Comment on the Presentations by Messrs. Cave, Cowie, and Clark in the Symposium: Convergence of Telecommunications and Broadcasting in Japan, United Kingdom, and Germany: Technological Change, Public Policy and Market Structure

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Thank you Professor Nakamura for the introduction. I am also grateful to Professors Tominaga, Nakamura, and Agata for inviting me to this conference. First of all, I would like to draw your attention to the fact that this conference was planned and held by individual scholars, not by an organization, and as such, as far as I know, this is the first in Japan in the area of telecommunications and broadcast. I appreciate the time and energy Professors Agata and Nakamura devoted for this conference.

Now I would like to state my comment on the presentations by the panels of three distinguished scholars from UK on the competition and regulation of telecommunications and broadcast in UK. My discussion will be divided into two parts. The first part summarizes the presentations and raises a couple of issues by comparing UK and Japan. The second part discusses what the panels called the key issue of access by adding my own view to those of the panels.

Let me begin the first part of my comment. Table 1 summarizes the main points of the presentations. The scholars discussed the subject of competition and regulation of telecommunications and broadcast in UK from three distinct aspects; Cave dealt with telecommunications, Cowie with broadcast, and Clark with the regulation system in UK.

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Professor Cave presented a brief history of the regulation of telecommunications in UK, which is characterized by three stages starting from BT's monopoly, followed by a duopoly, and then by a transition to competition. He pointed out the presence of two modes of regulation; one is ex ante prescriptive regulation by means of telecom law, and the other is ex post prospective regulation by means of general competition law. In UK, there has been a gradual transition from the former to the latter, which he called normalization. I enjoyed reading Cave's explanation of the issues of interconnection and price caps. It is a story about how the regulatory bodies and industry operators of UK first recognized the presence of monopoly and the need for competition, and then proceeded to attempt to provide gradual solutions to the difficult issues of interconnection and price capping. Cave remarked of the key issue of access in telecommunications, i.e., LLU (local loop unbundling), which I plan to discuss in the second part of my comment.

The second panel was Dr. Cowie, who dealt with broadcast in UK. He pointed out that the deployment of digital TV showed a notable progress in UK, and gave a summery of regulation policies of broadcast not only by UK but also by EU. Among others, Cowie emphasized the presence of the difficult issue of access in broadcast arising from the dominance of digital TV broadcasting by BSkyB. Its power comes from vertical integration of content, channels, and delivery means including its exclusive supply of STB (set top boxes). He pointed out that this issue arises from the presence of a tradeoff between (a) maintaining level playing field for competition, and (b) giving reward to risk-taking business initiatives. I will come back to this topic in the second part of my comment.

Dr. Clark, the third panel, focused on the regulation system of UK

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telecommunications and broadcast. He emphasized, as the other two scholars did, the present-day changes in technological and business environment in telecommunications and broadcast, i.e., the trend of convergence, which has given us a challenge to devise appropriate regulatory system(s). Clark stated that a characteristic of the UK regulatory system in telecommunications and broadcast lay in multiple regulatory bodies. He mentioned the obvious difficulty arising from the need for coordination and jurisdiction, and raised a question of choosing between a system of single regulator and one of two regulators. He predicted that a likely outcome in UK is the latter, i.e., a system of two regulators: a competition regulator under DTI and a content regulator under DCMS. This implies a vertical separation of regulatory functions. He did not mention, however, whether it is needed to separate the functions and the services of operators.

Before ending the first part of my comment, I would like to state two observations. The first arises from one of Clark's topics: choosing a single regulatory body or multiple regulatory bodies. I counted the number of the regulatory bodies of telecommunications and broadcast in UK as listed by Clark; it was twenty-two. I was astonished, and so were many of the Japanese participants to this conference, at this number. In Japan, there is only one public body responsible for regulating (and doing other public policies for) telecommunications and broadcast, the Ministry of Posts and Telecommunications (MPT).[1] It is widely believed in Japan that, in general, the presence of multiple public bodies dealing with issues in a common area is undesirable, because (a) conflicts on jurisdiction would arise frequently, thus delaying ministerial

[1] For an area including not only telecommunications and broadcast but also contents and copyright, intellectual property, and IT in general, then three ministries would be involved: MPT, the Ministry of International Trade and Industry (MITI), and the Ministry of Education (MOE).

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decisions. (b) Further, competing ministries tend to implement duplicate policies (examples are abundant with MPT and MITI), (c) private operators are forced to deal with multiple ministries for their business, incurring waste of resources[2]. Even though the majority view in Japan shares Dr. Clark's view, i.e., the view that it is desirable to decrease the number of public regulatory bodies, there seems to exist huge difference between UK and Japan in the way public regulatory bodies work. For, if there were 22 regulatory bodies in Japan for telecommunications and broadcast, there would be countless fights between chiefs of bureaus on setting a boundary of jurisdiction; the consequence would be chaotic. Conflicts on jurisdictions do exist under the present system in Japan (and I trust that they do in any country); such conflicts are resolved within a ministry since each ministry is under a single authority. So, it would be interesting to the Japanese participants to this conference if Dr. Clark explains why and how so many public regulatory bodies as to count 22 have continued to be able to operate at all, not to mention operating efficiently.

