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Vertical mergers in the technology, media and telecom sector – Note by Japan

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More documents related to this discussion can be found at

http://www.oecd.org/daf/competition/vertical-mergers-in-the-technology-media-and-telecom-sector.htm

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1. Introduction

1. As stated in our "Guidelines to Application of the Antimonopoly Act Concerning Review of Business Combination" (hereinafter referred to as the "Guidelines"), vertical mergers "have less impact on competition than horizontal ones and, with certain exceptions, their effect may not be substantially to restrain competition in general". However, recent statistics shows that, in Japan, vertical mergers have been approved with remedies in a similar rate with horizontal mergers in our review procedure. Also, as introduced later, we have several interesting vertical merger cases reviewed carefully from the perspectives of two-sided market effects or conglomerate merger aspects in some fields of technologies.

2. This contribution paper is organised as follows: first, it illustrates general approach taken by Japan Fair Trade Commission (hereinafter referred to as "JFTC") for reviewing vertical mergers in section 2, with reference to the difference to that for horizontal mergers. Then, section 3 presents actual cases of vertical mergers in the fields of technology and media. Lastly, section 4 briefly summarises this paper.

2. Assessment of vertical mergers under the Guidelines

3. JFTC has set the Guidelines in order to improve transparency and predictability regarding the review of mergers. The Guidelines provides JFTC's basic approach for reviewing vertical mergers as well as horizontal and conglomerate mergers.

2.1. Basic concept

4. The Guidelines, after defining vertical mergers as mergers "between companies which are in different trading positions, such as mergers between producers and its distributors", states that basically, vertical mergers (and conglomerate mergers) have less impact on competition than horizontal mergers because the former ones do not reduce the number of competitors in a relevant market. They consequently have less impact on competition than horizontal mergers have, and their effect usually may not be substantially to restrain competition except in cases in which substantial restraint of competition is caused by closures of or exclusion from markets or coordinated conduct. The Guidelines also explain that vertical mergers are reviewed in terms of both unilateral effects and coordinated effects as is the case in horizontal mergers, although "JFTC uses different frameworks or determining factors to consider", depending on types of mergers to be reviewed.

2.2. Substantial restraint of competition by unilateral effects

5. A typical case where unilateral effects by a vertically merged company may be exerted in a relevant market is as follows: when a vertical merger is completed, it would be more profitable for the merged parties to trade within the merged company than with other companies, which would consequently lose opportunities to trade. That is, there arises a

problem of foreclosure (customer foreclosure or input foreclosure) or exclusivity. Even when the merged company continues to do business with its competitors after the vertical merger, if the competitors are in a more disadvantageous position in their business with the merged company than before and effective competition between them is no longer likely as a result, the impact on competition would be significant. Moreover, when the market share of the merged company is large, the merged company would obtain the ability to control the price and other factors resulting from the closure or exclusivity which was caused by the vertical merger. In those cases, the vertical merger may be substantially to restrain competition.

2.3. Substantial restraint of competition by coordinated effects

6. An example of the case where coordinated effects stemming from a vertical merger may be substantially to restrain competition is as follows: when a manufacturer and a distributor merged vertically, the manufacturer can obtain information on the prices of competitors which deal with the distributor. As a result, the manufacturer and its competitors might be able to forecast each other's behaviour with higher possibility. In this case, the merged company and its competitors would obtain the ability to control the price and other factors, thus the vertical merger may be substantially to restrain competition.

2.4. Safe harbour for vertical mergers

7. The Guidelines set safe harbour rules for vertical mergers as they set for horizontal mergers. Precisely, if the market share of the merged company is not more than 10% in all of the relevant markets, or the HHI is not more than 2500 and market share of the merged company is not more than 25% in all of the relevant markets, the merger falls within the scope of the safe harbour for vertical mergers.

2.5. Remedies for vertical mergers

8. JFTC’s view on merger remedies is basically the same for both vertical and horizontal mergers. According to the Guidelines, the remedies should, in principle, be structural measures such as transfer of business and should basically be those that restore competition lost as a result of the merger. However, in a market featuring a rapidly changing market structure through technological innovations, there may be cases where it is appropriate to take certain types of behavioural measures.

3. Actual cases of vertical mergers

9. JFTC has reviewed several vertical merger cases in the technology and media sector in accordance with the criteria set in the Guidelines. This section presents examples of those cases focusing on the characteristics of vertical mergers.

