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**UNITED STATES SECURITIES AND EXCHANGE COMMISSION**  
**Washington, D.C. 20549**

**Form 10-K**

**ANNUAL REPORT PURSUANT TO SECTION 13 OR 15(d)**  
**OF THE SECURITIES EXCHANGE ACT OF 1934**

**For the year ended October 31, 2001**

**or**

**TRANSITION REPORT PURSUANT TO SECTION 13 OR 15(d)**  
**OF THE SECURITIES EXCHANGE ACT OF 1934**

**Commission File Number 0-45138**

**Synopsys, Inc.**

*(Exact name of registrant as specified in its charter)*

**Delaware**

*(State or other jurisdiction of  
incorporation or organization)*

**56-1546236**

*(I.R.S. Employer  
Identification No.)*

**700 East Middlefield Road, Mountain View, California 94043**

*(Address of principal executive offices)*

**(650) 584-5000**

*(Registrant's telephone number, including area code)*

**Securities Registered Pursuant to Section 12(b) of the Act: None**

**Securities Registered Pursuant to Section 12(g) of the Act:**  
**Common Stock, \$0.01 par value**

**Preferred Share Purchase Rights**

Indicate by check mark whether the registrant (1) has filed all reports required to be filed by Section 13 or 15(d) of the Securities Exchange Act of 1934 during the preceding 12 months (or for such shorter period that the registrant was required to file such reports), and (2) has been subject to such filing requirements for the past 90 days.  Yes No

Indicate by check mark if disclosure of delinquent filers pursuant to Item 405 of Regulation S-K is not contained herein, and will not be contained, to the best of registrant's knowledge, in definitive proxy or information statements incorporated by reference in Part III of this Form 10-K or any amendment to this Form 10-K.

The aggregate market value of voting stock held by non-affiliates of the registrant as of January 5, 2002, was approximately \$2,522,354,670.

On January 5, 2002 approximately 60,543,491 shares of the registrant's Common Stock, \$0.01 par value, were outstanding.

**DOCUMENTS INCORPORATED BY REFERENCE**

None.

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**SYNOPSYS, INC.**

**ANNUAL REPORT ON FORM 10-K  
Year Ended October 31, 2001**

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## PART I

This Form 10-K, including “Item 1. Business,” includes forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. These statements include, but are not limited to, statements concerning: the Company’s business strategy; the Company’s plans to expand its consulting services business; the Company’s expansion into the market for physical design tools; the Company’s intention regarding its system level design and verification tools; the Company’s intention regarding design reuse tools and techniques; the Company’s expectations regarding research and development, sales and marketing, and general and administrative expenses; the Company’s efforts to enhance its existing products and develop or acquire new products; and the Company’s requirements for working capital. The Company’s actual results could differ materially from those projected in the forward-looking statements as a result of risks and uncertainties that include, but are not limited to, those discussed under the caption “Factors That May Affect Future Results” under “Management’s Discussion and Analysis of Financial Condition and Results of Operations” included in Part II, Item 7 hereto, as well as factors discussed elsewhere in this Form 10-K.

### **Item 1. Business**

#### **Pending Acquisitions**

On July 2, 2001, the Company entered into an Agreement and Plan of Merger with IKOS Systems, Inc. (IKOS), which manufactures hardware-assisted verification systems. On December 3, 2001 the Company entered into an Agreement and Plan of Merger with Avant! Corporation, which makes EDA software principally serving the physical design portion of the market. The proposed mergers are described under Item 7 below.

Except in limited respects, this report on Form 10-K discusses Synopsys’ business as of the end of fiscal 2001 and before giving effect to either proposed merger.

#### **Introduction**

Synopsys, Inc. (Synopsys or the Company) is a leading supplier of electronic design automation (EDA) software to the global electronics industry. The Company’s products are used by designers of integrated circuits (ICs), including system-on-a-chip ICs, and the electronic products (such as computers, cell phones, and internet routers) that use such ICs to automate significant portions of their chip design process. ICs are distinguished by the speed at which they run, their area, the amount of power they consume and the cost of production. The Company’s products offer its customers the opportunity to design ICs that are optimized for speed, area, power consumption and production cost, while reducing overall design time. The Company also provides consulting services to assist customers with their IC designs, as well as training and support services. Synopsys was incorporated in Delaware in 1987.

#### **The Role of EDA in the Electronics Industry**

Over the past three decades, technology advances in the semiconductor industry have dramatically increased the size, speed and capacity of ICs:

- The number of transistors that can be placed on a chip has doubled roughly every 18 months. A state-of-the-art IC may hold over 40 million transistors. This is made possible in large part because the width of the features on the chip is steadily shrinking. Mainstream IC designs today are produced at a 0.18 micron process, with advanced chips being produced at a 0.13 micron process. Over the next several years, the bulk of production will shift to 0.13 micron or below.
- The speed at which chips operate has steadily increased. Microprocessors operating at 2 gigahertz, a speed that was unheard of a few years ago, are available today.
- Chips are also becoming more economical in their power consumption, which is necessary to drive more and more powerful handheld devices.
- Increasingly, functions that formerly were performed by multiple ICs attached to a printed circuit board are being combined in a single chip, referred to as a system-on-a-chip.

Combined, these changes have fostered the development of computers, internet routers, wireless communications networks, hand-held personal digital assistants, and many other goods and services with tremendous capabilities at relatively low cost.

Competition and continuing innovation have shortened the life cycle of electronic products, so time-to-market is crucial to the success of a product. Time-to-market can in large part be determined by the time it takes to design the chip that will run such product. EDA products play a critical role in reducing time-to-market for new products by providing IC designers with tools and techniques to (a) reduce the time and manual effort required to design, analyze and verify individual ICs, (b) improve the performance and density of complex IC designs and (c) enhance the reliability of the IC design and manufacturing process.

## The Design Process

In simplified form, the design of an integrated circuit consists of five basic steps:

*System Design.* First, a designer describes the functions that the chip is to perform in a specialized high-level computer language. During this phase, designers perform high level architectural design tradeoffs, to determine, for example, which algorithms to use to implement the design, and what portions of the design to implement in hardware and what portions in software. At the completion of this phase, the designer produces a “register transfer level” or “RTL” description of the chip. Most of this process is completed manually, although there is a small but growing market for products that help automate design and verification at the system level.

*Logic Synthesis.* After the designer is satisfied with the RTL code, a logic synthesis program converts the RTL code into a logical diagram of the chip. Related programs insert the circuitry that will be required to test the chip after manufacture. A “gate level” (so called because it describes the various logic blocks, or gates, required to implement the chip) data file, or “net list”, is produced. In a growing number of designs, the logic synthesis phase is performed together with a portion of physical design. This combined process, known as “physical synthesis”, produces a file containing “placed gates”, which describes the logic blocks and includes information about where they will be physically located, or “placed”, on a chip. See discussion below under “Current Issues Facing IC Designers”. In a growing number of system-on-a-chip ICs, in which multiple functions previously captured on multiple chips are combined in a single chip, designers are increasingly performing “chip planning”, either before or in conjunction with logic synthesis. In chip planning, the designer determines the location of the functional “blocks” that will be captured on the system-on-a-chip and plans the principal wire connections between the blocks. Logic synthesis is then performed, more or less independently, on each block, before the blocks are “stitched” back together.

*High Level Verification.* At this stage the designer uses simulation and related programs to verify that the design, and for the individual blocks, successfully perform the functions that the designer intended, by feeding an exhaustive array of potential inputs into a specialized program, “simulating” the functioning of the chip as designed, and checking to confirm that the outputs match what was expected. Other techniques which use advanced mathematical calculations rather than simulation are also used. The designer also uses a timing analysis program to confirm that the chip as designed will operate at the speed the designer intended.

*Physical Design.* If the designer is satisfied with the results of high level verification, the transistors, and all of the wires connecting each one of them, are mapped out in a series of transformations that gradually gets more and more detailed. First, the location on the chip die of each block of the chip is finalized, and the location of each transistor within each block is determined — a process known as “placement” — then all of the connections between the transistors are determined — a process known as “routing”. The result is one or more data files that can be read by physical verification programs (see below) or by the equipment used to manufacture the chip.

*Physical Verification.* Before sending the design data file to a chip manufacturer for fabrication, a further verification step is undertaken. The designer must confirm that the chip as placed and routed will operate at the speed anticipated during the logic design phase. The designer also must check for unintended electrical effects that may arise as a consequence of placing certain portions of the chip, or routing certain of its “wires”, too close together or in a bad position. Finally, the designer must verify that the final design complies with all of the design rules set forth by the party that will manufacture the chip.

The foregoing discussion has been greatly simplified. In the actual design of a chip each of these steps has a number of different elements. The steps, or the different elements within the steps, may be undertaken in a different order or repeated one to multiple times. In any event, if at any stage of the process the chip does not perform as intended, then the designer must go back one or more steps to either redesign the RTL, redesign the logic, re-run the verification or redo the physical design of the chip. Each iteration takes time, and the more time the process takes, the more difficult it will be for the designer to meet his or her time-to-market goals.

## Current Issues Facing IC Designers

As chip technology continues to advance, and particularly as the state-of-the-art in chip design moves to 0.18 micron and below, Synopsys' customers are facing a number of difficult design challenges:

*Timing Closure.* Ensuring that a chip will run at the desired speed becomes substantially more difficult as transistor sizes move to 0.18 micron and below. At larger transistor feature sizes, IC designers could use standard estimates of chip timing during the logic design phase, and be confident that the timing characteristics would be preserved through the physical design phase. At 0.18 micron and below, these estimates become more and more unreliable. To address this problem, customers will increasingly need products (referred to in the EDA industry as "physical synthesis" products) that integrate logic design and physical design. Synopsys' physical synthesis solution takes physical design information into account during logic design, and produces a file containing "placed gates". Physical synthesis provides more accurate timing estimates at the logic design phase, greatly improving the correlation between original timing estimates after logic design and timing results after physical design.

*Signal Integrity Closure.* Signal integrity refers to a variety of electrical effects that can cause circuits to behave in undesirable ways. The electrical characteristics of ICs of 0.13 micron and below cause previously insignificant effects to become problematic. These effects include cross-talk, voltage drop, and electro-migration. Cross-talk, in particular, is becoming a major problem for advanced designs today. In order to address signal integrity problems designers need products that help them analyze, prevent and repair errors caused by signal integrity issues. Synopsys has added cross-talk analysis to its PrimeTime timing analysis product to aid designers in detecting cross-talk-induced timing violations. Synopsys' physical synthesis tools include analysis, prevention and repair features to achieve signal integrity closure more quickly and reliably.

*Verification.* Verification is the process of ensuring, at various stages of the design process, that a chip will perform as intended. As the number of transistors on a chip grows, the verification problem grows geometrically. In fact, with today's chips, verification often takes up the single largest proportion of the overall design process. Verification products must offer customers a combination of speed, accuracy and the ability to focus on the portions of the chip most likely to cause problems.

*Designer Productivity.* Historically, finding, hiring and retaining qualified design engineers has been one of the most difficult problems that our customers face. Without enough designers it is difficult for a company to meet ambitious development schedules, and to get its products to market in a timely manner. Although hiring qualified designers has become less difficult in the current economic environment, the increase in IC complexity and time to market pressures have resulted in a continuing emphasis on designer productivity. For EDA companies, this creates opportunities both in providing full-featured, integrated design flows, that reduce the number of iterations required during the design process, and in offering pre-designed, pre-verified design "building blocks" that can be re-used in multiple designs.

## Synopsys Overview

Synopsys provides products and services that help customers meet the challenges of designing leading edge ICs and the products that incorporate them.

Synopsys offers a comprehensive suite of logic synthesis and related products that allow an IC designer to describe chip behavior in a high-level language and convert that description into a map of the chip's logic blocks, including circuits that facilitate testing of the chip before it is fabricated. Synopsys has been working on extending its design tools product line to include several products that integrate logic design and physical design.

Synopsys' high level and physical verification products are used by IC designers in several stages of the IC design process to ensure that the resulting IC performs the function that the designer intended. Synopsys' simulation products permit IC designers to simulate their designs and to explore tradeoffs between incorporating functionality in hardware or software. Synopsys also offers a suite of products that help designers focus on the most problematic portions of their chips. And to help customers analyze other aspects of chip performance, Synopsys offers an extensive line of software tools to analyze power, timing and reliability concerns in an IC design at the RTL, gate and transistor levels.

Synopsys provides the broadest array of reusable design building blocks of any company in the EDA and intellectual property (IP) industry. The Company's IP products also include software and hardware models, which are used to test an IC design within the context of the system in which the IC will eventually be used.

Synopsys also offers a full range of professional services to help customers improve their internal design methodologies, as well as design services ranging from specialized assistance to turnkey design.

Synopsys markets its products on a worldwide basis and offers comprehensive customer service, education, consulting, and support as integral components of its product offerings. Products are marketed primarily through its direct sales force. Synopsys has licensed its products to most of the world's leading semiconductor, computer, communications and electronics companies.

## **Strategy**

Synopsys' strategy is to develop and offer to its customers a broad array of tools and services required to enable design of complex ICs, especially system-on-a-chip ICs. The Company is seeking to build and enhance products that help customers address the most pressing problems of IC design at 0.18 micron and below: timing closure, signal integrity and closure, verification, and designer productivity. First, building from its historical base of strength in high level design, Synopsys plans to help customers address the timing closure problem by continuing its expansion into the market for physical synthesis products — products that integrate logical and physical design. Second, Synopsys will seek to address signal integrity issues by developing products that help designers analyze, prevent and fix signal integrity problems at different levels of the design process. Third, Synopsys will seek to help customers address their verification needs by building a comprehensive offering of verification products around its current position in simulation, test and timing analysis. Fourth, Synopsys intends to help customers address the designer shortage by expanding its inventory of reusable design building blocks, which will allow customers to focus their own design teams on areas of competitive differentiation, and by offering professional services to supplement customers' own design teams.

## **Products**

Synopsys products and services are focused on the principal needs of IP and systems designers, and can be divided into five categories — IC Implementation, Verification and Test, IP and Systems Level Design, Transistor Level Design and Professional Services. The products included in these categories are discussed below. Financial information regarding these products is included under Item 7 — Management's Discussion and Analysis of Financial Condition and Results of Operation — "Results of Operation — Revenue — Product Groups".

### ***IC Implementation Products***

Synopsys' IC Implementation products include the Company's basic logic synthesis and related products, and the Company's new physical synthesis products.

During fiscal 2001, IC Implementation products accounted for 40% of the Company's revenues.

Logic synthesis is the process by which a high-level description of desired chip functions is mapped into a connected collection of logic gates and other circuit elements that perform the desired functions. Design Compiler™ is the market-leading logic synthesis tool and is used by a broad range of companies engaged in the design of ICs to optimize their designs for performance and area. Design Compiler was introduced in 1988 and has been updated regularly since then. The Company's Design Compiler product family also includes Power Compiler and Module Compiler. Power Compiler provides "push-button" power optimization and early analysis for the design of low power circuits, which are key for the design of hand-held devices. Module Compiler is used in the design of complex datapaths.

In fiscal 2001, Synopsys released Design Compiler 2001 as the latest generation in the Design Compiler family. Design Compiler 2001 features significant enhancements, including improved optimization algorithms, run-times and capacity. Over time, Synopsys expects that a significant portion of the existing Design Compiler license base will be upgraded to Physical Compiler (discussed below), although Design Compiler will continue to be an important element in designers overall suite of design tools, especially for performing logic synthesis on non-timing-critical portions of a design.

Physical synthesis unites logic synthesis, placement and, in the future, routing and links them together with common timing. When used together, the physical synthesis suite of products provides customers with an integrated design flow from register transfer level through placement and routing, and addresses the critical timing problems encountered in designing advanced ICs and systems-on-a-chip.

Physical Compiler, released by the Company in 2000, unifies synthesis and placement in a single product in order to greatly improve designers' ability to achieve timing closure. As of October 2001, Physical Compiler had been licensed to over 120 customers and more than 350 IC designs had been completed using the product. During fiscal 2001, the Company received approximately \$100 million in orders for Physical Compiler.

The physical synthesis suite of products also includes Chip Architect, FlexRoute, ClockTree Compiler, and Route Compiler. Chip Architect is a hierarchical design planner, which takes into account physical phenomena and is used at various stages of the system-on-a-chip design process to perform chip-level estimation, floor-planning, timing analysis and placement. FlexRoute is a high-capacity, object-based, top-level router, which is used to route the longest, most-difficult-to-route connections between functional blocks on a system-on-a-chip. During fiscal 2001, the Company announced Route Compiler and Clock Tree Compiler and began working with four target customers to enhance the product for broader release. Commercial release of these products is expected in the first half of calendar 2002. ClockTree Compiler is a clock tree synthesis option to Physical Compiler that integrates design and clock tree synthesis into one tool. Route Compiler is a standard cell router integrated into Physical Compiler that completes detailed routing.

The Company's IC Implementation products also include logic synthesis products for field programmable gate arrays (FPGAs) and complex programmable logic devices (CPLDs). With the advent of high-density chips (.25 micron and below), FPGAs have become fast and large enough to handle a substantial fraction of projects that previously required mask-programmed application specific integrated circuits (ASICs). Furthermore, FPGAs' unique ability to deliver very quick time-to-market make them attractive in today's business environment. An enhanced version of FPGA Compiler II™ offering enhanced synthesis for Xilinx and Altera FPGA devices was released in fiscal 2001.

### ***Verification and Test Products***

The Company's Verification and Test products consist of a group of tools, including simulation, test automation and timing verification products, to enable IC designers to quickly and reliably verify the behavior of a design before it is committed to the expensive and time-consuming process of IC fabrication, and to assist in the testing of the chip after manufacturing.

During fiscal 2001, Verification and Test products accounted for 29% of the Company's revenues.

*Simulation and related products.* Simulation software "exercises" an IC design by running it through a series of tests and comparing the actual outputs from the design with the expected output. As such, simulation products are the key products for functional verification. The goal of simulation is to make sure that the functionality of the design meets the original specifications of the chip. Synopsys offers two products for high-level simulation: VCS™, for designs written in Verilog (one of the two principal languages) and Scirocco™, for designs written in VHDL (the other principal language). Simulation products are distinguished principally by their runtime and capacity — i.e., how fast they can fully simulate a proposed design and how large a design they can handle. The Company is focused on providing the industry's fastest and highest-capacity simulation technology and believes that both VCS and Scirocco are industry leaders in performance and capacity. VCS is supported by all major semiconductor manufacturers and many third-party EDA software providers.

In addition to focusing on building the fastest simulator, Synopsys is focused on developing a suite of products that help simulation products work "smarter". The Company estimates that more time is spent in writing verification "testbenches" than in creating the design description. Testbenches, which create stimuli for chips and check the results, are used in conjunction with simulation tools to verify that a design functions as expected. Synopsys provides software that helps generate and manage testbenches as well as evaluate the effectiveness of the simulation process. VERA® is a tool that automates the design of testbenches, thereby offering the IC designer significant reductions in overall design and verification time. VERA provides a high-level language designed specifically for verifying complex designs. VERA is integrated with the Company's other simulation products.

*Test Automation.* In order to meet today's stringent quality requirements, chips must pass through rigorous testing after manufacturing. Synopsys' design-for-test (DFT) tools offer a complete DFT solution. Synopsys' DFT Compiler, the industry-standard 1-pass test synthesis product, inserts all functional and test logic required to enable efficient, high-coverage testing of the chip after manufacturing, while complying with the customer's design rules and constraints (timing, area, power, etc.). DFT Compiler works seamlessly with Design Compiler and Physical Compiler, with the added benefit, in the case of Physical Compiler, of placement-driven optimization of test logic. DFT Compiler was awarded the 2001 "Best in Test" Award from Test & Measurement World, an industry journal. The award is presented annually to honor important and innovative products in the electronics test and measurement industry.

Automatic test pattern generation (ATPG) is the other component of Synopsys' complete DFT solution. TetraMAX™ ATPG, the Company's ATPG product is optimized for ease-of-use, capacity, speed, coverage and vector compaction. TetraMAX ATPG works in concert with DFT Compiler to enable total automation of the DFT flow. Synopsys test methodology also includes software to facilitate the failure diagnosis of chips after manufacturing test, expediting the time-consuming and expensive post-fabrication activities required to determine the cause of manufacturing defects.

*Static Timing Analysis.* Synopsys provides a complete tool suite to help designers perform static timing analysis at the gate and transistor levels and analyze signal integrity issues such as cross-talk. Synopsys' gate level analysis tool is called PrimeTime®. PrimeTime is a full-chip, gate-level static timing analysis tool targeted for complex multimillion gate designs, which is used by designers to verify, at various stages of the design process, the speed at which a design will operate when it is fabricated. PrimeTime's analysis of a design's speed is accepted as a "sign off" tool by virtually all major semiconductor manufacturers, which means that they accept its analysis as determinative. (Synopsys transistor-level timing analysis products are described below under "Transistor Level Design"). In fiscal 2001, Synopsys extended PrimeTime's capabilities with the introduction of PrimeTime-SI, which analyzes the effect of cross-talk on timing, an increasingly important issue at chip geometries below 0.18 micron.

*Formal Verification — Equivalence Checking.* Formal verification is a method for comparing two versions of a design to determine if they are equivalent. Usually an RTL version of the design is validated using simulation and other dynamic verification tools, establishing it as the golden version. Subsequent versions (i.e., after each step of the design process) are then compared to the golden version, using mathematical algorithms, to determine if they are functionally equivalent. The use of formal verification greatly reduces the need to perform simulation, which is substantially more time-consuming, at each stage of the design process, thus potentially saving a significant amount of time in the overall design process. Synopsys' formal verification product is Formality®. Formality was one of the industry's first commercial equivalency checkers to employ a multi-solver architecture, which enables the verification of complex multimillion-gate system-on-a-chip designs in days or minutes.

### ***Intellectual Property (IP) and Systems Level Design***

The Company's IP and Systems Level Design products include our DesignWare IP library and systems design and verification products.

During fiscal 2001, IP and Systems Level Design products accounted for 12% of the Company's revenues.

*Intellectual Property Products.* As IC designs continue to grow in size, reusing design blocks is becoming a more important method for reducing overall design cycle time. By reusing portions of a design, and particularly those that implement basic or standardized functions, a company can let its IC design team focus on designing the chip features that will give its product a competitive advantage. It can also reduce its verification risk by ensuring that these portions of the chip are of high quality. Enabling reuse of intellectual property (IP) requires a significant methodology shift from traditional IC design. In the past, designs were intimately tied to a particular semiconductor process technology or design methodology, making reuse of design blocks from one chip design to the next, both difficult and costly.

Synopsys' DesignWare® product provides IC designers with a single library of pre-designed and pre-verified synthesizable IP cores as well as over 18,500 verification IP models. The synthesizable IP cores range in complexity from simple adders and multipliers to PCI-X and USB2.0 cores. The verification IP models range in complexity from standard 74XX TTL parts to models of complex bus interface protocols. These models support all major EDA simulation environments and a wide range of EDA platforms, giving designers access to a broad range of models to assist them with verification of their designs.

To meet the new challenges of SoC designs, in 2001 Synopsys announced its Star IP program in which DesignWare users can gain access to popular microprocessors from MIPS Technologies, Infineon Technologies, NEC and other providers. In addition, during 2002, the Company expects to add a complete AMBA On-Chip-Bus to DesignWare.

The Company's IP and Systems Level Design products also include a full range of hardware modeling solutions. ModelSource™ 3000 series is a family of hardware modeling systems for ASIC and board level design which provide a flexible means for designers to model complex devices. ModelSource 3000 systems use the actual integrated circuit to model its own behavior in a larger system.

*Systems Design and Verification Products.* Currently, automated design generally begins at the register transfer level, with logic synthesis. The goal of "system-level" products is to permit designers to design and verify their products at a level of abstraction above

RTL. Synopsys' systems products consist of the CoCentric™ family of tools and methodologies for concurrent design, validation, refinement and implementation of an electronic system.

The CoCentric family of products is based on "SystemC,™" a standard language developed by Synopsys and now available under an open source license. SystemC enables designers to create, validate and share system level models of a complex IC or system incorporating the chip, and therefore can be used to explore and verify design alternatives at an early stage of the design process. EDA and IP vendors have complete access to the SystemC modeling platform enabling them to build interoperable tools and IP models. SystemC is managed by the Open SystemC Initiative (OSCI), a not-for-profit organization which includes representation from the systems, semiconductor, IP, embedded software and EDA industries. The OSCI Board of Directors is composed of representatives from ARM Ltd., Cadence Design Systems, CoWare, Fujitsu Microelectronics, Mentor Graphics, Motorola, NEC, and Synopsys.

The Company offers two principal products based on SystemC. CoCentric System Studio is a system-level design environment for the rapid creation of executable system specifications that can be verified and implemented as hardware and software functions. System Studio enables designers to use hierarchical graphical and language modeling to capture system complexity in a unified environment based on C, C++ and SystemC. System Studio supports verification of hardware and software design refinements through concurrent execution of C-based specifications, popular hardware simulators, and a variety of processor models. Synopsys is in the process of migrating customers of its COSSAP® design system to CoCentric System Studio.

CoCentric SystemC Compiler is a synthesis tool that allows designers to implement complex circuits from SystemC, enabling design to progress from an initial C/C++ executable specification into a database readable by Synopsys' Design Compiler. Eliminating the need to remodel in Verilog or VHDL, SystemC Compiler accelerates the design cycle by closing the gap between system designers and hardware designers. SystemC Compiler allows designers to rapidly create alternative implementations of a design at high abstraction, enabling them to spend time productively evaluating tradeoffs in performance, size and power consumption before committing to a particular implementation.

In January 2001, the Company sold its business consisting of silicon libraries of logic functions to Artisan Components, Inc.

### ***Transistor Level Design Products***

Synopsys' transistor level design products include a range of products in the areas of timing analysis and verification; power management; circuit simulation and IP verification. These products, which are used after the completion of physical design, help customers analyze the increasingly important electrical effects resulting from designing at 0.18 micron and below, and to locate implementation errors that can be costly and time-consuming to correct during or after production. As the logic and physical design phases of IC Implementation grow more and more integrated, the Company is also integrating many of its transistor level design products with its high level verification products, particularly in the areas of simulation, timing, and power analysis.

During fiscal 2001, Transistor Level Design products accounted for 7% of the Company's revenues.

*Static Timing Analysis.* As part of its overall approach to timing analysis and verification, Synopsys offers PathMill®, PathMill Plus and AMPS®. PathMill is a transistor-level static timing analysis tool for custom microprocessor and DSP designs. PathMill's analysis provides SPICE-level accuracy with 1000x performance improvement over traditional SPICE. PathMill Plus extends PathMill to offer advanced modeling, model merging and verification to speed characterization of custom IP blocks. The combination of PrimeTime and PathMill offers full-chip static timing analysis that covers transistor- to gate-level designs. These tools are integrated with Arcadia, Synopsys' resistance and capacitance (RC) extraction tool.

*Circuit Simulation.* In fiscal 2001, Synopsys introduced NanoSim, an advanced circuit simulator for memory and mixed-signal verification, which combines simulation technologies from TimeMill and PowerMill to deliver circuit simulation, timing, and power analysis in a single tool. NanoSim offers a tight integration with Synopsys' VCS simulator to deliver high-speed high-capacity verification of complex ICs. NanoSim and VCS together address verification challenges at RTL, gate- and transistor-levels, and enable mixed-signal multi-level verification of complex ICs. NanoSim further enables this flow by supporting Verilog-A, the industry-standard analog behavioral modeling language. TimeMill® and PowerMill® continue to provide high-accuracy, high-speed and high-capacity circuit simulation technology.

*Power Management.* Synopsys delivers a complete solution to help designers manage and verify power consumption at different levels of the design process. These products include: Power Compiler (described under IC Implementation category), PrimePower, PowerArc, NanoSim and RailMill. PrimePower is a dynamic, full-chip power analysis tool for complex multimillion-gate ASICs.

PrimePower allows users to quickly and efficiently verify that their IC designs meet power budgets and specifications, select the proper packaging, determine cooling requirements and estimate the battery life for portable applications. As a foundation for Synopsys' power solution, PowerArc delivers automatic cell library power characterization, making it easy for library providers and ASIC and silicon vendors to automatically produce power libraries with SPICE-level accuracy.

### ***Synopsys Professional Services Business Unit***

Synopsys Professional Services provides a comprehensive portfolio of consulting services covering all critical phases of the system-on-a-chip development process, as well as systems development in wireless and broadband applications. Customers are offered a variety of engagement models ranging from project assistance — which helps a customer design, verify and/or test its chips and improve its design process — to full turn-key development.

During fiscal 2001, the Synopsys Professional Services business unit accounted for 12% of the Company's revenues.