Of course, there are benefits of having multiple regulatory bodies. An important one is information disclosure. Information as to how each regulatory body operates tends to be disclosed better with multiple regulatory bodies than with a single body, because of conflicts on jurisdictions, regardless whether they are resolved by law or by power. When multiple bodies are integrated into one organization, then such conflicts tend to be resolved internally by authority, and there is less chance for information to be disclosed to the public. And, needless to say, the disclosure of

[2] In a reform of the administrative system of the Japanese government to be implemented at the beginning of 2001, the number of ministers comprising the cabinet will be decreased to 12 from 22 (the current number of ministers). The objective of this reform is said to decrease the size of the government, and the majority view of the Japanese is that a decrease in the number of ministries will lead to a decrease in the size of the government.

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information on the operation of a public regulatory body is desirable to the private sector regulated by the body. For, without information disclosure, the uncertainty on the outcome of business activities by private operators would be high and risk-aversion would lower the level of their activities.

The second observation I would like to bring in is concerned with the comparison of ex ante regulation with ex post regulation. In comparing these two modes of regulation, Dr. Cave seems to prefer ex post regulation, and he stated that the UK situation is gradually moving toward it. I share his view that, in general, outcomes from ex post regulation are expected to be better than ex ante regulation. The reason is that the former gives a greater degree of freedom to private operators than the latter does, thereby bringing in more risk-taking business initiatives and a higher rate of growth of the industry. However, I would like to point out that the cost of ex post regulation is expected to be higher than that of ex ante regulation. The reason is that ex post regulation allows business operators a greater degree of freedom, and, therefore, ex post regulation needs to prepare for a greater number of events, than ex ante regulation does. A consequence of ex post regulation, therefore, is an increase in the "quantity" of new laws, regulatory cases, and litigation. An evidence is the 1996 Telecommunications Act in US. This act gave US telecommunications and broadcast operators a far greater degree of freedom than under the old 1934 Communications Act. The new Communications Act as amended by the 1996 Telecommunications Act, however, has a far greater number of articles, generates a far greater number of cases, and employs a far greater number of lawyers and government officers, than before. They are the cost of deregulation, i.e., the cost of bringing in more freedom to the market. I presume that, in UK, similar consequences have been observed after the

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passage of the Competition Act of 1998. In theory, therefore, the issue is of a tradeoff between the benefit and the cost of introducing competition.[3] Dr. Cave might say that the benefit of introducing competition is far greater than the cost of it, to which I do not object. We, however, need an empirical evidence for this assertion.

Now I would like to proceed to the second part of my comment. The topic is the key issue of access, as stated by Dr. Cave. The issue in telecommunications (LLU: local loop unbundling) arises from the fact that the local access part of telecommunications network connecting the end user to a local switch is under monopoly of a local operator. A new entry into the market of local loop services is economically difficult, because of the high fixed and sunk cost of constructing a new loop. There is an economic incentive for a local telecom operator to exercise its monopoly power in providing PSTN/ISDN access or new broadband access. In short, the access issue in telecommunications arises from the monopoly of local loop services.

The access issue in broadcast, as stated by Dr. Cowie, arises from vertically integrated broadcast services, some of which is under monopoly. In particular, BSkyB in UK provides STB (set top boxes) to subscribers, thereby controlling channel administration and billing services. It is a monopoly at the present time (i.e., other broadcast operators cannot access to subscribers via STB of BSkyB). In addition to this, BSkyB uses radio spectrum, orbital spaces, and satellites for broadcasting its own (and other) programs. In short, it is a monopoly relying on vertically integrated STB and broadcast means such as spectrum.

I understand that these two access issues are critical to promoting competition. We have similar issues in Japan. I also understand that these issues are under political

[3] In Japan, the presence of this tradeoff is often used as an excuse of objecting to deregulation.

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influences, so that a political support with a majority is needed to give an ultimate solution to such issues. What I can do is to provide with a view of such issues by means of which a majority can politically agree on a solution which can provide overall benefits to the majority.

