

## **What You Should Know about Merger Filings with SAMR in Chip Industry**

Zhan Hao, Song Ying and Wu Yuanyuan

Against the backdrop of China-US trade friction, the event that Qualcomm/NXP deal's abortion due to the holding of China's antitrust authority to give the green light, has raised most attention and interest ever from people on China's merger review practice, particularly on situations when it comes to chips industry. This article is not intended to comment on the potential political influence or industry concerns behind this event, which has been masticated in a bunch of articles and media report. The authors would rather to comb and comment on those major cases of chip industry approved by the former Ministry of Commerce (MOFCOM) and the current State Administration for Market Regulation (SAMR) with imposition of remedies so far, to the end to help readers have a better understanding of the merger review practice in China of this industry.

Chips, generally referring to the carrier of integrated circuits, are also the finished goods of integrated circuits after design, manufacture, sealing, packaging and testing. They can usually be used immediately as an independent whole and belong to the semiconductor industry. The words "chip" and "integrated circuit" are often in mixed use. In 2009, integrated circuits have surpassed petroleum as China's largest imported commodity. From 2009 to 2016, China's deficit in integrated circuits has reached \$1 trillion. In 2015, China's IC self-sufficiency rate was only about 27%. As the integrated circuit industry is a basic, key and strategic industry in the national economy, it has been widely valued by the state.

As one of the characteristics of integrated circuit industry is frequent mergers and acquisitions, major mergers and acquisitions often need to be notified to the competition authority of various countries before closing. Among the 37 cases being approved with remedies so far, there are 5 involving the chips industry, which accounting for not a small proportion. Those cases are the "acquisition of MStar by MediaTek" approved in 2013, the "acquisition of Freescale by NXP" approved in 2015, the "acquisition of Brocade by Broadcom" approved in 2017, the "acquisition of Silicon Precision by Advanced Semiconductor Engineering (ASE)" approved in 2017, and also the "acquisition of Orbotech by KLA-Tencor" newly approved in February of 2019.

By summarizing and comparing the decisions made by China's antitrust authority in the above-mentioned cases, the following characteristics could be observed in China's merger review practice in chips industry.

### **I. Relatively Long Review Period Featured by Withdrawal and Refiling**

Among the above 5 cases with conditional approval by China's competition authority, the merger review procedure costed around 13 months in MediaTek/MStar deal, about

7.5 months in NXP/Freescale deal, about 15 months in ASE/Silicon Precision deal, about 7 months in Broadcom/ Brocade deal, and around 9.5 months in KLA-Tencor/Orbotech deal. Among them, except for the "acquisition of Brocade by Broadcom", all of other cases involve the withdrawal and refiling procedures. According to the publicized decision of the NXP/Freescale case, NXP submitted to MOFCOM at the early stage the proposed remedy plan of divesting NXP's RF power transistor business, which may be one of the reasons for the relatively short time of merger review in this case, compared to others.

## **II. Relevant Stakeholders being Solicited for Opinions in Various Ways**

The former merger review authority MOFCOM, and the current one SAMR, usually solicits opinions on transactions from competent government industry authority, industry associations, key competitors and downstream customers. It also applies to chips industry. In the case of NXP's acquisition of Freescale, MOFCOM also solicited opinions from industry experts in addition to the above stakeholders that are usually asked, by issuing questionnaires, holding symposiums and conducting on-the-spot investigations. In the process of soliciting opinions, it should be said that the opinions of competent government authority and trade associations are relatively more important to MOFCOM/SAMR. For the chip industry, there are mainly two competent government authorities. One is the Electronic Information Department of the Ministry of Industry and Information Technology (MIIT), with the Integrated Circuit division being the competent division. The other is the High-tech Industry Department of the National Development and Reform Commission (NDRC). One of the major industry associations is China Semiconductor Industry Association.

## **III. Focus of Competitive Analysis**

In the above-mentioned cases, when it comes to horizontal overlap between the concentration parties, China's competition authority often pays attention to whether the concentration will reduce the choice of customers, whether the enterprises may increase prices ex post the concentration, and whether the transaction will affect technology development and innovation.

For example, in ASE/Silicon Precision deal, MOFCOM found out from the questionnaire survey and discussion with customers that customers usually regard ASE, Silicon Products, Amkor Technology and Changjiang Electronics Tec as the preferred suppliers of sealing and testing services, considering that there is a very close substitution relationship between these suppliers. In addition, ASE and Silicon Precision are viewed as the most important sealing and testing service providers. Therefore, MOFCOM believed that this transaction will further reduce the choice of customers.

Furthermore, MOFCOM also compared the profit margins of different packaging

technology types and different regions of the two parties in 2016. It was considered that after ASE comprehensively assesses the profit margins of their different products, it is very likely to adjust their pricing strategies, that is, to increase relatively low profit margins, thereby harming the interests of customers and consumers through price increases.

In the case of NXP's acquisition of Freescale, MOFCOM considered that Freescale and NXP have leading positions in the RF power transistor market and the technological advantages that other competitors do not have in the market. They compete in the field of technology research and development. This transaction will eliminate the basis for competition between the two sides, reduce the motive force for technology R&D of the parties, and may adversely affect the speed of R&D and innovation in relevant markets.

In addition to competition concerns in horizontal mergers, in the case of KLA-Tencor/Orbotech deal, SAMR's main concerns come from the vertical relationships between the parties, which were primarily reflected in competition concerns of potential vertical foreclosure effects, possible tying practice and exchange of commercial sensitive information.

#### **IV. Consideration of Economic Analysis**

In some relatively complex cases, both the notification party and MOFCOM/SAMR may engage economic experts to conduct specialized economic analysis of transactions. The former MOFCOM has repeatedly referred to the application of economic analysis in the announcement decision of "ASE/Silicon Precision deal ". For example, in the analysis of the close competitor relationship between ASE and silicon products, MOFCOM mentioned: "Economic analysis shows that ASE and silicon products are close to Chinese customers' profit margins. The correlation index of profit margins in China is 0.72 (1 is exactly the same), and there is a strong correlation between the two sides' profit margins over time, indicating that they are close competitors in the Chinese market."

#### **V. Both Structural and Behavioral Remedies**

The above-mentioned cases with conditional approval involved both structural and behavioral remedies. Among them, the remedies in "MediaTek/MStar" and "ASE/Silicon Precision" are comparatively similar, including hold-separate, exercising limited shareholder rights, and some behavioral conditions for customers and cooperation. The case of NXP's acquisition of Freescale only involved structural divestiture, while the "Broadcom/Brocade" and "KLA-Tencor/Orbotech" deal involved only behavioral remedies, including maintaining interoperability, non-discrimination, not engaging in tying or bundling sales, FRAND, etc.

In summary, from the past law enforcement of China's merger review of the chip

industry, it can be seen that MOFCOM and SAMR pays more attention to this industry, and the review is more rigorous and cautious. In the preparation of merger filing in China, companies in this industry need to take it seriously. It is suggested that antitrust lawyers to be involved in the early stage of transaction negotiation, so that favorable transaction terms may be included by taking the antitrust risks comprehensively.