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ECONOMIC ANALYSIS IN MERGER INVESTIGATIONS – Contribution from Japan

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More documentation related to this discussion can be found at: oe.cd/mergerinv.

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Economic Analysis in Merger Investigations

- Contribution from Japan –

1. Introduction

1. In recent years, economic analysis has been increasingly important in competition law enforcement, especially in individual merger review processes. In the process of analyzing market definition or potential competitive harm after the merger, economists play an important role for providing quantitative and/or qualitative analysis depending on characteristics of cases.

2. This contribution paper is consisted of five sections: section 2 outlines an organizational approach concerning economic analysis within the Japan Fair Trade Commission (hereinafter referred to as the ”JFTC”); section 3 introduces the role of economists in merger reviews; section 4 explains detailed methods of economic analysis; section 5 introduces two actual merger cases mainly assessed from quantitative analysis viewpoint.

2. Organizational Approach Concerning Economic Analysis

3. The JFTC has recognized the importance of utilizing economic analysis in its implementation of competition law and policy. Economists in the JFTC are involved in various activities such as merger reviews, investigation cases on the Antimonopoly Act (hereinafter referred to as the “AMA”) violations, market studies and establishment of guidelines. In these activities, they contribute to provide useful economic insights, which enables the JFTC to respond to fast-moving markets and enhance the credibility of its decisions.

4. In the merger and acquisition division of the JFTC, economists are engaged in merger reviews as well as economic researches and amendments of merger guidelines. For example, the economists played an important role in amending the Guidelines to Application of the Antimonopoly Act Concerning Review of Business Combination (hereinafter referred to as ‘Merger Guidelines’) in 2019, which reflected the views on competitive analysis on merger reviews in digital markets.

5. As for merger reviews, the head of the division assigns several economists to a case, and they work closely with the case handlers in charge of the case. The review process comprises two phases: primary review and secondary review (in-depth review only for complex cases having potential competitive concerns). Through the two phases, the economists conduct economic analyses, collecting and assessing data and information submitted by merging parties. At secondary reviews, the economists also participate in assessing the effectiveness of remedies proposed by the parties concerned.

3. Involvement of Economists in Merger Reviews

6. The JFTC conducts an economic analysis in the merger review approximately 10 cases per year. Economists work together with case handlers responsible for reviewing the merge cases, typically in significant or difficult case reviews. In the review process, the

economists usually start their work by preparing a plan for economic analysis and requesting the parties concerned to submit sample data of the past one month concerning the merger such as the amount of sales or revenue of the parties. After checking the sample data and confirming its necessity, the economists formally request the parties concerned to submit full set of data. Then, the economists clean up the data and analyze them empirically, and compiled the reports of their analysis. In addition, the economists advise case handlers as to how to design questionnaires for market surveys and how to understand the market characteristics and the firms' behaviors, from the viewpoints of economics and social science.

7. The economists also assess the credibility of the merging parties' economic analysis reports submitted to the JFTC. The economists ensure the reproducibility of the result described in the submitted reports, by obtaining data and programing codes from the parties' economic consultants. More specifically, the economists make assessments from the following viewpoints: whether the methods and models in the submitted reports are appropriate, the assumptions are valid, the interpretations of the results are reasonable. Based on the assessments, the economists summarize the evaluation reports assessing the parties' economic analysis reports, and explain their expertise to the merger case handlers and decision makers such as members of commission. Through the process, the economists and the economic consultants of the parties often have effective communications via meetings and discuss related issues.

4. Detailed Methods of Economic Analysis in Merger Reviews

8. Following the Merger Guidelines, the JFTC defines the relevant markets and analyzes competitive effect of mergers in each relevant market for every case. The quantitative economic analysis provides useful insights regarding both market definition and competitive analysis, and the JFTC uses it especially in significant or difficult cases. In this contribution paper, we will elaborate on the JFTC's detailed methods on quantitative analysis.

9. The economists mainly use stylized analysis such as price analysis and critical loss analysis for the market definition. Price analysis including price correlation analysis and stationary analysis, has a disadvantage of identifying or assessing causality between each phenomenon or each fact. However, it is frequently used because of its small requirement for data and its simplicity. Critical loss analysis, which is more rigorous and sophisticated method than price analysis, requires demand estimation based on economic theory and SSNIP test explained in the Merger Guidelines. For conducting demand estimation, data availability may be critically important because it requires competitors' data as well as merging parties' data.

10. The JFTC carefully conducts competitive analyses on a case-by-case basis, and its choice of method depends on characteristics of each case and availability of related data. The JFTC understands that one of the main purposes of the competitive analysis is to evaluate the degree of competitiveness between the parties, as well as that between the parties and their competitors. In the analysis, the JFTC generally uses several methods such as event studies, diversion ratio and GUPPI (Gross Upward Pricing Pressure Index). With regard to the event study, the economists firstly check the industrial history and backgrounds to find events such as mergers, incidents and regulation changes in the sector. And then, the JFTC evaluates the effect of the events by using some econometric techniques such as regressions and the differences-in-differences. As to the diversion ratio and GUPPI, the economists typically use consumer surveys to obtain the diversion ratio, and then calculate the value of GUPPI by combining the diversion ratio and other data such

as margin. Other than the methods described above, the JFTC also has had experiences of using merger simulation in a few cases, which are considered difficult to conduct due to time constraints.