### **Organization**

Synopsys is currently organized into four product development groups — Physical Synthesis, Verification Technology, Intellectual Property and Systems, and Nanometer Analysis and Test — and a services group — Synopsys Professional Services. The Physical Synthesis business unit principally develops and manages our IC Implementation products. The Verification Technology business unit develops and manages the simulation products in our Verification and Test product portfolio. The Intellectual Property and Systems business unit develops and manages all of the product in the IP and Systems Level Design product category. The Nanometer Analysis and Test business unit develops and manages the timing analysis, power and test products in the Verification and Test product category, and the products in the Transistor Level Design category. In addition to these product and services groups, Synopsys maintains a World Wide Sales group, a World Wide Application Services group, a Finance group, a Human Resources group, and a Technology and Information Systems group.

### **Customer Service and Support**

Synopsys devotes substantial resources to providing customers with technical support, customer education, and consulting services. The Company believes that a high level of customer service and support is critical to the adoption and successful utilization of high-level design automation methodology. In fiscal 2001, service revenue as a percentage of total revenue increased to 50% as compared to 43% in fiscal 2000.

### **Technical Support**

Technical support for the Company's products is provided through both field- and corporate-based technical application engineering groups. Synopsys provides customers with software updates and a formal problem identification and resolution process through the Synopsys Technical Support Center. Synopsys' central entry point for all customer inquiries is SolvNet®, a direct-access service available worldwide, 24 hours per day, through electronic mail and the World Wide Web that lets customers quickly seek answers to design questions or more insight into design problems. SolvNet combines Synopsys' complete design knowledge database with sophisticated information retrieval technology. Updated daily, it includes documentation, design tips, and answers to user questions.

### **Customer Education Services**

Synopsys offers workshops on many aspects of high-level design languages, high-level design, simulation, synthesis, physical design, system design and test. Regularly scheduled workshops are offered in Mountain View, California; Austin, Texas; Burlington, Massachusetts; Reading, England; Rungis, France; Munich, Germany; Tokyo and Osaka, Japan; Seoul, Korea and other locations. On-site workshops are worldwide at customers' facilities or other locations. Over 11,000 design engineers attended Synopsys workshops during fiscal 2001.

### **Product Warranties**

Synopsys generally warrants its products to be free from defects in media and to substantially conform to material specifications for a period of 90 days. Synopsys has not experienced significant returns to date.

## **Support for Industry Standards**

Synopsys actively creates and supports standards it believes will help its customers increase productivity and solve design problems, including key interfaces and modeling languages that promote system-on-a-chip design and facilitate interoperability of tools from different vendors. Standards in the EDA industry can be established by formal accredited committees, by licensing made available to all, or through open source licensing.

Synopsys' products support many formal standards, including the two most commonly used hardware description languages, VHDL and Verilog HDL, and numerous industry standard data formats for the exchange of data between Synopsys' tools and other EDA products.

Synopsys is a board member and/or participant in the following major EDA standards organizations: Accellera, a not-for-profit formal standards organization that drives language-based standards for systems, semiconductor, and design tools companies; the interoperability committee of the EDA Consortium, which helps promote interoperability among EDA products from different vendors; and the Virtual Socket Interface Alliance (VSIA), an industry group formed to promote standards that facilitate the integration and reuse of functional blocks of intellectual property.

Synopsys' TAP-in program provides interface standards to all companies through an open source licensing model. Interface formats and reference implementations, such as parsers and screeners, are available to everyone at no cost through the Internet. Synopsys manages changes and enhancements that come from the community of licensees. The open source standards and reference implementations are used by Synopsys, other EDA companies and EDA customers to interface tools with each other to produce flexible design flows. The standards provided by Synopsys as open sources include Liberty for library modeling, SDC for design constraints, and OpenVera for hardware verification.

SystemC, an open industry standard language, is discussed above under "Intellectual Property and Systems Products."

Synopsys' products are written mainly in the C and C++ languages and utilize industry standards for graphical user interfaces. Synopsys' software runs under UNIX operating systems, such as Solaris and HP-UX, and most products also run on the open source Linux operating system. Synopsys' products are offered on the most widely used hardware platforms, including those from Sun Microsystems, Hewlett-Packard, IBM, and Intel microprocessor-based PCs.

## **Sales, Distribution and Backlog**

Synopsys markets its products and services primarily through its direct sales and application service forces in the United States and principal international markets. Synopsys employs highly skilled engineers and technically proficient sales persons in order to understand our customer's needs and to explain and demonstrate the value of Synopsys' products.

For fiscal 2001, 2000 and 1999, international sales represented 37%, 42% and 34%, respectively, of Synopsys' total revenue. Additional information relating to domestic and foreign operations is contained in Note 8 of Notes to Synopsys' Consolidated Financial Statements.

The Company has sales/support centers throughout the United States, in addition to its Mountain View, California headquarters. Internationally, the Company has sales/support offices in Canada, Denmark, Finland, France, Germany, Hong Kong, India, Israel, Italy, Japan, Korea, the People's Republic of China, Singapore, Sweden, Taiwan and the United Kingdom, including international headquarters offices in Ireland. On a very limited basis, the Company also utilizes manufacturer's representatives and distributors. The Company's offices are further described under "Item 2 — Properties."

Synopsys' backlog on December 1, 2001 was approximately \$802.7 million, compared to approximately \$462.8 million on December 1, 2000.

This backlog consists of orders for system and software products sold under perpetual and time-based licenses with customer requested ship dates within three months which have not been shipped, orders for customer training and consulting services which are expected to be completed within one year, and subscription services, maintenance and support with contract periods extending up to fifteen months. In the case of a Technology Subscription License (TSL), including a multiyear TSL, backlog includes the full amount of the committed non-cancelable order, less any amount of revenue that has been recognized on such TSL.

The Company has not historically experienced significant cancellations of orders. Customers frequently reschedule or revise the requested ship dates of orders, however, which can have the effect of deferring recognition of revenue for these orders beyond the expected time period.

## **Research and Development**

The Company's future performance depends in large part on its ability to maintain and enhance its current product lines, develop new products, maintain technological competitiveness and meet an expanding range of customer requirements. In addition to research and development conducted within each business unit, the Company maintains an advanced research group that is responsible for exploring new directions and applications of its core technologies, migrating new technologies into the existing product lines and maintaining strong research relationships outside the Company within both industry and academia.

During fiscal 2001, 2000 and 1999, research and development expenses, net of capitalized software development costs, were \$189.8 million, \$189.3 million and \$167.1 million, respectively. Synopsys capitalized software development costs of approximately \$1.0 million, \$1.0 million and \$0.9 million in fiscal 2001, 2000 and 1999, respectively. The Company anticipates that it will continue to commit substantial resources to research and development in the future.

## **Manufacturing**

Synopsys' manufacturing operations consist of assembling, testing, packaging and shipping its system and software products and documentation needed to fulfill each order. Manufacturing is currently performed in Synopsys' Mountain View, California and Dublin, Ireland facilities. Outside vendors provide CD-ROM replication, printing of documentation and manufacturing of packaging materials. Synopsys typically ships its software products within 10 days of acceptance of customer purchase orders and execution of software license agreements unless the customer has requested otherwise. Upon customer request, Synopsys delivers its software products through electronic means rather than shipping disks. This method of delivery is becoming increasingly common for customers worldwide.

Synopsys employees manufacture and test the hardware modeling system products, with most sub-assembly performed by outside vendors. For its hardware modeling products, Synopsys buys components and assemblies in anticipation of orders and configures units to match orders, typically shipping within one to ten weeks of order acceptance, unless the customer has requested otherwise.

## **Competition**

The EDA industry is highly competitive. We compete against other EDA vendors, and with customers' internally developed design tools and internal design capabilities for a share of the overall EDA budgets of our potential customers. In general, competition is based on product quality and features, post-sale support, price and, as discussed below, the ability to offer a complete design flow. Our competitors include companies that offer a broad range of products and services, such as Cadence Design Systems, Inc., Avant! and Mentor Graphics Corporation, as well as companies, including numerous start-up companies, that offer products focused on a discrete phase of the integrated circuit design process. In certain situations, Synopsys' competitors have been offering aggressive discounts on certain of their products, in particular simulation and synthesis products. As a result, average prices for these products may fall. In order to compete successfully, we must continue to enhance our products and bring to market new products that address the needs of our customers. We also will have to expand our consulting services business. The failure to enhance existing products, develop and/or acquire new products or expand our ability to offer consulting services could have a material adverse effect on our business, financial condition and results of operations.

Technology advances and customer requirements continue to fuel a change in the nature of competition among EDA vendors. Increasingly, EDA companies compete on the basis of "design flows" involving integrated logic and physical design products rather than on the basis of individual "point" tools performing a discrete phase of the design process. A number of companies, including, Cadence, Avant!, Magma Design, Synplicity and Monterey Design, are developing or selling products that link logic and physical design. The need to offer such design flow synthesis products will become increasingly important, as ICs grow more complex. In fiscal 2001, we announced new products that would extend our design flow through physical design, and begin working with target customers to prepare such products for broader release. If we are unsuccessful in developing a complete design flow on a timely basis or in convincing customers to adopt our integrated logical and physical design products and methodology, our competitive position could be significantly weakened.

## **Product Sales and Licensing Agreements**

Synopsys typically licenses its software to customers under non-exclusive license agreements that transfer title to the media only and that restrict use of the software to specified purposes within specified geographical areas. The Company currently licenses the majority of its software as a network license that allows a number of individual users to access the software on a defined network. License fees are dependent on the type of license, product mix and number of copies of each product licensed.

Synopsys currently offers its software products under either a perpetual license or a short-term ratable license. Under a perpetual license a customer pays a one-time license fee for the right to use the software. The vast majority of customers buying perpetual licenses also purchase annual software support services for perpetual licenses, under which they receive minor enhancements to the products developed during the year, bug fixes and technical assistance. A ratable license, and the various forms of time-based licenses that the Company has offered before introducing ratable licenses, operates like a rental of software which typically includes software support services. A customer pays a fee for license and support over a fixed period of time, and at the end of the time period the license expires unless the customer pays for a renewal. Ratable licenses are offered with a range of terms; the average length is approximately 3.0 to 3.5 years. See "Management's Discussion and Analysis of Financial Condition and Results of Operations — Results of Operations — Revenue".

Over the past several years, orders for time-based licenses (now ratable licenses) have increased significantly as a percentage of total product orders. During fiscal 2001, orders for time-based licenses, including ratable licenses, accounted for 86% of total product orders compared to 74% in fiscal 2000 and 64% in fiscal 1999.

During fiscal 2002 Synopsys expects that orders for ratable licenses will account for approximately 75% to 85% of total product orders and orders for perpetual licenses approximately 15% to 25% of total product orders.

Synopsys offers its hardware modeler products for sale or lease.

## **Proprietary Rights**

The Company primarily relies upon a combination of copyright, patent, trademark and trade secret laws and license and nondisclosure agreements to establish and protect proprietary rights in its products. The source code for Synopsys' products is protected both as a trade secret and as an unpublished copyrighted work. However, it may be possible for third parties to develop similar technology independently. In addition, effective copyright and trade secret protection may be unavailable or limited in certain foreign countries. The Company currently holds U.S. and foreign patents on some of the technologies included in its products and will continue to pursue additional patents in the future.

Although the Company believes that its products, trademarks and other proprietary rights do not infringe on the proprietary rights of third parties, there can be no assurance that infringement claims will not be asserted against the Company in the future or that any such claims will not require the Company to enter into royalty arrangements or result in costly and time-consuming litigation.

## **Employees**

As of November 3, 2001, Synopsys had a total of 3,223 employees, of whom 2,351 were based in North America and 872 were based internationally. Synopsys' future financial results depend, in part, upon the continued service of its key technical and senior management personnel and its continuing ability to attract and retain highly qualified technical and managerial personnel. Competition for such personnel is intense. Our success is dependent on technical and other contributions of key employees. We participate in a dynamic industry, with significant start-up activity, and our headquarters is in Silicon Valley, where skilled technical, sales and management employees are in high demand. There are a limited number of qualified EDA and IC design engineers, and the competition for such individuals is intense. Experience at Synopsys is highly valued in the EDA industry and the general electronics industry, and our employees are recruited aggressively by our competitors and by start-up companies in many industries. In the past, we have experienced, and may continue to experience, significant employee turnover. There can be no assurance that Synopsys can retain its key managerial and technical employees or that it can attract, assimilate or retain other highly qualified technical and managerial personnel in the future. None of Synopsys' employees is represented by a labor union. Synopsys has not experienced any work stoppages and considers its relations with its employees to be good.

## **Item 2. Properties**

Synopsys' principal offices are located in four adjacent buildings in Mountain View, California, which together provide approximately 400,000 square feet of available space. This space is leased through February 2015. Within one half mile of these buildings, in Sunnyvale, California, Synopsys occupies approximately 200,000 square feet of space in two adjacent buildings, which are under lease through 2007, and approximately 85,000 square feet of space in a third building, which is under lease until April 2007.

The Company currently leases approximately 45,000 square feet in Dublin, Ireland for its international headquarters and for research and development purposes. This space is leased through April 2025.

The Company leases approximately 93,000 square feet of space in Beaverton, Oregon for administrative, marketing, research and development and support activities. This facility is leased through March 2002, and will be replaced by the newly constructed site in Hillsborough, Oregon.

In addition, the Company leases approximately 82,000 square feet of space in Marlboro, Massachusetts for sales and support, research and development and customer education activities. This facility is leased through March 2009.

The Company currently leases 25 other sales offices throughout the United States. Synopsys currently leases international sales and service offices in Canada, Finland, France, Germany, Hong Kong, India, Israel, Italy, Japan, Korea, the People's Republic of China, Singapore, Sweden, Taiwan, and the United Kingdom. The Company also leases research and development facilities in France, Germany and India.

Synopsys owns a fourth building in Sunnyvale, with approximately 120,000 square feet, which is leased to a third party through May 2003. Synopsys also owns thirty-four acres of undeveloped land in San Jose, California and 13 acres of undeveloped land in Marlboro, Massachusetts. Additionally, Synopsys owns forty-four acres of land in Hillsborough, Oregon on which two buildings, totaling 236,000 square feet, are being constructed. In February 2002, this facility will replace the leased site in Beaverton.

## **Item 3. Legal Proceedings**

On December 6, 2001, Mentor Graphics and its subsidiary Fresno Corporation filed a lawsuit in the Court of Chancery of the State of Delaware (C.A. No. 19299) against IKOS, the members of IKOS' board of directors, Synopsys and Synopsys' subsidiary Oak Merger Corporation ("Oak"). The lawsuit claims that certain provisions of the Synopsys — IKOS Merger Agreement ("Merger Agreement"), including the termination fee and no-shop provisions and certain restrictive covenants relating to the interim operations of IKOS, were entered into in breach of the IKOS directors' fiduciary duties, and that Synopsys and Oak aided and abetted those breaches. The lawsuit seeks, among other relief, injunctive and declaratory relief, including an order enjoining the enforcement of the no-shop and termination fee provisions of the Merger Agreement, and unspecified damages. On January 2, 2002, Synopsys and Oak filed a motion to dismiss Mentor Graphics' complaint. No date has been set for trial in this matter but the parties have begun to engage in discovery.

On December 10, 2001, Ernest Hack, an alleged stockholder of IKOS, filed an alleged class action lawsuit in the Court of Chancery of the State of Delaware (C.A. No. 19305) against IKOS, the IKOS directors and Synopsys. While not identified as such in the caption of the complaint, the body of the complaint also describes Mentor Graphics as a defendant. This lawsuit alleges that the members of IKOS' board failed to properly consider and act upon Mentor Graphics' offer to acquire IKOS. The lawsuit also alleges that IKOS failed to solicit offers before entering the Merger Agreement. The lawsuit alleges that, as a result of the foregoing among other things, the members of IKOS' board breached their fiduciary duties. The lawsuit alleges that Synopsys aided and abetted the IKOS board in the alleged breach of their fiduciary duties. The lawsuit seeks injunctive relief and unspecified damages. The plaintiffs in this action have proposed its consolidation with certain other purported class actions pending in the Chancery Court against IKOS and its board; actions in which Synopsys is not named as a defendant. No date has been set for trial in this matter.

On December 14, 2001, Scott Petler, an alleged stockholder of IKOS, filed an alleged class action lawsuit in California Superior Court in Santa Clara County, California (Case No. CV 803814) against IKOS, the members of IKOS' board of directors, Synopsys and Synopsys Chairman and Chief Executive Officer Aart de Geus. The lawsuit alleges generally that the members of the IKOS board breached their fiduciary duties in connection with the Merger Agreement and that Synopsys and that Dr. de Geus aided and abetted those alleged breaches of fiduciary duties. The lawsuit seeks a declaration by the Court that IKOS and certain of its directors and officers entered into the Merger Agreement in breach of their fiduciary duties. Plaintiffs also seek preliminary and permanent injunctive relief preventing consummation of the Synopsys-IKOS acquisition as currently structured. Plaintiffs do not seek monetary

damages against Synopsys, Dr. de Geus, or any other defendant, but do seek costs and disbursements, including attorneys' and experts' fees.

Synopsys believes that these lawsuits are without merit and intends to vigorously contest each lawsuit.

The foregoing information is current as of January 7, 2002. Additional information concerning developments relating to the Merger Agreement and the litigation matters described above after that date may be disclosed in further amendments to the Schedule TO of Mentor Graphics and the Schedule 14D-9 of IKOS, and in filings with the SEC by Synopsys.

There are no other material legal proceedings pending against the Company.

**Item 4. Submission of Matters to a Vote of Security Holders**

No matters were submitted for a vote of security holders during the fourth quarter of the fiscal year covered by this Report.

**Executive Officers of the Company**

The executive officers of the Company and their ages, as of January 1, 2002, are as follows:

<u>Name</u>	<u>Age</u>	<u>Position</u>
Aart J. de Geus.....	47	Chief Executive Officer and Chairman of the Board of Directors
Chi-Foon Chan.....	51	President, Chief Operating Officer and Director
Vicki L. Andrews.....	45	Senior Vice President, Worldwide Sales
Robert B. Henske .....	40	Senior Vice President, Finance and Operations, Chief Financial Officer
Steven K. Shevick.....	45	Vice President, Investor Relations and Legal, General Counsel and Corporate Secretary

*Dr. Aart J. de Geus* co-founded Synopsys and currently serves as Chief Executive Officer and Chairman of the Board of Directors. Since the inception of Synopsys in December 1986, he has held a variety of positions including Senior Vice President of Engineering and Senior Vice President of Marketing. From 1986 to 1992, Dr. de Geus served as Chairman of the Board. He served as President from 1992 to 1998. Dr. de Geus has served as Chief Executive Officer since January 1994 and has held the additional title of Chairman of the Board since February 1998. He has served as a Director since 1986. From 1982 to 1986, Dr. de Geus was employed by General Electric Corporation, where he was the Manager of the Advanced Computer-Aided Engineering Group. Dr. de Geus holds an M.S.E.E. from the Swiss Federal Institute of Technology in Lausanne, Switzerland and a Ph.D. in electrical engineering from Southern Methodist University.

*Dr. Chi-Foon Chan* joined Synopsys as Vice President of Application Engineering & Services in May 1990. Since April 1997 he has served as Chief Operating Officer and since February 1998 he has held the additional title of President. Dr. Chan also became a Director of the Company in February 1998. From September 1996 to February 1998 he served as Executive Vice President, Office of the President. From February 1994 until April 1997 he served as Senior Vice President, Design Tools Group and from October 1996 until April 1997 as Acting Senior Vice President, Design Reuse Group. Additionally, he has held the titles of Vice President, Engineering and General Manager, DesignWare Operations and Senior Vice President, Worldwide Field Organization. From March 1987 to May 1990, Dr. Chan was employed by NEC Electronics, where his last position was General Manager, Microprocessor Division. From 1977 to 1987, Dr. Chan held a number of senior engineering positions at Intel Corporation. Dr. Chan holds an M.S. and Ph.D. in computer engineering from Case Western Reserve University.

*Vicki L. Andrews* joined Synopsys in May 1993 and currently serves as Senior Vice President, Worldwide Sales. Before holding that position, she served in a number of senior sales roles at Synopsys, including Vice President, Global and Strategic Sales, Vice President, North America Sales and Director, Western United States Sales. She has more than 18 years of experience in the EDA industry. Ms. Andrews holds a B.S. in biology and chemistry from the University of Miami.

*Robert B. "Brad" Henske* joined Synopsys in May 2000 and currently serves as Senior Vice President and Chief Financial Officer. Mr. Henske joined Synopsys from Oak Hill Capital Management, a Robert M. Bass Group private equity investment firm where he was a partner from January 1997 to April 2000. Additionally, Mr. Henske was Executive Vice President and Chief Financial Officer, and a member of the board of directors of American Savings Bank, F.A., a Bass portfolio company, from January 1996 to December

1996. Prior to that, he was a business strategy and financial consultant for Bain & Company from September 1988 to December 1995, where he last held the position of Vice President. Mr. Henske received an MBA in finance and strategic management from The Wharton School, University of Pennsylvania. He has served on the board of directors for several companies, including Grove Worldwide, L.L.C., Williams Scotsman, Inc., Reliant Building Products, Inc. and American Savings Bank, F.A.

Steven K. Shevick joined Synopsys in July 1995 and currently serves as Vice President, Investor Relations and Legal, General Counsel and Corporate Secretary. From July 1995 to March 1998 he served as Deputy General Counsel and Assistant Corporate Secretary. In March 1998 he was appointed Vice President, Legal and General Counsel. In October 1999, Mr. Shevick gained the additional title of Vice President of Investor Relations and was appointed Corporate Secretary. Prior to joining Synopsys, Mr. Shevick was a lawyer in the New York, Hong Kong and Washington, D.C. offices of Cleary, Gottlieb, Steen & Hamilton, where his practice focused on international securities transactions, mergers and acquisitions and technology licensing. Mr. Shevick holds an A.B. from Harvard College and a J.D. from Georgetown University Law Center.

There are no family relationships among any executive officers of the Company.

## PART II

### Item 5. Market for Registrant's Common Equity and Related Stockholder Matters

The information required by this item is set forth on page 65 of this Synopsys 2001 Annual Report on Form 10-K.

### Item 6. Selected Financial Data

#### Financial Summary

	Fiscal Year Ended(2)				
	October 31,		September 30,		
	2001	2000	1999(1)	1998(1)	1997(1)
	(In thousands, except per share data)				
Revenue .....	\$ 680,350	\$ 783,778	\$ 806,098	\$ 717,940	\$ 646,956
Income before income taxes and extraordinary items(3) .....	83,533	145,938	251,411	116,861	132,793
Provision for income taxes.....	26,731	48,160	90,049	55,819	51,043
Extraordinary items, net of income tax expense(4).....	—	—	—	28,404	—
Net income .....	56,802	97,778	161,362	89,446	81,750
Earnings per share:					
Basic .....	0.94	1.43	2.30	1.34	1.30
Diluted .....	0.88	1.38	2.20	1.29	1.24
Working capital.....	165,255	331,857	627,207	504,759	336,675
Total assets.....	1,128,907	1,050,993	1,173,918	951,633	769,499
Long-term debt .....	73	564	11,642	13,138	9,191
Stockholders' equity .....	485,656	682,829	865,596	664,941	502,445

(1) Amounts and per share data for periods presented have been retroactively restated to reflect the mergers accounted for under the pooling-of interests method with Viewlogic Systems, Inc, effective December 4, 1997, and Everest Automation, Inc., effective November 21, 1998.

(2) Synopsys has a fiscal year that ends on the Saturday nearest October 31. Fiscal years 2000, 1999 and 1997 were 52-week years while fiscal years 2001 and 1998 were 53-week years. Fiscal year 2002 will be a 52-week year. For presentation purposes, the consolidated financial statements refer to the calendar month end. Prior to fiscal year 2000, Synopsys' fiscal year ended on the Saturday nearest to September 30. The period from October 1, 1999 through October 31, 1999 was a transition period. During the transition period, revenue, loss before income taxes, benefit for income taxes and net loss were \$23.2 million, \$25.5 million, \$9.9 million, and \$15.5 million, respectively, and basic and diluted loss per share was \$0.22. The net loss during the transition period is due to the fact that sales in the first month following a quarter end are historically weak. As of October 31, 1999, working capital, total assets, long-term debt, and stockholders' equity were \$621.9 million, \$1.2 billion, \$11.3 million and \$872.6 million, respectively.

- (3) Includes charges of \$1.7 million, \$21.2 million, \$33.1 million, \$5.5 million, for the fiscal years ended October 31, 2000 and September 30, 1999, 1998, and 1997, respectively, for in-process research and development. Includes merger-related and other costs of \$51.0 million and \$11.4 million for the years ended September 30, 1998 and 1997, respectively.
- (4) On October 2, 1998, Synopsys sold a segment of the Viewlogic business for \$51.9 million in cash. As a result of the transaction, Synopsys recorded an extraordinary gain of \$26.5 million, net of income tax expense, in the fourth quarter of fiscal 1998.

## **Item 7. Management's Discussion and Analysis of Financial Condition and Results of Operations**

The following discussion contains forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934. For example, statements including terms such as "projects," "expects," "believes," "anticipates" or "targets" are forward-looking statements. Actual results could differ materially from those anticipated in such forward-looking statements as a result of certain factors, including those set forth under "Factors That May Affect Future Results."

### **Results of Operations**

*Introduction of Technology Subscription Licenses (TSLs).* On July 31, 2000, we introduced TSLs, which are time-limited rights to use our software. Since TSLs include bundled product and services, both product and service revenue is generally recognized ratably over the term of the license, or, if later, as payments become due. The terms of TSLs, and the payments due thereon, may be structured flexibly to meet the needs of the customer. With minor exceptions, under TSLs, customers cannot obtain major new products developed or acquired during the term of their license without making an additional purchase. Overall, we believe that TSLs have enabled us to (i) offer customers technology and terms that more closely match their needs; (ii) have greater visibility into our earnings stream; (iii) more effectively resist customer requests for special end-of-the-quarter discounts; and (iv) roll out our new technologies in a more planned manner.

The replacement of the prior form of time-based licenses by TSLs has impacted and will continue to impact our reported revenue. Under a ratable license, relatively little revenue is recognized during the quarter the product is delivered. The remaining amount is recorded as deferred revenue to the extent that the license fee has been paid or invoiced, to be recognized over the term of the license, or is considered backlog by the Company. This backlog is not recorded on our balance sheet. Under the prior form of time-based licenses, a high proportion of all license revenue was recognized in the quarter that the product was delivered, with relatively little recorded as deferred revenue or as backlog. Therefore, an order for a TSL will result in significantly lower current-period revenue than an equal-sized order under the prior form of time-based license.

We set revenue targets for any given period based, in part, upon an assumption that we will achieve a certain license mix of perpetual licenses and TSLs. The actual mix of licenses sold affects the revenue we recognize in the period. If we are unable to achieve our target license mix, we may not meet our revenue targets. In fiscal 2001, our license mix for new orders was 80% TSLs and 20% perpetual licenses which is within our targeted range. The average term of our TSL licenses sold in 2001 was between 3.0 and 3.5 years, which is longer than expected. Given the difference in the revenue profile of TSLs and perpetual licenses, this shift in license mix will reduce revenue in the short-term. We anticipate that our license mix for fiscal 2002 will be approximately 15% to 25% perpetual licenses and 75% to 85% TSLs.

*Business Combinations and Divestitures.* On January 4, 2001, we sold the assets of our silicon libraries business to Artisan Components, Inc. (Artisan) for a total sales price of \$15.5 million, including common stock with a fair value on the date of sale of \$11.4 million, and cash of \$4.1 million. The net book value of the assets sold was \$1.4 million. Expenses incurred in connection with the sale were \$3.5 million. We recorded a gain on the sale of the business of \$10.6 million, which is included in other income, net. Direct revenue for the silicon libraries business was \$0.2 million, \$4.3 million and \$10.1 million for the fiscal years 2001, 2000 and 1999, respectively.

There were no business combinations completed in fiscal 2001.

In fiscal 2000, we acquired (i) VirSim, a software product, from Innoveda, Inc., for a purchase price of approximately \$7.0 million in cash, (ii) The Silicon Group, Inc., a privately held provider of integrated circuit design and intellectual property integration services, for a purchase price of \$3.0 million, including cash payments of \$1.8 million and a reserve of approximately 34,000 shares of common stock for issuance under The Silicon Group's stock option plan which was assumed in the transaction, and (iii) Leda, S.A. (Leda), a privately held provider of RTL coding-style-checkers, for a purchase price of \$7.7 million, including cash payments of \$7.5 million. Approximately \$1.7 million of the Leda purchase price was allocated to in-process research and development and charged to

operations because the acquired technology had not reached technological feasibility and had no alternative uses. The purchase price of each of these transactions was allocated to the acquired assets and liabilities based on their estimated fair values as of the date of the respective acquisition. Amounts allocated to developed technology, workforce and goodwill are being amortized on a straight-line basis over periods ranging from three to five years.