3.1. Kadokawa/Dwango (2014)

3.1.1. Outline of the case

10. In this case, Kadokawa Cooperation (hereinafter referred to as "Kadokawa"), which operates paid video publishing service, and Dwango Co., Ltd. (hereinafter referred to as “Dwango”), which operates paid video distribution service, planned to merge by establishing a new holding company through joint share transferring. As paid videos by Kadokawa are distributed through the online platform operated by Dwango, they are seen to be in a vertical relationship and therefore is examined in light of the criteria for vertical mergers.

11. The market of paid video distribution service is regarded as a "two-sided market” since it is composed of two services for two different types of users: viewers and contents publishers. Here JFTC conducted an economic analysis[1] on this two-sided market and the result indicated that there were indirect network effects between these two sides; as the number and types of contents on the Dwango’s platform increase, the number of membership and viewers who watched the contents increase, and vice versa.

3.1.2. Assessment on foreclosure

12. JFTC examined the possibility of substantial restraint of competition by foreclosure from the merger.

13. As for input foreclosure, i.e. Kadokawa’s refusal of providing paid videos to Dwango’s competitors, JFTC found that there was no incentive for Kadokawa to implement the input foreclosure for the following reasons: unlike general consumer goods (tangible products), marginal cost of videos is extremely small and they can be provided to a variety of different platforms as many times as wanted without any additional cost. Also, the more the number of platforms to upload contents increases, the more opportunities to be viewed videos have, translating into more profits.

14. Regarding customer foreclosure, i.e. Dwango’s refusal of distributing paid videos by Kadokawa’s competitors, JFTC also found that Dwango does not have incentives to implement customer foreclosure; if implemented, it would reduce the number and types of paid videos on Dwango’s online platform and could lead to lower profits for Dwango. On this point, JFTC took into account the fact that the proportion of videos provided by Kadokawa was very small, and also that the market had indirect network effects between the number and types of paid videos and the number of users.

15. JFTC therefore concluded that this merger would not substantially restrain competition in the relevant market.

[1] Economic analysis was conducted through a Granger causality test and impulse response analysis by using the result of an estimation of a vector autoregressive model expressing the relationship between the number of membership of Dwango and the number of channels on the Dwango’s platform. The result of the Granger causality test indicated casual relationships in both directions, that is, from the number of channels to the number of members, and the other way around. In the meantime, impulse response analysis showed that an increase of the number of animation contents on the Dwango’s platform except for those provided by Kadokawa was followed by a significant growth of the number of members and that the growth of membership was followed by a significant increase of the number of channels.

3.2. ASML/Cymer (2013)

3.2.1. Outline of the case

16. This is the case where ASML US (hereinafter referred to as "ASML"), which manufactures and sells lithography systems used in the front-end process of semiconductor manufacturing, planned to acquire all the shares of Cymer Inc. (hereinafter referred to as "Cymer"), which manufactures and sells light sources composing important part of the lithography system. This merger falls under the category of vertical mergers in which a market of manufacturing and selling the light sources defined as the upstream market, a manufacturing and selling the lithography systems defined as the downstream market.

17. JFTC concluded that this merger would not substantially restrain competition based on the measures proposed by ASML for the following reasons:

3.2.2. Assessment on input foreclosure

18. There was a concern that this merger can result in input foreclosure or exclusivity in the downstream market, given the fact that Cymer had a large share (60-75%) in the upstream market, where there are few competitors and that competitors of ASML in the downstream market were buying an appreciable extent of the light sources from Cymer.

19. Responding to the JFTCs' concern, ASML proposed to take measures to eliminate the concern including;

1. Cymer will continuously do business with competitors of ASML under fair, reasonable and non-discriminatory terms of trade as well as in the manner of paying regard to and being consistent with the existing agreement;
2. Cymer will implement joint development activities with the lithography systems manufacturers under the reasonable terms of trade.

3.2.3. Assessment on customer foreclosure

20. There was another concern regarding customer foreclosure or exclusivity in the upstream market, considering that competitors of Cymer in the upstream market used to sell an appreciable extent of the light sources to ASML, which had a large share (45-90%) in the downstream market and that there were few competitors in the downstream market.

21. ASML also proposed measures in order to eliminate the concern including;

1. when ASML develops in partnership with Cymer or its competitors and places orders for products, parts and services of light sources to them, ASML will determine the supplier based on objective and non-discriminatory criteria;
2. ASML will continuously permit chipmakers to choose light sources of their choice and not unduly exert influence on the decision of chipmakers with respect to the choice of light sources.

3.2.4. Access to confidential information

22. As well as the input and customer foreclosures, JFTC assessed the possibility of substantial restraint of competition through access to confidential information.

