

**DIRECTORATE FOR FINANCIAL AND ENTERPRISE AFFAIRS
COMPETITION COMMITTEE**

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

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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. A vertical merger is a combination between companies in upstream and downstream markets¹. A vertical merger is normally considered not to bring about serious anti-competitive effect compared to a horizontal merger as it does not lead to an increase of market shares and can have several positive effects such as reduction of transaction costs and improvement of efficiency. However, there is also a possibility that a vertical merger causes anti-competitive effect (leverage effect) if a combined firm forecloses competitors wielding its dominance in upstream or downstream market. Also, companies subject to price regulation can use vertical mergers as a means to evade price regulation and increase retail prices. These effects, therefore, should be taken into consideration in the process of M&A review.

2. The Korea Fair Trade Commission (hereinafter referred to as the “KFTC”) examines anti-competitive effect of vertical mergers in accordance with the “Merger Review Guidelines” (hereinafter referred to as the “Merger Guidelines”). This report will cover details of the Merger Guidelines, recent vertical merger cases reviewed by the KFTC and major remedies imposed in the technology, media and telecom sector.

2. Merger Guidelines

3. Article 7 (1) of the “Monopoly Regulation and Fair Trade Act” (hereinafter referred to as the “MRFTA”) stipulates that whether a merger in question “substantially lessens competition” shall be considered when reviewing vertical mergers just as in horizontal mergers. In order to review whether M&A deals substantially lessen competition, the KFTC operates the Merger Guidelines.

4. The Merger Guidelines set out criteria such as market concentration, market foreclosure effect, and coordinated effect in order to determine whether a vertical merger has anti-competitive effect. In addition, factors mitigating restriction of competition and increasing efficiency are also stipulated to be considered.

2.1. Analysis of market concentration (Safe harbor)

5. As vertical mergers do not directly raise relevant market shares, market concentration is not the key of analysis unlike in horizontal mergers. According to the Merger Guidelines, if merging parties’ market shares and market dominance are below a certain level, the merger is considered not to substantially harm competition (falling under the safe harbor).

< Vertical M&As falling under the safe harbor in the Merger Guidelines >

VI. 1. Concentration Status of Market

¹ Such as a combination of raw material suppliers and manufacturers, and a combination of manufacturers and distributors, etc.

A. Market concentration

(2) Where a vertical or conglomerate M&A falls under one of the followings:

- (a) Where HHI is less than 2,500 and the market share of the participating companies is less than 25/100 in their respective relevant markets;
- (b) Where the respective participating companies are ranked 4th or lower in their respective relevant markets.

6. In general, market concentration is calculated based on turnover. However, if it is difficult to measure turnover, market concentration may be calculated based on quantity or production capacity. Also, when it comes to innovation markets, in many cases, it might not be possible to calculate market share based on factors such as relevant products' turnover. In this case, market concentration may be calculated in consideration of factors such as size of R&D expenditure and number of patent applications.

2.2. In-depth review

7. In cases where a merger in question does not fall under the safe harbor, i.e. if merging parties' market shares and market dominance are above certain levels, the KFTC conducts in-depth review in accordance with the Merger Guidelines. The Merger Guidelines stipulate that various factors such as market foreclosure effect and coordinated effect shall be considered in a comprehensive manner when determining whether a certain vertical merger substantially lessens competition.

2.2.1. Market foreclosure effect

8. A combined firm can block purchase channels (or input foreclosure) or sales channels (or customer foreclosure) of its competitors, or prevent the entry of other businesses through a vertical merger.

9. The Merger Guidelines set forth factors to consider such as market shares of raw material suppliers and purchasing companies, and likelihood that competitors can find alternative purchase and sales channels.

2.2.2. Coordinated effect

10. Just as in a horizontal merger, likelihood of coordinated effect is considered when reviewing a vertical merger although details of criteria are slightly different. In order to determine whether a possibility of coordination increases after a vertical merger, the Merger Guidelines set forth factors to consider whether acquiring information about competitors' business activities such as price information becomes easier after a merger.

2.3. Factors mitigating anti-competitive effect and increasing efficiency

11. Under the Merger Guidelines, just like in a horizontal merger, the KFTC examines a vertical merger considering whether there are factors that mitigate anti-competitive effect and the merger would increase efficiency.

2.3.1. Factors mitigating anti-competitive effect

12. Even if a certain M&A has anti-competitive effect, if there is competition pressure from overseas market or there is a possibility of new entry of competitors, the KFTC may conclude that the anti-competitive effect can be mitigated.

