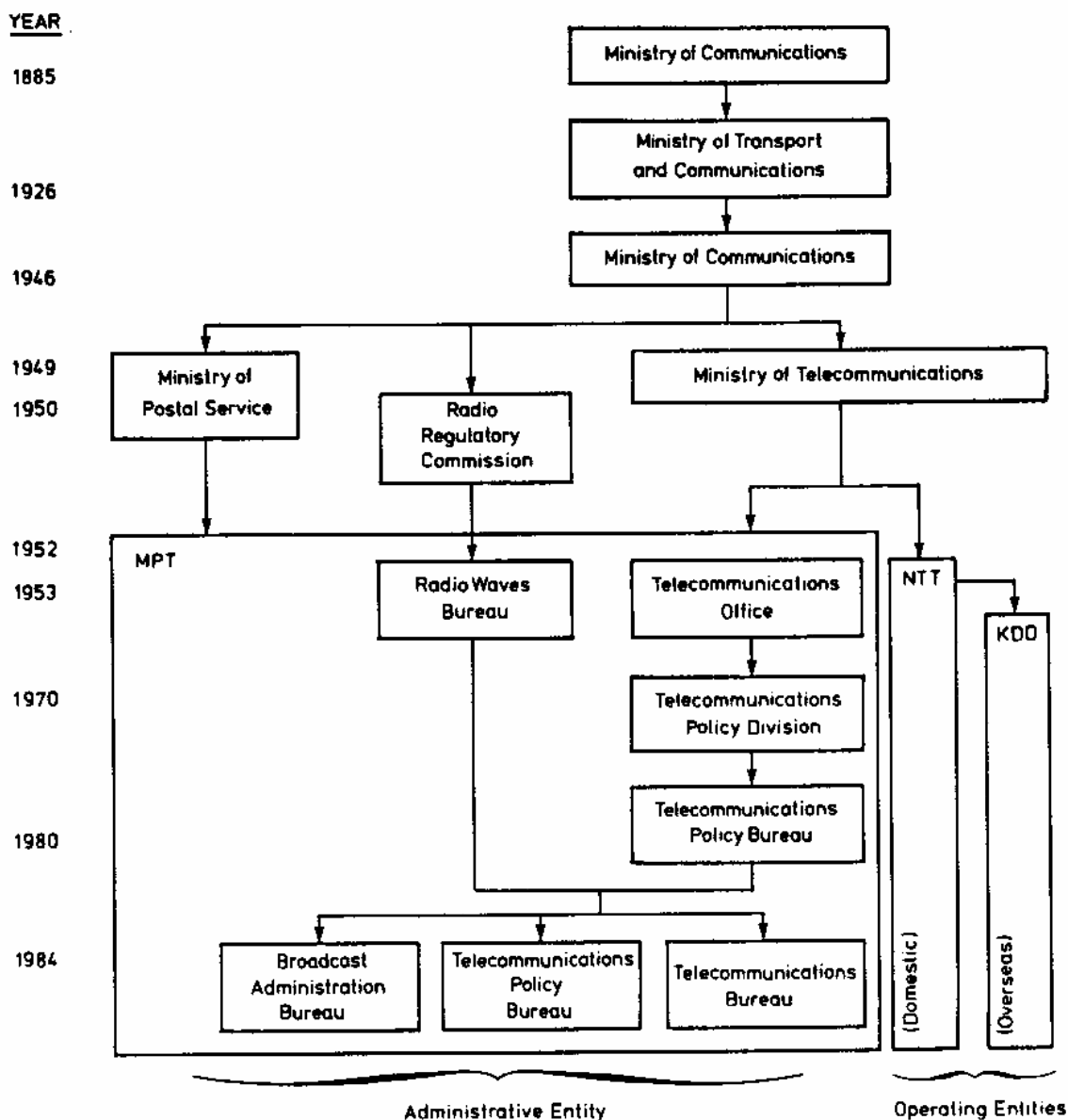


Figure 2. Historical Outline of Telecommunications Administration and Operation in Japan

(1) NTT

It has been about 30 years since NTT was inaugurated, and its rate of growth during this time has been noteworthy. In 1953, Japan had 2.25 million telephones and ranked sixth in the numbers of phones behind the U.S., England, Canada, West Germany, and France. By 1981, Japan had 58 million phones and ranked second after the U.S. which had 191.6 million units. In terms of the rate of distribution, Japan ranked 20th in the world in 1953 with 2.6 phones per 100 people. Although this figure rose to 49.5 in 1981 (11th worldwide), it did not match the distribution rate of the U.S., Canada or Sweden, but it did put Japan on par with the top-ranked European nations.³

In recent years, however, the demand for telephone installation in Japan has been less than half the peak demand of 3.28 million units in 1974. Apparently, the volume of telephone traffic had reached market saturation during the 1970s. NTT had realized two major goals: the dissolution of the large waiting list for telephone installation and a nationwide automatic direct dialing system.

Ironically, it was these achievements that caused people to question NTT's raison d'être.

While revenues were sluggish due to the increase in residential telephones which have a low frequency of use, the interest costs on the huge sums of money invested in construction were going up. The balance of payments worsened. The oil crisis brought on a sudden rise in personnel expenses, and in response to this, the NTT raised rates in 1976. The situation improved considerably, but not enough to construct ISDN (INS) rapidly. In 1979, the NTT proposed an INS (Information

Network System), which is the NTT version of the ISDN (Integrated Service Digital Network). It is a long-term, pioneering project.⁴

The government recognized this was a turning point in the history of telecommunications, and was determined to make NTT efficient so that NTT could launch INS even while competing internationally. To this end, Dr. Hisashi Shinto was recruited from a big engineering group and appointed president of NTT in 1981. Dr. Shinto has pinpointed several problem areas for the public corporation.