In fiscal 1999, we issued approximately 1.4 million shares of common stock for all the outstanding stock of Everest, a developer of integrated circuit routing and related technology, and reserved approximately 120,000 shares of common stock for issuance under Everest's stock option plan, which we assumed in the transaction. The business combination was accounted for as a pooling of interests, and accordingly, our consolidated financial statements have been restated to include the financial position and results of Everest for all periods prior to the merger date.

In fiscal 1999, we acquired (i) Gambit Automated Design, Inc. (Gambit), a privately held provider of place and route software and physical design services for a purchase price of \$41.3 million including, \$29.2 million in cash, \$8.0 million in notes payable and a reserve of approximately 78,000 shares of common stock for issuance under Gambit's stock option plan which was assumed in the transaction, (ii) Stanza Systems, Inc. (Stanza), a privately held company with physical layout editor expertise and technology for a purchase price of \$15.4 million including, \$11.0 million in cash, the issuance of approximately 46,000 shares of common stock and a reserve of approximately 21,000 shares of common stock for issuance under Stanza's stock option plan which was assumed in the transaction, (iii) Smartech OY, a privately held design services firm with expertise in the design of wireless communication devices for a purchase price of approximately \$9.7 million in cash, (iv) the rights to CoverMeter, a Verilog code coverage tool, from Advanced Technology Center of Massachusetts (CoverMeter) for a purchase price of \$4.5 million including \$2.3 million in cash and \$2.2 million of notes payable, and (v) Apteq, Inc. (Apteq) which has an expertise in analog simulation and Verilog-A product for a purchase price of \$2.0 million including \$1.0 million in cash, notes payable of \$0.6 million and \$0.4 million in the assumption of debt. Amounts allocated to in-process research and development and charged to operations because the acquired technology had not reached technological feasibility and had no alternative future uses were (i) \$13.9 million for Gambit (ii) \$4.1 million for Stanza, (iii) \$2.4 million for CoverMeter and (iv) \$0.8 million for Apteq. The purchase price of each of the transactions was allocated to the acquired assets and liabilities based on their estimated fair values as of the date of the respective acquisition. Amounts allocated to developed technology, workforce and goodwill are being amortized on a straight-line basis over periods ranging from three to five years.

*Revenue.* Revenue consists of fees for perpetual and ratable licenses of the Company's software products, sales of hardware system products, post-contract customer support (PCS), customer training and consulting. We classify revenues as product, service or ratable license. Product revenue consists primarily of perpetual and non-ratable time-based license revenue. Service revenue consists of PCS under perpetual and non-ratable time-based licenses and fees for consulting services and training. Ratable license revenue consists of revenue from TSLs and from time-based licenses that include extended payment terms or unspecified additional products.

Revenue for fiscal 2001 decreased 13% to \$680.4 million, as compared to \$783.8 million for fiscal 2000, consistent with our expectations. The decrease in revenue in 2001 compared to 2000 is due to the utilization for the full 2001 fiscal year of the ratable license model and the related inherent decrease in revenue due to the timing of revenue recognition under this license model.

Product revenue decreased by 62% to \$163.9 million in fiscal 2001 from \$434.1 million in fiscal 2000 and decreased by 14% from \$505.8 million in fiscal 1999 compared to fiscal 2000. The decrease in fiscal 2001 and fiscal 2000 is primarily due to the change in the license model to TSLs, for which revenue is recognized ratably over the term of the license.

Service revenue consists of consulting revenue, training and PCS on perpetual licenses. Service revenue remained relatively flat at \$341.8 million in fiscal 2001 compared to \$340.8 million in fiscal 2000. Service revenue in the first half of fiscal 2001 was \$178.5 million, compared to \$168.1 million for the same period in fiscal 2000. This 6% increase was a result of increased sales of our turnkey design and wireless and broadband consulting services. However, full fiscal year 2001 services revenue was impacted by cost-cutting efforts by customers during the second half of the fiscal year, which led to rescheduling of delivery dates on certain consulting projects and cancellation of others. As a result, projects anticipated to produce revenue in the second half of fiscal 2001 were not completed. Assuming no improvement in the current economic climate, the Company anticipates that customers will continue to review their engagements with outside consultants, and may eliminate or defer those determined to be non-critical. During fiscal 2000, service revenue increased by 13% from \$300.3 million in fiscal 1999 compared to fiscal 2000. This increase was primarily attributable to the renewal of maintenance and support contracts for EDA products and growth in customer training and consulting services.

Over time, service revenue will be impacted by three trends. First, new licenses are increasingly structured as TSLs including the bundled PCS. Second, customers with existing perpetual licenses are increasingly entering into new TSLs rather than renewing the

PCS on the existing perpetual license. Third, customers with existing perpetual licenses are increasingly converting their existing licenses to TSLs. Each of these trends will result, over time, in lower service revenue.

Ratable license revenue was \$174.6 million for fiscal 2001 and \$8.9 million for fiscal 2000. During fiscal 2001, ratable revenue equaled \$31.0 million, \$38.9 million, \$49.8 million and \$54.9 million for the first, second, third and fourth quarters of 2001, respectively, increasing on a sequential quarter basis in each quarter of the year. We expect sequential increases to continue through fiscal 2002.

*International Revenue.* The following table summarizes the performance of the various geographic regions as a percent of total Company revenue:

	Year Ended		
	October 31, 2001	October 31, 2000	September 30, 1999
North America.....	63%	58%	66%
Europe.....	18%	18%	16%
Japan.....	10%	17%	13%
Other.....	9%	7%	5%
Total.....	<u>100%</u>	<u>100%</u>	<u>100%</u>

Revenue from international operations was \$253.9 million, \$327.0 million and \$275.2 million, or 37%, 42% and 34% of total revenue in fiscal 2001, 2000 and 1999, respectively. In any given period, the geographic mix of revenue is influenced by the particular contracts closed during that quarter, although the fluctuation on geographical mix should become less pronounced as the ratable revenue model continues to phase in. The decline in international revenues from fiscal 2000 to fiscal 2001 is due to a decline in the revenue contribution from Japan. The increase in international revenue as a percentage of total revenue in fiscal 2000 compared to fiscal 1999 was primarily a result of relatively greater revenue growth in Japan.

*Revenue Expectations.* During fiscal 2002, we expect revenue to consist of approximately 20% perpetual licenses, 40% TSLs and 40% services. Due to the current economic environment, we do not currently have sufficient visibility into revenues for the full fiscal 2002 year to be able to forecast such full year revenues with a reasonable accuracy. These expectations do not take into account the potential impact of the proposed mergers with Avant!, Inc. and IKOS Systems, Inc.

*Revenue — Product Groups.* For management reporting purposes, our products have been organized into four distinct product groups — IC Implementation, Verification and Test, Intellectual Property (IP) and System Level Design, Transistor Level Design — and a services group — Professional Services. The following table summarizes the revenue attributable to the various groups and as a percentage of total Company revenue since the introduction of the ratable license model:

	Q4-2001		Q3-2001		Q2-2001		Q1-2001		Q4-2000	
<b>Revenue</b>										
IC Implementation DC										
Family.....	\$ 58,038	32%	\$ 55,510	32%	\$ 53,578	33%	\$ 53,845	34%	\$ 44,657	33%
Physical Synthesis.....	<u>19,498</u>	<u>9</u>	<u>13,212</u>	<u>7</u>	<u>10,495</u>	<u>6</u>	<u>6,160</u>	<u>4</u>	<u>8,189</u>	<u>6</u>
	77,536	41	68,722	39	64,073	39	60,005	38	52,846	39
Verification and Test.....	55,000	30	52,013	30	45,321	28	44,222	28	34,685	26
IP and System Level										
Design.....	21,950	12	23,206	13	19,938	12	18,441	12	18,729	14
Transistor Level										
Design.....	11,858	6	14,203	8	10,730	7	13,465	9	9,058	7
Professional Services.....	<u>17,218</u>	<u>11</u>	<u>17,966</u>	<u>10</u>	<u>23,462</u>	<u>14</u>	<u>21,021</u>	<u>13</u>	<u>17,904</u>	<u>14</u>
Total Company.....	<u>\$ 183,562</u>	<u>100%</u>	<u>\$ 176,110</u>	<u>100%</u>	<u>\$ 163,524</u>	<u>100%</u>	<u>\$ 157,154</u>	<u>100%</u>	<u>\$ 133,222</u>	<u>100%</u>

*IC Implementation.* IC implementation includes two product categories, the Design Compiler (DC) Family and Physical Synthesis. The DC Family includes Design Compiler, our core logic synthesis product, Power Compiler, which permits optimization of the design of low power circuits, and Module Compiler, which is used in the design of complex datapaths.

Quarterly revenue from the DC Family has increased since the introduction of our ratable license model, from \$44.7 million in the fourth quarter of 2000 to \$58.0 million in the fourth quarter of 2001. This increase is driven by a continued increase in revenues from Design Compiler. As a percentage of total revenue, the DC Family has remained relatively flat over the last five quarters, ranging

from 32% to 34%. While we expect the relative revenue contribution from the DC Family to decline over time as our customers transition from the DC Family products to Physical Synthesis products, Design Compiler remains one of our top-selling products.

Included in the Physical Synthesis family is Physical Compiler, a product that unifies synthesis, placement and global routing, Chip Architect, a chip floor-planning product, and our detailed routing technology. During the fourth quarter of 2001, we announced our Route Compiler and ClockTree Compiler products. Quarterly revenue from this product family has increased sequentially over the last five quarters with the exception of the first quarter of 2001. The overall increase in quarterly sales is related primarily to an increase in revenues from Physical Compiler. The decrease in revenue in the first quarter of 2001 compared to the fourth quarter of 2000 is due to the mix of license types sold in the quarter; specifically, fewer perpetual licenses were sold in that quarter compared to the preceding and following quarters.

*Verification and Test.* Verification and Test includes our simulation, timing analysis, formal verification and test products. Revenue has increased in each quarter since the introduction of our ratable license model. These sequential increases are primarily due to growth in revenue for our Verilog simulator, VCS and Prime Time.

*Intellectual Property (IP) and Systems Products.* Our IP and Systems Products Group includes the DesignWare library of design components and verification models, and system design products. Revenue increased sequentially from the fourth quarter of fiscal 2000 through the third quarter of fiscal 2001, primarily due to increased DesignWare revenue. In the first quarter of fiscal 2001, we sold our silicon libraries business, which contributed direct revenue of \$0.2 million and \$0.5 million, in the first quarter of fiscal 2001 and the fourth quarter of fiscal 2000, respectively. During the fourth quarter of fiscal 2001, there was a decrease in revenue as compared to the third quarter of fiscal 2001 from our DesignWare product of approximately \$1.0 million due to an increase in the average term of the subscription or ratable licenses in fiscal 2001 in comparison to fiscal 2000. During the fourth quarter of fiscal 2001, we also discontinued our Eagle product, which in fiscal 2001 and 2000 contributed direct revenue of \$2.4 million and \$3.3 million, respectively.

*Transistor Level Design.* Our transistor level design product group includes tools that are used in transistor-level simulation and analysis. Revenue in total, and as a percent of total Company revenue, from this product group has fluctuated since the introduction of TSLs as a result of the mix of license types of orders received. The decline in the fourth quarter is due primarily to an increase in the percentage of ratable licenses during the fourth quarter as compared to the third quarter.

*Professional Services.* The Professional Services group includes consulting and training. This group provides consulting services, including design methodology assistance, specialized telecommunications systems design services and turnkey design. Revenue from professional services increased quarterly from the fourth quarter of 2000 through the second quarter of 2001 as a result of increased sales of our turnkey design and wireless and broadband consulting services. However, in the third quarter of 2001, revenue from professional services declined 23% in comparison to the previous quarter and decreased an additional 3% in the fourth quarter of 2001, as compared to the third quarter. These decreases in service revenue in the second half of fiscal 2001 are the result of certain consulting projects, which were not completed as delivery dates were pushed out to future periods or canceled by customers. This was caused by the tightening economy. Due to the current economic climate, customers may continue to reduce costs, cancel orders or extend the delivery dates on existing purchase orders.

*Cost of Revenue.* Cost of product revenue includes personnel and related costs, production costs, product packaging, documentation, amortization of capitalized software development costs and purchased technology, and costs of the components of the our hardware system products. The cost of internally developed capitalized software is amortized based on the greater of the ratio of current product revenue to the total of current and anticipated product revenue or the straight-line method over the software's estimated economic life of approximately two years. Cost of product revenue was 12% of total product revenue for fiscal 2001, as compared to 8% for fiscal 2000. This increase in cost of product revenue as a percentage of total product revenue is due primarily to the write-off of certain Eagle intangible assets totaling \$1.8 million and an increase in the inventory reserve totaling \$1.3 million related to our hardware modeling product because we are transitioning customers to the next generation product. The Company's product costs are relatively fixed and do not fluctuate significantly with changes in revenue or changes in revenue recognition methods. Cost of product revenue was 7% of total product revenue for fiscal 1999.

Cost of service revenue includes consulting services, personnel and the related costs associated with providing training, and PCS on perpetual licenses. Cost of service revenue as a percentage of total service revenue has remained relatively flat at 23% in fiscal 2001, 24% in fiscal 2000 and 23% in 1999.

Since TSLs include bundled product and services, cost of ratable license revenue includes the costs of product and services related to our TSLs. Cost of ratable license revenue was 17% for fiscal 2001.

Because cost of product and TSL revenue is based on the mix of orders, as customers migrate to the TSL model, cost of product revenue will decrease as a percentage of total revenues. Over time, as more TSL deferred revenue is amortized, cost of TSL revenue will also decrease as a percentage of revenue. During fiscal 2002, we expect that the cost of product revenue as a percent of total product revenue will remain flat and the cost of TSL revenue as a percent of total TSL revenue will either remain flat or decrease slightly. The cost of service revenue as a percent of the related revenue is also expected to remain relatively flat or decrease slightly.

*Research and Development.* Research and development expenses, net of capitalized software development costs, in terms of annual spending, remained relatively flat at \$189.8 million in fiscal 2001, compared to \$189.3 million in fiscal 2000, and increased by 13% in fiscal 2000 compared to \$167.1 million in fiscal 1999. The change in absolute dollars between 2001 and 2000 reflects increases in personnel related costs, recruiting costs and depreciation expense offset by a decrease in facilities due to certain facilities which were acquired in the Gambit acquisition and closed during the fourth quarter of fiscal 2000, as well as decreases in equipment repairs, advertising expenses and travel and entertainment costs. Research and development expenses represented 28%, 24% and 21% of total revenue in fiscal 2001, 2000 and 1999, respectively. The increase in research and development expenses as a percentage of total revenue is due to the decrease in total revenues as a result of a change in our license model. The increase in research and development spending in fiscal 2000 compared to fiscal 1999 was due primarily to increases in personnel and related costs as a result of business combinations and higher levels of research and development staffing in support of our roll-out of Physical Compiler. In each year, additions of personnel were made to facilitate the enhancement of existing applications and development of new products. We believe that to maintain our competitive position in a market characterized by rapid rates of technological advancement, we must continue to invest significant resources in new systems and software, and continue to enhance existing products. We anticipate that we will continue to commit substantial resources to research and development in the future. If we determine that we are unable to enter a particular market in a timely manner, we may license technology from other businesses or acquire other businesses as an alternative to internal research and development.

*Sales and Marketing.* Sales and marketing expenses decreased by 5% to \$274.0 million in fiscal 2001 from \$288.8 million in fiscal 2000 and increased by 20% from \$241.4 million in fiscal 1999 compared to fiscal 2000. Total expenses decreased in fiscal 2001 as compared to fiscal 2000 primarily as a result of decreases in annual bonuses, travel, consulting expenses, recruiting, advertising and depreciation expense, offset by increases in personnel-related costs. Sales and marketing expenses represented 40%, 37% and 30% of total revenue in fiscal 2001, 2000 and 1999, respectively. Sales and marketing expenses increased as a percentage of total revenue due to a decrease in total revenue as a result of the change in our license model. Total expenses increased in absolute dollars in fiscal 2000 compared to fiscal 1999 primarily as a result of an increase in sales commissions and bonus costs.

*General and Administrative.* General and administrative expenses increased 18% to \$69.7 million in fiscal 2001 compared to \$59.2 million in fiscal 2000. General and administrative expense increased from \$47.2 million in fiscal 1999 compared to fiscal 2000. General and administrative expenses increased during fiscal 2001 due to increases in bad debt expense, facility expenditures and consulting services related to the upgrade of our current computer systems offset by a decrease in personnel costs. As a percentage of total revenue, general and administrative expenses were 10%, 8% and 6% in fiscal 2001, 2000 and 1999, respectively. The increase in general and administrative expenses increased as a percentage of total revenue due to a decrease in total revenue as a result of the change to our license model. In fiscal 2000, the increase in absolute dollars and percentage of revenue compared to fiscal 1999 was primarily due in part to increases, in order of magnitude, in personnel costs, an increase in bad debt expense relating to the accounts receivable allowance provided in accordance with our historical trends, facility expenditures and patent and proxy services.

*Operating Expense Targets — Fiscal 2002.* As a result of our cost-cutting measures implemented in the fourth quarter of fiscal 2001 and affecting expense levels in fiscal 2002, we expect that total operating expenses for the full fiscal year 2002 will be relatively flat compared to fiscal 2001 levels.

*Amortization of Intangible Assets.* Intangible assets represent the excess of the aggregate purchase price over the fair value of the tangible assets and other identifiable intangible assets acquired by the Company (goodwill). Under our accounting policies, intangible assets as of October 31, 2001, including goodwill, are being amortized over the estimated useful life of three to five years. Amortization of intangible assets charged to operations amounted to \$17.0 million, \$15.1 million and \$7.9 million in fiscal 2001, 2000 and 1999, respectively.

We periodically evaluate our intangible assets for indications of impairment. If this evaluation indicates that the value of the intangible asset may be impaired, an evaluation of the recoverability of the net carrying value of the asset over its remaining useful life

is made. If this evaluation indicates that the intangible asset is not recoverable, based on the estimated undiscounted future cash flows of the entity or technology acquired over the remaining amortization period, the net carrying value of the related intangible asset will be reduced to fair value and the remaining amortization period may be adjusted. In fiscal 2001, we recognized an aggregate impairment charge of \$2.2 million to reduce the amount of certain intangible assets associated with prior acquisitions to their estimated fair value. Approximately \$1.8 million and \$0.4 million are included in cost of revenues and amortization of intangible assets, respectively, on the statement of operations. The impairment charge is attributable to certain technology acquired from, and goodwill related to the acquisition of Eagle Design Automation, Inc. in 1997. During the fourth quarter of fiscal 2001, we determined that we would not allocate future resources to assist in the market growth of this technology and we do not anticipate any future sales of the product. There were no impairments of intangible assets in fiscal 2000 and 1999.

*In-Process Research and Development.* The following paragraphs contain forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, including statements and assumptions regarding percentage of completion, expected product release dates, dates for which we expect to begin generating benefits from projects, expected product capabilities and product life cycles, costs and efforts to complete projects, growth rates, royalty rates and projected revenue and expense information used by us to calculate discounted cash flows and discount rates. These forward-looking statements involve risks and uncertainties, and the cautionary statements set forth below and in “Factors that May Affect Future Results” identify important factors that could cause actual results to differ materially from those predicted in any such forward-looking statement.

Purchased in-process research and development (IPRD) of \$1.7 million and \$21.2 million in fiscal 2000 and 1999 respectively, represent the write-off of in-process technologies associated with our acquisitions of Leda in fiscal 2000 and Gambit, Stanza, CoverMeter, and Apteq, in fiscal 1999. At the date of each acquisition the projects associated with the IPRD efforts had not yet reached technological feasibility and the research and development in process had no alternative future uses. Accordingly, these amounts were expensed on the respective acquisition dates of each of the acquired companies. (Also see Note 3, Business Combinations, of Notes to Synopsys’ Consolidated Financial Statements.)

*Valuation of IPRD.* We calculated amounts allocated to IPRD using established valuation techniques in the high technology industry and expensed such amounts in the quarter that each acquisition was consummated because technological feasibility had not been achieved and no alternative future uses had been identified. In each of the acquisitions that had associated significant IPRD charges during fiscal 2000 and 1999, the valuation of IPRD was determined as discussed in the next three paragraphs. Information specific to the significant IPRD charges in 2000 and 1999 follows.

The value assigned to acquired in-process technology was determined by identifying products under research in areas for which technological feasibility had not been established. The value of in-process technology was then segmented into two classifications: (i) in-process technology — completed and (ii) in-process technology — to-be-completed, giving explicit consideration to the value created by the research and development efforts of the acquired business prior to the date of acquisition and to be created by Synopsys after the acquisition. These value creation efforts were estimated by considering the following major factors: (i) time-based data, (ii) cost-based data and (iii) complexity-based data.

The value of the in-process technology was determined using a discounted cash flow model similar to the income approach, focusing on the income-producing capabilities of the in-process technologies. Under this approach, the value is determined by estimating the revenue contribution generated by each of the identified products within the classification segments. Revenue estimates were based on (i) individual product revenues, (ii) anticipated growth rates (iii) anticipated product development and introduction schedules (iv) product sales cycles, and (v) the estimated life of a product’s underlying technology. From the revenue estimates, operating expense estimates, including costs of sales, general and administrative, selling and marketing, income taxes and a use charge for contributory assets, were deducted to arrive at operating income. Revenue growth rates were estimated by management for each product and gave consideration to relevant market sizes and growth factors, expected industry trends, the anticipated nature and timing of new product introductions by us and our competitors, individual product sales cycles, and the estimated life of each product’s underlying technology. Operating expense estimates reflect our historical expense ratios. Additionally, these projects will require continued research and development after they have reached a state of technological and commercial feasibility. The resulting operating income stream was discounted to reflect its present value at the date of the acquisition. These estimates are subject to change, given the uncertainties of the development process, and no assurance can be given that deviations from these estimates will not occur or that we will realize any anticipated benefits of the acquisition.

The rate used to discount the net cash flows from purchased in-process technology is our weighted average cost of capital (WACC), taking into account our required rates of return from investments in various areas of the enterprise, and reflecting the inherent uncertainties in future revenue estimates from technology investments including the uncertainty surrounding the successful

development of the acquired in-process technology, the useful life of such technology, the profitability levels of such technology, if any, and the uncertainty of technological advances, all of which are unknown at this time.

*Gambit.* In March 1999, the Company acquired Gambit. Upon consummation of the Gambit acquisition, we immediately recognized expense of \$13.9 million representing the acquired in-process technology that had not yet reached technological feasibility and had no alternative future use. At the date of the acquisition, the principal in-process technologies identified were Gambit's integrated circuit routing and clock tree synthesis (CTS) technologies, both of which are related to the physical design of integrated circuits. For purposes of valuing the IPRD in accordance with the methodology discussed above, the following estimates were used: revenue growth ranging from 57% in year two to 9% in year five; cost of sales — 20% of revenue in each year; general and administrative expenses — 18% of revenue in each year; and sales and marketing — 21% of revenue in each year. In addition, it was assumed there would be no expense reduction due to economic synergies as a result of the acquisition. The rate used to discount the net cash flows from the Gambit purchased in-process technology was 25%. The technologies were approximately 75% complete at the acquisition date. The nature of the efforts to complete these projects related, in varying degrees, to the completion of all planning, designing, prototyping, verification, and testing activities that are necessary to establish that the proposed technologies met their design specifications, including functional, technical, and economic performance requirements. The acquired in-process technologies were originally anticipated to become commercially viable in fiscal 1999 and 2000. Expenditures to complete the acquired in-process technologies were expected to total approximately \$3.2 million.

Subsequent to the date of the acquisition, we determined that the in-process technologies acquired would be more commercially viable if they were integrated with our existing products and technologies in development. Our decision to integrate the acquired in-process technologies rather than selling them as stand alone products is the result of changes in technology in the industry, development of our strategy for entering the market for physical design software, and market forces. We have incurred research and development expenses of approximately \$8.4 million directly related to the acquired and enhanced technologies. We introduced routing and CTS products integrating the acquired in-process technology to a limited number of customers in fiscal 2001 and expect general release of these products in fiscal 2002. The anticipated incremental revenue contribution from the enhanced technology and the related costs including cost of sales and incremental general and administrative and sales and marketing costs, are being evaluated based on current customer analysis; however, we expect the revenue and the costs related to this product to be consistent with the valuation assumptions noted above.

The risks associated with this research and development are still considered high and no assurance can be made that these products will meet market expectations. If these projects are not successfully developed, future revenue, and profitability of the acquired Gambit business may be materially adversely affected. Additionally, the value of other intangible assets acquired may become impaired. As evidenced by its continued support for these projects, management believes that we will successfully complete each of the major Gambit research and development programs.

We obtained a second in-process routing technology from Gambit; this technology has not been further developed except to the extent necessary to service former Gambit customers using prior versions of the technology. The post-acquisition research and development costs have not been materially in excess of those anticipated at the acquisition date.

During fiscal 2000 and 1999, we made other acquisitions resulting in aggregate IPRD charges of \$1.7 million and \$7.3 million, respectively, none of which were individually material to the results of our operations in the respective year. The fair value of the related IPRD was determined in a manner substantially similar to that described for Gambit. The risks associated with this acquired research and development are considered high and no assurance can be made that these products will generate any benefit to us or meet market expectations.

*Other Income, Net.* Other income, net was \$83.8 million, \$40.8 million and \$37.0 million, or 12%, 5% and 5% of total revenue in fiscal 2001, 2000 and 1999, respectively. The increase for fiscal 2001 is due in part to an increase in realized gains on investments, which were \$55.3 million for fiscal 2001 as compared to \$13.0 million for fiscal 2000, in part to the receipt of rental income of \$8.6 million in fiscal 2001, as compared to zero for fiscal 2000 and in part to the gain of \$10.6 million on the sale of our silicon libraries business to Artisan. These gains were partially offset by the write-down of certain assets in our venture portfolio in the amount of \$5.8 million for fiscal 2001 and a lower level of interest income in fiscal 2001 of \$12.8 million compared to \$28.1 million in fiscal 2000. The decrease in interest income primarily reflects our lower average cash balances, which resulted from the continuation of our stock repurchase programs and the decision to grant extended payment terms on more revenue contracts in fiscal 2001. Other income, net increased from fiscal 1999 to fiscal 2000 from a higher mix of higher yield taxable to tax-exempt investments in fiscal 2000. In addition, in fiscal 2000, other income, net increased in comparison to fiscal 1999 due to gains realized on sales of equity investments.

For fiscal 2002, we expect other income and expense to be between \$27 million and \$33 million, including approximately \$16 million from the sale of investments held by the Company.

During the year ended October 31, 2001, we determined that certain of the assets held in our venture fund, with an aggregate value of \$9.4 million, were impaired, and that the impairment was other than temporary. Accordingly, we recorded a charge of approximately \$5.8 million to write down the carrying value of the investments. The impairment charge is included in other income, net. The impairment charge relates to certain investments in non-public companies and represents management's estimate of the impairment incurred during the period as a result of specific analysis of each investment, considering the activities of and events occurring at each of the underlying portfolio companies during the quarter. Our portfolio companies operate in industries that are rapidly evolving and extremely competitive. For equity investments in non-public companies for which there is not a market in which their value is readily determinable, we review each investment for indicators of impairment on a quarterly basis based, primarily on achievement of business plan objectives and current market conditions, among other factors. The primary business plan objectives we consider include, among others, those related to financial performance such as achievement of planned financial results or completion of capital raising activities, and those that are not primarily financial in nature such as the introduction of technology or the hiring of key employees on a timely basis. If it is determined that an impairment has occurred with respect to an investment in a portfolio company, in the absence of quantitative valuation metrics, management estimates the impairment and/or the net realizable value of the portfolio investment based on public- and private-company market comparable information and valuations completed for companies similar to our portfolio companies.

*Interest Rate Risk.* Our exposure to market risk for changes in interest rates relates primarily to our short-term investment portfolio. We do not use derivative financial instruments for speculative or trading purposes with respect to our cash and short-term investments. We place our investments in a mix of tax-exempt and taxable instruments that meet high credit quality standards, as specified in our investment policy. The policy also limits the amount of credit exposure to any one issue, issuer and type of instrument. We do not anticipate any material losses due to this risk with respect to our investment portfolio.

The following table presents the carrying value and related weighted-average after tax interest return for our investment portfolio at October 31, 2001. The carrying value approximates fair value at that date. In accordance with our investment policy, the weighted-average duration of the Company's investment portfolio does not exceed one year.

