

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

**Competition Issues in Aftermarkets - Note from Korea**

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[www.oecd.org/daf/competition/aftermarkets-competition-issues.htm](http://www.oecd.org/daf/competition/aftermarkets-competition-issues.htm)*

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### 1. Introduction

1. Aftermarket is where secondary goods that function as a complementary product of primary goods are traded. Auto parts, maintenance and repair services and ink cartridges which are printer consumables are representative examples of secondary goods. As markets mature, the maintenance of existing facilities is considered more important than investing in new facilities. Therefore, companies have incentives to increase profitability and secure stable profits by providing parts, repair and maintenance services that customers need after purchasing primary goods. In particular, for goods that exhibit lock-in effect due to high switching costs, suppliers gain profit by selling primary goods at a low price, locking in a substantial customer base, and then selling high-priced secondary goods.

2. The most typical case of anti-competitive behaviour in Aftermarket is where a supplier providing both primary and secondary products excludes competitors from its secondary market by controlling components, interface and software needed to provide secondary products that are compatible to the primary goods. Conducting such competition restriction practices should be thoroughly reviewed under the Prohibition on the Abuse of Market Dominance (Article 3-2, Paragraph 1) of the Korean Monopoly Regulation and Fair Trade Act (hereinafter referred to as the Fair Trade Act). The Korea Fair Trade Commission reviewed two cases of abuse of market-dominant position related to aftermarket products including auto parts and software maintenance services. The following chapters will introduce enforcement cases in Korea and discuss major issues related to the enforcement of competition law in Aftermarket.

### 2. Aftermarket cases in Korea

#### 2.1. Abuse of market-dominant position by Hyundai Mobis

##### *2.1.1. Case background*

3. An automobile is a high-end durable good with a long purchasing cycle and high switching costs while the auto-repair and maintenance market takes up a big portion of the industry. This is why the discussion on Aftermarkets is most active in the auto industry. In 2009, the KFTC has imposed measures on Hyundai Mobis for breaching the Prohibition on the Abuse of Market Dominance of the Korean Monopoly Regulation and Fair Trade Act and conducting competition restriction practices in the auto repair parts market. The Korean auto and related parts markets are concentrated on the affiliates of Hyundai Motor Group. It was reported that Hyundai/Kia Motors was holding a market share of 75% in the domestic finished car market, while Hyundai Mobis, an affiliate supplier of auto-parts, was holding a market share of 77% of the auto repair parts market. As the domestic auto-parts market has shown steady annual growth rate of around 10% and the number of independent enterprisers that manufacture and supply replacement parts has increased, Hyundai Mobis controlled automakers and its own distribution channels through exclusive dealings. It prohibited its components dealers from selling generic parts and withdrew existing discount benefits and cancelled the contracts with the dealers when they violated it. The KFTC concluded that such practices by Hyundai

Mobis are an abuse of market dominance (under the Article 3-2, Paragraph 1 of Monopoly Regulation and Fair Trade Act) and required it to take corrective actions.

### *2.1.2. Market definition and recognition of a market dominant position*

4. The KFTC considered a possibility of two market definitions since it concluded that the market that experienced competition restriction by Hyundai Mobis was the auto repair parts market or the repair parts market only for Hyundai/Kia Motors. A key issue in Aftermarket is whether or not a market for brand-specific secondary goods can be separately defined as a market. In this case, Hyundai Mobis was a monopolist when the market was defined as the repair parts market only for Hyundai/Kia Motors. Even when the market was defined as the auto-repair parts market in a conservative manner, Hyundai Mobis still met the criteria of a market dominant position since its market share was around 77%.

5. The reason for defining the repair parts market only for Hyundai/Kia Motors as a separate market is that most of the parts of other cars are not compatible to parts for Hyundai/Kia Motors cars in this case. In other words, if a Hyundai/Kia Motors car owner needs a part for his car, it is virtually impossible to replace it with a part for other cars that is incompatible to his own car. Even taking into account other conditions including a purchase price of the car and switching costs, the KFTC considered that it is unlikely that a car owner replaces the main product itself due to the repair parts.

6. Therefore, considering the fact the market share of Hyundai Mobis met the legal criteria of a market-dominant position and other factors including the existence and level of entry barrier, the relative size of competitors, purchasing power of buyers, the presence of similar products or adjacent markets, financial capability and the level of market foreclosure, the KFTC has concluded that Hyundai Mobis is in a dominant position in the relevant market.

