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

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**Form 10-K**

(Mark One)

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

For the fiscal year ended December 31, 2001

or

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

For the transition period from \_\_\_\_\_ to \_\_\_\_\_

Commission file number 0-17869

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**COGNEX CORPORATION**

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

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

**04-2713778**  
*(I.R.S. Employer  
Identification No.)*

**One Vision Drive  
Natick, Massachusetts 01760-2059  
(508) 650-3000**

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*(Address, including zip code, and telephone number,  
including area code, of principal executive offices)*

**Securities registered pursuant to Section 12(b) of the Act:**  
**None**

**Securities registered pursuant to Section 12(g) of the Act:**  
**Common Stock**

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 the 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. ☐

Aggregate market value of voting stock held by non-affiliates as of February 24, 2002: \$949,350,000

\$.002 par value common stock outstanding as of February 24, 2002: 43,951,411 shares

Documents incorporated by reference:

The registrant intends to file a Definitive Proxy Statement pursuant to Regulation 14A within 120 days of the end of the fiscal year ended December 31, 2001. Portions of such Proxy Statement are incorporated by reference in Part III of this report.

A list of Exhibits to this Annual Report on Form 10-K is located on page 53.

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**COGNEX CORPORATION ANNUAL REPORT ON  
FORM 10-K FOR THE YEAR ENDED DECEMBER 31, 2001**

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## **PART I**

The Company's results are subject to certain risks and uncertainties. This Annual Report on Form 10-K contains certain forward-looking statements within the meaning of the Federal Securities Laws. The Company's future results may differ materially from current results and actual results may differ materially from those projected in the forward-looking statements as a result of risks and uncertainties. Readers should pay particular attention to considerations described in the section captioned "Risk Factors," appearing in Item I of this Annual Report on Form 10-K.

### **Item 1. *Business***

#### **Corporate Profile**

Cognex® Corporation ("Cognex" or the "Company," each of which term includes, unless the context indicates otherwise, Cognex Corporation and its subsidiaries) was incorporated in Massachusetts in 1981. Its corporate headquarters are located at One Vision Drive, Natick, Massachusetts 01760 and its telephone number is (508) 650-3000.

The Company designs, develops, manufactures, and markets machine vision systems that are used to automate a wide range of manufacturing processes. These systems consist of sophisticated image analysis software and high-speed, special-purpose computers (vision engines) which, when connected to a video camera, interpret video images and generate information about them.

Machine vision systems are used in a variety of industries including the semiconductor, electronics, automotive, packaging, consumer products, pharmaceutical, paper, metals, and plastics industries. Machine vision is important for applications in which human vision is inadequate to meet requirements for repeatability, feature size, accuracy, or speed or in instances where substantial cost savings are obtained through the reduction of direct labor or improved product quality. Today, many types of manufacturing equipment require machine vision because of the increasing demands for speed and accuracy in manufacturing processes, as well as the decreasing feature size of items being manufactured.

The Company has two operating divisions: the Modular Vision Systems Division (MVSD), based in Natick, Massachusetts, and the Surface Inspection Systems Division (SISD), based in Alameda, California. MVSD designs, develops, manufactures, and markets modular vision systems that are used to control the manufacturing of discrete items, such as semiconductor chips, cellular phones, and medical instruments, by locating, identifying, inspecting, and measuring them during the manufacturing process. SISD designs, develops, manufactures, and markets surface inspection vision systems that are used to inspect surfaces of materials processed in a continuous fashion, such as paper, metals, plastics, and non-wovens, to ensure there are no flaws or defects on the surfaces. Historically, MVSD has been the source of the majority of the Company's revenue, representing 83% of total revenue in 2001.

#### **What is Machine Vision?**

In a typical machine vision application, a video camera positioned on the production line captures an image of the part to be inspected. The machine vision computer then uses sophisticated image analysis

software to extract information from the image and provide an answer to a question. Cognex machine vision systems can answer four types of questions:

<u>Question</u>	<u>Description</u>	<u>Example</u>
<u><b>GUIDANCE</b></u>		
Where is it?	Determining the exact physical location and orientation of an object.	Determining the position of a printed circuit board so that a robot can automatically be guided to insert electronic components.
<u><b>IDENTIFICATION</b></u>		
What is it?	Identifying an object by analyzing its shape or by reading a serial number.	Identifying the serial number on an automotive airbag so that it can be tracked and processed correctly through manufacturing.
<u><b>INSPECTION</b></u>		
How good is it?	Inspecting an object for flaws or defects.	Inspecting the paper that US currency is printed on.
<u><b>GAUGING</b></u>		
What size is it?	Determining the dimensions of an object.	Determining the diameter of a bearing prior to final assembly.

Once the machine vision system has processed the image and performed any necessary analysis, the result is then communicated to other equipment on the factory floor, such as an industrial controller, a robotic arm, a deflector that removes the part from the line, a positioning table that moves the part, or alternatively, to a computer file for analysis or subsequent process control. Machine vision systems can perform tasks quickly enough to keep pace with machines that process thousands of items per minute or, in the case of surface inspection, thousands of square feet of material per minute.

### **The Machine Vision Market**

The machine vision market consists of two customer types: Original Equipment Manufacturers (OEMs) and end users. OEMs are companies that build standard products sold as capital equipment to end users. These customers, most of whom are in the semiconductor and electronics industries, have the technical expertise to build Cognex's programmable, board-level machine vision systems directly into their products which are then sold to end users.

End users are companies that manufacture products, such as spark plugs, cellular telephones, surgical staples, metals, and paper. While they may purchase capital equipment containing machine vision or hire a system integrator to build an inspection system, many end users choose to purchase machine vision systems and install them directly on their production lines to inspect products and control the manufacturing process. Unlike OEMs and system integrators, these customers typically have limited computer programming or machine vision experience.

System integrators are companies that create complete, automated inspection solutions for end users. For example, they combine lighting, conveyors, robotics, machine vision, and other components to produce custom inspection systems for various applications. Because system integrators encounter a broad range of automation problems, they purchase a variety of Cognex products, from general-purpose systems to application-specific systems tailored to solve particular manufacturing tasks. The Company includes system integrators in its definition of end users.

## **Business Strategy**

The Company's goal is to expand its position as a leading worldwide supplier of machine vision systems for factory automation. Within the factory automation market, the Company has historically focused primarily on those industries where machine vision has become essential, either from a regulatory, economic, or manufacturing complexity standpoint, for controlling the manufacturing process to ensure high quality and/or reduce manufacturing costs.

Emphasizing high value-added products and applications is important to the Company's strategy because not every segment of the machine vision market offers opportunity for sustained profitability. High value-added is realized in the Company's products in several ways. The primary value-added is derived from offering unique vision software algorithms that solve challenging problems better than competing products. The other major mode of realizing high value-added is by offering products which are complete solutions to known problems, incorporating all of the necessary vision software, applications software, hardware, video cameras, and electro-optics. Both modes of realizing high value-added require the Company to maintain an industry-leading level of investment in research, development, and engineering.

Within the factory automation market, the Company has tailored its product offerings to match the characteristics of its two customer types: OEMs and end users. Historically, OEMs have been the source of the majority of the Company's revenue. However, the Company believes that end users have the potential in the long term to generate more revenue than OEMs. Consequently, the Company has invested in developing and acquiring products that meet the needs of end users and in developing a strong worldwide direct sales and support infrastructure. The Company will continue to invest in both customer types, defending its strong position in the OEM market while expanding in the end-user market. In 2001, approximately 56% of the Company's revenue came from end-user customers.

The Company has historically pursued a global business strategy, investing in building a strong direct presence in North America, Japan, Europe, and Southeast Asia. In all of these regions, the Company is acknowledged to be a leading machine vision supplier. The Company intends to continue to invest in the expansion of direct sales and support in these regions. In 2001, approximately 63% of the Company's revenue came from customers based outside of the United States.

The Company's business strategy includes selective expansion into other machine vision applications through the internal development of new products, as well as the acquisition of businesses and technologies. Since 1995, the Company has completed seven business acquisitions, most of which were targeted at expanding the Company's presence in the worldwide end-user marketplace. The Company plans to continue to seek out opportunities to expand its product line, customer base, and technical talent through acquisitions in the machine vision industry. In particular, the Company will look for opportunities to acquire technologies that complement its product line or provide the Company with an enhanced market presence around the world.

## **Products**

The Company's MVSD products are sold to both OEM and end-user customers in a variety of industries including the semiconductor, electronics, automotive, packaging, consumer products, and pharmaceutical industries. These modular vision systems are used to control the manufacturing of discrete items by locating, identifying, inspecting, and measuring them during the manufacturing process. MVSD machine vision systems can be defined as either general-purpose or application-specific. General-purpose systems enable customers to solve a wide range of problems by selecting the tools necessary to solve their vision problem from the Company's vision software library, and then configuring their solution by utilizing a programming language or "point-and-click" interface. Application-specific systems are "packaged" combinations of software and hardware that are designed to solve targeted problems.

The Company's SISD products are sold to end-user customers primarily in the paper, metals, plastics, and non-woven industries. These surface inspection vision systems are used to inspect surfaces of materials that are processed in a continuous fashion to ensure there are no flaws or defects on the surfaces.

## ***MVSD Products: General-Purpose Systems***

### ***Vision Software Library***

The Company offers an extensive library of vision software that includes both low-level image processing software and high-level image analysis tools. The image processing software prepares the image for accurate analysis and the image analysis tools extract information about the image to locate, inspect, and measure objects and identify characters and codes. The library includes PatMax®, a pattern location tool that can locate with very high accuracy objects that vary in size and orientation or whose appearance is degraded, as well as PatInspect®, a vision software tool that combines high-accuracy part location and defect detection capabilities in a single vision operation and detects flaws along the edges or boundary regions of objects.

In early 2002, the Company introduced VisionPro®, an Active X-based software development environment that makes it easy for users to access Cognex's library of core vision tools from within a PC/Microsoft-based environment and dramatically speeds the development of advanced vision applications.

### ***MVS-8000 Product Family***

The MVS-8000™ product family of programmable machine vision systems combines Cognex's unique algorithms with Intel's MMX instruction set. The MVS-8100 Series features PCI bus-mastering frame grabbers for high-speed image transfer from the video camera to the host PC for processing and display. The MVS-8200 Series of embedded CPU machine vision systems enables all vision processing to occur on-board, freeing the PC to perform other tasks.

In late 2001, the Company introduced the CDC-100™, a small, high-resolution digital Complimentary Metal-Oxide Semiconductor (CMOS) camera designed specifically for machine vision applications, and the CDC-50 standard format digital camera. Both cameras are designed for use with the MVS-8100D digital frame grabber. These products, in combination with Cognex's vision software, provide a complete, tightly integrated solution to the Company's customers.

The MVS-8000 product family is sold to OEMs located in North America, Japan, Europe, and Southeast Asia who integrate the machine vision systems into capital equipment for the semiconductor and electronics industries. These machine vision systems are also sold to system integrators located in North America, Japan, Europe, and Southeast Asia who integrate the vision systems into capital equipment for the factory floor in a broad range of industries.

### ***Checkpoint Product Family***

Checkpoint® is a family of PC-based machine vision systems for complex precision guidance, gauging, and defect inspection applications. Checkpoint features a graphical user interface and requires some knowledge of programming and machine vision to configure a vision application. Deployment of Checkpoint on the factory floor requires the services of trained system integrators to mechanically and electrically integrate Checkpoint into production lines.

In mid 2001, the Company introduced two new models to its Checkpoint product line. The new systems, Checkpoint III, a frame grabber-based system for use with a host PC, and Checkpoint IV, a packaged system requiring no PC, are designed to meet a broad range of high-performance, multi-camera machine vision applications.

Checkpoint is sold primarily to end users located in North America, Japan, Europe, and Southeast Asia in a wide range of general manufacturing industries, such as manufacturers of medical devices, automotive parts, disposable consumer goods, and electronic components.

### ***In-Sight Product Family***

In early 2000, the Company entered the fast-growing market for vision sensors with the introduction of its In-Sight™ product line. Vision sensors are machine vision systems that combine a camera, vision processor, software, and input/output capability in a compact, easy-to-use package. The introduction of the In-Sight product line provides Cognex's industry-leading vision technology in an affordable, stand-alone package that does not require programming skills or a PC to deploy. The first products, the In-Sight 2000 and In-Sight

3000, are general-purpose vision sensors designed for part location, identification, measurement, and assembly verification tasks. Both products feature a rugged vision processing unit and separate video camera.

In early 2001, the Company introduced the In-Sight 1000, a general-purpose vision sensor with built-in ethernet networking capability for remotely managing, monitoring, and controlling vision activity. The In-Sight 1000 combines a video camera, software, and processing in a single, compact unit. The In-Sight 1000C was introduced in mid-2001 and includes the same features as the In-Sight 1000, with the added ability to inspect and sort parts based on their color.

In-Sight vision sensors can be cost-effectively deployed in multiple points throughout the manufacturing process. In-Sight vision sensors include a comprehensive library of Cognex vision software tools and an easy-to-use vision spreadsheet environment enabling anyone with basic spreadsheet skills to configure a vision application.

In-Sight is sold primarily to end users located in North America, Japan, Europe, and Southeast Asia in similar industries to the Checkpoint product family.

### ***MVSD Products: Application-Specific Systems***

*In-Sight 1700<sup>TM</sup>*, introduced in early 2001, is a compact vision sensor for identifying and tracking semiconductor wafers through the manufacturing process by reading 2D matrix, alphanumeric, and bar codes on wafers.

*FiberInspect<sup>TM</sup>*, also introduced in early 2001, is a machine vision system specifically designed to automatically detect and measure scratches, cracks, and spots that form during the fiber end polishing process.

*CapInspect<sup>TM</sup>* and *LabelInspect<sup>TM</sup>*, both introduced in late 2001, are application-specific tools for In-Sight vision sensors that solve common packaging applications such as verifying that the cap is on a bottle, that the bottle is filled to the correct level, and that the label is in the correct place.

*In-Sight 1010<sup>TM</sup>* is a compact, standalone, ethernet-ready vision sensor designed specifically for reading 2D matrix and linear bar codes on parts.

*SMD 4<sup>TM</sup>* guides the placement of surface mount devices onto printed circuit boards and other assemblies.

*BGA II<sup>TM</sup>* inspects ball grid array devices for missing, misplaced, or improperly formed solder balls.

*Fiducial Finder II<sup>TM</sup>* locates fiducial or alignment marks on printed circuit boards for automatic printed circuit board alignment.

*DisplayInspect<sup>®</sup>* inspects the small, high-resolution displays commonly found on cellular phones, pagers, medical test instruments, and other electronic devices.

### ***SISD Products***

#### ***SmartView Product Family***

SmartView<sup>®</sup> Imaging Camera Network (ICN) detects, identifies, and displays an image of defects on products made in continuous processes. SmartView ICN provides greyscale imaging capability to visualize the defects, as well as a visual quality snapshot of the inspected web or surface. SmartView ICN is a modular and scalable system on a Microsoft NT platform that enables the Company to expand into more complex vision applications in the paper, metals, and non-woven industries.

In 2001, the Company introduced three new versions of SmartView: SmartView Paper, SmartView Metals, and SmartView Non-Wovens. These systems utilize the basic SmartView ICN architecture, while adding a layer of industry-specific application knowledge. This customization reduces the amount of time that factory floor engineers have to spend to apply SmartView in their environment.



SmartView is sold primarily to end users located in North America, Japan, Europe, and Southeast Asia in the paper, metals, plastics, and non-woven industries.

### **Research, Development, and Engineering**

The Company engages in research, development, and engineering (R, D & E) to enhance its existing products and to develop new products and functionality to meet market opportunities. In addition to internal research and development efforts, the Company intends to continue its strategy of gaining access to new technology through strategic relationships and acquisitions where appropriate. The Company considers its ongoing efforts in R, D & E to be a key component of its strategy.

At December 31, 2001, the Company employed 184 professionals in R, D & E, most of whom are software developers. The Company's R, D & E expenses totaled \$30,094,000, \$33,341,000, and \$27,536,000, or 21%, 13%, and 18% of revenue, in 2001, 2000, and 1999, respectively.

### **Manufacturing**

The Company's MVSD manufacturing organization utilizes a turnkey operation whereby the majority of component procurement, subassembly, final assembly, and initial testing are performed under agreement by third-party contract manufacturers. After the completion of initial testing, the contract manufacturers deliver the products to the Company's Natick, Massachusetts facility for final testing, quality control, and shipment to the customer. The products provided by the contract manufacturers are manufactured using specified components and assembly and test documentation created and controlled by the Company. From time to time, the Company will procure large quantities of end-of-life components for strategic purposes that will not be consumed within one year. Certain components are presently available only from a single source.