2.3.2. Factors increasing efficiency

13. Even though it is determined that a merger has anti-competitive effect, in cases where merging parties prove that efficiency-increasing effect is greater than the harm, the KFTC may approve the merger. This is because such an M&A can eventually increase consumer welfare with quality improvement, price reduction and service upgrade, etc.

14. The Merger Guidelines set out that efficiency-increasing effect in the process of production, sales and R&D, and efficiency-increasing effect in the economy as a whole shall be considered. The review is conducted using the same method as one applied to horizontal mergers, and there has been no case where the KFTC approved a vertical merger on grounds of efficiency-increasing effect.

3. The KFTC's recent vertical merger review

3.1. Vertical merger review in recent 5 years

15. Of M&A review that the KFTC conducted in recent 5 years (2014-2018), vertical mergers account for 10.5%-14.8% showing a slight increase in proportion, but compared to horizontal mergers or conglomerate mergers, vertical mergers' proportion is relatively low.

Table 1. Number and ratio of M&As by type (2014-2018)

	Horizontal merger	Vertical merger	Conglomerate merger	Total
2014	206 (36.1%)	60 (10.5%)	305 (53.4%)	571 (100.0%)
2015	188 (28.1%)	85 (12.7%)	396 (59.2%)	669 (100.0%)
2016	214 (33.1%)	78 (12.1%)	354 (54.8%)	646 (100.0%)
2017	186 (27.8%)	99 (14.8%)	383 (57.4%)	668 (100.0%)
2018	213 (30.3%)	103 (14.7%)	386 (55.0%)	702 (100.0%)

Note: (Unit: case)

3.2. Vertical mergers with remedies imposed in recent 5 years

16. In recent 5 years (2014-2018), there were 5 vertical merger cases where the KFTC imposed remedies concluding that the deal has anti-competitive effect, or merging parties voluntarily withdrew their proposed merger after receiving KFTC's examination report. The KFTC imposed remedies on a total of 21 cases during the same period, and of them, vertical mergers with competitive concerns account for approximately 23.8%.

17. The 5 vertical merger cases considered to cause harm to competition were Hyundai Steel's acquisition of shares of Dongbu Special Steel (2015), Microsoft's acquisition of

assets of Nokia (2015), SK Telecom’s acquisition of shares of CJ HelloVision (2016)², LAM Research’s acquisition of KLA Tencor (2016) and Esmeralda’s acquisition of shares of DS Power (2017).

Table 2. Vertical mergers with competitive concerns (2014-2018)

Cases	Remedy imposition date	Major remedies
Hyundai Steel - Dongbu Special Steel	Mar. 3, 2015	Ban on coercive purchase
Microsoft - Nokia (Consent order)	Aug. 24, 2015	Licensing of SEPs on FRAND terms
SK Telecom - CJ HelloVision	Jul. 18, 2016	Ban on purchase of shares
LAM Research - KLA Tencor	-*	-
Esmeralda - DS Power	Oct. 18, 2017	Limit on price increase

Note: * After the KFTC sent an examination report (Oct. 6, 2016), the merging parties voluntarily withdrew their proposed merger before the KFTC’s full-committee hearing was held. Thus, no remedies were imposed. Add the note here. If you do not need a note, please delete this line.

4. Two major cases

18. The following 2 cases are vertical mergers in the sector of technology, media and telecom where the KFTC imposed remedies due to competitive concerns, or merging parties voluntarily withdrew their proposed merger after receiving the KFTC’s examination report.

4.1. SK Telecom’s acquisition of shares of CJ HelloVision (Media and telecom sector)

19. SK Telecom Co., Ltd. (hereinafter referred to as “SKT”), the largest telecommunications company in Korea, notified the KFTC on Dec. 1, 2015 that it would acquire shares of CJ HelloVision Co., Ltd. (hereinafter referred to as “CJH”), the largest cable TV business in Korea.

20. The merging parties operated various businesses such as pay-TV, telecommunications and high-speed internet in the broadcasting and communications industries. In particular, SKT was a major supplier in the telecommunications wholesale market³ as an MNO (Mobile Network Operator), and CJH was the biggest buyer in the telecommunications wholesale market as an MVNO (Mobile Virtual Network Operator). Therefore, the vertical merger between the MNO and the MVNO seemed to pose a risk of competition harm.