Principal (Notional) Amounts in U.S. Dollars:

	<u>Carrying Amount</u>	<u>Weighted Average After Tax Return</u>
	(In thousands)	
Short-term investments — fixed rate .....	\$ 204,740	4.35%
Money market funds — variable rate .....	<u>224,313</u>	<u>2.14%</u>
Total interest bearing instruments.....	<u>\$ 429,053</u>	<u>3.20%</u>

See Note 4, Financial Instruments, in the accompanying notes to consolidated financial statements for additional information on investment maturity dates, long-term debt and equity price risk related to the Company's long-term investments.

*Foreign Currency Risk.* At the present time, we do not generally hedge anticipated foreign currency cash flows but hedge only those currency exposures associated with certain assets and liabilities denominated in nonfunctional currencies. Hedging activities undertaken are intended to offset the impact of currency fluctuations on these balances. The success of this activity depends upon estimates of balances denominated in various currencies and foreign currency fluctuations. At October 31, 2001, we have forward contracts for the sale and purchase of foreign currencies with a notional value expressed in U.S. dollars of \$72.2 million. We do not anticipate any material adverse effect on our consolidated financial position, results of operations, or cash flows resulting from the use of these instruments. There can be no assurance that these hedging transactions will be effective in the future.

The following table provides information about our foreign exchange forward contracts at October 31, 2001. Due to the short-term nature of these contracts, the amount in U.S. dollars approximates the fair value of the contract at October 31, 2001. These forward contracts mature in approximately thirty days.

**Short-Term Forward Contracts to Sell and Buy Foreign  
Currencies in U.S. Dollars**

	<u>USD Amount</u>	<u>Contract Rate</u>
	(In thousands)	
Forward Net Contract Values:		
Euro .....	\$ 46,444	1.1039
Japanese yen .....	12,436	121.83
Taiwan Dollar .....	798	34.62
British pound sterling.....	4,109	0.6886
Canadian dollar.....	4,594	1.5795
Singapore dollar.....	2,159	1.8200
Euro/Taiwan Dollar .....	1,621	31.30

The unrealized gains/losses on the outstanding forward contracts at October 31, 2001 are immaterial. The realized gain/loss on these contracts as they matured were not material to our consolidated financial position, results of operations, or cash flows for the periods presented.

*Derivative Financial Instruments.* On November 1, 2000, we adopted Statement of Financial Accounting Standards No. 133, *Accounting for Derivative Instruments and Hedging Activities* (SFAS 133), as amended. SFAS 133 establishes accounting and reporting standards for derivative instruments and hedging activities. SFAS 133 requires that all derivatives be recognized as either assets or liabilities at fair value. Derivatives that are not designated as hedging instruments are adjusted to fair value through earnings. If the derivative is designated as a hedging instrument, depending on the nature of the exposure being hedged, changes in fair value will either be offset against the change in fair value of the hedged asset, liability, or firm commitment through earnings, or recognized in other comprehensive income until the hedged anticipated transaction affects earnings. The ineffective portion of the hedge is recognized in earnings immediately. Upon adoption of SFAS 133, the cumulative transition adjustment was insignificant. We do not believe that ongoing application of SFAS 133 will significantly alter our hedging strategies. However, its application may increase the volatility of other income and expense and other comprehensive income. Apart from our foreign currency hedging and forward sales of certain equity investments, we do not use derivative financial instruments. In particular, we do not use derivative financial instruments for speculative or trading purposes.

*European Monetary Union.* In January 1999, a new currency called the European Monetary Unit, or "Euro," was introduced in certain Economic and Monetary Union (EMU) countries. During 2002, all EMU countries are expected to be operating with the Euro as their single currency. We have assessed the impact the Euro formation will have on our internal systems and the sale of our products. Our international sales are based primarily in U.S. dollars which is not subject to the Euro conversion. While we do have some sales and operating expenses denominated in the European Currency Unit, this currency is successfully being converted in the market to the new Euro at parity. In addition, we upgraded our internal computer systems to convert the European currencies to the Euro. We expect no material adverse effect on our business, financial condition, and results of operations due to the conversion to the Euro.

#### **Proposed Acquisition of IKOS Systems, Inc.**

On July 2, 2001, we entered into an Agreement and Plan of Merger and Reorganization (the "Merger Agreement") with IKOS Systems, Inc. (IKOS). The Merger Agreement provides for the acquisition of all outstanding shares of IKOS common stock by Synopsys. The merger is expected to be completed in August 2002, however, under certain circumstances the merger may close prior to June 30, 2002. We will account for the merger under the purchase method of accounting.

Upon completion of the merger, holders of IKOS common stock will be entitled to receive Synopsys common stock with a value between \$6 and \$20 in exchange for each share of IKOS common stock owned at the time of completion of the merger. The exact amount per share will depend upon the financial performance of IKOS during the 12-month measurement period ending June 30, 2002 and will be calculated based on formulas contained in the Merger Agreement. The formulas contained in the Merger Agreement provide for proportionate increases in the purchase price per IKOS share as IKOS' revenue, revenue plus change in backlog or profit (loss) before tax (PBT) (each as defined in the Merger Agreement) increase. If the merger closes before June 30, 2002, the Merger Agreement provides for holders of IKOS common stock on the closing date to receive Synopsys common stock with a value of \$15 for each share of IKOS common stock, regardless of IKOS' financial performance up to the date of closing. Regardless of when the merger closes, the purchase price per IKOS share is subject to reduction if the number of outstanding IKOS shares and options immediately before the effective time of the merger exceeds an agreed-upon level. However, the purchase price per IKOS share will not be less than \$6.

The merger is subject to certain conditions, including IKOS achieving revenue of at least \$50 million and losses before tax not exceeding \$10 million during the twelve-month period ending June 30, 2002, expiration or termination of a Synopsys emulation non-compete agreement, IKOS stockholder approval, retention of certain employees, compliance with regulatory requirements and customary closing conditions.

The actual number of shares of Synopsys common stock to be issued in the merger and the aggregate purchase price at the effective time of the merger cannot be determined until IKOS' financial performance during the measurement period is calculated and until the average last sale price of Synopsys common stock during the applicable pre-closing pricing period is determined.

On December 7, 2001, Mentor Graphics Corporation commenced a tender offer for all shares of IKOS common stock. The offer is subject to numerous conditions, including the termination of the Merger Agreement. The purported terms and conditions of the offer are set forth in an offer to purchase filed by Mentor as part of a Schedule TO with the Securities and Exchange Commission on December 7, 2001 and in certain amendments thereto filed by Mentor with the SEC thereafter. IKOS' response to the tender offer is set forth in a Schedule 14D-9 filed by IKOS with the Securities and Exchange Commission on December 20, 2001 and in certain amendments thereto filed by IKOS with the SEC thereafter. Litigation relating to IKOS is discussed above under Item 3.

### **Subsequent Event — Proposed Acquisition of Avant! Corporation**

On December 3, 2001, we entered into an Agreement and Plan of Merger with Avant! Corporation (Avant!) by which Avant! will merge with and into a wholly owned subsidiary of Synopsys. We will account for the merger under the purchase method of accounting.

Upon completion of the merger, holders of Avant! common stock will be entitled to receive 0.371 of a share of Synopsys common stock (including the associated preferred stock rights) in exchange for each share of Avant! common stock (the exchange ratio) owned at the time of completion of the merger. The exchange ratio will be proportionately adjusted for any stock split, stock dividend, reorganization or similar change in Avant! common stock or Synopsys common stock. Avant! stockholders will receive cash based on the market price of Synopsys common stock in lieu of any fractional shares to which they might otherwise be entitled. The merger is subject to certain conditions, including approval by the Avant! stockholders of the merger and the Agreement and Plan of Merger, approval by Synopsys stockholders of the issuance of Synopsys common stock in the merger, compliance with regulatory requirements and customary closing conditions.

The actual number of shares of Synopsys common stock to be issued in the proposed merger and the dollar value at the effective time of the merger cannot be determined until the closing date of the merger.

### **Effect of New Accounting Standards**

In July 2001, the Financial Accounting Standards Board issued Statements of Financial Accounting Standards No. 141, Business Combinations, (SFAS 141) and No. 142, Goodwill and Other Intangible Assets (SFAS 142). SFAS 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001 and specifies criteria intangible assets acquired in a purchase method business combination must meet to be recognized apart from goodwill. SFAS 142 requires that goodwill and intangible assets with indefinite useful lives no longer be amortized, but instead be tested for impairment at least annually in accordance with the provisions of SFAS 142.

We adopted the provisions of SFAS 141 effective July 1, 2001. Under SFAS 141, goodwill and intangible assets determined to have indefinite useful lives acquired in a purchase business combination completed after June 30, 2001, but before SFAS 142 is adopted will not be amortized, but will continue to be evaluated for impairment in accordance with SFAS 121. Goodwill and intangible assets acquired in business combinations completed before July 1, 2001 will continue to be amortized and tested for impairment in accordance with current accounting guidance until the date of adoption of SFAS 142.

Upon adoption of SFAS 142, we will evaluate existing intangible assets and goodwill that were acquired in prior purchase business combinations, and make any necessary reclassifications in order to conform with the new criteria in SFAS 142 for recognition of intangible assets apart from goodwill. Upon adoption of SFAS 142, we will be required to reassess the useful lives and residual values of all intangible assets acquired, and make any necessary amortization period adjustments. In addition, we will be required to test intangible assets with indefinite useful lives and goodwill for impairment in accordance with the provisions of SFAS 142 within the six-month period following adoption. Any impairment loss will be measured as of the date of adoption and recognized as the cumulative effect of a change in accounting principle. Any subsequent impairment losses will be included in operating activities.

We expect to adopt SFAS 142 on November 1, 2002. As of October 31, 2001, unamortized goodwill is \$35.1 million, which will no longer be amortized subsequent to the adoption of SFAS 142. Related goodwill amortization expense for fiscal 2001, 2000 and 1999 is \$17.0 million, \$15.1 million and \$7.9 million, respectively. Amortization expense for the one-month transition period ended October 31, 1999 was \$1.2 million. Because of the extensive effort needed to comply with adopting SFAS 141 and 142, it is not practicable to reasonably estimate the impact of adopting these Statements on our financial statements at the date of this report, including whether we will be required to recognize any transitional impairment losses.

## **Liquidity and Capital Resources**

Cash, cash equivalents and short-term investments were \$476.4 million at October 31, 2001, an increase of \$43.2 million, or 10%, from October 31, 2000. Cash provided by operating activities was \$295.8 million for fiscal 2001 compared to \$152.7 million for fiscal 2000.

Cash provided by investing activities was \$61.8 million in fiscal 2001 compared to \$45.6 million provided by investing activities during fiscal 2000. The increase in cash provided by investing activities of \$16.2 million is due primarily to net proceeds from the sale of short- and long-term investments totaling \$141.5 million for fiscal 2001 as compared to net proceeds of investments totaling \$125.8 million for fiscal 2000. The cash received from the sales of investments during fiscal 2001 was primarily used to purchase treasury stock. Capital expenditures totaled \$82.5 million during fiscal 2001 as we continue to invest in fixed assets, primarily related to construction of our Oregon facilities and computing equipment to upgrade our internal engineering and enterprise application systems.

We used \$233.0 million in net cash for financing activities during 2001 compared to \$351.5 million in fiscal 2000. The primary financing uses of cash during 2001 were the repurchase of 6.6 million shares of common stock for approximately \$50 per share and payments on debt obligations totaling \$6.5 million. Financing proceeds from the sale of shares pursuant to our employee stock plans during fiscal 2001 were \$105.4 million compared to \$59.5 million during fiscal 2000.

Accounts receivable remained relatively flat from \$146.9 million at October 31, 2000 to \$146.3 million at October 31, 2001. Days sales outstanding, which is calculated based on revenues for the most recent quarter and accounts receivable as of the balance sheet date, decreased to 73 days as of October 31, 2001 from 99 days at October 31, 2000. The decrease in days sales outstanding is the result of the change in our license model resulting in scheduled billings over the life of the contract for TSLs whereas, under the prior form of time-based licenses the contract amount was typically billed up-front.

We believe that our current cash, cash equivalents, short-term investments and cash generated from operations will satisfy our business requirements for at least the next twelve months.

## **Factors That May Affect Future Results**

*Weakness in the semiconductor and electronics businesses may negatively impact Synopsys' business.* Synopsys' business depends on the semiconductor and electronics businesses, which in 2001 experienced their sharpest decline in orders and revenue in over 20 years. Purchases of our products are largely dependent upon the commencement of new design projects by semiconductor manufacturers and their customers, the number of design engineers and the increasing complexity of designs.

During 2001 many semi-conductor and electronic companies cancelled or deferred design projects and reduced their design engineering staffs, which respectively impacted our orders and revenues and particularly our professional services business. Demand for our products and services may also be affected by mergers in the semiconductor and systems industries, which may reduce the aggregate level of purchases of our products and services by the combined company. Continuation or worsening of the current conditions in the semiconductor industry, and continued consolidation among our customers, all could have a material adverse effect on our business, financial condition and results of operations.

*Synopsys' revenue and earnings may fluctuate.* Many factors affect our revenue and earnings, which makes it difficult to achieve predictable revenue and earnings growth. Among these factors are customer product and service demand, product license terms, and the timing of revenue recognition on products and services sold. The following specific factors could affect our revenue and earnings in a particular quarter or over several quarterly or annual periods:

- Our products are complex, and before buying them customers spend a great deal of time reviewing and testing them. Our customers' evaluation and purchase cycles do not necessarily match our quarterly periods. In the past, we have received a

disproportionate volume of orders in the last week of a quarter. In addition, a large proportion of our business is attributable to our largest customers. As a result, if any order, and especially a large order, is delayed beyond the end of a fiscal period, our orders for that period could be below our plan and our revenue could be below any targets we may have published.

- Accounting rules determine when revenue is recognized on our orders, and therefore impact how much revenue we will report in any given fiscal period. The authoritative literature under which Synopsys recognizes revenue has been, and is expected to continue to be, the subject of much interpretative guidance. In general, after the adoption of TSLs in the fourth quarter of fiscal 2000, most orders for our products and services yield revenue over multiple quarters or years or upon completion of performance rather than at the time the product is shipped. For any given order, however, the specific terms agreed to with a customer may have the effect of requiring deferral or acceleration of revenue in whole or in part. Therefore, for any given fiscal period it is possible for us to fall short in our revenue and/or earnings plan even while orders and backlog remain on plan or, conversely, to meet or exceed our revenue and/or earnings plan because of backlog and deferred revenue and the mix of orders during authorization period, while aggregate orders are under plan.
- Our revenue and earnings targets are based, in part, upon an assumption that we will achieve a license mix of perpetual licenses (on which revenue is generally recognized in the quarter shipped) and TSLs on which revenue is recognized over the term of license that includes 15% to 25% perpetual licenses. If we are unable to achieve a mix in this range our ability to achieve short-term or long-term revenue and/or earnings targets may be impaired.

*Synopsys may not be able to successfully compete in the EDA industry.* The EDA industry is highly competitive. We compete against other EDA vendors, and with customers' internally developed design tools and internal design capabilities for a share of the overall EDA budgets of our potential customers. In general, competition is based on product quality and features, post-sale support, price and, as discussed below, the ability to offer a complete design flow. Our competitors include companies that offer a broad range of products and services, such as Cadence Design Systems, Inc., Avant! and Mentor Graphics Corporation, as well as companies, including numerous recently-public and start-up companies, that offer products focused on a discrete phase of the integrated circuit design process. In certain situations, Synopsys' competitors have been offering aggressive discounts on certain of their products, in particular simulation and synthesis products. As a result, average prices for these products may fall.

*Technology advances and customer requirements continue to fuel a change in the nature of competition among EDA vendors, which could hurt Synopsys' ability to compete.* Increasingly, EDA companies compete on the basis of "design flows" involving integrated logic and physical design products (referred to as "physical synthesis" products) rather than on the basis of individual "point" tools performing a discrete phase of the design process. The need to offer physical synthesis products will become increasingly important as ICs grow more complex. Our physical synthesis products compete principally with products from Cadence and Magma Design Automation, both of which include more complete physical design capabilities. We are working on completing our design flow. In June we announced two physical design products, and in December 2001 we announced the Avant! merger. However, there can be no guarantee that we will be able to offer a competitive complete design flow to customers as a result of these efforts or the proposed Avant! merger. If we are unsuccessful in developing a complete design flow on a timely basis, if the Avant! merger is not completed or if we are unsuccessful in convincing customers to adopt our integrated design flow, our competitive position could be significantly weakened.

*Synopsys' revenue growth depends on new and non-synthesis products, which may not be accepted in the marketplace.* Historically, much of our growth has been attributable to the strength of our logic synthesis products. Our DC Family of products accounted for 32% of revenue in fiscal 2001. We believe that orders and revenue for our flagship logic synthesis product, Design Compiler, and the DC Family have peaked. Over the long term, we expect the contribution from the DC Family to decline as our customers transition from DC Family products to Physical Synthesis products. In order to meet our revenue plan, aggregate revenues products other than the DC family and from professional services must grow faster than our overall revenue growth target. If such revenue growth fails to meet our goals, it will be difficult for us to meet our overall revenue or earnings targets.

In order to sustain revenue growth over the long term, we will have to enhance our existing products and introduce new products that are accepted by a broad range of customers and to continue the growth in our consulting services business. Product success is difficult to predict. The introduction of new products and growth of a market for such products cannot be assured. In the past we, like all companies, have introduced new products that have failed to meet our revenue expectations. Expanding revenue from consulting services may be difficult in the current economic environment. It will require us to continue to develop effective management controls on bidding and executing on consulting engagements. Increasing consulting orders and revenue while maintaining an adequate level of profit can be difficult. There can be no assurance that we will be successful in expanding revenue from existing or new products at the

desired rate or in expanding our services business, and the failure to do so would have a material adverse effect on our business, financial condition and results of operations.

*Businesses that Synopsys has acquired or that Synopsys may acquire in the future, including IKOS and Avant!, may not perform as projected.* We have acquired or merged with a number of companies in recent years, and as part of our efforts to increase revenue and expand our product and services offerings we may acquire additional companies. For example, in July 2001, Synopsys announced the IKOS merger and in December 2001, Synopsys announced the Avant! merger. In addition to direct costs, acquisitions pose a number of risks, including potential dilution of earnings per share, problems in integrating the acquired products and employees into our business, the failure to realize expected synergies or cost savings, the failure of acquired products to achieve projected sales, the drain on management time for acquisition-related activities, adverse effects on customer buying patterns and assumption of unknown liabilities. While we attempt to review proposed acquisitions carefully and negotiate terms that are favorable to us, there is no assurance that any acquisition will have a positive effect on our performance.

*Stagnation of international economies would adversely affect our performance.* During fiscal 2001, 37% of our revenue was derived from outside North America, as compared to 42% during fiscal 2000. International sales are vulnerable to regional or worldwide economic or political conditions and to changes in foreign currency exchange rates. Economic conditions in Europe, Japan and the rest of Asia have deteriorated in recent quarters, and the longer this weakness persists the more likely it is to have a negative impact on our business. In particular, a number of our largest European customers are in the telecommunications equipment business, which has weakened considerably this year. The Japanese economy has been stagnant for several years, and may now be entering a recession. If the Japanese economy remains weak, revenue and orders from Japan, and perhaps the rest of Asia, could be adversely affected. In addition, the yen-dollar and euro-dollar exchange rates remain subject to unpredictable fluctuations. Weakness of the yen could adversely affect revenue and orders from Japan during future quarters. Asian countries other than Japan also have experienced economic and currency problems in recent years, and in most cases they have not fully recovered. If such conditions persist or worsen, orders and revenues from the Asia Pacific region would be adversely affected.

*Synopsys' success depends on recruiting and retaining key employees.* Our success is dependent on technical and other contributions of key employees. We participate in a dynamic industry, and our headquarters is in Silicon Valley, where, despite recent economic conditions, skilled technical, sales and management employees are in high demand. There are a limited number of qualified EDA and IC design engineers, and the competition for such individuals is intense. Despite economic conditions, start-up activity in EDA remains significant, and a number of EDA companies have gone public in the past year. Experience at Synopsys is highly valued in the EDA industry and the general electronics industry, and our employees are recruited aggressively by our competitors and by start-up companies in many industries. In the past, we have experienced, and may continue to experience, significant employee turnover. There can be no assurance that we can continue to recruit and retain the technical and managerial personnel we need to run our business. Failure to do so could have a material adverse effect on our business, financial condition and results of operations.

*Synopsys is dependent on its proprietary technology.* Our success is dependent, in part, upon our proprietary technology and other intellectual property rights. We rely on agreements with customers, employees and others, and intellectual property laws, to protect our proprietary technology. There can be no assurance that these agreements will not be breached, that we would have adequate remedies for any breach or that our trade secrets will not otherwise become known or be independently developed by competitors. Moreover, effective intellectual property protection may be unavailable or limited in certain foreign countries. Failure to obtain or maintain appropriate patent, copyright or trade secret protection, for any reason, could have a material adverse effect on our business, financial condition and results of operations. In addition, there can be no assurance that infringement claims will not be asserted against us and any such claims could require us to enter into royalty arrangements or result in costly and time-consuming litigation or could subject us to damages or injunctions restricting our sale of products or could require us to redesign products.

*Our operating expenses do not fluctuate proportionately with fluctuations in revenues.* Our operating expenses are based in part on our expectations of future revenue, and expense levels are generally committed in advance of revenue. Since only a small portion of our expenses varies with revenue, a shortfall in revenue translates directly into a reduction in net income. For the first quarter of fiscal 2002, our target for total expenses is \$162 to \$166 million. If we are unsuccessful in generating anticipated revenue or maintaining expenses within this range, however, our business, financial condition and results of operations could be materially adversely affected.

*Synopsys has adopted anti-takeover provisions, which may have the effect of delaying or preventing changes of control or management.* We have adopted a number of provisions that could have anti-takeover effects. Our board of directors has adopted a Preferred Shares Rights Plan, commonly referred to as a "poison pill." In addition, our board of directors has the authority, without further action by its stockholders, to issue additional shares of Common Stock and to fix the rights and preferences of, and to issue

authorized but undesignated shares of Preferred Stock. These and other provisions of Synopsys' Restated Certificate of Incorporation and Bylaws and the Delaware General Corporation Law may have the effect of deterring hostile takeovers or delaying or preventing changes in control or management of Synopsys, including transactions in which the stockholders of Synopsys might otherwise receive a premium for their shares over then current market prices.

*Synopsys is subject to changes in financial accounting standards, which may affect our reported revenue, or the way we conduct business.* We prepare our financial statements in conformity with accounting principles generally accepted in the United States of America (GAAP). GAAP are subject to interpretation by the Financial Accounting Standards Board, the American Institute of Certified Public Accountants (AICPA), the SEC and various bodies appointed by these organizations to interpret existing rules and create new accounting policies. In particular, a task force of the Accounting Standards Executive Committee, a subgroup of the AICPA, meets on a quarterly basis to review various issues arising under the existing software revenue recognition rules, and interpretations of these rules. Additional interpretations issued by the task force may have an adverse effect on how we report revenue or on the way we conduct our business in the future.

*Synopsys is subject to a number of special risks as a result of its planned acquisition of Avant!* As a result of entering into an agreement to acquire Avant!, Synopsys is subject to additional risks and uncertainties, including the following:

- *Synopsys May Fail To Integrate Successfully Synopsys' and Avant!'s Operations. As a Result, Synopsys and Avant! May Not Achieve the Anticipated Benefits of the Avant! Merger.* Synopsys and Avant! expect that the Avant! merger will result in benefits to Synopsys and Avant!, including the offering of a complete and, over time, integrated set of software products for the design and verification of complex integrated circuits to its customers. However, the expected benefits may not be fully realized. Achieving the benefits of the Avant! merger will depend on many factors, including the successful and timely integration of the products, technology and sales operations of the two companies following the completion of the Avant! merger. These integration efforts may be difficult and time consuming, especially considering the highly technical and complex nature of each company's products. Failure to achieve a successful and timely integration of their respective products and sales operations could result in the loss of existing or potential customers of Synopsys and Avant! and could have a material adverse effect on the business, financial condition and results of operations of Synopsys and its subsidiaries, including Avant!, and on the price of Synopsys common shares. Integration efforts between the two companies will also divert significant management attention and resources. This diversion of attention and resources could have an adverse effect on Synopsys during such transition period.
- *Avant! Has Been Required To Pay Substantial Amounts in the Recent Resolution of Criminal and Civil Litigation, and Might Be Required To Pay Substantial Additional Amounts under Pending Lawsuits.* During 2001, Avant! paid approximately \$237 million in fines and restitution arising out of charges brought by the District Attorney of Santa Clara County (the Santa Clara criminal action). Avant! does not expect any further proceedings in the Santa Clara criminal action and, therefore, does not expect to incur any additional litigation costs, fines or other payments in such criminal action. Avant! and its subsidiaries are engaged in a number of material civil litigation matters, including an action brought by Cadence Design Systems, Inc. in December 1995 (Avant!/Cadence litigation). The Avant!/Cadence litigation generally arises out of the same set of facts that were the subject of the Santa Clara criminal action. Avant! believes it has defenses to all of Cadence's claims and intends to defend itself vigorously. Should Cadence ultimately succeed in the prosecution of its claims, however, Avant! could be required to pay substantial monetary damages to Cadence. Some or all of these damages may be offset by the amounts paid to Cadence as restitution in the Santa Clara criminal action.

Injunctions entered in 1997 and 1998 enjoined Avant! from marketing its early place and route products, ArcCell and Aquarius, based on a judicial determination that they incorporated portions of Cadence's Design Framework II source code (DFII). The injunctions also prohibit Avant! from possessing, using, selling or licensing any product or work copied or derived from DFII and directly or indirectly marketing, selling, leasing, licensing, copying or transferring any of the ArcCell or Aquarius products. The DFII code is not incorporated in any current Avant! product. Although Cadence has not made a claim in the Avant!/Cadence litigation against any current Avant! product, including its Apollo and Astro place and route products, and has not introduced any evidence that any such product infringes Cadence's intellectual property rights, Avant! expects Cadence to assert such claims. Avant! believes it would have defenses to any such claims and Avant! would defend itself vigorously.

Nonetheless, should Cadence be successful at proving that any past or then-current Avant! product incorporated intellectual property misappropriated from Cadence, Avant! could be permanently enjoined from further use of such intellectual property, which might require modification to existing products and/or suspension of the sale of such products until such Cadence

intellectual property was removed. The Avant!/Cadence litigation, other pending Avant! litigation and other potential litigation, regardless of the outcome, may continue to result in substantial costs and expenses and significant diversion of effort by management, and may negatively impact relationships with customers. An adverse result in any of these litigation matters could seriously harm Avant!'s and, after the proposed Avant! merger, Synopsys' business, financial condition and results of operations.

- *The Insurer Under the Litigation Protection Insurance relating to the Avant!/Cadence Litigation May Be Prevented from Paying for Certain Losses on the Grounds that such Payment Violates Public Policy.* Synopsys has agreed to enter into a policy with an insurance company rated AAA by Standard & Poors. Under the policy, insurance will be provided to pay Synopsys an amount equaling certain compensatory, exemplary and punitive damages, penalties and fines, and attorneys' fees arising out of the Avant!/ Cadence litigation (covered loss). The policy does not provide coverage for litigation other than the Avant!/Cadence litigation. In exchange for a binding fee of \$10 million paid by Synopsys, the insurer has issued a legally binding commitment to provide the coverage, effective following the closing of the Avant! merger. Such fee is refundable in part to Synopsys in the event the Avant! merger is not completed. Otherwise, the fee will be credited against the premium to make the insurance effective, which must be paid by Synopsys to the insurer on or about the closing of the Avant! merger. In return for a premium of \$335 million, including the binding fee, the insurer will be obligated to pay covered loss up to a limit of liability equaling (a) \$500 million plus (b) interest accruing at the fixed rate of 2%, compounded semi-annually, on \$250 million. The policy will expire upon a final judgment or settlement of the Avant!/Cadence litigation or any earlier date upon Synopsys' election. Upon such expiration, Synopsys will be entitled to a payment equal to \$250 million plus interest calculated as set forth above less any loss paid under the policy.

Certain of the potential losses relating to the Avant!/Cadence litigation that are covered by the terms of the litigation protection insurance obtained by Synopsys with respect to that litigation may arise from exemplary and punitive damages, fines and penalties. In some jurisdictions, it may be against public policy to provide insurance for willful acts, punitive damages or similar claims. This could potentially affect the validity of certain elements of the policy. The legal agreement governing the arrangement will be governed by the laws of the State of Delaware. Synopsys believes that the arrangement will be enforceable in Delaware, but there can be no assurance in this regard. To the extent the insurer is prevented from paying certain losses on grounds of public policy that would otherwise be covered by the insurance, coverage will be unavailable for that portion of the losses and the insurer may be obligated to refund a portion of the premium to Synopsys.