First, controls on NTT are broad. There are rules for executive personnel (president is appointed by the cabinet); business plans and budgets (Diet resolution); rates (Diet resolution or approval by the appropriate minister); and salaries (salaries outside the general provisions of the budget and over and under the norm are determined by the budget). Other factors which have hampered any dynamism at the NTT are the National Treasury depository system (in which there is no interest on up to 3 billion yen [\$12.5 million] in operating funds and only a 3 percent interest charge on the excess) and the extraordinary Treasury payments (government levy on its profits; NTT is being charged 120 billion yen [\$500 million] a year on "excess" profits) discourage operational ambition. The NTT unofficial salary affair was a major controversy*. It happened in 1957 after NTT lost the right to determine salaries, which was basic to its operational independence. Since that

*However, it has been pointed out that "because the payment of under-the-table bonuses was within the scope of the budget, albeit under the guise of fictitious overtime, it was not a case of so-called unlawful accounting. However, the fact that money had to be appropriated as if it were overtime which was not, in reality, performed, is a perverted situation caused by the restrictions on the power of the people involved."⁵

time, there has been a two-tiered system of controls in which the appropriation of money that is under or over the norm must be discussed and approved by the MPT and Ministry of Finance, and then once again by the MPT. The Japan Telecommunications Workers' Union responded with its "return to humanity movement" which concentrated on improving labor conditions other than salaries. By 1980, the fictitious overtime incident came to light.

Perhaps because the incentive needed to improve business performance is lacking, the share of terminal equipment that NTT installs, such as business phones and PBXs, has been declining rapidly.* In data communications, "severe restrictions have been imposed on the use of NTT lines by private systems. Nevertheless, leasing lines to private companies brought in great profits (cost-revenue ratio 63 percent) in fiscal year 1980, while services under the direct control of NTT on equipment which it installed itself ran a deficit of 43.9 billion yen (\$183 million, cost-revenue ratio 145 percent)."⁷

This shows that NTT is trying to assure its operating autonomy by expanding its domain.⁸

(2) MPT

Of the 315,000 MPT employees, 280,000 of them work in the nearly 23,000 post offices nationwide. Unlike U.S. post offices, Japanese post offices also handle postal savings and life insurance. Therefore, the three areas of postal service -- mail, savings, and insurance -- hold a position of overwhelming importance within the MPT. Meanwhile, the

*The drop in NTT's market share of terminal equipment under its direct management is as follows. Between 1975 and 1981, its share of the business phone market dropped from 70.7% to 61.9%; PBX, 31.6% to 16.1%; and telephone facsimile, 25.4% to 14.8%.

policy department has gone almost unnoticed. The bureau concerned with telecommunications policy was created within this policy department in 1980. Its predecessor, the Office of Telecommunications Administration, had a reputation of inefficiency. After the war, NTT seemed to be initiating and executing telecommunications policies while MPT appeared to be only ratifying them.

In order to transform itself into a policy-making agency for telecommunications, the MPT first had to establish its hegemony over NTT. The MPT would then fight MITI for supremacy in the area of computers and communications (C&C).*

The MPT therefore proposed the VAN Law in 1982. The MPT strategy was to leave the NTT monopoly of public communications lines in place, but generate competition between NTT and private newcomers in the VAN sector. It would liberalize line use and then get into the competition itself. As we saw in the previous section, however, the restrictions that would be imposed by the proposed system of official sanctions became a good target for MITI, which extolled the virtues of the liberalization of data communications. The Federation of Economic Organizations joined the opposition, so the MPT abandoned the proposal.

The MPT may or may not have become the government agency heading telecommunications policy even if the VAN Law had gone through. In any event, the situation suddenly changed when the Ad Hoc Commission

*MPT officials also resent the fact that they do not have the power to lead NTT and they speak in the following manner. They tried to stop the large telephone rate increase (30%) in 1976, but were unsuccessful. Afterward, NTT accumulated between 300 and 400 billion yen (\$1.25 and \$1.67 billion) in surplus funds ... which was the root cause of that fictitious overtime affair.

submitted its report which recommended placing NTT under private management and getting newcomers to participate in the use of key communications lines.

The MPT, which backed the monopoly of public communications lines, was violently opposed to the Ad Hoc Commission's proposal. As mentioned, however, the MPT halted its protests when Kanemaru's tentative plan appeared. What on earth happened in the MPT? The following are some speculations: a few MPT section chief aides decided that the ministry should use the Ad Hoc Commission's report as a way of replacing NTT as the leader of Japan's telecommunications policy. It was felt that if NTT were placed under private management, the MPT would inherit the authority, held until now by NTT. Secondly, MPT officials began to realize that the time had come when the three departments of MPT would have to set forth countermeasures in the face of competition with private companies. For example, when the MPT was forced into competition with private express services over postal packages, the ministry switched from the JNR, its traditional mode of transport, to trucks, and it introduced generous discounts to preferred customers. The MPT also realized that the system for determining telephone charges would have to be improved.*

*In a January 1984 interview that this author had with Mr. Suda, who is the assistant to a section chief in the Telecommunications Policy Bureau, he pointed out that "the MPT, with its departments that are active in everyday operations, is different from MITI. MPT workers can personally experience the feeling of safeguarding users and the earnings of consumers. Furthermore, they can experience firsthand the strong points and weak points of the two forms of management -- private and government."

