ANALYSIS OF AGREEMENT CONTAINING CONSENT ORDERS TO AID PUBLIC COMMENT

In the Matter of Synopsys, Inc. and ANSYS, Inc.
File No. 241-0059

The Federal Trade Commission ("Commission") has accepted for public comment, subject to final approval, an Agreement Containing Consent Orders ("Consent Agreement") from Synopsys, Inc. ("Synopsys") and ANSYS, Inc. ("Ansys") (collectively, "Respondents") that is designed to remedy the anticompetitive effects that may result from Synopsys' acquisition of Ansys. Pursuant to an Agreement and Plan of Merger dated January 15, 2024, Synopsys proposes to acquire Ansys in a transaction valued at approximately $35 billion (the "Proposed Acquisition"). The Commission alleges in its Complaint that the Proposed Acquisition, if consummated, would violate Section 7 of the Clayton Act, as amended, 15 U.S.C. § 18, and Section 5 of the Federal Trade Commission Act, as amended, 15 U.S.C. § 45, by substantially lessening competition in the following markets: (1) optical software tools; (2) photonic software tools for the design and simulation of photonic devices; and (3) Register Transfer Level ("RTL") power consumption analysis tools. The Consent Agreement will remedy the alleged violations by preserving the competition that otherwise would be eliminated by the Proposed Acquisition.

Under the terms of the proposed Decision and Order ("Order"), Respondents are required to divest (1) Synopsys' optics and photonics design products, which includes Synopsys' optical software products and photonic software products for the design and simulation of photonic devices, related assets, and facilities in California, New York, France, and Germany; and (2) Ansys' RTL power consumption analysis product, PowerArtist, along with all associated assets necessary to compete in the market. The Commission and Respondents have agreed to an Order to Maintain Assets that requires Respondents to operate and maintain all divestiture assets in the normal course of business until the assets are ultimately divested. The Commission issued the Order to Maintain Assets as final.

The Commission has placed the Consent Agreement, along with the proposed Order and the Order to Maintain Assets, on the public record for thirty days for receipt of comments from interested persons. Comments received during this period will become part of the public record. After thirty days, the Commission will again review the proposed Order, along with the comments received, to make a final decision as to whether it should withdraw, modify, or make final the proposed Order. The Commission is issuing the Order to Maintain Assets when the Consent Agreement is placed on the public record.

I. The Respondents

Respondent Synopsys is a corporation organized, existing, and doing business under and by virtue of the laws of the State of Delaware with its executive offices and principal place of business located at 675 Almanor Avenue, Sunnyvale, California 94085. Synopsys is a leading developer and supplier of Electronic Design Automation ("EDA") software principally used to design semiconductors, including integrated circuits and systems-on-chips.

Respondent Ansys is a corporation organized, existing, and doing business under and by virtue of the laws of the State of Delaware with its executive offices and principal place of business located at 2600 ANSYS Drive, Canonsburg, Pennsylvania 15317. Ansys is a leading provider of Simulation and Analysis ("S&A") software tools, which model physical effects for an array of products, including semiconductors.

II. The Products and Structure of the Markets

The Proposed Acquisition raises competitive concerns in markets for optical software tools, photonic software tools for designing and simulating photonic devices, and RTL power consumption analysis tools.

Optical software tools are S&A software products that enable engineers to design and simulate optical devices. Optical devices generate, reflect, or refract light, and include LED screens, mirrors, and lenses. Photonic software tools for the design and simulation of photonic devices are S&A software products that enable engineers to design and simulate photonic devices. Photonic devices are those that use photons as a signal to transmit information. Relevant photonic applications include fiber optic cables, LiDAR technology, and solar panels. Synopsys competes in these markets with its optical software tools Code V, LightTools, LucidShape, and ImSym, and its photonic software tool RSoft. Ansys competes in these markets with its optical software tools Zemax and SPEOS and its photonic software tool Lumerical.

RTL power consumption analysis tools are EDA software products used to measure and optimize the power consumption of digital chips at an early stage of the design flow known as Register Transfer Level design. Chip designers value the ability to obtain early readings of a chip's power consumption through RTL power consumption analysis. Other EDA tools cannot perform RTL power consumption analysis. Ansys offers an RTL power consumption analysis tool called PowerArtist, while Synopsys competes with a tool called PrimePower-RTL.

The relevant geographic area in which the Proposed Acquisition may substantially lessen competition in all three markets is global. The major suppliers of optical software tools, photonic software tools for designing and simulating photonic devices, and RTL power consumption analysis tools license those tools in substantially the same form to customers worldwide. All three global markets are highly concentrated, with Respondents holding the largest and second-largest share in each market.