5. Economic Analysis in the Current Merger Cases

5.1. Z Holdings Corporation/Line Corporation

11. The merger of Z Holdings Corporation (hereinafter referred to as 'ZHD') and Line Corporation (hereinafter referred to as 'LINE') was a seminal and pioneering case in Japan because it was the first significant case in the digital area after the revision of the Merger Guidelines in 2019. One of the main issues in the merger was the evaluation of the QR code payment service, which had a characteristic of a two-sided market formed by the consumer-side using the service for free and the member-store-side using the service paying fees. ZHD's PayPay and LINE's LINE PAY were the top two QR code payment services in Japan. To evaluate this market, the economists firstly constructed theory of harm that the merging parties' market power in the consumer-side would be enhanced in post-transaction and the parties would be able to increase fees for the member-store-side through indirect network effects from the consumer-side to the member-store-side. Next, the economists constructed a structural model to evaluate the demand elasticity for both sides of the market and the magnitude of indirect network effects. The JFTC requested the parties the relevant data, however, the parties reported that they did not have some of the data, and alternatively, the parties' economic consultants submitted an economic analysis, which focused on the consumer-side. Then, the JFTC decided to evaluate the submitted economic analysis.

12. The main part of the parties' economic analysis was about the consumer-side's diversion ratio in QR code payment services. The parties' economic consultants evaluated the switching situation among cashless payment services in the day when PayPay held the one-day cash-back campaign, which allowed consumers to obtain a cash-back if they switched to the PayPay from other cashless payment services. Based on these data, they calculated the diversion ratio from LINE Pay to PayPay as well as the ones from other cashless payment services to PayPay. As a result of making a comparison between them, the parties' economic consultants concluded that the diversion ratio from LINE Pay to PayPay was not large and LINE Pay was not a close competitor to PayPay.

13. The economists reviewed the programing code used for their analysis and evaluated their reports in terms of validity of the analysis. After the economists discussed with the parties' economic consultants several times, the economists wrote a report that the main part of the parties' economic analysis was mostly valid but still had a certain weakness. Based on the report, the JFTC's decided not to block the merger on condition that the merging parties took certain measures proposed by the parties to respond to potential competitive concerns that might be caused by the merger, such as three-year periodic reports about issues of member stores' fee and collected data regarding QR code payment services.

5.2. Matsumotokiyoshi Co., Ltd/Cocokara Fine Inc.

14. In Matsumotokiyoshi Co., Ltd. (hereinafter referred to as 'Matsumotokiyoshi') and Cocokara Fine Inc. (hereinafter referred to as 'Cocokara Fine') case, which is a Japanese major drugstores' merger, the JFTC conducted a quantitative economic analysis to evaluate the general tendency between the stores' profit rate and the market conditions. In particular, the JFTC tried to evaluate the competitive pressure from other drugstores inside / outside

the commercial area, which is defined as circular areas centered on the parties' store, and the one from other types of stores such as supermarkets and discount stores. The JFTC obtained monthly data of the revenue and cost both for each store and for each segment of the store such as foods and drugs from the parties. Also, the economists obtained the data on current competitors from the one of the merging parities, which contained past entry/exit data of the competitors including a distance from those competitors to the stores of the merging party. From the other of the merging parties, the economists obtained the information about the current competitors and their distance from the drug stores of the merging party, which did not include past entry/exit data of the competitors. The economists constructed the panel data from the one of the parties' data and the cross section data from the other.

15. The result of the analysis was as follows: The economists identified in both the panel and cross section data analysis that the profit rate for each store and each segment of the store reduced with the increase of the number of the drugstores within the commercial area, though its magnitude was not so large. From the cross section data analysis, the economists observed that the other drugstores outside the commercial area did not cause the competitive pressure against the parties' stores, and supermarkets only affected the food segment. However, from the panel data analysis, the economists found that both the competing drugstores outside the commercial area and supermarkets had the competitive pressure on both the store and almost every segment of the store.

16. Facing the contradicting results of the analyses, the economists speculated that the difference might come from the difference of the dataset used in respective analyses. The entry/exit data used for the panel data seemed to contain the actual competitors only, and even though a distance was small enough to be inside the commercial area, several drugstores and supermarkets seemed to be excluded from the dataset intendedly because of the location and the stores' lineup. On the other hand, the information on competitors used for the cross section data obtained from the party seemed to mechanically contain every drugstore and supermarket and to include stores which did not actually compete with the party's stores. After carefully checking both data, the economists concluded that the outcome of the panel data analysis was more reliable than that of the cross section data analysis, and informed their view to the case handlers.

17. The economists helped the case handlers understand the competitive situation inside and outside the commercial area in detail. Eventually, based on the economic analyses and other evidences, the JFTC notified the merging parties that it would not issue a cease and desist order.

6. Conclusion

18. To summarize, the economists have a significant role to provide useful and insightful analysis for case handlers to make an accountable decision in merger reviews. The JFTC will continue updating reliable methods of analysis concerning both quantitative and qualitative approaches responding to recent dynamic changes in every sector.