(3) MITI

MITI is recognized as the originator of industrial policy and has at times had a "notorious" reputation. Julian Gresser has commented:

Westerners, in attempting to explain Japan's industrial policies, often err in two important respects. First, they tend to overstress the importance of cooperation and to downplay the role of competition. Second, they portray the Japanese government as engaged in picking winners and losers.

It is also true that "[MITI] has indeed picked some industries that turned out to be winners, in part, because of their efforts. But, it has also picked industries that ended up losers The net effect of these policies on economic growth is not clear."¹¹

However, even when MITI picked a loser, no great confusion resulted. It is important to recognize that the structure of Japanese industry is not hierarchical with MITI at the top of the pyramid and the small and medium-sized businesses under it. As one can gather from the number of MITI employees* and the size of its budget, MITI does not have one-way control over business. Its role is, rather, as a conduit for information and also as a mediator when cooperation is called for.

In September 1968, during the era of very high growth, the Information Subcommittee of MITI's Council on Industry Structure issued a report which said that information network services would become a key industry. This report listed several items that the government should work on: promoting education and training in information processing, developing data information technology, and hastening various types of standardization.

*Legally fixed number of officials is 12,974 (as of July 1, 1982), while MPT's is 315,469.

Therefore, MITI's industrial policy has focused upon the information industry, in which the potential for innovation is great and increased demand is expected.* MITI's industrial policy is aimed at developing the information industry through a series of small reforms, followed by the process of steady learning, and the dissemination and transfer of technology. It is thought to have been quite successful up to this point.¹³

Therefore, it would not be strange for MITI, which is the nucleus of the VLSI (Very Large Scale Integration) Research Association and the fifth generation computer project, to next want to exercise policy in the areas of information and communications.

(4) LDP

The LDP has been the ruling party almost continuously since the war. During this period it has maintained friendly relations with the U.S. and with the domestic business community. Within the LDP, the Policy Research Council plays an important role in making telecommunications policy. And, although a number of groups are included within the Council, two groups in particular have brought the MITI-MPT confrontation into the LDP. The Council's Special Committee on Commerce and Industry has lobbied for MITI, and the Special Committee on Communications has been the mouthpiece for the MPT.¹

*In postwar Japan, the "criterion of income elasticity" and the "criterion of productivity" formed the standards for industrial growth.¹²

The U.S. government fears that it will be at a disadvantage in the Japanese marketplace due to the restrictions on foreign capital and the problems of official sanctions. The U.S. has let the Japanese government know about its feelings in no uncertain terms. The LDP's Special Committee on International Economic Equality has borne the brunt of the U.S. government's demands. Within the LDP there are also informal organizations such as the Congressmen's Group for the Promotion of the Information Industry and the Congressmen's Group for the Promotion of New Media. Congressmen belonging to the Committee on Basic Telegraph and Telephone Problems have opposed the Ad Hoc Commission's line on breaking up NTT and putting it under private management. The nuclei of such committees as the Standing Committee on the Budget and the Standing Committee on Commerce and Industry are made up of congressmen who have been elected four or five times while the majority of congressmen on the Standing Committee on Communications are freshmen. For this reason, a large number of LDP congressmen have had contact with the MPT at one time or another. The Toyo Keizai Weekly commented:

The MPT has taken good care of the freshmen congressmen and one should not underestimate the ability of the some 3,000 special post offices nationwide to garner votes for them as well come election time.¹⁵

As discussed in the previous section, however, MPT proposals will not necessarily meet with instant LDP approval just because of this close LDP-MPT relationship. This is due not only to MITI's resistance and American pressure, but because the Constitution -- which expressly states that sovereignty rests with the people and power is divided three ways -- guarantees that the Diet is the sole lawmaking body.¹⁶ Furthermore, MPT and MITI bureaucrats change posts almost every two years while many congressmen have been on the Policy Research Council

for more than 10 years and have, therefore, further broadened their expertise on the information and communications industries.¹⁷ What are the goals of these powerful congressmen? First of all, they will have an influence, through the Diet approval procedure, on choosing the managing securities company involved in the release of NTT stock and will pay close attention to the benefits gained as a result of this authority. Second, telecommunications-related sanctions will henceforth become part of the MPT's sphere of operations. And because only radio and TV broadcast stations have had direct contact with the MPT until now, the value of those congressmen who have a direct link to the ministry will increase.

(5) Others

(a) "Zaikai"**

The Keidanren, which represents the business community, came out in favor of MITI's proposal that the restrictions on data communications be abolished. With respect to increasing dependence upon government bonds, the Keidanren agreed with the Ad Hoc Commission's report which advocated "small government." From the start, it had supported putting NTT under private control. The Keidanren, however, did not go along with MITI on the Telecommunications Bill. This is because it wanted to use the premium accompanying the public offering of NTT stock as a source of revenue for the repayment of government bonds¹⁸ and wanted to avoid a large increase in corporate tax. Furthermore, after the bill was mapped out, the Keidanren wanted to bring the second NTT project to fruition as soon as possible.¹⁹

* "Zaikai" literally means financial world; it is the community of senior executives in Japanese business. The Federation of Economic Organizations ("Keidanren") is its major representative.