During 2001, the Company began to transition the contract manufacturing for the majority of its MVSD products from a vendor located in Massachusetts to a vendor located in Ireland. This transition is expected to continue throughout 2002 and be completed by the end of the year.

The Company's SISD products are manufactured at its Alameda, California facility, with the exception of the frames on which the video cameras are mounted. The manufacturing process at the Alameda facility consists of system design, configuration management and control, component procurement, and subassembly. After the completion of subassembly at the Alameda facility, the systems are delivered to the Company's Kuopio, Finland facility where the frames are manufactured. The manufacturing process at the Kuopio facility consists of system integration with the frames, final testing, quality control, and shipment to the customer. Certain products are manufactured by third-party contract manufacturers using documentation created and controlled by the Company. Certain components are presently available only from a single source.

### **Sales and Service**

The Company primarily markets its MVSD and SISD products through a direct sales force in North America, Japan, Europe, and Southeast Asia. At December 31, 2001, the Company's direct sales force consisted of 193 professionals, including sales and application engineers. The majority of the Company's sales force holds engineering or science degrees. Sales engineers call directly on targeted accounts and coordinate the activity of the application engineers. They focus on potential customers that represent possible volume purchases and long-term relationships.

Sales to customers based outside of the United States represented approximately 63% of revenue in 2001, compared to 69% of revenue in 2000 and 1999. One customer based in Japan, Fuji America Corporation, accounted for approximately 10% of revenue in 2000 and 13% of revenue in 1999. No customer accounted for greater than 10% of revenue in 2001. Although international sales may from time to time be subject to federal technology export regulations, to date the Company has not suffered delays or prohibitions in sales to any of its foreign customers. Financial information about segments and geographic areas may be found in the section captioned "Notes to Consolidated Financial Statements," appearing in Item 8 of this Annual Report on Form 10-K.



The Company's MVSD service offerings include vision solutions consulting services, technical support, educational services, and product services. The Company's vision solutions consulting group provides services that range from a specific piece of programmed functionality to a completely integrated machine vision application. The technical support group consists of a team of vision experts ready to respond to questions that may arise while customers are developing or deploying a Cognex machine vision application. The educational services group offers a variety of product courses that are held at its Customer Education Center in Natick, Massachusetts, and at certain of its worldwide offices, as well as at customer facilities when required. The product services group offers a variety of software and hardware maintenance programs that provide updates on the latest software releases and new software vision tools.

The Company's SISD service offerings can be defined as either installation services or technical support. The installation services group supervises the physical installation of the hardware at the customer location, configures the software application to detect the customer's defects, validates that the entire integrated system with the peripheral components is functioning according to the specifications, and performs operator training. The technical support group provides post-installation system, application, and service parts support.

### **Intellectual Property**

Since the Company relies on the technical expertise, creativity, and knowledge of its personnel, it utilizes patent, trademark, copyright, and trade secret protection to safeguard its competitive position. At December 31, 2001, the Company had obtained 126 patents on various innovations in the field of machine vision technology and had more than 100 pending patent applications. In addition, the Company makes use of non-disclosure agreements with customers, suppliers, employees, and consultants. The Company attempts to protect its intellectual property by restricting access to its proprietary information by a combination of technical and internal security measures. There can be no assurance, however, that any of the above measures will be adequate to protect the proprietary technology of the Company. Effective patent, trademark, copyright, and trade secret protection may be unavailable in certain foreign countries.

The Company's trademark and servicemark portfolio includes various registered marks, including but not limited to Cognex®, VisionPro®, Checkpoint®, PatMax®, PasteInspect®, and SmartView®, as well as many common-law marks, including but not limited to, MVS-8000™, CDC-100™, and In-Sight™. In addition, the Company has sought and obtained a number of trademark registrations outside of the United States. All third-party brand names, servicemarks, and trademarks referenced in this document are the property of their respective owners.

The Company's software products are protected by various security schemes and are primarily licensed to customers pursuant to a license agreement that restricts the use of the products to the customer's purposes, as well as imposes strict limitations on the customer's use of the Company's trade secret, proprietary, and other confidential business information to which the customer may have access. The Company has made portions of the source code available to certain customers under very limited circumstances and for restricted uses. If source code is released to a customer, the customer is required by contract to maintain its confidentiality and, in general, to use the source code solely for internal purposes or for maintenance.

Numerous users of the Company's products have received notice of patent infringement from the Lemelson Medical, Educational, & Research Foundation, Limited Partnership ("Partnership") alleging that their use of the Company's products infringes certain patents transferred to the Partnership by the late Jerome H. Lemelson. Certain of these users have notified the Company that, in the event it is subsequently determined that their use of the Company's products infringes any of the Partnership's patents, they may seek indemnification from the Company for damages or expenses resulting from this matter. Cognex disclaims liability with respect to such indemnification requests. The Company does not believe its products infringe any valid and enforceable claims of Lemelson's patents. Furthermore, the Partnership has stated that it is not the Company's products that infringe Lemelson's patents, but rather the use of those products by the Company's customers.

In July 1998, the Partnership filed a lawsuit against 26 semiconductor device manufacturers asserting infringement upon numerous Lemelson patents including certain machine vision patents. Several of the

defendants are users of the Company's products that were purchased primarily from the Company's OEM customers whose equipment incorporates such products. As a result of this action and the continuing assertions against other current and potential Cognex customers, the Company decided to initiate action against the Partnership in order to preserve its right to sell machine vision products without the threat of legal action against the Company or its customers. Accordingly, on September 23, 1998, the Company filed a complaint against the Partnership seeking a declaration that Lemelson's machine vision patents are invalid, unenforceable, and not infringed by either Cognex or by any users of Cognex products. The complaint was served on the Partnership on October 14, 1998. After the Judge in Massachusetts ruled that Massachusetts was not the proper jurisdiction, on September 27, 1999, the Company refiled in Reno, Nevada where several other Lemelson lawsuits are in progress and where no jurisdiction controversy exists.

On January 24, 2002, the United States Court of Appeals for the Federal Circuit ruled in Cognex's favor in an appeal that gives Cognex the right to raise the doctrine of patent prosecution laches as one of its defenses to the Partnership's patent infringement claims. The doctrine of prosecution laches bars a patentee from enforcing a patent claim when there is an unreasonable delay in seeking the claim from the Patent Office. The Company is contending that the Partnership's unreasonable delays in the prosecution of certain machine vision patent claims constitute laches. The trial is currently expected to commence in August of 2002.

The Company cannot predict the outcome of the Lemelson Partnership or any similar litigation that may arise in the future, or the effect of such litigation on the financial results of the Company.

### **Competition**

The Company competes with other vendors of machine vision systems, the internal engineering efforts of the Company's current or prospective customers, and the manufacturers of image processing systems. Any of these competitors may have greater financial and other resources than the Company. Although the Company considers itself to be one of the leading machine vision companies in the world, reliable estimates of the machine vision market and the number of competitors are not available.

The primary competitive factors affecting the choice of a machine vision system include vendor reputation, product functionality and performance (e.g. speed, accuracy, and reliability) under real-world operating conditions, flexibility, programmability, and the availability of application support from the vendor. More recently, ease-of-use has become a competitive factor and product price has become a more significant factor with respect to simpler guidance and gauging applications. The Company competes with low-cost smart camera and vision sensor solutions being introduced by various competitors on the basis of superior performance and price, rather than on price alone, through its In-Sight product line.

### **Backlog**

At December 31, 2001, the Company's backlog totaled \$15,984,000, compared to \$41,797,000 at December 31, 2000. Backlog reflects purchase orders for products scheduled for shipment primarily within three months. The level of backlog at any particular date is not necessarily indicative of future revenue of the Company. Certain of the Company's end-user products, primarily the In-Sight product line, typically ship within one week of when the order is booked. In addition, delivery schedules may be extended and orders may be canceled at any time subject to certain cancellation penalties.

### **Employees**

At December 31, 2001, the Company employed 697 persons, including 317 in sales, marketing, and service activities; 184 in research, development, and engineering; 72 in manufacturing and quality assurance; and 124 in information technology, finance, and administration. Of the Company's 697 employees, 244 are based outside of the United States. None of the Company's employees are represented by a labor union and the Company has experienced no work stoppages. The Company believes that its employee relations are good.

## **Risk Factors**

### ***Industry Concentration***

In 2001, approximately 54% of the Company's revenue was derived from customers directly or indirectly related to the semiconductor and electronics industries. This concentration has been as high as 78% in the past five years depending upon business trends in these industries. The semiconductor and electronics industries are highly cyclical and have historically experienced periodic downturns, which have often had a severe effect on demand for production equipment that incorporates the Company's products. For the foreseeable future, the Company's operating results will continue to be dependent upon the capital expenditures in these industries, which, in turn, are largely dependent upon the market demand for products containing integrated circuits. While the Company's long-term strategy is designed to diversify beyond the semiconductor and electronics industries, the Company's operating results in the foreseeable future could be significantly and adversely affected by a slowdown in either of these industries.

### ***International Operations***

In 2001, approximately 63% of the Company's revenue was derived from customers located outside of the United States. The Company anticipates that international sales will continue to account for a significant portion of its revenue. The Company intends to continue to expand its operations outside of the United States and to enter additional international markets, which will require significant management attention and financial resources. The Company's operations are subject to the risks inherent in international sales, including, but not limited to, various regulatory requirements, transportation delays, difficulties in staffing and managing foreign sales operations, and potentially adverse tax consequences. In addition, fluctuations in foreign currency exchange rates may render the Company's products less competitive relative to local product offerings, or could result in significant exchange rate losses if not properly hedged. The Company is also subject to the political risks inherent in international operations and their impact on the global economy, including economic disruption from acts of terrorism, particularly in the aftermath of the terrorist attacks of September 11, 2001. Any of these factors could have a material adverse effect on the Company's operating results.

### ***Dependence Upon Principal Customers***

In 2001, the Company's top five customers accounted for 15% of total revenue, compared to 29% in 2000 and 30% in 1999. In recent years, the Company's expansion into the end-user marketplace has reduced its reliance upon the revenue from any one of its larger OEM customers. Nevertheless, the loss of, or significant curtailment of purchases by, any one or more of these customers could have a material adverse effect on the Company's operating results.

### ***Dependence Upon Key Suppliers***

At present, the majority of the Company's proprietary MVSD vision hardware is manufactured by third-party contractors. The Company's reliance on outside contractors involves several risks including limited control over quality and delivery schedules. The failure by one or more of these contract manufacturers to deliver quality product in a timely manner could significantly and adversely affect the Company's operating results. In addition, a variety of components used in the Company's products are only available from a single source. The announcement by a single-source supplier of a last-time component buy could result in a significant amount of strategic inventory purchases, that in turn, could lead to an increased risk of inventory obsolescence. An interruption in, termination of, or material change in the purchase terms of any single-source components could have a material adverse effect on the Company's operating results.

### ***Dependence Upon Key Personnel***

The Company is highly dependent upon the management and leadership of Robert J. Shillman, President, Chief Executive Officer, and Chairman of the Board of Directors of the Company, as well as other members of the Company's senior management team, many of whom would be difficult to replace. Although

the Company has retained other experienced and qualified senior managers, the loss of certain key personnel could have a material adverse effect on the Company. The Company's continued growth and success also depends upon its ability to attract and retain skilled employees and on the ability of its officers and key employees to effectively manage the growth of the Company through the implementation of appropriate management information systems and internal controls.

### ***Forecast Accuracy***

In recent years, the Company has expanded its presence in the end-user marketplace, which accounted for approximately 56% of the Company's revenue in 2001, compared to 37% in 2000 and 39% in 1999. The Company's end-user business typically operates with a relatively short backlog and production plans are based on internal forecasts of customer demand. Due to these factors, the Company has in the past, and may again in the future, fail to accurately forecast demand, in terms of both volume and configuration for either our legacy or next-generation products. This has led to, and may again in the future lead to, an increased risk of inventory obsolescence.

### ***Technological Change***

The market for the Company's products is characterized by rapidly changing technology. Accordingly, the Company believes that its future success will depend upon its ability to develop or acquire new products with improved price/performance and introduce them to the marketplace in a timely manner. There can be no assurance that the Company will be able to introduce and market new products successfully and respond effectively to technological changes or new product introductions by competitors. The inability to keep pace with the rapid rate of technological change in the high-technology marketplace could have a material adverse effect on the Company's operating results.

### ***Intellectual Property***

The Company relies heavily on its proprietary software technology and hardware designs, as well as the technical expertise, creativity, and knowledge of its personnel. Although the Company uses a variety of methods to protect its intellectual property, it relies most heavily on patent, trademark, copyright, and trade secret protection, as well as non-disclosure agreements with customers, suppliers, employees, and consultants. The Company attempts to protect its intellectual property by restricting access to its proprietary information by a combination of technical and internal security measures. There can be no assurance, however, that any of the above measures will be adequate to protect the proprietary technology of the Company, that any patents issued to the Company will not be challenged, invalidated, or circumvented, or that the rights granted thereunder will provide competitive advantages to the Company. Any such adverse circumstances could have a material effect on the Company's operating results. Readers should refer to the section captioned "Intellectual Property," appearing in Item I of this Annual Report on Form 10-K.

### ***Competition***

The Company competes with other vendors of machine vision systems, the internal engineering efforts of the Company's current or prospective customers, and the manufacturers of image processing systems. Any of these competitors may have greater financial and other resources than the Company. In recent years, ease-of-use and product price have become significant competitive factors in the end-user marketplace. The Company competes with low-cost smart camera and vision sensor solutions being introduced by various competitors on the basis of superior performance and price, rather than on price alone, through its In-Sight product line. There can be no assurance that the Company will be able to compete successfully in the future or that the Company will not be required to incur significant investment costs in connection with its research and development, marketing, and service activities. In addition, competitive pressures could lead to price erosion that could materially and adversely effect the Company's operating results. Readers should refer to the section captioned "Competition," appearing in Item I of this Annual Report on Form 10-K.

### ***Acquisitions***

The Company's business strategy includes selective expansion into other machine vision applications through the acquisition of businesses and technologies. Since 1995, the Company has completed seven business acquisitions. The Company plans to continue to seek out opportunities to expand its product line, customer base, and technical talent through acquisitions in the machine vision industry. Acquisitions involve numerous risks, including, but not limited to, diversion of management's attention from other operational matters, the inability to realize expected synergies resulting from the acquisition, failure to commercialize purchased technology, and the impairment of acquired intangible assets resulting from technological obsolescence or lower-than-expected cash flows from the acquired assets. Acquisitions are inherently risky and the inability to effectively manage these risks could have a material adverse effect on the Company's operating results.

### ***Stock Price Volatility***

The price of the Company's common stock has historically experienced significant volatility due to fluctuations in the Company's revenue and earnings, changes in the market's expectations for the Company's growth, overall equity market conditions, conditions relating to the market for technology stocks, general economic conditions, and other factors unrelated to the Company's operations. The stock markets have experienced extreme price volatility in recent years. This volatility has had a substantial effect on the market prices of securities issued by many technology companies, often for reasons unrelated to the operating results of the specific company.

### ***Item 2: Properties***

In 1994, the Company purchased and renovated a 100,000 square-foot building located in Natick, Massachusetts that serves as its corporate headquarters. In 1997, the Company completed construction of a 50,000 square-foot addition to this building.

In 1995, the Company purchased an 83,000 square-foot office building adjacent to its corporate headquarters. The building is currently largely occupied with tenants who have lease agreements that expire at various dates through 2003, at which point the Company may take occupancy of the building. The Company uses a portion of the space for storage of its inventory.

In 1997, the Company purchased a three and one-half acre parcel of land situated on Vision Drive, adjacent to the Company's corporate headquarters. This land is being held for future expansion.

### ***Item 3: Legal Proceedings***

To the Company's knowledge, there are no pending legal proceedings, other than as described in the section captioned "Intellectual Property," appearing in Item I of this Annual Report on Form 10-K, which are material to the Company, to which it is a party, or to which any of its property is subject. From time to time, however, the Company may be subject to various claims and lawsuits by customers and competitors arising in the ordinary course of business, including lawsuits charging patent infringement.

### ***Item 4: Submission of Matters to a Vote of Security Holders***

There were no matters submitted during the fourth quarter of the year ended December 31, 2001 to a vote of security holders through solicitation of proxies or otherwise.

