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Merger Control in Dynamic Markets

Dynamic Effects of Mergers and Recent Amendments to the Merger Guidelines

- Contribution from Korea* -

1. Introduction

1. The M&A review of the Korea Fair Trade Commission (hereinafter referred to as the “KFTC”) is conducted in accordance with Article 7 of the Monopoly Regulation and Fair Trade Act (hereinafter referred to as the “MRFTA”) and the Merger Review Guidelines (hereinafter referred to as the “Merger Guidelines”). Article 7 of the MRFTA stipulates that M&As shall be prohibited if they substantially lessen competition, and the Merger Guidelines provide detailed standards for review.

2. The Merger Guidelines have two functions in general. First, the Merger Guidelines provide detailed criteria to determine whether a certain “M&A substantially restricts competition” under Article 7 of the MRFTA. In the case of horizontal mergers, for example, the Merger Guidelines provide specific factors to be considered for assessing anti-competitive effects including unilateral effect, coordinated effect and an increase in buyer’s power, etc. Referring to the Merger Guidelines, case handlers can find grounds for evaluating competitive concerns, and merging parties can prepare their rationales for defense and predict the result of the review.

3. Second, the Merger Guidelines provide grounds for closing investigation early in the process when a merger does not have any competitive concern. The KFTC’s Merger Guidelines describe six cases when the mergers can be examined under the simplified review mechanism. Moreover, even if a merger in question does not fall under the six cases, a merger investigation can still be terminated in the early stage like the simplified review when the merger belongs to the safe harbor based on the Herfindahl-Hirschman Index. This plays an important role in practice, considering that the KFTC has to deal with 600~700 merger cases a year with its limited manpower.

4. While dynamic and innovation-based industries such as semiconductor, IT devices, etc. have had great impact on the Korean economy, the Merger Guidelines did not have criteria specifically to assess the dynamic effects of mergers influencing on innovation competition. Without such criteria in place, competition authorities may have difficulties in making thorough investigation on anti-competitive mergers or closing more expeditiously on mergers of little competition concerns.

5. In order to address this problem, the KFTC amended the Merger Guidelines in February 2019 to add new criteria for assessing dynamic effects of mergers that can stifle innovation competition. The KFTC drafted the amendments based on the review on the merger guidelines of the US and the EU, and the related merger cases reviewed at home

* This contribution was prepared by the Korea Fair Trade Commission.

and abroad. This report covers the changes made to the Merger Guidelines and a merger case reviewed the KFTC to discuss the issues on how to assess competitive effects in dynamic markets.

2. Amendments to the Merger Guidelines

2.1. Definition of relevant markets

6. The biggest change made to the ways of defining relevant markets concerning mergers in innovation-based industries is that, under the amended Merger Guidelines, a company with R&D activities in their final stage will be viewed as a competitor to the other companies that have already been manufacturing or selling the concerned products. In the case of reviewing mergers between a R&D company and a manufacturing company in innovation-based industries, according to the previous Merger Guidelines, even if a party's R&D activity is so mature that it can make competitive restraint on the other party's business, they may not be recognized as competitors to each other or the degree of competition can be underestimated. In the amended Merger Guidelines, the KFTC added grounds for more thorough investigation on mergers in innovation-based sectors by extending the scope of horizontal mergers when one party's R&D activities are close to completion and can substitute for the other party's manufacturing & sales activities or R&D activities. In that case, the relevant markets can be defined either as a separate R&D market or a market that encompasses both R&D activity and manufacturing & sales businesses.

2.2. Estimation of market concentration

7. When a company engages only in R&D activities in innovation-based markets, then it may not be appropriate to calculate market shares or market concentration based on the company's turnovers, production capacities, etc. In the amended Merger Guidelines, the KFTC added alternative measurements such as the size of R&D expenditure, size of assets or resources dedicated to innovative activities, number of patent applications or citations in the relevant area, and the number of actual participants in innovation competition, etc.

8. The use of various measurements for estimating market concentration would enable the KFTC to more readily identify the mergers in highly concentrated innovation markets. On the other hand, some mergers may be cleared in the earlier stage in the circumstance that there is a sufficient number of innovative competitors and the competition for innovation is fierce.

2.3. Analyses on anti-competitive effects

9. When it comes to mergers in innovation-based industries, there is a possibility that merging parties reduce their post-merger innovation activities such as R&D, which would lead to a decrease in innovation competition. This can result in various adverse consequences such as delays in new product development, product upgrade, etc.