23. Precisely, light source manufacturers and lithography systems manufacturers share various confidential information. Thus, after the merger, there is a possibility that Cymer

accesses to its competitors' confidential information through ASML, or ASML accesses to its competitors' confidential information through Cymer, and thereby the merged company may use the confidential information for their advantages and put its competitors in a disadvantageous situation.

24. ASML proposed measures in this regard including;

1. directors/employees of Cymer who are responsible for the confidential information of lithography system manufacturers will be prohibited from providing the confidential information to directors/employees of ASML and enter into a non-disclosure agreement;
2. the same measures as (1) above to directors/employees of ASML who are responsible for the confidential information of light source manufacturers;
3. to comply with (1) and (2) above, the merged company will create a protocol of blocking out information for its employees.

3.3. Broadcom/Brocade (2017)

3.3.1. Outline of the case

25. JFTC has reviewed another vertical and conglomerate merger in technology sector which is similar to the ASML/Cymer case above from the same perspective.

26. This case was a merger of Broadcom Ltd. (hereinafter referred to as "Broadcom"), and Brocade communications systems, Inc. (hereinafter referred to as "Brocade"). This merger falls into both categories of vertical mergers and conglomerate mergers; Broadcom manufactures and sells IC chips which are used by Brocade to manufacture and sell intermediary devices for communication network systems (vertical aspect). Also, Broadcom manufactures and sells adapters installed in servers, which use the intermediary devices for connecting to communication network systems. Both of the intermediary devices and the adopters are sold to the same purchasers (i.e. server manufacturers) (conglomerate aspect).

3.3.2. Assessment on vertical aspect

27. As Broadcom sells IC chips to both Brocade and its competitor, Broadcom, after the merger, could refuse to supply products to the competitor or does business with the competitor only under unfavourable conditions in terms of prices among others. However, there is an alternative company in the market of the IC chips holding around 65% market share, and the competitor of Brocade does not necessarily have to purchase the IC chips from Broadcom and could purchase equivalent products from the alternative company.

28. Also, as Brocade uses the IC chips of either Broadcom or its competitor, Brocade, after the merger, could refuse to purchase products from the Broadcom's competitor or does business with the Broadcom's competitor only under unfavourable conditions in terms of prices among others. In particular, Brocade holds approximately 75% of market share in the market of intermediary devices and the Broadcom's competitor could lose a substantial amount of business from the customer foreclosure, and it would be hard for the Broadcom's competitor to find an alternative customer other than Brocade's competitor. In the market of intermediary devices, however, the Brocade's competitor holds around 25% market share, and there are no obstacles to the Brocade's competitor switching suppliers as IC chips made by Broadcom and its competitor are no different in their performance.

29. Based on the above, JFTC decided that no issues of closure or exclusivity of the market would arise from input or customer foreclosures in the vertical aspect of this case.

3.3.3. Assessment on conglomerate aspect

30. JFTC found the possibility of foreclosure or exclusivity in the adapter market through the similar reviewing framework to vertical mergers as follows:

31. Brocade holds a large share in the intermediary device market (75%). Also, adapters need to be ensured their interoperability with intermediary devices by connection tests. Moreover, purchasers generally tend not to change intermediary devices suppliers due to cost reasons. As a result, if the merged company sells intermediary devices which are usable or deliver full performance only in combination with Broadcom's adopters, purchasers do not buy adapters from Broadcom's competitors, which could be placed at a disadvantage. Therefore, the merged company is considered to have capabilities and incentives to foreclose the adapter market.

32. Moreover, in the course of connection tests between adapters and intermediary devices, Brocade shares confidential information with adapter's manufactures, which are competitors of Broadcom. This means the merged companies could gain an advantage in the adapter market by obtaining the confidential information on its competitors.

33. When JFTC indicated to Broadcom and Brocade that there was a likelihood that an issue of closure or exclusivity in the adapters market would arise, they proposed following remedies;

1. the merged company will ensure the interoperability of its intermediary devices with its competitors' adapters at the same level as the one with its own adapters;
2. the merged company will keep its competitors' confidential information concerning the adapters under tight control as its own confidential information, and will not use it to the advantage of their own businesses.

34. JFTC concluded that this merger would not substantially restrain competition, provided that those remedies are implemented.

4. Conclusion

35. As mentioned above, vertical mergers are reviewed in terms of both unilateral effects and coordinated effects as is the case in horizontal mergers. However, theory of harms are different. Even though vertical mergers are considered to have less impact on competition than horizontal mergers because they do not reduce the number of competitive units, there surely exist cases in which substantial restraint of competition is caused by closures of or exclusion from markets or coordinated conduct. It is important for competition agencies to review vertical mergers with careful consideration of several factors such as position of the companies or competitive situation in markets, and case specific theory of harms.