**Item 4A: *Executive Officers and Other Members of the Management Team of the Registrant***

The following table sets forth the names, ages, and titles of the Company's executive officers at December 31, 2001:

<u>Name</u>	<u>Age</u>	<u>Title</u>
Robert J. Shillman . . . . .	55	President, Chief Executive Officer, and Chairman of Board of Directors
Patrick Alias . . . . .	56	Executive Vice President and Director
James Hoffmaster . . . . .	50	Chief Operating Officer

Messrs. Shillman and Alias have been employed by the Company in their present or other capacities for no less than the past five years.

Mr. Hoffmaster joined the Company in 2001. Prior to joining the Company, Mr. Hoffmaster was the Chief Executive Officer of Fibersense, a Massachusetts-based company specializing in the application of fiber optic technology to gyroscopes and other sensors. Prior to that, Mr. Hoffmaster served as President of Fisher-Rosemount Systems, a division of Emerson Electric. He holds a Masters of Computer and Information Science degree and a Bachelor of Arts degree in Economics from Cleveland State University.

Executive officers are elected annually by the Board of Directors. There are no family relationships among the directors and the executive officers of the Company.

Other members of the senior management team include the following individuals:

<u>Name</u>	<u>Age</u>	<u>Title</u>
Markku Jaaskelainen . . . . .	47	Senior Vice President and General Manager, SISD
Marilyn Matz . . . . .	48	Senior Vice President of Engineering, MVSD
E. John McGarry . . . . .	45	Senior Vice President and General Manager, In-Sight Products Group
Richard Morin . . . . .	52	Senior Vice President of Finance and Administration, Chief Financial Officer, and Treasurer
Kris Nelson . . . . .	54	Senior Vice President of Sales, North America
William Silver . . . . .	48	Senior Vice President of R&D and Chief Technology Officer, MVSD
Justin Testa . . . . .	49	Senior Vice President of Marketing, MVSD

Messrs. McGarry, Nelson, Silver, and Testa and Ms. Matz have been employed by the Company in their present or other capacities for no less than the past five years.

Mr. Jaaskelainen joined the Company in 1999. Prior to joining the Company, Mr. Jaaskelainen served as Vice President of Systems Strategy for Honeywell-Measurex Corporation, where he was responsible for overseeing and coordinating all new product development. He holds a Master's degree and Ph.D. in Physics from the University of Jyväskylä, Finland.

Mr. Morin joined the Company in 1999 after ten years as Chief Financial Officer for C&K Components, Inc., an international manufacturer of electronic components and security systems. Mr. Morin also served as Corporate Controller and Vice President of Finance for the Jamesbury Corporation. He holds a Bachelor of Arts degree in Economics and Accounting from The College of the Holy Cross and is a Certified Public Accountant.



## PART II

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

The Company's common stock is traded on The NASDAQ Stock Market, under the symbol CGNX. As of February 21, 2002, there were approximately 15,000 registered and non-registered holders of the Company's common stock.

The Company has never declared or paid cash dividends on its common stock. The Company currently intends to retain all of its earnings to finance the development and expansion of its business, and therefore, does not intend to declare or pay cash dividends on its common stock in the foreseeable future. Any future declaration and payment of cash dividends will be subject to the discretion of the Company's Board of Directors, will be subject to applicable law, and will depend upon the Company's results of operations, financial condition, contractual limitations, cash requirements, future prospects, and other factors deemed relevant by the Company's Board of Directors.

The high and low sales prices of the Company's common stock as reported by the NASDAQ Stock Market, for each quarter in 2001 and 2000 are as follows:

	<u>First</u>	<u>Second</u>	<u>Third</u>	<u>Fourth</u>
<b>2001</b>				
High .....	28.1875	34.4000	34.2000	27.1400
Low .....	18.8125	21.3125	19.6000	17.6000
<b>2000</b>				
High .....	73.1250	67.5000	56.1875	40.0000
Low .....	34.6875	46.7500	33.0000	16.1250

**Item 6: Selected Consolidated Financial Data**

The following selected consolidated financial data should be read in conjunction with Item 7 of this Annual Report on Form 10-K.

	Year Ended December 31,				
	2001	2000	1999	1998	1997
	(In thousands, except per share amounts)				
Statement of Operations Data:					
Revenue . . . . .	\$140,729	\$250,726	\$152,125	\$121,844	\$155,340
Cost of revenue . . . . .	62,345	63,820	45,221	37,296	42,273
Gross margin . . . . .	78,384	186,906	106,904	84,548	113,067
Research, development, and engineering expenses . . . . .	30,094	33,341	27,536	24,535	22,311
Selling, general, and administrative expenses . . . . .	61,590	61,915	43,523	37,973	35,810
Amortization of goodwill . . . . .	3,108	1,964	265	127	170
Charge for acquired in-process technology . . . . .	—	—	—	2,100	3,115
Charge for intangible asset impairment . . . . .	10,932	—	—	—	—
Operating income (loss) . . . . .	(27,340)	89,686	35,580	19,813	51,661
Investment and other income . . . . .	11,669	10,532	7,300	7,489	6,665
Income (loss) before taxes . . . . .	(15,671)	100,218	42,880	27,302	58,326
Income tax provision (benefit) . . . . .	(4,544)	32,070	12,435	7,099	17,790
Net income (loss) . . . . .	\$(11,127)	\$ 68,148	\$ 30,445	\$ 20,203	\$ 40,536
Basic net income (loss) per share . . . . .	\$ (0.25)	\$ 1.58	\$ 0.74	\$ 0.49	\$ 0.98
Diluted net income (loss) per share . . . . .	\$ (0.25)	\$ 1.49	\$ 0.69	\$ 0.47	\$ 0.91
Basic weighted-average common shares outstanding . . . . .	43,639	43,043	40,932	40,978	41,322
Diluted weighted-average common shares outstanding . . . . .	43,639	45,698	43,986	43,203	44,702
	December 31,				
	2001	2000	1999	1998	1997
	(In thousands)				
Balance Sheet Data:					
Working capital . . . . .	\$143,712	\$167,913	\$126,298	\$101,971	\$108,970
Total assets . . . . .	406,904	436,141	314,822	247,928	261,840
Long-term debt . . . . .	—	—	—	—	—
Stockholders' equity . . . . .	378,044	383,949	276,624	222,875	236,142

**Item 7: Management's Discussion and Analysis of Financial Condition and Results of Operations****Critical Accounting Policies and Estimates**

The Company's discussion and analysis of its financial condition and results of operations are based upon its consolidated financial statements, which have been prepared in accordance with accounting principles generally accepted in the United States. The preparation of these financial statements requires management to make estimates and judgments that affect the reported amounts of assets, liabilities, revenue, and expenses, and related disclosure of contingent assets and liabilities. On an on-going basis, management evaluates its

estimates, including those related to bad debts, inventories, investments, intangible assets, income taxes, warranty obligations, excess component orders, cancellation costs, long-term contracts, litigation, and other contingencies. Management bases its estimates on historical experience and on various other assumptions that are believed to be reasonable under the circumstances, the results of which form the basis for making judgments about the carrying values of assets and liabilities that are not readily apparent from other sources. Actual results could differ from these estimates under different assumptions or conditions. The Company believes the following critical accounting policies affect its more significant estimates and judgments used in the preparation of its consolidated financial statements.

The Company writes down its inventory for estimated excess and obsolescence equal to the difference between the cost of inventory and the estimated fair value based upon assumptions about future demand, product transitions, and market conditions. If actual results are less favorable than those assumptions, additional inventory write-downs may be required.

The Company holds equity investments in publicly-traded Japanese companies with volatile stock prices. These companies are established market leaders in the semiconductor and electronics industries, which are highly cyclical industries and have historically experienced extended periodic downturns. The Company also maintains other investments for which the risks related to changes in market or economic conditions vary. The Company evaluates its investments for potential impairment when an investment has experienced a decline in fair value. If the decline in fair value is determined to be other-than-temporary, an impairment charge would be recorded in current operations. Future adverse changes in market conditions or poor operating results of underlying investments could result in losses or an inability to recover the carrying value of the investments that may not be reflected in an investment's current carrying value, thereby requiring an impairment charge in the future.

The Company has long-term assets including property, plant, and equipment, as well as acquired goodwill and other intangible assets. These assets are susceptible to shortened estimated useful lives and changes in their fair values due to changes in their use, market or economic changes, or other events or circumstances. The Company evaluates the recoverability of its long-term assets based upon new events and circumstances or significant declines in the fair value of the assets. If market conditions or other events occur which would require a significant reduction of the estimated useful lives of these assets or result in a significant decrease in fair value below their carrying amounts, an adjustment to the lives or carrying amounts would result in a charge to income in the period of determination.

The Company evaluates the realizability of its deferred tax assets and has determined that it is more likely than not that deferred tax assets will be realized. While the Company has considered historical taxable income in assessing the realizability of deferred tax assets, should the Company determine that it would not be able to realize all or part of its net deferred tax assets in the future, an adjustment to the deferred tax assets would result in a charge to income in the period such determination was made. Additionally, the Company has taken certain tax positions and is subject to audits by related tax authorities, which may result in future charges or credits.

The Company provides for the estimated cost of product warranties at the time revenue is recognized. While the Company engages in extensive product quality programs and processes, including actively monitoring and evaluating the quality of its component suppliers and third-party contract manufacturers, the Company's warranty obligation is affected by product failure rates, material usage, and service delivery costs incurred in correcting a product failure. Should actual product failure rates, material usage, or service delivery costs differ from management's estimates, revisions to the estimated warranty obligation would be required.

## **Summary**

The Company's results in 2001 were impacted by a slowdown in capital spending by manufacturers worldwide, resulting in a 44% decrease in revenue from 2000. Sales to original equipment manufacturer (OEM) customers, who incorporate Cognex machine vision systems into the capital equipment they manufacture and sell to their customers, primarily in the semiconductor and electronics industries, decreased

61% from 2000. Likewise, sales to end-user customers, who purchase Cognex machine vision systems and install them directly on their production lines, decreased 16% from the prior year.

Throughout the year, the Company implemented a number of cost-containment measures to more closely align expenses to the lower level of customer demand, while also maintaining its commitment to new product development and end-user market penetration. The Company's financial position remained strong at December 31, 2001, with \$407 million in total assets and \$378 million in stockholders' equity. Working capital totaled \$144 million, with the majority of this balance comprised of cash, cash equivalents, and investments.

The following table sets forth certain consolidated financial data as a percentage of revenue:

	Year ended December 31,		
	2001	2000	1999
Revenue .....	100%	100%	100%
Cost of revenue .....	44	25	30
<b>Gross margin</b> .....	56	75	70
Research, development, and engineering expenses .....	21	13	18
Selling, general, and administrative expenses .....	44	25	29
Amortization of goodwill .....	2	1	—
Charge for intangible asset impairment .....	8	—	—
<b>Operating income (loss)</b> .....	(19)	36	23
Investment and other income .....	8	4	5
<b>Income (loss) before taxes</b> .....	(11)	40	28
Income tax provision (benefit) .....	(3)	13	8
<b>Net income (loss)</b> .....	(8)%	27%	20%

## Results of Operations

### *Year Ended December 31, 2001 Compared to Year Ended December 31, 2000*

During 2001, the Company operated in two reportable segments: the Modular Vision Systems Division (MVSD) and the Surface Inspection Systems Division (SISD). MVSD designs, develops, manufactures, and markets modular vision systems that are used to control the manufacturing of discrete items by locating, identifying, inspecting, and measuring them during the manufacturing process. SISD designs, develops, manufactures, and markets surface inspection vision systems that are used to inspect surfaces of materials that are processed in a continuous fashion to ensure there are no flaws or defects in the surfaces.

### *Inventory and Intangible Asset Impairment Charges*

Throughout 2001, the Company's results were negatively impacted by the worldwide slowdown in capital equipment spending by manufacturers in the semiconductor and electronics industries, as well as the weakened global economy. During the fourth quarter of 2001, a number of factors indicated that the business slowdown would be both longer and more severe than the Company had previously anticipated, and the Company's revenue plan for 2002 was lowered accordingly. Most notable among these factors were the continued decline in order rates across a variety of industries and product lines, as well as information obtained during the fourth quarter from the Company's OEM customers regarding their high inventory positions and low consumption rates of Cognex products. These factors indicated that the Company's OEM revenue would be significantly lower than expected for the next several quarters. Additionally, when a business recovery does occur, these customers will most likely transition from their current inventory of Cognex legacy products to newer Cognex platforms, as they leverage their engineering resources during the business slowdown to develop next-generation capital equipment. These OEM product transitions, as well as the lower level of demand principally from OEM customers, resulted in a \$16,300,000 charge for excess inventories and purchase

commitments in the fourth quarter of 2001 that is included in “Cost of product revenue” on the Consolidated Statements of Operations.

Also as a result of the significant adverse change in the business outlook determined in the fourth quarter of 2001 described above, the Company evaluated the possible impairment of its intangible assets in accordance with Statement of Financial Accounting Standard (SFAS) No. 121, “Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of.” These analyses resulted in impairment charges based on the difference between the carrying amount and the estimated fair value of certain acquisition-related intangible assets. The fair value was based on discounting estimated future cash flows for assets grouped at the lowest level for which there were identifiable cash flows at a discount rate commensurate with the risks involved. The resulting analyses yielded a \$10,932,000 impairment charge related to goodwill arising primarily from the acquisitions in 2000 of the machine vision businesses of Komatsu Ltd. and Honeywell International Inc. The analyses also resulted in a \$315,000 charge, included in “Cost of product revenue,” related to the impairment of complete technology acquired primarily from Komatsu Ltd. These charges impacted both the MVSD and SISD segments.

### *Revenue*

Total revenue for the year ended December 31, 2001 decreased 44% to \$140,729,000 from \$250,726,000 for the year ended December 31, 2000. During 2001, the Company’s results were negatively impacted by a worldwide slowdown in capital spending by manufacturers in the semiconductor and electronics industries. Sales to OEM customers, most of whom make capital equipment used by manufacturers in these industries, decreased \$95,439,000, or 61%, from the prior year. Sales to end-user customers also decreased from the prior year by \$14,558,000, or 16%, primarily due to lower demand from customers who make electronic products. Although end-user sales decreased in total from 2000, revenue from customers outside the semiconductor and electronics industries, such as the automotive and paper industries, increased \$10,219,000, or 20%, from the prior year due principally to higher sales of the Company’s In-Sight and SmartView products. Both product lines were introduced in early 2000 and are targeted to the end-user market. Sales to end-user customers represented 56% of total revenue in 2001 compared to 37% in 2000. Geographically, revenue decreased from the prior year in all of the Company’s worldwide regions, but most significantly in Japan where many of the Company’s OEM customers are located.

Product revenue for the year ended December 31, 2001 decreased 47% to \$119,288,000 from \$227,079,000 for the year ended December 31, 2000. The decrease in product revenue was primarily due to a lower volume of machine vision systems sold to customers in the semiconductor and electronics industries. Service revenue, which is derived from the sale of maintenance and support, education, consulting, and installation services, decreased 9% to \$21,441,000 from \$23,647,000 due principally to lower demand for consulting services. Many of the Company’s products that were sold during 2000 included bundled maintenance and support programs for which a portion of the revenue was recognized in 2001 over the program period. As a result, service revenue did not decrease as dramatically as product revenue and it increased as a percentage of total revenue. Service revenue accounted for 15% of total revenue in 2001 compared to 9% in 2000.

MVSD revenue for the year ended December 31, 2001 decreased 49% to \$117,074,000 from \$231,471,000 for the year ended December 31, 2000. The decrease in MVSD revenue was primarily due to a lower volume of systems sold to customers in the semiconductor and electronics industries. SISD revenue increased 23% to \$23,655,000 from \$19,255,000 due principally to a higher volume of SmartView systems sold to customers in surface inspection industries, such as the paper and metals industries. SISD revenue represented 17% of total revenue in 2001 compared to 8% in 2000.

### *Gross Margin*

Total gross margin as a percentage of revenue was 56% for 2001 compared to 75% for 2000. The inventory and intangible asset impairment charges recorded in “Cost of product revenue” of \$16,615,000 accounted for twelve percentage points of the decrease in the gross margin from 2000. The remaining seven percentage-point

decrease was primarily due to the impact of the lower sales volume over a base of fixed manufacturing costs, as well as a greater percentage of total revenue from the sale of services and surface inspection systems, both of which carry lower margins than the sale of modular vision systems.