- *Whether or Not the Avant! Merger is Completed, the Announcement of the Proposed Avant! Merger May Cause Disruptions in the Business of Synopsys, Which Could Have Material Adverse Effects on the Business and Operations of Synopsys.* Whether or not the proposed Avant! merger is completed, Synopsys' customers, in response to the announcement of the proposed Avant! merger, may delay or defer decisions, which could have a material adverse effect on the business of Synopsys. Similarly, current and prospective Synopsys employees may experience uncertainty about their future roles with Synopsys. This may adversely affect Synopsys' ability to attract and retain key management, sales, marketing and technical personnel. The extent of this adverse effect could depend on the length of time prior to completion of the proposed Avant! merger or termination of the merger agreement between Synopsys and Avant!.
- *Failure to Complete the Avant! Merger Could Negatively Impact Synopsys Stock Price, Future Business and Operations.* If the Avant! merger is not completed for any reason, Synopsys may be subject to a number of material risks, including the following: Synopsys may face difficulties in attracting strategic customers and partners who were expecting to use the integrated product suite proposed to be offered by the merged company, to assist in the development of new products by the separate companies; and certain costs relating to the proposed Avant! merger, such as legal, accounting, financial advisor and printing fees, must be paid even if the proposed Avant! merger is not completed.
- *Following the Merger, Synopsys Will Not Have Control Over the Avant!/Cadence Litigation or the Authority to Settle the Avant!/Cadence Litigation except in Limited Circumstances.* Under the terms of the litigation protection insurance obtained by Synopsys with respect to the Avant!/Cadence litigation described above, which will become effective immediately following the merger, the insurer has the right to exercise full control over the defense of the Avant!/Cadence litigation, including both the strategy and tactics to be employed. Further, the insurer has the right to exclusively control the negotiation, discussion and terms of any proposed settlement, except that Synopsys retains the right to settle the Avant!/Cadence litigation, with the consent of the insurer, for up to \$250 million plus accruing interest less certain costs. Therefore, following the merger, Synopsys will have a severely limited ability to control any risks associated with, and the timing related to, any liabilities resulting from the Avant!/ Cadence litigation.

**Item 7a. *Quantitative and Qualitative Disclosure About Market Risk***

Information relating to quantitative and qualitative disclosure about market risk is set forth in Synopsys' 2001 Annual Report on Form 10-K under the captions "Interest Rate Risk" and "Foreign Currency Risk" in Management's Discussion and Analysis of Financial Condition and Results of Operations, and "Foreign Exchange Hedging" in Note 4 of Synopsys' Notes to Consolidated Financial Statements.

**Item 8. *Financial Statements and Supplementary Data***

**REPORT OF KPMG LLP, INDEPENDENT AUDITORS**

To The Board of Directors and  
Shareholders of Synopsys, Inc.:

We have audited the accompanying consolidated balance sheets of Synopsys, Inc. and subsidiaries as of October 31, 2001 and 2000, and the related consolidated statements of operations, stockholders' equity and comprehensive income and cash flows for each of the years in the two-year period ended October 31, 2001, the one-month period ended October 31, 1999 and the year ended September 30, 1999. These consolidated financial statements are the responsibility of the Company's management. Our responsibility is to express an opinion on these consolidated financial statements based on our audits.

We conducted our audits in accordance with auditing standards generally accepted in the United States of America. Those standards require that we plan and perform the audit to obtain reasonable assurance about whether the financial statements are free of material misstatement. An audit includes examining, on a test basis, evidence supporting the amounts and disclosures in the financial statements. An audit also includes assessing the accounting principles used and significant estimates made by management, as well as evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

In our opinion, the consolidated financial statements referred to above present fairly, in all material respects, the financial position of Synopsys, Inc. and subsidiaries as of October 31, 2001 and 2000, and the results of their operations and their cash flows for each of the years in the two-year period ended October 31, 2001, the one-month period ended October 31, 1999 and the year ended September 30, 1999 in conformity with accounting principles generally accepted in the United States of America.

Mountain View, California  
November 20, 2001, except for Notes 9 and 11  
which are as of December 20, 2001

**SYNOPSYS, INC.**

**CONSOLIDATED BALANCE SHEETS**

	<b>October 31,</b>	
	<b>2001</b>	<b>2000</b>
	<b>(In thousands, except par value data)</b>	
<b>ASSETS</b>		
Current assets:		
Cash and cash equivalents .....	\$ 271,696	\$ 152,705
Short-term investments .....	204,740	280,545
Cash, cash equivalents and short-term investments .....	476,436	433,250
Accounts receivable, net of allowances of \$11,027 and \$9,539, respectively .....	146,294	146,863
Deferred taxes .....	149,239	78,754
Prepaid expenses and other .....	19,413	25,654
Total current assets .....	791,382	684,521
Property and equipment, net .....	192,304	157,243
Long-term investments .....	61,699	126,741
Intangible assets, net .....	35,077	51,776
Long-term deferred taxes and other assets .....	48,445	30,712
Total assets .....	<b>\$ 1,128,907</b>	<b>\$ 1,050,993</b>
<b>LIABILITIES AND STOCKHOLDERS' EQUITY</b>		
Current liabilities:		
Accounts payable and accrued liabilities .....	\$ 134,966	\$ 139,290
Current portion of long-term debt .....	535	6,416
Accrued income taxes .....	110,867	56,304
Deferred revenue .....	379,759	150,654
Total current liabilities .....	626,127	352,664
Long-term debt .....	73	564
Other liabilities .....	17,051	14,936
Stockholders' equity:		
Preferred stock, \$.01 par value; 2,000 shares authorized; no shares outstanding .....	—	—
Common stock, \$.01 par value; 400,000 shares authorized; 59,428 and 62,877 shares outstanding, respectively .....	595	629
Additional paid-in capital .....	575,403	558,716
Retained earnings .....	436,662	405,419
Treasury stock, at cost .....	(531,117)	(329,493)
Accumulated other comprehensive income .....	4,113	47,558
Total stockholders' equity .....	485,656	682,829
Total liabilities and stockholders' equity .....	<b>\$ 1,128,907</b>	<b>\$ 1,050,993</b>

See accompanying notes to consolidated financial statements.

**SYNOPSYS, INC.**

**CONSOLIDATED STATEMENTS OF OPERATIONS**

	<b>Year Ended</b>		<b>One Month Ended</b>	<b>Year Ended</b>
	<b>October 31, 2001</b>	<b>October 31, 2000</b>	<b>October 31, 1999</b>	<b>September 30, 1999</b>
(In thousands, except per share data)				
<b>Revenue:</b>				
Product .....	\$ 163,924	\$ 434,077	\$ 4,150	\$ 505,847
Service .....	341,833	340,796	19,032	300,251
Ratable license .....	<u>174,593</u>	<u>8,905</u>	<u>—</u>	<u>—</u>
<b>Total revenue</b> .....	<b>680,350</b>	<b>783,778</b>	<b>23,182</b>	<b>806,098</b>
<b>Cost of revenue:</b>				
Product .....	20,479	35,085	3,364	37,888
Service .....	79,747	80,442	4,016	68,876
Ratable license .....	<u>29,896</u>	<u>8,947</u>	<u>—</u>	<u>—</u>
<b>Total cost of revenue</b> .....	<b>130,122</b>	<b>124,474</b>	<b>7,380</b>	<b>106,764</b>
Gross margin .....	550,228	659,304	15,802	699,334
<b>Operating expenses:</b>				
Research and development .....	189,831	189,280	17,156	167,085
Sales and marketing .....	273,954	288,762	19,023	241,428
General and administrative .....	69,682	59,248	5,690	47,343
Amortization of intangible assets .....	17,012	15,129	1,153	7,907
In-process research and development .....	<u>—</u>	<u>1,750</u>	<u>—</u>	<u>21,176</u>
<b>Total operating expenses</b> .....	<b>550,479</b>	<b>554,169</b>	<b>43,022</b>	<b>484,939</b>
Operating income (loss) .....	(251)	105,135	(27,220)	214,395
Other income, net .....	<u>83,784</u>	<u>40,803</u>	<u>1,740</u>	<u>37,016</u>
Income (loss) before provision (benefit) for income taxes .....	83,533	145,938	(25,480)	251,411
Provision (benefit) for income taxes .....	<u>26,731</u>	<u>48,160</u>	<u>(9,937)</u>	<u>90,049</u>
Net income (loss) .....	<u>\$ 56,802</u>	<u>\$ 97,778</u>	<u>\$ (15,543)</u>	<u>\$ 161,362</u>
<b>Basic earnings per share:</b>				
Net income (loss) .....	\$ 0.94	\$ 1.43	\$ (0.22)	\$ 2.30
Weighted average common shares .....	<u>60,601</u>	<u>68,510</u>	<u>70,400</u>	<u>70,118</u>
<b>Diluted earnings per share:</b>				
Net income (loss) .....	\$ 0.88	\$ 1.38	\$ (0.22)	\$ 2.20
Weighted average common shares and dilutive stock options outstanding .....	<u>64,659</u>	<u>70,998</u>	<u>70,400</u>	<u>73,422</u>

See accompanying notes to consolidated financial statements.

**SYNOPSIS, INC.**

**CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY AND COMPREHENSIVE INCOME**

	Common Stock		Additional Paid-in Capital	Retained Earnings	Treasury Stock <small>(In thousands)</small>	Comprehensive Income	Accumulated Other Comprehensive Income	Total
	Shares	Amount						
<b>Balance at September 30, 1998</b> .....	67,925	\$ 679	\$ 423,975	\$ 240,465	\$ (11,184)		\$ 11,006	\$ 664,941
Comprehensive Income:								
Net income .....	—	—	—	161,362	—	\$ 161,362	—	161,362
Other comprehensive income (loss), net of tax:								
Unrealized gain on investments .....	—	—	—	—	—	5,506	—	—
Reclassification adjustment on unrealized gains on investments .....	—	—	—	—	—	(9,539)	—	—
Foreign currency translation adjustment .....	—	—	—	—	—	(346)	—	—
Other comprehensive (loss) .....	—	—	—	—	—	(4,379)	(4,379)	(4,379)
Comprehensive income (loss) .....	—	—	—	—	—	<u>\$ 156,983</u>	—	—
Acquisition of treasury stock .....	(1,680)	(17)	17	—	(95,355)	—	—	(95,355)
Stock options assumed in connection with acquisition .....	49	1	6,451	—	—	—	—	6,452
Stock issued under stock option and stock purchase plans .....	3,966	40	70,236	(30,432)	62,882	—	—	102,726
Tax benefits associated with exercise of stock options .....	—	—	29,849	—	—	—	—	29,849
<b>Balance at September 30, 1999</b> .....	70,260	703	530,528	371,395	(43,657)		6,627	865,596
Comprehensive Income:								
Net loss .....	—	—	—	(15,543)	—	(15,543)	—	(15,543)
Other comprehensive income, net of tax:								
Unrealized gain on investments .....	—	—	—	—	—	2,497	—	—
Foreign currency translation adjustment .....	—	—	—	—	—	110	—	—
Other comprehensive income .....	—	—	—	—	—	2,607	2,607	2,607
Comprehensive loss .....	—	—	—	—	—	<u>\$ (12,936)</u>	—	—
Stock issued under stock option and stock purchase plans .....	490	5	8,906	(6,660)	15,068	—	—	17,319
Tax benefits associated with exercise of stock options .....	—	—	2,618	—	—	—	—	2,618
<b>Balance at October 31, 1999</b> .....	70,750	708	542,052	349,192	(28,589)		9,234	872,597
Comprehensive Income:								
Net income .....	—	—	—	97,778	—	97,778	—	97,778
Other comprehensive income (loss), net of tax:								
Unrealized gain on investments .....	—	—	—	—	—	50,689	—	—
Reclassification adjustment on unrealized gains on investments .....	—	—	—	—	—	(8,934)	—	—
Foreign currency translation adjustment .....	—	—	—	—	—	(3,431)	—	—
Other comprehensive income .....	—	—	—	—	—	38,324	38,324	38,324
Comprehensive income .....	—	—	—	—	—	<u>\$ 136,102</u>	—	—
Acquisition of treasury stock .....	(9,932)	(99)	99	—	(397,466)	—	—	(397,466)
Stock options assumed in connection with acquisition .....	—	—	1,187	—	—	—	—	1,187
Stock issued under stock option and stock purchase plans .....	2,059	20	4,514	(41,551)	96,562	—	—	59,545
Tax benefits associated with exercise of stock options .....	—	—	10,864	—	—	—	—	10,864
<b>Balance at October 31, 2000</b> .....	62,877	629	558,716	405,419	(329,493)		47,558	682,829
Comprehensive Income:								
Net income .....	—	—	—	56,802	—	56,802	—	56,802
Other comprehensive income (loss), net of tax:								
Unrealized (loss) on investments .....	—	—	—	—	—	(4,063)	—	—
Reclassification adjustment on unrealized gains on investments .....	—	—	—	—	—	(33,713)	—	—
Foreign currency translation adjustment .....	—	—	—	—	—	(5,669)	—	—
Other comprehensive loss .....	—	—	—	—	—	(43,445)	(43,445)	(43,445)
Comprehensive income .....	—	—	—	—	—	<u>\$ 13,357</u>	—	—
Acquisition of treasury stock .....	(6,617)	(66)	66	—	(331,882)	—	—	(331,882)
Stock issued under stock option and stock purchase plans .....	3,168	32	628	(25,559)	130,258	—	—	105,359
Tax benefits associated with exercise of stock options .....	—	—	15,993	—	—	—	—	15,993
<b>Balance at October 31, 2001</b> .....	59,428	\$ 595	\$ 575,403	\$ 436,662	\$ (531,117)		\$ 4,113	\$ 485,656

See accompanying notes to the consolidated financial statements.

**SYNOPSYS, INC.**

**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year Ended		One Month Ended	Year Ended
	October 31, 2001	October 31, 2000	October 31, 1999	September 30, 1999
	(In thousands)			
<b>CASH FLOWS FROM OPERATING ACTIVITIES:</b>				
Net income (loss).....	\$ 56,802	\$ 97,778	\$ (15,543)	\$ 161,362
Adjustments to reconcile net income (loss) to net cash provided by operating activities:				
Amortization and depreciation .....	65,162	63,770	4,907	52,025
Provision for doubtful accounts and sales returns.....	5,759	3,528	—	2,007
Write-down of long term investments .....	5,848	—	—	—
Gain on sale of long-term investments .....	(57,080)	(11,455)	—	(19,578)
Write-down of goodwill and intangible assets.....	2,200	—	—	—
Deferred taxes.....	(58,831)	(64,137)	(12,555)	(5,111)
Interest accretion long term debt .....	306	792	66	842
In-process research and development .....	—	1,750	—	21,176
Non-cash gain on sale of silicon libraries .....	(10,580)	—	—	—
Software sold in exchange for minority investment .....	—	—	—	500
Tax benefit associated with stock options .....	15,993	10,864	2,618	29,849
Net changes in operating assets and liabilities:				
Accounts receivable.....	(5,190)	(19,186)	25,632	(31,346)
Prepaid expenses and other current assets .....	(231)	4,316	(1,260)	(3,232)
Other assets.....	(1,754)	(8,787)	(668)	(2,870)
Accounts payable and accrued liabilities.....	(8,072)	39,180	(19,619)	(3,574)
Accrued income taxes.....	54,563	5,980	110	(277)
Deferred revenue .....	229,160	23,190	16,473	16,854
Deferred compensation.....	1,771	5,092	690	4,268
Net cash provided by operating activities.....	<u>295,826</u>	<u>152,675</u>	<u>851</u>	<u>222,895</u>
<b>CASH FLOWS FROM INVESTING ACTIVITIES:</b>				
Proceeds from sales and maturities of short-term investments .....	2,003,589	2,782,613	138,212	5,101,336
Purchases of short-term investments .....	(1,927,784)	(2,667,112)	(119,549)	(5,080,125)
Proceeds from sales of long-term investments .....	77,777	24,336	—	21,752
Purchases of long-term investments .....	(12,076)	(13,998)	—	(27,589)
Proceeds from sale of silicon libraries business.....	4,122	—	—	—
Purchases of property and equipment.....	(82,490)	(68,500)	(12,507)	(65,816)
Acquisitions (net of cash acquired) .....	—	(14,474)	—	(46,493)
Intangible assets, net.....	(313)	3,697	—	1,289
Capitalization of software development costs .....	(1,000)	(1,000)	—	(873)
Net cash provided by (used in) investing activities .....	<u>61,825</u>	<u>45,562</u>	<u>6,156</u>	<u>(96,519)</u>
<b>CASH FLOWS FROM FINANCING ACTIVITIES:</b>				
Proceeds from issuance of long-term debt.....	—	727	(356)	—
Principal payments on debt obligations .....	(6,468)	(14,299)	—	(12,631)
Proceeds from sale of common stock .....	105,359	59,545	17,319	102,726
Purchases of treasury stock.....	(331,882)	(397,466)	—	(95,355)
Net cash (used in) provided by financing activities .....	<u>(232,991)</u>	<u>(351,493)</u>	<u>16,963</u>	<u>(5,260)</u>
Effect of exchange rate changes on cash .....	(5,669)	(3,433)	110	(350)
Net increase (decrease) in cash and cash equivalents .....	118,991	(156,689)	24,080	120,766
Cash and cash equivalents, beginning of year/period .....	152,705	309,394	285,314	164,548
Cash and cash equivalents, end of year/period .....	<u>\$ 271,696</u>	<u>\$ 152,705</u>	<u>\$ 309,394</u>	<u>\$ 285,314</u>
<b>SUPPLEMENTAL DISCLOSURE OF CASH FLOW INFORMATION:</b>				
Cash paid during the year/period for:				
Interest.....	\$ 318	\$ 646	\$ 76	\$ 944
Income taxes .....	25,262	91,927	108	63,141
Non-cash transactions:				
Notes payable issued in acquisition.....	\$ —	\$ —	\$ —	\$ 11,120

See accompanying notes to consolidated financial statements.

## SYNOPSYS, INC.

### NOTES TO CONSOLIDATED FINANCIAL STATEMENTS

#### Note 1. Description of Business

Synopsys, Inc. (Synopsys or the Company) is a leading supplier of EDA software to the global electronics industry. The Company develops, markets, and supports a wide range of integrated circuit (IC) design products that are used by designers of advanced ICs, including system-on-a-chip ICs, and the electronic systems (such as computers, cell phones, and internet routers) that use such ICs, to automate significant portions of their design process. ICs are distinguished by the speed at which they run, their area, the amount of power they consume and their cost of production. Synopsys' products offer its customers the opportunity to design ICs that are optimized for speed, area, power consumption and production cost, while reducing overall design time. The Company also provides consulting services to help its customers improve their IC designs and, where requested, to assist them with their IC designs, as well as training and support services.

#### Note 2. Summary of Significant Accounting Policies

*Fiscal Year End.* The Company has a fiscal year that ends on the Saturday nearest October 31. Fiscal 1999 and 2000 were 52-week years and fiscal 2001 is a 53-week year. Fiscal 2002 will be a 52-week year. Prior to fiscal 2000, Synopsys' fiscal year ended on the Saturday nearest to September 30. The period from October 1, 1999 through October 31, 1999 is a transition period. For presentation purposes, the consolidated financial statements and notes refer to the calendar month end.

*Principles of Consolidation.* The consolidated financial statements include the accounts of the Company and all of its subsidiaries. All significant intercompany accounts and transactions have been eliminated.

*Use of Estimates.* The preparation of financial statements in conformity with accounting principles generally accepted in the United States of America requires management to make estimates and assumptions that affect the amounts recorded in the financial statements and accompanying notes. Actual amounts could differ from these estimates.

*Cash Equivalents and Short-Term Investments.* The Company classifies investments with original maturities of three months or less when acquired as cash equivalents. All of the Company's cash equivalents and short-term investments are classified as available-for-sale and are reported at fair value, with unrealized gains and losses included in stockholders' equity as a component of accumulated other comprehensive income, net of tax, if any. The fair value of short-term investments is determined based on quoted market prices. The cost of securities sold is based on the specific identification method and realized gains and losses are included in other income, net. The Company has cash equivalents and investments with various high quality institutions and, by policy, limits the amount of credit exposure to any one institution.

*Concentration of Credit Risk.* The Company sells its products worldwide primarily to customers in the semiconductor industry. The Company performs on-going credit evaluations of its customers' financial condition and generally does not require collateral. The Company maintains reserves for potential credit losses, and such losses have been within management's expectations and have not been material in any year.

*Fair Values of Financial Instruments.* The fair value of the Company's cash, accounts receivable, long-term investments, forward contracts relating to certain investments in equity securities, accounts payable, long-term debt and foreign currency contracts, approximates the carrying amount, which is the amount for which the instrument could be exchanged in a current transaction between willing parties.

*Factored Accounts Receivable.* As of October 31, 2000, October 31, 1999 and September 30, 1999, the Company sold approximately \$5.3 million, \$21.8 million and \$22.8 million, respectively, of its accounts receivable to a financial institution, subject to limited repurchase obligations in the case of certain customer defaults. The Company has not incurred any material losses due to the limited repurchase obligations. No amounts subject to repurchase remain outstanding at October 31, 2001.

*Foreign Currency Translation.* The functional currency of each of the Company's international subsidiaries is the foreign subsidiary's local currency. Assets and liabilities of the Company's international operations are translated into U.S. dollars at exchange rates in effect at the balance sheet date. Income and expense items are translated at average exchange rates for the period.

The effect of foreign exchange rate fluctuations did not significantly impact the Company's operating results. Accumulated net translation adjustments are reported in stockholders' equity, net of tax, as a component of accumulated other comprehensive income. The associated tax benefit for cumulative translation adjustments is \$3.6 million, \$2.2 million and \$0.2 million in fiscal 2001, 2000 and 1999, respectively. For the one-month ended October 31, 1999, the tax benefit for the cumulative translation was not material. Foreign exchange transaction gains and losses were not material for all periods presented and are included in the results of operations.

*Foreign Exchange Contracts.* The Company operates internationally and therefore is exposed to potentially adverse movements in foreign currency rates. The Company has entered into foreign exchange forward contracts to reduce its exposure to foreign currency rate changes on non-functional currency denominated balance sheet positions. The objective of these contracts is to neutralize the impact of foreign currency rate movements on the Company's operating results.

Foreign exchange forward contracts require the Company to exchange currencies at rates agreed upon at the inception of the contracts. These contracts reduce the exposure to fluctuations in exchange rates because the gains and losses associated with foreign currency balances and transactions are generally offset with the gains and losses of the hedge contracts. Because the impact of movements in currency exchange rates on forward contracts offsets the related impact on the underlying items being hedged, these financial instruments help alleviate the risk that might otherwise result from changes in currency exchange rates.

These contracts contain credit risk in that the counterparty may be unable to meet the terms of the agreements. The Company has limited these agreements to major financial institutions to reduce such credit risk. Furthermore, the Company monitors the potential risk of loss with any one financial institution and does not expect any material loss as a result of default by the counterparties.

*Revenue Recognition and Cost of Revenue.* Revenue consists of fees for perpetual and time-based licenses of the Company's software products, sales of hardware system products, post-contract customer support (PCS), customer training and consulting. The Company classifies its revenues as product, service or ratable license. Product revenue consists primarily of perpetual and non-ratable time-based license revenue. Service revenue consists of PCS under perpetual and non-ratable time-based licenses and consulting services. Ratable license revenue is all fees related to time-based licenses bundled with post-contract customer support (PCS) and sold as a single package (commonly referred to by the Company as a Technology Subscription License or TSL) and time-based licenses that include extended payment terms or unspecified additional products.

Cost of product revenue includes cost of production personnel, product packaging, documentation, amortization of capitalized software development costs, and costs of the Company's systems products. Cost of service revenue includes personnel and the related costs associated with providing training, consulting and PCS. Cost of ratable license revenue includes the cost of products and services related to time-based licenses bundled with PCS and sold as a single package and to time-based licenses that include extended payment terms or unspecified additional products.

The Company recognizes revenue in accordance with SOP 97-2, *Software Revenue Recognition*, as amended by SOP 98-9 and SOP 98-4 and generally recognizes revenue when all of the following criteria are met as set forth in paragraph 8 of SOP 97-2:

- Persuasive evidence of an arrangement exists,
- Delivery has occurred,
- The vendor's fee is fixed or determinable, and
- Collectibility is probable.

The Company defines each of the four criteria above as follows:

*Persuasive Evidence of an Arrangement Exists.* It is the Company's customary practice to have a written contract, which is signed by both the customer and Synopsys, or a purchase order from those customers that have previously negotiated a standard end-user license arrangement or volume purchase agreement, prior to recognizing revenue on an arrangement.

*Delivery Has Occurred.* The Company's software may be either physically or electronically delivered to its customers. For those products that are delivered physically, the Company's standard transfer terms are FOB shipping point. For an electronic delivery of software, delivery is considered to have occurred when the customer has been provided with the access codes that allow the customer to take immediate possession of the software on its hardware.

If undelivered products or services exist in an arrangement that are essential to the functionality of the delivered product, delivery is not considered to have occurred.

*The Vendor's Fee is Fixed or Determinable.* The fee the Company's customers pay for its products is negotiated at the outset of an arrangement, and is generally based on the specific volume of product to be delivered. The Company's license fees are not a function of variable-pricing mechanisms such as the number of units distributed or copied by the customer, or the expected number of users in an arrangement. Therefore, except in cases where the Company grants extended payment terms to a specific customer, the Company's fees are considered to be fixed or determinable at the inception of the arrangements.

The Company's typical payment terms are such that a minimum of 75% of the arrangement revenue is due within one year or less. Arrangements with payment terms extending beyond the typical payment terms are not considered to be fixed or determinable. Revenue from such arrangements is recognized at the lesser of the aggregate of amounts due and payable or the amount of the arrangement fee that would have been recognized if the fees had been fixed or determinable.

*Collectibility is Probable.* Collectibility is assessed on a customer-by-customer basis. The Company typically sells to customers for which there is a history of successful collection. New customers are subjected to a credit review process that evaluates the customers' financial positions and ultimately their ability to pay. New customers are typically assigned a credit limit based on a formulated review of their financial position. Such credit limits are only increased after a successful collection history with the customer has been established. If it is determined from the outset of an arrangement that collectibility is not probable based upon the Company's credit review process, revenue is recognized on a cash-collected basis.

*Multiple Element Arrangements.* The Company allocates revenue on software arrangements involving multiple elements to each element based on the relative fair values of the elements. The Company's determination of fair value of each element in multiple element arrangements is based on vendor-specific objective evidence (VSOE). The Company limits its assessment of VSOE for each element to the price charged when the same element is sold separately.

The Company has analyzed all of the elements included in its multiple-element arrangements and determined that it has sufficient VSOE to allocate revenue to the PCS components of its perpetual license products and consulting. Accordingly, assuming all other revenue recognition criteria are met, revenue from perpetual licenses is recognized upon delivery using the residual method in accordance with SOP 98-9 and revenue from PCS is recognized ratably over the PCS term. The Company recognizes revenue from TSLs over the term of the ratable license period, as the license and PCS portions of a TSL are bundled and not sold separately. Revenue from contracts with extended payment terms is recognized as the lesser of amounts due and payable or the amount of the arrangement fee that would have been recognized if the fee were fixed or determinable.

Certain of the Company's time-based licenses include unspecified additional products. The Company recognizes revenue from time-based licenses that include both unspecified additional software products and extended payment terms that are not considered to be fixed or determinable in an amount that is the lesser of amounts due and payable or the ratable portion of the entire fee. Revenue from contracts with unspecified additional software products is recognized ratably over the contract term.

*Consulting Services.* The Company provides design methodology assistance, specialized services relating to telecommunication systems design and generalized turnkey design services. The Company's consulting services generally are not essential to the functionality of the software. The Company's software products are fully functional upon delivery and implementation does not require any significant modification or alteration. The Company's services to its customers often include assistance with product adoption and integration and specialized design methodology assistance. Customers typically purchase these professional services to facilitate the adoption of the Company's technology and dedicate personnel to participate in the services being performed, but they may also decide to use their own resources or appoint other professional service organizations to provide these services. Software products are billed separately and independently from consulting services, which are generally billed on a time-and-materials or milestone-achieved basis. The Company generally recognizes revenue from consulting services as the services are performed.

Exceptions to the general rule above involve arrangements where the Company has committed to significantly alter the features and functionality of its software or build complex interfaces necessary for the Company's software to function in the customer's environment. These types of services are considered to be essential to the functionality of the software. Accordingly, contract accounting is applied to both the software and service elements included in these arrangements.