(b) Communications Equipment Industry

Among the senior executives in the zaikai, the presidents of banks and such heavy industries as autos and steel hold the important positions. The Keidanren, however, is not necessarily the direct spokesman for the communications equipment industry. Although most of the communications equipment industry probably wanted the liberation of data communications lines, the industry did not lobby actively for it. That's because the communications equipment makers have established an intimate relationship with NTT, which does not have the manufacturing capability that AT&T has with Western Electric. The "big four" -- NEC, Hitachi, Fujitsu, and Oki -- are also known as the "NTT family" and they were providing NTT with approximately 40 percent of its equipment needs.²⁰ This situation changed, however, after NTT adopted the open procurement policy. Because their share of the market dropped dramatically,²¹ quite naturally the "big four," which are the leading exporters of telephone and telegraph equipment and parts in the world,²² wanted to switch to a policy of pro-competition in order to avoid trade friction and to penetrate the U.S. market.

(c) U.S. Government

The effect of the U.S. government upon Japanese telecommunications policy has been significant. First, U.S. telecommunications policy itself has had an effect: The encouragement of competition by the breakup of AT&T has strongly influenced the thinking of the Ad Hoc Commission. The U.S. government's criticism of such Japanese practices as NTT's preferential procurement policy has also had a considerable impact.

As a result, "NTT now accepts bids filed outside Japan, in English."²³ According to the Japan Economic Journal,²⁴ procurement from abroad reached the 33 billion yen mark in 1984. This does not mean, however, that Japan always acquiesces to U.S. government demands. Ironically, U.S. telecommunications policy itself supplied the MPT with the grounds for demanding that foreign capital restrictions be incorporated into the Telecommunications Bill. In particular, there was the public bidding in October 1981 on the production of optical communications cable for AT&T to be laid between New York and Boston. Fujitsu had the lowest bid, but the FCC blocked acceptance of its order on the grounds of national interest. Mr. Utsumi, head of the MPT's Data Communications Division, stated that "it would be nice if Japan also had an administrative committee with such great discretionary authority, but that isn't the case. Therefore, Japan must consider all of the various problems that could possibly arise and obtain the pertinent legal safeguards beforehand."²⁵

(d) Other Agencies

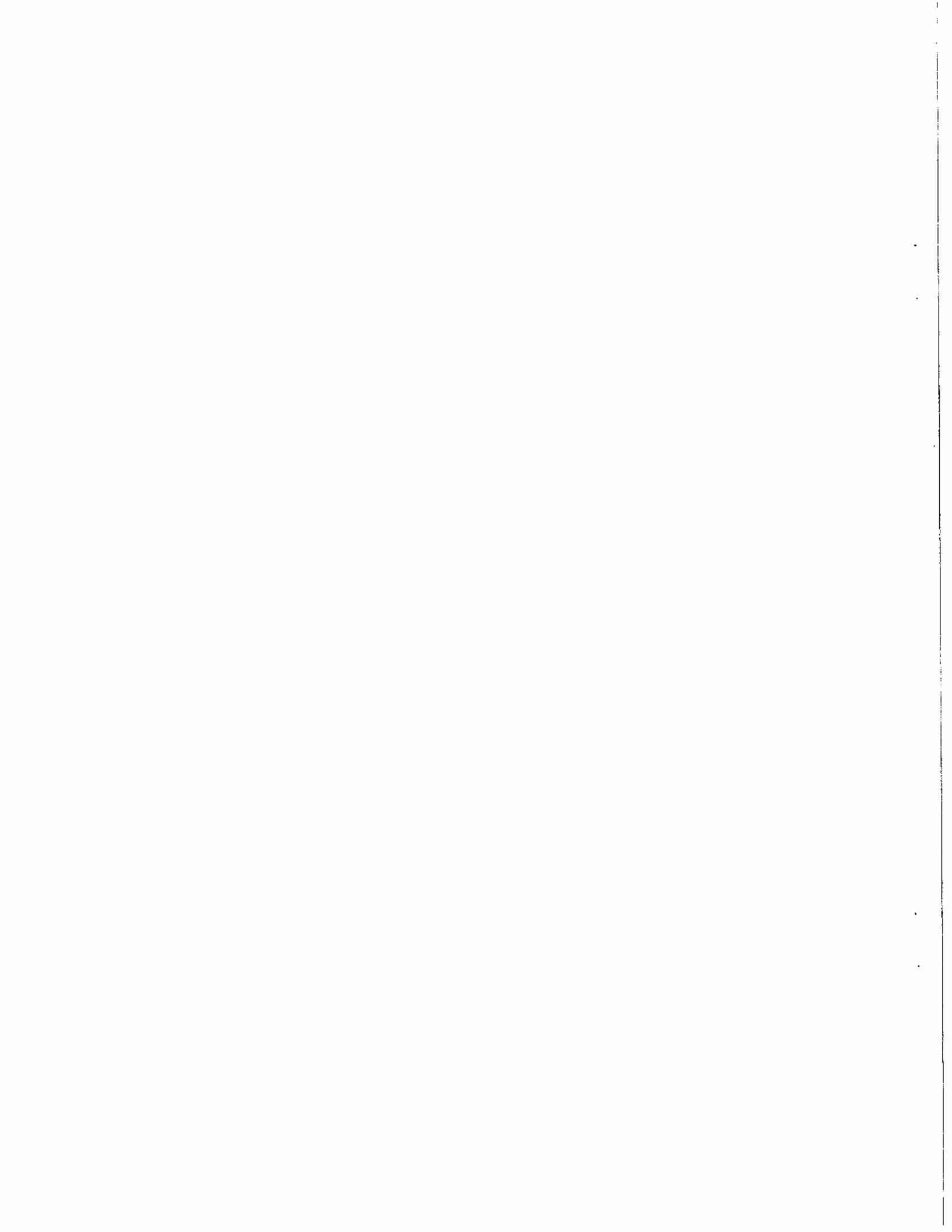
One year after the Information Subcommittee of MITI's Council on Industry Structure issued its findings, the Research Committee on Information in the Economic Planning Agency's (EPA) Economic Council submitted a report entitled The Informationization of Japanese Society (October 1969). The report pays particular attention to the formation of an information network comprised not only of computers, but of computers integrated with communications. It also advocates improving the quality of communications lines and the liberalization of public exchange lines.²⁶ (The EPA does not have any direct authority, however.