Product gross margin as a percentage of revenue, excluding the inventory and intangible asset impairment charges, was 72% for 2001 compared to 78% for 2000. The decrease in product margin was primarily due to unfavorable absorption of manufacturing overhead due to a decreased volume of sales and the shift in product mix to lower-margin surface inspection systems. Service gross margin as a percentage of revenue was 43% for 2001 compared to 40% for 2000. The increase in service margin was due principally to lower service costs resulting from the cost-containment measures implemented in 2001 to more closely align expenses to the lower level of customer demand. These measures included salary freezes and reductions, the elimination of all company bonuses, mandatory shutdowns, a reduction in discretionary spending, and a reduction in workforce.

MVSD gross margin as a percentage of revenue, excluding the inventory and intangible asset impairment charges, was 73% for 2001 compared to 77% for 2000. The decrease in MVSD margin was primarily due to the impact of the lower sales volume over a base of fixed manufacturing costs. SISD gross margin as a percentage of revenue was 42% for 2001 compared to 44% for 2000. The decrease in SISD margin was due principally to higher service costs required to grow the worldwide support organization.

#### *Operating Expenses*

Research, development, and engineering expenses for the year ended December 31, 2001 decreased 10% to \$30,094,000 from \$33,341,000 for the year ended December 31, 2000. MVSD research, development, and engineering expenses decreased \$3,163,000, or 10%, from the prior year and SISD research, development, and engineering expenses decreased \$84,000, or 3%, from 2000. The decrease in MVSD and SISD expenses was primarily due to the cost-containment measures implemented in 2001, as previously discussed.

Selling, general, and administrative expenses for the year ended December 31, 2001 decreased 1% to \$61,590,000 from \$61,915,000 for the year ended December 31, 2000. MVSD selling, general, and administrative expenses decreased \$2,500,000, or 5%, from the prior year, while SISD selling, general, and administrative expenses increased \$406,000, or 7%, from 2000. Corporate expenses that are not allocated to a division increased \$1,769,000, or 21%, from the prior year. The decrease in MVSD expenses was primarily due to the cost-containment measures implemented in 2001, as previously discussed. The increase in SISD expenses was due principally to higher sales and marketing costs required to grow the worldwide sales organization and market the Company's SmartView product line, which was introduced in 2000. The increase in unallocated corporate expenses was primarily due to higher legal costs associated with patent infringement lawsuits initiated by the Company to protect its intellectual property.

Amortization of goodwill for the year ended December 31, 2001 totaled \$3,108,000 compared to \$1,964,000 for the year ended December 31, 2000, representing an increase of \$1,144,000. Goodwill amortization at MVSD increased \$499,000 due to the full impact in 2001 of the goodwill arising from the Komatsu Ltd. and Image Industries Ltd. acquisitions in early 2000. Goodwill amortization at SISD increased \$645,000 due to the full impact in 2001 of the goodwill arising from the Honeywell International Inc. acquisition in late 2000.

#### *Investment and Other Income*

Investment income for the year ended December 31, 2001 increased 16% to \$10,980,000 from \$9,494,000 for the year ended December 31, 2000. The increase in investment income was due primarily to a higher average invested balance in 2001.

Other income for the year ended December 31, 2001 decreased 34% to \$689,000 from \$1,038,000 for the year ended December 31, 2000. Other income consists primarily of rental income, net of related expenses, from leasing the building adjacent to the Company's corporate headquarters. A portion of the Company's space available for lease was unoccupied in 2001.



### *Income Taxes*

The Company's effective tax rate for 2001 was a benefit of 29% compared to a provision of 32% in 2000. The benefit reflects the Company's significant tax-exempt investment income, future reductions in taxes payable relating to net operating loss carryforwards in various jurisdictions, continued investments in the Company's foreign operations, and certain of the goodwill impairment charges recognized during the year, which are not deductible for tax purposes.

### *Outlook*

The Company anticipates that its results for the first quarter of 2002 will continue to be negatively impacted by the worldwide slowdown in capital spending by manufacturers in the semiconductor and electronics industries, as well as the uncertain economic conditions that exist today. Accordingly, the Company anticipates that revenue for the first quarter of 2002 will be in the range of \$21,000,000 to \$23,000,000, compared to \$25,170,000 reported in the fourth quarter of 2001. The Company has limited visibility to revenue levels beyond the first quarter of 2002 due to the increasing level of end-user business and shortened order lead times.

During 2001, the Company implemented a number of cost-containment measures to more closely align expenses to the lower level of customer demand. The Company does not anticipate the savings from these measures to fully compensate for the substantial decline in revenue, and therefore, expects to report a loss in the range of \$0.05 to \$0.08 per diluted share in the first quarter of 2002. If business continues at the current order rate, it is likely that the Company will report a loss in each quarter of 2002, and therefore, for the full year as well.

### ***Year Ended December 31, 2000 Compared to Year Ended December 31, 1999***

#### *Revenue*

Total revenue for the year ended December 31, 2000 increased 65% to \$250,726,000 from \$152,125,000 for the year ended December 31, 1999. The increase in revenue was due to higher demand from both the Company's OEM and end-user customers. Sales to OEM customers increased \$63,699,000, or 68%, from the prior year due to a higher volume of machine vision systems sold to the Company's core OEM customers who make capital equipment for the semiconductor and electronics industries. Sales to OEM customers represented 63% of total revenue in 2000 compared to 61% of total revenue in 1999. Sales to end-user customers increased \$34,902,000, or 59%, from the prior year due largely to the introduction of the In-Sight and SmartView product lines early in 2000, which are both targeted toward the end-user market.

Geographically, revenue increased in all of the Company's regions from 1999. Sales to customers in Japan and North America increased \$49,697,000, or 74%, and \$30,463,000, or 64%, respectively, primarily due to the increase in sales to the Company's OEM customers, most of whom are located in these regions. Sales to customers in Europe increased \$15,836,000, or 48%, due largely to higher demand from European manufacturers of cellular telephones.

Product revenue for the year ended December 31, 2000 increased 67% to \$227,079,000 from \$136,278,000 for the year ended December 31, 1999. The increase in product revenue was primarily due to a higher volume of machine vision systems sold to customers in the semiconductor and electronics industries. Service revenue, which is derived from the sale of maintenance and support, education, consulting, and installation services, increased 49% to \$23,647,000 from \$15,847,000, driven principally by the increased product sales which contain bundled maintenance and support programs. Service revenue accounted for 9% of total revenue in 2000 compared to 10% of total revenue in 1999.

MVSD revenue for the year ended December 31, 2000 increased 64% to \$231,471,000 from \$141,518,000 for the year ended December 31, 1999. The increase in MVSD revenue was primarily due to a higher volume of systems sold to customers in the semiconductor and electronics industries, as well as the introduction of the In-Sight product line. SISD revenue increased 82% to \$19,255,000 from \$10,607,000 due principally to the introduction of the SmartView product line.

### *Gross margin*

Total gross margin as a percentage of revenue was 75% for 2000 compared to 70% for 1999. The increase in the gross margin was due primarily to manufacturing efficiencies that resulted from increased product sales without a significant increase in manufacturing overhead, as well as improved gross margins on the Company's surface inspection systems with the introduction of the SmartView product line.

Product gross margin as a percentage of revenue was 78% for 2000 compared to 75% for 1999. The increase in product margin was primarily due to favorable absorption of manufacturing overhead and improved margins on the Company's surface inspection systems. Service gross margin as a percentage of revenue was 40% for 2000 compared to 31% in 1999. The increase in service margin was due principally to service revenue increasing at a faster rate than service costs.

MVSD gross margin as a percentage of revenue was 77% for 2000 compared to 74% for 1999. The increase in MVSD margin was due primarily to manufacturing efficiencies that resulted from increased product sales without a significant increase in manufacturing overhead. SISD gross margin as a percentage of revenue was 44% for 2000 compared to 16% for 1999. The increase in SISD margin was due principally to the introduction of the SmartView product line, which carries higher margins than the legacy surface inspection systems.

### *Operating Expenses*

Research, development, and engineering expenses for the year ended December 31, 2000 increased 21% to \$33,341,000 from \$27,536,000 for the year ended December 31, 1999. MVSD research, development, and engineering expenses increased \$6,656,000, or 28%, from the prior year, while SISD research, development, and engineering expenses decreased \$851,000, or 25%, from 1999. The increase in MVSD expenses was primarily due to higher personnel-related costs to support the Company's continued investment in the research and development of new and existing products. Included in the higher personnel-related costs are expenses associated with additional employees from the acquisitions completed during the year. The decrease in SISD expenses was due principally to product development costs incurred in 1999 related to the launch of the SmartView product line early in 2000.

Selling, general, and administrative expenses for the year ended December 31, 2000 increased 42% to \$61,915,000 from \$43,523,000 for the year ended December 31, 1999. MVSD selling, general, and administrative expenses increased \$16,468,000, or 53%, from the prior year and SISD selling, general, and administrative expenses increased \$571,000, or 11%, from 1999. Corporate expenses that are not allocated to a division increased \$1,353,000, or 19%, from the prior year. The increase in MVSD and SISD expenses was primarily due to higher personnel-related costs to support the Company's expanding worldwide operations and to grow the Company's end-user business, as well as increased marketing costs associated with the introduction of the In-Sight and SmartView product lines. Included in the higher personnel-related costs are expenses associated with additional employees from the acquisitions completed during the year. The increase in unallocated corporate expenses was due principally to higher legal costs associated with patent infringement lawsuits initiated by the Company to protect its intellectual property.

Amortization of goodwill for the year ended December 31, 2000 totaled \$1,964,000 compared to \$265,000 for the year ended December 31, 1999, representing an increase of \$1,699,000. Goodwill amortization at MVSD increased \$1,376,000 due to additional goodwill arising from the Komatsu Ltd. and Image Industries Ltd. acquisitions that were completed in March and April of 2000. Goodwill amortization at SISD increased \$323,000 due to additional goodwill arising from the Honeywell International Inc. acquisition that was completed in September of 2000.

### *Investment and Other Income*

Investment income for the year ended December 31, 2000 increased 44% to \$9,494,000 from \$6,572,000 for the year ended December 31, 1999. The increase in investment income was due primarily to higher average

interest rates on the Company's portfolio of investments, which consists principally of debt securities, as well as a higher average invested balance in 2000.

Other income for the year ended December 31, 2000 totaled \$1,038,000 compared to \$728,000 for the year ended December 31, 1999. Other income consists primarily of rental income, net of related expenses, from leasing the building adjacent to the Company's corporate headquarters.

#### *Income Taxes*

The Company's effective tax rate for 2000 was 32% compared to 29% for 1999. The increase in the effective tax rate was due primarily to the higher operating income in 2000, increased investments in the Company's foreign operations, and the diminishing effect of tax-free investments.

#### **Liquidity and Capital Resources**

The Company's cash requirements during the year ended December 31, 2001 were met through cash generated from operations along with existing cash, cash equivalents, and investments balances. Cash, cash equivalents, and investments at December 31, 2001 totaled \$292,715,000 and increased \$14,975,000 during the year primarily as a result of cash generated from operations and the proceeds from the issuance of common stock under stock option and stock purchase plans, partially offset by capital expenditures, which totaled \$4,455,000 and consisted principally of expenditures for computer hardware and software.

On March 31, 2000, the Company acquired selected assets of the machine vision business of Komatsu Ltd. for \$11,200,000 in cash, with the potential for an additional cash payment in 2002 of up to \$8,000,000 depending upon certain performance criteria. Although the measurement period for the performance criteria does not end until March 2002, based upon information available as of December 31, 2001, the Company does not believe the performance criteria will be met, and therefore, does not anticipate making any additional payments in 2002.

On April 20, 2000, the Company acquired all of the outstanding shares of Image Industries, Ltd. for \$2,706,000. The purchase price included \$1,754,000 in cash payments, \$341,000 of which, at December 31, 2001, remained to be paid in 2002.

On September 30, 2000, the Company acquired selected assets of the web inspection business of Honeywell International Inc. for \$8,400,000 in cash. The Company paid an additional \$1,600,000 at the closing that is contingent upon the achievement of certain performance criteria in 2001. There is the potential for an additional cash payment of up to \$1,600,000 in 2002, also depending upon certain performance criteria. The measurement period for the performance criteria ended December 31, 2001, and in 2002 the Company expects to make no further payments and to receive a refund of the \$1,600,000 paid at closing.

On June 30, 2000, Cognex Corporation became a Limited Partner in Venrock Associates III, L.P., a venture capital fund. The Company has committed to a total investment of up to \$25,000,000 over a ten-year period, of which \$7,125,000 had been invested as of December 31, 2001.

On December 12, 2000, the Company's Board of Directors authorized the repurchase of up to \$100,000,000 of the Company's common stock. As of December 31, 2001, the Company had not repurchased any shares under this program.

The Company believes that its existing cash, cash equivalents, and investments balances will be sufficient to meet its planned operating and investing activities in 2002, which consist primarily of working capital and capital expenditure requirements, as well as any strategic initiatives in 2002, including its stock repurchase program and potential business or asset acquisitions.

#### **New Pronouncements**

In July 2001, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standard (SFAS) No. 141, "Business Combinations." SFAS No. 141 is effective for all business combinations initiated after June 30, 2001 and for all business combinations accounted for by the purchase

method for which the date of acquisition is after June 30, 2001. This standard requires that all business combinations be accounted for under the purchase method and that certain acquired intangible assets in a business combination be recognized as assets apart from goodwill. The Company adopted SFAS No. 141 on July 1, 2001 and it did not have a material impact on the Company's financial position and results of operations.

In July 2001, the FASB issued SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 142 is effective for fiscal years beginning after December 15, 2001. This standard requires, among other things, the cessation of the amortization of goodwill. In addition, SFAS No. 142 includes provisions for the reclassification of certain existing intangible assets as goodwill, the reclassification of certain existing intangible assets out of previously reported goodwill, the reassessment of the useful lives of existing intangible assets, and the identification of reporting units for the purpose of assessing potential future impairments of goodwill. This standard also requires the Company to complete a transitional goodwill impairment test six months from the date of adoption. The Company adopted SFAS No. 142 on January 1, 2002 and is required to complete the transition impairment test no later than June 30, 2002. The Company is currently assessing the impact of this new statement on its financial position and results of operations, but does not expect it to have a material impact upon adoption. Effective January 1, 2002, the Company will cease the amortization of goodwill.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 is effective for fiscal years beginning after December 15, 2001. SFAS No. 144 replaces SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of." This standard requires that long-lived assets that are to be disposed of by sale be measured at the lower of book value or fair value less cost to sell. Additionally, SFAS No. 144 expands the scope of discontinued operations to include all components of an entity with operations that can be distinguished from the rest of the entity and will be eliminated from the ongoing operations of the entity in a disposal transaction. The Company adopted SFAS No. 144 on January 1, 2002 and it did not have a material impact on its financial position and results of operations.

### **Forward-Looking Statements**

Certain statements made in this report, as well as oral statements made by the Company from time to time, which are prefaced with words such as "expects," "anticipates," "believes," "projects," "intends," "plans," and similar words and other statements of a similar sense, are forward-looking statements. These statements are based on the Company's current expectations and estimates as to prospective events and circumstances, which may or may not be in the Company's control and as to which there can be no firm assurances given. These forward-looking statements, like any other forward-looking statements, involve risks and uncertainties that could cause actual results to differ materially from those projected. Such risks and uncertainties include: (1) the cyclical nature of the semiconductor and electronics industries; (2) the Company's continued ability to achieve significant international revenue; (3) the loss of, or a significant curtailment of purchases by, any one or more principal customers; (4) the reliance upon certain sole source suppliers to manufacture or deliver critical components of the Company's products; (5) the inability to attract or retain skilled employees; (6) the inability to forecast customer demand accurately; (7) the technological obsolescence of current products and the inability to develop new products; (8) the inability to protect the Company's proprietary technology and intellectual property; (9) the inability to respond to competitive technology and pricing pressures; and (10) the inability to achieve expected results from acquisitions. The foregoing list should not be construed as exhaustive and the Company disclaims any obligation subsequently to revise forward-looking statements to reflect events or circumstances after the date of such statements or to reflect the occurrence of anticipated or unanticipated events. Further discussions of risk factors are also available in Item 1 of this Annual Report on Form 10-K. The Company wishes to caution readers not to place undue reliance upon any such forward-looking statements, which speak only as of the date made.

### **Item 7A: *Quantitative and Qualitative Disclosures about Market Risk***

The Company's investment portfolio includes debt securities of various issuers, types, and maturities. Debt securities purchased with original maturities of three months or less are classified as cash equivalents.