*Balance Sheet Deferred Revenue.* As of October 31, 2001, approximately \$150.0 million of the deferred revenue balance relates to revenue which will be recognized more than one year from the balance sheet date. As of October 31, 2000, all deferred revenue was recognized during the year ended October 31, 2001.

*Property and Equipment.* Property and equipment is recorded at cost. Depreciation and amortization of assets is provided using the straight-line method over the estimated useful life of the property or equipment ranging from three to five years. Leasehold improvements are amortized using the straight-line method over the remaining term of the lease or the economic useful life of the asset whichever is shorter. The cost of repairs and maintenance is charged to operations as incurred. A detail of property and equipment is as follows:

	<u>October 31,</u>	
	<u>2001</u>	<u>2000</u>
	(In thousands)	
Computer and other equipment .....	\$ 271,264	\$ 230,188
Buildings .....	22,092	—
Furniture and fixtures .....	23,160	20,839
Land.....	50,153	50,148
Leasehold improvements.....	<u>35,775</u>	<u>31,765</u>
	402,444	332,940
Less accumulated depreciation and amortization .....	(210,140)	(175,697)
	<u>\$ 192,304</u>	<u>\$ 157,243</u>

*Software Development Costs.* Capitalization of software development costs begins upon the establishment of technological feasibility, which is generally the completion of a working prototype. Software development costs capitalized were \$1.0 million in fiscal 2001, \$1.0 million in fiscal 2000, and \$0.9 million in fiscal 1999. Amortization of software development costs is computed based on the straight-line method over the software's estimated economic life of approximately two years. The Company recorded amortization of \$1.0 million, \$1.0 million, and \$1.6 million in fiscal 2001, 2000 and 1999, respectively. For the one month ended October 31, 1999, software development costs and the associated amortization amounts were not material.

*Intangible Assets.* Intangible assets consist of purchased technology, goodwill and goodwill-like assets such as assembled workforce. Goodwill represents the excess of the aggregate purchase price over the fair value of the tangible and identifiable intangible assets acquired by the Company. Intangible assets are amortized on a straight-line basis over their estimated useful lives which range from three to five years. Amortization of intangible assets charged to operations amounted to \$17.0 million, \$15.1 million and \$7.9 million in fiscal 2001, 2000 and 1999, respectively, and, \$1.2 million for the one month ended October 31, 1999.

The Company periodically evaluates its intangible assets for indications of impairment. If this evaluation indicates that the value of the intangible asset may be impaired, an evaluation of the recoverability of the net carrying value of the asset over its remaining useful life is made. If this evaluation indicates that the intangible asset is not recoverable, based on the estimated undiscounted future cash flows of the entity or technology acquired over the remaining amortization period, the net carrying value of the related intangible asset will be reduced to fair value and the remaining amortization period may be adjusted. In fiscal 2001, the Company recognized an aggregate impairment charge of \$2.2 million to reduce the amount of certain intangible assets associated with prior acquisitions to their estimated fair value. Approximately \$1.8 million and \$0.4 million is included in cost of revenues and amortization of intangible assets, respectively, on the statement of operations. The impairment charge is attributable to certain technology acquired from, and goodwill related to the acquisition of Eagle Design Automation, Inc. in 1997. During the fourth quarter of fiscal 2001, the Company determined that it would not allocate future resources to assist in the market growth of this technology and the Company does not anticipate any future sales of the product. There were no impairments of intangible assets in fiscal 2000 and 1999 or in the one-month period ended October 31, 1999.

*Accounts Payable and Accrued Liabilities.* Accounts payable and accrued liabilities consist of:

	<u>October 31,</u>	
	<u>2001</u>	<u>2000</u>
	(In thousands)	
Payroll and related benefits.....	\$ 90,356	\$ 80,207
Other accrued liabilities .....	25,181	48,122
Accounts payable.....	<u>19,429</u>	<u>10,961</u>
Total.....	<u>\$ 134,966</u>	<u>\$ 139,290</u>

*Deferred Compensation Plan.* The Company maintains a deferred compensation plan (the Plan) which permits certain employees to defer up to 50% of their annual cash base compensation or 100% of their annual cash variable compensation. Distributions from the Plan are generally payable upon cessation of employment in equal quarterly installments over five to 15 years or as a lump sum payment, at the option of the employee. Undistributed amounts under the Plan are subject to the claims of the Company's creditors. As of October 31, 2001 and 2000, the invested amounts under the Plan total \$15.6 million and \$14.2 million respectively, and are recorded as a long-term asset on the Company's balance sheet. As of October 31, 2001 and 2000, the Company has recorded \$16.7 million and \$14.9 million, respectively, as a long-term liability to recognize undistributed amounts due to employees.

*Income Taxes.* The Company accounts for income taxes using the asset and liability method. Under the asset and liability method, deferred tax assets and liabilities are recognized for the future tax consequences attributable to differences between the financial statement carrying amounts of existing assets and liabilities and their respective tax bases and operating loss and tax credit carryforwards. Deferred tax assets and liabilities are measured using enacted tax rates expected to apply to taxable income in the years in which those temporary differences are expected to be recovered or settled. The effect on deferred tax assets and liabilities of a change in tax rates is recognized in income in the period that includes the enactment date.

*Earnings per Share.* Basic earnings per share is computed using the weighted-average number of shares outstanding during the period. Diluted earnings per share is computed using the weighted-average number of common shares and dilutive stock options outstanding during the period. The weighted-average dilutive stock options outstanding is computed using the treasury stock method.

The following is a reconciliation of the weighted-average common shares used to calculate basic net income per share to the weighted-average common shares used to calculate diluted net income per share.

	<b>Year Ended</b>		
	<b>October 31, 2001</b>	<b>October 31, 2000</b>	<b>September 30, 1999</b>
		(In thousands)	
Weighted-average common shares for basic net income per share.....	60,601	68,510	70,118
Weighted-average stock options outstanding.....	<u>4,058</u>	<u>2,488</u>	<u>3,304</u>
Weighted-average shares for diluted net income per share.....	<u>64,659</u>	<u>70,998</u>	<u>73,422</u>

The effect of dilutive employee stock options excludes approximately 3,810,000, 12,999,000 and 630,000 stock options for fiscal 2001, 2000 and 1999, respectively, which were anti-dilutive for earnings per share calculations.

*Stock-Based Compensation.* As permitted by Statement of Financial Accounting Standards No. 123, *Accounting for Stock-Based Compensation* (SFAS 123), the Company has elected to use the intrinsic value method prescribed by Accounting Principles Board Opinion No. 25, *Accounting for Stock Issued to Employees* (APB 25), to measure compensation expense for stock-based awards to employees.

*Adoption of SFAS 133.* On November 1, 2000, Synopsys adopted Statement of Financial Accounting Standards No. 133, *Accounting for Derivative Instruments and Hedging Activities* (SFAS 133), as amended. SFAS 133 establishes accounting and reporting standards for derivative instruments and hedging activities and requires that all derivatives be recognized as either assets or liabilities at fair value. Derivatives that are not designated as hedging instruments are adjusted to fair value through earnings. If the derivative is designated as a hedging instrument, depending on the nature of the exposure being hedged, changes in fair value will either be offset against the change in fair value of the hedged asset, liability, or firm commitment through earnings, or recognized in other comprehensive income until the hedged anticipated transaction affects earnings. The ineffective portion of the hedge is recognized in earnings immediately. Upon adoption of SFAS 133, the cumulative transition adjustment was insignificant.

*Adoption of SAB 101.* In fiscal 2000, the Securities and Exchange Commission issued Staff Accounting Bulletin No. 101, *Revenue Recognition in Financial Statements* (SAB 101). The objective of SAB 101 is to provide further guidance on revenue recognition issues in the absence of authoritative literature addressing a specific arrangement or a specific industry. The Company adopted the guidance in SAB 101 during the fourth quarter of fiscal 2001. Adoption of this guidance did not have a material impact on the Company's financial position or results of operations.

*Reclassifications.* Certain prior year amounts have been reclassified to conform to current year presentation.

### Note 3. Business Combinations and Divestitures

*Pooling-of-Interests Combinations.* In fiscal 2001 and 2000, the Company did not account for any business combinations using the pooling-of-interests method. In fiscal 1999, the Company issued approximately 1.4 million shares of its common stock for all the outstanding stock of Everest Design Automation, Inc. (Everest), a developer of integrated circuit routing and related technology and reserved approximately 120,000 shares of its common stock for issuance under Everest's stock option plan assumed in the transaction. The business combination was accounted for as a pooling of interests, and accordingly, the Company's consolidated financial statements have been restated to include the financial position and results of Everest's operations for all periods prior to the merger date. In the year ended September 30, 1999 and for the period preceding the merger, Everest had a net loss of \$0.8 million and Synopsys had net income of \$162.1 million. For the period preceding the merger, Everest did not have any revenues.

In fiscal 1998, the Company recorded a charge for merger-related and other costs in connection the merger with ViewLogic Systems, Inc. In the year ended September 30, 1999 and the one-month period ended October 31, 1999, the Company made aggregate payments of \$3.4 million in final settlement of these obligations.

*Purchase Combinations.* During fiscal 2000 and 1999, the Company made a number of purchase acquisitions. Pro forma results of operations have not been presented since the effects of the acquisitions were not material to the Company's consolidated financial position, results of operations or cash flows for the periods presented. The consolidated financial statements include the operating results of each business from the date of acquisition. The purchase price of each transaction was allocated to the acquired assets and liabilities based on their estimated fair values as of the date of the respective acquisitions. There were no purchase transactions during fiscal 2001.

The excess of the purchase price over the estimated value of the net tangible assets acquired was allocated to various intangible assets, consisting primarily of developed technology and goodwill, as well as goodwill-like assets such as assembled workforce. The values assigned to developed technologies related to each acquisition were based upon future discounted cash flows related to the existing products' projected income streams. The values of the assembled workforces were based upon the cost to replace those workforces. Amounts allocated to developed technology, workforce and goodwill are being amortized on a straight-line basis, generally over a period of three to five years. As discussed in Note 10, in July 2001, the Financial Accounting Standards Board issued Statements of Financial Accounting Standards No. 141, *Business Combinations* and No. 142, *Goodwill and Other Intangible Assets*. Upon full adoption of these new standards the Company may be required to make reclassifications of certain of its intangible assets to present goodwill separately and will discontinue amortization of goodwill and all intangible assets with indefinite lives.

The amounts allocated to purchased in-process research and development were determined through established valuation techniques in the high-technology industry and were expensed upon acquisition because technological feasibility had not been established and no future alternative uses existed. Research and development costs to bring the products from the acquired companies to technological feasibility are not expected to have a material impact on the Company's future results of operations or cash flows.

In fiscal 2000, the Company acquired VirSim, a software product, from Innoveda, Inc.; The Silicon Group, Inc. (TSG), a privately held provider of integrated circuit design and intellectual property integration services; and Leda S.A. (Leda), a privately held provider of RTL coding-style-checkers.

In fiscal 1999, the Company acquired Gambit Automated Design, Inc. (Gambit), a privately held developer of place and route software and provider of physical design services; Stanza Systems, Inc. (Stanza), a privately held company with physical layout editor expertise and technology; Smartech OY (Smartech), a privately held design services firm with expertise in the design of wireless communication devices; the rights to CoverMeter, a Verilog code coverage tool, from Advanced Technology Center of Massachusetts and Apteq, Inc. (Apteq), which was conducting research and development on extensions to the Verilog language.

A summary of the Company's purchase transactions during fiscal 2000 and 1999 is included in the following table.

<u>Entity or Product Name</u>	<u>Consideration</u> (In millions)	<u>IPRD Charge</u>	<u>Form of Consideration</u>
<b>Fiscal 2000:</b>			
Leda .....	\$ 7.7	\$ 1.7	\$7.5 million cash
TSG.....	\$ 3.0	\$ —	\$1.8 million cash, reserve of 33,985 common shares for issuance under TSG's stock option plan
VirSim.....	\$ 7.0	\$ —	\$7.0 million cash
<b>Fiscal 1999:</b>			
Gambit .....	\$ 41.3	\$ 13.9	\$29.2 million cash and notes payable of \$8.0 million, reserve of 78,000 shares of common stock for issuance under Gambit's stock option plan
Stanza.....	\$ 15.4	\$ 4.1	\$11.0 million cash, issuance of 46,000 shares of common stock and reserve of 21,000 shares of common stock for issuance under Stanza's 1998 stock option plan
Smartech .....	\$ 9.7	\$ —	\$5.8 million cash and \$3.9 million (not included in purchase price) placed in an escrow contingent on continued employment of certain employees
CoverMeter .....	\$ 4.5	\$ 2.4	\$2.3 million cash and notes payable of \$2.2 million
Apteq.....	\$ 2.0	\$ 0.8	\$1.0 million cash, notes payable of \$0.6 million and \$0.4 million assumption of debt

*Divestitures.* In January 2001, the Company sold the assets of its silicon libraries business to Artisan Components, Inc. ("Artisan") for a total sales price of \$15.5 million, including common stock with a fair value of \$11.4 million on the date of sale, and cash of \$4.1 million. The net book value of the assets sold was \$1.4 million. Expenses incurred in connection with the sale were \$3.5 million. The Company recorded a gain on the sale of the business of \$10.6 million, which is included in other income, net. Direct revenue for the silicon libraries business was \$0.2 million, \$4.3 million and \$10.1 million in fiscal 2001, 2000 and 1999, respectively.

#### Note 4. Financial Instruments

*Cash, Cash Equivalents and Investments.* All cash equivalents, short-term investments, and non-current investments have been classified as available-for-sale securities and are detailed as follows:

	<u>Cost</u>	<u>Unrealized Gains</u>	<u>Unrealized Losses</u>	<u>Estimated Fair Value</u>
	(In thousands)			
<b>October 31, 2001</b>				
Classified as current assets:				
Cash .....	\$ 47,383	\$ —	\$ —	\$ 47,383
Money market funds .....	224,313	—	—	224,313
Tax-exempt municipal obligations.....	188,714	1,751	—	190,465
Municipal auction rate preferred stock .....	14,275	—	—	14,275
	<u>474,685</u>	<u>1,751</u>	<u>—</u>	<u>476,436</u>
Classified as non-current assets:				
Equity securities.....	<u>38,577</u>	<u>23,122</u>	<u>—</u>	<u>61,699</u>
Total.....	<u>\$ 513,262</u>	<u>\$ 24,873</u>	<u>\$ —</u>	<u>\$ 538,135</u>
<b>October 31, 2000</b>				
Classified as current assets:				
Cash .....	\$ 83,335	\$ —	\$ —	\$ 83,335
Money market funds .....	59,377	—	—	59,377
Tax-exempt municipal obligations.....	210,019	—	(3)	210,016
Money market preferred stock .....	60,000	—	—	60,000
Municipal auction rate preferred stock .....	5,000	—	—	5,000
Corporate Note.....	5,021	—	(8)	5,013
Certificate of deposit.....	516	—	—	516
US government agency note .....	9,995	—	(2)	9,993
	<u>433,263</u>	<u>—</u>	<u>(13)</u>	<u>433,250</u>
Classified as non-current assets:				
Equity securities.....	<u>41,632</u>	<u>85,109</u>	<u>—</u>	<u>126,741</u>
Total.....	<u>\$ 474,895</u>	<u>\$ 85,109</u>	<u>\$ (13)</u>	<u>\$ 559,991</u>

Short-term investments include tax-exempt municipal obligations, which may have underlying maturities of more than one year. However, such investments may have put options or reset dates within three years that meet high credit quality standards as specified in the Company's investment policy. At October 31, 2001, the underlying maturities of the Company's investments are \$8.1 million within one year, \$82.4 million within one to five years, \$7.6 million within five to ten years and \$106.6 million after ten years. These investments are generally classified as available for sale, and are recorded on the balance sheet at fair market value with unrealized gains or losses reported as a separate component of accumulated other comprehensive income, net of tax. Realized gains and losses on sales of short-term investments have not been material.

*Strategic Investments.* The Company's strategic investment portfolio consists of minority equity investments in publicly traded companies and investments in privately held companies, many of which can still be considered in the start-up or development stages. The securities of publicly traded companies are generally classified as available-for-sale securities accounted for under Statement of Financial Accounting Standards No. 115, *Accounting for Certain Investments in Debt and Equity Securities* (SFAS 115), and are reported at fair value, with unrealized gains or losses, net of tax, recorded as a component of other comprehensive income in stockholders' equity. The cost of securities sold is based on the specific identification method. The securities of privately held companies are reported at the lower of cost or fair value.

During the year ended October 31, 2001, the Company determined that certain of the assets held in the Company's venture fund, with an aggregate value of \$9.4 million, were impaired, and that the impairment was other than temporary. Accordingly, the Company recorded a charge of approximately \$5.8 million to write down the carrying value of the investments. The impairment charge is included in other income, net. The impairment charge relates to certain investments in non-public companies and represents management's estimate of the impairment incurred during the period as a result of specific analysis of each investment, considering the activities of and events occurring at each of the underlying portfolio companies during the quarter. The Company's portfolio companies operate in industries that are rapidly evolving and extremely competitive. For equity investments in non-public companies for which there is not a market in which their value is readily determinable, the Company reviews each investment for indicators of impairment on a quarterly basis based, primarily on achievement of business plan objectives and current market conditions, among other factors. The primary business plan objectives the Company considers include, among others, those related to financial performance such as achievement of planned financial results or completion of capital raising activities, and those that are not primarily financial in nature such as the introduction of technology or the hiring of key employees on a timely basis. If it is determined that an impairment has occurred with respect to an investment in a portfolio company, in the absence of quantitative valuation metrics, management estimates the impairment and/or the net realizable value of the portfolio investment based on public- and private-company market comparable information and valuations completed for companies similar to Synopsys' portfolio companies.

The Chairman of the Company's Audit Committee is also the Chairman of the Board of Directors for a company in which Synopsys has invested \$500,000.

*Derivative Financial Instruments.* Available-for-sale equity investments accounted for under SFAS 115 are subject to market price risk. From time to time, the Company enters into and designates forward contracts to hedge variable cash flows from anticipated sales of these investments. In accounting for a derivative designated as a cash flow hedge, the effective portion of the change in fair value of the derivative is initially recorded in other comprehensive income and reclassified into earnings when the hedged anticipated transaction affects earnings. The ineffective portion of the change in the fair value of the derivative is recognized in earnings immediately.

The Company's objective for entering into derivative contracts is to lock in the price of selected equity holdings while maintaining the rights and benefits of ownership until the anticipated sale occurs. The forecasted sale selected for hedging is determined by market conditions, up-front costs, and other relevant factors. The Company has generally selected forward sale contracts to hedge its market price risk.

Changes in the spot rate of the forward sale contracts designated and qualifying as cash flow hedges of the forecasted sale of available-for-sale investments accounted for under SFAS 115 are reported in other comprehensive income. The notional amount of the forward designated as the hedging instrument is equal to the available-for-sale securities being hedged. In addition, hedge effectiveness is assessed based on the changes in spot prices. As such, the hedging relationship is perfectly effective, both at inception of the hedge and on an on-going basis. The difference between the contract price and the forward price, which is generally not material, is reflected in other income.

The Company has entered into forward sale contracts in fiscal 2001 and 2000 with a major financial institution for the sale through August 16, 2002 of certain of the Company's strategic investments. During fiscal 2001, the Company physically settled certain

forward contracts. The net gain on the forward contracts was offset by the net loss on the related available-for-sale investment since inception of the hedge, with any gain or loss reclassified from other comprehensive income to other income. As of October 31, 2001, the Company has forward sale contracts outstanding for 50,000 shares of Cadence Design Systems, Inc. stock, 70,191 shares of Broadcom Corporation stock, 110,404 shares of Nvidia Corporation stock and 121,688 shares of Numerical Technologies Inc. stock at forward prices of \$27.6383, \$243.71, \$40.378 and \$22.6171, respectively. As of October 31, 2001, the excess of the fair market value of the forward sale price over cost has been recorded in stockholders' equity as a component of accumulated other comprehensive income.

In fiscal 2001, the Company recorded a net realized gain on the sale of the available-for-sale investments of \$55.3 million (net of premium amortization). As of October 31, 2001, the Company has recorded a liability of \$0.3 million due to unrealized losses on forward contracts. As of October 31, 2001, the Company has recorded \$17.3 million in long-term investments due to locked-in unrealized gains on the available-for-sale investments. As of October 31, 2001, the maximum length of time over which the Company is hedging its exposure to the variability in future cash flows associated with the forward sale contracts is 10 months.

*Foreign Exchange Hedging.* The Company conducts business on a global basis. Consequently, the Company enters into foreign exchange forward contracts to reduce the impact of certain currency exposures. As of October 31, 2001, the Company had \$72.2 million of short-term foreign exchange forward contracts outstanding which approximated the fair value of such contracts and their underlying transactions. These contracts are denominated primarily in the Euro, Japanese yen, Taiwan dollar, and British pound sterling. The outstanding forward contracts have maturities that expire in approximately one month from the balance sheet date. The foreign currency gains and losses on forward exchange contracts and their underlying transactions resulting from market adjustments are included in earnings. Gains and losses related to these instruments for the fiscal year ended October 31, 2001 were not material.

*Reclassification Adjustment Included in Other Comprehensive Income.* Other comprehensive income includes a reclassification adjustment related to unrealized gains on investments, accumulated net translation adjustments and unrealized gains on investments. In fiscal 2001, 2000 and 1999, the reclassification adjustment is \$33.7 million, \$8.9 million and \$9.5 million, respectively. The reclassification amount adjusts other comprehensive income for gains on the sale of available-for-sale securities realized during the current year and included in other comprehensive income as unrealized holding gains in the period in which such unrealized gains arose. The reclassification adjustment is net of income tax expense of \$21.6 million, \$6.0 million and \$5.6 million, respectively, in fiscal 2001, 2000 and 1999.

*Debt.* During fiscal 2000, the Company entered into an equipment lease agreement with a total lease obligation of \$0.8 million, of which approximately \$0.1 million and \$0.3 million was included in long-term debt as of October 31, 2001 and 2000, respectively. As of October 31, 2001 and 2000, the Company has notes payable totaling \$0.3 million and \$6.1 million related to past acquisitions that are payable through April 2002. The fair value of the Company's long-term debt approximates the carrying amount.

## **Note 5. Commitments and Contingencies**

The Company leases its domestic and international facilities and certain office equipment under operating leases. Rent expense was \$30.0 million, \$29.1 million and \$23.5 million in fiscal 2001, 2000 and 1999, respectively. During December 2000, the Company entered into a sublease agreement for a portion of its office space through May 2003. Monthly lease payments of \$76,000 began on December 1, 2000.

In July 2001, the Company amended certain non-cancelable leases related to its corporate office facilities. The leases, originally scheduled to expire in February 2003 have been extended to February 2015. Monthly lease payments are approximately \$0.8 million per month in the first year of the extended term escalating to \$1.1 million per month in the last year of the extended term.

Future minimum lease payments on all facility operating leases (net of sublease income) as of October 31, 2001 are as follows:

<b>Fiscal Years</b>	<u>Minimum Lease Payments</u>	<u>Lease Income</u> (In thousands)	<u>Net</u>
2002.....	\$ 29,260	\$ (11,351)	\$ 17,909
2003.....	24,336	(6,867)	17,469
2004.....	22,643	—	22,643
2005.....	21,072	—	21,072
2006.....	20,164	—	20,164
Thereafter.....	<u>134,139</u>	<u>—</u>	<u>134,139</u>
Total minimum payments required.....	<u>\$ 251,614</u>	<u>\$ (18,218)</u>	<u>\$ 233,396</u>

#### **Note 6. Stockholders' Equity**

*Stock Repurchase Programs.* In July 2001, July 2000 and June 1999, the Company's Board of Directors authorized stock repurchase programs under which Synopsys common stock with a market value up to \$500 million, \$500 million and \$200 million, respectively, may be acquired in the open market. In each case, the authorized stock repurchase program replaced all prior repurchase programs authorized by the Board. Common shares repurchased are intended to be used for ongoing stock issuances under the Company's employee stock plans and for other corporate purposes. The July 2001 stock repurchase program expires on October 31, 2002. During fiscal 2001, 2000 and 1999, the Company purchased 6.6 million shares at an average price of \$50.00 per share, 9.9 million shares at an average price of \$40.02 per share, and 1.7 million shares at an average price of \$56.26, respectively, under all share repurchase programs. At October 31, 2001, approximately \$481.9 million remained available for repurchases under the July 2001 program.

*Preferred Shares Rights Plan.* The Company has adopted a number of provisions that could have anti-takeover effects, including a Preferred Shares Rights Plan. In addition, the Board of Directors has the authority, without further action by its shareholders, to fix the rights and preferences and issue shares of authorized but undesignated shares of Preferred Stock. This provision and other provisions of the Company's Restated Certificate of Incorporation and Bylaws and the Delaware General Corporation Law may have the effect of deterring hostile takeovers or delaying or preventing changes in control or management of the Company, including transactions in which the stockholders of the Company might otherwise receive a premium for their shares over then current market prices. The preferred share rights expire on October 24, 2007.

*Employee Stock Purchase Plan.* Under the Company's 1992 Employee Stock Purchase Plan (ESPP) 7,050,000 shares have been authorized for issuance as of October 31, 2001. Under the ESPP, employees are granted the right to purchase shares of common stock at a price per share that is 85% of the lesser of the fair market value of the shares at (i) the beginning of a rolling two-year offering period, or (ii) the end of each semi-annual purchase period. During fiscal 2001, 2000, the one-month ended October 31, 1999 and fiscal 1999 shares totaling 567,254, 512,988, 225,347 and 460,438, respectively, were issued under the plan at average per share prices of \$33.20, \$32.63, \$39.30, and \$31.73, respectively. As of October 31, 2001, 3,513,224 shares of common stock were reserved for future issuance under the ESPP.

*Stock Option Plans.* Under the Company's 1992 Stock Option Plan (the 1992 Plan), 17,591,624 shares of common stock have been authorized for issuance. Pursuant to the 1992 Plan, the Board of Directors may grant either incentive or non-qualified stock options to purchase shares of the Company's common stock to eligible individuals at not less than 100% of the fair market value of those shares on the grant date. Stock options generally vest over a period of four years and expire ten years from the date of grant. As of October 31, 2001, 1,915,451 shares of common stock are reserved for future grants under the 1992 Plan.

Under the Company's Non-Statutory Stock Option Plan (the 1998 Plan), 24,073,534 shares of common stock have been authorized for issuance. Pursuant to the 1998 Plan, the Board of Directors may grant non-qualified stock options to employees, excluding executive officers. Exercisability, option price and other terms are determined by the Board of Directors, but the option price shall not be less than 100% of the fair market value of the stock at the grant date. Stock options generally vest over a period of four years and expire ten years from the date of grant. At October 31, 2001, 4,343,282 shares of common stock were reserved for future grants.

Under the Company's 1994 Non-Employee Directors Stock Option Plan (the Directors Plan), a total of 600,000 shares have been authorized for issuance. The Directors Plan provides for automatic grants to each non-employee member of the Board of Directors upon initial appointment or election to the Board, reelection and for annual service on Board committees. Stock options are granted at

not less than 100% of the fair market value of those shares on the grant date. Stock options granted upon appointment or election to the Board vest 25% annually. Stock options granted upon reelection to the Board and for committee service vest 100% after the first year of continuous service. As of October 31, 2001, 41,839 shares of common stock were reserved for future grants.

The Company has assumed certain option plans in connection with business combinations. Generally, these options were granted under terms similar to the terms of the Company's stock option plans at prices adjusted to reflect the relative exchange ratios. All assumed plans were terminated as to future grants upon completion of each of the business combinations.