In 1976 when telephone rates went up, the agency intervened because it wanted to keep the charges for public utilities and facilities down. But in the end it could only say "there is a practical reason for it" and give its assent.)

The Administrative Management Agency (AMA), like MITI, is also a strong advocate of data communications liberalization. It says that, in principle, the restrictions on communications lines should be abolished. As far as cross-subsidization from telephone use is concerned, the AMA wanted to influence NTT in such a way that the MPT would maintain the self-supporting nature of data communications equipment services.²⁷

(e) Japan Telecommunications Workers' Union and Opposition Parties

The Japan Telecommunications Workers' Union, the NTT labor union, is the biggest local industrial union in Japan with almost 290,000 members. Within the Government and Public Workers' Union (GPWU), it takes a conciliatory stance toward labor-management relations. The Japan Telecommunications Workers' Union vigorously supports increased autonomy of the NTT because the members' salaries, which are about the same as those of the employees of deficit-ridden JNR, would improve. The union, however, vehemently opposed the proposal that would lead to the breakup of the organization and the restrictions on strikes. Under the slogan of "Don't sell off the common property of the nation to the zaikai (!)," the Japan Telecommunications Workers' Union, together with the opposition parties, oppose the break-up saying that consumers will be hurt by the increase in local telephone rates.



IV. The Japanese Telecommunications Policy Model -- Conclusion

In this paper we have described the roles of the players during the evolution of Japanese telecommunications policy; clearly, classifying the groups as either pro-competition or pro-restriction does not have much meaning in Japan. U.S. telecommunications policy may have prodded some groups into turning about-face in midstream. But perhaps a major reason for the movement toward competitive markets is that it is a worldwide trend; another example of the trend is developments in the U.K. Yet it is particularly noteworthy that probably no players in Japan had complete confidence in either the government or the marketplace with respect to telecommunications policies. Japan has not had a tradition of competition, unlike the U.S. where government has vigorously fostered competition since the FCC decision of 1959.¹ The discussion below compares U.S. and Japanese telecommunications policies and examines the direction in which the latter is heading.

Salvaggio² explains the difference between U.S. and Japanese information policies using his theory of competitive and public utility models. In the competitive model of the U.S., the marketplace is the key variable in determining the information industry infrastructure. In the U.S., the marketplace assumes the role normally taken by policymaking organizations (NTIA, FCC, the courts, state public utility commissions, etc.).

On the other hand, Salvaggio regards Japan's policymaking organization as similar to that of Europe, based on the public utility model. He points out that long-range technological research is possible for such projects as NTT's INS and the national videotex system CAPTAIN (Character And Pattern Telephone Access Information Network).

However, even CAPTAIN does not depend upon authoritarian control for its existence. The driving force behind this project is not only NTT and the MPT, but also the private information providers, and newspaper companies and TV stations. I think that the public utility model, in which the policy-making organization determines the shape that the infrastructure will take and the course that technology will follow, is not applicable to Japan, even though it may be valid for France's PTT.*

As Salvaggio mentions, trust in government is inherent in the Japanese system as far as information policy is concerned. But opinion is divided over the wisdom of leaving business management to the government. The telephone arrived in Japan in 1878, the year after Alexander Graham Bell's invention, but it was a private telephone for exclusive use between two points. In 1884, Japan started to look into the possibility of installing a switching device and establishing a commercial network, but a big furor arose over whether the enterprise should be under government control or private control. The Ministry of Industry (afterwards the Ministry of Communications) advocated government control on the grounds that a huge amount of capital would be needed and privacy over the lines would have to be maintained. But the cabinet decided on private control due to fiscal difficulties in the government. When several private companies petitioned the Ministry of Industry for permission to set up telephone companies in 1886, however,

*For example, the French Post Office is installing about 500 free-of-charge telephone-connected small videotex terminals (Minitels) a day in order to keep France in the forefront of communications technology.³

they did not receive approval. It was not until 1890 that government control was decided upon.⁴ Japan remained deadlocked over the issue of government versus private control because it lacked confidence in American-style free competition and also in French and German-style government business management.

Having researched the historical background, Yoichi Ito⁵ explains the origin of this peculiar Japanese way of thinking in the following manner. The samurai were not just warriors, but were also their feudal lords' intellectuals and bureaucrats. Local governments, called "han," were engaged in various kinds of business to produce income which supplemented land tax revenues. In some business, such as mining and salt production, han enterprises monopolized the market. In some other areas, such as the trading of local products, they competed with private marchants. Through such experiences the Japanese learned that government monopolies tended to be inefficient; competition between han enterprises and private merchants was desirable because it prevented the han enterprises from becoming inefficient.

Tetsuro Tomita⁶ suggests the Japanese TV broadcasting industry as an example of an industry in which the competition between public and private entities has been effective. Japanese TV broadcasting services are currently provided by the Nippon Hoso Kyokai Corporation (NHK), a public broadcasting organization, and four major private broadcasting networks. They are completely different in financial resources and broadcasting objectives. But they all want to increase their audience ratings. The private broadcasting corporations, which raise money from advertisers, and NHK, which raises money from viewers have competed with each other for the last 30 years.