Debt securities with original maturities greater than three months are stated at amortized cost, which approximates fair value, and are categorized as available-for-sale. Given the short maturities and investment-grade quality of the portfolio of debt securities at December 31, 2001, a sharp rise in interest rates should not have a material adverse impact on the fair value of the Company's investment portfolio. As a result, the Company does not currently hedge these interest rate exposures.

The following table (dollars in thousands) presents hypothetical changes in fair value in the Company's financial instruments at December 31, 2001 that are sensitive to changes in interest rates. The modeling technique measures the change in fair value arising from selected potential changes in interest rates. Movements in interest rates of plus or minus 50 basis points (BP) and 100 BP reflect immediate hypothetical shifts in the fair value of these investments. Fair value represents the market value of the principal plus accrued interest and dividends of certain interest-rate-sensitive securities at December 31, 2001.

<u>Type of security</u>	<u>Valuation of securities given an interest rate decrease</u>		<u>No change in interest rates</u>	<u>Valuation of securities given an interest rate increase</u>	
	<u>(100 BP)</u>	<u>(50 BP)</u>		<u>100 BP</u>	<u>50 BP</u>
Municipal obligations with contractual maturities no greater than three years . . .	\$268,282	\$266,623	\$264,968	\$261,669	\$263,317

A 50 BP move in the Federal Funds Rate has occurred in 12 of the last 44 quarters. There has not been a 100 BP movement in the Federal Funds Rate in any of the last 44 quarters.

The Company's investment portfolio includes equity securities in publicly-traded Japanese companies with volatile stock prices. These companies are established market leaders in the semiconductor and electronics industries, which are highly cyclical industries and have historically experienced extended periodic downturns. It is the Company's intention to hold these securities on a long-term basis consistent with its long-term commitment to the Japanese market. Equity securities are stated at fair value based upon prices quoted on public stock exchanges and are categorized as available-for-sale. Temporary changes in unrealized gains or losses on equity securities, net of tax, are recorded as other comprehensive income (loss). The Company evaluates its investments for potential impairment when an investment has experienced a decline in fair value. If the decline in fair value is determined to be other-than-temporary, an impairment charge would be recorded in current operations. At December 31, 2001, the Company's equity securities had a fair value of \$5,687,000 and an unrealized loss of \$6,774,000. As of March 8, 2002, the unrealized loss on these securities had been reduced to \$4,824,000. The Company has determined that this unrealized loss is temporary because these stock price movements represent short-term trading fluctuations due to the cyclical nature of the semiconductor and electronics industries, which the Company believes are currently recovering from a downturn, and not a fundamental change in the underlying companies.

The unrealized gain (loss) recorded as other comprehensive income (loss) is made up of two components: the yen strengthening (weakening) against the dollar and the appreciation (depreciation) of the stock price. The potential change in the unrealized gain (loss) on the equity securities due to a hypothetical 10% increase or decrease in either the stock price or the yen/USD exchange rate would be approximately \$570,000.

The Company's investment portfolio includes an investment in a limited partnership, which is accounted for using the cost method because the Company's investment is less than 5% and the Company has no influence over the partnership's operations and financial policies. The partnership's performance is monitored by the Company to determine if the cost basis of the investment has been impaired.

The Company faces exposure to other financial market risks, including adverse movements in foreign currency exchange rates. These exposures may change over time as business practices evolve and could have a material adverse impact on the Company's financial results. The Company's primary exposure has been



related to local currency revenue and operating expenses in Japan, Europe, and Southeast Asia. Historically, the Company has hedged currency exposures associated with certain intercompany payables denominated in local currencies and certain foreign currency revenue transactions. The goal of the Company's hedging activity is to offset the impact of currency fluctuations on certain local currency intercompany payables and foreign currency revenue transactions. The success of this activity depends upon forecasts of transaction activity denominated in various currencies. To the extent that these forecasts are overstated or understated during periods of currency volatility, the Company could experience unanticipated currency gains or losses.

Outstanding forward foreign exchange contracts in Japanese yen at December 31, 2001 mature within six months. Indicators as of February 28, 2002, show that the dollar is expected to strengthen against the yen by June 30, 2002 to approximately 141 yen/USD. Some of these indicators include foreign exchange rate forecasts received from the Company's banking relationships. The hypothetical gain in cash flows of these yen forward contracts is estimated to be \$571,000 using these assumptions.

Outstanding forward foreign exchange contracts in Euro dollars at December 31, 2001 mature within three months and approximately one year. Indicators as of February 28, 2002, show that the dollar is expected to strengthen against the Euro dollar by March 31, 2002 and December 31, 2002 to approximately 0.8500 and 0.8700 Euro/USD, respectively. Some of these indicators include foreign exchange rate forecasts received from the Company's banking relationships. The hypothetical gain in cash flows of these Euro forward contracts is estimated to be \$204,000 and \$528,000, respectively, using these assumptions.



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

**INDEX TO FINANCIAL STATEMENTS AND SUPPLEMENTARY DATA**

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**COGNEX CORPORATION**  
**REPORT OF INDEPENDENT ACCOUNTANTS**

To the Board of Directors and Stockholders of Cognex Corporation:

In our opinion, the accompanying consolidated balance sheets and the related consolidated statements of operations, of stockholders' equity and of cash flows present fairly, in all material respects, the financial position of Cognex Corporation and its subsidiaries at December 31, 2001 and 2000, and the results of their operations and their cash flows for each of the three years in the period ended December 31, 2001 in conformity with accounting principles generally accepted in the United States of America. These financial statements are the responsibility of the Company's management; our responsibility is to express an opinion on these financial statements based on our audits. We conducted our audits of these statements in accordance with auditing standards generally accepted in the United States of America, which 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, assessing the accounting principles used and significant estimates made by management, and evaluating the overall financial statement presentation. We believe that our audits provide a reasonable basis for our opinion.

/s/ PRICEWATERHOUSECOOPERS LLP

Boston, Massachusetts  
January 25, 2002

**COGNEX CORPORATION**  
**CONSOLIDATED STATEMENTS OF OPERATIONS**

	Year Ended December 31,		
	2001	2000	1999
	(In thousands, except per share amounts)		
Revenue			
Product .....	\$119,288	\$227,079	\$136,278
Service .....	<u>21,441</u>	<u>23,647</u>	<u>15,847</u>
	140,729	250,726	152,125
Cost of revenue			
Product .....	50,170	49,509	34,264
Service .....	<u>12,175</u>	<u>14,311</u>	<u>10,957</u>
	62,345	63,820	45,221
Gross margin			
Product .....	69,118	177,570	102,014
Service .....	<u>9,266</u>	<u>9,336</u>	<u>4,890</u>
	78,384	186,906	106,904
Research, development, and engineering expenses .....	30,094	33,341	27,536
Selling, general, and administrative expenses .....	61,590	61,915	43,523
Amortization of goodwill .....	3,108	1,964	265
Charge for intangible asset impairment .....	<u>10,932</u>	<u>—</u>	<u>—</u>
Operating income (loss) .....	(27,340)	89,686	35,580
Investment income .....	10,980	9,494	6,572
Other income .....	<u>689</u>	<u>1,038</u>	<u>728</u>
Income (loss) before taxes .....	(15,671)	100,218	42,880
Income tax provision (benefit) .....	<u>(4,544)</u>	<u>32,070</u>	<u>12,435</u>
Net income (loss) .....	<u><u>\$(11,127)</u></u>	<u><u>\$ 68,148</u></u>	<u><u>\$ 30,445</u></u>
Net income (loss) per common and common equivalent share:			
Basic .....	<u><u>\$ (0.25)</u></u>	<u><u>\$ 1.58</u></u>	<u><u>\$ 0.74</u></u>
Diluted .....	<u><u>\$ (0.25)</u></u>	<u><u>\$ 1.49</u></u>	<u><u>\$ 0.69</u></u>
Weighted-average common and common equivalent shares outstanding:			
Basic .....	<u><u>43,639</u></u>	<u><u>43,043</u></u>	<u><u>40,932</u></u>
Diluted .....	<u><u>43,639</u></u>	<u><u>45,698</u></u>	<u><u>43,986</u></u>

The accompanying notes are an integral part of these consolidated financial statements.

**COGNEX CORPORATION**  
**CONSOLIDATED BALANCE SHEETS**

	December 31,	
	2001	2000
	(In thousands)	
ASSETS		
Current assets:		
Cash and cash equivalents . . . . .	\$ 31,660	\$ 42,925
Short-term investments . . . . .	78,513	85,429
Accounts receivable, less reserves of \$2,080 and \$2,150 in 2001 and 2000, respectively . . . . .	17,064	47,031
Inventories . . . . .	23,078	27,664
Deferred income taxes . . . . .	12,175	7,741
Prepaid expenses and other current assets . . . . .	10,082	8,950
Total current assets . . . . .	172,572	219,740
Long-term investments . . . . .	182,542	149,386
Property, plant, and equipment, net . . . . .	31,213	34,012
Deferred income taxes . . . . .	12,001	6,903
Other assets . . . . .	8,576	26,100
	<u>\$406,904</u>	<u>\$436,141</u>
LIABILITIES AND STOCKHOLDERS' EQUITY		
Current liabilities:		
Accounts payable . . . . .	\$ 4,356	\$ 10,127
Accrued expenses . . . . .	16,387	22,953
Accrued income taxes . . . . .	2,099	9,202
Customer deposits . . . . .	2,943	3,074
Deferred revenue . . . . .	3,075	6,471
Total current liabilities . . . . .	28,860	51,827
Other liabilities . . . . .	—	365
Stockholders' equity:		
Common stock, \$.002 par value –		
Authorized: 140,000 shares, issued: 46,289 and 45,788 shares in 2001 and 2000, respectively . . . . .	93	92
Additional paid-in capital . . . . .	173,675	163,815
Treasury stock, at cost, 2,390 and 2,365 shares in 2001 and 2000, respectively . . . . .	(43,419)	(42,670)
Retained earnings . . . . .	254,037	265,164
Accumulated other comprehensive loss . . . . .	(6,342)	(2,447)
Total stockholders' equity . . . . .	378,044	383,949
	<u>\$406,904</u>	<u>\$436,141</u>

The accompanying notes are an integral part of these consolidated financial statements.

# COGNEX CORPORATION — CONSOLIDATED STATEMENTS OF STOCKHOLDERS' EQUITY

	Common Stock		Additional Paid-in Capital	Treasury Stock		Earnings Retained	Accumulated Other Comprehensive	Comprehensive Income (Loss)	Total Stockholders' Equity
(In thousands)	Shares	Par Value		Shares	Cost		Income (Loss)		
Balance at December 31, 1998.	42,454	\$85	\$ 97,531	2,307	\$(41,353)	\$166,571	\$ 41	—	\$222,875
Issuance of common stock under stock option and stock purchase plans	1,766	3	16,125	—	—	—	—	—	16,128
Tax benefit from exercise of stock options	—	—	8,866	—	—	—	—	—	8,866
Common stock received for payment of stock option exercises	—	—	—	74	(2,197)	—	—	—	(2,197)
Comprehensive income:									
Net income	—	—	—	—	—	30,445	—	\$ 30,445	30,445
Unrealized gain on investments, net of tax of \$279	—	—	—	—	—	—	471	471	471
Foreign currency translation adjustment	—	—	—	—	—	—	36	36	36
Comprehensive income								30,952	
Balance at December 31, 1999.	44,220	88	122,522	2,381	(43,550)	197,016	548		276,624
Issuance of common stock under stock option and stock purchase plans	1,568	4	17,993	—	—	—	—	—	17,997
Tax benefit from exercise of stock options	—	—	23,300	—	—	—	—	—	23,300
Common stock received for payment of stock option exercises	—	—	—	2	(77)	—	—	—	(77)
Acquisition of Image Industries, Ltd.	—	—	—	(18)	952	—	—	—	952
Comprehensive income:									
Net income	—	—	—	—	—	68,148	—	68,148	68,148
Unrealized loss on investments, net of tax of \$978	—	—	—	—	—	—	(1,664)	(1,664)	(1,664)
Foreign currency translation adjustment, net of tax of \$53	—	—	—	—	—	—	(1,331)	(1,331)	(1,331)
Comprehensive income								65,153	
Balance at December 31, 2000.	45,788	92	163,815	2,365	(42,675)	265,164	(2,447)		383,949
Issuance of common stock under stock option and stock purchase plans	501	1	6,115	—	—	—	—	—	6,116
Tax benefit from exercise of stock options	—	—	3,745	—	—	—	—	—	3,745
Common stock received for payment of stock option exercises	—	—	—	25	(744)	—	—	—	(744)
Comprehensive loss:									
Net loss	—	—	—	—	—	(11,127)	—	(11,127)	(11,127)
Unrealized loss on investments, net of tax of \$1,807	—	—	—	—	—	—	(3,076)	(3,076)	(3,076)
Foreign currency translation adjustment, net of tax of \$64	—	—	—	—	—	—	(819)	(819)	(819)
Comprehensive loss								\$(15,022)	
Balance at December 31, 2001.	46,289	\$93	\$173,675	2,390	\$(43,419)	\$254,037	\$(6,342)		\$378,044

The accompanying notes are an integral part of these consolidated financial statements.

**COGNEX CORPORATION**  
**CONSOLIDATED STATEMENTS OF CASH FLOWS**

	Year Ended December 31,		
	2001	2000	1999
	(In thousands)		
Cash flows from operating activities:			
Net income (loss) .....	\$(11,127)	\$ 68,148	\$ 30,445
Adjustments to reconcile net income (loss) to net cash provided by operating activities:			
Depreciation of property, plant, and equipment .....	6,953	6,991	6,360
Amortization of intangible assets .....	4,161	2,883	1,179
Amortization of investments .....	2,430	2,119	1,752
Tax benefit from exercise of stock options .....	3,745	23,300	8,866
Charge for excess inventory .....	16,300	—	—
Charge for intangible asset impairment .....	11,247	—	—
Deferred income tax benefit .....	(7,843)	(533)	(6,960)
Changes in current assets and current liabilities:			
Accounts receivable .....	27,824	(18,811)	(6,997)
Inventories .....	(12,893)	(17,902)	(419)
Accounts payable .....	(5,487)	5,850	1,723
Accrued expenses .....	(4,797)	3,416	7,394
Accrued income taxes .....	(6,768)	1,623	5,117
Other current assets and current liabilities .....	(3,118)	(305)	6,303
Other operating activities .....	243	(355)	623
Net cash provided by operating activities .....	<u>20,870</u>	<u>76,424</u>	<u>55,386</u>
Cash flows from investing activities:			
Purchase of investments .....	(139,863)	(134,838)	(97,773)
Maturity of investments .....	106,310	67,119	55,566
Purchase of property, plant, and equipment .....	(4,455)	(7,755)	(3,443)
Long-term deposit .....	—	(1,700)	—
Cash paid for business and technology acquisitions, net of cash acquired .....	(361)	(22,240)	(1,723)
Net cash used in investing activities .....	<u>(38,369)</u>	<u>(99,414)</u>	<u>(47,373)</u>
Cash flows from financing activities:			
Issuance of common stock under stock option and stock purchase plans .....	4,637	17,920	13,931
Net cash provided by financing activities .....	<u>4,637</u>	<u>17,920</u>	<u>13,931</u>
Effect of exchange rate changes on cash .....	1,597	(670)	(1,086)
Net increase (decrease) in cash and cash equivalents .....	(11,265)	(5,740)	20,858
Cash and cash equivalents at beginning of year .....	<u>42,925</u>	<u>48,665</u>	<u>27,807</u>
Cash and cash equivalents at end of year .....	<u>\$ 31,660</u>	<u>\$ 42,925</u>	<u>\$ 48,665</u>

The accompanying notes are an integral part of these consolidated financial statements.



**COGNEX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Summary of Significant Accounting Policies**

The accompanying consolidated financial statements reflect the application of certain accounting policies described below.

***Nature of Operations***

Cognex Corporation (the Company) designs, develops, manufactures, and markets machine vision systems, or computers that can “see.” The Company’s products are used to automate a wide range of manufacturing processes where vision is required.

***Use of Estimates in the Preparation of Financial Statements***

The preparation of financial statements in conformity with generally accepted accounting principles requires management to make estimates and judgments that affect the reported amounts of assets and liabilities at the balance sheet date and the reported amounts of revenue and expenses during the year. Actual results could differ from those estimates.

***Basis of Consolidation***

The consolidated financial statements include the accounts of Cognex Corporation and its subsidiaries, all of which are wholly-owned. All intercompany accounts and transactions have been eliminated. Certain amounts reported in prior years have been reclassified to be consistent with the current year presentation.