Additional information concerning stock option activity under all plans is as follows:

	<u>Shares</u>	<u>Weighted-Average Exercise Price</u>
	(In thousands)	
Outstanding at September 30, 1998.....	12,228	\$ 28.83
Granted and assumed.....	5,000	\$ 49.10
Exercised .....	(3,507)	\$ 25.00
Canceled .....	<u>(1,026)</u>	\$ 34.09
Outstanding at September 30, 1999.....	12,695	\$ 37.44
Granted and assumed.....	759	\$ 58.62
Exercised .....	(265)	\$ 31.74
Canceled .....	<u>(158)</u>	\$ 40.77
Outstanding at October 31, 1999.....	13,031	\$ 38.75
Granted and assumed.....	16,220	\$ 36.05
Exercised .....	(1,554)	\$ 27.37
Canceled .....	<u>(2,952)</u>	\$ 41.35
Outstanding at October 31, 2000.....	24,745	\$ 37.39
Granted .....	5,967	\$ 48.23
Exercised .....	(2,605)	\$ 33.14
Canceled .....	<u>(2,187)</u>	\$ 39.80
Outstanding at October 31, 2001.....	<u>25,920</u>	\$ 40.10
Options exercisable at:		
September 30, 1999.....	4,620	\$ 29.41
October 31, 1999 .....	4,566	\$ 29.72
October 31, 2000 .....	6,619	\$ 36.15
October 31, 2001 .....	10,405	\$ 38.23

The following table summarizes information about stock options outstanding at October 31, 2001:

<u>Range of Exercise Prices</u>	<u>Options Outstanding</u>			<u>Exercisable Options</u>	
	<u>Number Outstanding</u> (In thousands)	<u>Weighted-Average Remaining Contractual Life (In Years)</u>	<u>Weighted-Average Exercise Price</u>	<u>Number Exercisable</u> (In thousands)	<u>Weighted-Average Exercise Price</u>
\$ 0.11 - \$30.12	1,958	5.34	\$ 24.57	1,592	\$ 24.09
\$30.37 - \$32.25	6,354	8.65	\$ 32.16	1,895	\$ 32.11
\$32.37 - \$39.50	7,736	7.82	\$ 37.34	3,779	\$ 36.71
\$39.87 - \$48.75	5,189	8.76	\$ 44.62	1,460	\$ 44.33
\$49.25 - \$65.62	<u>4,683</u>	8.57	\$ 56.91	<u>1,679</u>	\$ 56.70
\$ 0.11 - \$65.62	<u>25,920</u>	8.16	\$ 40.10	<u>10,405</u>	\$ 38.23

*Stock-Based Compensation.* In accordance with APB 25, the Company applies the intrinsic value method in accounting for employee stock options. Accordingly, the Company generally recognizes no compensation expense with respect to stock-based awards to employees. The Company has determined pro forma information regarding net income and earnings per share as if the Company had accounted for employee stock options under the fair value method as required by SFAS No. 123. The fair value of these stock-based awards to employees was estimated using the Black-Scholes option pricing model, assuming no expected dividends and using the following weighted-average assumptions:

	<b>Year Ended</b>		
	<b>October 31, 2001</b>	<b>October 31, 2000</b>	<b>September 30, 1999</b>
	<b>Stock Option Plans</b>		
Expected life (in years) .....	4.4	3.9	4.3
Risk-free interest rate .....	4.8%	6.3%	5.3%
Volatility .....	62.0%	58.3%	51.5%
	<b>ESPP</b>		
Expected life (in years) .....	1.25	1.25	1.25
Risk-free interest rate .....	4.1%	6.1%	5.1%
Volatility .....	62.0%	58.3%	51.5%

For pro forma purposes, the estimated fair value of the Company's stock-based awards to employees is amortized over the options' vesting period of four years and the ESPP's six-month purchase period. The weighted-average estimated fair value of stock options issued during fiscal 2001, 2000 and 1999 was \$25.62, \$15.96 and \$22.88 per share, respectively. The weighted-average estimated fair value of share purchase rights under the ESPP during fiscal 2001, 2000 and 1999 was \$16.57, \$14.32 and \$13.76 per share, respectively. The Company's pro forma net income and earnings per share data under SFAS No. 123 is as follows:

	<b>Year Ended</b>		
	<b>October 31, 2001</b>	<b>October 31, 2000</b>	<b>September 30, 1999</b>
	<b>(In thousands, except per share amounts)</b>		
Net income (loss)			
As reported under APB 25 .....	\$ 56,802	\$ 97,778	\$ 161,362
Pro forma under SFAS No. 123 .....	\$ (80,107)	\$ (757)	\$ 90,968
Earnings (loss) per share — basic			
As reported under APB 25 .....	\$ 0.94	\$ 1.43	\$ 2.30
Pro forma under SFAS No. 123 .....	\$ (1.32)	\$ (0.01)	\$ 1.29
Earnings (loss) per share — diluted			
As reported under APB 25 .....	\$ 0.88	\$ 1.38	\$ 2.20
Pro forma under SFAS No. 123 .....	\$ (1.32)	\$ (0.01)	\$ 1.26

## **Note 7. Income Taxes**

The Company is entitled to a deduction for federal and state tax purposes with respect to employees' stock option activity. The net reduction in taxes otherwise payable arising from that deduction has been credited to additional paid-in capital.

The components of the Company's total income before provision for income taxes are as follows:

	<b>Year Ended</b>		<b>One Month Ended</b>	<b>Year Ended</b>
	<b>October 31, 2001</b>	<b>October 31, 2000</b>	<b>October 31, 1999</b>	<b>September 30, 1999</b>
	<b>(In thousands)</b>			
United States .....	\$ 93,187	\$ 150,641	\$ (22,405)	\$ 244,632
Foreign .....	(9,654)	(4,703)	(3,075)	6,779
	<u>\$ 83,533</u>	<u>\$ 145,938</u>	<u>\$ (25,480)</u>	<u>\$ 251,411</u>

The components of the provision (benefit) for income taxes are as follows:

	Year Ended		One Month	Year Ended
	October 31, 2001	October 31, 2000	Ended October 31, 1999	September 30, 1999
	(In thousands)			
Current:				
Federal .....	\$ 80,783	\$ 62,644	\$ —	\$ 54,744
State .....	7,758	8,949	—	7,821
Foreign.....	<u>6,782</u>	<u>3,388</u>	<u>—</u>	<u>2,746</u>
	95,323	74,981	—	65,311
Deferred:				
Federal .....	(66,049)	(30,025)	(9,641)	(3,909)
State .....	(13,076)	(4,266)	(1,377)	(558)
Foreign.....	<u>(5,460)</u>	<u>(3,394)</u>	<u>(1,537)</u>	<u>(644)</u>
	(84,585)	(37,685)	(12,555)	(5,111)
Charge equivalent to the federal and state tax benefit related to employee stock options.....	<u>15,993</u>	<u>10,864</u>	<u>2,618</u>	<u>29,849</u>
Provision (benefit) for income taxes.....	<u>\$ 26,731</u>	<u>\$ 48,160</u>	<u>\$ (9,937)</u>	<u>\$ 90,049</u>

The provision for income taxes differs from the amount obtained by applying the statutory federal income tax rate to income (loss) before income taxes as follows:

	Year Ended		One Month	Year Ended
	October 31, 2001	October 31, 2000	Ended October 31, 1999	September 30, 1999
	(In thousands)			
Statutory federal tax .....	\$ 29,236	\$ 51,078	\$ (8,918)	\$ 87,994
State tax, net of federal benefit .....	2,611	5,555	(709)	10,756
Tax credits.....	(9,041)	(7,248)	—	(5,703)
Tax benefit from foreign sales corporation.....	(2,780)	(3,146)	—	(6,044)
Tax exempt income.....	(3,289)	(5,508)	(618)	(6,745)
Foreign tax in excess of (less than) U.S. statutory tax.....	2,679	(1,194)	(461)	1,457
Non-deductible merger and acquisition expenses .....	5,601	5,454	386	3,182
In-process research and development expenses .....	—	829	—	6,583
Other .....	<u>1,714</u>	<u>2,340</u>	<u>383</u>	<u>(1,431)</u>
	<u>\$ 26,731</u>	<u>\$ 48,160</u>	<u>\$ (9,937)</u>	<u>\$ 90,049</u>

A net deferred tax asset of \$170.4 million and \$85.8 million is recorded at October 31, 2001 and 2000, respectively. The tax effects of temporary differences and carryforwards, which give rise to significant portions of the deferred tax assets and liabilities, are as follows:

	<u>October 31,</u>	
	<u>2001</u>	<u>2000</u>
	(In thousands)	
Net deferred tax assets:		
Deferred tax assets:		
Current:		
Net operating loss and tax credit carryovers .....	\$ 5,157	\$ 2,856
Deferred revenue.....	122,857	55,325
Reserves and other expenses not currently deductible.....	17,831	15,334
Unrealized foreign exchange losses.....	1,839	—
Other .....	<u>1,555</u>	<u>6,899</u>
	149,239	80,414
Non-current:		
Net operating loss and tax credit carryovers .....	6,496	9,683
Deferred compensation .....	5,907	3,670
Deferred revenue.....	11,883	21,302
Depreciation and amortization.....	6,698	6,081
Other .....	<u>1,258</u>	<u>—</u>
	<u>32,242</u>	<u>40,736</u>
Total deferred tax assets .....	181,481	121,150
Deferred tax liabilities:		
Current:		
Unrealized foreign exchange losses .....	<u>—</u>	<u>(1,660)</u>
	—	(1,660)
Non-current:		
Unrealized gain on securities investments.....	(9,196)	(33,298)
Net capitalized software development costs .....	(397)	(378)
Other .....	<u>(1,482)</u>	<u>—</u>
	<u>(11,075)</u>	<u>(33,676)</u>
Total deferred tax liabilities .....	<u>(11,075)</u>	<u>(35,336)</u>
Net deferred tax assets .....	<u>\$ 170,406</u>	<u>\$ 85,814</u>

At October 31, 2001, the Company believes that it is more likely than not that the results of future operations will generate sufficient taxable income to realize the deferred tax assets.

The Company's United States income tax returns for fiscal years ended September 30, 1996 and September 30, 1995 are under examination and the Internal Revenue Service has proposed certain adjustments. Management believes that adequate amounts have been provided for any adjustments that may ultimately result from these examinations.

The Company has federal tax loss carryforwards of approximately \$32.7 million at October 31, 2001. The loss carryforwards will expire in 2009 through 2019. Because of the change in ownership provisions of the Internal Revenue Code, a portion of the Company's loss carryforwards may be subject to annual limitations. The annual limitation may result in the expiration of the net operating loss before utilization. The Company also has net operating loss carryforwards from Ireland operations of approximately \$83.7 million. These loss carryforwards will expire in 2005 through 2006. Management believes that all net operating losses will be utilized and a valuation allowance is not necessary.

#### **Note 8. Segment Disclosure**

Statement of Financial Accounting Standards No. 131, *Disclosures about Segments of an Enterprise and Related Information* (SFAS 131), requires disclosures of certain information regarding operating segments, products and services, geographic areas of operation and major customers. The method for determining what information to report under SFAS 131 is based upon the "management approach," or the way that management organizes the operating segments within a company, for which separate financial information is available that is evaluated regularly by the Chief Operating Decision Maker (CODM) in deciding how to allocate resources and in assessing performance. Synopsys' CODM is the Chief Executive Officer and Chief Operating Officer.

The Company provides comprehensive design technology products and consulting services in the electronic design automation software industry. The CODM evaluates the performance of the Company based on profit or loss from operations before income taxes not including merger-related costs, in-process research and development and amortization of intangible assets. For the purpose of making operating decisions, the CODM primarily considers financial information presented on a consolidated basis accompanied by disaggregated information about revenues by geographic region. There are no differences between the accounting policies used to measure profit and loss for the Company segment and those used on a consolidated basis. Revenue is defined as revenues from external customers.

The disaggregated financial information reviewed by the CODM is as follows:

	<u>Year Ended</u>		
	<u>October 31,</u> <u>2001</u>	<u>October 31,</u> <u>2000</u>	<u>September 30,</u> <u>1999</u>
	(In thousands)		
Revenue:			
Product.....	163,924	434,077	505,847
Service.....	341,833	340,796	300,251
Ratable license.....	<u>174,593</u>	<u>8,905</u>	<u>—</u>
Total revenue.....	<u>\$ 680,350</u>	<u>\$ 783,778</u>	<u>\$ 806,098</u>
Gross margin.....	\$ 550,228	\$ 659,304	\$ 699,334
Operating income before amortization of intangible assets and in-process research and development.....	\$ 16,761	\$ 122,014	\$ 243,478

The CODM did not review disaggregated financial information for the one-month ended October 31, 1999.

Reconciliation of the Company's segment profit and loss to the Company's operating income is as follows:

	<u>Year Ended</u>		
	<u>October 31,</u> <u>2001</u>	<u>October 31,</u> <u>2000</u>	<u>September 30,</u> <u>1999</u>
	(In thousands)		
Operating income before amortization of intangible assets and in-process research and development.....	\$ 16,761	\$ 122,014	\$ 243,478
Amortization of intangible assets.....	(17,012)	(15,129)	(7,907)
Merger-related costs and in-process research and development.....	<u>—</u>	<u>(1,750)</u>	<u>(21,176)</u>
Operating income.....	<u>\$ (251)</u>	<u>\$ 105,135</u>	<u>\$ 214,395</u>

Revenue and long-lived assets related to operations in United States and other geographic areas are as follows:

	<u>Year Ended</u>		
	<u>October 31,</u> <u>2001</u>	<u>October 31,</u> <u>2000</u>	<u>September 30,</u> <u>1999</u>
	(In thousands)		
Revenue:			
United States.....	\$ 426,527	\$ 456,759	\$ 530,870
Europe.....	125,380	141,306	126,358
Japan.....	69,850	130,698	102,824
Other.....	<u>58,593</u>	<u>55,015</u>	<u>46,046</u>
Consolidated.....	<u>\$ 680,350</u>	<u>\$ 783,778</u>	<u>\$ 806,098</u>
Long-lived assets:		<u>October 31,</u> <u>2001</u>	<u>October 31,</u> <u>2000</u>
United States.....		\$ 208,769	\$ 192,699
Other.....		<u>18,612</u>	<u>16,320</u>
Consolidated.....		<u>\$ 227,381</u>	<u>\$ 209,019</u>

Geographic revenue data for multi-region, multi-product transactions reflects internal allocations and is therefore subject to certain assumptions and the Company's methodology. Revenue is not reallocated among geographic regions to reflect any re-mixing of

licenses between different regions following the initial product shipment. No one customer accounted for more than ten percent of the Company's consolidated revenue in the periods presented.

During the fourth quarter of fiscal 2000, the Company began segregating revenue into five categories for purposes of internal management reporting: IC Implementation, including both the Design Compiler (DC) Family and Physical Synthesis; Verification and Test; Intellectual Property (IP) and System Level Design; Transistor Level Design (TLD); and Professional Services. Revenues for each of the categories for the fiscal years 2001, 2000 and 1999 are as follows:

	<u>Year Ended</u>		
	<u>October 31,</u> <u>2001</u>	<u>October 31,</u> <u>2000</u>	<u>September 30,</u> <u>1999</u>
	(In thousands)		
Revenue:			
IC Implementation			
DC Family .....	\$ 220,969	\$ 272,508	\$ 311,420
Physical Synthesis .....	49,367	32,598	5,567
Verification and Test.....	196,556	232,985	210,319
IP and System Level Design .....	83,535	109,975	113,254
TLD.....	50,256	57,659	98,446
Professional Services .....	<u>79,667</u>	<u>78,053</u>	<u>67,092</u>
Consolidated.....	<u>\$ 680,350</u>	<u>\$ 783,778</u>	<u>\$ 806,098</u>

**Note 9. Proposed Acquisition of IKOS Systems, Inc.**

On July 2, 2001, Synopsys entered into an Agreement and Plan of Merger and Reorganization (the "Merger Agreement") with IKOS Systems, Inc. (IKOS). The Merger Agreement provides for the acquisition of all outstanding shares of IKOS common stock by Synopsys. The merger is expected to be completed in August 2002, however, under certain circumstances the merger may close prior to June 30, 2002. We will account for the merger under the purchase method of accounting.

Upon completion of the merger, holders of IKOS common stock will be entitled to receive Synopsys common stock with a value between \$6 and \$20 in exchange for each share of IKOS common stock owned at the time of completion of the merger. The exact amount per share will depend upon the financial performance of IKOS during the 12-month measurement period ending June 30, 2002 and will be calculated based on formulas contained in the Merger Agreement. The formulas contained in the Merger Agreement provide for proportionate increases in the purchase price per IKOS share as IKOS' revenue, revenue plus change in backlog or profit (loss) before tax (PBT) (each as defined in the Merger Agreement) increase. If the merger closes before June 30, 2002, the Merger Agreement provides for holders of IKOS common stock on the closing date to receive Synopsys common stock with a value of \$15 for each share of IKOS common stock, regardless of IKOS' financial performance up to the date of closing. Regardless of when the merger closes, the purchase price per IKOS share is subject to reduction if the number of outstanding IKOS shares and options immediately before the effective time of the merger exceeds an agreed-upon level. However, the purchase price per IKOS share will not be less than \$6.

The merger is subject to certain conditions, including IKOS achieving revenue of at least \$50 million and losses before tax not exceeding \$10 million during the twelve-month period ending June 30, 2002, expiration or termination of a Synopsys emulation non-compete agreement, IKOS stockholder approval, retention of certain employees, compliance with regulatory requirements and customary closing conditions.

The actual number of shares of Synopsys common stock to be issued in the merger and the aggregate purchase price at the effective time of the merger cannot be determined until IKOS' financial performance during the measurement period is calculated and until the average last sale price of Synopsys common stock during the applicable pre-closing pricing period is determined.

On December 7, 2001, Mentor Graphics Corporation commenced a tender offer for all shares of IKOS common stock. The offer is subject to numerous conditions, including the termination of the Merger Agreement. The purported terms and conditions of the offer are set forth in an offer to purchase filed by Mentor as part of a Schedule TO with the Securities and Exchange Commission on December 7, 2001 and in certain amendments thereto filed by Mentor with the SEC thereafter. IKOS' response to the tender offer is set forth in a Schedule 14D-9 filed by IKOS with the Securities and Exchange Commission on December 20, 2001 and in certain amendments thereto filed by IKOS with the SEC thereafter. Litigation relating to IKOS is discussed above under Item 3.

## 10. Effect of New Accounting Standards

In July 2001, the Financial Accounting Standards Board issued Statements of Financial Accounting Standards No. 141, *Business Combinations*, (SFAS 141) and No. 142, *Goodwill and Other Intangible Assets* (SFAS 142). SFAS 141 requires that the purchase method of accounting be used for all business combinations initiated after June 30, 2001 and specifies criteria intangible assets acquired in a purchase method business combination must meet to be recognized apart from goodwill. SFAS 142 requires that goodwill and intangible assets with indefinite useful lives no longer be amortized, but instead be tested for impairment at least annually in accordance with the provisions of SFAS 142.

The Company is required to adopt the provisions of SFAS 141 immediately. Under SFAS 141, goodwill and intangible assets determined to have indefinite useful lives acquired in a purchase business combination completed after June 30, 2001, but before SFAS 142 is adopted will not be amortized, but will continue to be evaluated for impairment in accordance with Statement of Financial Accounting Standards No. 121, *Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of*. Goodwill and intangible assets acquired in business combinations completed before July 1, 2001 will continue to be amortized and tested for impairment in accordance with current accounting guidance until the date of adoption of SFAS 142.

Upon adoption of SFAS 142, SFAS 141 requires that the Company evaluate its existing intangible assets and goodwill that were acquired in prior purchase business combinations, and make any necessary reclassifications in order to conform with the new criteria in SFAS 141 for recognition apart from goodwill. Upon adoption of SFAS 142, the Company will be required to reassess the useful lives and residual values of all intangible assets acquired, and make any necessary amortization period adjustments. In addition, the Company will be required to test intangible assets with indefinite useful lives and goodwill for impairment in accordance with the provisions of SFAS 142 within the six-month period following adoption. Any impairment loss will be measured as of the date of adoption and recognized immediately as the cumulative effect of a change in accounting principle. Any subsequent impairment losses will be included in operating activities.

The Company expects to adopt SFAS 142 on November 1, 2002. As of October 31, 2001, unamortized goodwill is \$35.1 million which, in accordance with the Statements, will continue to be amortized until the date of adoption of SFAS 142. Related amortization expense for fiscal 2001, 2000 and 1999 is \$17.0 million, \$15.1 million and \$7.9 million, respectively. Amortization expense for the one-month period ended October 31, 1999 was \$1.2 million. Because of the extensive effort needed to comply with adopting SFAS 141 and 142, it is not practicable to reasonably estimate the impact of adopting these Statements on the Company's financial statements at the date of this report, including whether the Company will be required to recognize any transitional impairment losses.

### Note 11. Subsequent Event

#### *Proposed Acquisition of Avant! Corporation*

On December 3, 2001, Synopsys entered into an Agreement and Plan of Merger with Avant! Corporation (Avant!) by which Avant! will merge with and into a wholly owned subsidiary of Synopsys. Synopsys will account for the merger under the purchase method of accounting.

Upon completion of the merger, holders of Avant! common stock will be entitled to receive 0.371 of a share of Synopsys common stock (including the associated preferred stock rights) in exchange for each share of Avant! common stock (the exchange ratio) owned at the time of completion of the merger. The exchange ratio will be proportionately adjusted for any stock split, stock dividend, reorganization or similar change in Avant! common stock or Synopsys common stock. Avant! stockholders will receive cash based on the market price of Synopsys common stock in lieu of any fractional shares to which they might otherwise be entitled. The merger is subject to certain conditions, including approval by the Avant! stockholders of the merger and the Agreement and Plan of Merger, approval by Synopsys stockholders of the issuance of Synopsys common stock in the merger, compliance with regulatory requirements and customary closing conditions.

The actual number of shares of Synopsys common stock to be issued in the proposed merger and the dollar value at the effective time of the merger cannot be determined until the closing date of the merger.

**Note 12. Selected Quarterly Data (Unaudited)**

	Quarter Ended			
	January 31,	April 30,	July 31,	October 31,
(In thousands, except per share data)				
2001:				
Revenue				
Product.....	\$ 39,192	\$ 33,102	\$ 44,858	\$ 46,772
Service .....	86,969	91,501	81,430	81,933
Ratable license .....	<u>30,993</u>	<u>38,921</u>	<u>49,822</u>	<u>54,857</u>
	157,154	163,524	176,110	183,562
Cost of Revenue(2)				
Product.....	4,590	4,956	6,637	4,296
Service .....	20,368	19,922	19,434	20,023
Ratable license .....	<u>7,097</u>	<u>6,078</u>	<u>6,649</u>	<u>10,072</u>
	<u>32,055</u>	<u>30,956</u>	<u>32,720</u>	<u>34,391</u>
Gross margin.....	125,099	132,568	143,390	149,171
Income before income taxes .....	13,919	18,368	21,250	29,996
Net income.....	9,465	12,490	14,450	20,397
Earnings per share				
Basic .....	\$ 0.15	\$ 0.21	\$ 0.24	\$ 0.34
Diluted .....	\$ 0.15	\$ 0.19	\$ 0.22	\$ 0.33
Market stock price range(1):				
High .....	\$ 55.37	\$ 61.87	\$ 62.75	\$ 54.35
Low .....	\$ 34.12	\$ 43.12	\$ 44.05	\$ 37.04
2000:				
Revenue(3)				
Product.....	\$ 130,549	\$ 123,033	\$ 143,348	\$ 37,147
Service .....	86,319	81,820	85,487	87,170
Ratable license .....	<u>—</u>	<u>—</u>	<u>—</u>	<u>8,905</u>
	216,868	204,853	228,835	133,222
Cost of Revenue(2)				
Product.....	10,286	10,653	10,169	3,977
Service .....	18,599	19,273	21,851	20,719
Ratable license .....	<u>—</u>	<u>—</u>	<u>—</u>	<u>8,947</u>
	<u>28,885</u>	<u>29,926</u>	<u>32,020</u>	<u>33,643</u>
Gross margin.....	187,983	174,927	196,815	99,579
Income before income taxes .....	68,140	50,541	61,862	(34,605)
Net income.....	45,103	33,574	41,371	(22,270)
Earnings per share				
Basic .....	\$ 0.64	\$ 0.49	\$ 0.61	\$ (0.34)
Diluted .....	\$ 0.61	\$ 0.47	\$ 0.59	\$ (0.34)
Market stock price range(1):				
High .....	\$ 74.69	\$ 50.81	\$ 51.94	\$ 39.50
Low .....	\$ 43.34	\$ 37.56	\$ 30.94	\$ 29.38

(1) The Company's common stock is traded on The Nasdaq Stock Market under the symbol "SNPS." The stock prices shown represent quotations among dealers without adjustments for retail markups, markdowns or commissions and may not represent actual transactions. As of October 31, 2001, there were approximately 526 shareholders of record. To date, the Company has paid no cash dividends on its capital stock, and has no current intention to do so.

(2) During the fourth quarter of fiscal 2001, the Company changed its allocation methodology for cost of sales. Total cost of sales remained unchanged. Prior quarter balances have been reclassified to reflect this change in methodology.

**Item 9. Changes in and Disagreements with Accountants on Accounting and Financial Disclosure**

Not applicable.

**PART III**

**Item 10. Directors and Executive Officers of the Registrant**

**Nominees**

Set forth below is information regarding the directors, including information furnished by them as to principal occupations, certain other directorships held by them, any arrangements pursuant to which they were selected as directors and their ages as of January 31, 2002.

<u>Name</u>	<u>Age</u>	<u>Year First Elected Director</u>
Aart J. de Geus .....	47	1986
Andy D. Bryant .....	51	1999
Chi-Foon Chan .....	52	1998
Bruce R. Chizen .....	46	2001
Deborah A. Coleman.....	49	1995
A. Richard Newton.....	50	1987; 1995
Sasson Somekh.....	55	1999
Steven C. Walske .....	49	1991

**Background of Directors**

*Dr. Aart J. de Geus* co-founded Synopsys and currently serves as Chief Executive Officer and Chairman of the Board of Directors. Since the inception of Synopsys in December 1986, he has held a variety of positions, including Senior Vice President of Engineering and Senior Vice President of Marketing. From 1986 to 1992, Dr. de Geus served as Chairman of the Board. He served as President from 1992 to 1998. Dr. de Geus has served as Chief Executive Officer since January 1994 and has held the additional title of Chairman of the Board since February 1998. He has served as a Director since 1986. From 1982 to 1986 Dr. de Geus was employed by General Electric Corporation, where he was the Manager of the Advanced Computer-Aided Engineering Group. Dr. de Geus holds an M.S.E.E. from the Swiss Federal Institute of Technology in Lausanne, Switzerland and a Ph.D. in electrical engineering from Southern Methodist University.

*Andy D. Bryant* has been a Director of Synopsys since January 1999 and currently serves as Executive Vice President and Chief Financial and Enterprise Services Officer of Intel Corporation, with responsibility for financial operations, human resources, information technology and e-business functions and activities worldwide. Mr. Bryant joined Intel in 1981 as Controller for the Commercial Memory Systems Operation and in 1983 became Systems Group Controller. In 1987 he was promoted to Director of Finance for the corporation and was appointed Vice President and Director of Finance of the Intel Products Group in 1990. Mr. Bryant became CFO in February of 1994 and was promoted to Senior Vice President in January 1999. Mr. Bryant expanded his role to Chief Financial and Enterprise Services Officer in December 1999. He was promoted to Executive Vice President in January 2001. Prior to joining Intel, he held positions in finance at Ford Motor Company and Chrysler Corporation. Mr. Bryant holds a B.A. in economics from the University of Missouri and an M.B.A. in finance from the University of Kansas. Mr. Bryant is a director of Convera Corporation, a provider of content management solutions.

*Dr. Chi-Foon Chan* joined Synopsys as Vice President of Application Engineering & Services in May 1990. Since April 1997 he has served as Chief Operating Officer and since February 1998 he has held the additional title of President. Dr. Chan also became a Director of Synopsys in February 1998. From September 1996 to February 1998 he served as Executive Vice President, Office of the President. From February 1994 until April 1997 he served as Senior Vice President, Design Tools Group and from October 1996 until April 1997 as Acting Senior Vice President, Design Re-Use Group. Additionally, he has held the titles of Vice President, Engineering and General Manager, DesignWare Operations and Senior Vice President, Worldwide Field Organization. From March 1987 to May 1990, Dr. Chan was employed by NEC Electronics, where his last position was General Manager, Microprocessor Division. From 1977 to 1987, Dr. Chan held a number of senior engineering positions at Intel Corporation. Dr. Chan holds an M.S. and Ph.D. in computer engineering from Case Western Reserve University.

*Bruce R. Chizen* has been a Director of Synopsys since April 2001. Mr. Chizen has served as President of Adobe Systems Incorporated, a provider of graphic design, publishing, and imaging software for Web and print production, since April 2000 and as Chief Executive Officer since December 2000. He joined Adobe Systems in August 1994 as Vice President and General Manager, Consumer Products Division and in December 1997 became Senior Vice President and General Manager, Graphics Products Division. In August 1998 Mr. Chizen was promoted to Executive Vice President, Products and Marketing. From November 1992 to February 1994 he was Vice President and General Manager, Claris Clear Choice for Claris Corp., a wholly-owned subsidiary of Apple Computer. He is a Director of Adobe Systems Incorporated and Viewpoint Corporation, a provider of advanced 3D product visualization and marketing solutions.