Another important feature of the Japanese TV broadcasting industry is the entry restrictions which prohibit additional local stations so as to avoid excessive competition. Tetsuro Tomita calls this harmonious competition.

Tomita is Deputy Director-General of the MPT's Telecommunications Policy Bureau, and his comments indicate where Japanese telecommunications policy is heading. Tomita says "the ideal is a policy mix which will make the best use of the advantages of both monopoly and competition, rather than leaning towards either one."⁷

Yasusuke Murakami calls the Japanese type of economic system the compartmentalized competition model as opposed to the competition or regulation model.⁸ In other words, the Japanese economic system is characterized by compartments, or subsystems, which are created by government restrictions. Within those subsystems, there is fierce competition. In Japan, there are six large business groups and all of them enter the sectors where growth is expected. There are some people who attribute Japan's high rate of growth to this competition. Murakami points out, however, that the era of high growth is finished and that the national consensus for catching up has been lost. Therefore, there is the strong possibility that the entry of foreign companies into the Japanese marketplace following capital liberalization will mutilate the business world's cooperative structure which depends on a fragile mechanism for shaping consensus. With each of the players sticking to its own position, national policy will likely be robbed of its mobility and coherence. Next, I would like to examine the ramifications of putting NTT under private management and introducing the principle of competition into the telecommunications industry.

(1) Government Control vs. Private Control

Several studies have already compared differences in efficiency and price levels between government and private enterprises. For example, Peltzman⁹ has contrasted the performances of both in the area of electric power. He points out that, in general, the rates of the public electric power companies which are owned by local self-governing bodies are lower than private companies rates. The problem is that the terms of the comparison are not the same. According to Peltzman, the difference can be explained for the most part by the differences in the tax system.

S.C. Littlechild's recent study on telecommunications examines whether the performance of each country in telecommunications varied according to differences in the operations of public, government, and private organizations. His study found that the differences in the diffusion rates of telephones do not depend on whether the organization is public or private. It also found that there is a correlation between the amount of Gross Domestic Product (GDP) per person and the population density, on the one hand, and whether the telephone companies are private, on the other.¹⁰ On the subject of telephone rate structure, Littlechild points out that many more private companies than public or government enterprises have a time period-based system of three or more grades of telephone rates, give a very detailed breakdown of telephone demand (office use, residential use, etc.), and establish lower rates for shared-line services.¹¹

(2) Monopoly vs. Competition

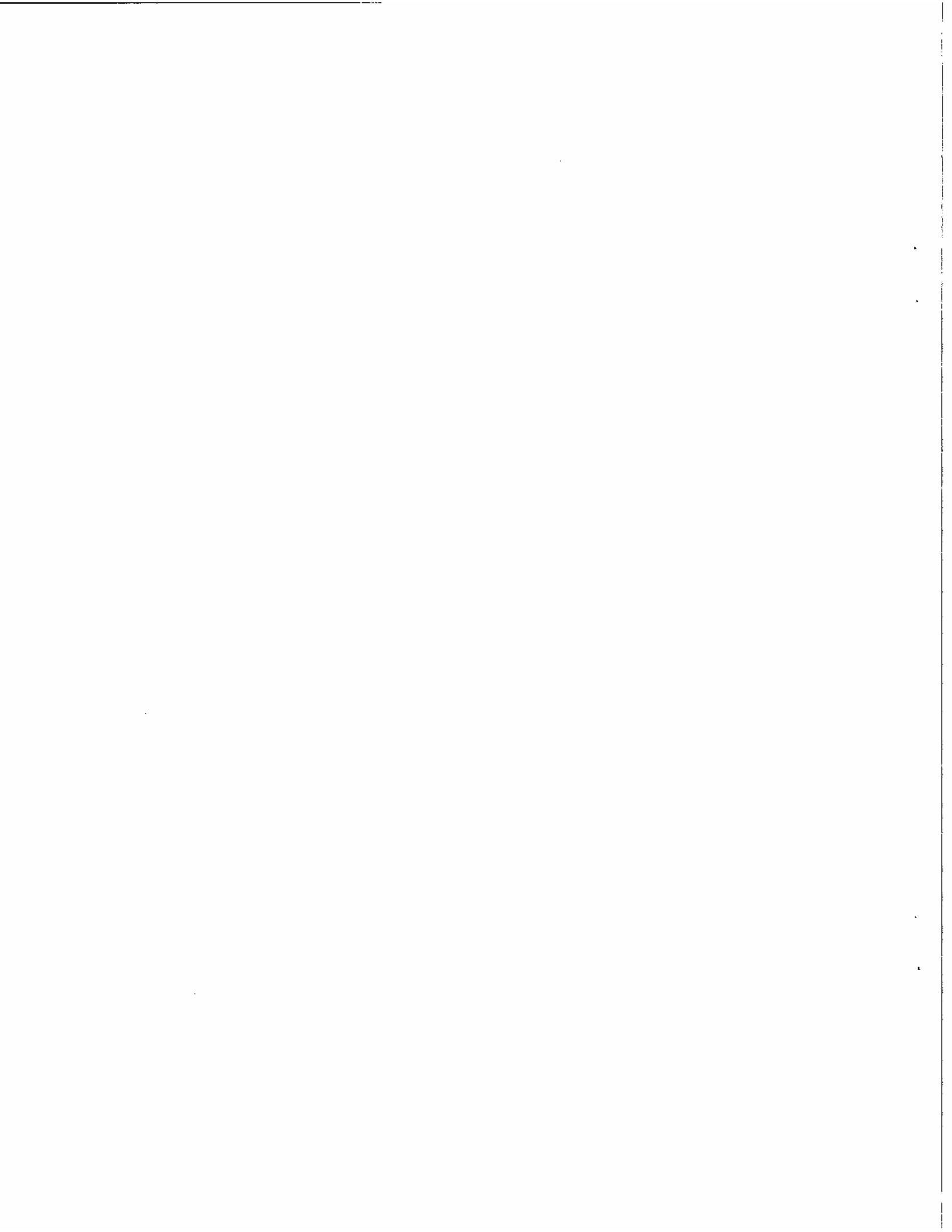
Bergendorff et al¹² have indicated what changes the introduction of a competition policy will generate. Their argument focuses upon how