***Foreign Currency***

The financial statements of the Company’s foreign subsidiaries, where the local currency is the functional currency, are translated using exchange rates in effect at the end of the year for assets and liabilities and average exchange rates during the year for results of operations. The resulting foreign currency translation adjustment is recorded as other comprehensive income (loss).

***Cash, Cash Equivalents, and Investments***

Debt securities purchased with original maturities of three months or less are classified as cash equivalents. Debt securities with original maturities greater than three months and remaining maturities of one year or less are classified as short-term investments. Debt securities with remaining maturities greater than one year, as well as equity securities and an investment in a limited partnership, are classified as long-term investments.

Debt securities with original maturities greater than three months are stated at amortized cost, which approximates fair value, and are categorized as available-for-sale. Equity securities are stated at fair value based upon prices quoted on public stock exchanges and are also categorized as available-for-sale. Temporary changes in unrealized gains or losses on equity securities, net of tax, are recorded as other comprehensive income (loss). The Company evaluates its investments for potential impairment when an investment has experienced a decline in fair value. If the decline in fair value is determined to be other-than-temporary, an impairment would be recorded in current operations. The Company’s investment in a limited partnership is accounted for using the cost method because the Company’s investment is less than 5% and the Company has no influence over the partnership’s operating and financial policies. The partnership’s performance is monitored by the Company to determine if the cost basis of the investment has been impaired.

**COGNEX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

***Inventories***

Inventories are stated at the lower of cost or market. Cost is determined using standard costs, which approximate the first in, first out (FIFO) method. The Company writes down its inventory for estimated excess and obsolescence equal to the difference between the cost of inventory and the estimated fair value based upon assumptions about future demand, product transitions, and market conditions.

***Property, Plant, and Equipment***

Property, plant, and equipment are stated at cost and depreciated using the straight-line method over the assets' estimated useful lives. Buildings' useful lives are 39 years, building improvements' useful lives are 10 years, and the useful lives of computer hardware, computer software, and furniture and fixtures range from two to five years. Leasehold improvements are depreciated over the shorter of the estimated useful lives or the remaining terms of the leases. Maintenance and repairs are expensed when incurred; additions and improvements are capitalized. Upon retirement or disposition, the cost and related accumulated depreciation of the assets disposed of are removed from the accounts, with any resulting gain or loss included in current operations.

***Goodwill and Other Intangible Assets***

Goodwill and other intangible assets are stated at cost and amortized using the straight-line method over the assets' estimated useful lives, which range from two to ten years. The Company evaluates the possible impairment of long-lived assets, including intangible assets, whenever events or circumstances indicate the carrying value of the assets may not be recoverable. At the occurrence of a certain event or change in circumstances, the Company evaluates the potential impairment of an asset based upon the estimated future undiscounted cash flows. If an impairment exists, the Company will measure the amount of such impairment based upon the present value of the estimated future cash flows using a discount rate commensurate with the risks involved.

***Warranty Obligations***

The Company warrants its hardware products to be free from defects in material and workmanship for periods ranging from six months to two years from the time of sale based upon the product being purchased and the terms of the customer's contract. Estimated warranty obligations are evaluated and recorded at the time of sale.

***Revenue Recognition***

The Company's revenue is derived primarily from two sources: (1) product sales to both original equipment manufacturer (OEM) customers, who incorporate the Company's product into their product for resale, and end-user customers, and (2) service revenue derived principally from providing maintenance and support, education, consulting, and installation services to OEM and end-user customers.

The Company recognizes revenue from product sales upon shipment if a signed customer contract or purchase order exists, the fee is fixed or determinable, and collection of the resulting receivable is probable. If a contract or purchase order contains customer-specified acceptance criteria, then revenue is deferred until the Company can demonstrate that the customer's criteria have been met. Revenue from maintenance and support programs is deferred and recognized ratably over the program period. Revenue from education, consulting, and installation services is recognized as the related services are performed.

**COGNEX CORPORATION**  
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***Research and Development***

Research and development costs for internally-developed products are expensed when incurred until technological feasibility has been established for the product. Thereafter, all software costs are capitalized until the product is available for general release to customers. The Company determines technological feasibility at the time the product reaches beta in its stage of development. The cost of acquired software is capitalized for products determined to have reached technological feasibility; otherwise the cost is expensed. Capitalized software costs are amortized using the straight-line method over the economic life of the product, which is typically three to five years. Historically, the time incurred between beta and general release to customers has been short, and therefore, the costs have been insignificant. As a result, the Company has not capitalized costs associated with internally-developed software products.

***Income Taxes***

The Company accounts for income taxes under the liability method. Under this method, a deferred tax asset or liability is determined based on the differences between the financial statement and tax bases of assets and liabilities as measured by the enacted tax rates that will be in effect when these differences reverse. Tax credits are recorded as a reduction in income taxes. Valuation allowances are provided if, based upon the weight of available evidence, it is more likely than not that some or all of the deferred tax assets will not be realized.

***Net Income (Loss) Per Share***

Basic net income (loss) per share is computed by dividing net income (loss) available to common stockholders by the weighted-average number of common shares outstanding for the period. Diluted net income (loss) per share is computed by dividing net income (loss) available to common stockholders by the weighted-average number of common shares outstanding for the period plus potential dilutive common shares. All potential dilutive common shares are excluded from the computation of net loss per share because they are antidilutive. Dilutive common equivalent shares consist of stock options and are calculated using the treasury stock method.

***Comprehensive Income (Loss)***

Comprehensive income (loss) is defined as the change in equity of a company during a period from transactions and other events and circumstances, excluding transactions resulting from investments by owners and distributions to owners. Other comprehensive income consists of unrealized gains and losses on investments and foreign currency translation adjustments.

***Concentrations of Credit Risk***

Financial instruments that potentially subject the Company to concentrations of credit risk consist primarily of cash, cash equivalents, investments, and trade receivables. The Company primarily invests in municipal obligations of federal and state government entities. The Company has established guidelines relative to credit ratings, diversification, and maturities that maintain safety and liquidity. The Company has not experienced any significant realized losses on its cash equivalents and investments.

A significant portion of the Company's sales and receivables are from customers who are either in or who serve the semiconductor and electronics industries. The Company performs ongoing credit evaluations of its customers and maintains allowances for potential credit losses. The Company has not experienced any significant losses related to the collection of its accounts receivable.

**COGNEX CORPORATION**  
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***Off-Balance Sheet Risk***

In certain instances, the Company enters into forward exchange contracts to hedge against foreign currency fluctuations. These contracts are used to reduce the Company's risk associated with exchange rate movements, as the gains or losses on these contracts are intended to offset the exchange rate losses or gains on the underlying exposures. The Company does not engage in foreign currency speculation. The Company had \$28,389,000 and \$16,445,000 of foreign exchange contracts outstanding at December 31, 2001 and 2000, respectively. The foreign exchange contracts were in Japanese Yen and Euro Dollar in 2001 and 2000. Based on year-end exchange rates, the Company estimates the aggregate contract value of the forward exchange contracts to be representative of the fair values of these instruments.

***Foreign Currency Risk***

The Company enters into transactions denominated in foreign currencies and includes the exchange rate gains or losses arising from such transactions in current operations. The Company recorded a net exchange rate loss of \$328,000 in 2001 and net exchange rate gains of \$99,000 in 2000 and \$955,000 in 1999.

**New Pronouncements**

In July 2001, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standard (SFAS) No. 141, "Business Combinations." SFAS No. 141 is effective for all business combinations initiated after June 30, 2001 and for all business combinations accounted for by the purchase method for which the date of acquisition is after June 30, 2001. This standard requires that all business combinations be accounted for under the purchase method and that certain acquired intangible assets in a business combination be recognized as assets apart from goodwill. The Company adopted SFAS No. 141 on July 1, 2001 and it did not have a material impact on the Company's financial position and results of operations.

In July 2001, the FASB issued SFAS No. 142, "Goodwill and Other Intangible Assets." SFAS No. 142 is effective for fiscal years beginning after December 15, 2001. This standard requires, among other things, the cessation of the amortization of goodwill. In addition, SFAS No. 142 includes provisions for the reclassification of certain existing intangible assets as goodwill, the reclassification of certain existing intangible assets out of previously reported goodwill, the reassessment of the useful lives of existing intangible assets, and the identification of reporting units for the purpose of assessing potential future impairments of goodwill. This standard also requires the Company to complete a transitional goodwill impairment test six months from the date of adoption. The Company adopted SFAS No. 142 on January 1, 2002 and is required to complete the transition impairment test no later than June 30, 2002. The Company is currently assessing the impact of this new statement on its financial position and results of operations, but does not expect it to have a material impact upon adoption. Effective January 1, 2002, the Company ceased the amortization of goodwill.

In October 2001, the FASB issued SFAS No. 144, "Accounting for the Impairment or Disposal of Long-Lived Assets." SFAS No. 144 is effective for fiscal years beginning after December 15, 2001. SFAS No. 144 replaces SFAS No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to Be Disposed Of." This standard requires that long-lived assets that are to be disposed of by sale be measured at the lower of book value or fair value less cost to sell. Additionally, SFAS No. 144 expands the scope of discontinued operations to include all components of an entity with operations that can be distinguished from the rest of the entity and will be eliminated from the ongoing operations of the entity in a disposal transaction. The Company adopted SFAS No. 144 on January 1, 2002 and it did not have a material impact on its financial position and results of operations.

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**Financial Instruments and Risk Management**

In June 1998, the Financial Accounting Standards Board (FASB) issued Statement of Financial Accounting Standards (SFAS) No. 133, "Accounting for Derivative Instruments and Hedging Activities." SFAS No. 133 requires that all derivative instruments be recorded on the balance sheet at their fair value. Changes in the fair value of derivatives are recorded each period in current earnings or other comprehensive income, depending upon whether a derivative is designated as part of a hedge transaction and, if it is, the type of hedge transaction. The Company adopted SFAS No. 133 on January 1, 2001 and it did not have a material impact on the Company's financial position and results of operations.

The Company enters into forward exchange contracts to hedge a portion of its intercompany sales of inventory by the United States parent to its foreign subsidiaries payable in the foreign subsidiaries' local currency. These contracts, which related primarily to the Japanese Yen and Euro, generally have a time period of three to six months. Realized and unrealized gains and losses on forward exchange contracts that do not qualify for hedge accounting are recognized immediately in earnings. The total loss incurred for transactions that did not qualify as hedges was \$154,000 for the year ended December 31, 2001.

The Company uses forward exchange contracts to hedge net investments in certain of its European subsidiaries, as well as royalty and cost-sharing payments due the parent company. Market value gains and losses on forward exchange contracts hedging firm commitments are recognized when the hedged transaction occurs. These contracts, which related primarily to the Euro, generally have a maximum term of two years. Forward exchange contracts receive hedge accounting on firmly committed transactions when they are designated as a hedge of the designated currency exposure and are effective in minimizing such exposure.

Forward exchange contracts that qualify for hedge accounting with notional amounts of \$9,700,000, \$6,800,000, and \$3,842,000 to exchange Euros for US dollars were outstanding as of December 31, 2001. For the year ended December 31, 2001, the Company recorded a cumulative unrealized gain of \$1,106,000 related to these foreign exchange contracts in other comprehensive income. These amounts offset the foreign exchange impact (the hedged transaction), which resulted in an unrealized foreign exchange loss of \$934,000 for the year ended December 31, 2001.

The market risk exposure from forward exchange contracts is assessed in light of the underlying currency exposures and is controlled by the initiation of additional or offsetting foreign exchange contracts.

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**Cash, Cash Equivalents, and Investments**

Cash, cash equivalents, and investments consist of the following:

	December 31,	
	2001	2000
	(In thousands)	
Cash .....	<b>\$ 19,808</b>	\$ 19,204
Municipal obligations .....	<b>11,852</b>	23,721
Total cash and cash equivalents .....	<b>31,660</b>	42,925
Municipal obligations .....	<b>78,513</b>	85,429
Total short-term investments .....	<b>78,513</b>	85,429
Municipal obligations .....	<b>169,730</b>	139,440
Equity securities .....	<b>5,687</b>	5,571
Investment in limited partnership .....	<b>7,125</b>	4,375
Total long-term investments .....	<b>182,542</b>	149,386
	<b><u>\$292,715</u></b>	<b><u>\$277,740</u></b>

Equity securities had a cost basis of \$12,461,000 and a temporary unrealized loss of \$6,774,000 at December 31, 2001 and a cost basis of \$7,462,000 and a temporary unrealized loss of \$1,891,000 at December 31, 2000. These equity securities are in publicly-traded Japanese companies with volatile stock prices. These companies are established market leaders in the semiconductor and electronics industries, which are highly cyclical industries and have historically experienced extended periodic downturns. It is the Company's intention to hold these securities on a long-term basis consistent with its long-term commitment to the Japanese market. The Company has determined that this unrealized loss is temporary because these stock price movements represent short-term trading fluctuations due to the cyclical nature of the semiconductor and electronics industries, which the Company believes are currently recovering from a downturn, and not a fundamental change in the underlying companies.

On June 30, 2000, Cognex Corporation became a Limited Partner in Venrock Associates III, L.P., a venture capital fund. The Company has committed to a total investment of up to \$25,000,000 over a ten-year period, of which \$7,125,000 had been invested as of December 31, 2001 and \$4,375,000 had been invested as of December 31, 2000. A director of the Company is a Managing General Partner of Venrock Associates.

The Company has not experienced any significant realized gains or losses on the sale of its investments or other-than-temporary impairments on its investments in 2001, 2000, and 1999.

**Inventories**

Inventories consist of the following:

	December 31,	
	2001	2000
	(In thousands)	
Raw materials .....	<b>\$16,108</b>	\$14,263
Work-in-process .....	<b>4,162</b>	5,789
Finished goods .....	<b>2,808</b>	7,612
	<b><u>\$23,078</u></b>	<b><u>\$27,664</u></b>

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In the fourth quarter of 2001, the Company recorded a \$16,300,000 charge in "Cost of product revenue" on the Consolidated Statements of Operations for excess inventories and purchase commitments resulting from an extended slowdown in the semiconductor and electronics industries, as well as the expected transition to newer Cognex hardware platforms by the Company's OEM customers. \$12,500,000 of this charge represents reserves against existing inventories and is accordingly included in "Inventories" on the Consolidated Balance Sheets. The remaining \$3,800,000 of this charge represents commitments to purchase excess components and systems from various suppliers and accordingly is included in "Accrued Expenses" on the Consolidated Balance Sheets. The Company is in the process of negotiating with vendors for the settlement of these commitments, which may result in a recovery of a portion of the accrued amount.

**Property, Plant, and Equipment**

Property, plant, and equipment consist of the following:

	December 31,	
	2001	2000
	(In thousands)	
Land .....	\$ 3,051	\$ 3,051
Buildings .....	17,571	17,571
Building improvements .....	4,130	3,997
Computer hardware and software .....	33,868	31,061
Furniture and fixtures .....	3,509	3,354
Leasehold improvements .....	1,967	2,049
	<u>64,096</u>	<u>61,083</u>
Less: accumulated depreciation .....	(32,883)	(27,071)
	<u>\$ 31,213</u>	<u>\$ 34,012</u>

Buildings include property held for lease with a cost basis of \$4,950,000 at December 31, 2001 and 2000 and accumulated depreciation of \$825,000 and \$698,000 at December 31, 2001 and 2000, respectively.

**Other Assets**

Other assets consist of the following:

	December 31,	
	2001	2000
	(In thousands)	
Goodwill .....	\$ 5,672	\$20,317
Acquired complete technology and other intangible assets .....	5,760	7,358
	<u>11,432</u>	<u>27,675</u>
Less: accumulated amortization .....	(6,510)	(7,037)
	<u>4,922</u>	<u>20,638</u>
Deposits and other .....	3,654	5,462
	<u>\$ 8,576</u>	<u>\$26,100</u>

Throughout 2001, the Company's results were negatively impacted by the worldwide slowdown in capital equipment spending, as well as the weakened global economy. During the fourth quarter of 2001, a number of factors indicated that the business slowdown would be both longer and more severe than the Company had



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previously anticipated, including the continued decline in order rates across a variety of industries and product lines. As a result of the significant adverse change in the business outlook, the Company evaluated the possible impairment of its intangible assets in accordance with Statement of Financial Accounting Standard (SFAS) No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of." These analyses resulted in impairment charges based on the difference between the carrying amount and the estimated fair value of certain acquisition related intangible assets. The fair value was based on discounting estimated future cash flows for assets grouped at the lowest level for which there were identifiable cash flows at a discount rate commensurate with the risks involved. The resulting analyses yielded a \$10,932,000 impairment charge related to goodwill arising primarily from the acquisitions in 2000 of the machine vision businesses of Komatsu Ltd. and Honeywell International Inc. The analyses also resulted in a \$315,000 charge, included in "Cost of product revenue," related to the impairment of complete technology primarily acquired from Komatsu Ltd.