III. Competitive Effects

The Proposed Acquisition will eliminate substantial head-to-head competition between Synopsys and Ansys in each of the three relevant markets. In the market for optical software tools, customers view Respondents' tools as their only two options, and the Proposed Acquisition would leave a single firm with the ability to set prices in the market. In the market for photonics software tools used for design and simulation of photonic devices, Respondents closely monitor each other's tools and compete against each other to win customers. In the RTL power consumption analysis market, Respondents similarly recognize each other's tools as their closest competitors and have innovated in response to that competition. By removing the competitive constraint that Respondents face from direct competition in each of the relevant markets, the Proposed Acquisition is likely to result in higher prices and decreased innovation to the detriment of customers.

Entry into the three markets at issue would not be timely, likely, or sufficient in magnitude, character, and scope to deter or counteract the anticompetitive effects of the Proposed Acquisition. Developing EDA and S&A software tools is capital-intensive, requiring significant time, technical expertise, and investment in research and development. In addition, customers face high switching costs and tend to keep the same tools in their design flows for long periods.

IV. The Proposed Order and the Order to Maintain Assets

The proposed Order and the Order to Maintain Assets (collectively, "Orders") effectively remedy the competitive concerns raised by the Proposed Acquisition in each of the three relevant product markets. Pursuant to the proposed Order, the parties are required to divest Synopsys' optical software products and assets and photonic software products and assets aiding the design and simulation of photonic devices, as well as Ansys' PowerArtist product and assets, including certain real property interests, intellectual property, contracts, business information, and intangible rights and property to Keysight Technologies, Inc. ("Keysight"). The parties must accomplish these divestitures no later than 10 days after Synopsys consummates the Proposed Acquisition. The proposed Order allows the Commission to appoint a monitor to oversee the implementation of the Orders and a divestiture trustee in the event the parties fail to divest the products.

Keysight appears to be a suitable purchaser with experience acquiring and improving technological assets. It is financially sound and well positioned to integrate the divestiture assets quickly and effectively. Keysight already has existing relationships with many customers who purchase the divestiture products; it is a strong purchaser for these products. To aid in the transition to Keysight, the Respondents will provide a limited amount of technological support, enabling Keysight to compete immediately with the divestiture assets to the same extent as Respondents absent the Proposed Acquisition.

The proposed Order contains several provisions to help ensure that the divestitures are successful. The proposed Order requires Respondents Synopsys and Ansys to provide transition services to Keysight as it integrates the divestiture assets to enable Keysight to operate similarly to how the Respondents operated. The proposed Order requires Respondents to operate and maintain the divestiture assets in the ordinary course of business consistent with past practices until such assets are fully transferred to Keysight. For assets that cannot be fully divested, including certain intellectual property and a limited number of customer contracts, the proposed Order provides protections to ensure Keysight can operate the business independent of the Respondents. The proposed Order also protects the confidential information of the divestiture assets. These safeguards include limiting the purposes for which Respondents may use such confidential information and the employees to whom the information may be disclosed.

The proposed Order contains certain provisions to facilitate that the employees most familiar with the divestiture businesses move to Keysight, such as requiring that Respondents for one year facilitate Keysight's hiring of relevant employees of the Respondents' divisions responsible for the divestiture assets. The proposed Order similarly creates a three-year prohibition on Respondents soliciting employees who moved to Keysight to work in the divestiture businesses. With certain limited exceptions, it also prohibits Respondents from enforcing noncompete or non-solicit provisions or agreements against employees who seek or obtain a position at Keysight working on the divestiture businesses.

Under the proposed Order, the Commission appoints a Monitor to ensure that Synopsys complies with its obligations under the Orders and to report to the Commission regarding the same. The Commission appoints S&W Partners LLP (formerly known as Evelyn Partners LLP) as the Monitor. Among the individuals from S&W Partners who will comprise the Monitor team is the head of the firm's Monitoring Trustee Services practice with experience overseeing merger remedies. The monitor team has prior monitoring experience in Commission-ordered divestitures.

In addition to requiring divestitures, the proposed Order prohibits Synopsys from reacquiring any of the divestiture assets for ten years. The proposed Order also includes provisions designed to ensure the effectiveness of the relief, including requirements that the Respondents report on how they are complying with the Order, submit compliance reports, maintain specific written communications, and grant representatives of the Commission access to information and personnel for purposes of determining compliance with the Order.

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The purpose of this analysis is to facilitate public comment on the Consent Agreement and proposed Order to aid the Commission in determining whether it should make the proposed Order final. This analysis is not an official interpretation of the proposed Order and does not modify its terms in any way.