### *2.1.3. Competition restriction effects*

7. Since auto repair parts are large in volume and heavy in weight and have a wide variety of types, there are limitations that repair centres, buyers of parts, hold a stock of those parts. As a result, it's essential for parts manufacturers to secure broad distribution channels and supply parts to their customers in a timely manner. In addition, in the domestic auto parts market, parts for maintenance took up a relatively small portion while the proportion of parts for manufacture was large. As a result, it was structurally challenging for parts manufacturers to build their own distribution channels dedicated to repair parts.

8. Under such a market structure, Hyundai Mobis arranged exclusive dealings that prohibited parts dealers from handling generic parts other than original parts of Hyundai/Kia Motors. As a result, the distribution channels of generic parts manufacturers have been blocked, and competition in the parts market has been restricted. In particular, depending on parts, the retail prices of generic parts were about 30 ~ 83% of those of original parts distributed by Hyundai Mobis which, in turn, showed that limiting distribution of competing parts reduces consumer options and undermines consumer welfare.

#### *2.1.4. Corrective measure and Competition advocacy*

9. The KFTC took action against Hyundai Mobis, issuing an order to discontinue relevant practices, publish the fact that it is ordered to take corrective measures and imposing fines. It is noteworthy that thanks to this case, the discussion on how to vitalize generic parts in the Korean auto-repair parts market has been started in earnest, and various institutional improvements have been made. Particularly, there has been a discussion on how to tackle practices of undermining rational choices of customers by referring to high quality repair parts without trademark infringement and reliability problems as a negative term 'non-original parts'. The Ministry of Land, Infrastructure and Transport, the responsible Ministry for the auto industry, has introduced the Replacement Part Certification System to address the problem of information asymmetry on parts safety. With this system, government-accredited certification agencies verified the quality of competing parts that are not verified by the manufacturers of finished cars. As a result, high quality replacement parts with competitive prices that were shunned by customers due to information asymmetry became more competitive.

### **2.2. Market definition issue in Oracle case**

10. The KFTC examined Oracle's alleged abuse of market-dominant position in 2016. The issue was whether or not Oracle's strategy of combining DBMS (Data Base Management System) maintenance service with the next version of DBMS restricted competition in the DBMS market. Bundling primary goods with secondary goods is the most typical type of anti-competitive behaviour in Aftermarket. But in this case, the issue was raised that bundling the maintenance service with the license of the next version of DBMS, the primary product, could restrict competition in the primary market. During the examination, the discussion was about whether or not the maintenance service and the next version of DBMS could be seen as individual products, and therefore be able to be viewed as a tying arrangement.

11. Considering the substitutability of the product in terms of supply and demand, the general purchasing patterns of consumers, and the uniqueness of software maintenance, the KFTC concluded that DBMS and DBMS maintenance services are not separate products. In particular, Oracle had a complete monopoly in its DBMS maintenance market because there was no independent maintenance service providers for Oracle DBMS, and it was actually difficult for customers to purchase Oracle's DBMS license and then use related maintenance services from other providers since Oracle provides access to its source code to provide patches and updates necessary for error correction. In addition, the fact that consumers tend to purchase DBMS considering the Total Cost of Ownership, based on the idea that it is a system combining the DBMS license, maintenance services, and upgrades to the next version was also considered when the KFTC defined the relevant market as the DBMS system market.

## **3. Key issues in the enforcement of the competitive law**

### **3.1. Market definition**

12. Relevant market refers to a set of all substitutable products or services to which consumers could turn in as a response if there are significant increases in prices of certain products or services for a prolonged period of time. When defining a market, the price, similarity of functions and utility, buyers' perception of substitutability and related

purchasing patterns, sellers' perception of substitutability and related management decision making patterns, socially and economically recognized homogeneity and similarity of the industry, the pace of technological development, market conditions of other products required for the manufacturing of a certain product and of other products manufactured using that product, and the level of substitutability of the product from the time, economic and legal perspectives should be considered.