**Accrued Expenses**

Accrued expenses consist of the following:

	<b>December 31,</b>	
	<b>2001</b>	<b>2000</b>
	<b>(In thousands)</b>	
Purchase commitments .....	<b>\$ 3,800</b>	\$ —
Salaries, commissions, and payroll taxes .....	<b>2,564</b>	3,010
Professional fees .....	<b>2,440</b>	2,099
Warranty .....	<b>2,007</b>	3,127
Vacation .....	<b>1,845</b>	2,020
Bonus .....	<b>—</b>	5,964
Other .....	<b>3,731</b>	6,733
	<b><u>\$16,387</u></b>	<b><u>\$22,953</u></b>

**Leases**

The Company conducts certain of its operations in leased facilities. These lease agreements expire at various dates through 2014 and are accounted for as operating leases. Annual rent expense totaled \$4,673,000 in 2001, \$3,717,000 in 2000, and \$2,620,000 in 1999. Future minimum rental payments under these agreements are as follows at December 31, 2001 (in thousands):

<b><u>Year</u></b>	<b><u>Amount</u></b>
2002 .....	\$ 3,722
2003 .....	3,180
2004 .....	1,743
2005 .....	1,223
2006 .....	88
Thereafter .....	<u>591</u>
	<b><u>\$10,547</u></b>

The Company owns an 83,000 square-foot office building adjacent to its corporate headquarters. The building is currently occupied with tenants who have lease agreements that expire at various dates through 2003. Annual rental income totaled \$1,426,000 in 2001, \$1,755,000 in 2000, and \$1,581,000 in 1999.

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Rental income and related expenses are included in "Other income" on the Consolidated Statements of Operations. Future minimum rental receipts under non-cancelable lease agreements are \$507,000 in 2002 and \$264,000 in 2003.

**Stockholders' Equity**

*Preferred Stock*

The Company has 400,000 shares of authorized but unissued \$.01 par value preferred stock.

*Stock Repurchase Programs*

On December 12, 2000, the Company's Board of Directors authorized the repurchase of up to \$100,000,000 of the Company's common stock. As of December 31, 2001, the Company had not repurchased any shares under this program.

*Stock-Based Compensation Plans*

The Company has adopted the disclosure requirements of Statement of Financial Accounting Standard (SFAS) No. 123, "Accounting for Stock-Based Compensation." The Company continues to recognize compensation costs using the intrinsic value based method described in Accounting Principles Board Opinion No. 25, "Accounting for Stock Issued to Employees." No compensation costs were recognized in 2001, 2000, and 1999.

Net income (loss) and net income (loss) per share as reported in these consolidated financial statements and on a pro forma basis, as if the fair value based method described in SFAS No. 123 had been adopted, are as follows:

	Year Ended December 31,		
	2001	2000	1999
	(In thousands, except per share amounts)		
Net income (loss)			
As reported .....	<b>\$(11,127)</b>	\$68,148	\$30,445
Pro forma .....	<b>(28,825)</b>	58,591	20,203
Basic net income (loss) per share			
As reported .....	<b>(0.25)</b>	1.58	0.74
Pro forma .....	<b>(0.66)</b>	1.36	0.49
Diluted net income (loss) per share			
As reported .....	<b>(0.25)</b>	1.49	0.69
Pro forma .....	<b>(0.66)</b>	1.34	0.48

For the purpose of providing pro forma disclosures, the fair values of stock options granted were estimated using the Black-Scholes option-pricing model with the following weighted-average assumptions used for grants in 2001, 2000, and 1999, respectively: a risk-free interest rate of 4.5%, 6.1%, and 5.6%; an expected life of 2.7, 3.1, and 4.5 years; an expected volatility of 62%, 60%, and 54%; and no expected dividends.

*Stock Option Plans*

At December 31, 2001, the Company had 2,737,930 shares available for grant under the following stock option plans: the 1998 Director Plan, 74,000; the 1998 Stock Incentive Plan, 2,263,930; and the 2001 Interim General Stock Incentive Plan, 400,000.

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On April 21, 1998, the stockholders approved the 1998 Stock Incentive Plan, under which the Company may initially grant stock options and stock awards to purchase up to 1,700,000 shares of common stock. Effective January 1, 1999 and each January 1st thereafter during the term of the 1998 Stock Incentive Plan, the number of shares of common stock available for grants of stock options and stock awards shall be increased automatically to an amount equal to 4.5% of the total number of issued shares of common stock, including shares held in treasury, as of the close of business on December 31st of the preceding year.

On November 27, 2000, employees forfeited 652,280 options. The Company committed to grant those employees the same number of options approximately seven months later at the then fair market value with similar terms and conditions. On June 8, 2001, the Company granted 583,580 options at the then fair market value to those same employees. Options granted on June 8, 2001 were less than the original amount forfeited due to employee terminations.

Stock options generally vest over four years and generally expire no later than ten years from the date of grant.

The following table summarizes the status of the Company's stock option plans at December 31, 2001, 2000, and 1999, and changes during the years then ended:

	2001		2000		1999	
	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price	Shares	Weighted-Average Exercise Price
	(In thousands, except per share amounts)					
Outstanding at beginning of year . . . . .	8,014	\$21.04	8,047	\$16.09	8,322	\$11.65
Granted at fair market value . . . . .	2,630	25.28	2,985	35.65	2,059	28.50
Granted above fair market value . . . .	—	—	60	59.10	—	—
Exercised . . . . .	(467)	10.10	(1,622)	10.78	(1,764)	9.00
Forfeited . . . . .	(648)	27.54	(1,456)	36.58	(570)	18.02
Outstanding at end of year . . . . .	<u>9,529</u>	<u>22.31</u>	<u>8,014</u>	<u>21.04</u>	<u>8,047</u>	<u>16.09</u>
Options exercisable at year-end . . . . .	2,842	15.93	1,913	13.05	2,091	9.47
Weighted-average grant-date fair value of options granted during the year at fair market value . . . . .	\$10.34		\$ 15.60		\$ 14.06	
Weighted-average grant-date fair value of options granted during the year above fair market value . . . . .	—		\$ 20.39		—	

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

Range of Exercise Prices	Options Outstanding			Options Exercisable	
	Number Outstanding	Weighted- Average Remaining Contractual Life (in years) (In thousands, except per share amounts)	Weighted- Average Number Exercise Price	Number Exercisable	Weighted- Average Exercise Price
\$ 1.00-15.72 .....	2,492	6.0	\$11.03	1,639	\$10.30
15.88-18.13 .....	1,963	8.6	17.19	528	16.20
18.19-25.60 .....	2,041	9.2	23.59	197	23.00
25.70-30.81 .....	1,991	9.3	28.98	336	28.83
30.86-44.44 .....	468	8.4	35.68	108	36.35
45.41-59.69 .....	574	12.2	50.22	34	49.31
	<u>9,529</u>	8.4	22.31	<u>2,842</u>	15.93

***Employee Stock Purchase Plan***

Under the Company's Employee Stock Purchase Plan (ESPP), employees who have completed six months of continuous employment with the Company may purchase common stock semi-annually at the lower of 85% of the fair market value of the stock at the beginning or end of the six-month payment period through accumulation of payroll deductions. Employees are required to hold common stock purchased under the ESPP for a period of one year from the date of purchase. Common stock reserved for future sales totaled 352,104 shares at December 31, 2001. Shares purchased under the ESPP totaled 34,004 in 2001, 22,638 in 2000, and 24,118 in 1999. The weighted-average fair value of shares purchased under the ESPP was \$7.73 in 2001, \$17.22 in 2000, and \$17.59 in 1999.

For the purpose of providing pro forma disclosures, the fair values of shares purchased were estimated using the Black-Scholes option-pricing model with the following weighted-average assumptions used for purchases in 2001, 2000, and 1999, respectively: a weighted-average risk-free interest rate of 2.9%, 5.9%, and 5.3%; an expected life of six months; an expected volatility of 62%, 60%, and 54%; and no expected dividends.

**Employee Savings Plan**

Under the Company's Employee Savings Plan, a defined contribution plan, employees who have attained age 21 may contribute 1% to 15% of their salary on a pre-tax basis subject to the annual dollar limitations established by the Internal Revenue Service. The Company contributes fifty cents for each dollar an employee contributes, with a maximum contribution of 3% of an employee's pre-tax salary. Company contributions vest after five years of continuous employment with the Company. Prior to January 1, 2000, Company contributions were made at the discretion of management. Beginning January 1, 2002, participants may contribute 1% to 25% of their salary on a pre-tax basis and Company contributions are vested 20%, 40%, 60%, and 100% after two, three, four, and five years of continuous employment with the Company, respectively. Company contributions approximated \$1,004,000 in 2001, \$844,000 in 2000, and \$490,000 in 1999. Cognex stock is not an investment alternative, nor are Company contributions made in Cognex stock.

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**Income Taxes**

Domestic income before taxes was \$3,068,000 and foreign loss before taxes was \$18,739,000 for the year ended December 31, 2001. Foreign income (loss) was not significant for the years ended December 31, 2000 and 1999.

The provision (benefit) for income taxes consists of the following:

	Year Ended December 31,		
	2001	2000	1999
	(In thousands)		
Current:			
Federal .....	\$ 3,742	\$29,335	\$12,838
State .....	(319)	1,467	2,390
Foreign .....	536	3,793	1,154
	<u>3,959</u>	<u>34,595</u>	<u>16,382</u>
Deferred:			
Federal .....	(7,093)	(2,301)	(2,167)
State .....	822	1,279	(1,515)
Foreign .....	(2,232)	(1,503)	(265)
	<u>(8,503)</u>	<u>(2,525)</u>	<u>(3,947)</u>
	<u>\$ (4,544)</u>	<u>\$32,070</u>	<u>\$12,435</u>

A reconciliation of the United States federal statutory corporate rate to the Company's effective tax rate is as follows:

	Year Ended December 31,		
	2001	2000	1999
Income tax provision (benefit) at federal statutory rate .....	(35)%	35%	35%
State income taxes, net of federal benefit .....	—	2	2
Foreign Sales Corporation .....	—	(4)	(3)
Tax-exempt investment income .....	(23)	(3)	(5)
Foreign rate differential .....	12	2	—
Goodwill amortization and impairment charges .....	15	—	—
Other .....	2	—	—
Provision (benefit) for income taxes .....	<u>(29)%</u>	<u>32%</u>	<u>29%</u>

Deferred income taxes reflect the net tax effect of temporary differences between the carrying amounts of assets and liabilities for financial reporting purposes and the amounts used for income tax purposes. The components of the Company's deferred tax assets are as follows:

	December 31,	
	2001	2000
	(In thousands)	
Current deferred tax assets:		
Inventory and revenue related .....	\$ 9,453	\$4,948
Bonus, commission, and other compensation .....	429	793
Other .....	<u>2,293</u>	<u>2,000</u>
Total net current deferred tax asset .....	<u>\$12,175</u>	<u>\$7,741</u>

**COGNEX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

	<u>December 31,</u>	
	<u>2001</u>	<u>2000</u>
	(In thousands)	
Noncurrent deferred tax assets (liabilities):		
Federal and state credit carryforwards .....	\$ 5,389	\$3,262
Foreign net operating loss carryforwards .....	3,420	648
Acquired complete technology and other intangibles .....	3,645	1,783
Acquired in-process technology .....	1,250	1,395
Depreciation .....	477	707
Unrealized investment gains (losses) .....	(2,362)	(654)
Other .....	182	(238)
Total net noncurrent deferred tax asset .....	<u>\$12,001</u>	<u>\$6,903</u>

As of December 31, 2001, the Company had federal research and experimentation carryforwards of approximately \$2,251,000, which may be available to offset future federal income tax liabilities and will begin to expire in 2021. The Company also had approximately \$1,462,000 of alternative minimum tax, which may be available to offset future regular income tax liabilities. In addition, the Company had \$1,676,000 of state research and experimentation credits which will begin to expire in 2009. As of December 31, 2001, the Company's foreign subsidiaries had net operating loss carryforwards of approximately \$17,876,000, which expire over various periods, of which \$13,832,000 have an unlimited expiration period.

**Net Income (Loss) Per Share**

Net income (loss) per share is calculated as follows:

	<u>Year Ended December 31,</u>		
	<u>2001</u>	<u>2000</u>	<u>1999</u>
	(In thousands, except per share amounts)		
Net income (loss) .....	<u>\$ (11,127)</u>	<u>\$68,148</u>	<u>\$30,445</u>
Basic:			
Weighted-average common shares outstanding .....	<u>43,639</u>	<u>43,043</u>	<u>40,932</u>
Net income (loss) per common share .....	<u>\$ (0.25)</u>	<u>\$ 1.58</u>	<u>\$ 0.74</u>
Diluted:			
Weighted-average common shares outstanding .....	43,639	43,043	40,932
Effect of dilutive securities:			
Stock options .....	—	2,655	3,054
Weighted-average common and common equivalent shares outstanding .....	<u>43,639</u>	<u>45,698</u>	<u>43,986</u>
Net income (loss) per common and common equivalent share .....	<u>\$ (0.25)</u>	<u>\$ 1.49</u>	<u>\$ 0.69</u>

Stock options to purchase 3,066,622, 877,342, and 97,672 shares of common stock were outstanding during the years ended December 31, 2001, 2000, and 1999, respectively, but were not included in the calculation of diluted net income per share because the options' exercise prices were greater than the average market price of the Company's common stock during those years. For the year ended December 31, 2001, potential common stock equivalents of 1,615,524 were not included in the calculation of diluted net loss per share because they were antidilutive. Although these stock options and potential common stock equivalents were antidilutive in 2001, 2000, and 1999, they may be dilutive in future years' calculations.

**COGNEX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Segment Information**

The Company has two reportable segments: the Modular Vision Systems Division (MVSD) and the Surface Inspections Systems Division (SISD). MVSD designs, develops, manufactures, and markets modular vision systems that are used to control the manufacturing of discrete items by locating, identifying, inspecting, and measuring them during the manufacturing process. SISD designs, develops, manufactures, and markets surface inspection vision systems that are used to inspect surfaces of materials that are processed in a continuous fashion to ensure there are no flaws or defects in the surfaces. Segments are determined based upon the way that management organizes its business for making operating decisions and assessing performance.

The accounting policies of the segments are the same as those described in the Summary of Significant Accounting Policies in the Notes to the Consolidated Financial Statements. The Company evaluates segment performance based upon income or loss from operations, excluding nonrecurring charges and foreign currency exchange rate gains or losses.

The following table summarizes information about the Company's segments (in thousands):

	<u>MVSD</u>	<u>SISD</u>	<u>Reconciling Items</u>	<u>Consolidated</u>
<b>Year Ended December 31, 2001:</b>				
Product revenue .....	<b>\$100,188</b>	<b>\$19,100</b>	—	<b>\$119,288</b>
Service revenue .....	<b>16,886</b>	<b>4,555</b>	—	<b>21,441</b>
Depreciation and amortization .....	<b>9,247</b>	<b>1,644</b>	<b>\$ 223</b>	<b>11,114</b>
Inventory and intangible asset impairment charges ....			<b>27,547</b>	<b>27,547</b>
Operating income (loss) .....	<b>10,189</b>	<b>138</b>	<b>(37,667)</b>	<b>(27,340)</b>
<b>Year Ended December 31, 2000:</b>				
Product revenue .....	\$212,610	\$14,469	—	\$227,079
Service revenue .....	18,861	4,786	—	23,647
Depreciation and amortization .....	8,243	1,324	<b>\$ 307</b>	<b>9,874</b>
Operating income (loss) .....	98,352	(315)	<b>(8,351)</b>	<b>89,686</b>
<b>Year Ended December 31, 1999:</b>				
Product revenue .....	\$128,321	\$ 7,957	—	\$136,278
Service revenue .....	13,197	2,650	—	15,847
Depreciation and amortization .....	6,019	1,261	<b>\$ 259</b>	<b>7,539</b>
Operating income (loss) .....	49,634	(7,056)	<b>(6,998)</b>	<b>35,580</b>

Reconciling items consist of inventory and intangible asset impairment charges, which are not included in the segment's operating income (loss) for the purpose of making operating decisions and assessing performance. These charges include \$21,892,000 related to the MVSD segment and \$5,655,000 related to the SISD segment. Reconciling items also consist of unallocated corporate expenses, which primarily include corporate headquarters and patent infringement litigation. Asset information by segment is not produced internally, and therefore is not presented.