Table 2 summarizes a way to consider the access issue; it has two parts: (a) What to regulate? and (b) How to regulate? The first part is explained by Table 3; it provides with a scheme for understanding the structures of, and the interactions between, various telecommunications and broadcast services. It is based on a two-way classification; horizontal division and vertical division. Horizontal division is a classification scheme of telecommunications and broadcast services based on the location in the network of information transmission considered as a planar graph; examples of entries in the horizontal division are access, local exchange, broadcast, inter-exchange, etc. Vertical division is a classification scheme of telecommunications and broadcast services based on the location in the network considered as a stack of functional layers (of which the order coincides with the direction of payment for services, i.e., the direction along which the value added is formed). Examples of entries in the vertical division are infrastructure, transmission cables, IP services, one-stop shopping, etc. Horizontal division is a traditional scheme for classifying telecommunications and broadcast services. Vertical division has emerged as a consequence of the advancement of digital technology and has become appropriate for considering regulations. By combining horizontal and vertical divisions, one can form a classification of telecommunications and broadcast services into a two-dimensional array of cells as shown by Table 3. It may be called a functional division of telecommunications and broadcast services.

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It is noted that the convergence of telecommunications, broadcast, and other communications services means that technological boundaries having separated them in the past has become unclear because of the advancement of digital technology. In terms of Table 3, it is nothing but the increase in the substitutability of one service entry for another service entry in the same layer of the table. For example, IP broadcast comes from the use of optical fibers for radio spectrum in the layer of transmission media. Internet access services provided by cable operators are made possible by substituting coaxial cables for telephone lines in the layer of transmission media. Hence, in order to maintain a level playing field for competition in the age of convergence, we need to establish institutional as well as technological substitutability between services in the same layer of Table 3. This implies that the market of a service which is an entry in Table 3 needs to be opened up to a new entry of other services in the same layer. In the ideal situation, a separate market may have to be established for each service entry in Table 3, and each market may have to be operated competitively.

In the reality, of course, establishing a separate market for each service in Table 3 may not be appropriate. A realistic regulation should allow some of the services in Table 3 be supplied jointly, not separately. For, otherwise, it would be difficult to invest for starting a new service; some cross subsidization between services is needed for investing in a new service. However, if excessive cross subsidization between services or combination of services is allowed, particularly when some of the services are supplied under monopoly, the market may no longer be competitive or fair. Public regulation for promoting fair competition cannot allow such an outcome.[4] For these

[4] An example is the recent charge raised by the Department of Justice (DOJ), U.S. Government,

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reasons, a realistic regulation must be an outcome of compromise; there seems to exist no theoretical solution stating what combination of services (and cross subsidization) is good, or what is not good, for fair competition.

Let us turn to consider the two cases of key access issue in terms of Table 3. The issue of LLU in telecommunications arises in relation to the service entries shown in a rectangle in Table 3; they are optical fibers, communication poles, conduit, tunnels, and underground spaces. A local loop operator provides with local access by combining these services. To bring in competition into the market of local loops, therefore, it is conceivable to establish separate markets for some of these services. In particular, a market for transmission media may be separated from that for infrastructure and common spaces. It means that, for example, local access providers be separated into two entities (at least functionally, i.e., in accounting) one of which provides tunnels services (infrastructure provider) and the other of which provides optical fiber services (cable provider). The difficulty of new entry may remain with the infrastructure market, whereas the cable market may be exposed to new entry and competition.

The access issue in broadcast is related to the service entries shown with shades in Table 3; they are orbital spaces, satellites, radio spectrum, STB, channel administration, and one stop shopping (billing). The difficulties of this issue arises from the fact that these services are vertically integrated and supplied by a single operator, BSkyB. It is seen that there are two sources of monopoly power in this vertically integrated operation; one comes from the service in the layer of transmission media, i.e., radio spectrum, and the other comes from STB with the capability of

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against Microsoft Corporation (MS) at the U.S. District Court of DC in May 1998; DOJ stated that, in short, MS illegally combined its operating system, Windows98, with one of its application programs, Internet Explorer, in order to gain quick control of the market for the latter (the browsers market).

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channel administration and billing. From this observation, it seems clear that, in order to promote fair competition here, it is necessary to separate the market for transmission services by means of radio spectrum from the market for customer services by means of STB with channel administration and billing. Without some such separation, effective competition will never become a reality.

Finally I would like to propose a way to move from a state in which fair competition is blocked by some combination of services under monopoly (State M) to a situation in which some separation of the services is achieved for fair competition (State C). The point is that once-and-for-all transition from M to C may be harmful to users, because the presence of transition cost may force the monopoly provider to raise the price of services. It is possible that users may object, for this reason, to transition itself. One needs a gradual transition from M to C.

An outline for this is provided by entry B of Table 2. The baseline is separation of services and an open and equal access to each service. A regulatory body, however, can give a relief to a monopoly operator for a limited length of time. A way to do this is to establish a "monopoly tax." The monopoly provider can apply for a relief by choosing a particular time period for relief and accepting a monopoly tax. The tax schedule is to be pre-determined by a public regulator; the rate of tax should be higher as the length relief becomes longer. The point of this proposal is to give a monopoly provider an opportunity to adjust itself to move from state M to state C gradually by paying a monopoly tax.

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