well different organizational structures are able to lower rates and stimulate innovation. They conclude that international comparisons of charges do not indicate any systematic difference in rates between countries with more competition and those with less. Mitchell,¹³ however, has carried out international comparative analyses which show that telephone service is least expensive in the U.S. and Canada, where competition is allowed. The inference is that a policy which promotes competition generates a reduction in telephone rates.

However, one must be very careful when forming a hypothesis based upon this sort of international comparison because the results will vary greatly depending upon the exchange rate and method of analysis.¹⁴ For this reason, I want to refrain from considering any further what kind of changes the transformation of Japanese telecommunications policy is expected to produce. I wish only to point out some of the policy issues that Japanese telecommunications policy is likely to confront in the future. The administrative antagonism that we discussed earlier (concerning, for example, enactment by ministry directive, disagreements over controls) is likely to be an enormous obstacle for the Japanese type of economic system. That system, based on a compartmentalized competition model, is trying to reduce the high costs inherent in the government (PTT) model and to overcome the lack of standardization and nationwide networks in the marketplace model. If one error is made, it is quite possible that local and consumer services will suffer and diversity-induced chaos will result. In creating a means of regulation, the problem is whether or not a consensus can be amicably reached. For telecommunications policy to succeed, not just in Japan but in general, it is very important that corroborative research continually examine

such phenomena as economies of scale and the price elasticity of demand.

It is also very important that countries exchange research on telecommunications policies and learn from each other's experiences. I will be extremely happy if this paper has been of some assistance in this area.



APPENDIX

Table A-1

Comparison of Japanese and U.S. Telecommunications Industries

Telephone & Telegraph Services	Japanese	U.S.
Operating Revenues:		
Domestic (U.S.\$M)	15,286*	86,870
International (U.S.\$M)	378*	2,500
Number of Telephones in service (thousand)	58,000*	189,000
Telephone & Telegraph Equipment		
Value of industry shipment (U.S.\$M)	5,382	12,992

*F.Y. ending March 31, 1983

Source: U.S. Industrial Outlook 1984
Computer Digest August 1984
MPT, Communication White Paper 1983

APPENDIX

Table A-2

Comparison of NTT and AT&T

	NTT*	AT&T**
Total Revenue (US\$bn)	18.1	69.4
Fixed Assets (US\$bn)	39.8	123.8
Employees (Thousand)	323	1,010

* FY ending March 31, 1983

** FY ending December 31, 1982

Source: Annual reports of NTT and AT&T

NOTES

Chapter 1. Introduction

- 1-1 A few authors, however, present alternative views. For example, Anne W. Branscomb, "Beyond Deregulation," Information Security Journal (1982); G. Noll "The Future of Telecommunication," Cal. Tech. Social Science Working Paper No. 432 (1982); A. Philips, "Impossibility of Competition in Telecommunication," (rev. ed. Regulatory Reform and Public Utilities, Lexington (1982); Paul W. MacAvoy and Kenneth Robinson, "Winning by Losing: the AT&T Settlement and Its Impacts on Telecommunications," Yale Journal on Regulation (1983); Bernhard Wieland, "Problems of Gradual Deregulation: What Can European Authorities Learn from US Telecommunications Policy?" distributed at the 11th Conference of the European Association for Research in Industrial Economics, Fontainebleau, Aug. 29-31, 1984.
- 1-2 Business Week. October 24, 1983, p. 63.
- 1-3 Computerworld. June 25, 1984.
- 1-4 Business Week. March 5, 1984, p. 43.
- 1-5 Otsumi, Yoshiu, "Viewing the VAN Business After the 'Telecommunications Bill,'" Compyutopia. June 1984, p. 57.
- 1-6 Baumol, W.J., J. Panzer, and R. Willig, Contestable Markets and The Theory of Industry Structure. Harcourt Brace Jovanovich, 1982.
- 1-7 Bailey, E.E. and W.J. Baumol, "Regulation and the Theory of Contestable Markets," Yale Journal on Regulations. Vol. I, No. 2, 1984.
- 1-8 For example, keynote address by Tsuruhiko Nambu at the International Conference - Futures Analysis, Forecasting and Planning for Telecommunications, held in Vancouver, 1-4 July 1984. William F. Finan, "Comparing the Restructuring of the U.S. and Japanese Telecommunications Markets," distributed at that conference.

Chapter 2. The Path of the Telecommunications Policy

- 2-1 The average annual economic growth rate dropped from 9.8% (1963-1972) to 4.3% (1973 - 1983). Economic Planning Agency. Economic White Paper, August 1984.
- 2-2 The degree of dependency on Public Bond (P.B./Government Expenditure) was 10.6% (1974), 28.7% (1976), 30.6% (1978), 32.2% (1980) 30.2% (1982). The Tokyo Chamber of Commerce and Industry, Japan and the World in Statistics, 1984.