*Deborah A. Coleman* has been a Director of Synopsys since November 1995. Ms. Coleman is co-founder and currently General Partner of SmartForest Ventures in Portland, Oregon. Ms. Coleman was Chairman of the Board of Merix Corporation, a manufacturer of printed circuit boards, from May 1994, when it was spun off from Tektronix, Inc., until September 2001. She also served as Chief Executive Officer of Merix from May 1994 to September 1999 and as President from March 1997 to September 1999. Ms. Coleman joined Merix from Tektronix, a diversified electronics corporation, where she served as Vice President of Materials Operations, responsible for worldwide procurement, distribution, component engineering and component manufacturing operation. Prior to joining Tektronix in November 1992, Ms. Coleman was with Apple Computer, Inc. for eleven years, where she held several executive positions, including Chief Financial Officer, Chief Information Officer and Vice President of Operations. She is a Director of Applied Materials, Inc., a manufacturer of semiconductor fabrication equipment.

*Dr. A. Richard Newton* has been a Director of Synopsys since January 1995. Previously, Dr. Newton was a Director of Synopsys from January 1987 to June 1991. Dr. Newton has been a Professor of Electrical Engineering and Computer Sciences at the University of California at Berkeley since 1979 and is currently Dean of the College of Engineering. From July 1999 to June 2000, Dr. Newton was Chair of the Electrical Engineering and Computer Sciences Department. Since 1988 Dr. Newton has acted as a Venture Partner with Mayfield Fund, a venture capital partnership, and has contributed to the evaluation and development of over two dozen new companies. From November 1994 to July 1995 he was acting President and Chief Executive Officer of Silicon Light Machines, a private company which has developed display systems based on the application of micromachined silicon light-valves. Dr. Newton is also a Director of Simplex Solutions, Inc., which provides software and services for integrated circuit design and verification.

*Dr. Sasson Somekh* has been a Director of Synopsys since January 1999. He is Executive Vice President of Applied Materials, Inc., a manufacturer of semiconductor fabrication equipment. From December 1993 to November 2000, Dr. Somekh served as Senior Vice President. Dr. Somekh served as Group Vice President from 1990 to 1993. Prior to that, he was a divisional Vice President. Dr. Somekh joined Applied Materials in 1980 as a Project Manager.

*Steven C. Walske* has been a Director of Synopsys since December 1991. Mr. Walske has been Chief Business Strategist of Parametric Technology Corporation, a supplier of software products for mechanical computer aided engineering, since June 2000 and served as Chairman, Chief Executive Officer and a Director from August 1994 until June 2000. From December 1986 to August 1994 Mr. Walske served as President and Chief Executive Officer of that company.

There are no family relationships among any executive officers, directors or persons chosen or nominated to become executive officers or directors of Synopsys.

### **Directors' Compensation**

During fiscal 2001, each non-employee board of directors member was paid an annual retainer of \$8,000 and \$1,000, respectively, for each board of directors or board of directors committee meeting attended, plus expenses.

In addition, non-employee board of directors members receive automatic option grants under the 1994 Non-Employee Directors Stock Option Plan, which in this document we refer to as the "Directors Plan." As of the date of this joint proxy statement/prospectus, all six non-employee Synopsys board of directors members were eligible to participate in the Directors Plan.

During fiscal 2001, directors Andy D. Bryant, Bruce R. Chizen, Deborah A. Coleman, A. Richard Newton, Sasson Somekh and Steven C. Walske each received automatic grants of options to purchase 10,000 Synopsys common shares at an exercise price of \$50.69 per share for Synopsys board of directors service during the year. In addition, during fiscal 2001, Mr. Chizen received options to purchase 9,166 Synopsys common shares, at an exercise price of \$61.37, and Ms. Coleman and Messrs. Bryant, Newton, Somekh and Walske each received options to purchase 10,000 Synopsys common shares for service on Synopsys board of directors

committees at an exercise price of \$50.69. Mr. Chizen also received an automatic grant of options to purchase 20,000 Synopsys common shares at an exercise price of \$50.69 per share for his initial Synopsys board of directors service.

During fiscal 2001, Dr. Newton provided consulting services to Synopsys, for which he was paid \$150,000. Under Synopsys' agreement with Dr. Newton, at Synopsys' request, Dr. Newton provides advice concerning long-term technology strategy and industry development issues, as well as providing assistance in identifying opportunities for partnerships with academia.

### **Background of Executive Officers**

Information regarding executive officers of the Company is included in Part I of this Annual Report.

### **Section 16(a) Beneficial Ownership Reporting Compliance**

Section 16(a) of the Exchange Act requires Synopsys' directors, officers and greater than ten percent beneficial owners of its shares to file reports of ownership and changes in ownership with the SEC. Directors, officers and greater than ten percent stockholders are required by SEC regulations to furnish Synopsys with copies of all Section 16(a) forms they file.

Based solely upon its review of the copies of the Forms 3, 4 and 5 received by Synopsys and/or written representations from certain reporting persons, Synopsys believes that each of its directors, officers, and greater than ten percent beneficial owners of its shares during the fiscal year ended November 3, 2001 has complied with all filing requirements applicable to such persons during such fiscal year, except that an amended Form 4 was filed on behalf of Vicki Andrews to reflect the sale of additional shares sold as part of a previously reported transaction, which additional sale was not timely reported.

## Item 11. Executive Compensation

### Executive Compensation and Other Matters

The following table sets forth the compensation earned by (1) Synopsys' Chief Executive Officer and (2) each of the other four most highly compensated executive officers whose compensation for fiscal 2001 exceeded \$100,000, which in this document we collectively refer to as the "named executive officers," for services rendered in all capacities to Synopsys during the last three fiscal years.

**Summary Compensation Table**

<u>Name and Position</u>	<u>Year(1)</u>	<u>Annual Compensation(\$)</u>		<u>Long-term Compensation:</u>	<u>All Other Compensation (\$)(2)</u>
		<u>Salary</u>	<u>Bonus</u>	<u>Securities Awards Underlying Options(#)</u>	
Aart J. de Geus.....	2001	400,000	575,000	85,500	1,830
Chief Executive Officer and	2000	430,769	600,000	731,000	1,855
Chairman of the Board	1999	375,000	681,690	254,700	1,953
Chi-Foon Chan.....	2001	400,000	575,000	71,000	2,588
President and Chief Operating Officer	2000	430,769	600,000	623,000	2,493
	1999	375,000	681,690	199,200	1,653
Vicki L. Andrews.....	2001	289,423	611,396(3)	60,500	9,544
Senior Vice President World Wide Sales	2000	287,500	568,256(4)	179,000	9,826
Robert B. Henske.....	2001	364,423	350,000	60,500	1,825
Senior Vice President and	2000(5)	175,000	232,000	340,000	160
Chief Financial Officer					
Steven K. Shevick.....	2001	241,538	175,000	17,500	1,871
Vice President, Investor	2000	236,154	160,984	100,000	1,833
Relations and Legal, General Counsel					

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- (1) During fiscal 1999, Synopsys had a fiscal year that ended on the last Saturday of September. In July 1999, Synopsys changed its fiscal year end to the last Saturday in October. As a result, salary data for fiscal 2000 includes the 13-month period ended October 28, 1999.
- (2) Amounts in this column reflect premiums paid for group term life insurance, Synopsys 401(k) contributions and, in the case of Ms. Andrews only, car allowances.
- (3) Ms. Andrews' 2001 bonus consists of commissions of \$150,000, a variable bonus of \$296,260, a relocation bonus of \$160,000 and a special bonus of \$5,136.
- (4) Ms. Andrews' 2000 bonus consists of commissions of \$318,096 and a variable bonus of \$250,160.
- (5) Mr. Henske commenced employment with Synopsys on May 10, 2000.

## Stock Option Grants

The following table sets forth further information regarding individual grants of options for Synopsys common shares during fiscal 2001 for each of the named executive officers. All grants for each of the named executive officers were made pursuant to the 1992 stock option plan. In accordance with the rules of the SEC, the table sets forth the hypothetical gains or “option spreads” that would exist for the options at the end of their respective ten-year terms based on assumed annualized rates of compound stock price appreciation of 5% and 10% from the dates the options were granted to the end of their respective option terms. Actual gains, if any, on option exercises are dependent on the future performance of the Synopsys common shares and overall market conditions. There can be no assurance that the potential realizable values shown in this table will be achieved. No stock appreciation rights were granted to such officers during fiscal 2001.

### Option Grants in Last Fiscal Year

Name	Number of Securities Underlying Options Granted(1)	Percent of Total Options Granted to Employees Fiscal 2001(2)	Exercise or Base Price (\$/Share)	Expiration Date	Potential Realizable Value at Assumed Annual Rates of Stock Price Appreciation for Option Term(\$)	
					5%	10%
					Aart J. de Geus.....	85,500
Chi-Foon Chan.....	71,000	1.22	\$47.44 - \$61.37	2/28/11 - 8/28/11	\$ 2,432,192	\$ 6,163,652
Vicki L. Andrews.....	60,500	1.04	\$47.44 - \$61.37	2/28/11 - 8/28/11	\$ 2,084,176	\$ 5,281,710
Robert B. Henske.....	60,500	1.04	\$47.44 - \$61.37	2/28/11 - 8/28/11	\$ 2,084,176	\$ 5,281,710
Steven K. Shevick.....	17,500	0.30	\$47.44 - \$61.37	2/28/11 - 8/28/11	\$ 600,604	\$ 1,522,048

(1) Sum of all option grants made during the fiscal year to such person. Options become exercisable ratably in a series of monthly installments over a four-year period from the grant date, assuming continued service to Synopsys, subject to acceleration under certain circumstances involving a change in control of Synopsys. Each option has a maximum term of 10 years, subject to earlier termination upon the optionee’s cessation of service.

(2) Based on aggregate options to acquire 5,809,892 Synopsys common shares granted in fiscal 2001.

### ***Option Exercises and Year-End Values***

The following table sets forth, for each of the named executive officers, each exercise of stock options during fiscal 2001 and the year-end value of unexercised options.

No stock appreciation rights were exercised during such fiscal year by the named executive officers, and no stock appreciation rights were outstanding at the end of the fiscal year.

#### **Aggregated Option Exercises in Last Fiscal Year and Fiscal Year-End Option Values**

<u>Name</u>	<u>Shares</u> <u>Acquired</u> <u>on</u> <u>Exercise</u>	<u>Value</u> <u>Realized</u> <u>(1)</u>	<u>Number of Unexercised</u> <u>Options at FY-End</u>		<u>Value of In-the-Money</u> <u>Options at FY-End\$(2)</u>	
			<u>Exercisable</u>	<u>Unexercisable</u>	<u>Exercisable</u>	<u>Unexercisable</u>
Aart J. de Geus.....	—	—	967,503	654,697	\$ 9,868,495	\$ 5,464,579
Chi-Foon Chan.....	—	—	549,005	547,195	\$ 4,430,172	\$ 4,427,467
Vicki L. Andrews.....	11,000	\$ 305,335	69,049	174,617	\$ 689,694	\$ 1,509,669
Robert B. Henske.....	—	—	124,374	276,126	\$ 1,314,625	\$ 2,563,045
Steven K. Shevick.....	—	—	74,665	87,335	\$ 730,765	\$ 738,265

(1) Market value at exercise less exercise price.

(2) Market value of underlying securities on November 2, 2001 (\$47.86) minus the exercise price.

### ***Employment Contracts, Termination of Employment Arrangements and Change of Control Agreements***

Under Synopsys' 1992 stock option plan, in the event of certain changes in the ownership or control of Synopsys involving a "Corporate Transaction," which includes an acquisition of Synopsys by merger or asset sale, all outstanding options under the 1992 stock option plan will automatically become exercisable, unless the option is assumed by the successor corporation, or parent thereof, or replaced by a comparable option to purchase shares of the capital stock of the successor corporation, or parent thereof.

In addition, in the event of a successful hostile tender offer for more than 50% of the outstanding Synopsys common shares or a change in the majority of the Synopsys board of directors as a result of one or more contested elections for membership on the Synopsys board of directors, the administrator of the 1992 stock option plan has the authority to provide for the acceleration of vesting of the Synopsys common shares subject to outstanding options under the 1992 stock option plan.

Synopsys has entered into Employment Agreements, effective October 1, 1997, with its Chief Executive Officer and its President and an Employment Agreement with its Chief Financial Officer, effective May 10, 2000. Each Employment Agreement provides that if the executive is terminated involuntarily other than for cause within 24 months of a change of control, (a) the executive will be paid an amount equal to two times the sum of the executive's annual base pay plus target cash incentive, plus the cash value of the executive's health benefits for the next 18 months and (b) all stock options held by the executive will immediately vest in full. If the executive is terminated involuntarily other than for cause in any other situation, the executive will receive a cash payment equal to the sum of the executive's annual base pay for one year plus the target cash incentive for such year, plus the cash value of the executive's health benefits for 12 months. The terms "involuntary termination," "cause" and "change of control" are defined in each Employment Agreement, each of which is filed with the SEC.

**Item 12. Security Ownership of Certain Beneficial Owners and Management**

The following table sets forth certain information with respect to the beneficial ownership of Synopsys common shares as of January 21, 2002 by (1) each person known by Synopsys to own beneficially more than five percent of the outstanding Synopsys common shares on that date, (2) each Synopsys director, (3) each of the named executive officers and (4) all Synopsys directors and current executive officers as a group.

<u>Name of Beneficial Owner(1)</u>	<u>Shares of Common Stock Beneficially Owned</u>	
	<u>Number</u>	<u>Percentage Ownership</u>
FMR Corp..... 82 Devonshire Street Boston, MA 02109	6,503,587(2)	10.73%
J. & W. Seligman & Co. Incorporated..... 100 Park Avenue, 8th Floor New York, NY 10017	6,148,610(2)	10.14%
Blum Capital Partners, L.P.(3)..... 909 Montgomery Street, Suite 400 San Francisco, CA 94133-4625	4,020,900(2)	6.63%
Vicki L. Andrews.....	94,361(4)	*
Andy D. Bryant.....	73,749(5)	*
Chi-Foon Chan.....	672,697(6)	1.11%
Bruce R. Chizen.....	39,166(7)	*
Deborah A. Coleman.....	40,000(8)	*
Aart J. de Geus.....	1,388,725(9)	2.29%
Robert B. Henske.....	175,577(10)	*
A. Richard Newton.....	80,994(11)	*
Steven K. Shevick.....	85,701(12)	*
Sasson Somekh.....	93,333(13)	*
Steven C. Walske.....	96,016(14)	*
All directors and current executive officers as a group (11 persons).....	2,840,319(15)	4.69%

\* Less than 1%

- (1) The persons named in the table above have sole voting and investment power with respect to all Synopsys common shares shown as beneficially owned by them, subject to community property laws where applicable and the information contained in the footnotes of this table.
- (2) Based upon filings made with the SEC.
- (3) According to Amendment No. 1 to Schedule 13D filed by Blum Capital, L.P. on September 24, 2001, voting and investment power concerning these shares is held solely by Blum Capital Partners L.P., a California limited partnership, RCBA GB, L.L.C., a Delaware limited liability company, and Blum Strategic GP II, L.L.C., a Delaware limited liability company.
- (4) Includes options to purchase 94,135 Synopsys common shares exercisable by Ms. Andrews within 60 days of January 21, 2002.
- (5) Consists of options to purchase 73,749 Synopsys common shares exercisable by Mr. Bryant within 60 days of January 21, 2002.
- (6) Includes options to purchase 640,915 Synopsys common shares exercisable by Dr. Chan within 60 days of January 21, 2002.
- (7) Consists of options to purchase 39,166 Synopsys common shares exercisable by Mr. Chizen within 60 days January 21, 2002.
- (8) Consists of options to purchase 40,000 Synopsys common shares exercisable by Ms. Coleman within 60 days of January 21, 2002.
- (9) Includes options to purchase 1,077,143 Synopsys common shares exercisable by Dr. de Geus within 60 days of January 21, 2002.
- (10) Includes options to purchase 165,125 Synopsys common shares exercisable by Mr. Henske within 60 days of January 21, 2002.
- (11) Includes options to purchase 75,916 Synopsys common shares exercisable by Dr. Newton within 60 days of January 21, 2002.

- (12) Includes options to purchase 83,842 Synopsys common shares exercisable by Mr. Shevick within 60 days of January 21, 2002.
- (13) Includes options to purchase 80,833 Synopsys common shares exercisable by Dr. Somekh within 60 days of January 21, 2002.
- (14) Includes options to purchase 95,916 Synopsys common shares exercisable by Mr. Walske within 60 days of January 21, 2002.
- (15) Includes options to purchase 2,466,740 Synopsys common shares exercisable by directors and current executive officers within 60 days of January 21, 2002.

**Item 13. *Certain Relationships and Related Transactions***

See Item 10, “Directors and Executive Officers of the Registrant — Directors’ Compensation.”

**PART IV**

**Item 14. *Exhibits, Financial Statements, Schedules and Reports on Form 8-K***

(a) The following documents are filed as part of this Annual Report on Form 10-K:

(1) *Financial Statements*

The following documents are included as Part II, Item 8, of this Annual Report on Form 10-K:

	<u>Page</u>
Report of Independent Auditors.....	37
Consolidated Balance Sheets .....	38
Consolidated Statements of Operations .....	39
Consolidated Statements of Stockholders’ Equity and Comprehensive Income.....	40
Consolidated Statements of Cash Flows .....	41
Notes to Consolidated Financial Statements.....	42

(2) *Financial Statement Schedule*

The following schedule of the Company is included herein:

Valuation and Qualifying Accounts and Reserves (Schedule II)

All other schedules are omitted because they are not applicable or the amounts are immaterial or the required information is presented in the consolidated financial statements or notes thereto.

The following documents are included in Exhibit 23 hereto:

Exhibit 23.1 Report on Financial Statement Schedule

Exhibit 23.2 Consent of KPMG LLP, Independent Auditors

(3) *Exhibits*

See Item 14(c) below.

(b) *Reports on Form 8-K*

None.

(c) Exhibits

<u>Exhibit Number</u>	<u>Exhibit Description</u>
2.1	Agreement and Plan of Merger dated October 14, 1997, by the Company, Post Acquisition Corp. and Viewlogic Systems, Inc.(1)
2.2	Agreement and Plan of Merger, dated as of December 3, 2001, among Synopsys, Inc., Maple Forest Acquisition L.L.C., and Avant! Corporation.(2)
3.1	Fourth Amended and Restated Certificate of Incorporation(3)
3.2	Certificate of Designation of Series A Participating Preferred Stock(4)
3.3	Restated Bylaws of Synopsys, Inc.(3)
4.1	Amended and Restated Preferred Shares Rights Agreement dated November 24, 1999(4)
4.3	Specimen Common Stock Certificate(5)
10.1	Form of Indemnification Agreement(5)
10.2	Director's and Officer's Insurance and Company Reimbursement Policy(5)
10.6	Lease Agreement, dated August 17, 1990, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(5)
10.7	Lease Agreement, dated March 29, 1991, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(5)
10.15	Lease Agreement, dated June 16, 1992, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(6)
10.16	Lease Agreement, dated June 23, 1993, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(7)
10.21	Lease Agreement, August 24, 1995, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(8)
10.25	Amendment No. 5 to Lease, dated October 4, 1995, to Lease Agreement dated August 17, 1990, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1997 (Arrillaga Family Trust), and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1997 (Richard T. Peery Separate Property Trust), as amended(9)
10.26	Amendment No. 3 to Lease, dated October 4, 1995, to Lease Agreement dated June 16, 1992, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1997 (Arrillaga Family Trust), and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1997 (Richard T. Peery Separate Property Trust), as amended(10)
10.27	Amendment No. 2 to Lease, dated October 4, 1995, to Lease Agreement dated June 23, 1993, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1997 (Arrillaga Family Trust), and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1997 (Richard T. Peery Separate Property Trust), as amended(9)
10.28	Lease dated January 2, 1996 between the Company and Tarigo-Paul, a California Limited Partnership(10)
10.29	1992 Stock Option Plan, as amended and restated(12)
10.30	Employee Stock Purchase Program, as amended and restated(12)(13)
10.31	International Employee Stock Purchase Plan, as amended and restated(12)(13)
10.32	Synopsys deferred compensation plan dated September 30, 1996(12)(14)

<u>Exhibit Number</u>	<u>Exhibit Description</u>
10.33	1994 Non-Employee Directors Stock Option Plan, as amended and restated(12)(15)
10.34	Form of Executive Employment Agreement dated October 1, 1997(12)(16)
10.35	Schedule of Executive Employment Agreements(11)(12)
10.36	1998 Nonstatutory Stock Option Plan(12)(17)
21.1	Subsidiaries of the Company
23.1	Report on Financial Statement Schedule
23.2	Consent of KPMG LLP, Independent Auditors
24.1	Power of Attorney (see page 71)

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- (1) Incorporated by reference to Annex A to the form of prospectus contained in the Registration Statement on Form S-4 (File No. 333-39713) of Synopsys, Inc. as filed with the Securities and Exchange Commission on November 7, 1997
  - (2) Incorporated by reference from exhibit to Current Report on Form 8-K as filed with the Securities and Exchange Commission on December 5, 2001.
  - (3) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended April 3, 1999
  - (4) Incorporated by reference from exhibit to Amendment No. 1 to the Company's Registration Statement on Form 8-A as filed with the Securities and Exchange Commission on December 13, 1999
  - (5) Incorporated by reference from exhibit of the same number filed with the Company's Registration Statement on Form S-1 (File No. 33-45138) which became effective February 24, 1992
  - (6) Incorporated by reference from exhibit of the same number filed with the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1992
  - (7) Incorporated by reference from exhibit of the same number filed with the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1993
  - (8) Incorporated by reference from exhibit of the same number filed with the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1995
  - (9) Incorporated by reference from exhibit of the same number filed with the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 1995
  - (10) Incorporated by reference from exhibit of the same number filed with the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 1996
  - (11) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended April 30, 2000, as filed with the Securities and Exchange Commission on June 13, 2000
  - (12) Compensatory plan or agreement in which an executive officer or director participates
  - (13) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended April 30, 2001.
  - (14) Incorporated by reference from exhibit to the Registration Statement on Form S-4 (File No. 333-21129) of Synopsys, Inc. as filed with the Securities and Exchange Commission on February 5, 1997
  - (15) Incorporated by reference from exhibit to the Company's Registration Statement on Form S-8 (file No. 333-77597), as filed with the Securities and Exchange Commission on May 3, 1999
  - (16) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended January 3, 1998
  - (17) Incorporated by reference to exhibit to the Company's Registration Statement on Form S-8 (File No. 333-90643) as filed with the Securities and Exchange Commission on November 9, 1999



<u>Signature</u>	<u>Title</u>	<u>Date</u>
/s/ <u>BRUCE R. CHIZEN</u> Bruce R. Chizen	Director	February 28, 2002
/s/ <u>DEBORAH A. COLEMAN</u> Deborah A. Coleman	Director	February 28, 2002
/s/ <u>A. RICHARD NEWTON</u> A. Richard Newton	Director	February 28, 2002
/s/ <u>SASSON SOMEKH</u> Sasson Somekh	Director	February 28, 2002
/s/ <u>STEVEN C. WALSKE</u> Steven C. Walske	Director	February 28, 2002

**SCHEDULE II**

**SYNOPSYS, INC.**

**VALUATION AND QUALIFYING ACCOUNTS AND RESERVES**

	<u>Balance at Beginning of Period</u>	<u>Additions Charged to Expense</u>	<u>Charged to Other Accounts</u>	<u>Deductions(1)</u>	<u>Balance at End of Period</u>
(In thousands)					
Allowance for Doubtful Accounts and Sales Returns					
Fiscal 2001 .....	\$ 9,539	\$ 5,759	\$ —	\$ 4,271	\$ 11,027
Fiscal 2000 .....	10,563	3,528	(12)	4,540	9,539
1 month ended October 31, 1999 .....	10,523	—	40	—	10,563
Fiscal 1999 .....	13,210	2,007	911	5,605	10,523

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(1) Accounts written off, net of recoveries.

## EXHIBIT INDEX

<u>Exhibit Number</u>	<u>Exhibit Description</u>
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3.1	Fourth Amended and Restated Certificate of Incorporation(3)
3.2	Certificate of Designation of Series A Participating Preferred Stock(4)
3.3	Restated Bylaws of Synopsys, Inc.(3)
4.1	Amended and Restated Preferred Shares Rights Agreement dated November 24, 1999(4)
4.3	Specimen Common Stock Certificate(5)
10.1	Form of Indemnification Agreement(5)
10.2	Director's and Officer's Insurance and Company Reimbursement Policy(5)
10.6	Lease Agreement, dated August 17, 1990, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(5)
10.7	Lease Agreement, dated March 29, 1991, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(5)
10.15	Lease Agreement, dated June 16, 1992, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(6)
10.16	Lease Agreement, dated June 23, 1993, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(7)
10.21	Lease Agreement, August 24, 1995, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1977 (John Arrillaga Separate Property Trust), as amended, and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1977 (Richard T. Peery Separate Property Trust), as amended(8)
10.25	Amendment No. 5 to Lease, dated October 4, 1995, to Lease Agreement dated August 17, 1990, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1997 (Arrillaga Family Trust), and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1997 (Richard T. Peery Separate Property Trust), as amended(9)
10.26	Amendment No. 3 to Lease, dated October 4, 1995, to Lease Agreement dated June 16, 1992, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1997 (Arrillaga Family Trust), and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1997 (Richard T. Peery Separate Property Trust), as amended(9)
10.27	Amendment No. 2 to Lease, dated October 4, 1995, to Lease Agreement dated June 23, 1993, between the Company and John Arrillaga, Trustee, or his successor trustee, UTA dated July 20, 1997 (Arrillaga Family Trust), and Richard T. Peery, Trustee, or his successor trustee, UTA dated July 20, 1997 (Richard T. Peery Separate Property Trust), as amended (9)
10.28	Lease dated January 2, 1996 between the Company and Tarigo-Paul, a California Limited Partnership(10)
10.29	1992 Stock Option Plan, as amended and restated(12)
10.30	Employee Stock Purchase Program, as amended and restated(12)(13)
10.31	International Employee Stock Purchase Plan, as amended and restated(12)(13)
10.32	Synopsys deferred compensation plan dated September 30, 1996(12)(14)

<u>Exhibit Number</u>	<u>Exhibit Description</u>
10.33	1994 Non-Employee Directors Stock Option Plan, as amended and restated(12)(15)
10.34	Form of Executive Employment Agreement dated October 1, 1997(12)(16)
10.35	Schedule of Executive Employment Agreements(11)(12)
10.36	1998 Nonstatutory Stock Option Plan(12)(17)
21.1	Subsidiaries of the Company
23.1	Report on Financial Statement Schedule
23.2	Consent of KPMG LLP, Independent Auditors
24.1	Power of Attorney (see page 71)

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- (1) Incorporated by reference to Annex A to the form of prospectus contained in the Registration Statement on Form S-4 (File No. 333-39713) of Synopsys, Inc. as filed with the Securities and Exchange Commission on November 7, 1997
  - (2) Incorporated by reference from exhibit to Current Report on Form 8-K as filed with the Securities and Exchange Commission on December 5, 2001.
  - (3) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended April 3, 1999
  - (4) Incorporated by reference from exhibit to Amendment No. 1 to the Company's Registration Statement on Form 8-A as filed with the Securities and Exchange Commission on December 13, 1999
  - (5) Incorporated by reference from exhibit of the same number filed with the Company's Registration Statement on Form S-1 (File No. 33-45138) which became effective February 24, 1992
  - (6) Incorporated by reference from exhibit of the same number filed with the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1992
  - (7) Incorporated by reference from exhibit of the same number filed with the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1993
  - (8) Incorporated by reference from exhibit of the same number filed with the Company's Annual Report on Form 10-K for the fiscal year ended September 30, 1995
  - (9) Incorporated by reference from exhibit of the same number filed with the Company's Quarterly Report on Form 10-Q for the quarterly period ended December 31, 1995
  - (10) Incorporated by reference from exhibit of the same number filed with the Company's Quarterly Report on Form 10-Q for the quarterly period ended March 31, 1996
  - (11) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended April 30, 2000, as filed with the Securities and Exchange Commission on June 13, 2000
  - (12) Compensatory plan or agreement in which an executive officer or director participates
  - (13) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q/A for the quarterly period ended April 30, 2001.
  - (14) Incorporated by reference from exhibit to the Registration Statement on Form S-4 (File No. 333-21129) of Synopsys, Inc. as filed with the Securities and Exchange Commission on February 5, 1997
  - (15) Incorporated by reference from exhibit to the Company's Registration Statement on Form S-8 (file No. 333-77597), as filed with the Securities and Exchange Commission on May 3, 1999
  - (16) Incorporated by reference from exhibit to the Company's Quarterly Report on Form 10-Q for the quarterly period ended January 3, 1998
  - (17) Incorporated by reference to exhibit to the Company's Registration Statement on Form S-8 (File No. 333-90643) as filed with the Securities and Exchange Commission on November 9, 1999