4.1.1. Analysis of anti-competitive effect

21. In the telecommunications wholesale market which was an upstream market, SKT was the second largest operator with market share of 45.6% (based on the number of

² For the SK Telecom-CJ HelloVision case, the KFTC examined its anti-competitive effect not only from a vertical merger aspect but also from a horizontal merger aspect.

³ The telecommunications wholesale market in this report refers to a market where MNOs sell frequencies and telecommunications networks wholesale to MVNOs which are necessary for telecommunications business. By doing so, MVNOs can provide independent telecommunications services to customers using the networks of MNOs without owning frequencies essential to provide telecommunications services.

subscribers), and in the MVNO market which was a downstream market, CJH was the biggest operator with market share of 14.24% (based on the number of subscribers). When adding the market share of SK Telink (14.21%), SKT's subsidiary operating in the MVNO market, to CJH's market share, the combined market share was 28.45% which did not fall under the safe harbor.

22. The KFTC concluded that if the merging parties acquire 28.45% of MVNO subscribers through the merger, they can foreclose competitors' sales channels for telecommunications wholesale services. In particular, as CJH had a great number of customers who used expensive cell phone plans in the MVNO market, there was a possibility that, when based on turnover in the wholesale market, the combined firm can block 55.3% (CJH: 38.1%, SK Telink: 17.2%) of the wholesale market.

23. SKT also had incentive to exclude competitors in the telecommunications wholesale market in order to recover profit loss from decreasing market shares in the retail market. In fact, after the merging parties signed a contract related to the merger, while the number of CJH subscribers who used SKT's networks increased rapidly, the number of CJH subscribers who used competing MNOs' networks kept decreasing.

4.1.2. Result of the KFTC's review

24. The KFTC concluded that there is a possibility that the combined firm can foreclose competing MNOs' sales channels in the telecommunications wholesale market. Together with the anti-competitive concerns in the vertical aspect, the KFTC determined that a horizontal merger in the pay-TV market and telecommunications retail market can also lessen competition. At a full-committee hearing, the KFTC disapproved the merger considering the competitive concerns that both vertical and horizontal mergers may cause.

4.2. LAM Research's acquisition of KLA Tencor (Semi-conductor technology area)

25. LAM Research (hereinafter referred to as "LAM"), the world's second largest semi-conductor manufacturing equipment company, notified on Dec. 28, 2015 its plan to acquire KLA Tencor (hereinafter referred to as "KLA"), the world's fifth biggest semi-conductor manufacturing equipment business.

26. As LAM uses KLA's equipment to measure and inspect failure of its semi-conductor manufacturing equipment in the process of production, the merger in question constituted a vertical merger.

4.2.1. Analysis of anti-competitive effect

27. LAM was a major business in the semi-conductor manufacturing equipment market (with market shares of 12.8%-100% depending on the type of equipment) and KLA was the largest operator in the measurement and inspection equipment market (with market shares of 43.9%-100% depending on the type of equipment). Therefore, the merger did not fall under the safe harbor.

28. The KFTC analyzed that the combined firm can foreclose purchase channels of LAM's competitors in the semi-conductor manufacturing equipment market. KLA had a very large market share in the measurement and inspection equipment market and KLA's products were considered market standards. In addition, KLA was technologically far ahead of other competitors. Therefore, the KFTC concluded that it would be difficult to find other purchase channels that can actually substitute KLA.

29. In addition, as KLA's products were to measure and inspect semi-conductor manufacturing equipment, KLA could obtain secret business information of semi-conductor manufacturing equipment businesses and semi-conductor manufacturers. Therefore, there existed a high possibility that, through the merger, LAM could gain confidential business information of its competitors and buyers, i.e. semi-conductor manufacturers.

30. Also, if competition is restricted due to the foreclosure of purchase channels of competing semi-conductor manufacturing equipment businesses, semi-conductor manufacturers would end up purchasing lower quality semi-conductor manufacturing equipment at higher prices. If prices of semi-conductor rise accordingly, the restriction of competition can eventually harm end consumers.

4.2.2. Result of the KFTC's review

31. In order to resolve the competitive concerns, the KFTC concluded that among the measurement and inspection equipment that KLA owns, assets related to 5 major products that cannot be substituted with competitors' products shall be divested, and sent an examination report containing such order to the merging parties. LAM, after receiving the report, voluntarily withdrew the merger before KFTC's full-committee hearing was held.