13. In the case of Aftermarket, it can be a key issue, in particular, whether primary and secondary goods can be defined as separate markets and a market for a brand-specific secondary good can be separately defined as a market. According to that, three types of markets can be defined. First, there is a case where primary goods and secondary goods constitute one system market. If a consumer decides to make a purchase decision based on the Total Cost of Ownership considering the cost of a secondary product at the time of purchasing a primary product, and the level of lock-in effect and switching cost of the primary product is not high, the market is likely to be defined as a system market since the customer can respond to price increases of the secondary product by replacing the primary product with another product. Second, there is a case where primary goods and secondary goods are divided into separate markets, and secondary goods are defined as multiple markets by each brand of different manufactures. If a consumer decides to buy secondary products through independent decision-making after purchasing the primary product, and if a customer cannot respond to price increases of secondary products by replacing the primary product with another product due to the high level of lock-in effect and switching cost, the market is likely to be defined as a multiple market. Finally, there is a case where, while primary goods and secondary goods are defined as separate markets, the secondary market is not defined separately by each brand but defined as an integrated market. This is called a dual market definition. It is the way to define a market when a secondary product can be compatible with a primary product of multiple brands.

14. In real cases related to Aftermarket, the KFTC defined the markets by focusing on the following factors: first, the probability of conversion and the level of lock-in effect of a primary product. In order to evaluate this, it is necessary to compare the price of a primary product and the secondary product, and review the use period of the primary product, the depreciation and transaction cost in the disposal of the primary product, the lock-in effect in terms of the non-price factors (compatibility problems with related products, adaptation process of using the primary product and etc.) and a competitive environment in the primary good market from multiple perspectives. Second, whether consumers can make purchasing decisions based on the Total Cost of Ownership by reasonably predicting the costs of secondary goods needed in the future at the time of purchasing primary goods should be considered. In this regard, the level of information disclosed related to secondary goods at the time of purchasing primary goods, the degree of uncertainty related to price predictions of secondary goods, and the possibility of changes in price policies of secondary products should be reviewed. Third, it takes into account trading patterns of enterprisers and consumers in the real market. In particular, actual transaction patterns should be reflected in the market definition process. Those include whether a company that independently supplies only a secondary good without supplying a primary product is actually operating in the relevant market, market players' perceptions towards their competitors and response strategies, and whether or not consumers make purchasing decisions for secondary products independently from primary goods.

### 3.2. Market dominance

15. In accordance with Subparagraph 7 of Article 2 of the Fair Trade Act, a business entity with a market-dominant position is defined as one in a position to determine, maintain, or change, alone or jointly with other business entities, the price, quantity, quality, or other terms and conditions of transactions of a specific commodity or service. It considers the existence and level of entry barriers, the relative size of competitors, the probability of cartel formation among competitors, the presence of similar products or adjacent markets, the level of market foreclosure and financial capability. In accordance with Article 4 of the Fair Trade Act, if a business entity's market share is more than 50% or the total market share of the three largest business entities is more than 75%, the entity can be regarded as a market-dominant entity. On the other hand, business entities with a market share of less than 10% are generally regarded as falling within the safe harbour in competition analysis.

16. With regard to Aftermarket, if an enterpriser providing both primary and secondary goods excludes competitors which provide only secondary goods from its secondary market that is defined as a separate market, the fact that the enterpriser is providing both primary and secondary goods can be an important factor in determining the dominance of the enterpriser in the secondary market. In particular, if a factor of production of the secondary market is exclusively controlled by an integration enterpriser, or if the related factor of production is protected by intellectual property rights, it may be considered as a factor to strengthen the entry barriers to the secondary market. On the other hand, even if a secondary product market is defined as a separate market, the competitive situation in the primary product market can be considered as an important factor in determining the dominance of the enterpriser in the secondary product market. It will be considered whether the intense competition of the primary product market acts as a restricting factor for the price increase of the secondary product or whether it's difficult for customers to replace the primary product with another product even when the price of the secondary product increases due to the competition restriction in the primary product market.

### 3.3. Major types of violations

17. To date, there has been no case related to exploitative behaviours including price abuse in Aftermarket that the KFTC recognized its illegality. In this field, exclusionary behaviours of market dominant enterprisers are main problems. In 2009, the illegality of exclusive dealings including distribution foreclosure in the auto parts market was recognized. In 2016, an alleged case of tying the sale of software and maintenance service was reviewed. In addition, practices of an enterpriser which provides both primary and secondary products, refusing to supply major production factors needed in the secondary market to competitors (refusal to deal) or discriminating the prices and terms of transactions to exclude competitors can be reviewed as types of major violations. If such exclusionary behaviours are recognized as causing or likely to cause competition restriction such as price increases in related markets, decreases in output, a hindrance of innovation, decreases in number of competitors, decreases in diversity, and reduced consumer welfare, these can be considered to be in violation of the Fair Trade Act.