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- 2-4 See Musashi, Takehiko, "NTT," in Masu Uekusa, et al., ed. Japan's Public Enterprises. Tokyo: University of Tokyo Press, 1983.
- 2-5 "Nihon Keizai Shimbun," March 12, 1984.

Chapter 3. Principal Players

- 3-1 According to the classification made by the U.S. Department of Commerce, NTIA, Telecommunications Policy in Seventeen Countries, May, 1983.
- 3-2 Ibid.
- 3-3 American Telephone & Telegraph, The World's Telephones. Morris Plains, N.J.: AT&T Communications, January 1981, p.12.
- 3-4 "NTT's 20-year plan will integrate computers and telecommunications on a scale unparalleled in history. In essence, the INS links home and business telecommunications with a congeries of information-processing centers and a highly sophisticated network When completed, the network will be a totally digitalized and constructed with optical fibers. Information will flow from video to facsimile and continue to to data terminals." (Julian Gresser, Partners in Prosperity, McGraw Hill, 1984, p. 142.)
- 3-5 Hiramatsu, Hitoshi, The Face on the Other Side of the Telephone. Saimaru Publishing Co., 1980, p. 219.
- 3-6 MPT Telecommunications Policy Bureau, comp., "Report of the Committee on Terminal Equipment Problems," September 1982, p. 64.
- 3-7 Hiramatsu, Hitoshi, "The Death of Public Entities," Sekai, September 1982, p. 55.
- 3-8 A specialist pointed out that NTT's INS is "an attempt by NTT to justify the high cost of renewing its telecommunications network in order to compete with upstart cable television and data-transmission companies." (The Economist, August 6, 1983, p. 58.)
- 3-9 Toyo Keizai Weekly, May 19, 1984, p. 28.
- 3-10 Gresser, Julian, Partner in Prosperity. McGraw Hill, 1984, p. 197.
- 3-11 President's Economic Report, February 1984, p. 99.
- 3-12 MITI's Commercial White Paper, 1964, p. 298.
- 3-13 Imai, Kenichi, Evaluation of Industrial Policy in the Area of Japanese Vanguard Technology, Institute of Business Research, Hitotsubashi University, Discussion Paper No. 114, December, 1983.

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- 3-15 Toyo Keizai Weekly, March 19, 1983, p. 25.
- 3-16 Kuranari, Masakazu, "Liberalization of Data Communications in Japan," unpublished paper, Cambridge: Massachusetts Institute of Technology, 1982.
- 3-17 Hattori, Shota, "Administrative Conflicts on the Liberalization of Data Communications in Japan," unpublished paper, Cambridge: Massachusetts Institute of Technology, 1984.
- 3-18 "Nihon Keizai Shimbun," February 20, 1982.
- 3-19 Like Mercery in U.K., Keidanren has a plan to reorganize the new entrants into the telecommunications industry. See "Sangyo Keizai Shimbun," November 30, 1983.
- 3-20 Telecommunications Policies in Seventeen Countries, Dept. of Commerce, NTIA, 1983, p. 151.
- 3-21 The degree of dependency on NTT from 1980 FY to 1982 FY: NEC (14.3% to 9.8%), Fujitsu (14.5% to 9.4%), Oki (26.0% to 15.8%), Hitachi (2.1% to 1.6%). Diamond Weekly. April 28, 1984, p. 37.
- 3-22 Industrial Outlook 1984, p. 28-3.
- 3-23 The Economist, August 6, 1983, p. 57.
- 3-24 "Industrial Review of Japan 1984," 1984, p. 69.
- 3-25 Business Communication, March 1984, p. 35.
- 3-26 Research Committee on Information, Japan's Economic Council, The Informationization of Japanese Society, Japan: Diamond Publishing Co., 1969, pp. 246-248.
- 3-27 Japan's Administrative Management Agency, Administrative Inspection Bureau, Conclusive Report on Data Communications, July 1981, pp. 3 and 5.

Chapter 4. The Japanese Telecommunications Policy Model - Conclusion

- 4-1 The Above 890 decision permitted users to construct their own microwave network. Docket No. 11866. In the Matter of the Allocation of Frequencies in the Bands Above 890 MHz, Report and Order, 27 FCC 359 (1959), Adopted July 29, 1959. Also see Sirbu, Marvin A., "A Review of Common Carrier Deregulation," Working Paper, Center for Policy Alternatives, Massachusetts Institute of Technology, Cambridge, MA, February 1982.
- 4-2 Salvaggio, Jerry L., "Social Problems of Information Societies: The U.S. and Japanese Experiences," in Telecommunications Policy, September 1983, pp. 228-242.

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- 4-5 Ito, Yoichi, "Recent Trends in Telecommunications Regulation and Markets in Japan," distributed at the ITU Forum '83, Geneva, Oct. 28-29, 1983.
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- 4-11 Littlechild, S. C., "The Structure of Telephone Tariffs," International Journal of Industrial Organizations, Vol. 1, No. 4, 1983, pp. 365-377.
- 4-12 Bergendorff, H., et al, "The Monopoly vs. Competition Debate," Telecommunications Policy, December 1983.
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- 4-14 For example, Mitchell's analysis shows that Japan has the highest telephone service costs, but I think that such factors as the high value of the yen at that time, the use of the market basket method (to sort individual telephone calls into highly detailed categories in order to determine accurately the cost of the U.S. pattern of telephone calling under a foreign tariff. Ibid. p. 56), the difference in the frequency of annual telephone usage (1000 times in the U.S. versus 400 times in Japan), and the difference in the rates for various calling distances (the charges for international calls between Japan and South Korea were used in order to enable comparison with long-distance rates in the U.S.) all seriously skew the results.