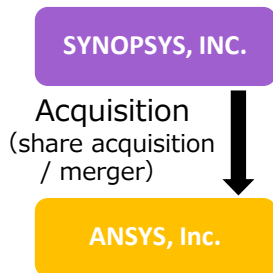


Overview of the Case



① Semiconductor Design and Analysis Software

- SYNOPSYS is engaged in providing EDA software used for supporting the design, analysis and manufacture of semiconductor chips, etc.
- ANSYS is engaged in providing the S&A software used for analyzing engineering issues such as strengthening the structure of products and heat dissipation, etc.
⇒ EDA software and semiconductor-related S&A software are collectively called "Semiconductor Design and Analysis Software".

② Optical Design Software

- Parties Group is engaged in providing optical design software, etc.

Definition of Particular Fields of Trade ①

Semiconductor Design and Analysis Software

- Defined the relevant scope of products by combining **each function** of Semiconductor Design and Analysis Software and **each type** of semiconductor chips.
Ex) RTL power consumption analysis (digital chip) market
- Defined the relevant geographic scope as **worldwide** because the Semiconductor Design and Analysis Software provided globally and there is little difference in price between countries.

Classification of Semiconductor Design and Analysis Software by **function**

- RTL power consumption analysis
- ESD analysis
- Parasitic analysis
- Power device analysis
- Functional safety and specification analysis ... etc.



Classification of semiconductor chips by **type of chip**

- Digital chip
- Analog chip
- Mixed-signal chip
- Multi-die chip
- Photonic chip



*A total of five types

Assessment of Substantial Restraints on Competition ①

Horizontal Business Combination

- Of 10 products that the Parties compete with each other, the JFTC found that **the Transaction would substantially restrain competition in the market for RTL power consumption (digital chip)** based on the following factors.
 - **Position of Parties Group and Competitors, and Status of Competition, etc.**
 - The combined market shares of the Parties Group are high as approximately 70%, and the gap between the Parties Group and the second and lower ranks would be large.
 - The Parties Group's products were found to be similar to a certain degree and the competitive relationship between the Parties Group could not be described as weak.
 - **Competitive Pressure from New Entrants**
 - New market entry is not easy due to the issues regarding development period, human resources, budget, etc., and thus the competitive pressure from new entrants is limited.
 - **Competitive Pressure from Adjacent Markets**
 - There are no products with a similar effect to that of a Semiconductor Design and Analysis Software, and thus no competitive pressure from the adjacent markets was found.
 - **Competitive Pressure from Consumers**
 - There are only three suppliers in the market for RTL power consumption analysis, which would make it difficult for consumers to switch suppliers, and thus competitive pressure from consumers would be limited.

Conglomerate Business Combination

- As a result of examination of the blockade and degradation of interoperability*1 between the Parties Group's and competitors' Semiconductor Design and Analysis Software and the combined supply*2 of Semiconductor Design and Analysis Software by Parties Group, the JFTC found that the Parties Group would not have the ability to cause foreclosure or exclusivity of the market and thus **the Transaction would not substantially restrain competition in the market.**

*1 "Interoperability" refers to the ability to smoothly transfer the design data among the products.

*2 "Combined supply" refers to the conditional sales by the Parties Group in which consumers purchase a product occupying substantially powerful position in the market combining with another product.

- As a result of examination of the **elimination of potential competition***3, the JFTC found that, even if SYNOPSYS has planned to enter the market for thermal analysis (multi-die chips), the possibility that SYNOPSYS becomes a powerful competitor is not high, and thus **the Transaction would not substantially restrain competition in the market.**

*3 "Elimination of potential competition" refers to elimination of the possibility that either of the Parties Group newly enters market caused by the Transaction.

Acquisition of ANSYS, Inc. by SYNOPSYS, INC.

Definition of Particular Fields of Trade ②



Optical Design Software

- Software used for designing and simulating light-related products such as camera lenses and automobile headlights. The JFTC defined the relevant scope of products **optics software** and **photonics software**, considering their different applications and business types
- The JFTC defined the relevant geographic scope as **worldwide** because they are provided globally and there is little difference in price between countries.

Assessment of Substantial Restraints on Competition ②

Horizontal Business Combination

Optics Software

- The combined market shares of the Parties Group are approximately 100%, and thus the JFTC found that **the Transaction would substantially restrain competition in the market.**

Photonics Software

- The JFTC found that **the Transaction would substantially restrain competition in the market** based on the following factors.
 - **Position of Parties Group and Competitors, and Status of Competition, etc.**
 - Although the combined market shares of the Parties Group are approximately 65%, there are no powerful competitors other than the Parties Group.
 - **Competitive Pressure from New Entrants**
 - Competitive pressure from new entrants is limited.
 - **Competitive Pressure from Adjacent Markets**
 - No competitive pressure from the adjacent markets was found.

Proposed Remedies

Semiconductor Design and Analysis Software / Optical Design Software

- Regarding **RTL power consumption analysis (digital chip)** where the JFTC found that the Transaction would substantially restrain competition, selling ANSYS' **RTL power consumption analysis software business (PCA business)**.
- Also, regarding optical design software, selling SYNOPSYS' **optics software business and photonics software business (OSG business)**.
- These businesses will be sold to **Keysight (headquartered in the U.S.)**, a company providing electronic design and testing solutions including Semiconductor Design and Analysis Software.



Based on the premise that the remedies above would be implemented, **the JFTC concluded that it could not establish that the Transaction would substantially restrain competition** in the market for **RTL power consumption analysis (digital chip)**, **optics software** and **photonics software**; any particular fields of trade.