### 3.4. The ground for justification

18. Since a provider of a primary product has an incentive to actively exercise its intellectual property rights related to its parts and software as a means of controlling the secondary market, issues in Aftermarket is closely related to the enforcement of competition law on the abuse of intellectual property rights. The KFTC, in the enforcement of law, considers that the legitimate protection of intellectual property rights can provide incentives for technological innovation and promote dynamic efficiency of the market. Therefore, if the behaviour of an integration enterpriser related to a secondary product is directly related to an issue of legitimate exercise of intellectual property rights, this can be considered as grounds for justification when judging the illegality. In this regard, Article 59 of the Fair Trade Act stipulates that the application of the law is excluded for legitimate exercise of intellectual property rights protected by relevant laws such as the Patent Act. However, under the Fair Trade Act, the provision is not interpreted as giving an indulgence to the exercise of intellectual property rights. Whether the exercise of intellectual property rights is justified depends on the validity and scope of related intellectual property rights, a purpose and details of the exercise of intellectual property rights, and the effects on the relevant market.

19. Meanwhile, consumption of secondary goods related to Aftermarket in its nature, is closely related to consumer experience of primary goods. Therefore, a supplier of a primary good has an incentive to control quality of the secondary good market to guarantee superior consumer experience. In particular, when competition of the primary product market is active, if a supplier controls the quality of the secondary product as part of a differentiation strategy of maintaining high quality compared to its competitors, it can cause pro-competitive effects on the entire market. As such, if the behaviour of an enterpriser is considered to be promoting system competition in the relevant market and thereby improving customer welfare, the KFTC, in accordance with the rule of reason, will thoroughly compare its pro and anti-competitive effects to judge the illegality.

### 3.5. Corrective measures and considerations in policies

20. If the behaviour of an enterpriser is an abuse of a market dominant position in violation of Article 3-2 of the Fair Trade Act, omission orders including discontinuance of the practice and recurrence prevention and commission orders including a correction or deletion of a related contract, separate sales and disclosure of information can be reviewed for corrective measures. In addition, actions such as imposing penalties and filing complaints against violations of the law may be followed.

21. The fact that effective allocation of resources in Aftermarket is decided by the accuracy of consumer information on the price, quality, compatibility and reliability of secondary products should be thoroughly considered when competition authorities design corrective measures and competition advocacy activities.

22. In a case where primary goods suppliers also supply secondary goods, the suppliers can effectively control information on product compatibility and reliability. In particular, the ability to control information strengthens even further when the scope of IPR of primary goods suppliers covers technical specifications for compatibility. On the other hand, in the case of competing suppliers that supply only secondary products and consumers, information asymmetry increases since they have substantially limited access to information compared to integration suppliers.

23. Consumers in Aftermarket face a choice between high-cost secondary goods whose compatibility and reliability have been certified by the primary suppliers and affordable secondary goods made by qualified independent suppliers whose compatibility and reliability have not been certified. If complete information on compatibility and reliability of secondary goods is available, consumers can make a reasonable choice considering the quality and price conditions of the secondary good, and in this case, the resource allocation function of the market can be improved. Unfortunately, however, customers' access to information is highly limited in reality. Especially when the bundling of a primary and secondary product not only causes a functioning problem but also a safety problem, consumers' limited access to information can significantly distort the decision.

24. In this regard, competition authorities need to consider measures to improve the allocation of resources in the market through issuing an order to disclose information on prices, compatibility, and reliability of related secondary products when designing corrective measures for cases in violation of related laws in Aftermarket. In addition, the authorities should work closely with regulation authorities of relevant industries to promote competition advocacy by improving policies that can eliminate uncertainties in the market. The aforementioned case of the auto repair parts market is a model example showing that how the expansion of official certification for reliability and specifications of domestic repair auto-parts has promoted competition in the market. As such, encouraging structural improvement in the market using active competition advocacy can be a more effective measure to enhance efficiency of the market than simply regulating individual enterprisers.