One customer accounted for \$25,805,000, or 10%, of revenue in 2000 and \$19,611,000, or 13%, of revenue in 1999. No customer accounted for greater than 10% of revenue in 2001.



**COGNEX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

The following table summarizes information about geographic areas (in thousands):

	<u>United States</u>	<u>Japan</u>	<u>Ireland</u>	<u>Other</u>	<u>Eliminations</u>	<u>Consolidated</u>
<b>Year Ended December 31, 2001:</b>						
Revenue:						
Unaffiliated .....	\$92,412	\$29,287	\$19,030	—	—	\$140,729
Intercompany .....	18,668	—	—	—	\$(18,668)	—
Long-lived assets.....	30,813	2,153	2,031	\$4,792	—	39,789
<b>Year Ended December 31, 2000:</b>						
Revenue:						
Unaffiliated .....	\$208,265	\$42,461	—	—	—	\$250,726
Intercompany .....	13,522	—	—	—	\$(13,522)	—
Long-lived assets.....	41,701	2,875	\$ 8,753	\$6,783	—	60,112
<b>Year Ended December 31, 1999:</b>						
Revenue:						
Unaffiliated .....	\$130,618	\$21,507	—	—	—	\$152,125
Intercompany .....	10,162	—	—	—	\$(10,162)	—
Long-lived assets.....	30,614	2,089	—	\$2,702	—	35,405

Revenue is presented geographically based upon the country in which the sale is recorded. Inventories are transferred to the Company's Japanese and Irish subsidiaries at previously established transfer prices, resulting in intercompany revenue and receivables for the United States operation.

The Other column represents all long-lived assets in other countries, none of which were significant, and certain deposits that are included in "Other assets" on the Consolidated Balance Sheets.

**Acquisition of Komatsu Ltd. Machine Vision Business**

On March 31, 2000, the Company acquired selected assets of the machine vision business of Komatsu Ltd. for \$11,200,000 in cash, with the potential for an additional cash payment in 2002 of up to \$8,000,000 depending upon certain performance criteria. The purchase price was allocated as follows: \$297,000 to tangible equipment, to be depreciated in accordance with the Company's depreciation policy; \$400,000 to workforce, to be amortized over two years; \$2,462,000 to complete technology, to be amortized over five years; and \$8,041,000 to goodwill, also to be amortized over five years. Although the measurement period for the performance criteria does not end until March 2002, based upon information available as of December 31, 2001, the Company does not believe the performance criteria will be met, and therefore, does not anticipate making any additional payments in 2002.

The acquisition was accounted for under the purchase method of accounting. Accordingly, the results of operations of the acquired business have been included in the Company's consolidated results of operations since the date of the acquisition. The financial position and results of operations of the acquired business were not material compared to the Company's financial position and consolidated results of operations, and therefore, pro forma results are not presented.

As a result of the significant adverse change in the business outlook determined in the fourth quarter of 2001, the Company evaluated the possible impairment of its intangible assets in accordance with Statement of Financial Accounting Standard (SFAS) No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of." These analyses resulted in impairment charges based on the difference between the carrying amount and the estimated fair value of the intangible assets associated with the acquisition of the machine vision business of Komatsu Ltd. Fair value was based on discounting estimated future cash flows for assets grouped at the lowest level for which there were identifiable cash flows at a

**COGNEX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

discount rate commensurate with the risks involved. The resulting analyses yielded a \$5,550,000 impairment charge, of which \$5,227,000 was allocated to the carrying amount of goodwill and \$50,000 was allocated to the carrying amount of workforce, which reduced the carrying amounts of these assets to zero. The remaining \$273,000 reduced the carrying amount of complete technology.

**Acquisition of Image Industries, Ltd.**

On April 20, 2000, the Company acquired all of the outstanding shares of Image Industries Ltd., a privately-held manufacturer of low-cost machine vision systems located in the United Kingdom. The purchase price of \$2,706,000 included \$876,000 in cash at closing, \$878,000 in cash to be paid through 2002, and 17,619 shares of Cognex common stock, issued from treasury, with a fair value of \$952,000. At December 31, 2001, \$341,000 of the purchase price remained to be paid in 2002. The purchase price was allocated as follows: \$671,000 to tangible net assets; \$200,000 to workforce, to be amortized over five years; and \$1,835,000 to goodwill, also to be amortized over five years.

The acquisition was accounted for under the purchase method of accounting. Accordingly, the results of operations of the acquired company have been included in the Company's consolidated results of operations since the date of the acquisition. The financial position and results of operations of the acquired company were not material compared to the Company's consolidated financial position and results of operations, and therefore, pro forma results are not presented.

**Acquisition of Honeywell International Inc. Web Inspection Business**

On September 30, 2000, the Company acquired selected assets of the web inspection business of Honeywell International Inc. (Honeywell) for \$8,400,000 in cash. The Company paid an additional \$1,600,000 at the closing that is contingent upon the achievement of certain performance criteria in 2001. There is the potential for an additional payment of up to \$1,600,000 in 2002, also depending upon the achievement of certain performance criteria. As part of the agreement, the Company and Honeywell also formed an alliance in which the Company will provide its web inspection systems to Honeywell's customers in the pulp and paper industry worldwide. The purchase price was recorded as goodwill to be amortized over ten years. The measurement period for the performance criteria ended December 31, 2001, and in 2002 the Company expects to make no further payments and to receive a refund of the \$1,600,000 paid at closing.

The acquisition was accounted for under the purchase method of accounting. Accordingly, the results of operations of the acquired business have been included in the Company's consolidated results of operations since the date of the acquisition. The financial position and results of operations of the acquired business were not material compared to the Company's consolidated financial position and results of operations, and therefore, pro forma results are not presented.

As a result of the significant adverse change in the business outlook determined in the fourth quarter of 2001, the Company evaluated the possible impairment of its intangible assets in accordance with Statement of Financial Accounting Standard (SFAS) No. 121, "Accounting for the Impairment of Long-Lived Assets and for Long-Lived Assets to be Disposed Of." These analyses resulted in impairment charges based on the difference between the carrying amount and the estimated fair value of the intangible assets associated with the acquisition of the web inspection business of Honeywell. Fair value was based on discounting estimated future cash flows for assets grouped at the lowest level for which there were identifiable cash flows at a discount rate commensurate with the risks involved. The resulting analyses yielded a \$5,512,000 impairment charge that reduced the carrying amount of goodwill.

**COGNEX CORPORATION**  
**NOTES TO CONSOLIDATED FINANCIAL STATEMENTS**

**Supplemental Statement of Cash Flows Disclosure**

Cash paid for income taxes totaled \$6,741,000 in 2001, \$8,386,000 in 2000, and \$2,347,000 in 1999.

Common stock received as payment for stock option exercises totaled \$744,000 in 2001, \$77,000 in 2000, and \$2,197,000 in 1999.

In 2000, the Company issued 17,619 shares of Cognex treasury stock, with a fair value of \$952,000, in connection with the acquisition of Image Industries, Ltd.

The Company retired certain fully-depreciated property, plant, and equipment totaling \$282,000 in 2001 and \$4,664,000 in 2000.

**Selected Quarterly Financial Data (Unaudited)**

	Quarter Ended			
	April 1, 2001	July 1, 2001	September 30, 2001	December 31, 2001
	(In thousands, except per share amounts)			
Revenue .....	\$44,206	\$37,379	\$33,974	\$ 25,170
Gross margin .....	31,414	25,128	22,904	(1,062)
Operating income (loss) .....	4,017	254	380	(31,991)
Net income (loss) .....	4,761	2,155	2,292	(20,335)
Basic net income (loss) per share .....	0.11	0.05	0.05	(0.46)
Diluted net income (loss) per share .....	0.11	0.05	0.05	(0.46)

  

	Quarter Ended			
	April 2, 2000	July 2, 2000	October 1, 2000	December 31, 2000
	(In thousands, except per share amounts)			
Revenue .....	\$54,495	\$62,187	\$67,960	\$ 66,084
Gross margin .....	40,577	46,027	50,558	49,744
Operating income .....	20,626	22,798	25,595	20,667
Net income .....	15,412	17,358	19,391	15,987
Basic net income per share .....	0.36	0.40	0.45	0.37
Diluted net income per share .....	0.34	0.38	0.42	0.36

**COGNEX CORPORATION**  
**REPORT OF INDEPENDENT ACCOUNTANTS ON FINANCIAL STATEMENT SCHEDULE**

**To the Board of Directors and Stockholders of Cognex Corporation:**

Our audits of the consolidated financial statements referred to in our report dated January 25, 2002 appearing in the 2001 Annual Report on Form 10-K of Cognex Corporation also included an audit of the financial statement schedule listed in Item 14(a)(2) of this Form 10-K. In our opinion, this financial statement schedule presents fairly, in all material respects, the information set forth therein when read in conjunction with the related consolidated financial statements.

/s/ PRICEWATERHOUSECOOPERS LLP

Boston, Massachusetts  
January 25, 2002

**COGNEX CORPORATION**  
**SCHEDULE II — VALUATION AND QUALIFYING ACCOUNTS**

Description	Balance at Beginning of Period	Additions		Deductions	Other	Balance at End of Period
		Charged to Costs and Expenses	Charged to Other Accounts			
		(Dollars in thousands)				
Allowance for Doubtful Accounts:						
2001 .....	\$2,150	\$ 190	—	\$ (260) (a)	—	\$ 2,080
2000 .....	2,836	275	—	(624) (a)	\$(337) (c)	2,150
1999 .....	2,583	1,050	—	(797) (a)	—	2,836
Reserve for Inventory Obsolescence:						
2001 .....	\$3,709	\$16,289	—	\$ (435) (b)	—	\$19,563
2000 .....	3,955	785	—	(1,031) (b)	—	3,709
1999 .....	2,860	1,545	—	(450) (b)	—	3,955

(a) Specific write-offs

(b) Specific dispositions

(c) Reversal of specific write-offs due to collection

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

There were no changes in or disagreements with accountants on accounting or financial disclosure during 2001 or 2000.

**PART III**

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

Information with respect to Directors of the Company may be found in the section captioned “Election of Directors,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2002 Annual Meeting of Stockholders to be held on April 25, 2002. Such information is incorporated herein by reference. Information with respect to Executive Officers of the Company may be found in the section captioned “Executive Officers and Other Members of the Management Team of the Registrant,” appearing in Part I of this Annual Report on Form 10-K.

**Item 11: *Executive Compensation***

Information with respect to this item may be found in the sections captioned “Information Concerning the Board of Directors,” “Compensation/Stock Option Committee Report on Executive Compensation,” “Comparison of Five Year Cumulative Total Returns Performance Graph for Cognex Corporation,” and “Executive Compensation,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2002 Annual Meeting of Stockholders to be held on April 25, 2002. Such information is incorporated herein by reference.

**Item 12: *Security Ownership and Certain Beneficial Owners and Management***

Information with respect to this item may be found in the sections captioned “Principal Holders of Voting Securities” and “Security Ownership of Directors and Officers,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2002 Annual Meeting of Stockholders to be held on April 25, 2002. Such information is incorporated herein by reference.

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

Information with respect to this item may be found in the section captioned “Compensation Committee Interlocks and Insider Participation,” appearing in the definitive Proxy Statement for the Special Meeting in Lieu of the 2002 Annual Meeting of Stockholders to be held on April 25, 2002. Such information is incorporated herein by reference.

**PART IV**

**Item 14: *Exhibits, Financial Statement Schedules, and Reports on Form 8-K***

(a) (1) Financial Statements

The financial statements are included in Item 8 of this Annual Report on Form 10-K

(2) Financial Statement Schedule

Financial Statement Schedule II is included in Item 8 of this Annual Report on Form 10-K.

Other schedules are omitted because of the absence of conditions under which they are required or because the required information is given in the consolidated financial statements or notes thereto.

(3) Exhibits

The Exhibits filed as part of this Annual Report on Form 10-K are listed in the Exhibit Index appearing on page 53 immediately preceding such Exhibits.

(b) Reports on Form 8-K

There were no Reports on Form 8-K filed during the fourth quarter of the year ended December 31, 2001.

## SIGNATURES

Pursuant to the requirements of Section 13 or 15(d) of the Securities Exchange Act of 1934, the registrant has duly caused this report to be signed on its behalf by the undersigned, thereunto duly authorized.

COGNEX CORPORATION

/s/ ROBERT J. SHILLMAN

Robert J. Shillman  
*(President, Chief Executive Officer,  
and Chairman of the Board of Directors)*

March 15, 2002

Pursuant to the requirements of the Securities Exchange Act of 1934, this report has been signed below by the following persons on behalf of the registrant and in the capacities and on the dates indicated.

<u>Signature</u>	<u>Title</u>	<u>Date</u>
<u>/s/ ROBERT J. SHILLMAN</u> Robert J. Shillman	President, Chief Executive Officer, and Chairman of the Board of Directors (principal executive officer)	March 15, 2002
<u>/s/ RICHARD MORIN</u> Richard Morin	Senior Vice President of Finance, Chief Financial Officer, and Treasurer (principal financial and accounting officer)	March 15, 2002
<u>/s/ PATRICK ALIAS</u> Patrick Alias	Executive Vice President and Director	March 15, 2002
<u>/s/ JERALD FISHMAN</u> Jerald Fishman	Director	March 15, 2002
<u>/s/ WILLIAM KRIVSKY</u> William Krivsky	Director	March 15, 2002
<u>/s/ ANTHONY SUN</u> Anthony Sun	Director	March 15, 2002
<u>/s/ REUBEN WASSERMAN</u> Reuben Wasserman	Director	March 15, 2002



## EXHIBIT INDEX

### Exhibit Number

- 3A Articles of Organization of the Company effective January 8, 1981, as amended June 8, 1982, August 19, 1983, May 15, 1984, April 17, 1985, November 4, 1986, and January 21, 1987 (incorporated by reference to Exhibit 3A to the Registration Statement Form S-1 [Registration No. 33-29020])
- 3B Restated Articles of Organization of the Company effective June 27, 1989, as amended April 30, 1991, April 21, 1992, April 25, 1995, and April 23, 1996 (filed as Exhibit 3B to the Company's Annual Report on Form 10-K for the year ended December 31, 1996)
- 3C By-laws of the Company as amended February 9, 1990 (filed as Exhibit 3C to the Company's Annual Report on Form 10-K for the year ended December 31, 1990)
- 4 Specimen Certificate for Shares of Common Stock (incorporated by reference to Exhibit 4 to the Registration Statement Form S-1 [Registration No. 33-29020])
- 10A Cognex Corporation Employee Stock Purchase Plan (incorporated by reference to Exhibit 4A to Amendment No. 1 to the Registration Statement Form S-8 [Registration No. 33-32815])
- 10B Cognex Corporation 1992 Director Stock Option Plan (filed as Exhibit 10I to the Company's Annual Report on Form 10-K for the year ended December 31, 1992)
- 10C Cognex Corporation 1993 Director Stock Option Plan (filed as Exhibit 10J to the Company's Annual Report on Form 10-K for the year ended December 31, 1993)
- 10D Cognex Corporation 1993 Employee Stock Option Plan, as amended May 28, 1996 (incorporated by reference to Exhibit 4A to the Registration Form S-8 [Registration No. 333-4621])
- 10E Cognex Corporation 1996 Long-Term Incentive Plan (incorporated by reference to Exhibit 4A to the Registration Statement Form S-8 [Registration No. 333-2151])
- 10F Amendment to the Cognex Corporation 1993 Director Stock Option Plan (filed as Exhibit 10G to the Company's Annual Report on Form 10-K for the year ended December 31, 1997)
- 10G Amendment to the Cognex Corporation 1993 Employee Stock Option Plan (filed as Exhibit 10H to the Company's Annual Report on Form 10-K for the year ended December 31, 1997)
- 10H Cognex Corporation 1998 Non-Employee Director Stock Option Plan (incorporated by reference to Exhibit 4.1 to the Registration Form S-8 [Registration No. 333-60807])
- 10I Cognex Corporation 1998 Stock Incentive Plan (incorporated by reference to Exhibit 4.2 to the Registration Form S-8 [Registration No. 333-60807])
- 21 Subsidiaries of the registrant \*
- 23 Consent of PricewaterhouseCoopers LLP \*

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\* Filed herewith