10. In this regard, the amended Merger Guidelines added specific factors to be taken into consideration in assessment of competitive effects, including: whether merging parties are important innovators in the relevant market; closeness or similarity of innovative activities between merging parties; whether there is a good number of participants in

innovation competition post-merger; and disparity in innovation capabilities between merging parties and other competitors, etc.

3. The Case of AMAT-TEL Merger

3.1. Case overview

11. The KFTC reviewed the proposed merger between Applied Materials, Inc. (hereinafter referred to as “AMAT”) and Tokyo Electron Ltd. (hereinafter referred to as “TEL”) in 2015. The substance of the KFTC review on the AMAT-Tel merger case had significant impact on the recent amendment to the Merger Guidelines.

12. AMAT and TEL signed a merger agreement in September 2013 and notified the deal to the KFTC in November 2013. AMAT and TEL were the first and the third largest suppliers of semiconductor equipment in the world as of 2012. The merging parties supplied equipment used in front-end manufacturing process for semiconductors such as CPUs, memory chips, etc.

13. The KFTC considered that the proposed merger would have substantial impact on the Korean semiconductor market. Accordingly, the KFTC made a thorough analysis on the merger's anti-competitive effects utilizing evidence gathered by collecting opinions from interested parties (consumers and competitors) at home and abroad, asking for advice from experts, and visiting the parties' premises for investigation, etc. Also, from the early stage of the investigation, the KFTC closely cooperated with other competition authorities in the U.S., China, Japan and Taiwan.

3.2. The relevant markets

14. For defining the relevant product markets, the KFTC divided the 'semiconductor manufacturing equipment' into 14 segments used for different manufacturing processes of semiconductors, which include deposition¹, etching², oxidation/diffusion³ and cleaning, etc. The KFTC segmented the relevant product markets by types of equipment, particularly considering the low level of their substitutability, and taking into account opinions of interested parties and other competition authorities.

15. The equipment suppliers were competing fiercely to be chosen by the semiconductor manufacturers, not only for the equipment currently on sale but also for the equipment under development for future sale. Considering this, i) the equipment that was being mass produced and sold, and the next-generation technology was being developed was defined as a “R&D and sales market”, and ii) the equipment that was still in the pipeline but would be launched in the near future was defined as a “R&D market”.

16. The relevant geographic market was defined as a “global market” considering the fact that the proportion of shipping costs was small; buyers and sellers were widely distributed across the world; and disparity in terms and conditions of transaction between countries was insignificant.

¹ A process that deposits a thin layer of materials on the wafer surface or on another layer, or fills a gap.

² A process that makes the layer on the wafer thinner or removes unnecessary parts.

³ A process that grows a thin layer of silicon dioxide and diffuses impurities on the wafer.

3.3. Market concentration

17. The market concentration was estimated based on the number of “actual competitors” because most of the 14 relevant product markets were in such high-tech industries that the businesses had just started making revenue or still remained in the R&D stage.

18. In order to identify the number of actual competitors, the KFTC referred to the opinions of the key buyers who could offer the most accurate information about the competitiveness of equipment manufacturers. Those buyers had experienced in selecting equipment manufactures with best technology, great performance, speed, etc., and cooperating with them for the technology development.

3.4. Anti-competitive effects

19. First, most of the relevant market segments with overlaps between the parties were expected to become monopolized or duopolized by the merging parties and a few competitors after the merger, resulting in adverse effects such as increase of prices, suspension of maintenance and repair services, etc.

20. In addition, as the merging firms were leading the development of next-generation equipment with higher competence in technology and scale, there were concerns that innovation competition for next-generation equipment would be curtailed, thereby postponing the launch of new semiconductor equipment and harming consumer welfare.

3.5. Reviewing commitments and withdrawal of the proposed merger

21. The merging parties submitted their commitments that they would divest the overlapping assets in each segment of equipment. However, the commitment proposal was not accepted because the KFTC saw that the proposed divestiture by the type of equipment could not address all the competitive concerns. Given the technological relations between equipment, it looked very difficult to separate assets exactly by the type of equipment, and even if the assets could be divested separately, buyers of those assets would have problems developing the next-generation equipment.

22. The KFTC issued its Examination Report on Apr. 27, 2015 requiring the merging parties to divest assets by the unit of businesses. Eventually, the merging parties called off the merger and the KFTC closed proceedings on this case.

23. The KFTC cooperated closely with other competition agencies throughout the investigation. This helped the agencies concerned to build a consensus on the anti-competitive effects and effectiveness of the commitments. As AMAT and TEL withdrew the proposed merger, the innovation competition in the semiconductor equipment industry could be preserved benefiting the downstream industries and consumers as well.